



THE ASSAM GAZETTE

অসাধাৰণ

EXTRAORDINARY

প্ৰাপ্ত কৰ্তৃত্ব দ্বাৰা প্ৰকাশিত

PUBLISHED BY THE AUTHORITY

নং 578 দিশপুৰ, মঙ্গলবাৰ, 12 আগষ্ট, 2025, 21 শাওণ, 1947 (শক)
No. 578 Dispur, Tuesday, 12th August, 2025, 21st Sravana, 1947 (S. E.)

GOVERNMENT OF ASSAM
ORDERS BY THE GOVERNOR
DEPARTMENT OF HOUSING AND URBAN AFFAIRS

NOTIFICATION

The 27th November, 2024

DoHUA EcF No. 393727 /163.- In exercise of the powers conferred by the Sub- Section (2) and (3) of Section 10 of the Assam Town and Country Planning Act, 1959 (as amended) read with Rule 6 of the Assam Town & Country Planning (Publication of Master Plan and Zoning Regulation) Rules, 1962, the Governor of Assam is pleased to publish the following notice regarding the publication of the Final Master Plan for Hailakandi.

Notice for publication of the Final Master Plan for Hailakandi

1. It is notified that the Final Master Plan for Hailakandi is prepared by the Directorate of Town & Country Planning, Government of Assam and adopted by the State Government under sub section (2) and (3) of Section 10 of the Assam Town & Country Planning Act, 1959 (as amended) read with Section 6 of the Assam Town and Country Planning (Amendment) Rule, 1962 for the area described in the schedule below, is hereby published.
2. The Final Master Plan with all relevant papers and maps may be inspected free of cost during the office hours at the office of Director, Town & Country Planning, Dispur, Guwahati-6, Deputy Director, Town & Country Planning, Dist Office – Silchar, office of the Chairman, Hailakandi Municipal Board & Hailakandi Circle Office. Copies of the Final Master Plan is also available in the office of the Director, Town & Country Planning, Dispur, Guwahati-6 and Deputy Director, Town & Country Planning, Dist Office – Silchar for sale on payment.

SCHEDULE**Situation and Area.**

1. District : **HAILAKANDI**
2. Town : **HAILAKANDI**
3. Master plan Area : **32.30 Sq. Km.**
4. Municipal Area : **7.16 Sq. Km.**

**PARGANAS AND VILLAGES INCLUDED IN THE PROPOSED
MASTER PLAN FOR HAILAKANDI**

<u>PARGANA</u>	<u>VILLAGE</u>
Hailakandi	Hailakandi Town (Sheet I to VI) (Also 4 villages viz GangparDumkarPt I, II, RangautiPt II, III)
	Borjurai
	Lakhirbond Part I
	Lakhirbond Part II
	GangparparDhumkar Part III
	GangparparDhumkar Part IV
	BilparDhumkar
	Rangauti Part I
	Bhicingcha Part I
	Bhicingcha Part II
Saraspur	Ujankupa Part I
	Ujankupa Part II
	Narayanpur Part I
	Narainpur Part III
	Narainpur Part V
	Kanchanpur Part I
	Tupkhana

DESCRIPTION OF BOUNDARY:

NORTH : Bhatirkupa Part III, Boalipar Part II & III and Bishnughar.
 SOUTH : Kanchanpur Part II, Bauyarghat Part I and Barbond Part III.
 EAST : Chaptibrajpur, Paikan and Doodpur.
 WEST : Sibottar, Ujankupa Part III, Chandpur, Narayanpur Part II & IV, Itarkandi Part I & II and Itarkandi Grant (KalinagarBagicha).

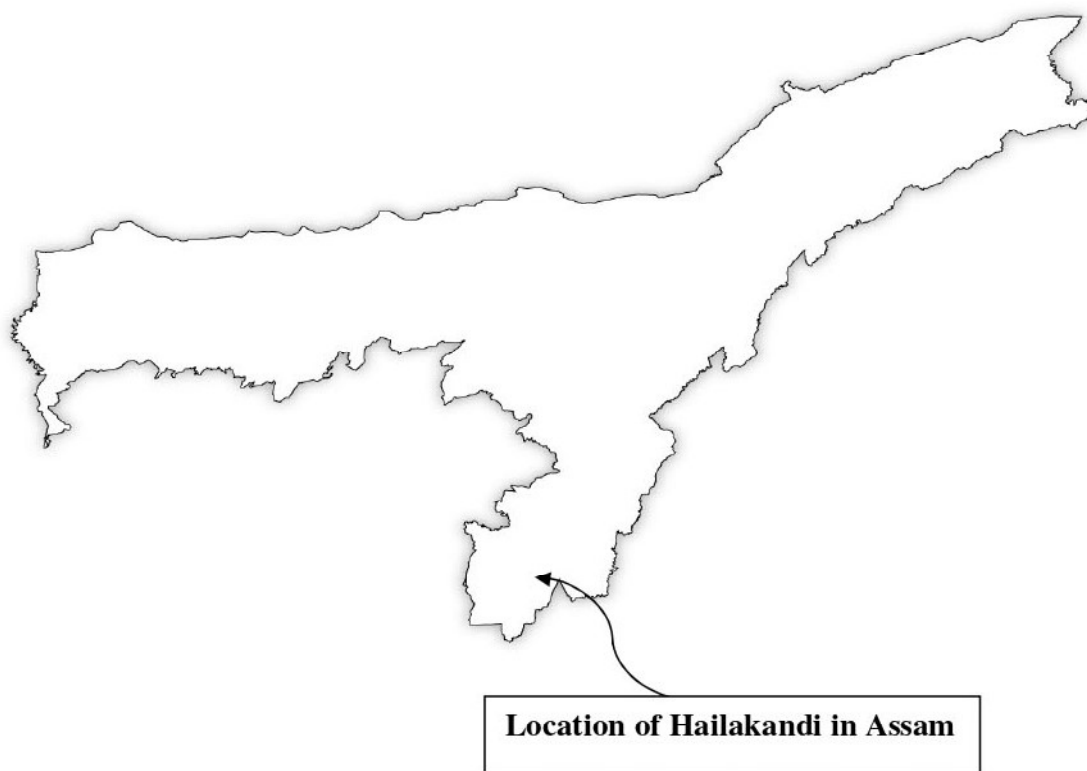
KAVITHA PADMANABHAN,
 Commissioner & Secretary to the Government of Assam,
 Department of Housing and Urban Affairs,
 Dispur, Guwahati-6.

CHAPTER-1

INTRODUCTION TO MASTER PLAN AREA

1.1 Location, regional setting, brief history of the town and surrounding :

Location : Hailakandi Town is the district head quarter of Hailakandi district, located in the state of Assam. Hailakandi is located in the Southern part of Assam popularly known as the Barak Valley. Hailakandi district is located at the Centre of Barak Valley and sandwiched by river Barak and Cachar district in the North and East, Mizoram in the South and East and Karimganj in the West. The Hailakandi town is located at 24°41'N latitude and 92°34'E longitude to 24.68°N latitude and 92.57°E longitude. Hailakandi is part of Karimganj Lok Sabha constituency.



Regional settings: Hailakandi town being at the centre of the Barak valley has developed road and rail connectivity within the district and with other two districts of the valley viz., Cachar and Karimganj. Hailakandi is 320 Kms. away from Dispur, the State capital. The NH 154 originating from NH 37, goes through the middle of the town. The district has no airport but the town as well as the district has air connectivity through nearest Kumbhirgram airport at Cachar district around 75 kms from Hailakandi town.

History of the town and its surroundings: Hailakandi town became the Headquarter of a civil subdivision named Hailakandi on 1 June 1869. Subsequently, Hailakandi was upgraded to district in 1989. According to some scholars, the name "Hailakandi" has been derived from the

Sylheti word "Hailakandi". The later history of Hailakandi is intricately linked to Abdul MatlibMazumdar (1890–1980). He was one of the prominent Muslim leaders of eastern India to support Hindu-Muslim unity, opposing the partition of India on communal lines. Netaji Subhash Chandra Bose and Pandit Jawaharlal Nehru visited Hailakandi in 1939 and 1945 respectively at the invitation of Mazumdar to strengthen the freedom movement as well as the Congress party in southern Assam.

1.2.Climate, topography and soil condition:

Climate: The climate of Hailakandi is humid and sub-tropical. The average annual rainfall is 2441.94 mm with 132 average rainy days on the basis of record of last 10 years. During this period, the rainfall varied from 1683.23 to 3469.80 mm annually. High rainfall generally concentrated during the months of May to August. The pre monsoon rain (February-April) helps for growing Autumn Paddy and Kharif vegetables, normal monsoon (May – September) helps for growing winter paddy and in case of excess rainfall it causes damage to crops and livestock. The post monsoon (October – November) shower helps in panicle initiation stage of paddy crop. If sufficient shower is not received then it causes little dry spell condition in October, on the other hand excess shower sometimes delays the cultivation of Rabi crops. Winter months (December – January) remains generally dry with scanty rainfall.

Topography: The topography of this area is heterogeneous comprising small hillocks strewn within plain areas and low lying river flood plains that are locally called as beels or haors.

Soil condition: The soil varies from sandy to clay texture with pH varies from 4.5 to 5.9. The major classes of soil prevalent in the area are old riverine alluvial, Old Mountain alluvial, non-laterite red and peat soils. Old riverine alluvial soil is mainly confined to the banks of the river Barak, Katakhal, Dhaleswari. The soil of the major area is sandy loam which supports cultivation. From the point of the soils almost all tropical and semi tropical crops can be grown successfully.

1.3. City influence and its characteristics including settlement pattern, rural-urban scenario, history of the physical growth and expansion of town etc:

- (a) **City influence and its characteristics including settlement pattern:** Hailakandi is a small city of the state in terms of population and municipal area. It is both an administrative centre and trade and commercial centre. Because, it is the headquarters of the district of Hailakandi and a district trade centre feeding whole district including a portion of Mizoram bordering southern Hailakandi. In respect of settlement pattern in the town, it may be mentioned that settlement has developed mainly around Hailakandi Municipal Board office, Kalibari Road, Ratanpur Road, College Road, Station Road, Silchar Road towards Matijuri and Lala Road. The decadal growth of the town is 13.11%. People belonging to Bengali Hindu and Bengali Muslim communities are the inhabitants of Hailakandi town.

- b) **Rural-urban scenario :** Hailakandi master plan area including Hailakandi town shows rural dominance till now because the urban centre is still passing through slow rate of transformation from rural to urban. Economic activities in the town is sluggish and consequently it could not support or justify investment in major urban infrastructure or large scale urban project. The rate of urbanization of Hailakandi district as in 2011 is only 6.99 %. This figure indicates how rural dominant character is prevailing in the area.
- c) **History of the physical growth and expansion of town :** Hailakandi town was a Sub Divisional Headquarters till 1988. This town became a district headquarters following emergence of Hailakandi Sub-Division as a full-fledged district on 13th October, 1989. Hailakandi Town Committee was constituted way back in 1921 comprising of 4(four) Wards during the British rule in India with a Magistrate in-charge of it. Mr. J.C. Nandi Mazumdar (E.A.C) and Mr. P. K. Dutta, the then Deputy Commissioner, Cachar were the members of the Town Committee. At the earlier stage, the Town Committee was called Town Fund. It is found from the available records that Shri Abdul MotlibMazumdar, Shri Mantaz Ali Laskar, AhriAbinash Roy, Shri Lokendra Mohan Chakraborty and Shri PromodBhattacharjee were the Chairmen of the then Town Committee from time to time. Later on, it was up-graded to Hailakandi Municipal Board on 21.12.1963 with the Chairmanship of Mr. M.D. Raftab, the then S.D.O. (Civil), Hailakandi. The area of town was extended and delimited into 8 (eight) Wards. The first elected Chairman and the Vice-Chairman of Hailakandi Municipal Board were Shri Keshab Chandra Chakraborty & Shri Haridas Deb respectively who took over charges on 25.01.1969. The area of municipal Board extended gradually to 10 (ten) Wards and finally extended to its present physical area of 16 (sixteen) Wards. The population of the town is 33,637 persons as per Census, 2011. The decadal growth rate is 13.11%. The present area of the town is 4.55 sq. km. it is categorized as a Class III town as per present population.
- d) **Need for the Master Plan :** Master plan is a medium to long term perspective planning document, generally for 15 to 25 years. It is also a comprehensive plan for service area as per likely spread of city in next 15 to 25 years. It describes all programme/policy required in next 20 years in phased manner. The designs and estimates are prepared approximately in subsequent stages by the concerned works department. It finalizes some of the major parameters so that action on future events can be taken up. The detailed project report (DPR) is then prepared for works in phases. At present the general practice is to prepare master plan for urban areas and its surrounding influence area; however, these master plans address town planning aspects including land use but does not include detailed Infrastructure plan for each sector. Planning is a continuous process. The master plan or outline development plan is prepared to evolve a scientific and rational policy for urban development. The plan guides the future course of development for providing better environment of the people living in a geographical area. The Master Plan is being envisaged as Outline Development Plan and thus the plan period has been kept moderate like 15 to 20 years maintaining the characteristics of an outline development plan. The period of Hailakandi master plan is considered up to 2041. In normal course, it should be revised after 2041 and if necessity demands it may be revised even earlier.

CHAPTER-2 **DEMOGRAPHY**

2.1. Total population, male/female population, population growth rate, population density, sex ratio, literacy (Total- male-female rate), working population and non-working population, SC-ST population etc. :

- (a) **Population:** As per the year 2011 census report, the population of town is 33,637. The percentage decadal growth for 2001-2011 was 13.11%. This figure of decadal growth seems to be due to migration of people from adjoining rural areas during 2001-2011. On projection of population of past decades since 1991, the population of Hailakandi town may be projected at 38,656 in the year 2021, 44,423 in the year 2031 and 49,662 persons in 2041. The population of master plan area in 2001 was 55,697 persons, in 2011 was 65,828 persons and it is projected to be around 75,960 persons in 2021 and to be around 85,938 persons in 2031. The projected population of the master plan is 95,696 in 2041. The decadal variation of population from 2001 to 2011 is 18.18%.
- (b) **Male/Female population, population growth rate, population density, sex ratio, literacy:** Out of total population of 33,637 persons in Hailakandi town in 2011, male population is 16,843 and female population is 16,794. Population growth rate of the town is 13.11%. Density of population is 7,393 persons per Sq Km. The sex ratio and literacy percentage are 994 female against 1,000 male and 83.01% respectively. Simultaneously, out of total population of 65,828 persons in Hailakandi master plan area, male population is 33,530 and female population is 32,298. The growth rate of population of Hailakandi master plan area is 21.44%. Density of population is 2,043 persons per sq. km. The sex ratio and literacy percentage are 951 female against 1,000 male and 74.33% respectively.
- (c) **Working and non-working population, SC/ST population:** Out of total population of 65,828 persons in Hailakandi master plan area, the number of working population is 22,154 only and that of non-working population is 43,674. The population of SC is 2,769 and that of ST is 47.

2.2. Migration population: During the decade- 2001-2011, a section of people living in the surrounding villages have migrated to the Hailakandi town area in search of their livelihood. However, the figure of migration is a meagre one due to the existence of a greater urban area named Silchar, the district headquarters of the neighbouring district Cachar, having more opportunity of employment and tempting the unemployed people of the rural areas of Hailakandi district. The distance of Hailakandi from Silchar town is only 47 kilometres.

2.3 Household density and size: Household density is mostly thin and scatteredly distributed over the Master Plan area. In general household size varies from 4 to 9. Average household size is 5.

2.4. Population projection: Population projection up to 2041 is shown in the table mentioned below:

A. Arithmetic method:

This method is suitable for large and old city with considerable development. If it is used for small, average or comparatively new cities, it will give lower population estimate than actual value. In this method, the average increase in population per decade is calculated from the past census reports. This increase is added to the present population to find out the population of the next decade. Thus, it is assumed that the population is increasing at constant rate.

$P_t = P_o + mt$ where m = population growth rate

P_t = Population at time t .

P_o = Initial Population

t = time in decades

Year	2021	2031	2041
Hailakandi Master Plan area	75652 persons	85475 persons	95298 persons

Population Projection Table No-1

B. Geometric Method:

In this method, the percentage increase in population from decade to decade is assumed to remain constant. Geometric mean increase is used to find out the future increment in population. Since this method gives higher values and hence should be applied for a new industrial town at the beginning of development for only few decade.

The population at the end of n th decade ' P_n ' can be estimated as:

$$P_n = P (1 + IG/100)^n$$

Where, IG = geometric mean (%)

• P = Present population

• n = no. of decades.

Year	2021	2031	2041
Hailakandi Master Plan area	70568 persons	75649 persons	81095 persons

Population Projection Table No-2

C. Incremental Increase Method:

This method is a modification of arithmetical increase method and is suitable for an average size town under normal conditions where growth rate is found to be in increasing order. While adopting this method the increase in increment is considered for calculating future population. The incremental increase is determined for each decade from the past population and the average value is added to the present population along with the average rate of increase.

Population after n^{th} decade is **$P_n = P + n.X + \{n + (n+1)/2\}.Y$**

Where, P_n = Population after n^{th} decade

X = average increase

Y = Incremental increase

Year	2021	2031	2041
Hailakandi Master Plan area	76268 persons	86400 persons	96639 persons

Population Projection Table No-3

Population Projection for 2041:

Population projection has been done using all the three methods. It is important to note that none of the above-mentioned methods is empirical, and they are based on probability. Out of these methods, average of Arithmetic Method and Incremental method has been considered suitable for Hailakandi Master Plan Area. 1991, 2001 and 2011 figures are from the Census of India and 2021, 2031 & 2041 figures are estimated.

Year	Hailakandi Town	Hailakandi Master Plan area
	Population	Population
1991	25479	46183
2001	29739	55697
2011	33637	65828
2021	38656	75960
2031	44423	85938
2041	49662	95969

Chapter-3

ECONOMIC BASE AND EMPLOYMENT

Sectors of Economy:

The economy is categorized under the main three sectors as Primary, Secondary and Tertiary. If we talk about Hailakandi particularly the Primary sector comprises agriculture, horticulture and forestry, sericulture & fishing, mining and quarrying, animal husbandry and dairy as subsidiary industries. Manufacturing, household

Industries and construction industry are considered in Secondary sector where as trade, tourism, hotels & restaurants, transport, storage & communication, banking, public administration, and informal sector are part of Tertiary sector.

The overall development of the town and other adjoining areas are not satisfactory. The district itself is recognized as underdeveloped on various parameters and select for Aspirational District Program by Govt. of India.

3.1 Formal Sector :

Hailakandi town being a remote and small urban unit does not have any remarkable employment in formal sector. It has a population of 1985 persons engaged in formal sector.

3.2 Informal sector :

The town as well as the adjoining rural areas included in the Hailakandi master plan area has a very poor enrollment of only 129 persons in informal sector.

3.3 Occupational pattern:

Major share of occupation is in tertiary sector in the planning area. The working classes in the town are mostly in service sector and a portion in trade and commerce. However around 60% of working population in rural areas of planning area are in agriculture and allied activities.

Chapter-4

HOUSING AND SHELTER

4.1. Housing scenario: Other than road side well-built Government office complexes in the town area including Hailakandi Municipal Board, the pattern of housing in the surrounding villages included in the master plan is a mixed one. 20% of houses are RCC building, 40% is Assam type building though they are very old ones and the rest 40% huts are poor dilapidated housing.

Residential use is the major land use occupying about 55% of planning area. The residential areas are scattered in patches all over the master plan area except extreme northern part of the planning area. The narrow roads, inadequate drainage, improper setback within the plot boundary form the scenario of infrastructure in residential areas.

4.2. Housing supply mechanism (self/pvt. Builders & developers/govt. housing schemes):

There is almost absence of government housing colony or housing scheme. Group housing and Apartment housing are not yet a normal trend. Most of the houses are with individual private ownership and rented tenants. Housing supply is less than the demand leading to few informal slums and kutcha housing with insanitary condition.

4.3. Housing condition, Type of Structure, Household facilities available, availability of kitchen, Latrine, Bathroom, Drainage:

Shelter is one of the basic human needs and its conditions greatly affect the character of human life. It is one of the burning problems of the present day's urban areas. Though in Hailakandi planning area shortage of housing is not the major problem but the type of house, housing condition, basic need related to housing like drinking water, sanitation, garbage disposal etc. do not conform to norms. There is total absence of neighborhood structure in the planning area. Around 62% of total housing structures have appropriate facility of kitchen, sanitary latrine and internal drainage.

4.4 Slum-squatters and informal housing share, including list of all slums and informal housing localities in MP area and marking location on map :

There are no formal slums in Hailakandi urban area. But there is informal housing in different localities in the master plan area. There are kutcha houses and houses in dilapidated condition and in slum like physical environment.

Hailakandi- Slum Profile: The existing slum like physically built up area is divided into 11 nos of pockets in ten numbers of wards. Profile of those areas in the town can be tabulated as:

Sl. No.	Name of slum pocket	Total population	% of Slum population to town population
1	Paul para slum area in W.No.-1 Hailakandi Town.	1843	5.48
2	Mazarbhuiya Slum area in W.No.-1, Hailakandi Town.		
3	MazumderColoney Slum area in W.No.2, Hailakandi Town.	908	2.7
4	Ray Para slum area in W.No. 3, Hailakandi Town.	1978	5.88
5	Das Coloney Slum area in W.No - 4, Hailakandi Town.	1197	3.56
6	Bhowmik Para slum area in W.No. 5, Hailakandi Town.	757	2.25
7	Nath Para slum area in W.No.6	1584	4.71
8	DebnathColoney Slum area in W.No. - 7, Hailakandi Town.	868	2.52
9	MalakarColoney Slum area in W.No.- 9	2048	6.09
10	Jainta Patty slum area in W.No.-9	249	0.74
11	Acharjee Para slum area in W.No. 10	679	2.02

4.5 Housing stock, shortage and need assessment:

At present there are total 6800 number of registered houses within Municipal area. Considering the existence of informal slum pockets with kutcha houses in uninhabitable physical environment, the tenants, the squatters and the congested pucca houses, the shortage of pucca houses within master plan area including municipal area will be around 1900(U)+2000(R) i.e. approx 3900 numbers. The shortages of pucca houses in municipal area are being covered through BLC component of PMAY(Urban). At present the demand for PMAY houses in municipal area is 1900. In order to plan Affordable Housing project for urban poor, an area of 154343.09 sq.m has been delineated in the residential zone in village Vichincha Part II. It is proposed to implement TDR (Transferable Development Right) policy in pooling private land from owner and private developer. The proposed widened road to be used for effecting TDR policy.

Chapter-5**TRANSPORT****5.1. Network of roads (NH, SH, District roads etc) with average road width:**

The length of NH in town area is 3 kms with average width of 12 mts. The length of NH bypass is 9.75 kms at Hailakandi, starts at 18/800km of NH-154 at Lakhirbond Pt-II then serially passes through Gangpar, Narainpur, Tupkhana, Vichingcha, Bowerghat and then joins with existing NH 154 at 25/200 km. The Existing and proposed network of roads in respect of State Highway, District roads, etc. with average road width are listed below as per data supplied by the PWRD Division, Hailakandi.

Sl. No.	Name of the road	Existing length (km)	Proposed length (km)	Total length (km)	Width in metre
1	HailakandiRatanpur road	1.5	1.5	3	6-8
2	Station approach road	0.72	.....	0.72	7-8
3	Serisporesonabeel road (old hospital chowrangi to Narainpur pt-1 Boundary)	2.75	0.55	3.33	6-8
4	PWD colony approach road	0.4	.....	0.4	6
5	Bata chowrangi to Kalibari road	0.8	.....	0.8	8-10
6	Circuit house approach road	0.39	.....	0.39	8-10
7	HailakandiRatanpur road to NH-154(BilparDhumkarroad)	....	2.2	4.2 (2.20 ongoing)	6
8	MoulanaToyabur Rahman Road	.....	1.4	1.4	4
9	NH-154(near Lakhirbondh R.C.C Bridge)toGangparDhumkar road (left bank Bhagakhal)	.....	3.245(1.445=1.80) 1.8 proposed under PMGSY 1.445 existing road surface	3.245	6
10	NH-154 (near Satsang) to GangparDhumkar Pt- III	1.6	.....	1.6	7.5
11	NH-54 (near Lakhirbondh R.C.C Bridge) to Gangpar Dhumkarroad (Right bank Bhaga Khal)	1.55	.....	1.55	6

12	NH-154 to Ujankupapt-I	.....	2.2	2.2	6
13	Ujankupapt-II to Ujankupapt-III	.....	0.8	0.8	6.5
14	NarainpurChandipur road	.....	2.6	2.6	6.5
15	Chandpur Mukamtilla road	.....	0.7	0.7	6-8
16	SilcharHailakandi road	0.75	1.7	2.45	8-13
17	NH-154 (Borjurai to Vichingsaroad)	3.5	4.5	8	8-13
18	NH-154 Bye-pass.(Lakhirbondh) to Bowarghat	.....	9.28	9.28	12
19	NH-154 Bypass to Kanchanpur road	.....	3.5	3.5	6
20	Tupkhana road	.....	0.56	0.56	5
21	S.L.K road (NH-154 Bypass) to Hailakandi Bazar road	.....	0.6	0.6	6
22	HailakandiGudamghat road	1	1.5	2.5	5

5.2. Overview of critical roads (e.g., road connecting major roads) and their improvement:

Few important connecting roads in the master plan area have been proposed in the Circulation plan as follows:

- (i) A road starting from western side of Annua at Narayanpurpt III village from NH bypass point moving towards north of Annua and connecting to road near Irrigation office through bridge over Dhaleswari.
- (ii) A new road from KanchanpurptI village connecting to NH at Vichingchapt II through bridge over Dhaleswari.
- (iii) It is necessary for convenience of public to upgrade all village roads within master plan area (under PWD and Rural Development jurisdiction) to bituminous or paver block roads with minimum carriage width of 4.05 mts.
- (iv) Missing links of few roads in Master plan area have been shown in proposed Circulation map of the Master plan. These links need to be constructed, improved and upgraded.
- (v) Some village roads has been proposed as MDR and also proposed for widening such as road at Vichincha Part II, Tupkhana etc.

5.3. Bus/Transport Terminals: Bus Terminus, Bus parking bays, major bus stops, on-street parking areas and infrastructure:

There is a Bus Terminus on NH154 near S.S.College within Hailakandi town. Moreover, the major bus stops are at ASTC Bus Stand at Silchar Road and at Nazrul Sarani on Hailakandi-Lala Road. At present there is no recognized on street parking area in the town area. A total area of 327260 sq mts has been proposed for bus and truck terminus at Gangpar Dhumkhar Village.

5.4. Freight zones and Logistics: Truck terminal, load/unloading areas, warehousing, feeder transport services: There is no any specific area fixed for truck terminal/loading and unloading purpose/warehousing/feeder transport services as the town is small one with moderate growth of trade and commerce in the town. The loading and unloading activities are generally undertaken at Gandhi Ghat within Hailakandi town area. The railways have separate yards for loading and unloading of goods.

5.5. Footpaths (minimum 2 metre wide) and Bicycle tracks: There is no footpath with a width of 2 metre within the master plan area. Also the bicycle track is yet to be provided in the roads of Hailakandi urban area. Hence it has been proposed to provide the footpath along the Bypass and other major roads.

5.6. Parking: Existing on-street and proposed for major commercial, institutional areas and transit areas like train & bus stations and ferry stops:

Few on street parking areas have been proposed in government institutional area which also covers few commercial areas. All major commercial establishments like Mall, wholesale trading, godown etc will have their own parking areas.

Parking areas are provided in transit area like Gandhighat, ASTC complex, Railway station area, private bus stand in the localities of College Road, Lala Road.

5.7. Areas with major traffic congestion and parking issues, accident prone area: The major traffic congestion and accident prone areas are Old Hospital Road-Ratanpur Road Junction, Bata Chourangi and Sivbari Road (Silchar Road- Lala Road junction) Junction.

5.8. Improvement of Rotary and Junctions:

Six number of important Road junctions have been identified and physical features have been surveyed. These junctions are---1) Civil Hospital junction point 2) Bata junction point 3) Silchar Road-Lala Road junction point 4) Police thana-Bazar junction point 5) Kalibari Road –Kachari Road junction point 6) College Road- NH bypass junction point. The improvement of Rotary and junctions have been proposed and shown in plan at the proposed Circulation map.

5.9. Street lighting and proposed improvement plan: There are 2740 Nos of electrical poles on different roads, lanes and gally within Hailakandi town. The Hailakandi Municipal Board has been maintaining the street light from time to time.

5.10. Signage, availability and requirement: There is no signage in the important localities and roads of the town. All the important roads are required to have signage.

5.11. Major proposals

A Bus and Truck Terminus with the facilities in the level of inter district terminus has been proposed in this Master plan at revenue village Gangpar Dhumkarpt IV. Again three numbers of Truck parking locations are proposed in revenue villages, viz Vichingcha Pt I, Narayanpurpt III and Rangautipt I. In addition 2.0 mt/ 1.5 mt footpath along major town roads have been proposed. Bus bays and bus stoppages at different locations along NH and State highways have been proposed. Moreover, following four existing roads are proposed for widening with divider and beautification-

1. NS Road
2. SilcharDwarbond Road

3. College Road

4. ESS Road.

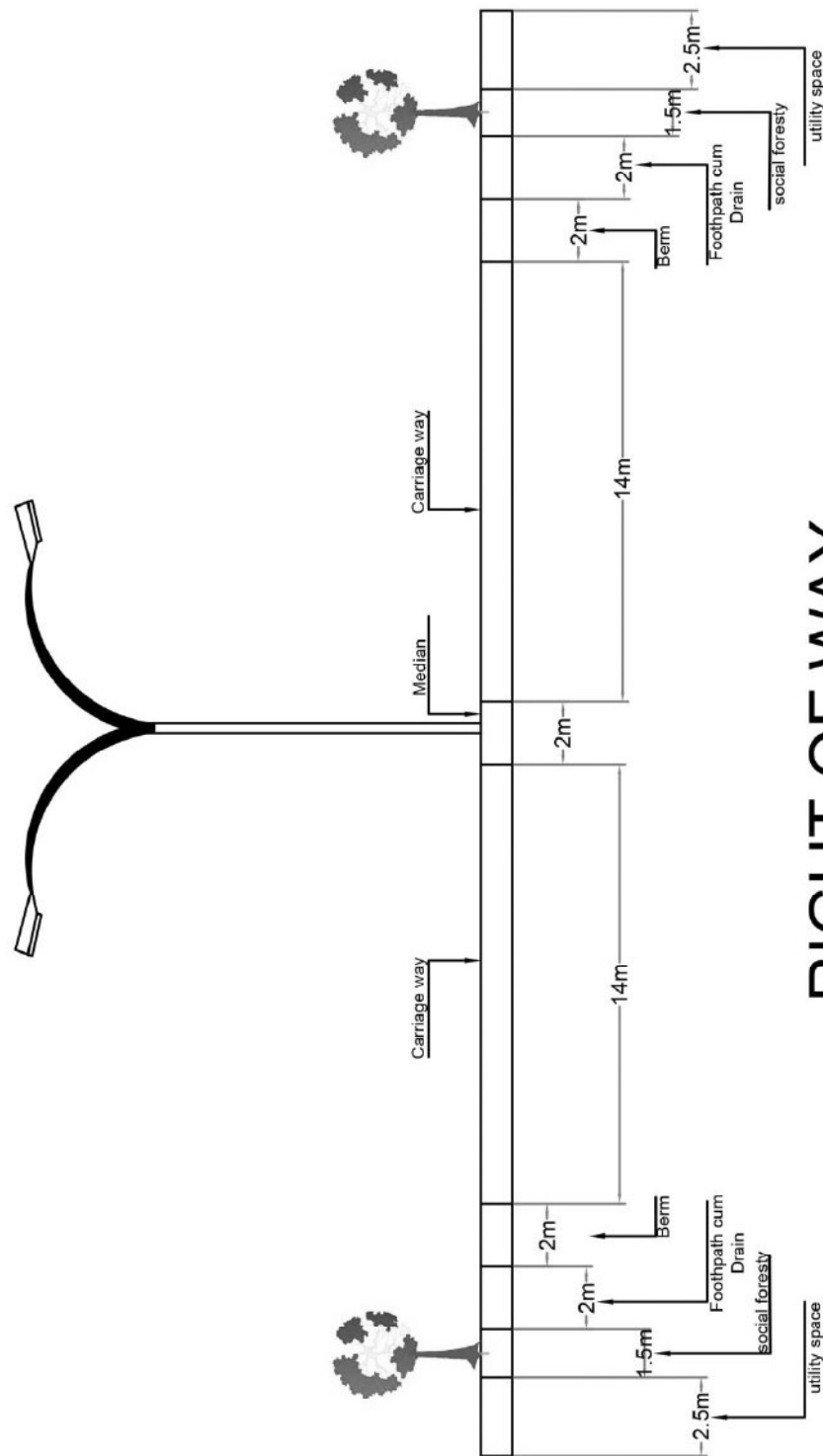
In this Master plan, it is proposed to have minimum width of lanes in commercial zone as 4.2 mts and in residential zone as 3.6 mts. All these proposals are shown in the circulation map.

Width of Right of Way (ROW) for NH, NH Bypass & MDR have been proposed in Master Plan as below -----

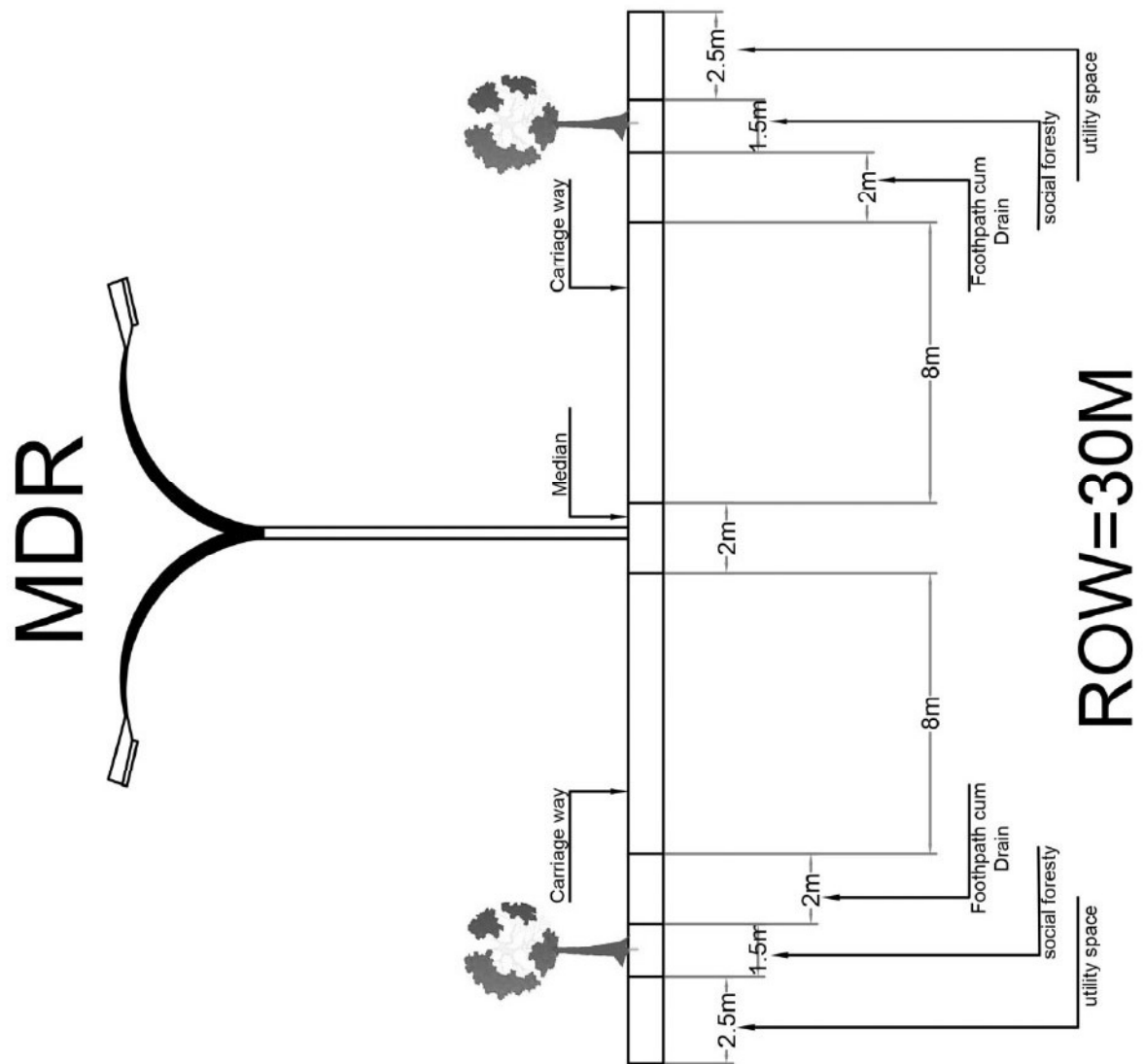
NH/NH Bypass-----50.0 mts

MDR -----30.0 mts.

NATIONAL HIGHWAY/NH BY PASS



RIGHT OF WAY
ROW=46M



5.12 Traffic Survey and Schedule:

Traffic counts were undertaken for all the 3nos. roads converging at leading junction point away from the intersection. These intersections and the roads are:

SILCHAR- MATIGURI JUNCTION (INCOMING)						
SLNO	DATE	TIME	HEAVY VEHICLE (TRUCK/BUS)	4-WHEELER	AUTO RICKSHAW/E- RICKSHAW	TWO- WHEELER
1	12/1/2023	9:30AM TO 11:30AM	11	113	258	293
2	12/1/2023	03:30PM TO 05:30PM	18	64	334	305
SILCHAR- MATIGURI JUNCTION (OUTGOING)						
SLNO	DATE	TIME	HEAVY VEHICLE (TRUCK/BUS)	4-WHEELER	AUTO RICKSHAW/E- RICKSHAW	TWO- WHEELER
1	14-01-2023	9:30AM TO 11:30AM	11	105	524	618
2	14-01-2023	03:30PM TO 05:30PM	6	118	463	473
HOSPITAL ROAD JUNCTION (INCOMING)						
SLNO	DATE	TIME	HEAVY VEHICLE (TRUCK/BUS)	4-WHEELER	AUTO RICKSHAW/E- RICKSHAW	TWO- WHEELER
1	12/1/2023	9:30AM TO 11:30AM	12	73	307	393
2	12/1/2023	03:30PM TO 05:30PM	7	57	348	390
HOSPITAL ROAD JUNCTION (OUTGOING)						
SLNO	DATE	TIME	HEAVY VEHICLE (TRUCK/BUS)	4-WHEELER	AUTO RICKSHAW/E- RICKSHAW	TWO- WHEELER
1	14-01-2023	9:30AM TO 11:30AM	12	140	488	782
2	14-01-2023	03:30PM TO 05:30PM	14	113	468	620

KACHARI ROAD JUNCTION (INCOMING)						
SLNO	DATE	TIME	HEAVY VEHICLE (TRUCK/BUS)	4- WHEELER	AUTO RICKSHAW/E- RICKSHAW	TWO- WHEELER
1	12/1/2023	9:30AM TO 11:30AM	12	93	302	487
2	12/1/2023	03:30PM TO 05:30PM	22	146	326	467
KACHARI ROAD JUNCTION (OUTGOING)						
SLNO	DATE	TIME	HEAVY VEHICLE (TRUCK/BUS)	4- WHEELER	AUTO RICKSHAW/E- RICKSHAW	TWO- WHEELER
1	14-01-2023	9:30AM TO 11:30AM	12	97	527	518
2	14-01-2023	03:30PM TO 05:30PM	4	118	651	573

NH BY PASS POINT AT TOWN ENTRY (INCOMING)						
SLNO	DATE	TIME	HEAVY VEHICLE (TRUCK/BUS)	4-WHEELER	AUTO RICKSHAW/E- RICKSHAW	TWO- WHEELER
1	12/1/2023	9:30AM TO 11:30AM	13	318	51 9	530
2	12/1/2023	03:30PM TO 05:30PM	17	389	46 8	444
NH BY PASS POINT AT TOWN ENTRY (OUTGOING)						
SLNO	DATE	TIME	HEAVY VEHICLE (TRUCK/BUS)	4-WHEELER	AUTO RICKSHAW/E- RICKSHAW	TWO- WHEELER
1	14-01-2023	9:30AM TO 11:30AM	14	474	61 3	519
2	14-01-2023	03:30PM TO 05:30PM	13	412	61 8	558
JUNCTION LEAVING THE TOWN (INCOMING)						
SLNO	DATE	TIME	HEAVY VEHICLE (TRUCK/BUS)	4-WHEELER	AUTO RICKSHAW/E- RICKSHAW	TWO- WHEELER
1	12/1/2023	9:30AM TO 11:30AM	273	318	15 8	288
2	12/1/2023	03:30PM TO 05:30PM	228	333	15 2	169
JUNCTION LEAVING THE TOWN (OUTGOING)						
SLNO	DATE	TIME	HEAVY VEHICLE (TRUCK/BUS)	4-WHEELER	AUTO RICKSHAW/E- RICKSHAW	TWO- WHEELER
1	14-01-2023	9:30AM TO 11:30AM	168	318	15 9	287
2	14-01-2023	03:30PM TO 05:30PM	224	336	15 2	169

Chapter-6

INFRASTRUCTURE, PUBLIC UTILITIES & SERVICES

6.1. Physical infrastructure: overview of each sub-sector current status, issues and proposals in consultation with the Executive Engineer of D&S Division:

i. Water supply system: Hailakandi town has 5(five)nos. of water supply plants out of which 4(four) nos. are deep tube well as intake and 1(one) surface intake from Katakhal river. The surface intake is located at Ratanpurgat on the east of the town. These are monitored by Public Health Engineering Department, Assam. It has presently 4200 house connections in municipal area and 50 nos.in the three revenue villages namely Rangauti Pt-I, II, III.

10 nos. of hydrants exists in the town area & 299 nos. of hydrants in 20 nos of revenue villages. Majority of the revenue villages do not have any piped water supply facility.

There is at present no scheme which can take care of additional requirement of potable water of major part of town area. In order to meet the shortfall in supply proposal may be given to utility map (water supply) of this master plan.

Additionally, a fire hydrant is proposing at Hebert Ganj Market area which has been shown in the Utility (Water Supply) Map – 2041.

ii. Drainage system: The existing drainage network of Hailakandi town is mostly pucca in nature and needs proper improvement in near future because of the population growth and changes in the physical environment. The implementation of a Storm Water Drainage project under the scheme UIDSSMT has been completed 60% and the work is now halt.

However,considering the storm water drainage facility for total master plan area, a 2nd phase of the drainage project has been proposed in utility map (storm water drainage) of this master plan. As UIDSSMT has already been withdrawn by the central government, so a DPR under new physical project mission like AMRUT may be prepared and submitted to the government by the implementing agency.

According to recent survey in Hailakandi town, the existing drain length is 17.84KM. Thetotalproposed drain along themajorroads is equal to 23.56 km.

iii. Sanitation: All aspects related to sanitation in urban areas are now being taken care of under Swachh Bharat Mission. Both ULB and PHE department have been engaged in day to day activities and programme under Swachh Bharat Mission.

iv. Sewerage network: The town does not have any sewerage system. Households have their own septic tank.

v. Solid waste management: current site assessment, land ownership, proposed site: Hailakandi Municipal Board is maintaining a solid waste management wing. The present site of waste dumping yard is at Kuchila (Paikan), a municipal land, outside the boundary of Hailakandi Master Plan area. The dumping yard is about 1 km away from the master plan boundary. A project report on solid waste management of the town needs to be prepared by the Municipal Board to care of all categories of waste, their disposal and decomposition.

vi. Electric sub-station and major transformers: There is only one power sub-station within town and proposed Master Plan area with capacity: 2x5 MVA + 1x3.16 MVA. Major

Transformers are located all across various nodal points in the town depending power demand and distribution. Total demand of power in peak hour is 8.00 MW while supply within the master plan area is 5.00 MW. Irrespective of quantum of demand in future years, the supply is regulated by the norms adopted centrally by APDCL for drawing/ purchasing power from the national power grids.

vii. Fire Hydrant:

A fire hydrant is a crucial part of a city's water infrastructure, used to provide firefighters with easy access to water in the event of a fire. It has been connected to the main water line of the municipal water supply system and serves as an emergency water source.

6.2. Social infrastructure: schools, colleges, universities, hierarchy of hospitals and health centres etc:

Hailakandi has four numbers of degree level colleges, one higher secondary school, five numbers of high school, forty numbers of Middle English school and sixty-seven numbers of Lower Primary school. There are three numbers of private English Medium high school and three numbers of private English Medium primary school in Hailakandi. There are two numbers of Teachers' Training Institute and one number of Computer Training Centre. All together these educational institutions are sufficient for the present population. The number of private colleges will increase in near future.

Chapter-7

ENVIRONMENT AND CITY BEAUTIFICATION PLAN

7.1. Description of eco-friendly areas like water bodies, beel, forests and also heritage areas: There is an eco-friendly water body, located in Ward No. X of Hailakandi Municipal Board, in the south west boundary of the town area. It was formerly a part of Dhaleswari River. At present, it is a lake-like water body with different types of plants at its surrounding and thus it presents a scenic beauty.

Moreover, there is another area named Rabindra Sarobar in Ward No. IX of the town. It is a big pond with different types of trees surrounding it making the same a beautiful spot in the heart of the town.

7.2. Plan/measures for protection and conservation of environmentally-friendly zones: All developmental activity in Eco zones, in the lowlying area have been proposed to be freezed. Restrictive measures on development control have been proposed through imposition of green belt zone. Moreover “**No Development zone including earth filling and earth cutting**” has been proclaimed in all areas within 15 meters from any water body, rivers etc in urban area and 50 meters in rural area. All other areas fall under category of Developable area. The possibility of expansion of the town is towards northern direction in first phase and towards western in the subsequent phase. In addition existing land uses in the form cultivation has been encouraged, agriculture/ paddy zone has been marked in semi urban areas in this master plan.

7.3. City Beautification Plan/Proposals

- i. **Roadside plantation:** The road side plantation along edge of the footpath at national highway (NH) and other district roads (ODR) in town area has been proposed. This is to be implemented through Social Forestry Division, Silchar.
- ii. **Urban agriculture and urban forestry:**
Both are already in existence and shown in proposed land use map. Urban agriculture have been shown in Agriculture and Paddy zone in Land use map
Similarly urban forestry will be available at proposed Green belt zone and Eco zone in Land use map.
- iii. **Pubic Rain Water Harvesting Scheme:** In all public building, provision to be checked before according approval to the project. In all group housing project and multistoried building, rain water harvesting system to be installed.
- iv. **Development of parks and recreational spaces :** Though there is non availability of suitable developed and level ground, even than recreational centres and organized open spaces have been proposed in the land use map. Apart from the DSA sports field in the centre of the town, three more organized recreational areas have been proposed in the master plan area and marked in the proposed Land use and zoning map.
- v. **Identification and demarcation of multi-purpose open spaces for sports, cultural functions, fairs, circus etc:**

The existing RabindraMela field and DSA field in the centre of the town is being serving as multi-purpose open space. In addition few organized vacant spaces have been marked in the proposed land use and zoning map for future development purpose. Those areas will also serve the purpose of organizing Fairs and Circus.

vi. **Beautification of major transit zones (major junctions, bus depot, railway station, market zones etc):**

There is a transit point at Gandhi ghat point in Kachari Road of the town. There is a nearby Market building of Hailakandi Municipal Board. The area is proposed for goods transport and off street parking of carrier transport.

At existing Harbartganj bazaar, a market complex has been constructed under centrally sponsored scheme of 10% Pool Fund. Parking facilities may be provided there and open space may kept for plantation towards green and beautification of the area.

All other proposed areas for Bus/Truck Terminus, Truck parking etc to be developed with adequate open space, plantation and solid waste disposal system.

The Railway station area to be maintained by Railway authority and this is to be maintained as per railway norms and guidelines.

vii. **Road signage and street furniture:**

Road signage to be provided along national highway at every 500 mts by PWD(NH) division. In other district roads of state PWD, informatory and cautions signage to be erected at appropriate locations.

The adequately raised footpath (1.5 mts width at NH and 1 mt width at ODR), the street lights and properly laid out road junction with rotary and divider form the important components of street furniture.

Six number of rotaries at six important road junctions in master plan area has been proposed showing appropriate lay out and dimension. The layouts are shown in proposed circulation map

viii. **Zero Point:**

Existing Road Level (Altitude) in meters for 09 nos. of major roads of Master Plan area are as follows-

Sl. No.	Road name	Low Elevation (In Meter)	High Elevation (In Meter)	Zero Point
1	Barjurai Road	19.113	32.154	So, zero level is at 19.113, now road level for future is fixed at $(19.113+0.3) = 19.413$ meter.
2	National Highway-154(By-Pass)	17.737	37.512	So, zero level is at 17.737, now road level for future is fixed at $(17.737+0.3) = 18.037$ meter.

3	Hailakhandi Bye pass	18.847	29.891	So, zero level is at 18.847, now road level for future is fixed at $(18.847+0.3) = 19.147$ meter.
4	Kalibari Road	20.694	32.867	So, zero level is at 20.694, now road level for future is fixed at $(20.694+0.3) = 20.994$ meter.
5	Kachari Road	25.146	29.887	So, zero level is at 25.146, now road level for future is fixed at $(25.146+0.3) = 25.446$ meter.
6	Hospital Road	23	28.946	So, zero level is at 23, now road level for future is fixed at $(23+0.3) = 23.3$ meter.
7	National Highway-154	15.512	30.542	So, zero level is at 15.512, now road level for future is fixed at $(15.512+0.3) = 15.812$ meter.
8	Ratanpur Road	18.39	30.913	So, zero level is at 18.39, now road level for future is fixed at $(18.39+0.3) = 18.69$ meter.
9	Silchar Road	20.027	26.64	So, zero level is at 20.027 for future is fixed at $(20.027+0.3) = 20.327$ meter.

Chapter-8

LAND USE PLAN

8.1 Developable and Non-developable area of the Master Plan:

Few areas near river bank prone to flood and soil erosion and low lying areas and areas serving as drainage storage basin within Master Plan area can be categorized as non-developable area. These areas are to be of restrictive use from the environmental and ecological point of view. “**No Development zone including earth filling and earth cutting**” has been proclaiming in all areas within 15 meters from any water body, rivers etc in urban area and 50 meters in rural area. All other areas fall under category of Developable area. The possibility of expansion of the town is towards northern direction in first phase and towards western in the subsequent phase.

8.2 Existing and Proposed land-use: The future population and trend of infrastructure development determine the nature of land uses and their proportion in future land use. It has been assumed that there will not be any abrupt changes in any aspect affecting the future population figure in an unprecedented manner. Rather there will be moderate increase in present growth and it will continue for some years in future. The projected population of in 2031 is 86708. The Master plan or Outline Development plan is prepared to evolve a scientific and rational policy for urban development. The plan guides the future course of development for providing better environment of the people living in a geographical area. The plan period of this Master plan is considered upto 2041. In normal course it should be revised after 2041 and if necessary it may be revised even earlier.

Studies in respect of land use pattern, transportation network, circulation pattern, housing and other activities indicate lack of urban amenities and infrastructure hindering the growth in the other sector. However, opportunities in its location in regional set up vis a vis scope for promotion of trade and commerce are to be explored and exploited in positive manner.

- a. **Residential:** A total area of 10.59 sqkms has been proposed for residential use. The residential areas are distributed all over the Master plan area to have smooth home and place of work relationship. The concentration of population in different areas would vary and accordingly there would be distribution like low, high and medium density zone.
- b. **Commercial:** A total area of 0.83sq km has been proposed for commercial use. The dispensing of commercial activities in different nodal centres of the town and as well as along the major road is proposed in this plan. It is proposed to relocate wholesale and godowns in the commercial areas in Gangpar Dhumkarpt III and Borjurai and Lakhirbindpt I locality. The **Vending Zone** has been proposed at **Tupkhana** village near the municipal boundary area. The total proposed area of vending zone is 32991 square meter.
- c. **Industrial:** Encouragement for establishment of small industrial units like bamboo made product, earthen product etc. and based on agricultural products and other small scale industries may be given priority. The surrounding area of Hailakandi is fertile and the

town along with its shrubs produces large quantities of rice and other vegetables. An area of 1.2 sq .km has been proposed for the said land use.

- d. **Public& Semi-public:** A total area of 1.3 sqkms has been proposed for public and semi publicuse. This category consists of multiple uses like Government and semi Government offices, various education and health facilities, socio cultural and institutions, places of public uses etc. There has been provision of keeping well defined areas for Government and public offices, institute etc. in public and semipublic land use in two different locations viz Gangpar Dhumkarpt IV and pt III. The provision has been also kept for accommodating all government and semi government and public uses in one area at Borjurai village. A ***cremation ground*** is proposed with an area of 26925 sq. meters at ***Bilpar Dhumkar*** mouza.
- e. **Green belt:** A total area of 1.31sq km has been proposed for green belt use. Mostly this area is for restriction of development along vulnerable river bank, low lying areas etc. Moreover “No Development zone” has been proclaim in all areas within 15 meters from any water body, rivers etc.
- f. **Recreational/Open spaces:** In proposed master plan, an area of 1.98 sq km has been earmarked for Recreational area and organized open space. Hailakandi town has one major playground at DSA field. Recreational open space has been proposed at different locations within Master Plan area. There is need for developing recreational facilities, both active and passive within the Master plan area.
- g. **Transport:** Economic and socio cultural life of a geographical area is immensely influenced by regional transport linkage and inner traffic management system (though Hailakandi being a small town, the inner traffic management does not have much implication at present).

The growing demand for transportation facilities calls for assessment of the existing problems of traffic movement, circulation pattern, road geometrics. The assessment helps to evolve remedies in terms of short term and long term measure. Hailakandi is connected with other part of the district and state via rail and road directly from Hailakandi town. The nearest airport is at Kumbhirgram (at Silchar) is 70 kilometres away from Hailakandi town. The national highway 154 passes through the town connecting Dhaleswari point at one side and Mizoram on the other side. This NH causes the increase in regional traffic throughout master plan of Hailakandi via NH bypass. Due to this some parallel roads entering into major residential areas of the town has been suggested. Total area proposed for transport is 1.9 Sq. Km.

- h. **Agriculture:** In proposed master plan, an area of 11.24sqkms has been earmarked as Agriculture and Plantation(paddy) area. Major importance has been given to primary sector and maintenance of green field.
- i. **Special areas (Heritage, Pilgrimage, Notified Archaeological sites(if any)) :** There is no such feasible site or zone need to be used under this special area.

- j. **Eco-zones:** A total area of 0.64 sqkms has been proposed for use as eco- friendly zone. There is an eco-friendly water body, located in the revenue village at Narayanpurpt V just at the edge of the town.
- k. **Water bodies:** There is river Dhaleshwari flowing from south to north of entire master plan area passing across the town. Apart from this, few prominent natural drainage channel (locally called Khal) are scattered within the master plan area. The total area of water bodies is estimated as 0.43 sqkms.

Existing Land use - 2022.

Land Use Category	Area In SqKm	Percentage of total Area
Residential	8.96	27.77
Commercial	0.25	0.77
Industrial	0.03	0.09
Public & Semi Public	0.42	1.3
Recreation / Open Space	0.1	0.31
Transport	0.6	1.86
Total Developed Area	10.36	-
Embankment	0.03	0.09
Govt. Land	0.17	0.53
Agriculture	21.27	65.93
River / Drain / Water Body	0.43	1.33
Total Non- Developed Area	21.9	-
Total Master Plan Area	32.30	100

Proposed Land uses for master plan area for 2041

	Area in Sq KM	P.C of Developed/Non Developed Area	P.C of total Area
Residential	10.59	56.69	32.78
Commercial	0.83	4.44	2.57
Industrial	1.2	6.42	3.72
Public & Semi Public	1.3	6.96	4.02
Recreation / Open Space	1.98	10.60	6.13
Transport	1.9	10.17	5.88
Mixed Use	0.88	4.71	2.73
TOTAL DEVELOPED AREA	18.68	100.00	-
Eco Zone	0.64	4.70	1.98
Agriculture	11.24	82.50	34.79
Green Belt	1.31	9.62	4.06
River / Drain / Water Body	0.43	3.16	1.34
Total Non -Developed Area	13.62	100	-
Total Master Plan Area	32.30		100

8.3 Composite zones or Mixed zones:

- a. Residential zones and Commercial zones are allowed for mixed use zones, however only general commercial and retail commercial will be in combination with residential use. The restriction/relaxation in different parameters will be as elaborated in sec 83 (C) of Assam Unified Building Construction (Regulation) Byelaws 2022. An area of 0.88 sq km has been proposed for mixed use.

8.4 Zoning Regulations:

Uniform Zoning Regulations 2000 for all towns of Assam in combination with the Assam Unified Building Construction (Regulation) Byelaws 2022 will take care of all aspects of zoning regulations, development control and according land sale and building construction permission by the enforcing authority of this master plan. The Proposed Zoning map of this Master Plan will have to be read and referred while enforcing the zoning regulations.

8.5 Town Planning Scheme (TPS) & Local Area Planning (LAP):

Town Planning Scheme is a development scheme where the irregular lands are taken from owners and the land is developed with regular plots, well connecting roads, parks and open spaces. Developed plots are redistributed to the land owners in proportion to their share of land contributed for development. The plots which the owners get will be less in area than they had contributed as the land will be used for roads and open spaces also. Here no compensation is given to the owner; instead they will be given developed land which will be having high value than the previous undeveloped land.

For the said purpose, there are two TPS has been proposed in the Master Plan in the village of Vichincha Part II and Rangauti Part I. The total area of the two TPS is **112** hectares.

A local area plan (LAP) sets out a strategy for the proper planning and sustainable development of a specific area within a local authority and for a timescale as specified by the authority. The LAP has been proposed at Ward No 2. Total LAP Area proposed **5.12** hectares.

8.6 Vending Zone:

A street vendor is an individual who sells goods to the public without a permanent built-up structure for vending. Street vending and street vendors are integral to dynamic city life. Street vendors form a crucial link in the informal economies that run our cities. On the buyer's side, they provide essential goods to people at affordable prices and convenient places. On the other side, they ensure the livelihoods of a large number of workers, who work in local small-scale industries that manufacture these goods.

As per Street Vendors Act, 2014 (Protection of Livelihood and Regulation of Street Vending) total **32.62** bigha of land have been proposed as Vending Zones in Tupkhana nearest to the M.B Area of Hailakandi town to accommodate the existing street vendors to make the road and foot path free from encroachment in the public areas and protect their rights.

8.7 Transferable Development Rights (TDR):

Transferable Development Rights (TDR) is a zoning and land-use strategy that allows property owners to shift the development potential from one location (the "sending area") to another (the "receiving area"). This system helps preserve land in areas where development is restricted, while allowing more concentrated growth in areas better suited for it.

Main Elements:

- **Sending Area:** In this zone, development is limited or prohibited, and property owners can sell their rights to develop the land to others.
- **Receiving Area:** In this zone, developers can purchase those rights to build at higher densities or with greater intensity than standard zoning would typically permit.

Benefits of TDR:

1. **Preserves Open Space:** TDR programs are often used to conserve farmland, forests, wetlands, or historically significant areas by restricting development in the sending zones.
2. **Promotes Efficient Growth:** Development is steered towards areas with existing infrastructure, leading to more efficient use of resources and land.
3. **Offers Flexibility to Landowners:** Landowners in restricted areas can sell their development rights, gaining financial benefits without needing to develop their property.
4. **Balances Development with Conservation:** TDR provides a market-based approach to harmonize the need for development with the goal of preserving open land.
5. **Reduces Urban Sprawl:** By focusing development in specific areas, TDR helps to prevent spread-out, inefficient land use and encourages more compact, walkable communities.
6. **Protects the Environment:** Sensitive ecosystems and natural landscapes can be preserved, preventing environmental damage and maintaining biodiversity.
7. **Economic Incentives for Developers:** Developers in receiving areas benefit by gaining the right to build larger projects or more units than zoning regulations would normally allow.

In summary, TDR helps to meet both development and conservation goals through market-driven incentives, guiding growth towards areas where it can be more sustainable.

CHAPTER-9

PROPOSED PROJECTS' BRIEF AND TENTATIVE FUNDING SOURCE

9.1. Based on existing conditions and projected requirements of the planning area, identify priority sectors and projects:

Based on the analysis of the existing scenario of infrastructures in project area, following are the identified priority sectors-----

1. Solid waste Management project
2. Water supply project
3. Storm water drainage project

9.2. Fund requirement for each sector/project identified under the sectors:

A. Probable cost of Integrated Solid Waste Management for Hailakandi Municipal Board:

Integrated Solid Waste Management (ISWM) is a system which defines a hierarchy while managing solid waste. According to the ISWM, solid waste must be managed in the following hierarchy with the first strategy being most desirable and the succeeding strategies to be followed depending on the quantity and category of waste. A solid waste management site has been proposed at Ujankupa Part I and the total proposed area is 16201 sq. meter. Besides there has been proposed several temporary solid waste storage at different prime location and these are shown in the Utility (Drainage & SWM) map.

- *Reduction at source and reuse:* The most logical and preferred option is minimizing the waste production. This can be done by using better technologies, efficient packaging, reusing the waste produced at each level in some other process or activity.
- *Recycling:* Recovery of material from the waste and reusing it again in manufacturing of some other product is recycling. Although recycling helps in recovering the material waste, energy is used in the process.
- *Waste to Compost:* Decomposition of organic municipal waste to produce manure.
- *Waste-to-Energy:* Production of heat, electricity or fuel from the waste using bi-methanation, waste incineration or Refuse Derived Fuel (RDF).
- *Waste Disposal:* Inert waste or the residual waste produced in the other waste management process must be disposed in engineered landfills.
- Another aspect of ISWM is the integration of informal sector, to include rag pickers and private door-to-door waste collectors. The informal waste sector plays an important role in waste collection and segregation and this is done at a minimal cost.

Another aspect of ISWM is the integration of informal sector, to include rag pickers and private door-to-door waste collectors. The informal waste sector plays an important role in waste collection and segregation and this is done at a minimal cost.

Considering all options for a modern Solid Waste Management project like vermicomposting, digestion, incineration, gas and electricity product, residual land fill provision etc, the cost per

person is derived from similar DPR of different town (Panaji, NOIDA) etc). It is per person capital expenditure is calculated Rs. 708.25/Persons. Taking into consideration the projected population up to 2041 probable cost for managing solid waste is calculated as below.

Therefore for population of 95969(projected upto 2041) = Rs.708.25 x 95969 = Rs. 67,970,044/- (Rupees Six crore seventy nine lakhs Seventy thousand fourty four)

The per capita annual operation and maintenance cost is Rs. 155/-

Therefore for population of 95696 (projected upto 2041) = Rs.155 x 95969

= Rs.14,875,195 /-(Rupees one crore fourty eight lakhs seventy five thousand one hundred ninety five) only.

B. Probable cost of Water Supply schemes for Hailakandi Municipal Board:

As per data supplied by the P.H.E Hailakandi there exists two types of source for drinking water viz surface and deep tube well. In Municipal area there are 1(one) surface source and 4 (four) nos. deep tube well source. There are 20(twenty) nos. of villages which are supposed to be covered under drinking water facilities out of which 8 (eight) no. have been covered under deep tube well water facilities.

The following brief project proposal may be prepared on the basis PHE Assam guidelines.

Considering estimate population of master plan area in 2031 is 56,707, the cost of commissioning the water supply project by 2024-25 is rupees Rs. 9737.88 per person. Then after 10 years, the projected population in 2041 is 67,806. Then the cost of improvement of that project is Rs. 8322.92 per person. The different components of the project are as follows-

1. Raw water intake system.
2. Raw Water Pumping Machinery and other accessories
3. Raw Water Converging Main
4. Water Treatment Plant
5. Clear Water Pumping System
6. Clear Water Converging main
7. Elevated service reservoir.
8. Distribution System
9. Water Meter with 5 year maintenance contact.
10. Auto Control System.

Accordingly total project of water supply augmentation within Hailakandi Master Plan Area will be:

$$= (85938 \times \text{Rs. } 9737.88) + (95969 \times 8322.92) = \text{Rs. } 1635596240$$

(In Words Rupees One Hundred Sixty three Crores Fifty Five Lakhs Fifty Ninety six thousand Two hundred Forty only.)

C. Probable cost of Storm water drainage schemes for Hailakandi Municipal Board:

Taking into consideration the present prevailing market rate of the construction materials and labour and ongoing drainage scheme as per PWD (Rural) Road Schedule 2020-21) the approximate amount required to cover a length of 24km (approx) with drainage facility is calculated as follows.

The details requirement of the proposed length has been described in chapter 6 at para 6.1.

Total cost for per metre length of the drain = Rs.13,900/

Total approximate cost required to complete drain for a length of 14 km is = Rs.13900 x 24000 m = Rs.333,600,000 /only (Rupees Thirty three crores thirty six lakhs)only.

9.3 Identify Land site for proposals: in case of Government land, inventory of Municipal Land, State Govt./ Govt. agency owned land etc and plan for acquiring/leasing the same.

There are very few vacant/ partially vacant plots of Government land within Master Plan area as per data collected from the Hailakandi Circle office. These are proposed to be used for future development and extension of Infrastructure services within Hailakandi Master Plan area. The total government Khas land in Hailakandi Master Area is 0.17 sqkm. The all government Khas lands are shown in the existing land use map. However, as per reported by the Circle Office, Hailakandi, there is very few government vacant land is available for making proposal for future in the master plan. Some lands are already encroached as residential or commercial area. So, all the proposals for infrastructures development in this Master Plan have been given on private lands which are to be acquired as and when implemented by the Concerned Department.

9.4. Indicative sources of Fund: specific Central Scheme funds (10% NLCPR, AMRUT, Infrastructure Dev Fund, Entry Tax etc), Assam Finance Commission funds, CM's special package, Public Private Participation, Loan from externally aided project (JICA-World Bank-ADB etc)

At present, there are no any specific schemes are implement in Lala town except for UDISSMT scheme which is now withdrawn. So above mentioned three projects should be funded from suitable centrally or state sponsored scheme (AMRUT, Infrastructure Dev. Fund, Entry Tax etc, Assam Finance Commission funds, CM's Special Package, Public Private Participation, Loan from externally aided project -JICA, World Bank, ADB etc):

Chapter-10

DISASTER MANAGEMENT PLAN

10.1. Flood/Urban flood: District Disaster Management Plan for Hailakandi district has already been prepared and it takes care of urban water logging and flood including Hailakandi town and surrounding areas.

10.2. Earthquake: Details Plan has been indicated in district Disaster Management plan.

10.3. Others: Details Plan has been indicated in district Disaster Management plan. Disaster Management Plan pronounces in the clearest terms that the process of adaptation & change to manage disasters has to have several dimensions; Prevention, Mitigation, response, relief, Recovery & Rehabilitation.

It recognizes that disaster management has to be a collective & multi- sectoral effort. It makes it clear that the process of adaptation & change can no longer be an optional one & every agency of Government must account for what it did or failed to do. Each of these phases involve different aims & objectives, they may overlap depending on the nature of the disaster. However, the overall objectives are the same. The aim of any disaster management programme is to reduce the impact of a disaster on human life and property. The aim of plan is to ensure that all components of disaster management are addressed to facilitate planning, preparedness, operational, co-ordination and community participation.

The objectives of this departmental disaster management plan are:

- To assess vulnerability of the departmental assets / works created with the help of ULBs of the district to different disaster.
- To generate preparedness plan for fighting against different disaster.
- To train up departmental personnel for providing emergency response services during disaster.
- To keep co-ordination with DDMA & other authorities.
- Sensitization for community participation.

Seasonal Hazard Analysis: - Generally in this region the probability of major hazard is due to flood / urban flood, earthquake, landslide & river erosion. The periodic duration of the causes of hazards are as below.

Type of Hazards	Jan	Feb	Mar	April	May	June	July	August	Sep	Oct	Nov	Dec
Flood				←					→			
Earth Quake	←											→
Landslide				←					→			
Storm			←					→				
Fire Accident	←											→
River Erosion				←					→			
Industrial Hazard	←											→
Bomb Blast	←											→
Road Accident	←											→

Disaster Probability: - The probable period of occurrence & damages from major causes of hazard in this region.

Sl. No.	Type of Hazards / Disaster	Time of Occurrence	Potential Impact / Probable Damage	Vulnerable Areas
1.	Flood	April – September	Damage of Roads & Drains, lives & properties.	Within Master Plan area of the town
2.	Earthquake	January – December	Loss of life, infrastructure, constructed structure, public & private building.	Within Master Plan area of the town
3.	River Erosion	April to September	Loss of Public/Private Property.	Within Master Plan area of the town
4.	Storm	April to September	Loss of Public/Private Property.	Within Master Plan area of the town

Risk Assessment: - Two major hazards may be considered for risk assessment in this region.

Type of Hazard	Potential Impact	Vulnerability	Vulnerable Area
Flood/Urban flood	Damage of Roads& Drains.	i) Siltation of drainage channel	All towns and surrounding Master Plan area in the district.
		ii) Temporary Water logging of reclaimed area	Lakhmisahar area and Kalibari raod areas are prone to water logging due to medium to heavy rainfall. Majarbhyia Lane of w/no1 is also affected due to urban flood. The other localities which are affected and vulnerable to water logging and urban floods are –ward no 1,4,6,8,11,12.
Earth Quake	Loss of lives & properties	i) Infrastructure which are not earthquake resistant (Assessment may be needed)	Damage of public & private building in towns and their surroundings. Mostly old & dilapidated buildings are likely to be affected.

10.4. Standard Operational Process (SOP) on Disaster: Pre-disaster, during and post disaster: SOP under district Town and Country Planning office has been prepared which is also applicable for Hailakandi Master Plan area.

Departmental Standard Operating Procedures (SOPs) : SOPs describe the regularly recurring work processes that are to be conducted or followed within an organization.

Standard Operating Procedure (SOP) :The Nodal officer is the first person to initiate action & put the SOP of the Department into ground reality.

The Nodal Officer will co-ordinate with DDMC and DDMA in the event of any disaster. It is the responsibility of the Nodal officer & his team to coordinate & keep liasoning with subordinate agencies & higher level agencies.

All other activities in field level are co-ordinated by the officers in charge of Rescue team and First Aid/Medical Team. All actions are duly endorsed by the Head of Office. The various components of SOPs have been incorporated & integrated in the different chapters of this plan in appropriate paras & points.

