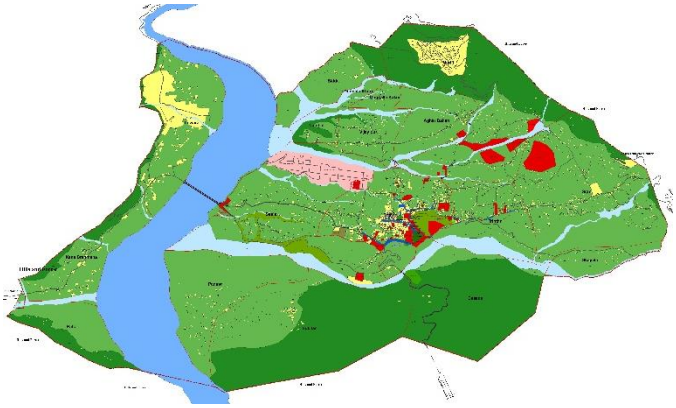
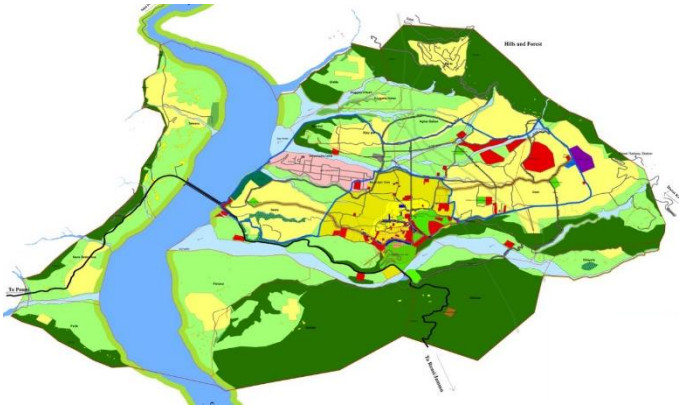
TOWN AND COUNTRY PLANNING DEPARTMENT

JAMMU, JAMMU AND KASHMIR

DRAFT MASTER PLAN REASI-2035





Submitted to:

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PREFACE

In today's world where urbanisation is growing at an alarming rate, large amount of resources are being spent on the development of various urban settlements but the condition of these towns continue to deteriorate because of piecemeal nature of expenditure and lack of definitive development schemes. In view of this, Town Planning Organisation, Jammu has undertaken the preparation of the Master Plans for various towns, which envisages all-encompassing development of these towns. The Government has also decided to outsource few Master Plans; however, the Master Plan for Reasi, has been outsourced to **M/S NF Infratech Service Private Limited, New Delhi.**

The studies involved in the preparation of **Master Plan for Reasi, 2035** concerns with the areas crucial to planning and development of the sub-region. It has been a great privilege for M/S NF Infratech Service Private Limited, New Delhi to undertake the assignment of formulating the Master Plan of Reasi, 2035. In this Draft Master Plan, the development proposals have been framed after a detailed study and analysis of the crucial issues related to economic development, infrastructure, transportation, housing, environment and urban sustainability.

At this juncture, the main purpose for M/S NF Infratech Service Private Limited, New Delhi in putting this document is to solicit critical comments and suggestions to achieve greater participation, meaningfulness and make the Master Plan for Reasi, 2035 acceptable to stakeholders who have a role to play in its development and implementable for the Local Authority. The Draft Master Plan of Reasi, 2035 is being submitted to the government and the Local Authority for publication under the provision of **"J & K Development Act, 1970"** and the rules framed thereof.

(Mr. Joginder Singh)
Chief Town Planner
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Above Mean Sea Level	AMSL
Assistant Regional Transport Officer	ARTO
Central Pollution Control Board	CPCB
Chief Town Planner	CTP
Detailed Project Reports	DPR
Development Control Regulations	DCR
District Development Commissioner	DDC
Environmental Impact Assessment	EIA
Equivalent Car Space	ECS
Jammu and Kashmir	J&K
Litres per capita per day	LPCD
Local Planning Area	LPA
Million Litres per day	MLD
Ministry of Urban Development	MoUD
National Building Codes	NBC
Persons per Hectare	PPH
Power Development Department	PDD
Public Health and Engineering Department	PHED
Roads and Buildings	R&B
Right of Way	ROW
Strength Weakness Opportunity Threat	SWOT
Tonnes per day	TPD
Town Planning Organization	TPO
Urban & Regional Development Plans Formulation and Implementation	URDPFI
World Health Organization	WHO
University Grant Commission	UGC
Zonal Development Plan	ZDP
Town Planning Schemes	TPS

CHAPTER 1. INTRODUCTION

1.1 BACKGROUND

Urban areas in the past have not received much attention in terms of proper planning, development and management, despite the fact that cities and economic development are inextricably linked. Because of high productivity of urban areas, the economic development activities get located in cities. Accordingly, it is desirable that human settlements are provided with necessary planning and development inputs so that their orderly growth and development is ensured. This would also be necessary for ensuring efficient functioning of human settlements for improving their productivity and for providing desirable quality of life to its residents in order to cater to their economic, physical and metaphysical needs. The urban development strategy for any state thus assumes importance for not only its economic emancipation but also its physical well-being.

Therefore, the real challenge before the planning and development of towns/cities is to have balanced development in all spheres of urban life in a comprehensive manner: Physical, Social and Economic. There is an urgent need to ensure that the urban transition is efficient, equitable and cost effective by making policies and bringing out new projects/schemes. For this, preparation of Master Plan becomes the guiding principle for wiping out the deficits in urban infrastructure, for identifying the problems and for exploring the potentials of the towns.

Master Plan is identified as a strategic tool to achieve the above objectives. Considering the role and importance of rational and orderly growth of urban centres, the Government of Jammu and Kashmir (J&K) intends to streamline the development process in urban settlements to ensure that these settlements continue to achieve their objectives of improved efficiency and productivity. Accordingly, it is desirable to have a stringent check on haphazard development and have an optimum land use plan for these cities/towns. In the process, the state government of J&K has taken the decision to prepare Master Plans for all towns and cities for a directed development and to provide required amenities to its people.

The Town Planning Organization (TPO), Jammu is an apex institution for promoting the balanced urban growth in the region of Jammu in the state of Jammu and Kashmir. It has undertaken the task of providing planned residential, commercial and industrial spaces incorporating the latest state-of-the-art technology and town planning norms. In this process, it has taken up the preparation of the **Master Plan for Reasi, 2035** to address the infrastructure and service delivery gaps in Reasi and to make the growth and development of Local Planning Area (LPA) rational. The key objective of the Master Plan is to formulate a long-term vision and strategy to make the LPA vibrant, livable and creditworthy. Besides rationalizing the land use pattern, the Master Plan will also facilitate the identification of sectoral investments and reform areas needed to transform the Local Planning Area of Reasi.

1.2 OBJECTIVES OF THE PROJECT

The prime objective of the Master Plan is to promote, guide and rationalize the future growth and development of Reasi town. It will endorse growth in the desired direction, promote economic development, improve service delivery and provide amenities to its people. Master Plan ensures rational policy choices besides providing a flexible framework based on ground realities for a defined time span. Master Plan is an appropriate and scientific tool for promoting systematic & planned growth of the town in the form of the following:

1. Identifying existing gaps in physical and social infrastructure & to bridge those gaps.
2. Making town assessment and to suggest strategies for its economic development.
3. Leveraging economy.
4. Rationalizing land use and their interrelationships.
5. Minimizing haphazard and uncontrolled growth of town/cities and to achieve planned growth and development in order to provide healthy living environment.
6. Promoting better urban governance and resource generation for planned urban development.
7. Rationalizing the orderly movement of traffic and transportation within the town and defining the area for laying down network of various services.
8. Indicating spatial distribution of physical/social infrastructure for optimum use.
9. Ensuring systematic, balanced & integrated development.

1.3 METHODOLOGY

The various stages of preparation of Master Plan would include:

1. **Identification of Local Planning Area**
2. **Preparation of Existing land use plan**
   a. Using satellite imageries
   b. Using available plans
   c. Ground surveys
   d. Revenue plans
3. **Assessment and analysis of Local Planning Area in terms of:**
   a. Regional setting
   b. Historical evolution
   c. Demographic studies
   d. Socio-Economic studies
   e. Traffic & transportation
   f. Physical infrastructure (water supply, sewerage, solid waste management, electricity)
   g. Social infrastructure (educational, medical, recreational, miscellaneous facilities)
   h. Environmental studies
   i. Heritage and tourism
   j. Growth pattern
   k. Land use studies
   l. Available studies and report
4. **Gaps and Problem Identification through:**
   a. Comparison with available norms and standards
   b. Identification of the critical problems and infrastructure gaps

5. **Carrying out SWOT analysis based upon:**
    a. Studies made and analysis carried on
    b. City Assessment
    c. Identified problems and gaps
    d. Identifying major socio-economic drivers
    e. Working out requirements
    f. Population projections
    g. Norms and standards
    h. Broad land use requirements.
6. **Defining conceptual framework through:**
    a. Defining vision for future growth and development
    b. Identifying broad objectives
    c. Laying down mission statements for critical areas
7. **Preparation of concept plan**
8. **Evolving proposed land use plan and traffic & transportation plan along with Development Control Regulations (DCR) based upon:**
    a. Existing land use plan
    b. Studies and assessment made
    c. Gaps and problems identified
    d. Objectives framed
    e. Future population growth
    f. Future infrastructure requirements
    g. Available land for development
    h. Phasing and Institutional framework

1.4 LOCATION OF TOWN IN A REGIONAL CONTEXT

This aspect studies the development of the town Reasi in its regional context and evaluates the locational advantages and disadvantages. In the Master Plan, this aspect would help in proposing the activities that can be explored based upon the regional potential and linkages.

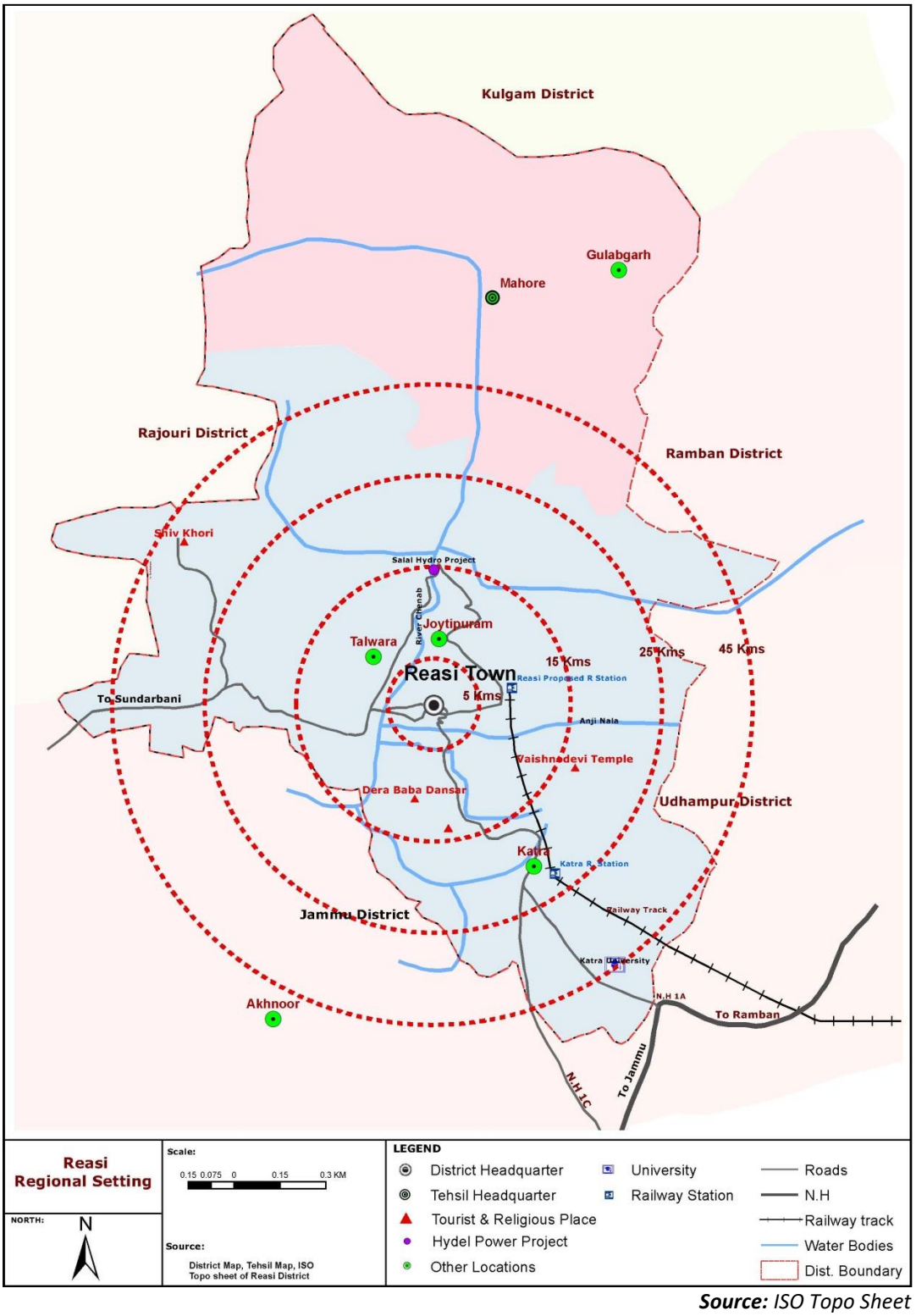
District Reasi is situated in the Shivalik hills and is located at 1528 m above mean sea level. The District is surrounded by Udhampur, Ramban, Rajouri, Jammu and Shopian districts. It is divided into two Tehsils - Reasi & Mahore, containing 8 Niabats, which are further divided into 40 Patwar Halqas. There are four Development Blocks named as Reasi, Pouni, Arnas & Mahore with 147 Panchayat Halquas. Reasi town houses the headquarters of the district, tehsil and the block.

The town is situated on a plateau, about three kilometers from the eastern bank of river Chenab (33.08°N and 74.83°E). It is approximately 70 km away from Jammu town and only 28 km from Katra. It is also 83 km away from Akhnoor town and 65 km from Udhampur (Refer Regional Setting Map).

1.4.1 TRANSPORT LINKAGES

It is well connected to the rest of India by roads through Jammu city. The nearest airport is at Jammu. Katra is the nearest railway station.

Figure 1.1: Regional Setting - Reasi Town (2011).



Source: *ISO Topo Sheet*

1.4.2 ROAD CONNECTIVITY

Reasi Town is at a distance of 70 km from Jammu on the National Highway-144. It is well connected by the road to other nearby important towns like Udhampur, Katra, Akhnoor and Sunderbani.

1.4.3 RAIL CONNECTIVITY

Reasi is not directly connected to rail transport yet, the nearest station is at Katra town (at a distance of 28 km). The Rail link to Reasi is under construction which will connect Reasi to Jammu- Udhampur-Srinagar- Baramulla railway link which will further connect the Kashmir valley to Jammu.

1.4.4 AIR CONNECTIVITY

The nearest airport is Satwari airport in Jammu city, which is about 70 kilometers from the Reasi town. Jammu has direct flights to Srinagar, Delhi, Chandigarh, Leh, Mumbai and Bengaluru.

Table 1-1- Distance of Reasi town from the surrounding urban centers.

Sl. No.	Town	Distance (Km.)
1	Jammu	70
2	Udhampur	65
3	Sunderbani	55
4	Katra	28

Source: *NUIS Reasi, 2012*

1.5 REGIONAL/NATURAL RESOURCES

The natural resources which are available in the region of Reasi that can be helpful for the development of the town are described below:

1.5.1 MINERALS

Reasi District has mineral resources like boulder, Crushing stone, sand bajri, nallah muck, prick earth, clay, Deoralime stone, GSB stone and an availability of 4,23,530 tons of lime.

1.5.2 WATER RESOURCES

The district has expansive and vast undulating mountainous areas, with meandering rivers like Chenab, Anji nallah. There are low lying depressions locally called as khads. Khad like Marhi and Agar Balian also flows through the district.

The district also has a huge potential for micro & mini Hydel electricity generation and has one of the largest Hydel projects in the country- Salal Hydro Electric Project on the Chenab River, with a total generation capacity of 690 MW.

1.5.3 TOURISM AND HERITAGE RESOURCES

Bhimgarh Fort, also known by the name of Reasi Fort, is an important historical resource of the district. Perched at a hillock of Reasi, the fort overlooks Anji nallah and offers a commanding view of its surrounding areas. Originally, the fort was constructed with mud/clay only and later Maharaja Rishipal Rana (founder of Reasi) reconstructed it by using stone.

The fort was renovated in 1990 by Mata Vaishno Devi Shrine Board. The facade and surrounding areas of the fort were given facelift with the construction of picturesque gardens and pathways which has added to the charm of this place of historical significance.

Figure 1.2: Bhimgarh Fort - Reasi (2014).

Reasi Fort is the biggest attraction for tourists in the district. A large number of tourists visit Vaishno Devi in the Reasi district but there are hardly any tourist sites to attract them to the town.

The potential of Bhimgarh Fort and Chenab River Front as tourist sites hasn't been explored yet.

1.5.4 CROPPING PATTERN

Maize and wheat are the main crops grown in the district, however, in recent years, the farmers have started to diversify in horticulture & vegetable crops. The district has a tremendous potential of horticulture fruits i.e. citrus, quince, apple, mango, guava, apricot etc. produced in different climatic conditions.

1.6 LOCAL PLANNING AREA (LPA)

Reasi Local Planning Area has been demarcated according to the village names provided by the office of Deputy Commissioner, Reasi on the basis of existing administrative boundaries, topography and stakeholder consultations. Urban area notification of Reasi Town LPA has been demarcated in consultation with the following underlined departments of Reasi Tehsil:

a. Revenue Department.
b. Municipal Committee, Reasi.
c. Roads & Buildings (R&B), Public Health Engineering Department (PHED), Power Development Department (PDD) & Flood Control Departments.

The other major considerations to delineate the area are:

a. Land use suitability analysis based on existing physical thresholds, topography, land productivity and identification of prime agricultural/horticulture areas;
b. Assessment of areas of influence based on flow of goods and services to and from the town and Existing demographic profile of the town;
c. Assessment of problems and potentials of Reasi.

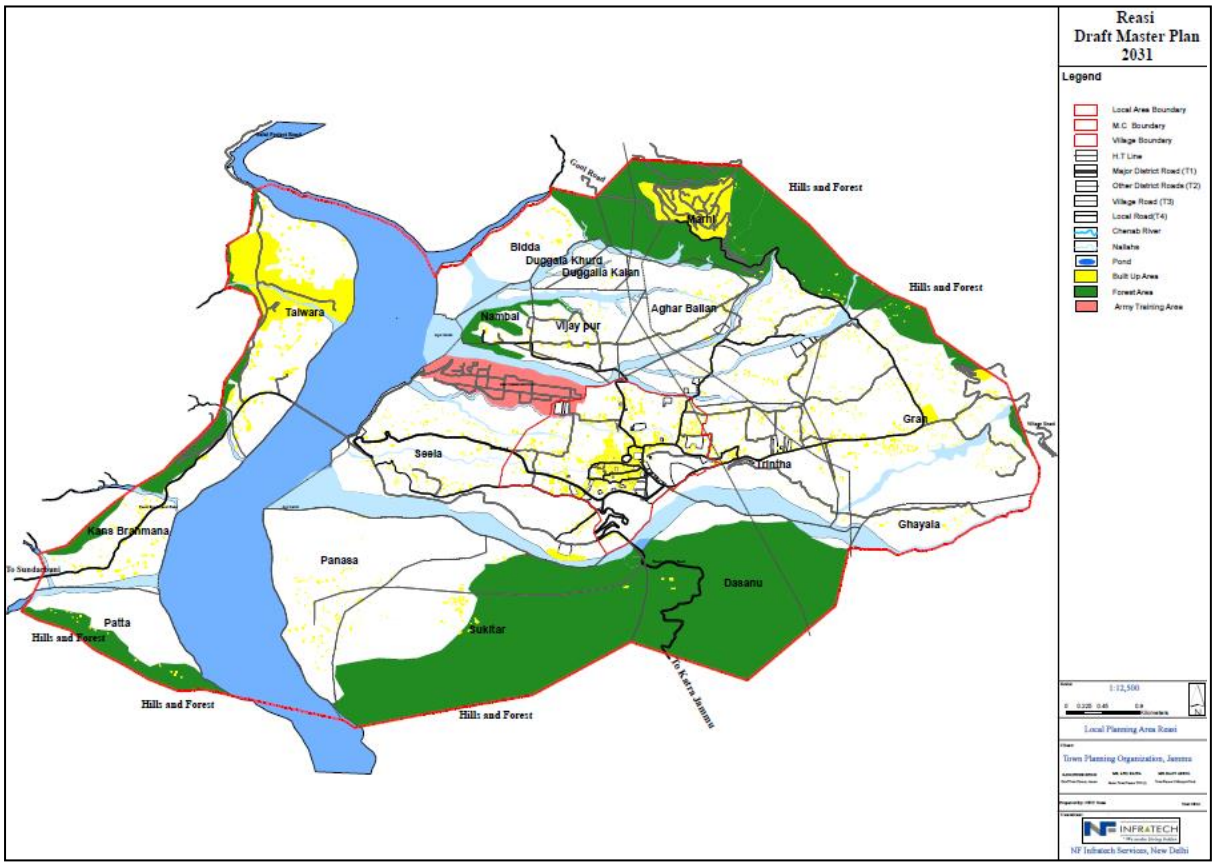
The urban area notification of the town is the initiation of the process of preparation of Master Plan. In this process, the town and its influence area are delineated. The Reasi LPA covers an area of 46.43 sq km with a total population of 27,335 (Refer Urban Area Map). It consists of Municipal Committee– Reasi with an area 2.6 sq. km. The list of settlements falling in Reasi LPA is as follows:

Table 1-2- Settlements under Local Planning Area of Reasi.

Sl. No.	Name of the Settlement
1.	Reasi (MC)
2.	Marhi (CT)
3.	Bidda
4.	Trintha
5.	Talwara (CT)
6.	Panasa
7.	Seela
8.	Aghar Balian
9.	Garan
10.	Kans Brahmana
11.	Vijaypur
12.	Dasanu
13.	Sukitar
14.	Patta
15.	Duggala Kalan
16.	Nambal
17.	Duggala Khurd
18.	Ghayala

Source: *Town Planning Organization, Jammu*

Figure 1.3: Delineated Local Planning Area Map - Reasi (2014).



Sources: *Revenue Department, Reasi & Worldview 2 Satellite Imagery (2011)*

1.7 PHYSICAL CHARACTERISTICS

1.7.1 TOPOGRAPHY

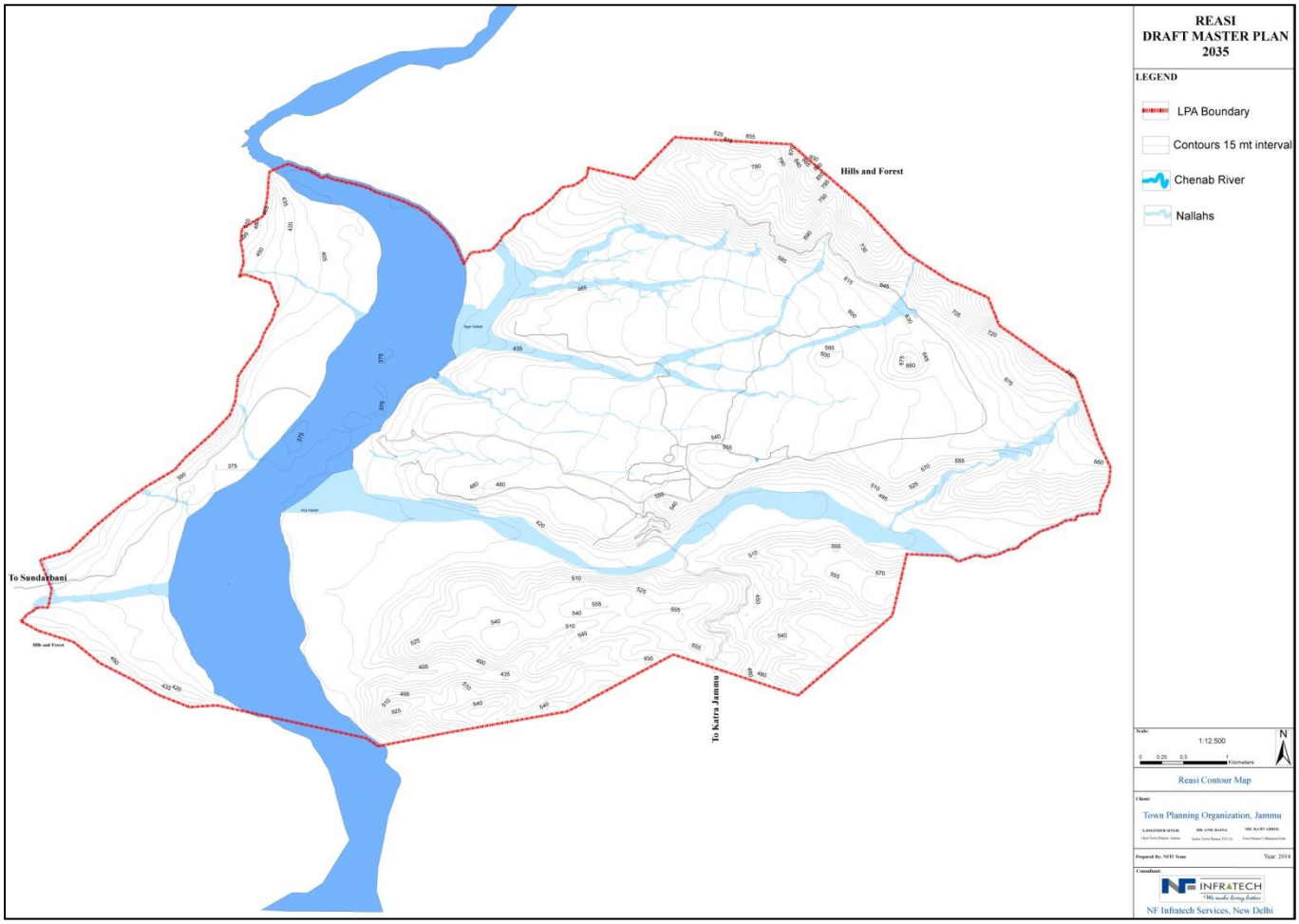
Reasi LPA is characterized with undulating terrain, vegetation cover, water drains and steep slopes. Chenab River runs north-west to south-west of the LPA and Anji nallah from west to east along the southern part of the LPA, while, Marhi and Agahr Balian khad are located on the northern part of the LPA.

Shivalik hills, rich forests and various water sheds create a natural boundary of the region which includes Reasi town and adjoining areas.

1.7.2 ELEVATION AND SLOPE

Elevation in the LPA ranges from 375m to 480m. The northern part of the LPA is a hilly terrain. The central region around the river Chenab and Reasi town are relatively flat land. Steep slopes are observed in the north-eastern and southern sides (Refer Contour Map & Slope Map).

Figure 1.4: Contour Map – Reasi.

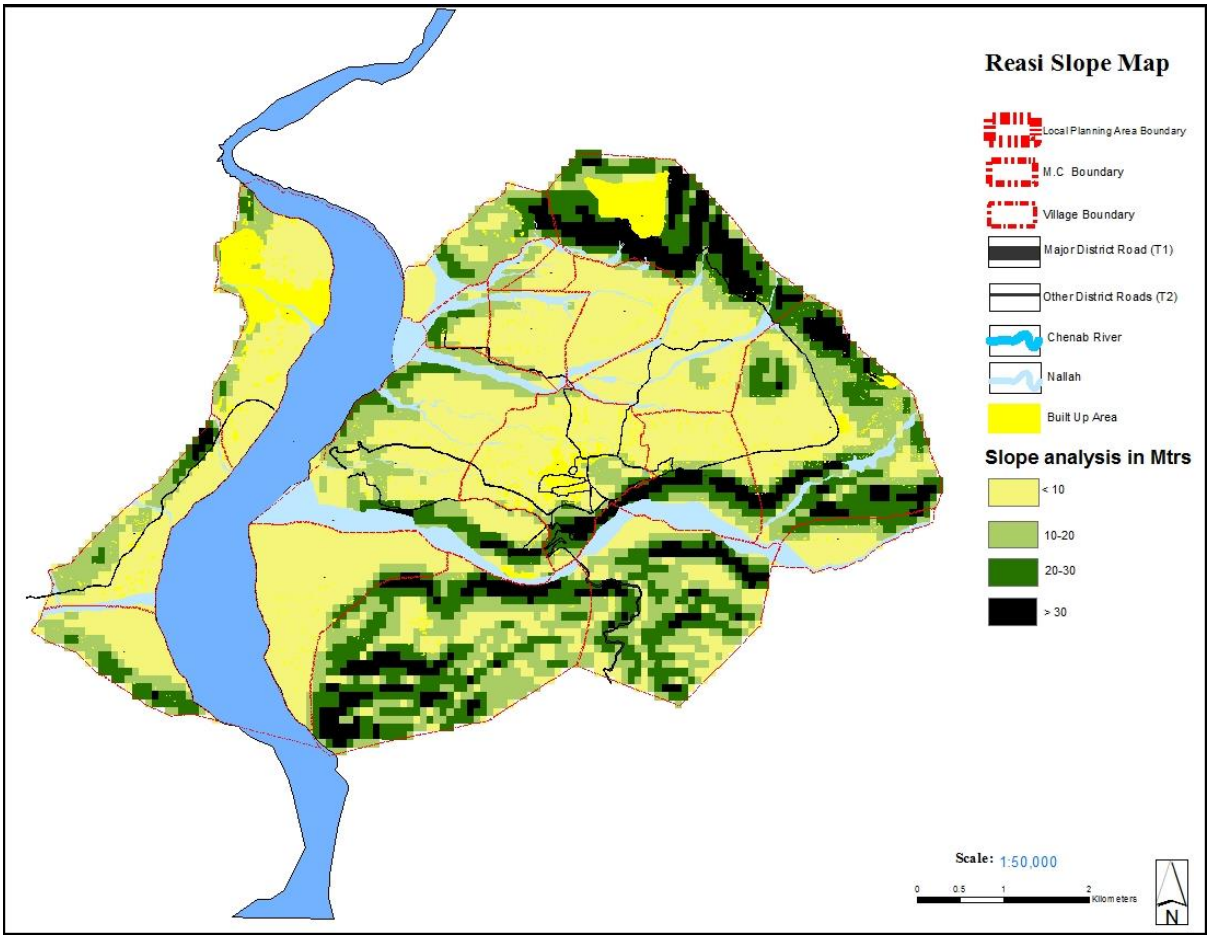


Source: *SRTM Digital Elevation Data (2000)*

Table 1-3: Settlements falling in various contours levels.

Population	Contour Value (in metres)		
	< 400	400 - 600	600 - (Max. 960)
> 5000		Reasi, Talwara	
3000 - 5000			Marhi
1000 - 3000		Seela	
< 1000	Kans Brahmana, Patta and Panasa	Bidda, Duggal Kalan, Duggala Khurd, Nambal, Viaypur, Agar Baliyan, Trintha, Ghayala, Danasu and Sukitar	Gran

Figure 1.5: Slope Map – Reasi.



Source: *Worldview 2 Satellite Imagery (2010)*

1.7.3 SOIL

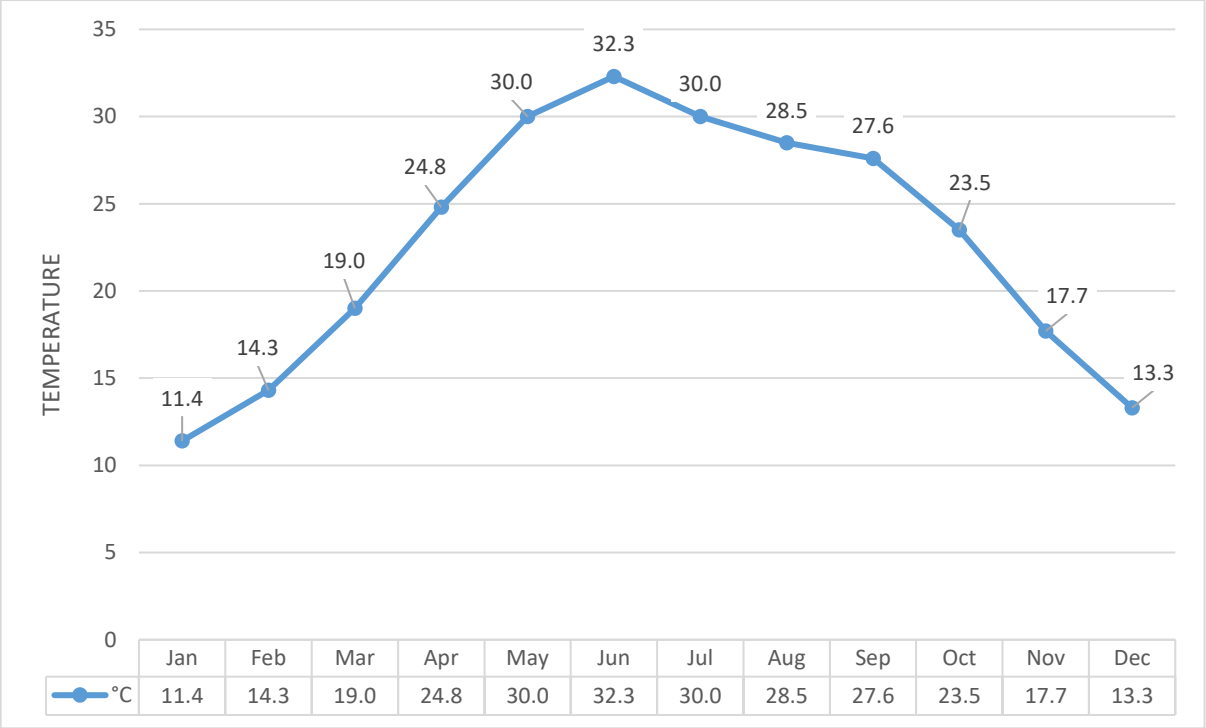
Most of the Reasi LPA is covered by sandy loam and clay loam soil. Other soil types include Gurari, Sakawat, Sekli, Khankhar and Sandy soil, the depth of which varies from 1 feet to 10 feet.

1.7.4 CLIMATE

The climate is sub-tropical and generally dry except during the south-west monsoon season. Summer temperatures do not cross 40°C while in winters mercury generally dips to 2°C. Winter is relatively dry and receives much less rainfall than summer. Climate in Reasi LPA can be classified as humid sub-tropical climate. The average annual temperature in Reasi is 22.7 °C. About 1,320 mm of precipitation occurs annually (Refer figure 1.6 and Table 1-3 for details).

The driest month is November with 13 mm of rainfall. Most precipitation occurs in August, with an average of 350mm of rainfall. The difference in precipitation between the driest month and the wettest month is 337 mm.

Figure 1.6: Average Temperature Trend - Reasi (2012).



Source: *Climate-data.org server*

The warmest month of the year is June with an average temperature of 32.3 °C. In January, the average temperature is 11.4 °C. It is the lowest average temperature of the whole year.

Table 1-4: Climate Data - Reasi (2012).

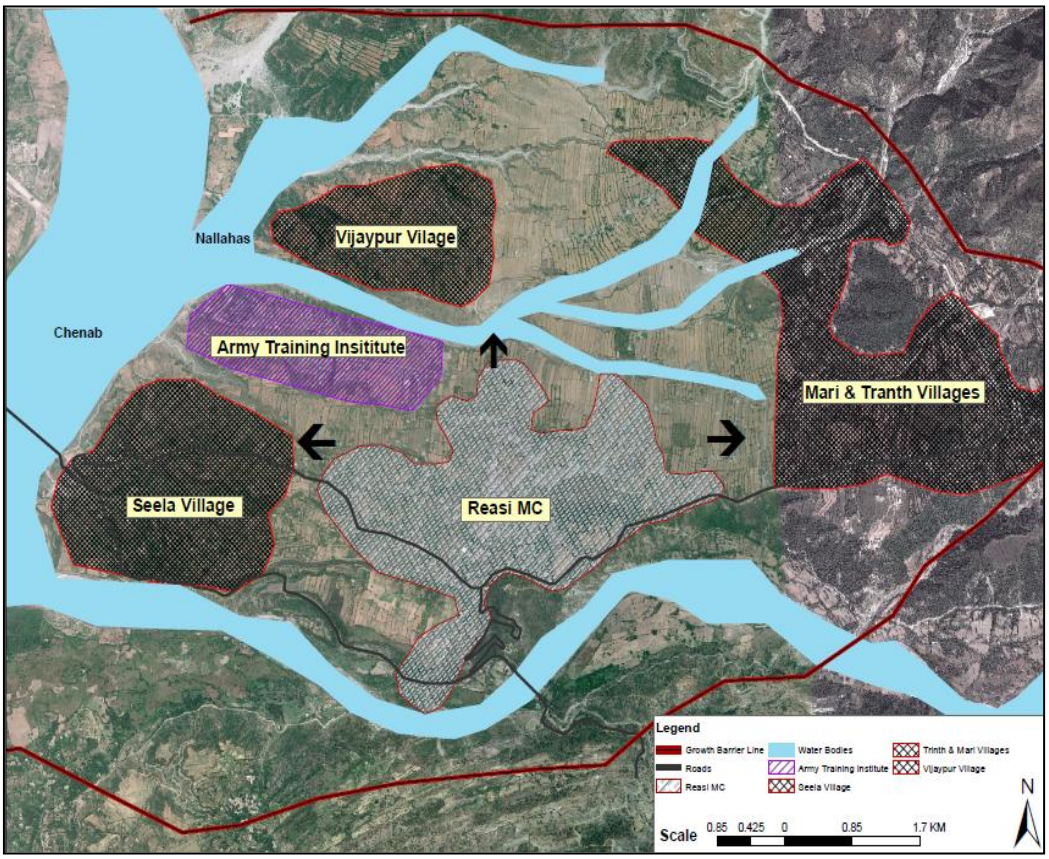
Months	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
mm	96	82	90	43	30	56	311	350	173	34	13	42
°C	11.4	14.3	19.0	24.8	30.0	32.3	30.0	28.5	27.6	23.5	17.7	13.3
°C (Min)	6.3	8.8	13.0	18.1	23.1	25.7	25.1	24.1	22.2	16.7	10.6	7.2
°C (Max)	16.6	19.8	25.1	31.5	36.9	39.0	34.9	33.0	33.0	30.4	24.8	19.4
°F	52.5	57.7	66.2	76.6	86.0	90.1	86.0	83.3	81.7	74.3	63.9	55.9
°F (Min)	43.3	47.6	55.4	64.6	73.6	78.3	77.2	75.4	72.0	62.1	51.1	45.0
°F (Max)	61.9	67.6	77.2	88.7	98.4	102.2	94.8	91.4	91.4	86.7	76.6	66.9

Source: *Climate-data.org server*

1.8 PHYSICAL PATTERN OF GROWTH

Physical growth of Reasi town has been mainly towards north, north-east and north-west directions. In the north-east, the pace of development is faster in comparison to rest of the area because of the Salal power project and the presence of Railway Station.

Figure 1.7: Growth Trend – Reasi.



Source: *Worldview 2 Satellite Imagery (2011)*

1.9 URBAN LANDSCAPE AND BUILT UP ENVIRONMENT

The town is developed in close vicinity of National Highway NH-144 and in between Aghar Nallah and Anji Nallah. The core area of the town is mostly built up with very limited open or green spaces. The core area is surrounded by the rest of the MC area, Anji Nallah, small hills, forests and agricultural area. The character of the built up structures and pattern which has developed over the period of time is very organic in nature, i.e., unplanned. Modern day structures are dominant while the Tapered or sloping roof structures are very less in the town.

The areas which are away from the town are being utilized as agricultural fields. These fields give rise to leap frogging settlements. The roads connecting these remote areas have certain shops which provide facilities and the primary occupation to the local residents.

1.10 HISTORICAL EVOLUTION

Reasi was established by Raja Bhim Dev in the eighth century (called Bhimgarh state then) and was an independent principality till 1822 when it was absorbed by the Sikh empire by Raja Gulab Singh and made part of the Jammu hill region. It was a district of Jammu province until 1948 (till the first administrative reorganization of the state) where major portions of the district were merged with

Udhampur and Poonch district and it was relegated only as a tehsil. Reasi has been restored as a district in 2007 and includes religious tourist sites like Vaishno Devi, Shiv Khori, Dhansar Baba, and Baba Siad.

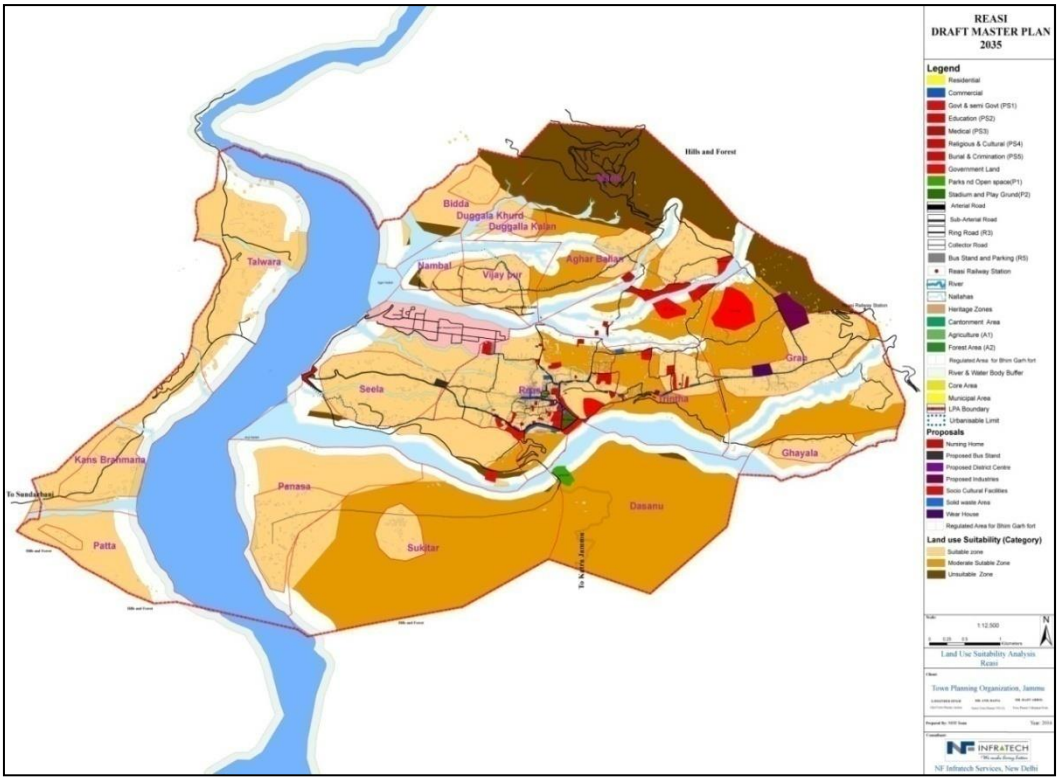
1.11 IDENTIFICATION OF INCOMPATIBLE LAND USES

Incompatible land use and land cover indicate the trend in territorial planning and generate instability and conflicts leading to the degradation in terms of environmental quality. Urban landscape structure of Reasi urban area has changed lately, especially due to expansion of residential areas, increasing the risk of chaotic urban development. The consequences of this residential expansion have led to malfunctions, outlining a disadvantaged area due to environmental problems. In this context, residential areas are frequently located in the proximity of Chenab River and Anji nallah in the north.

1.12 LAND SUITABILITY ANALYSIS

Land Suitability Analysis is the primary criterion used for the allocation of different uses on terra-firma using the grade of slope, forest cover, plantation, water bodies, soil type, natural drainage, agricultural productivity of land, etc. Suitability index has been carried out taking into account the grade, natural drainage, land cover and plantation of the area. However, for purpose of this Master Plan, a natural contour of above 780m which is considered unsuitable for residential and commercial development based on restrictions of slope, environmental sensitivity and hazard prone characteristics which are common in this area. These shall form a prohibitive contour (Refer Land Suitability Map).

Figure 1.8: Land Suitability Map – Reasi.



Source: *Worldview 2 Satellite Imagery (2011)*

Suitable Zone: This zone covers the open land, agriculture land, and the existing vacant developable land and has the regional and sub-regional circulation system, which cover the Reasi town and its adjoining areas.

Unsuitable and Moderate Suitable Zones: According to Digital Elevation Model (DEM) and Contour Plan, Reasi LPA has slopes like foot hills and hillocks. DEM shows the highlands i.e., hillocks towards the north and North West, southern and western part of the LPA. About 30-40 % of LPA is under unsuitable and moderate suitable land which covers the adjoining areas of the hillock, steep hills, forest, prime agriculture, Defense (Cantonments) and River Chenab areas and Nallahs.

- **No-Development Zone:** Areas covered under water bodies including the Chenab River, Anji Nallah, etc.
- **Highly Unsuitable Zone:** Areas existing beyond the prohibitive contour of 781-960 and those adjoining the hillock located eastern side of the site.
- **Highly Unsuitable Zone:** Areas located between 615-780 contour areas under hillock.
- **Moderately Suitable Zone:** Areas having marginal impact on development. This zone covers the prime agricultural lands and small hillocks.
- **Suitable Zone:** Areas which are far away from the water bodies having sufficiently flat terrain and no direct effect on the hydrology of the water regimes existing in the planning area.

1.13 EXISTING ENVIRONMENTAL HAZARDS & DISASTERS

Natural calamities, like cloud bursts, flash floods, heavy rains, earthquake, snowfalls, hails storms, drought and accident etc. cause lot of misery to the people of this region. The district has often been victim to natural calamities causing severe damages to life and property.

1.13.1 TYPES OF DISASTER

Both natural and man–made disasters can be sub-divided into the following types based on the source of origin or relative damage caused by it:

1. **Water and Climate**: Flood, hailstorm, cloud burst, heat wave, cold wave, thunder and lightning.
2. **Geological**: Landslide and Mudflow, Earthquake, Volcano, Dam failure and Mine fire.
3. **Accidents**: Forest fires, urban fires, mine flooding, oil spill, major building collapse, bomb blast, electrical accidents, air and road accidents, boat capsizing and village fire.

Reasi district has been affected by floods, landslides and earthquakes in the past. The villages of Marhi and Sukitar have suffered greatly due to these calamities.

Heavy rains and floods cause damages to cultivated land of the farmers and wash away bridges, human beings and cattle heads. The flash floods sometime hit the inhabited areas harshly and the administration has to swing into action for rescue and relief operations. Talwara and Panasa villages are affected by floods during rainy seasons.
Many motor accidents also take place in Reasi district, owing to the hilly roads, resulting in injuries and loss of life. District administration makes arrangements for medical relief and rescue. Home guards and police personnel are provided with immediate first-aid and relief. The injured persons are immediately rushed to hospitals.

CHAPTER 2. SOCIO-ECONOMIC PROFILE

The chapter includes the study of population size, distribution and settlement pattern. The data collected for population studies is broadly categorized as time-series data and spatial data. In the former, change and transformation of various demographic aspects are measured. In the latter distribution pattern is studied. The study of demographic characteristics and employment is required for the assessment and for evaluation of the existing civic and infrastructural facilities.

2.1 POPULATION GROWTH OF LOCAL PLANNING AREA (LPA)

Reasi town is the headquarters of Reasi district and tehsil with a population of 7,796 persons as per Census 2011. The town is governed by a Municipal Committee having 13 wards under its jurisdiction. Average household size is 5.06 (Annexure 1). The decadal growth rate from 2001 to 2011 in the town is 36.2% as compared to 23.7% of J&K and 35.7% of the urban areas of J&K (refer Table 2-1).

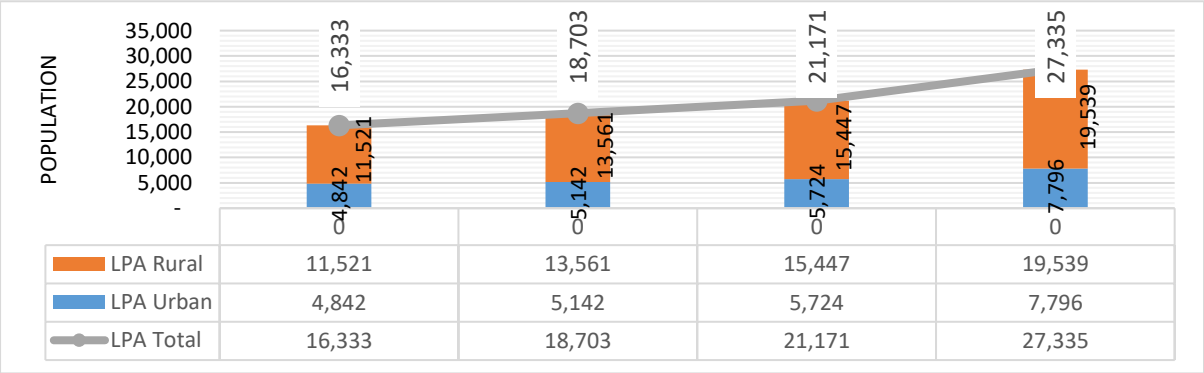
Reasi LPA has a population of 27,335 persons and includes only one urban settlement i.e., Reasi Municipal area and 17 villages (with a population of 19,539 persons). Within the LPA, the Reasi municipal limits hold only 28.5% of the total population and the remaining 71.5% is distributed in various settlements outside the municipal limits within the LPA (refer Table 2-2 and Annexure 1).

Table 2-1: Comparison of population between the state and LPA of Reasi MC (1971-2011).

	Population				Growth Rate 2001-11
	1971	1981	2001	2011	
J&K Urban	16,58,221	12,60,403	25,16,638	34,14,106	35.7%
J&K Rural	27,58,411	47,26,986	76,27,062	91,34,820	19.8%
J&K Total	44,16,632	59,87,389	1,01,43,700	1,25,48,926	23.7%
Reasi LPA Urban	4,842	5,142	5,724	7,796	36.2%
Reasi LPA Rural	11,521	13,561	15,447	19,539	26.5%
Total Reasi LPA	16,333	18,703	21,171	27,335	29.1%

Source: *Census of India - 1971, 1981, 2001, 2011*

Figure 2.1: Decadal trend of population, Reasi LPA (1971-2011).



Source: *Census of India - 1971, 1981, 2001, 2011*

Table 2-2: Percentage distribution of population between LPA villages and Reasi MC (1971-2011).

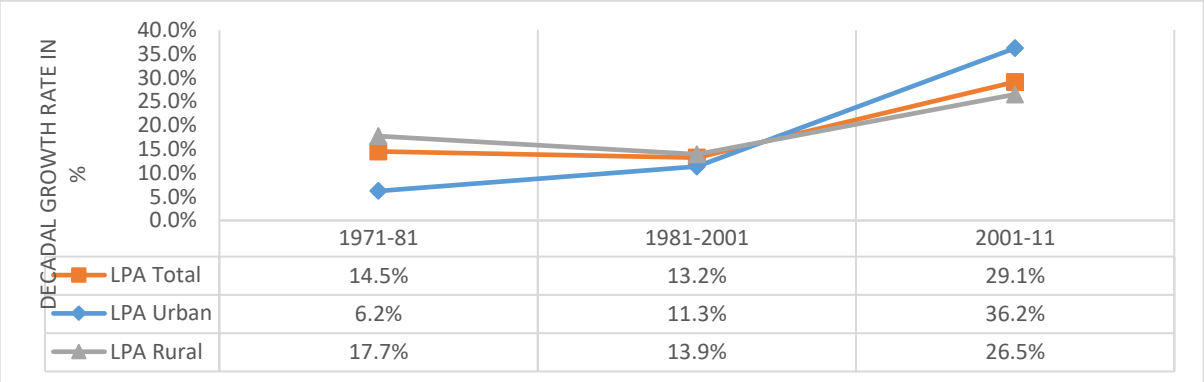
	% of LPA Population							
	1971		1981		2001		2011	
Settlement	Population	%age	Population	%age	Population	%age	Population	%age
LPA Total	16,333	100%	18,703	100%	21,171	100%	27,335	100%
LPA Rural	11,521	70.5%	13,561	72.5%	15,447	73.0%	19,539	71.5%
LPA Urban	4,812	29.5%	5,142	27.5%	5,724	27.0%	7,796	28.5%

Source: *Census of India - 1971, 1981, 2001, 2011*

2.2 GROWTH RATE

Reasi town experienced a growth rate of 11.3% and 36.2% during the decades of 1981-2001 and 2001-2011 respectively, thus showing increment in the population growth rate during the last decade (refer Figure 2.2). The average decadal growth for 1981-1991 and 1991-2001 can be assumed to be 5.65% only (half the growth in these decades), which jumps to a higher growth rate of 36.2% in 2001-11, showing an accelerating pace of growth.

Figure 2.2: Decadal Growth Rate, Reasi LPA (1971-2011).



Source: *Census of India - 1971, 1981, 2001, 2011*

2.3 POPULATION DENSITY

The density gradient as per 2011 Census shows that ward 5 has a gross density of more than 100 persons per hectare (pph) whereas the density of ward nos. 7, 8, 10, 11 lies between 50-100 and density of ward nos. 1, 2, 3, 4, 6, 9, 12 & 13 is lower than 50 persons per hectare. The population density of the town within municipal limits has been tabulated in Table 2-3. (Refer Population Density Map).

Table2-3: Ward-Wise Population Density, Reasi MC .

Ward	Population (2011)	Area (Ha)	Density
1	657	16.2	40.56
2	1,035	40.2	25.75
3	717	28.9	24.81
4	735	40	25.88
5	468	4.4	106.36
6	574	21.3	26.95
7	431	5.3	81.32

8	310	5.3	58.49
9	758	37.3	20.32
10	382	5.2	73.46
11	544	7.3	74.52
12	500	19.2	26.04
13	385	31.1	12.38
Total	**7,796**	**261.7**	**29.79**

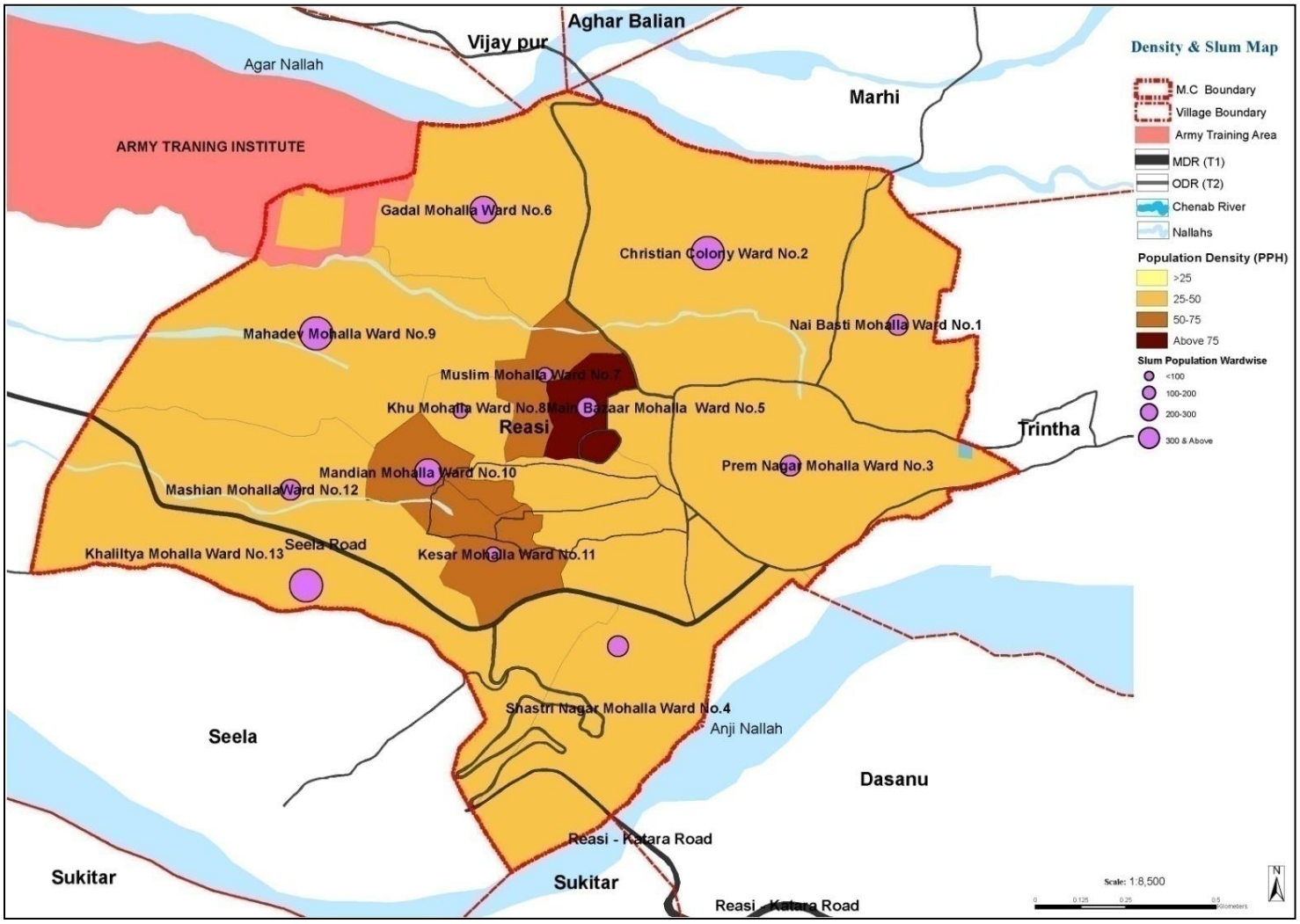
Source: *Census of India – 2011, Ward Boundaries from Municipal Committee, Reasi*

Table 2-4: Density Gradient of M. C. Reasi (Ward-Wise),

S. No.	Density (pph)	Zone	Ward Numbers
1	More than 100	High Density Zone	5
2	50 to 100	Medium Density Zone	7,8,10,11
3	Less than 50	Low Density Zone	1,2,3,4,6,9,12,13

Source: *Census of India – 2011*

Figure 2.3: Population Density Map – Reasi.



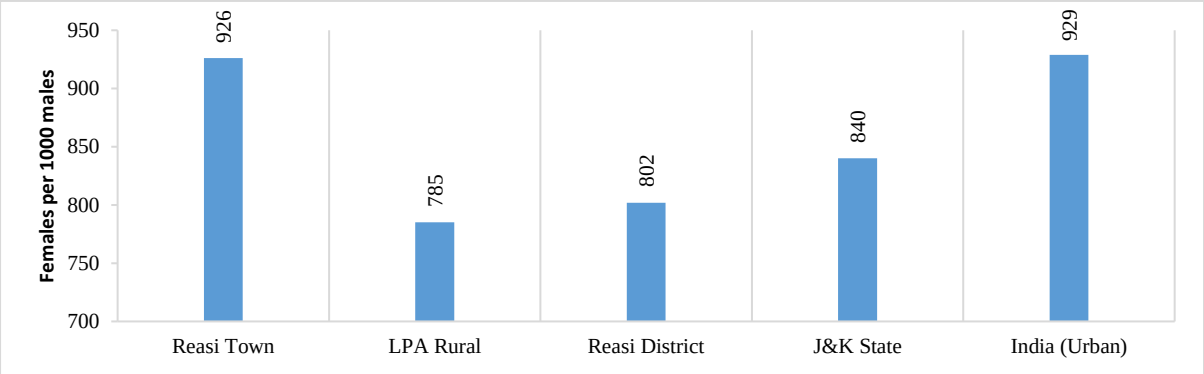
Source: *Census of India – 2011, Ward Boundaries from Municipal Committee, Reasi.*

2.4 POPULATION CHARACTERISTICS

2.4.1 SEX RATIO

Sex ratio of Reasi town (926) is found only marginally lower compared to urban India (929) but significantly higher than the state average (840) and district average (802) in 2011.

Figure 2.4: Comparative sex ratio values for India (urban), J&K state, Reasi district, LPA rural and Reasi town (2011).



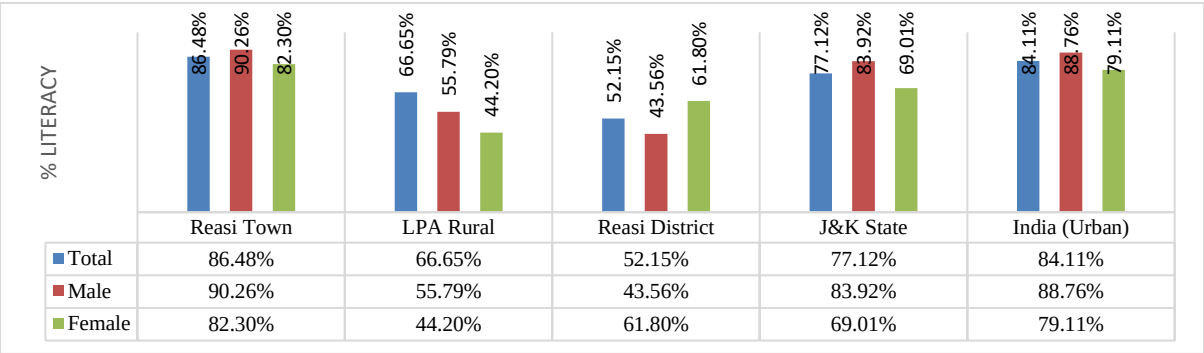
Source: *Census of India – 2011*

2.4.2 LITERACY & EDUCATION

2.4.2.1 LITERACY IN REASI TOWN

Figure 2.5 depicts a comparison of literacy rates within Reasi LPA and with Indian, state and district average. Reasi town has a literacy rate of 86.48%, which is slightly higher than the urban literacy rate of India (84.11%) and significantly higher than the state average (77.12%) and district average (52.15%). Comparison of literacy among males and females shows that more males are literate than females which is true for the state and the country as a whole as well. Female literacy rate of town is higher as compared to India, State average as well as to district average.

Figure 2.5: Literacy Rate Comparison - Reasi MC, LPA Villages, Jammu District, J&K State and Urban India (2011).



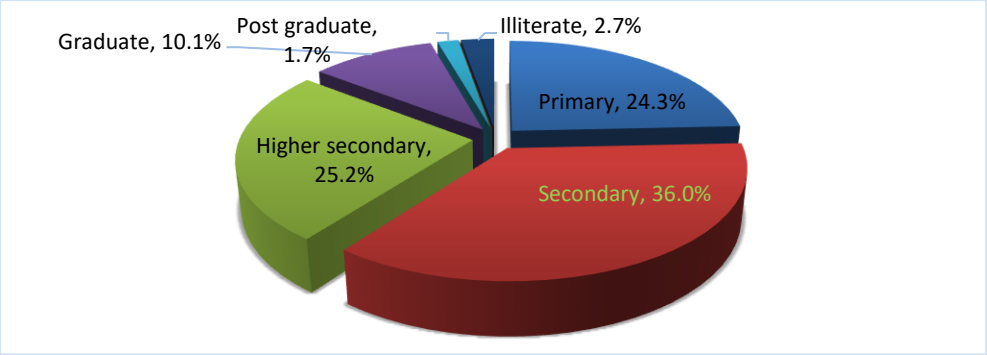
	Reasi Town	LPA Rural	Reasi District	J&K State	India (Urban)
Total	86.48%	66.65%	52.15%	77.12%	84.11%
Male	90.26%	55.79%	43.56%	83.92%	88.76%
Female	82.30%	44.20%	61.80%	69.01%	79.11%

Source: *Census of India – 2011*

A household survey was conducted with a five percent sample size in the entire urban area of Reasi to ascertain demographic and socio-economic characteristics of the population. The survey was based on stratified random sampling selecting every 20th house in each ward of the town consisting of a sample of 200 houses and a population of 950 residing in these houses.

The socio economic survey supports the findings of a high literacy rate. Out of the 200 houses surveyed in 2014, 97.3% of the population is found to be educated and have passed through some school (refer Figure 2.6 & Table 2-5). Further, 85.5% of the population has attained education of at least the higher secondary level.

Figure 2.6: Educational Qualification Distribution - Reasi MC (2014).



Source: *Primary Socio Economic Survey (2014)*

Table 2-5: Educational Qualification Distribution - Reasi MC (2014).

Qualification	Persons	%age	Cumulative %age
Literate			
Primary	182	24.3%	**97.30%**
Secondary	270	36.0%	
Higher Secondary	189	25.2%	
Graduate	76	10.1%	
Post Graduate	13	1.7%	
Doctorate	0	0%	
Illiterate	20	2.7%	**2.7%**
Total	**750**	**100%**	**100%**

Source: *Primary Socio Economic Survey (2014)*

2.4.3 ECONOMY AND EMPLOYMENT

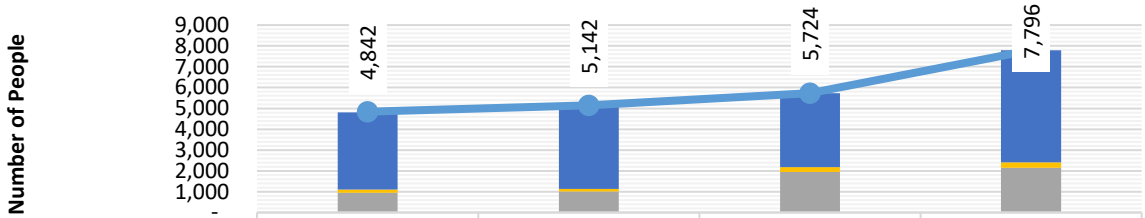
Being far away from the Jammu - Udhampur highway and somewhat inaccessible due to the hilly area, the economic progress in Reasi has been rather slow. However, the economic activity has shown a sudden rise since 1980s with the construction of the Salal Hydroelectric Project. Militancy acts in the 1990s created a guarded and restrained business atmosphere, but the presence of army in the area has allayed some of those fears.

The proposal for the Jammu-Srinagar railway line is likely to change the face of Reasi in the not so distant future, bringing development and economic activity to the region.

2.4.4 WORK FORCE PARTICIPATION

According to Census 2011, workforce participation rate (WPR) in town is 30.9%, constituting main and marginal workers. This town shows steady increase in WPR from 1981 to 2011 (refer Table 2-6 & Figure 2.7).

Figure 2.7: Decadal Trend of Work-Force Participation - Reasi MC (1971-2011 except 1991).



	1971	1981	2001	2011
Non workers	3,716	4,012	3,542	5,386
Marginal workers	142	118	239	260
Main workers	954	1,012	1,943	2,150
Town Population	4,842	5,142	5,724	7,796

Source: *Census of India - 1971, 1981, 2001, 2011*

Table 2-6: Percentage Decadal Composition of Work-Force, Reasi MC (1971-2011 except 1991).

Year	Town Population	Total Workers	Main Workers	Marginal Workers
1971	4842	1094 (22.6%)	954 (19.7%)	140 (2.9%)
1981	5142	1131(22.0%)	1013 (19.7%)	118 (2.3%)
2001	5724	2181 (38.1%)	1940 (33.9%)	240 (4.2%)
2011	7796	2409 (30.9%)	2152 (27.6%)	257 (3.3%)

Source: *Census of India - 1971, 1981, 2001, 2011*

2.4.5 OCCUPATIONAL STRUCTURE

As per Census 2011, 89% workers of the town are engaged in secondary and tertiary activities, 7. 8% is engaged in primary activities (cultivators and agricultural workers) and remaining 3.2% is engaged in household industries.

Table 2-7: Occupational Structure – Reasi Town (2011).

Type of Workers	2011	%age of Workers
Cultivators	62	2.57
Agricultural workers	126	5.23
Households Industrial workers	77	3.20
Secondary and Tertiary	2,145	89.00
Total	**2,410**	**100.00**

Source: *Census of India – 2011*

2.4.6 INDUSTRIAL BASE

There are no established industrial estates till date but there is a proposal for mini-industrial estate near Garan mod Reasi.

2.5 TRADE AND COMMERCE

Reasi town is an important trade and commerce center for the LPA because of its nodal location. It also houses many retail and wholesale shops located predominantly at bus stand and old bazaar. There are 600 retail shops and 80 wholesale shops located in Reasi town.

2.5.1 INFORMAL SECTOR

Reasi has large number of informal markets and most of them are located around the major traffic nodes including bus stand, places of tourist interest, religious centers, vacant land/open spaces, parking lots etc.

Figure 2.8: Informal Market around Zorawar Statue near Bus Stand – Reasi Town

Source: Primary Survey, 2014

These markets encroach public lands (like road berms, pedestrian walkways, parking lots, etc.) and are improperly planned and chaotic which creates problems for the residents.

2.5.2 STREET VENDING

The term “street vendor” is typically used interchangeably with “street trader,” “hawker”, etc. A street vendor is a person who offers goods or services for sale to the public without having a permanently built structure but with a temporary static structure or mobile stall (or head-load). Street vendors could be stationary and occupy space on the pavements or other public/private areas, or could be mobile, and move from place to place carrying their wares on push carts or in cycles or baskets on their heads, or could sell their wares in moving one place to another place.

Figure 2.9: Street Vendor - Reasi.

The vendors deal with variety of products like fruits, vegetables, eateries, etc. and can be found along bus stand, court road, Reasi Trintha road and old town roads.

Table 2-8: Locations and Numbers of Registered Street Vendors - Reasi Town (2014).

S. No.	Street Vendor	No.	Location
1	Kulcha Vendor	7	Near bus stand, mini stadium, court road & Trintha road.
2	Vegetable Vendor	11	Within the town, near bus stand, mini stadium, court road & Trintha road.
3	Fruit Vendor	6	Within the town, near bus stand, mini stadium, court road & Trintha road.
4	Gol Gappa Vendor	9	Within the town, near bus stand, mini stadium, court road & Trintha road.
5	Seasonal (Ice Cream Vendor, Peanut Vendor, etc.)	15	Within the town, near bus stand, mini stadium, court road & Trintha road.
	Total	**48**	

Source: *Municipal Committee, Reasi (2014)*

Comparing the primary socio-economic survey findings and MC records, there are much more than the 48 registered street vendors in Reasi.

2.5.3 HOTELS

There are 2 hotels and 4 guest houses in the town. There are total 87 rooms available (with and without AC facility) costing between Rs. 350 and Rs. 1,200 per day.

Table 2-9 Hotels and Guest Houses - Reasi Town (2014).

S. No.	Name of Hotels and Guest Houses	No. of Rooms
1	Suraj Palace	32
2	Neelam Palace	12
3	Chenab Guest House	15
4	Bali Palace	8
5	Kumar Guest House	8
6	Green View	12

Source: *Primary Survey, 2014*

2.6 KEY ISSUES OF TRADE AND COMMERCE

- The markets of the old town are highly congested and have high density. Absence of adequate parking and organized commercial area hampers movement and circulation in the area.
- The narrow streets and road encroachments have further degraded the aesthetic value and business potential of the area.
- No institution exists which is dedicated to research and development of traditional cottage industry products of the town, like wooden and forest products.
- No commercial complex for banking, insurance and share market exists in the town.
- No organized space is available for the street vendors in the town. Hence, it is creating congestion problems near the bus stand and along other major roads.
- Lack of strategies for promoting tourism.

CHAPTER 3. PHYSICAL GROWTH, INFRASTRUCTURE & SERVICES

3.1 EXISTING LAND USE DISTRIBUTION

LPA Reasi covers the revenue estates of 17 villages and the areas of one urban center i.e., Reasi**.** The total area of LPA Reasi is about 46.43 sq. km. (4,643 Ha) out of which 2.6 sq. km. (261.7 Ha) falls under Municipal Committee area. The MC area is further categorized into various uses.

The total Reasi MC area (2.61 sqkm) includes residential, industrial, commercial, public amenities and agricultural, etc. Residential use covers 76 Ha (29.1% of MC area) and is the largest land use category of the developed area. Similarly, agricultural land use is highest (90 Ha, 34.4% of the MC area) among the undeveloped area land use, indicating a high presence of agricultural activity even within the MC (Refer Existing Land use Map).

Table 3-1: Existing Land use Distribution – Reasi MC (2016).

Landuse	Land under existing use (in Ha)	% of Developed Area	% of Total Area
Developed Area			
Residential	**76**	**51.9%**	**29.1%**
Commercial	**7**	**4.8%**	**2.7%**
Public/ Semi Public	**29**	**19.8%**	**11.1%**
Govt./ Semi Govt./ Public Office	11	7.5%	4.2%
Educational and Research	5	3.4%	1.9%
Medical and Health	4	2.7%	1.5%
Social, Cultural And Religious	2	1.4%	0.8%
Utilities and Services	6	4.1%	2.3%
Cremation and Burial Ground	1	0.7%	0.4%
Recreational	**4.3**	**2.9%**	**1.6%**
Play Grounds, Stadium and Sports Complexes	2	1.4%	0.8%
Parks and Gardens	2.3	1.6%	0.9%
Transport and Communication	**30**	**20.5%**	**11.5%**
Roads	29	19.8%	11.1%
Terminals	1.3	0.9%	0.5%
Sub-Total Developed Area	146.3	100.0%	56.0%
Un-Developed Area			
Agriculture	90	78.3%	34.4%
Forest	5	4.3%	1.9%
Water Bodies	1	0.9%	0.4%
Plantation and Orchards	16	13.9%	6.1%
Open Area	3	2.6%	1.1%
Sub-Total Undeveloped Area	115	100.0%	44.0%
Grand Total	**261.3**		**100.0%**

Source: *Computed Values, NF Infratech service Pvt.Ltd (2016)*

Figure 3.1: Existing Land use Distribution – Reasi MC (2016).

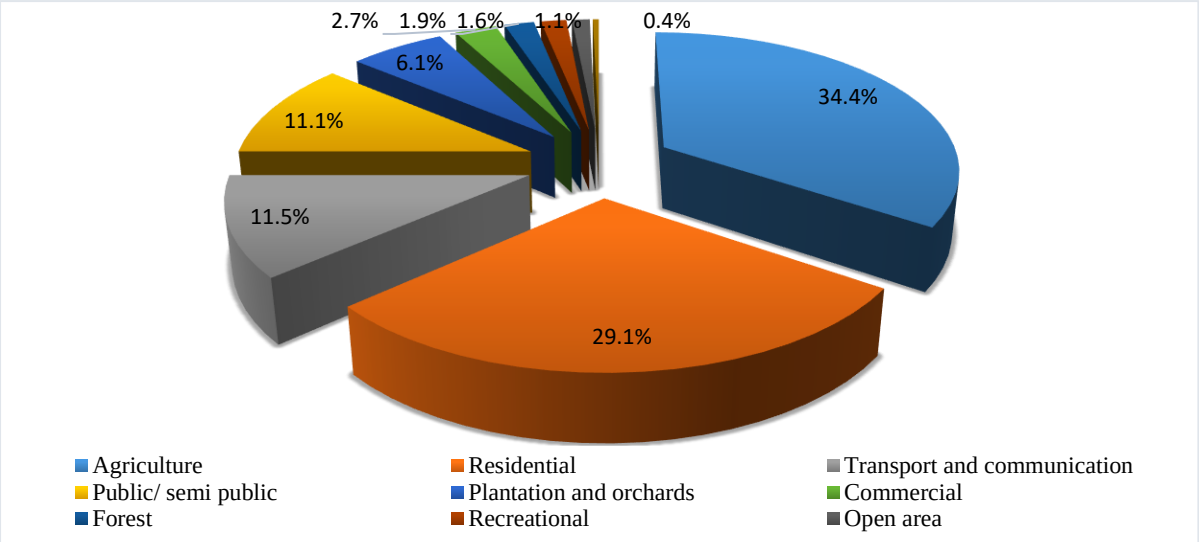
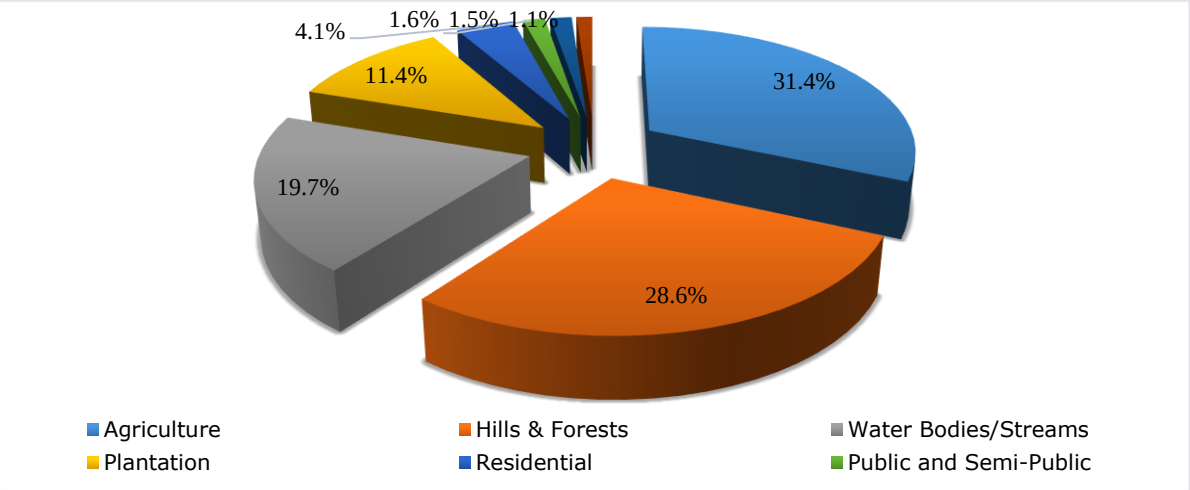


Table 3-2: Existing Land use Distribution– Reasi LPA (2016).

Landuse	Land under existing use (in Ha)	%age of Developed Area	%age of Total Area
Developed Area			
Residential	190	56.7	4.1
Commercial	9	2.7	0.2
Industrial	0	0.0	0.0
Public and Semi-Public	72	21.5	1.6
Utility Services	6	1.8	0.1
Recreational	7.5	2.2	0.2
Traffic and Transportation	50.5	15.1	1.1
Sub-Total Developed Area	335	100	7.2
Un-developed Area			
Agriculture	1960	45.5	42.2
Plantation	30	0.7	0.6
Orchards	2	0.0	0.0
Hills & Forests	1325	30.8	28.5
Open Land	6	0.1	0.1
Water Bodies/Streams	915	21.2	19.7
Army	70	1.6	1.5
Sub-Total Undeveloped Area	4308	100	92.8
Grand Total	**4643**		**100**

Source: *Computed values, NF Infratech service Pvt.ltd. (2016)*

Figure 3.2: Existing Landuse Distribution – Reasi LPA (2014).



3.1.1 RESIDENTIAL

Out of total Municipal area of 261 ha, about 76 ha are under residential use which is 29.1% of total area. Even in the LPA, residential use covers 190 ha (4.1% of the LPA area). There is no planned residential colony in Reasi developed by any Govt. or Semi-Govt. agency, the lack of which has resulted in urban sprawl and inefficient utilization of land.

Physical thresholds have played dominant role for shaping the urban structure of town but the density has been primarily shaped by the infrastructural facilities. Although town has existed since long time, the urbanization has been taking place at a relatively slow pace.

3.1.2 COMMERCIAL

The total area covered under commercial use is 7 ha (2.7% of MC area). The total commercial area having 600 shops of retail and 80 shops of whole sale and one fruits and vegetable mandi located near bus stand. A very congested mixed land use exists within the old town which creates problems for movement and circulation.

Figure 3.3 Mixed Landuse – Reasi Town.

Source: Primary Survey

3.1.3 PUBLIC & SEMI-PUBLIC

This use comprises the areas covered under govt. / semi govt. offices, govt. lands, education, health, socio–cultural, cremation grounds etc. The total area covered by this use is about 29 ha (11.1% of MC area). Utilities include uses like water works, electric grid station, (E.G.S.) sewage disposal, solid waste dumping site etc. The solid waste dumping site and sewerage disposal does not exist in the town and has not been included in these values. Main source of drinking water in Reasi is perennial which has been extracted at 5 GSR (Ground Service Reservoir). There is only one electric grid station of 63 kV and 133 kV and four 33 kV grids are located within the town area. There is no solid waste management site or land fill site in the municipal area because waste is dumped outside the town area.

3.1.4 TRAFFIC AND TRANSPORTATION

The total area under roads is 30 ha (11.5% of MC area) and 1.5 ha is under terminals. However the percentage of area under this use is inadequate as per norms and standards required for this size of town (URDPFI). The major problems related to this aspect is the existence of narrow width of roads, missing road hierarchy, lack of parking places, encroachment of roads, lack of traffic signals, etc. There is a small sized organized bus stand covering land under this use.

Figure 3.4: Narrow Streets – Reasi Town (2014).

3.1.5 AGRICULTURE LAND

90 ha (34.4% of the MC area) is under agriculture, concentrated mainly in the newly added wards; 9, 12 and 13.

Figure 3.5: Agricultural Land within Reasi Town

Source: Primary Survey, 2015

3.1.6 LAND USE BEYOND MUNICIPAL LIMITS

Available area beyond municipal limits (but within LPA) has been shown in Table 3-3.

Table 3-3: Land Use Distribution under Other Uses - Reasi LPA (2014).

S. No.	Landuse	Area (in Ha)
1	Agriculture and plantation, cultivation and trees, Orchards and farms and Nurseries	2150*
2	Rocky Land, Forests, Slopes, Floodable land , Water Bodies, Open Chunk, etc.	1021.14*
3	Defence Use	86*

*These areas are calculated beyond the municipal limits.

Source: *Computed Values, NF Infratech Service Pvt. Ltd. 2016*

3.2 CHALLENGES OF LANDUSE

The town is witnessing unprecedented land use transformation. The residential use is being succeeded by commercial use. Non-conforming and incompatible uses like workshops, wholesale, markets and on-road parking are badly affecting the predominant and befitting uses as well as community life.

The infrastructure lags behind the growth of the population. Lack of accessibility to many structures and localities is a matter of serious concern. The localities susceptible to hazards have to be dealt with. The multi-storey culture against hill development imperatives has to be effectively addressed. There is urgent need to address to following:

1. Culture for unplanned development.
2. Regulations and penalties in respect of green areas.
3. Construction which are susceptible to hazards on slopes.
4. Rapid construction activities in the existing town.
5. Conservation and preservation of core municipal areas.
6. Parking encroachments.

3.3 PHYSICAL INFRASTRUCTURE

3.3.1 WATER SUPPLY

Reasi town is 725 m above mean sea level (AMSL) and has hilly topography and undulating profile which provides water resources. This water is then supplied by gravity method. All the urban and rural settlements falling in the LPA are mainly dependent on the ground water supply as the source for meeting their daily needs of water supply.

The domestic water demand includes per capita consumption and system losses, while non-domestic water demand includes industrial and commercial consumption, institutional consumption and firefighting demand.

3.3.1.1 DOMESTIC CONSUMPTION

The existing domestic requirement of 1.05 MLD (135 lpcd as per URDPFI) is met by supply of 1.05 MLD which indicates adequate supply.

3.3.1.2 AREA AND POPULATION COVERAGE

90% of the town area and population is presently covered by the water supply network. The population served by piped water supply includes service through the house connections. Water losses are high (about 43%) due to leakages in network which is more than 50 years old and in need of proper maintenance.

3.3.1.3 DISTRIBUTION SYSTEM

The distribution of water supply is done through the piped network and storage tanks. There are a total of 6 storage tanks at different locations of the town.

The water supply to individual households, commercial establishments and industrial units is made through tube wells. Table 3-4 gives details of water connections in Reasi MC.

Table 3-4: Water Supply Characteristics - Reasi MC (2011).

Source of Drinking Water	Quantity of Water Supplied (MLD)	No. of Connections (Domestic & commercial)	Population	Water supply per capita (LPCD)
Tube Well	1.05	1783	7796	135

Source: *PHE Department, Reasi*

Due to rapid increase in population, there has been a simultaneous increase in water connections for domestic use. Due to a large number of commercial establishments in Reasi, number of connections in commercial categories is also high.

Further, water supply in Reasi is un-metered. In the absence of metering system, major wastage of water has been observed, causing inefficiency in the water distribution.

3.3.1.4 KEY ISSUES OF WATER SUPPLY

1. High wastage due to water leakage,
2. Wastage of water due to unmetered water supply.
3. Intermittent water supply leading to higher wastage.
4. Low overhead storage capacity.
5. Poor maintenance of service network.
6. Lack of use of Rainwater harvesting techniques.

3.3.2 SEWERAGE AND SANITATION

The disposal of sewage generated by industrial, commercial, domestic and institutions is also one of the basic functions of the local bodies. Providing sewage disposal network is mandated due to its impact on the quality of life and quality of environment. Accordingly, sewage disposal has also been considered as one of the critical component of urban infrastructure determining the quality of life in urban sector. In this context, while preparing the future planning framework for the town, it is important to examine the issues and status related to sewerage and sanitation in Reasi and the rural settlements located in the LPA.

Presently, Reasi is totally deprived of sewerage facility. The existing system of the town is septic tank, pit tank or directly dumping into drain. The polluted water of septic tank is also dumped eventually into the drains of the town area.

3.3.3 DRAINAGE

Draining the rain water assumes importance because of the numerous problems created due to inefficient disposal of storm water. Reasi town has 70% coverage of pucca drains within the MC boundary, lacking only in the four wards (wards 9, 11, 12 and 13) which were recently added in the municipal boundary in 2005. Considering the existing status of storm water network, it appears that the MC places priority on this network.

Figure 3.6: Covered and Open Drains – Reasi MC (2014).

Reasi has the advantage of having a network of both natural and manmade open drains/nallahs, which have a general slope of north-south and all eastern ridges towards river Chenab. Despite the fact that

there is a network of drains and nallah available in Reasi, most of them are unfortunately used for carrying the untreated sullage and domestic refuse. Further, the areas close to these nallah/drains have been urbanized by mushrooming of residential colonies including slums. Much of the household waste and sullage is also dumped into these nallahs/drains.

Figure 3.7: Dry nallah within town used for dumping domestic waste – Reasi MC (2014).

In the absence of any treatment plant in the Reasi urban area, this practice has led to not only high degree of health hazard to the adjoining communities, but has emerged as the major threat to environment and quality of life.

3.3.3.1 KEY ISSUES OF DRAINAGE / SEWERAGE

Looking at the existing status of drainage, following major issues emerge:

1. Lack of rainwater harvesting.
2. Disposal of domestic refuse and untreated sullage in the storm water drains has led to high degree of health hazard, emerging as major threat to environment and quality of life.
3. Lack of regular and timely cleaning.

3.3.4 SOLID WASTE MANAGEMENT

Solid waste management is the prime responsibility of the Reasi MC involving collection, storage, segregation, transportation and disposal. In Reasi urban limits, house to house collection of the solid waste is carried out through a number of sanitary workers deployed by the Municipal Committee, payment of which is made on shared basis by Municipal Committee and Mohalla level committees which are supported in turn through household contributions.

3.3.4.1 GENERATION

The total generation of solid waste in the Reasi town is estimated to be 1.5 tons per day (TPD). This large amount of solid waste generated is disposed of along the road outside the town due to the non-availability of permanent land fill site in the town.

3.3.4.2 COLLECTION

The daily collection of solid waste in the town is reported to be 0.9 tonnes (60%) per day. At the household level, door to door collection of waste is practiced. Since household waste has high contents of organic waste, no system of segregation is used at the generation level. In the process, the quality of recyclable material gets distorted due to mixing of the dry and wet waste. Door to door collection is unavailable in the LIG areas and in slum areas of the town. In such areas, the solid waste is dumped mostly in the available open lands, vacant plots and nearby low lying areas/water bodies (refer Figure 3.7).

Waste collected by municipality (60% of generated waste) is dumped in a dry nallah near Aghar village.

3.3.4.3 KEY ISSUES

Key issues involved in solid waste Management in Reasi Council area are:

1. Inefficient and inadequate collection of solid waste generated on daily basis.
2. Absence of public participation and lack of public awareness.
3. Absence of scientific means of collection and disposal.
4. Absence of segregation of waste at the generation level.
5. Absence of solid waste treatment plant in the town.
6. Open dumping along roadsides, vacant plots, drains/nallahs, etc.

3.3.5 ELECTRICITY

100% of the municipal area is supplied with electricity by Power Development Department.

3.3.5.1 DISTRIBUTION NETWORK

The electric supply to Reasi town is made through two 6.3 MW power stations located at Geeta Nagar (Garan Village) which are part of Reasi LPA (Refer Table 3-5). Further, electric supply to different parts of the town is made through 13 (400/22 volts) feeder station, which are strategically located to cover whole of the town.

Table 3-5: Electric Supply - Reasi Town (2013).

Source/Distance (in km) of power plant	Total Electricity Demand (MW)	Total Electricity Supply(MW)	Total consumption (Lakh units per month)

Two power stations of 6.3 MW receiving station, Geeta Nagar (2km from town)	15	10	18.504

Source: *PDD Division Reasi, 2014*

Table 3-6: Electricity consumption characteristics - Reasi town (2013).

Type	Residential	Commercial	Industrial	Others	Total
No. of Electric Connections	1335	600	10	40	1985
Electric consumption (Lakh units per month)	8.10	3.15	4.554	2.7	18.504

Source: *PDD Division Reasi, 2014*

3.3.5.2 STREET LIGHTS

The provision of street light in Reasi town falls within the purview of MC Reasi. The provision in the town is made based on the budget expenditures on street lights in a particular year. 70% of the core town area is covered by street lights, while the remaining 30% area still requires wiring and new fittings. In case of the area outside the old town and civil lines, only 25% of the area of LPA is served by street lights. Further, there are abadi areas outside the Reasi MC which require provision of streetlights.

3.3.5.3 KEY ISSUES OF ELECTRICITY

1. Poor Maintenance of street lights.
2. Most of the rural settlements lack street lights.
3. Time duration for electricity supply is less, especially in rural areas.
4. Limited use of renewable sources of energy, like solar power, for power generation.

3.4 SOCIAL INFRASTRUCTURE

Social infrastructure refers to the facilities and the process involved, which ensures education, health facilities and community development in any town. It includes the education system, health care, social and cultural facilities, parks and open spaces, etc. The different components of social infrastructure will help assess how well a town is equipped with facilities. The provision of education, health, etc. defines the quality of life. As the town expands and population increases, the gap between demand and supply of these essential services increases, which deteriorates the quality of life in urban areas.

3.4.1 EDUCATION

Educational facilities play an important role in the overall development of a town. These facilities enhance economic growth and employment. Reasi LPA has been fortunate enough to have a large

number of educational institutes. Below table shows educational facilities within Reasi town and LPA where educational facilities are shown to be adequate.

Table 3-7: Educational Facilities - Reasi LPA and Town (2013).

S. No.	Name of Facility	Reasi	LPA	Total	Existing shortage
1.	Pre-Primary School	5		5	0
2.	Primary School	5	10	15	0
3.	Middle School	3	3	6	
4.	High School	2	3	5	
5.	Senior Secondary School	2	5	7	0
6.	B.Ed College	1	1	2	0
7.	Degree College	2	1	3	0
	Total	**20**	**23**	**53**	

Source: *District Education Officer, Reasi 2014*

3.4.1.1 SPATIAL DISTRIBUTION

The spatial distribution pattern of these educational facilities is uneven in the town. Moreover, these facilities are located on narrow roads/streets having mixed land use, which creates traffic bottlenecks at peak hours because of the on-street parking of vehicles. This is because these educational facilities do not have sufficient parking as well as other required facilities to the students.

3.4.1.2 KEY ISSUES OF EDUCATION FACILITIES

1. Traffic congestion and parking problem is caused by unplanned manner of locating and placing educational institutions, especially within congested areas.
2. Lack of adequate playgrounds, parking areas, etc. in the institutions located in the congested areas.

3.4.2 HEALTH AND MEDICAL FACILITIES

Municipal Committee of Reasi does not provide the health services. The same is being run by the J&K Department of health services. Table 3-8 shows the number of health facilities within the town showing that the health facilities are adequate in number in Reasi.

Table 3-8: Health Facilities - Reasi Town (2013).

S. No.	Particulars of health existing institution in Reasi town	Existing Nos.	Norms
1	Primary Health Centre	1	1 per 20,000 population
2	Primary Health Sub Centre	3	1 per 10,000 population

3	Multi-Specialty/ District Hospital	1	1 per 1,00,000 population

Source: *Chief Medical Officer Reasi, 2014*

3.4.2.1 SPATIAL DISTRIBUTION

Private sector in the town holds a larger share in creation of health infrastructure. Although there are government facilities in the town, it requires considerable up-gradation for providing the desired level of services to the people. Apart from this, number of hospitals and nursing homes in private sector has been in operation in residential areas without adequate facilities in terms of parking areas and quality health infrastructure.

3.4.3 KEY ISSUES OF SOCIAL INFRASTRUCTURE

1. Facilities distribution pattern is such that town fringe areas lack in the medical infrastructure.
2. Hospitals within the residential area create parking problems and landuse violations.
3. The main hospital has a congested access.
4. In rural areas, medical facilities are inadequate.

3.4.4 SPORTS AND RECREATIONAL

Recreational facilities are important for the physical and social development of an individual. Recreational facilities exist in the shape of parks, open spaces, stadiums, museums, sport related activities, clubs, libraries, amusement parks, etc. As per the table of existing landuse, the total area covered by this use is 4.3 ha (1.6% of MC area). In order to cater to the essential needs of the individuals and communities, these facilities need to be provided.

3.4.4.1 PARKS AND OPEN SPACES

Sullaha Park and Zanana Park are the two picnic spots or tourist destinations of Reasi town which cater to the large area and should be developed as the local tourist destinations for the town and nearby villages. There is no hierarchy in the parks and open spaces in the town.

Figure 3.8: Zanana Park - Reasi Town.

3.4.4.2 SPORTS

A mini-sports stadium exists in the town, near the bus stand which is used for various sports and other social activities.

Figure 3.9: Mini-Stadium – Reasi.

3.5 OTHER FACILITIES

3.5.1 POST AND TELEGRAPH

There is one post office in the town.

3.5.2 TELEPHONE EXCHANGES

Large number of private companies has emerged in the telecommunication sector due to privatization of this sector. Consequently demand for providing telephone exchanges has grown up. To cater to the communication needs of population, LPA Reasi has 1 govt. telephone exchange with a capacity of 500 lines. The town has about 800 telephone connections which also include STD/PCOs. Many private communication companies have a major share in the telecommunication sector of Reasi LPA.

3.6 POLICE FACILITIES

Reasi has 1 district police headquarters and 1 police station and sub-jail, all located within the town in order to maintain the law and order situation.

3.7 FIRE PREVENTION AND PROTECTION

Fire accidents have become a common day phenomenon, so to prevent & protect from fire it is necessary to provide essential services in the town. There is one fire station near Seela village and a second one in Jyotipuram which are adequate as per the URDPFI norms for their respective town areas. However, they are inadequate for the entire LPA in terms of the distance a fire truck needs to traverse.

3.7.1 KEY ISSUES OF OTHER FACILITIES

1. The fire station is not able to serve the entire LPA population in case of any disaster.
2. Fire trucks cannot enter narrow streets of old areas of town which are disaster prone areas.

3.8 HOUSING

The Census of India defines a 'Census House' as a building or a part of a building having a separate main entrance from the road, common courtyard or staircase etc., used or recognized as a separate unit. Hence, the 'Census house' has been taken as a unit for the study of housing component in Master Plan Reasi which not only includes residential component but also comprises other type of buildings like shops, offices, hospitals etc. However, main focus of the study is on the residential and other uses. Housing, in addition to making contribution to the quality of living, also plays a significant role in improving the national economy and generation of employment.

Housing has multiplier effect on the economy and industry of the country. It does not provide merely a shelter but gives an identity to the human being besides making him better human being. Poor quality of housing or absence of appropriate shelter has considerable impact on the economy and productivity of human beings besides health and social environment.

3.8.1 HOUSING STOCK

In the absence of availability of status of housing and congestion index, the gap in the MC area has been estimated on the basis difference in households (1,542) and occupied residential houses (1,245) from the Census of 2011. According to this, the existing housing shortage in the town is 297. It is also observed that the use of residential premises for other purposes like commercial and educational use is also widespread.

3.8.2 GROWTH OF HOUSING IN REASI

Housing is an activity, which is mainly driven by individuals to provide them with an appropriate shelter. With the rapid increase in population, number of houses has also recorded an increase. Housing Department Jammu & Kashmir has framed many residential schemes in case of major cities of Jammu, but in case of Reasi, there hasn't been much work in this sector.

3.8.3 SLUMS

Urban poverty has emerged as one of the major challenges faced by policy makers and urban planners in promoting the rational development of urban areas. Poverty refers to not only deprivation of vital goods but also includes services determining the quality of life. In fact, poverty amid plenty is the world's greatest challenge and slums represent this character in urban areas.

At present, 1,900 people (24.4%) live in the identified urban poor pockets in Reasi local area (IHSDP Report, 2005).

Table 3-9: Ward-Wise Urban Poor Housing Details - Reasi Town (2005).

Ward No.	Total Population	Total Slum Population	%age of Population
1	657	122	18.6%
2	1,035	325	31.4%
3	717	97	13.5%
4	735	114	15.5%
5	868	123	14.2%
6	474	160	33.8%
7	431	38	8.8%
8	314	27	8.6%
9	558	252	45.2%
10	588	167	28.4%
11	532	32	6.0%
12	502	114	22.7%
13	385	329	85.5%
Total	**7,796**	**1,900**	**24.4%**

Source: *IHSDP (2005)*

3.9 KEY ISSUES RELATED TO HOUSING

1. Lack of public housing or public housing schemes.
2. Unchecked growth of residential construction.

3. The core area of the town is overcrowded.
4. Lack of planned housing in the town.
5. 24.4% of population lives in slums.

3.10 SETTLEMENT HIERARCHY

A central place theoretically enjoys a centrality in a given area or region with respect to a variety of functions or service for its continuous surrounding areas. Central places are of varying size according to the centrality indices. A permanent settlement with certain central function discussed in the sequel, catering to the socio-economic needs of surrounding area may be treated as rural central place for the present purpose. The rural central places are prime important today as they function at the lower level of the central place hierarchy enjoying the location advantage of being in the midst of the rural society and thus may serve as agent of modernization in the present context of development policy and programmes.

3.10.1 LOCATION OF GROWTH CENTRES AND SERVICE CENTRES

Rural Service Centres are basically those villages, which provide vital social services to the rural population of the surrounding villages. Each centre provides developmental services to nearby villages. The centres were conceived as a bridge between the urban and rural universe to serve as development and diffusion centres. They will play a potential role in efficient service delivery and agricultural development. So, they will be the entry points for dynamism and growth in the rural area.

Centrality is the measure of important of a place in terms of its functional capacity to serve the needs of the people of the surrounding area. This can be expressed as qualitatively, such as low and high centrality, at the same time it can be expressed quantitatively by centrality score calculated by converting the functional base of a place into score. The centrality, however, depends upon the centrality function available at the place.

3.10.2 IDENTIFICATION OF RURAL SERVICE CENTRES

The following services have been taken for identification of Rural Service Centres:

Table 3-10: Services and parameters taken for identification of Rural Service Centres.

S. No.	Components	Parameters
1	Physical Infrastructure	Water Supply

		Sewerage System
		Drainage
		Solid Waste management
		Roads
		Electricity
2	Social Infrastructure	Primary School
		High School
		Secondary School
		B. Ed Colleges
		Degree Colleges
		Nursing Hone
		Dispensary
		Hospital
		Recreation Club
		Library
		Telephone Exchange
		Theatre
		Post Office
		Petrol Pump
		Cremation Ground
		Police Station
		Fire Station

3.10.3 CENTRAL PLACES

The central places have been identified by providing a centrality score to all the villages and their ranking has been done.

Table 3-11: Centrality Score and Ranking of Central Places of Reasi LPA.

S. No.	Place Name	Population	Centrality Index	Rank
1	Reasi (MC)	7796	374.08	1
2	Marhi (CT)	4392	374.08	1
3	Bidha	910	246.72	2
4	Trintha	511	138.38	3
5	Talwara (CT)	5125	115.75	4
6	Panasa	1951	74.09	5
7	Seela	2577	54.29	6
8	Aghar Balian	1151	46.72	7
9	Garan	755	46.72	7
10	Kans Brahmana	254	46.72	7
11	Vijaypur	792	30.05	8
12	Dosanoon	618	23.34	9
13	Sukitar	384	15.76	10
14	Patta	792	6.67	11
15	Duggala Kalan	2	6.67	11
16	Nambal	6	0	0
17	Duggala Khurd	0	0	0

Table 3-12: Scalogram - A Functional Matrix for Reasi Planning Area.

SCALOGRAM - A FUNCTIONAL MATRIX FOR REASI PLANNING AREA																													
Sl No.	Services/ Settlements	Population	Water Supply	Electricity	National Highway	State Highway	Other Major Road	Sewerage	Solid Waste Management	Drainage	Primary School	Middle School	Secondary School	B. Ed Colleges	Degree Colleges	Nursing Home/ Maternity	Dispensary	Hospital	Recreation Club	Library	Telephone Exchange	Theatre	Post Office	Petrol Pump	Cremation Ground	Police Station	Fire Station	Total No. of Functions	Total Centrality Index	Hierarchy of Settlements
1	Reasi (MC)	7796																										9	374.08	
2	Talwara (CT)	5125																										5	115.75	
3	Marhi (CT)	4392																										10	374.08	
4	Seela	2577																										3	54.29	
5	Panasa	1951																										4	74.09	
6	Aghar Balian	1151																										4	46.72	
7	Bidha	910																										6	246.72	
8	Vijaypur	792																										3	30.05	
9	Patta	792																										1	6.67	
10	Garan	755																										4	46.72	
11	Dosanoon	618																										2	23.34	
12	Tranth	511																										7	138.38	
13	Sukitar	384																										2	15.76	
14	Kans Brahmana	254																										4	46.72	
15	Nambal	6																											0	
16	Doglah Kalan	2																										1	6.67	
17	Dogalah Khurd	0																												
Total No. of Settlements with Services			3	3	1	1	7	0	0	0	15	11	4	0	2	2	1	1	0	3	6	0	3	0	0	0	3	**56**		
Total Weight			100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100			
Centrality Index			**33.33**	**33.33**	**100**	**100**	**14.29**	**0**	**0**	**0**	**6.67**	**9.09**	**25**	**0**	**50**	**50**	**100**	**100**	**0**	**33.33**	**16.67**	**0**	**33.33**	**0**	**0**	**0**	**33.33**			

Figure 3.10: Centrality Index by Simple Graph Method.

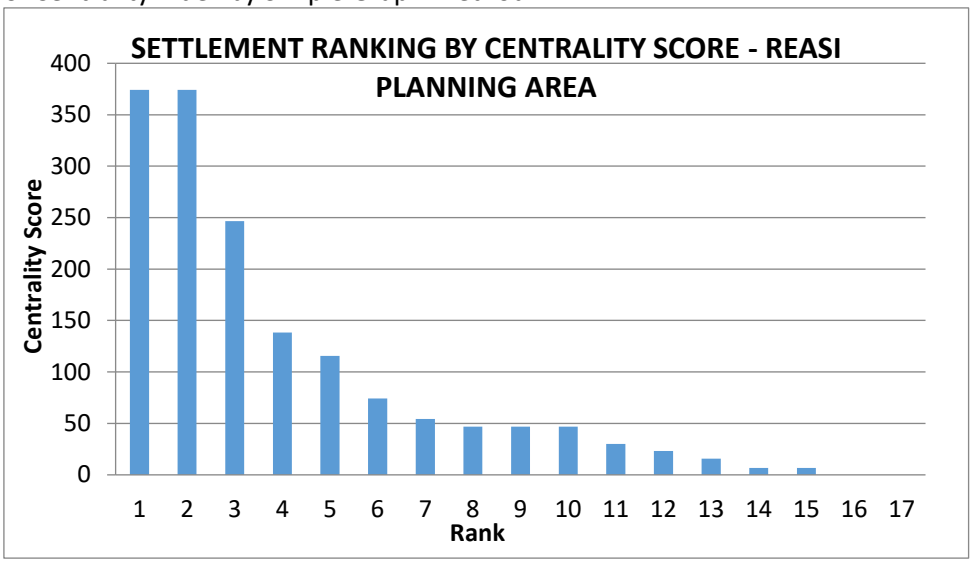
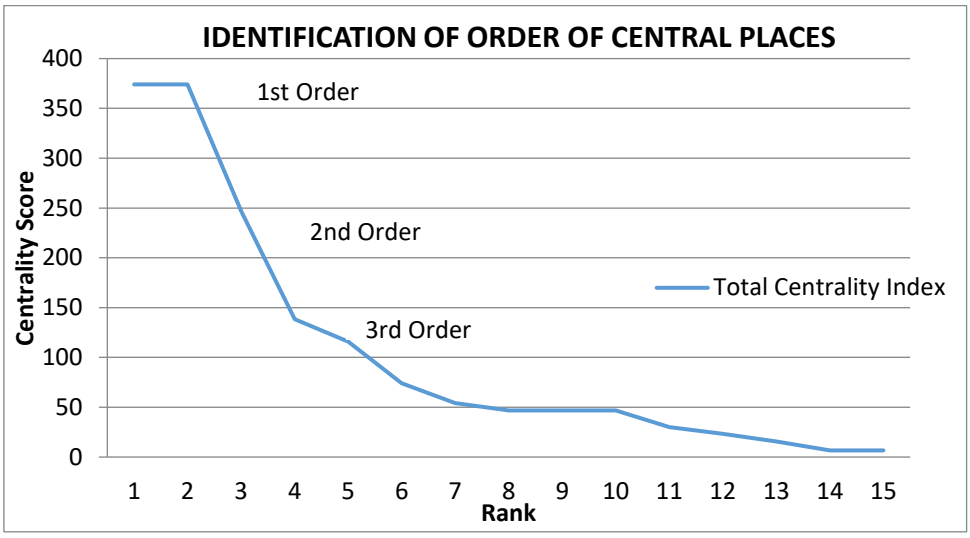


Figure 3.11: Identification of Order of Central Places in Reasi.



3.10.4 THE HIERARCHY OF SETTLEMENTS IN REASI LPA

There are a total of 17 settlements in Reasi. Based on the level of infrastructure facilities and services, the hierarchy of settlements has been prepared.

Table 3-13: Settlement Pattern.

S. No.	Centrality Index	Order of Settlements	Name of Settlements	Centres
1	< 300	1st Order	Reasi and Marhi	Regional
2	200-300	2nd Order	Bidha	Sub-Regional
3	100-200	3rd Order	Talwara and Tranth	Service Centre
4	< 100	4th Order	Panasa, Seela, Aghar Balian, Garan and Kans Brahmana	Central Villages/Markets

CHAPTER 4. TRAFFIC & TRANSPORTATION

Transport is the backbone of economy and social structure of any region. If urban centers have been recognized as engines of economic growth, traffic and transportation has rightly been termed as wheels of such engines.

The road network has been studied in terms of classification of roads, length of roads, cross section of roads (divided and undivided carriageways), area under major existing roads and major road intersections. Available data regarding rail network has also been studied.

4.1 ROAD NETWORK AT LPA LEVEL

Reasi is well connected to the other important towns and cities of the State by National Highway (NH-144) which is running from the south-western part of the LPA. The local roads are are also there for the internal flow of traffic as these interconnect the major/prominent areas of work, business and residential areas. The characteristics and hierarchy of the main roads are mentioned below:

Table 4-1: Road Characteristics of Main Roads – Reasi LPA (2014).

S. No.	Hierarchy	Name of Road	Right of Way (Feet)	Building Line from the Centre of the Road (Feet)	Length of Road (km)
1	National Highway	Katra - Pouni Road (NH- 144)	80	50	11.40
2	Other District Road	Reasi - Dharmari Road via Jyotipuram	80	50	9.48
3	Other District Road	Reasi - Seela Road (from Fort Chowk to Bari Dhari Bridge)	50	40	3.38
4	Other District Road	Nai Basti – Jyotipuram Road via Degree College	50	40	4.01
5	Internal Road	Nai Basti – Vijaypur Loop Road	50	40	4.07
6	Internal Road	Nai Basti – Industrial Area Road via Trintha	50	40	2.54
7	Internal Road	Aghar Balian – Vijaypur Road	50	40	1.43
8	Internal Road	Gran Mod – Railway Station Road	50	40	2.69

Source: *R & B Reasi and GREF Reasi (2015)*

4.1.1 GROWTH OF VEHICLES

The number of vehicles has increased on an average growth rate of 32.8% per annum. Two-wheelers and three-wheelers occupy a combined share of 72.9% (2011-12) as shown in Figure 4.2. They also show an impressive average growth rate of 45% and 39.7% respectively (refer Table 4-2).

Table 4-2: Yearly Trend of Vehicles – Reasi (2007-08 to 2010-11).

S. No.	Type of Vehicle	2007-08	2008-09	2009-10	2010-11
1	Buses	2	4	5	7
2	Mini Buses	20	38	33	86
3	Car/Station Wagon	117	194	119	153

4	Taxies/Tata Sumo	92	132	165	183
5	Jeeps	39	9	6	16
6	3 Wheelers	174	138	103	273
7	2 Wheelers	380	496	806	1145
8	Ambulances	3	3	6	8
9	Others	19	8	1	74
	Total	**846**	**1,022**	**1,243**	**1,945**

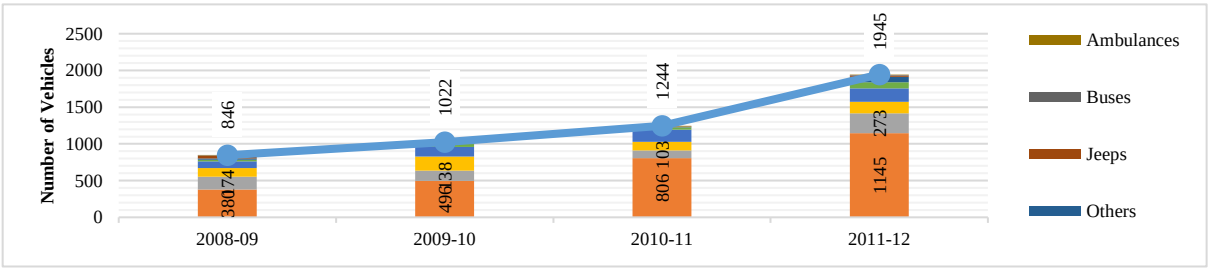
Source: *Assistant Regional Transport Officer (ARTO), 2014*

Table 4-3: Yearly trend of vehicle growth - Reasi (2007-08 to 2010-11).

S. No.	Type of Vehicle	2007-08 to 2008-09	2008-09 to 2009-10	2009-10 to 2010-11	Average Growth
1	Total	20.8%	23.6%	54.0%	32.8%
2	2 Wheelers	30.5%	62.5%	42.1%	45.0%
3	3 Wheelers	-20.7%	-25.4%	165.0%	39.7%
4	Car/Station Wagons	65.8%	-38.7%	28.6%	18.6%
5	Taxies / Tata Sumo	43.5%	25.0%	10.9%	26.5%
6	Mini Buses	90.0%	-13.2%	160.6%	79.1%
7	Others	-57.9%	150.0%	270.0%	120.7%
8	Jeeps	-76.9%	-33.3%	166.7%	18.8%
9	Buses	100.0%	25.0%	40.0%	55.0%
10	Ambulances	0.0%	100.0%	33.3%	44.4%

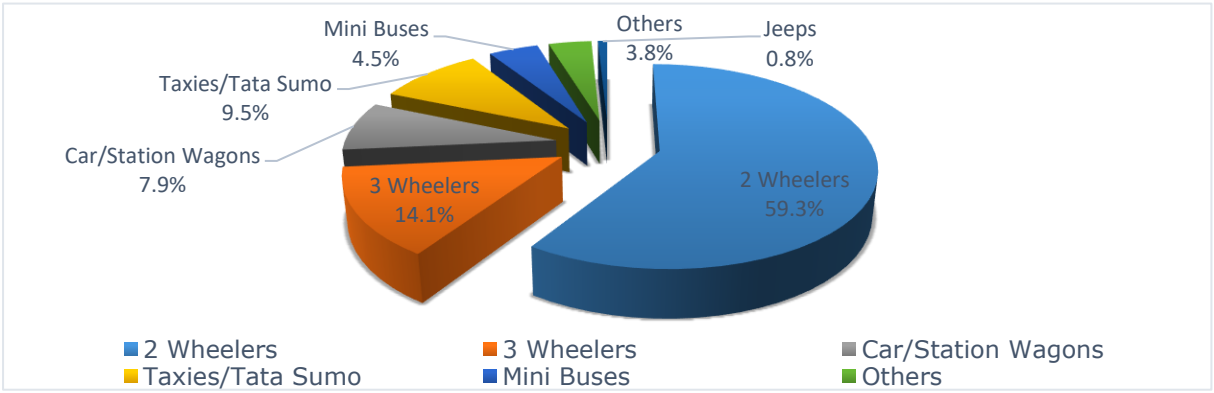
Source: *Assistant Regional Transport Officer (ARTO), 2014*

Figure 4.1: Yearly Trend of vehicles by Type – Reasi (2007-08 to 2010-11).



Source: *Assistant Regional Transport Officer (ARTO), 2014*

Figure 4.2: Distribution of vehicles by type - Reasi (2011-12).



Source: *Assistant Regional Transport Officer (ARTO), 2014*

4.1.2 ROAD ACCIDENTS

The unprecedented growth of vehicles coupled with the large number of accidents may be seen in Table 4-4 below:

Table 4-4: Yearly Trend of Accident Reports - Reasi (2006-2010).

S. No.	Year	Accidents on Major Roads			
		Serious accidents	Normal Accidents	No. of Dead Persons	No. of Injured Persons
1	2006	2	2	1	4
2	2007	4	4	1	1
3	2008	5	5	2	5
4	2009	4	4	1	4
5	2010	4	6	0	2

Source: *SSP Reasi, 2012*

The trend shows an increase of registered accident cases from 2006 to 2013. An average of 10% of total accidents results in fatalities. The causes of accidents (other than negligence of drivers) are the blind curves, lack of signals/traffic lights/ road markings, encroachment reducing effective road width, poor road condition or poor road geometry, all of which require improvements.

4.2 PARKING FACILITIES

On-road parking is playing havoc with the traffic. Parking lots have to be provided at strategic locations and all the roads to be made free from road side parking which is occupying 30 to 40% effective road width. Hence, there is a need of organized parking lots in the town of Reasi.

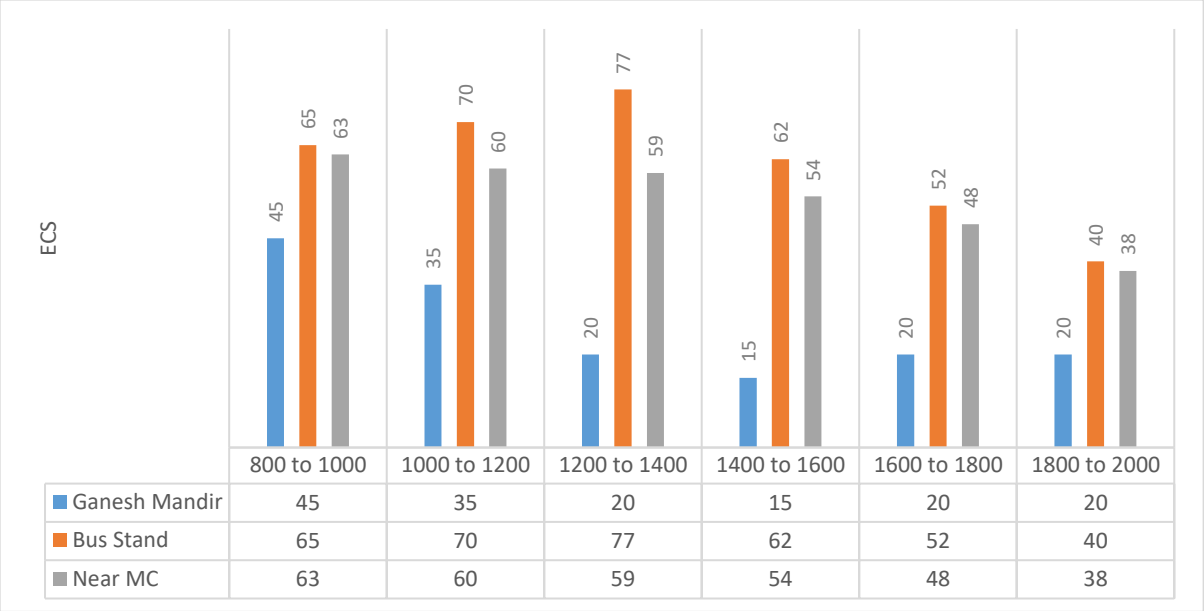
The calculation has been done on the basis of ECS per hour. All these locations have unorganized on-street parking.

Insufficient availability of parking spaces is a major problem, being faced by the residents of Reasi. As number of vehicles has increased manifold, there has not been corresponding rise in number of public parking lots.

Major problematic areas in terms of parking facilities are as under:

1. Parking near Ganesh Mandir and District Hospital.
2. Parking for various types of vehicles along the roads of court complex and municipal complex, near the bus stand.

Figure 4.3: On-Street Parking - Reasi Town, (March, 2014).



Source: *Traffic Survey (2014)*

Table 4-5: Parking Details at Various Locations – Reasi Town (March, 2014).

Location	Parking peak time	Maximum ECS	Type of shortage of parking
Near Bus Stand	8:00 PM – 8:00 PM	80	Parking in commercial area within bus stand
Near Municipal Complex	8:00 AM- 8:00 PM	70	Parking near bus stand. Problematic for exit & entrance of bus stand
Ganesh Mandir Chowk	8:00- AM- 8:00 PM	40-50	Parking due to the hospital and Ganesh Mandir and commercial area

Source: *Traffic Survey (2014)*

4.2.1 PARKING IN OLD TOWN

There are unfulfilled requirements for parking. Wholesale fruit and vegetable markets, godowns, etc. create severe traffic problems because of negligible parking space. It gets worse by the presence of mixed modes of transport such as three wheelers, tempos, rickshaws, rehri, etc.

Figure 4.4: Narrow and Congested Streets of Old Town – Reasi.

4.2.2 PARKING IN RESIDENTIAL COLONIES

Residential colonies need more and organized parking. Lack of proper parking spaces has led to parking on the roadsides. This has reduced the effective road width which hampers the free flow of traffic and causes traffic problems.

4.2.3 PARKING ALONG COMMERCIAL STREETS

Mushrooming of informal commercial activities on road-front without the provision of adequate parking is another major traffic problem in certain pockets of Reasi town.

Encroachment along both sides of the roads by the shopkeepers reduces the effective road width and restricts the free flow of traffic in Central Business District. Roadside parking of cars, auto rickshaws especially near bus stand and railway station further reduces the road width.

Figure 4.5: On-Street Parking along Commercial Roads – Reasi Town (2014).

4.2.4 PARKING IN INSTITUTIONAL AREAS

Most of the private schools have inadequate parking facilities that lead to traffic congestion, especially during peak hours.

Figure 4.6: On-Street Parking at DIET - Reasi Town (2014).

4.2.5 PARKING NEAR TRANSPORT TERMINALS

No organized parking space for auto rickshaws has been provided near the bus stand because of which autos and taxis are parked along the main road, thereby reducing the effective road width to a considerable extent and causing congestion in front of the bus stand.

4.3 TERMINAL FACILITIES

4.3.1 INTER-STATE BUS TERMINUS

Existing bus terminal in Reasi is located near play field in the core area of town. The area of this bus terminal is 0.32 ha which is inadequate. It has a capacity to accommodate only about 70-80 buses per day but the existing buses departing from Reasi bus stand are at least 90 per day. So this bus terminal has become over-crowded and traffic often comes to a standstill during peak hours. This bus terminal is no longer sufficient to cater for the increasing requirements of Reasi planning area, regional population and tourists.

Figure 4.7: Reasi Bus Stand - Reasi (2016).

There is no scope for expanding the existing bus stand due to the non-availability of land. So, there is an urgent need to shift the location (along with requisite parking) of the bus stand to cater to the existing and future requirements of Reasi planning area.

4.3.2 BUS ROUTES AND INTERCITY BUS SERVICES

The daily bus traffic of Reasi, reveals that 70 buses operate daily from Reasi town. It also includes buses owned by private transporters. 140 mini & local buses are operated from Reasi mini-bus stands and facilitates public transit within the Town and the adjoining villages and small towns. Nearly 7000 Passengers use buses daily as a mode of transport.

Table 4-6: Bus Route Details - Reasi (2015).

Location	Name of Route	Average Daily Buses

From Main Bus Stand	Katra, Jammu	30
	Talwara	10
	Pouni	5
	Shiv Khori	10
	Jyotipuram, Bidda	5
	Within town	10
	Total	**70**

Source: *Field Study (2015)*

4.3.3 RAIL BASED TRANSPORT

Reasi town is presently not directly connected with railway network, but it is expected that the Reasi rail link will get established very shortly as construction is underway.

4.4 KEY ISSUES OF TRAFFIC & TRANSPORTATION

1. Increased number of registered vehicles in Reasi has directly impacted the road jams and accident cases. Most of these are private rather than being public ones.
2. The entry of private vehicles and four wheelers inside the market creates a lot of congestion on the roads. No parking provisions have been given outside of the market.
3. The width of most of the roads may not be sufficient for catering to the volume of traffic for the next 20-30 years, keeping in view the existing trend of encroachment.
4. Existing bus stand is not sufficient and there is no scope of expansion.
5. Poor geometry of road junctions needs engineering improvements.
6. Ribbon development along roads reducing the road width of major roads.

CHAPTER 5. POPULATION PROJECTIONS AND REQUIREMENTS

Norms and standards are the backbones for preparation of Master Plans and provide a basis for taking decisions for urban development. The suggested norms and standards are indicative and can be suitably modified depending upon the local conditions. Norms and standards have been provided by the URDPFI guidelines along with variations owing to size of towns and hilly character (if any).

5.1 PROJECTION AND POTENTIAL DEMAND ANALYSIS

After detailed analysis of land use and other socio economic data of Reasi, which includes local planning area including municipality area of Reasi, the next step is to project for the future population up to the year 2035. Population projections are a very important factor for the development of any area and also the basis for working out the future land use and infrastructure requirements for the local planning area.

Projections and requirements are calculated on the basis of some assumptions. These calculations are done keeping in mind the methodology. To arrive at a conclusive projection figure, three methods of population projections are used for the city as well as the whole LPA:

1. **Arithmetic Progression Method**
2. **Geometric Progression Method**
3. **Incremental Increase Method**

Table 5-1: Population Projection of Reasi (Urban and LPA) as per projection methods.

Years	Methods	Projected Population		
		Reasi Town	Urban Villages	L.P.A.
2021	Arithmetic Method	8,965	21,993	30,958
2035		10,133	24447	34,580
2021	Geometric Method	9,341	23192	31,850
2035		11,191	27528	39,219
2021	Incremental Increase Method	9,092	22,758	31,189
2035		10,516	26741	37,019

Keeping in view the projections through the above methods, we assume that the population in the town and its vicinity would grow in a manner shown by the table below:

Table 5-2: Assumed Population Projection of Reasi for 2035 (Urban and LPA).

Area	Population	Growth Rate %	Population	Growth Rate %	Population	Growth Rate %	Population	Growth Rate %	Population
Year	**2001**		**2011**		**2021**		**2031**		**2035**
Urban	5724	36.20	7796	35	10525	30	13682	12	15324
Rural	15447	26.49	19539	25	24424	20	29309	8	31653
Total	21171	29.12	27335	27.85	34948	23.01	42990	9.27	46977

Source: *NF Infratech Service Pvt. Ltd.*

During the last decade, i.e., 2001-2011, Reasi was given the status of a district, which caused a sudden increase in population. The growth rates for the coming decades are expected to be slightly lesser than the previous one, thus the future planning for the preparation of Reasi Master Plan is taken by assuming that the population of the urban area shall rise to about 15,324 and total LPA (including Reasi urban and villages) to 46,977 by the year 2035.

5.2 COMMERCIAL PROJECTIONS

The existing commercial area in Reasi LPA is 9 ha which is sufficient as per the URDPFI guidelines.

Table 5-3: Norms for Commercial Centres.

Category	Area per 1000 persons (sqm)	Area Required (Ha)	No. of Shops	Required No. of Shops
Convenience Shopping	220	1.03	1 for 110 persons	427
Local Shopping including Service Centre	300	1.41	1 for 200 persons	235
Community Centre with Service Centre	500	2.35	1 for 200 persons	235
District Centre	880	4.13	1 for 300 persons	157
Total		**8.92**		**1054**

Source: *URDPFI Guidelines*

5.3 WORKFORCE PROJECTIONS

The workforce projections have been made for Reasi MC based on Census 2011 data. To estimate category wise employment for the year 2035, it has been assumed that the employment pattern of Reasi town will be slightly changed with the pace of urbanization. The category wise employment data for 2011 and employment forecast for Reasi Urban up to the year 2035 is given below:

Table 5-4: Comparison of Projected Workforce by Category – Reasi Urban.

Type of workers	2011	%age of workforce	2021		2035	
			Assumed %age of Workforce	Workers	Assumed %age of Workforce	Assumed %age of Workforce
Cultivators	62	2.57	7	243	6	303
Agriculture Workers	126	5.23	2	69	2	101
Household Industrial Workers	77	3.20	4	139	4	202
Secondary And Tertiary	2,145	89.00	87	3,022	88	4,450
Total	**2,410**	**100**	**100**	**3,473**	**100**	**5,057**

5.3.1 INDUSTRIAL WORKFORCE

Out of the total workforce projection of 5,057 persons, about 1,000 persons should be employed as industrial workers according to URDPFI (20% of total workers). Accordingly, there is a requirement of an industrial area of 15 ha.

5.4 TERMINAL FACILITIES

Area of the existing bus stand is not adequate to accommodate the present requirement. Also, its inner town location creates traffic congestion. Therefore, a new site of bus terminal of area is required. The projected area for the new bus terminal is estimated to be 1.80 ha.

5.5 INFRASTRUCTURE DEMAND

Infrastructure is the basic requirement of urban life and its adequacy and accessibility are two important ingredients and key contributors in the up-gradation and enrichment of quality urban life. Infrastructure is divided into two parts viz. Physical Infrastructure & Social Infrastructure.

The infrastructure demand has been worked out for each aspect on the basis of the projected population of 46,977 people in the LPA and 15,324 people in the municipal area by 2035 in accordance with the standards given in URDPFI.

5.5.1 PHYSICAL INFRASTRUCTURE

Physical Infrastructure includes water supply, sewerage, drainage, solid waste disposal, electricity, transportation, etc. The physical infrastructure requirements for 2035 have been discussed below:

5.5.1.1 WATER SUPPLY AND SEWERAGE

Table 5-5: Requirement for Water Supply and Sewerage - Reasi Urban & LPA (2035).

			Water Supply		Sewerage
S. No.	**Area**	**Population (2035)**	**Requirement (LPCD)**	**Requirement (MLD)**	**Requirement (80% of water required in MLD)**
1	Urban	15,324	135	2.07	1.65
2	Villages	31,653	135	4.27	3.42
3	LPA	**46,977**	**135**	**6.34**	**5.07**

135 LPCD has been taken on the basis of URDPFI norms for domestic and commercial purposes. Using this, a water requirement of 2.07 MLD and a sewerage requirement of 1.65 MLD have been projected for the horizon year 2035 within the town while a water requirement of 6.34 MLD and a sewerage requirement of 5.07 MLD have been projected for the LPA.

5.5.1.2 SOLID WASTE

The production of solid waste is considered as an important function of the socio-economic profile of the population and activities in urban area. According to URDPFI Guidelines, the generation of waste varies from about over a quarter kilogram in small town to about half a kilogram per capita in large and metro cities. In Reasi, which falls in the category of small towns, the waste generation is projected

at a quarter of kilograms per capita per day which comes to 3.8 tonnes per day for the Reasi town and 11.74 tonnes per day for the LPA by the year 2035.

Presently, the MC collects 0.9 out of the 1.9 tonnes of waste generated per day in the town. A gap of 1.0 tonnes for the present and another 1.9 tonnes for 2035 needs to be planned in order to ensure 100% garbage collection and disposal targets as set by the service level benchmarks by Ministry of Urban Development, Government of India. Landfill sites are also needed to be identified at LPA level.

5.5.1.3 POWER

Average consumption at 2KW per household would be adequate at the town level for domestic, commercial, industrial and other requirements. Table 5-6 shows a power requirement of 6.06 MW for the urban & 17.89 MW for LPA area by 2035.

Table 5-6: Projected Electricity Demand - Reasi LPA (2035).

Year	Total No. of Households		Power Requirement (MW)	
	LPA	Urban	LPA	Urban
2011	5,204	1,542	10.41	3.08
2035	8,943	3,031	17.89	6.06

No further need of electric sub-stations is projected by 2035. However, with regard to the High-Tension line, a buffer of 8 m needs to be earmarked on both the sides of the HT Line for no developmental activity.

5.5.2 SOCIAL INFRASTRUCTURE AND PUBLIC SERVICES

Social infrastructure includes facilities for education, health, police, fire protection, recreation, etc.

5.5.2.1 EDUCATION

The education sector caters to the young age group of the population and the projections made are based on the norms and standards given in URDPFI guidelines, just like the norms of different aspects of physical infrastructure. For social infrastructure, requirements of Reasi town and villages have been calculated together.

Table 5-7: Requirement of Educational Facilities – Reasi LPA (2035).

S. No.	Name of Facility	Reasi	Norms	Existing Shortage	Additionally Required for 2035
1	Primary School	15	1 for 4000	0	0
2	Middle School	6	1 for 15000	0	0
3	High School	5		0	0
4	Secondary School	7		0	0
5	B.Ed. College	2	1 for 30000	0	0
6	Degree College	3		0	0

All the existing educational facilities are sufficient as per the availability in terms of demand. The Vocational Educational Centres including Technical College needs to be promoted in the LPA area.

5.5.2.2 HEALTH CARE

The World Health Organization (WHO) defines health as a state of complete physical, mental and social wellbeing. The objective is to attain the same for the entire population of Reasi. The objective of the National Health Policy is to achieve an acceptable standard of good health amongst the general population of the country by increasing access to the decentralized public health system and by establishing and upgrading infrastructure in deficient areas. The state government must follow the national level policy for development of health infrastructure in the planning area.

Table 5-8: Requirement of Medical Facilities – Reasi LPA (2035).

Particulars	Standards	Requirement	Existing	Backlog	Area Required (ha)
Nursing Home / Maternity Centre	1 for 15,000	3	0	3	0.225
Dispensary	1 for 15,000	3	0	3	0.36
Primary Health Centre	1 for 20,000	2	1	1	0.21
Total		**4**	**0**	**4**	**0.795**

The Master Plan identifies wide gap between demand and supply in terms of health facilities especially in bed capacity and proposes that the gap between supply and demand shall be made up by regular augmentation in a planned manner during the plan period of 20-years as per the standard of 16 beds / 10,000 population.

1. There will be a need of 3 nursing homes cum Maternity Centres of 30 beds capacity, 3 dispensaries and 2 primary health centres by the end of the planning period.
2. One Sub-District Hospital exists in municipality and another is under construction in Marhi village, thus there may not be any need for additional requirement.

5.5.2.3 SOCIO-CULTURAL FACILITIES

All the facilities provided to meet those fundamental needs, which are beyond the capacity of individual households, are referred as community facilities. The facilities are distinguished from utilities and services like water supply as each of them may not necessarily be enjoyed by every member of the household.

Table 5-9: Requirement of Socio-Cultural Facilities – Reasi LPA (2035).

Type of Facility	Existing Number	URDPFI Guidelines (Population/Unit)	Future Requirement		Area Required (ha)
			2021	2035	
Recreational Club	0	1,00,000	0	1	1
Library	0	15,000	2	1	0.60
Telephone Exchange	1	50,000	0	0	0
Post Office	1	50,000	0	0	0
Cremation & Burial Grounds	3	10,000	According to local conditions		
Police Station	1	90,000	0	0	0
Fire Station	1	50,000	0	0	0

Religious Sites	-	10,000	0	0	0
Total					**1.60**

1. There is requirement of 3 libraries in the LPA as per the projected population of 2035.
2. Presently, there is no facility of community rooms in the town. One recreational club centre would be required for the population projected for 2035.
3. Fire station is adequate in terms of numbers but inadequate in terms of coverage. A single fire station cannot respond quickly to the needs of the entire LPA population.

5.5.2.4 RECREATIONAL & SPORTS FACILITIES

The recreational facilities play a very crucial role in the development of the people and further to the town growth. There is a need to provide emphasis in developing such facilities in Reasi town. The present land allocation for the recreational facilities is very low in comparison of the growth of the town. There is a great need to provide more gardens, parks, and playgrounds in the town. It is mentioned here that the provision of public spaces in the town play a very important role in terms of socio cultural activities in the region.

Table 5-10: Requirement of Recreational Facilities – Reasi Town (2035).

S. No.	Type of Facility	Standards with Minimum Area Requirement	Existing Area (Ha)	Required Area (Ha)	Additional Area Required (Ha)
1	Housing Area Park	1/5000 persons (0.5 Ha)	1	4.50	**15**
2	Neighborhood Park	1/10000 persons (1.2 Ha)	4.30	4.80	
3	Exhibition Ground/Play Ground	For entire town at 1 or more sites depending upon design & space availability	2.15	4.15	
4	Residential Unit Play Area	1/5000 persons (0.5 Ha)	-	4.50	
5	Neighborhood Play Area	1/15000 persons (1.5 Ha)	-	4.50	
		Total	**7.45**	**22.45**	

The norm of URDPFI states that 1 to 1.2 ha of area for 1000 persons for recreational facilities is required at town level. So, about 57 ha area is required to be developed for recreational facilities.

5.6 HOUSING STOCK

Table 5-11: Housing Stock Existing and Projected Demand - Reasi LPA & Urban.

Year	Population		No. of Households		No. of Houses		Shortage	
	LPA	Urban	LPA	Urban	LPA	Urban	LPA	Urban
2011	27,335	7,796	5,204	1,542	4,907	1,245	297	297
2035	46,977	15,324	8,943	3,031	8,943	3,031	4,036	1,786

Note: The houses in the villages were counted and no population was found homeless, therefore, no shortage of houses in the villages for 2011.

5.7 LAND REQUIREMENT

The land requirement for the projected population is estimated, considering the density of 52 persons per hectare. As per the URDPFI guidelines the town falls in the category of small town. The following table depicts the detail of land requirement.

Table 5-12: Land Requirement - Reasi LPA.

S. No.	Description	Figures
1	Projected population for Reasi LPA for 2035	46,977
2	Existing population for Reasi LPA as per Census 2011	27,335
3	Additional Population	19,642
4	Existing LPA Developed Area Density (persons per hectare)	82
5	Already developed land under LPA (Hectares)	335
6	Proposed developed area density as per URDPFI for small towns in hill area (persons per hectare)	52
7	Additional land required (Hectares)	568

5.8 CONCLUSION

The following broad strategies for development and implementation of social infrastructure are adopted:

1. The existing facilities should be continued irrespective of their meeting required planning standards.
2. For the existing facilities which may need expansion, necessary land should be provided, wherever possible.
3. Social amenities are generally provided to take care of the needs of the projected population of 20 years as per the guidelines of URDPFI. There is a need to upgrade the existing facilities or additional spaces have to be earmarked for fulfilling the gap in terms of provision of educational, health and other facilities and services.
4. New provisions have been made in the DC Regulations to pool the areas for the public purpose for the lands to be brought into development.

5.9 SWOT ANALYSIS

Hilly terrain provides a mix of opportunities and threats, strengths and weaknesses. A careful look at possible strengths and opportunities besides existing and potential thresholds available in the area has been made to evolve the most optimal development scenario for Reasi.

5.9.1 STRENGTHS

1. River Chenab and hills provide the natural boundaries to the district.
2. Adequate natural resources like forest, water, etc. is available
3. Reasi is an important growth centre for surrounding villages because of its strategic location.
4. Reasi is a District Headquarter.
5. Proximity to religious centres of Shiv Khori and Katra.

5.9.2 WEAKNESSES

1. Inadequate physical and social infrastructure.
2. Hilly terrain becomes barrier to urban development.
3. Town growth largely marked by haphazard, unplanned and unauthorized growth leading to uneconomical use of land with remarkable loss of good land.
4. Poor road geometry and inadequate capacity of existing road network.
5. Absence of tourism related quality infrastructure.
6. Lack of awareness on conserving and preserving the valuable heritage.

5.9.3 OPPORTUNITIES

1. Forest, minerals and prime agriculture land can become economic resources of the region.
2. Town is surrounded by water bodies on all sides which can be used as a water resource.
3. Linking to railway network in the future can drive economic activity.

5.9.4 THREATS

1. Natural hazards pose a threat to life and property.
2. Earthquake threat as the town falls in zone IV.
3. Present scenario of commercial development along major roads will create more parking problems.
4. Delay in placing appropriate framework for proper preservation and conservation of valuable natural heritage.

5.10 VISION 2035

For the Master Plan, it is necessary to formulate a long term (2035) vision for Reasi town that takes into account the present strengths, opportunities, weaknesses (limitations) and threats (SWOT). For visualizing the growth and development of Reasi town, care has been taken to include the related requirement along with needs and aspirations of the people.

“A typical District Headquarter and hilly terrain with enough space and ecological vibrancies by exploiting its natural boundaries such as Chenab, and by developing water sports, eco-tourism and other tourist circuits such as Shiv Khori, Katra, etc. and by developing Zorawar Fort as a heritage site”.

5.11 DEVELOPMENT OBJECTIVES

The development objective of the Master Plan is to create enabling spatial and land use planning frameworks to achieve the vision of LPA Reasi. The long term vision and the mission statements would require spatial land use planning, infrastructure planning, planning of transportation, effective management and operation of infrastructure services, and regulating and enforcing plan proposals. Specific objectives are as under:

1. To promote compact development of the area by minimizing disturbance to eco-sensitive areas like forests and hill slopes.
2. To minimize haphazard, unplanned and sub-standard growth of the town and to achieve planned growth by creating healthy environment.
3. To effectively manage the traffic and transportation within the town through the mechanism of rationalizing the land use pattern defined in the Master Plan.
4. To make land available for public purposes.
5. To identify manmade architectural and natural heritage and to make heritage conservation as an integral part of the city planning and development process.

5.12 CONCEPT AND ALTERNATIVES FOR THE PREPARATION OF REASI MASTER PLAN- 2035

It is a preliminary plan which gives the schedule of requirements, general approach and alternate concepts and solutions for the consideration of the client and his comments, suggestions and choice of preferred alternatives for the detailing.

On the basis of existing trend of development and studies conducted by the NF Infratech Services Pvt. Ltd., it is observed that the development activities around Reasi are concentrated along main roads passing through the town besides the area falling in the vicinity of existing developed area of the town.

5.13 SELECTION OF MOST OPTIMAL DEVELOPMENT SCENARIO FOR THE TOWN

After studying the existing development pattern of LPA Reasi, we find that it is in the form of triangle, bounded by Chenab in one direction, Anji Nallah in second direction, and Katra road in the third direction. Due to the slopes and restricted areas like forest and defense in the north, flat land is available between the all these features which is narrow in the north and widened in the south.

1. Residential area to be proposed and distributed within the whole LPA area.
2. Commercial area will be proposed and distributed in the whole LPA.
3. A bus stand has been proposed in the northern part to provide maximum advantages to the town residents as well as to periphery residents.
4. Medical and health facilities will be proposed near new district hospital.
5. The socio-cultural facilities like exhibition grounds, sports ground, club, etc. are proposed to be developed in the central part to provide easy access to all corners of the LPA.
6. Conservation of nallah and streams of Reasi local area would be done. These nallahs should be conserved against the onslaught of development and other uses.

7. River Front would be proposed along Chenab River.
8. Outskirts are proposed to be kept as agricultural lands and to be reserved for the future expansion of the town.

CHAPTER 6. PLANNING & DEVELOPMENT PROPOSALS

Looking critically at the existing morphology of urban settlements and in-depth studies made and detailed analysis carried out in terms of physical, socio-economic and demographical profile of the planning area, it appears logical and rational that spatial planning framework for the future growth and development of the Reasi LPA should be defined in order to ensure the integrated growth of entire planning area and to launch Reasi and other settlements on the path of fast trajectory of growth and development. (Refer Proposed Landuse Plan 2035).

6.1 PROPOSED ZONE DEVELOPMENT

Accordingly, Reasi LPA covering an area of 4,643 hectares has been visualized in the four different Zones that are described in detail below:

1. Zone I: Area enclosed by core area (dense residential area).
2. Zone II: Area enclosed by MC boundary.
3. Zone III: Area outside MC limit and up to the urbanisable limit.
4. Zone IV: Agricultural/Rural Area/Defence/Forest Outskirt.

Table 6-1: Area distribution among proposed Zones - Reasi LPA.

S. No.	Area (Ha)	%age of LPA
Zone 1	55	1.18%
Zone 2	206	4.44%
Zone 3	741	15.96%
Zone 4	3,641	78.42%
LPA	**4,643.0**	**100.0%**

6.1.1 ZONE I: AREA ENCLOSED BY CORE AREA (DENSE RESIDENTIAL AREA)

The Zone has a total area of 55 hectares, which constitutes merely 1.18% of the area of the Reasi LPA. It constitutes approximately 32% of the population of the town. It has a gross residential density of 88 pph and covers wards 4, 5, 7, 8, 10 and 11.

However, this Zone has a unique quality of growth and development. Zone I has been considered as the first Zone of the entire planning area, being its heart and soul. Considering the core residential nature of the area due to the dense residential settlements, narrow streets and specialized markets, the zone is proposed for preservation, conservation and up-gradation of infrastructure in order to make it a core area of the town. It should be developed to preserve the existing rich character. Accordingly, following strategies are proposed for the first planning Zone of Reasi:

1. To preserve, enhance and promote the basic characters of the old town.
2. To promote, preserve, enhance and augment the bazaar culture (Inner core commercial shops and other retail shops).
3. An Ideal Parking for Passenger Vehicle has been proposed of area of 1.28 Hectares in order to have parking for Passenger Vehicles available.

In order to protect and enhance the existing characters of core area, it is proposed to prepare detailed guidelines for the first planning Zone, for which following strategies shall be involved:

1. Prohibiting the change of land use and sub-division of land within the core area.
2. Framing exclusive development control regulation for the special core area.
3. Using different controls in terms of:
    a. Floor Area Ratio
    b. Height Controls
    c. Land Use Control
    d. Setbacks/Projections
    e. Facade Control
    f. Material Control

Based on the above parameters, detailed strategies for the development of the special core area shall be prepared.

6.1.2 ZONE II: AREA ENCLOSED BY MUNICIPAL LIMIT OF REASI

The area enclosed by the municipal limit but outside the first planning Zone has been defined as the second Zone of the Master Plan. This Zone comprises an area of 206 hectares and consists of the remaining 68% of population of the town within the wards numbered 1, 2, 3, 6, 9, 12 and 13. It has a gross residential density of 51 pph. It is the Zone which has the major transportation linkages.

The projected population of 15,324 having an additional population of 7,528 persons will be accommodated in this area. The majority of the development is unplanned and the commercial areas along major roads have been developed without parking spaces. A number of educational and institutional buildings also exist in this Zone.
Therefore, in order to preserve the basic character, the following strategies are proposed:

1. To minimize the conversion of land use.
2. To minimize the sub-division of land.
3. To regulate the future growth and development of the area.
4. To provide parks and other recreational services.
5. To develop the area for residential growth along with support services.
6. To improve quality of life by providing quality physical and social infrastructure.

6.1.3 ZONE III: AREA OUTSIDE MC LIMIT AND UP TO THE URBANISABLE LIMIT

This Zone includes the area outside the MC limit and up to the Chenab River on the western side and Reasi-Jyotipuram road on the eastern side which defines the outer limit of the urbanisable limit of the Master Plan, Reasi. The Zone constitutes an area of 741 ha and consists fully of the village of Seela and partially the villages of Garan, Vijaypur and Nambal. This area is agricultural in character dotted with rural settlements. It also has sporadic development, which is both unplanned and haphazard. It also has ribbon development along the major roads emerging from Reasi and providing linkages with the

surrounding settlements. It is largely a low density area which is growing haphazard. As mentioned earlier, a major portion of the proposed increase in population will be accommodated in this Zone. The area also has number of development projects newly developed and proposed like recreational and social-cultural areas. Accordingly, development in this area is visualized by adopting the following strategies:

1. Promoting planned development through a well-defined road network.
2. Making Reasi self-contained and self-sustaining in terms of basic infrastructure.
3. Minimizing ribbon development along the important road network.
4. Rationalizing the development with compatibility between various land use of public-semipublic like education institutions and government offices and small-scale industries.
5. Providing a new bus stand away from the core area to serve the maximum population and various village settlements.

6.1.4 ZONE IV: AGRICULTURAL/DEFENCE/FOREST OUTSKIRTS

This Zone comprises the remaining area of Reasi LPA which includes the area outside the urbanisable limits and within the LPA boundary. The Zone has the largest area of 3641 ha. The area is mainly agricultural in nature containing village abadis, agriculture and forest lands on all sides of the region, defence land in the north-west of the town and water bodies (including Chenab River). To retain the green character of this Zone, it is proposed to prevent or minimize the conversion of agricultural land into non-agricultural use such as residential, commercial, etc. Accordingly, the development in this area is visualized by adopting the following strategies:

1. To keep the outskirts all reserved and to keep all reservation like forest, defence, etc. as existing.
2. To give buffer around Chenab River to restrict development along the river.
3. To propose the area for landfill site for solid waste along National Highway-144.

6.2 PROPOSED LAND USE PLAN

On the basis of the study of existing land use plan, analysis and population projections of Reasi LPA followed by several discussions with TPO, Jammu's officials and with the local administration of Reasi, a proposed land use plan has been prepared. In this plan, different land use zones such as residential, commercial, industrial, institutional, recreational, public uses, agricultural, etc. have been earmarked based upon the computation of land use requirements as stated in the URDPFI guidelines.

The future urbanisable area required by 2035 is calculated assuming gross developed area density but it is also important to take into account the immense growth potential of Reasi because of it is importance as commercial, administrative and proposed tourism.

The LPA, Reasi is spread over an area of 4,643 Ha, out of which Reasi Municipal Committee area is 261 ha constituting 5.62%. The proposed urbanisable area of Reasi would comprise the entire area which falls within the urban limits of Reasi Municipal Committee besides the area falling under the

jurisdiction of rural settlements in all directions. It has been observed that the major development has been near the major transport corridors especially the railway station.

Table 6-2: Proposed Landuse up to Urbanisable Limits (Zone I, II and III) - Reasi LPA (2035).

S. No.	Description	Proposed Landuse in Ha (2035)	% of the Developed Area	% of Total Area
I	**Developed**			
1	Residential	278	50.73	27.74
2	Mixed Landuse	48	8.76	4.79
3	Commercial	10	1.82	1.00
4	Industrial	0	0	0
5	Public and Semi-Public	76.60	13.98	7.64
6	Recreational	70.60	12.88	7.05
7	Traffic and Transportation	64.80	11.82	6.47
	Sub Total	**548**	**100**	**54.69**
II	**Undeveloped**			
1	Agriculture	281	61.89	28.04
2	Plantation	23	5.07	2.30
3	Hills & Forests	22	4.85	2.20
4	Water Bodies/Streams	58	12.77	5.79
5	Army	70	15.42	6.99
Sub Total		**454**	**100**	**45.31**
Total		**1002**		**100**

Table 6-3: Proposed Landuse up to LPA Level (only Zone IV) - Reasi LPA (2035).

	Description	Proposed Landuse in Ha (2035)	% of the Developed Area	% of Total Area
I	**Developed**			
1	Residential	252	71.19	6.92
2	Mixed Landuse	12	3.39	0.33
3	Commercial	3	0.85	0.08
4	Industrial	15	4.24	0.41
5	Public and Semi-Public	9.80	2.77	0.27
6	Recreational	3.20	0.90	0.09
7	Traffic and Transportation	59	16.67	1.62
	Total	**354**	**100**	**9.72**
II	**Undeveloped**			
1	Agriculture	1367	41.59	37.50
2	Plantation	13	0.40	0.36
3	Hills & Forests	1062	32.31	29.20
4	Water Bodies/Streams	845	25.71	23.20
5	Army	0	1.94	0
Total		**3,287**	**100**	**90.30**
Grand Total		**3,641**		**100**

Table 6-4: Proposed Landuse of LPA (Zones I, II, III and IV) - Reasi LPA (2035).

S. No.	Description	Proposed Landuse (Ha)	% of the Developed Area	% of Total Area
I	**Developed**			
1	Residential	530	58.76	11.42
2	Mixed Landuse	60	6.65	1.29
3	Commercial	13	1.44	0.28
4	Industrial	15	1.66	0.32
5	Public and Semi-Public	86.40	9.58	1.86
6	Recreational	73.80	8.18	1.59
7	Traffic and Transportation	123.80	13.73	2.67
	Total	**902**	**100**	**19.43**
II	**Undeveloped**			
1	Agriculture	1648	44.05	35.49
2	Plantation	36	0.96	0.78
3	Hills & Forests	1084	28.98	23.35
4	Water Bodies/Streams	903	24.14	19.45
5	Army	70	1.87	1.51
Total		**3,741**	**100**	**80.57**
Grand Total		**4,643**		**100**

6.2.1 RESIDENTIAL

Residential land use is a major component of a town and accounts for majority of the total urbanisable area. The residential zone is spread over the entire LPA area proposed in the Master Plan and includes both the existing residential areas available in the town as well as new areas proposed for accommodating the future population. In order to accommodate the projected population of 46,977 persons up to the year 2035, required residential area will be 545 ha in addition to the already existing area under residential land use, based on the developed area density of 52 pph.

In order to ensure the availability of developed land in adequate quantity and at affordable price, it is proposed to leverage the active participation of private and co-operative sectors. Accordingly, appropriate framework and the housing strategy will have to be such which ensures active participation of public, private and cooperative sectors. The policy should aim at making the existing development integral part of Master Plan proposals following the prescribed norms.

6.2.2 MIXED USE PROPOSALS

Mixed use development is the practice of allowing more than one type of use in a building or set of buildings which can be combination of residential, commercial, industrial, office, institutional or other land uses. It is presumed that mixed land uses yields socio-economic benefits and therefore has a positive effect on housing and commercial values.

Good mixed use can be defined as a finely grained mix of primary land uses, namely a variety of housing and workplaces with housing predominant, closely integrated with all other support services,

within convenient walking distance of the majority of the homes. It is also referred as cellular development. Mixed use is to be carefully allowed along with the compatible use only.

The approaches for promoting mixed use development can be by increasing intensity of land use, increasing diversity of land use or integrating segregated uses. The key parameters for integration of different uses can be:

The mixed use zone can be subdivided into:

1. Mixed Industrial Use: M1
2. Mixed Residential use: M2
3. Mixed Commercial Use: M3

The activities permissible, restricted and prohibited shall as given below.

Permitted Uses/Activities:

- In M1 Zone activities falling within non- polluting industry/ service industry (dominant land use) categories can co-exist with maximum up to 20-30% of commercial, institutional, recreational and residential land use.
- In M2 Zone all activities falling within permitted residential land use (dominant land use) shall be minimum 60% and to co-exist with commercial, institutional, recreational.
- In M3 Zone all activities falling within permitted commercial, institutional land use (dominant land use) shall be minimum 60% and to coexist with residential, recreational and non-polluting and household industry.

Restricted Uses/Activities:

Activities related to commercial, institutional and residential land use in M1 Zone and non-polluting industrial land use in M2 Zone can be increased to between 20-50% depending on the contextual and locational feasibility of the area.

Prohibited Uses/Activities:

All other activities especially industrial which are polluting in nature and which will have an adverse impact on the overall activities of this zone.

It has been proposed to permit mixed land use development along the major road network as detailed below:

1. 100 feet deep mixed land use zone has been proposed along the Reasi - Seela Road (from Fort Chowk to Proposed Neighborhood Play Road) within the urbanisable area.
2. 100 feet deep mixed land use zone has been proposed along the Reasi - Dharmari Road (from Fort Chowk to Marhi Nallah) within the urbanisable area.
3. 100 feet deep mixed land use zone has been proposed along the Nai Basti-Industrial Area road within the urbanisable area.

Note:

- Mixed use may be permitted with the prescribed development norms like ground coverage, FAR/FSI, density and other urban design guidelines.

6.2.3 HOUSING POLICY

The present housing stock is 5,204 units while the projected demand for housing is 8,943 units by the year 2035. The principal policies and strategies for Reasi Planning Area have been evolved based on the National Urban Housing and Habitat Policy, 2005 and the National Slum Policy. The specific strategies proposed for inclusive housing are:

a. Review of space standards considering land cost, availability of developable lands, land requirements, affordability and space standards for housing developments.
b. New housing for EWS and LIG as well as rehabilitation of slum households will be in composite and special neighbourhoods whether developed by the public, private, cooperative or joint sector. These may be in the form of built dwelling units or affordable serviced sites.
c. When housing neighbourhoods and apartment blocks are developed by the private sector o lands exceeding one hectare, 10-15% of the land shall be reserved and developed for housing for EWS/LIG with dwelling units not exceeding 45 sqm. Within the site proposed for development.
d. All shelter programmes will be integrated with provision of infrastructure, security of tenure, health and education, livelihood opportunities & skill training and micro finance.
e. Public-Private Partnerships will be facilitated to enhance capacity of construction industry to deliver housing for EWS and LIG through innovative technology routes.
f. Housing will be developed in proximity to the employment centres both existing and proposed.
g. Land assembly using innovative measures such as land readjustment, land pooling, guided development and neighbourhood developments will be encouraged to minimize undesirable speculation and increase in land cost to ensure planned development to provide for the needs of the lower income groups.
h. Problems of shelter for the urban poor and their shelter improvement should be addressed through improvement of physical surroundings so that it has adequate basic services such as water supply, drainage, sanitation, street lighting and other physical conditions leading to better hygienic environment; secondly, through the improvement of the actual structures that the slum dwellers live in preferably by themselves (extending assistance in terms of financial and physical resources) and by encouraging in-situ development.

A judicious mix of in-situ development and relocation strategy need to be adopted for slum improvement. The slums located on the hazardous land need to be identified and relocated.

6.2.4 COMMERCIAL

The field observation revealed that due to the mounting strain of commercial activities, road space is continuously being encroached upon by shopkeepers and street vendors. As per the URDPFI guidelines, the existing commercial space is adequate even for the year 2035, but in order to evenly distribute the commercial facilities over the LPA, we have projected a requirement of commercial area up to 2035, 15 ha (including existing) of the total urbanisable area has been proposed under this use. There is also a proposal for development of ware house at Reasi-Jyotipuram Road opposite the proposed industrial area.

6.2.4.1 INFORMAL SECTOR

Street vendor's form a very important segment of the unorganized sector in the country and it is estimated that in several cities street vendors account for about 2% of the population. The planning of the urban street vending zones shall be so done so as to provide for and promote a supportive environment for the vast mass of urban street vendors to carry out their vocation while at the same time ensuring that their vending activities do not lead to overcrowding and unsanitary conditions in public spaces and streets.
The Street Vendors (Protection of Livelihood and Regulation of Street Vending) Act, 2014 has come into force since March, 2014. The Act provides for Town Planning Committee (TVC), which shall conduct a survey of all the existing street vendors every five years. According to the Act, every local authority shall prepare a plan to promote the vocation of street vendors in consultation with the planning authority and on the recommendations of the TVC once in every five years. Local authority can also make byelaws, under the Act, to provide vending zones, regulation of civic services in the vending zones and other matters.

Demarcation of Vending Zones "the demarcation of 'Restriction – free Vending Zones', 'Restricted Vending Zones' and 'No-Vending Zones will be city/town specific and take into account the natural propensity of street vendors to locate in certain places at certain times in response to the patterns of demand of their goods/services. Municipal Authorities need to frame necessary rules for regulating entry of street vendors on a time sharing basis in the designated vending zones.

Based on the primary survey conducted for the informal sector in Reasi town, it has been felt that organized sites for informal sector are required to be created near the main town nodes, like bus stand, railway station, parks, etc. and the detailed survey need to be undertaken for earmarking vending zones as above within the city.

6.2.4.2 PLANNING NORMS FOR INFORMAL TRADE

The provision for number of informal units for urban street vendors for different types of land use categories is given below. It is observed that the informal eating places mushroom at a faster rate. It is suggested to make provision for 1 informal eating-place per 1 lakh population with a space allocation of 2000 sqm.

In order to include informal sector as an integral part in the planning process, it is proposed to be incorporated in the planned development in various use zones. The provision of informal sector trade units should be ensured at the time of sanction of layout plans as per the norms given in Table 6-5.

Table 6-5: Norms for Informal Units for Urban Street Vendors.

S. No.	Use Zones/Use Premises	No. of Informal Shops/Units
1	Retail Trade	3-4 units per 10 formal shops as specified in the norms
1a	Central Business District	
1b	Sub Central Business District	
144	District Centre	
1d	Community Centre	
1e	Convenience Shopping Centre	
2	Government and Commercial Offices	5-6 units per 1000 employees
3	Wholesale Trade and Freight Complexes	3-4 units per 10 formal shops
4	Hospital	3-4 units per 100 beds
5	Bus Terminal	1 unit per 2 bus bays
6	Schools	
6a	Primary	3-4 units
6b	Secondary / Senior Secondary / Integrated	5-6 units
7	Parks	
7a	Regional / District Parks	8-10 units at each major entry
7b	Neighborhood Parks	2-3 units
8	Residential	1 unit per 1000 population
9	Industrial	5-6 units per 1000 employees
10	Railway Terminal	As per the norms of the Railway Authority

Source: *URDPFI Guidelines*

6.2.5 INDUSTRIAL

With a view to provide boost to the economy of the town and to promote industrial activity in the region, 15 ha of totally urbanisable area has been proposed for industrialization. Green belts would also be created as integral part of planning of industrial areas and areas separating the residential and industrial zones.

In view of hilly character, eco-friendly and small scale industrial establishments are proposed to be developed in the activity zone in Eastern side (Village Garan) of the town.

6.2.6 PUBLIC AND SEMI PUBLIC

In order to overcome the qualitative and quantitative deficiency of public and semi-public uses, it is proposed to provide enough space under these uses. Accordingly, an area of 86.40 hectares has been proposed under this land use that works out to be 1.86% of the LPA. This includes the existing area under public & semi-public and an additional requirement of 8.40 ha of land in the urbanisable area to improve social infrastructure.

The public and semipublic use includes educational and health institutions, government offices, socio-cultural and religious facilities, utilities and services such as sewerage treatment plant and solid waste disposal site.

Table 6-6: Distribution of Proposed Public & Semi Public Facilities in Zones 1, 2, 3 & 4.

S. No.	Facility	Zones			
		Zone-1	Zone-2	Zone-3	Zone-4
1	Recreational Club	-	-	1	-
2	Library	-	1	1	1
3	Nursing Home/Maternity Centre	-	1	1	1
4	Primary Health Centre	-	-	-	1
5	Dispensary	-	1	1	1

Recreational Club has been proposed in village Trintha, but the rest of the facilities mentioned in the above table would come up when the Zonal Plans are prepared for Reasi.

6.2.6.1 LOCATION OF GOVERNMENT OFFICES AND BUILDINGS

Reasi has a large number of government offices located at different places in the town owing to newly established status of District Headquarters. Dispersed and unplanned office locations within the town lead to considerable inconvenience to the public and cause lack of co-ordination between these offices. Due to location in the congested areas, it also causes parking related problems. Considering peoples' convenience and for promoting better coordination, it is proposed to develop mini-secretariat (including SDM Office) in the urbanisable limit for all the offices at Tehsil level. District Collector's residence and other Government offices have been already proposed by the State Govt. in Marhi and Garan village outside the town.

6.2.7 RECREATIONAL

As already explained, Reasi lacks in the provision of green/recreational spaces in the town which has adversely affected the quality of life prevailing in the town. Accordingly, there is an urgent need to provide recreational area as per prescribed norms and standards. In order to meet the deficiency of such activities, a recreational area in the shape of river front has been proposed along Chenab River and various other green spaces have been proposed for Reasi LPA. The total area proposed under recreational use is 73.80 hectares (including existing area), which works out to be 8.18% of the total developed area.

Various proposals are:

1. 60.80 Ha. area is proposed for parks & grounds and 13 ha area is proposed along the river front for the recreational activity.
2. The wetlands and large water bodies should be categorized as eco-sensitive zone in the Master Plan-2035. These areas are to be conserved with no urban development.
3. River front should be developed along river Chenab near Seela.
4. Green Buffer along river Chenab will be maintained.

Table 6-7: Distribution of Proposed recreational facilities in Zones 1, 2, 3 & 4.

S. No.	Facility	Zones			
		Zone-1	Zone-2	Zone-3	Zone-4
1	Housing Area Park	-	1 (0.5 ha)	3 (0.5 ha each)	3 (0.5 ha each)
2	Exhibition Ground/Play Ground	-	-	1 (2 ha)	-
3	Residential Unit Play Area	-	1 (0.5 ha)	4 (0.5 ha each)	4 (0.5 ha each)
4	Neighborhood Play Area	-	-	1 (1.5 ha each)	2 (1.5 ha each)
5	Park around Bhimgarh Fort	-	23.65 ha	-	-
6	Park around DC Office	-	14.63 ha	-	-

The proposed Exhibition Ground/Play Ground & Neighbourhood Play Areas have been proposed on the Proposed Landuse Plan, 2035, but rest of the facilities mentioned in the above table would come up when the Zonal Plans are prepared for Reasi.

6.2.8 CONSERVATION AREAS

The town of Reasi has heritage zones like the existing Reasi Fort, and the core area of town that need to be preserved, conserved and promoted. Accordingly, a well-defined strategy will have to be put in place in order to integrate them in the future growth and development of Reasi town. Separate studies are needed to be carried out in order to identify conservation and preservation zones in the planning area.

Bhimgarh Fort has a buffer area of 300 m, in which 100 m area is for the protected zone and another 200 m buffer area is for the regulated zone, which can have permissions for construction upto two floors. Building of General Zorawar Singh's residence is to be developed as a heritage site.

6.3 PROPOSED TRAFFIC AND TRANSPORTATION PLAN

Traffic and transportation is the most critical component of any town because it defines and determines both existing and future patterns, typology of growth and development of the town. Accordingly, Traffic and Transportation Plan of Reasi up to the year 2035 has been proposed based on the proposed land use plan for Reasi. The proposals related to traffic and transportation plan as detailed, aims at:

1. Rationalizing the existing road network by:
    a. Proposing a ring road along Anji Nallah near Sullaha Park around the town up to the Reasi Jyotipuram road which also divert towards Reasi Railway Station.
    b. Creating a well-defined hierarchy of roads.
    c. Redesigning the critical areas including road junctions.

2. Rationalizing the inter and intra town traffic by:
    a. Creating adequate parking spaces.
    b. Ensuring distribution and collection of traffic from various parts of the town both in terms of existing and proposed developments.
    c. Developing well defined interface between different land uses.
    d. Improving efficiencies in traffic movement within the town.

e. Minimizing delays in order to improve the operational efficiency and productivity of the town.

The proposed Traffic and Transportation Plan defined in the proposed Land use plan will form the basis for promoting the rational and planned growth of the Reasi. The proposed network will also help in redefining the proposed urbanisable area into different development zones which can be planned on the basis of self-contained and self-sufficient neighborhood principles with convenience as a major objective. This would also help in promoting communities and interlinking them to the basic framework of the town. In addition, it will also help in redesigning the basic infrastructure and services essential for basic sustenance of the people and the town.

6.3.1 PROPOSALS FOR URBAN ROADS

The study of existing town road network reveals that there are several roads which are congested due to carrying more traffic volume than their carrying capacity. There is no possibility or scope of widening the existing Right of Way (ROW) of these roads due to thickly built up areas existing within the town.

Some of the measures proposed for enhancement of road capacity are detailed below:

1. Imposing selective restrictions on the heavy commercial vehicles on the busy arterial/ sub-arterial roads, especially during the peak hours.
2. Rationalizing conflicting movements at major intersections, particularly during peak hours.
3. Minimizing the cross traffic and side-street traffic by regulating the gaps in the medians.

Table 6-8: Proposed Road Network for Reasi Town and LPA.

S. No.	Hierarchy	Name of Road	Existing ROW (Feet)	Proposed ROW (m)
1	By Pass	Northern By Pass Road	-	80
2	By Pass	South-Eastern By Pass Road	-	80
3	Internal Road	Link from intersection of South-Eastern By Pass & Reasi- Dharmari Road to Nai Basti- Industrial Area Road	-	60
4	Internal Road	Link from Northern By Pass to Nai Basti- Industrial Area Road	-	60
5	Internal Road	Nai Basti- Industrial Area Road via Trintha	50	60
6	Internal Road	DC Residence Road from Nai Basti- Industrial Area Road to Marhi Nallah Road	-	60
7	Internal Road	Link from intersection of DC Residence Road & Marhi Nallah Road to Reasi- Dharmari Road	50	60
8	Internal Road	Const. of Link Road via Degree college/Polytechnic college to Marhi SSp office.	12	30
9	Internal Road	Link road from NH way to Dist. hospital	12	30
10	Internal Road	Dist. Hospital to Vijaypur	-	80

11	Internal Road	Nai Basti Bus stand Road	-	60

Proposals are as per the existing situation of the roads as well as the vacant land both side of roads. (Refer Proposed Transportation Plan 2035).

6.3.2 PROPOSALS FOR RURAL ROADS

With regard to the rural roads which include Other District Roads (ODR) and village roads providing accessibility in the rural areas of the planning area, the accessibility based network planning is required to address the sparsely populated areas with dispersed settlements. The 12 villages in the planning area which have population of 500 and above as per 2011 census, need to be undertaken on a priority basis for the development of pucca roads under Prime Minister Gram Sadak Yojana (PMGSY) or Bharat Nirman Programme.

The Panchayat Institutions developing the roads under various wage employment/rural development programme, need to adopt proper standards and design procedures. In the villages having more than 1,000 population, the carriage way could be limited to 3m with preferably cement concrete/brick pavement/block pavement depending upon the local conditions. Drainage should be given primary importance while constructing these roads.

6.3.3 JUNCTION IMPROVEMENTS

In addition to inadequacy of road network in the Reasi town, it has also been observed that the majority of road junctions have not been properly planned, designed and constructed. Congestion at few junctions has also led to large number of accidents. In order to rationalize the flow of traffic and minimized conflicts at the junctions carrying large volume of traffic, it is proposed to improve the road geometry at number of junctions that have recorded high rate of accidents. The junctions proposed for immediate improvement include:

- Ganesh Chowk
- Main Bus stand Chowk

6.3.4 TERMINALS

6.3.4.1 PROPOSED BUS TERMINAL

New Bus stand has been proposed along Northern Bye Pass road. Relocating bus stand from its present location will rationalize inter and intra-town traffic. It will also help in ensuring that all inter town traffic carried by buses moves outside the town on the proposed bypass road and does not congest the town anymore. Shifting of existing bus stand will be supplemented by an efficient system of public transport town bus service which will ensure the smooth transfer of passengers to their destination in different parts of town. New bus stand will be constructed on an area of 1.80 hectares.

6.3.4.2 PROPOSED RAILWAY TERMINAL

The Reasi Railway Station is under construction and would be completed soon. The railway line from Katra will traverse to Reasi-Banihal area with stations at Reasi, Salal A–Salal B, Surukot, Barala, Sangaldan, Kohli and Laole. This railway line will bring Reasi on the rail map of the country and accelerate development and prosperity in the area.

The Railway Station would have a major impact on the town and the surrounding areas, it would act as the regional gateway, helping to stimulate economic growth and attract businesses.

6.3.5 PROPOSED PARKING LOT

Due to rapid growth of the town, most of the core areas still have road network of narrow width, which is unable to accommodate large vehicular movement.

Rapid growth of vehicle ownership has led to creation of major traffic bottlenecks due to absence of adequate and well-defined parking spaces. In the absence of such spaces, most of the vehicles are parked on the roads leading to traffic congestion and problems in smooth movement of vehicles. Accordingly, in order to rationalize the movement of traffic in the town and to achieve the desired level of efficiency, in addition to creating new linkages/widening of existing roads, it will be critical to provide adequate parking spaces in the town.

For providing adequate parking, different strategies are proposed for area within core town and other areas. Considering the typical character of the core town, it has already been proposed to decongest the core area by selective shifting of Trade and Commerce including wholesale market and population.

Traffic nodes like bus stand are required to be provided with adequate spaces, both for motorized and non-motorized vehicles catering to the needs of the residents of the town. In addition, sites should also be identified for the auto rickshaw parking and should be leased out.

6.4 PROPOSED WATER SUPPLY NETWORK OF REASI

A study has been already made by the PHE Department of Reasi under the scheme of Integrated Development of small and medium towns and conceptual proposals for the water supply network have also been prepared. It is proposed to keep this proposal as it is by PHE Department for the development of water supply network. In addition, it is also proposed that PHE Department will coordinate with the Reasi Development Authority (Proposed agency at local level which would be responsible for the implementation of Master Plan under the provision of Section 2 of Town development Act 1971) from time to time for the implementation of water supply network priority wise.

In addition, the option of recycling of the waste water, minimizing the wastage in the water supply system and creating awareness among community for water conservation needs to be explored to minimize the pressure on ground water and recharge the ground water. Mechanism of rainwater

harvesting should be encouraged at the household/institutional level in order to reduce dependence on the ground water.

6.5 PROPOSED SEWAGE TREATMENT PLANT

Since the LPA area contains town and villages scattered around and having horizontal low rise growth, it is proposed that decentralized septage tank should be provided or encouraged and 3 Sewage Treatment Plants have been proposed at suitable locations within the LPA.

Table 6-9: Proposed STPs with locations and areas.

S. No.	Location of STP	Proposed Area (Ha)	Quantity (MLD)
1	Along Nai Basti – Vijaypur Loop Road in Village Seela	1	1
2	Along South-Eastern Bye pass road in Village Trintha	1.5	2
3	Along NH-144 in Village Seela	1.5	2
	Total	**4**	**5**

6.6 PROPOSED SOLID WASTE MANAGEMENT PROGRAMME

Along National Highway 144, an area of 2 Hectares has been proposed in village Dasanu for the sanitary land fill site for solid waste. It is proposed that the site must be acquired by the Municipal Committee, Reasi. In addition it is also proposed that detailed solid waste management project to be prepared for the proper collection, segregation, transportation and disposals of generated waste of the Reasi LPA. A site for solid waste Management project is also proposed In **Namabal** Village.

6.7 DEVELOPMENT STRATEGIES

- ✓ Rapid and rational implementation of the Master Plan.
- ✓ Decentralized planning and increased citizen's Involvement in the Development Planning process.
- ✓ Improved coordination between various sanctioning and implementing agencies.
- ✓ Riverfront development and conservation of heritage sites and water resources.
- ✓ Optimum use of municipal land and inviting private sector to act and work with the Public Sector.
- ✓ Implementation of Master plan to cover the entire town and its outgrowth with town planning schemes.
- ✓ Discouraging excessive urban sprawl by establishing appropriate building and density regulations for selected areas.
- ✓ Establish green belts and buffer zones for heritage sites, industrial estates and water bodies.

6.8 STRATEGIES TO OBTAIN LAND FOR PUBLIC PURPOSE

A town typically requires 20% to 30% of its area for variety of public purposes, where land is owned by the state government, making it easier to allocate land for public purposes. However, where private

land market is active, it is difficult to ensure land for public purpose and this is a major challenge in preparing a Master Plan. Conventional master planning relies on the powers of compulsory acquisition of land designated for public purposes. However, limitations of this approach have been painfully exposed. At the same time, not addressing the question of land for public purposes may limit the utility of the Master Plan itself. With this background, a wide menu of strategies to obtain land for public purposes is examined in this section.

6.8.1 TRANSFERABLE DEVELOPMENT RIGHTS

An alternative way to monetary compensation could be an award of Transfer of Development Rights (TDR) either to the remainder of the land or to a distant location. This could be in three generic cases:

- Roads and Road widening: Development rights calculated at the FAR permissible in adjoining area may be allowed to be used in the remainder of the plot up to a limit. Development rights that cannot be consumed can be transferred elsewhere in receiving areas. If FAR is related to width of the road, resistance to widening may get reduced.
- Public purposes on open land or exclusive plots: Lands required for parks and playgrounds or exclusive uses like secondary school, fire station, etc. can be obtained by providing TDRs in lieu of compensation. However, price differentials in originating and receiving zones could be considered as an incentive in such cases.
- Public purposes that require built-up space but not necessarily exclusive plot: Examples of this could be municipal vegetable market, library etc. In such cases, landowner may be permitted to use the full potential of development in terms of FAR over the plot provided, offers the built up space required for the public purpose to the local body.

6.8.2 THROUGH TOWN DEVELOPMENT ACT, 1971

Under Section 16 of Town Development Act 1961 of J&K, the compulsory acquisition of land is as follows:

1. If in the opinion of the government, any land is required for the development, or for any other purpose under this act, the government may acquire such land under the provisions of the Land Acquisition Act, Samvat 1990.
2. Where any land has been acquired by the government, the government may, after it has taken possession of the land, transfer the land to the development authority (proposed) for the purpose for which the land has been acquired on payment by the authority of the compensation awarded under that act and the charges incurred by the government in connection with the acquisition.

And under Section 19 of this Act, the Authority shall have and maintain its own fund to which shall be credited:

1. All money received by the Authority from the central or state government by way of grants, loans, advances or otherwise.
2. All money borrowed by the Authority from source other than the government by way of loans or debentures.

3. All fees and charges received by the Authority under this act.
4. All money received by the Authority from the disposal of lands, buildings and other properties, movable and immovable; and all moneys received by the authority by way of rents and profits or in any other manner or from any other source.

6.9 SPACE NORMS AND STANDARDS

Space norms and standards have been defined for different socio-economic infrastructure to be developed in the town for implementation of the Master Plan and for working out the requirements for different amenities. This includes its spatial distribution in order to ensure equitable distribution within different parts of the town. However, heritage buildings shall be governed by a system of specific guidelines to be framed for such buildings involving adaptive re-use through multiple uses such as residential, commercial, social, and cultural uses to promote conservation and preservation of such sites. The adaptive use shall be based on the detailed study and analysis of such historical buildings.

6.9.1 PLANNING NORMS FOR EDUCATIONAL INSTITUTIONS

For ascertaining the need and requirement of various levels and categories of educational institutions in the context of the town, planning norms have been worked based on the basis of population in order to ensure that educational facilities of desired quantity and quality are available uniformly to the entire population including their spatial distribution. Further, the norms have been defined in terms of areas to be provided under each unit. The level of facilities to be provided have been categorized into general-purpose education at the school, undergraduate and post graduate level besides technical and professional institutions and universities. Based on above, the norms for educational institutions have been detailed in table 6-8.

Table 6-10: Proposed Norms for Educational Institutions.

Category	Population	Unit	Area (ha)	Remarks
General Education till 10+2				
Primary School (Class 1-5)	4,000	1	0.20 to 0.30	Location close to park with minimum of vehicular traffic
Senior Secondary School Class 6-12	15,000	1	0.30 to 0.50	Minimum play field area of 68 m x 126 m to be ensured.
Higher Education				
College	30,000	1	2.00 to 3.00	-
Professional College	30,000	1	1 to 1.5	-

Source: *URDPFI Guidelines*

Notes:

- Number of units in each category shall be based on the population prescribed above.
- Adequate area for plantation shall also be earmarked in order to improve the quality of environs and area under green cover. Adequate parking arrangement for buses, vehicles of students/staff shall be made.

6.9.2 NORMS FOR THE HEALTH CARE FACILITIES

Health care facilities shall be provided and distributed in such a manner that it covers the entire area and the population in order to make the facility available to every resident of the town irrespective of his location or place of residence. It must cover all the land use including residential, commercial, and industrial, institutional etc. A well-defined hierarchy will be essential to meet both the basic and specialized needs of the health care.

Table 6-11: Proposed Norms for Health Facilities.

S. No.	Category	Population	Unit	Area (Ha)	Remarks
1	Nursing Home/ Maternity Centre	15,000	1	0.05 to 0.075	-
2	Health Sub Centre	10,000	1	0.025 to 0.067	-
3	Dispensary	15,000	1	0.08 to 0.12	-
4	Primary Health Centre	20,000	1	0.105 to 0.210	Capacity of 25 to 50 beds
5	General Hospital	80,000	1	0.840 to 2.10	Capacity of 200 to 250 beds

Source: *URDPFI Guidelines*

Notes:

- If medical colleges shall be provided, it should also be included in the medical hospital of 500 beds as integral part of the complex and area shall be increased up to 6 ha.
- Additional sites may be provided in case of regional/national level healthcare institutes which are to be located as part of the town.

6.9.3 NORMS FOR FIRE STATION AND SECURITY INFRASTRUCTURE

1. One Fire Station to be provided covering a population of 50,000 of 1 hectare.
2. Fire Station needs to co-ordinate with water supply system to provide for fire hydrants/water tanks.
3. Fire services to be fully equipped to deal with fire accidents in the multi storied Buildings and buildings in the narrow streets of old town.

Table 6-12: Norms for Police, Civil Defence and Home Guard.

S. No.	Category	Population Per Unit	Minimum Area (Ha)	Remarks
1	Police Station	90,000	1.50	Additional area of 0.05 hectare to be provided in case of civil defence and Home-guard.

Source: *URDPFI Guidelines*

6.9.4 SOCIAL CULTURAL FACILITIES

Table 6-13: Proposed Norms for Socio-Cultural Facilities.

Category	Population per unit	Minimum area in ha
Recreational Club	1,00,000	1.00
Library	15,000	0.20
Cremation Ground	10,000	0.20

Source: *URDPFI Guidelines*

6.9.5 SPORTS ACTIVITIES

Table 6-14: Norms for Sports Facilities.

Category	Population Per Unit	Minimum Area
Residential Unit Play Area	5,000	0.5
Neighborhood Play Area	15,000	1.50
District Sport Centre	1,00,000	8.00

Source: *URDPFI Guidelines*

6.9.6 NORMS FOR ORGANISED GREEN AREAS

Table 6-15: Norms for Organized Green Areas.

Category	Population Served / Unit	Area (Ha)
Housing Area Park	5,000	0.50 to 1
Neighborhood Park	10,000	1.2 to 2
City Park/Playground/Maidan/Exhibition Ground/ Cultural Gathering Ground	For entire town at 1 or more sites depending upon design & space availability	-

Source: *URDPFI Guidelines*

6.9.7 NORMS FOR THE COMMERCIAL AREAS

Table 6-16: Norms for Commercial Facilities.

Category	Area per 1000 persons (sqm)	No. of Shops
Convenience Shopping	220	1 for 110 persons
Local Shopping including Service Centre	300	1 for 200 persons
Community Centre with Service Centre	500	1 for 200 persons
District Centre	880	1 for 300 persons

Source: *URDPFI Guidelines*

CHAPTER 7. DEVELOPMENT CONTROLS & REGULATIONS

The purpose of the Development Control Regulations (DCR) is to assist all the stakeholders including developers and end-users within the Reasi LPA to strive for a sustainable, quality and environment friendly development. These development control regulations are applicable to the entire set of existing and proposed developments that are going to come up within the local planning area. The developers are required to comply with the provisions of zoning and land use plans defined in the Master Plan.

> **"Development" with its grammatical variations means the carrying out of building, engineering quarrying or extraction or manufacture of building materials or other operations in, on, over or under land, or "erecting or re-erecting" of any building or land and include redevelopment".**

7.1 ZONING REGULATION

Zoning regulations are basic tools for implementation and enforcement of a development plan within the frame of the Land use proposals with the intention of achieving orderly growth and development of the town as envisaged. Zoning regulations help in controlling density as well as land use in ensuring standards provided for the future expansion of each zone in an appropriate manner.

The enforcement of zoning regulations is like the enforcement of building byelaws. It will therefore be simpler to follow and can also be enforced by the Reasi development authority through a qualified town and country planner holding delegated powers. The enforcement of zoning regulations will require a detailed development plan of the planning area. The adoption of the regulations will, therefore, guide to undertake the necessary physical surveys and also to keep the land record up-to-date so as to enable the effective enforcement of the zoning regulations.

Zoning regulations shall be applicable to the entire planning area except areas designated otherwise like defense areas. There will be a separate set of norms to deal with such areas.

The Land Use Zoning Regulations contain the following classification of the broad land use zones:

7.1.1 RESIDENTIAL ZONE

The various uses permitted and prohibited in Residential Use Zone-1 as mentioned in the following table.

Uses Permitted On All Locations	Uses Permissible on applicant to competent	Uses Prohibited
I	II	III
• All types of residential buildings	• Professional • Establishments	• All other uses

• Bakeries and confectioneries	• Private nursing Home • Auditoria	• Botanical garden
• Banks • Burial-grounds/ Cremation ground • Bus depots without • workshop • Park, Playground, green house, • Religious Building like temples, Mosques, Churches, Gurdawars, and ashram, Club Culture and philanthropic association of non commercial nature.	• Public Assembly Hall Educational Institutions satisfying • the needs for provision • of parking within premises and keeping away growth of traffic bottleneck, Taxi or Scooter stands, Bus stop, Public Utility Building	• Courts of law
• Bus stands		• Heavy, large and extensive
• Cinema halls on plots above • 3000 sq.mts and abutting road of minimum 18 meters width • Clubs		• Hospitals treating contagious and infectious diseases
• Colleges • Community centres		• Indoor games stadium
• Computer software units /IT Enabled Services • Convenience shopping		• International conference centre
• Customary home occupation/household units • Dharamshalas		• Obnoxious and hazardous industries
• Doctors' clinics and • Dispensaries • Electrical distribution station		• Outdoor games stadium
• Electronic printing press • Exhibition and art gallery		• Reformatory
• Fire stations		• Sewage treatment plant/disposal work
• Foreign missions Function halls on plots above 3000 sq.mts and abutting road of minimum 18 meters width		• Shooting range

• Games facilities of local nature both indoor and outdoor • Group housing / Apartment • Complexes		• Slaughter-house
• Guest houses • Gymnasium		• Solid waste dumping yards
• Health facilities with not more than 20 beds • Hostels & Boarding houses • Hotels on plots of above • 2000 sq.mts and abutting road of minimum width of • 18 meters		• Storage godowns of perishables, hazardous and inflammable • goods
		• Storage of gas cylinders
• Library		• Warehousing
• Motor vehicle repairing workshops/garages		• Water treatment plant
• Municipal, state and central government offices		• Wholesale mandis
• Night shelters • Other educational buildings other than professional colleges/institutions Parks/totlots • Petrol pumps		• Workshops for buses etc.
• Plant nursery		• Zoological garden
• Police check posts		
• Police stations Post offices Professional offices • Public utilities and buildings except service and storage yards • Religious premises • Research institutes		

• Restaurants/eating places • Retail shopping centres Schools • Showroom for sale & • distribution of LPGas • Taxi stand/three wheeler stands • Technical training centre • Transit visitors camp • Water pumping station • Weekly markets		
• Yoga centers/Health clinics		

7.1.2 COMMERCIAL USE ZONE

The various uses permitted and prohibited in Commercial Use Zone are as mentioned in the following table.

Uses Permitted	**Uses Permissible on application to competent authority**	**Uses Prohibited**
I	**II**	**I**
• All uses permitted in Residential	• Taxi stand in case the road or bazaar is not a mall road type	• All activities which cause nuisance and are noxious and obnoxious in nature • Hazardous and extractive industrial units • Hospitals/research laboratories treating contagious diseases • Poultry farms/ dairy farms
• Bakeries and confectionaries		
• Banks		
• Bus and truck depots		
• Cinema halls		
• Clubs		
• Colleges		
• Conference centers		
• Courts		
• Fire Station		
• Function halls on plots of minimum 3000 sq. m. and abutting road width of minimum 18 m.		
• Gas installation and gas works		
• Godowns and warehousing		
• Guest houses		

• Health facilities with maximum		
• Hostel/boarding houses		
• Hotels		
• Junk yards		
• Library		
• Multistoried parking		
• Museum		
• Non polluting non-obnoxious light industries		
• Offices		
• Parking sites		
• Parks/open space		
• Petrol pumps		
• Police stations/posts		
• Polytechnic and higher technical institutes		
• Post offices		
• Railway yards/stations		
• Religious buildings		
• Religious places		
• Repair garages		
• Research institutions		
• Research/training institute		
• Restaurants		
• Retail shops and retail shopping centers, Shopping Malls		
• Service Centres/ garages/ workshops		
• Sports and related facilities		
• Sports/stadium and public utility installation		
• Taxi stand/three wheeler		
• Telephone exchange		
• Timber yards		
• Water treatment plant		
• Weekly / informal markets		
• Weekly market		
• Wholesale trade/markets		
• Professional Offices		

Note: Special Commercial Areas along Highways, Major Roads wherever indicated on the plan; are conditional. These can be used subject to the following conditions:

- Handing over of land to concerned authority for widening of road up to the proposed width with free of cost through registered gift deed.

- Developing the service road with applicant own cost.

- Access from property to road only through service road.

Uses Permitted	**Uses Permissible on application to competent authority**	**Uses Prohibited**
I	**I**	**II**
• All uses permitted in • Residential	• Warehousing/ Storage of perishable goods	• All other uses.
• Hotel and Resorts	• Timber yards	
• Motel	• Bus and Truck depots service centers	
• Cafeterias	• Cinemas	
• Retail shops and retail shopping centers, Shopping Malls	• Cultural facility	
• Show Rooms		
• Plaza		
• Conference centers		
• Banks		
• Financial Institution		
• Hotels boarding houses		
• Professional Offices		
• Nursing Homes		
• Baratghars		
• Night Shelters		
• Dormitories		
• Auto/ Taxi/ Charted		
• Commercial Offices		
• Government Institutions		
• STD/PCO		
• Telephone Exchange		
• Restaurant		
• Parking sites		
• Parks/open space		
• Petrol pumps		
• Police stations/posts		

• Post offices		
• Religious buildings		
• Religious places		
• Repair garages		
• Sports/stadium and		
• Sports and related		

7.1.3 INDUSTRIAL ZONE

The various uses permitted and prohibited in Manufacturing Use Zone are as mentioned in the following table.

Uses Permitted	Uses Prohibited
I	II
• Non Polluting industries • Banks and financial institutions • Bus depot and workshop • Bus terminal • Cemeteries • Cold storage and ice factory • Computer software units /IT Enabled Services • Electric power plant • Gas godowns, godowns & warehousing Gas installations and gas works Government/semi-government/private business offices • Health facilities incidental to main uses • Helipads • Junkyards • Loading and unloading spaces • Parking of vehicles Parks and playgrounds Public utilities • Restaurants • Service stations & repair garages • Sewage disposal work storage and depot of non-perishable and non-inflammable commodities and incidental use Warehousing Workshops/garages	• All other uses. • Hotels • Residential dwellings other than those essential for operational and watch and ward staff • Schools and colleges

7.1.4 PUBLIC, SEMI-PUBLIC FACILITIES USE ZONE, UTILITIES USE ZONE AND RELIGIOUS USE ZONE

The various uses permitted and prohibited in Public, Semi-public use zone, Public Utilities Zone and Religious use zone are as mentioned in the following table.

Uses Permitted	Uses Permissible on application to competent authority	Uses Prohibited
I	II	III
Public, Semi-public use zone • Auditorium • Bank • Burial ground/ • Cemetery/ cremation ground • Bus and railway passenger terminal • Bus/truck terminal • Cinema hall/Multiplex • Clinic and laboratory Club • College Community • Hall Computer • Software units /IT Enabled • Services on independent Plots of more than 1000 sq.mt size • Conference hall • Cultural and religious building • Dharamshala • Dispensary • Exhibition centre • Fire station/fire post • Function hall Guest house Health/primary center Helipad • Hospital • Hostel	• Residential and other uses incidental to educational use • Restaurants • Group housing • Retail Shopping • Stations • Parking Areas • Restaurants	• Any other use other than the specific reservation • Dairy and poultry farms • Farm houses • Heavy, extensive and other obnoxious and hazardous industries Junk yards • Processing and sale of farm products and uses not specifically permitted herein

Uses Permitted	**Uses Permissible on application to competent authority**	**Uses Prohibited**
I	II	III
• Hotel on plot above • 1000 sq.mt. Institution Jail • L P Gas Godown • Library Monument • Museum/art gallery • Offices • Open air theatre • Petrol pump • Police station/police post • Polytechnic college • Post office • Public utilities and buildings • Radio transmitter and wireless station Railway station/yard • Religious building/center Research and development center • Residential plotted or group housing for staff /employees as incidental to the main use • Retail shopping centre • School • Service station • Sewage disposal works • Social and cultural institutions • Social and welfare centers • Telecommunication centre • Telephone exchange Universities and specialized educational institutions • Warehouses/storage godown • Water supply installations	• Super Bazars • Shopping Plazas • Residential	• Slaughter houses • Wholesale markets • Workshops for servicing and repairs

Uses Permitted	Uses Permissible on application to competent authority	Uses Prohibited
I	II	III
• Water supply, drainage, storm water, solid waste disposal, electricity, communication system and related installlations, parking lots, public utility buildings **Public Utility** • Sewage treatment plant/disposal work Power Station • Solid Waste Site • Power Grid **Religious** • Religious building, Temple, Mosque, • Trust • Dharmashala • Meditation and Spiritual centre • Religious Institution Philanthropic institution Sarais for Pilgrim Use	• Grave Yard and Cremation Ground not Creating Tentacles in future development,	

7.1.5 OPEN SPACE USE ZONE

Open Space Recreational Use Zone

The various uses permitted and prohibited in Open Space / Recreational are as mentioned in the following table.

Uses Permitted	Uses Permissible on application to competent authority	Uses Prohibited
I	II	III
• Botanical/zoological garden Building and structures ancillary to use permitted in open spaces and parks subject to the total ground coverage not exceeding 2% Camping grounds • Commercial use of transit nature like circus • Local parks • Outdoor sports stadiums • Picnic huts with built up area not exceeding 2% • Playgrounds • Public & institutional libraries with total built up area not exceeding • 2% of total site • Regional parks • Restaurants as part of sports, recreational outdoor facilities not exceeding 5% ground coverage • Specialized parks/maidans for multi-use • Golf Courses	• Regional Park • Botanical Garden • Bird Sanctuary • Holiday Resorts	• Any building or structure which is not required for open air recreation • Dwelling units except for watch and ward

Note: On sites specifically indicated as parks, playgrounds or Green Belt Project, no other activity except the specified use shall be allowed.

Open Space Buffer Use Zone

No construction is permitted in the Open Space Buffer (buffer belt of minimum 30 meters around the Full Tank Level of existing water bodies), except for fishing, boating, and picnics along the banks provided that only construction allowed is open to sky jetties for boating, platforms for fishing.

7.1.6 FOREST ZONE

No activity other than forest is permitted in this zone unless expressly allowed by the Forest Department.

7.1.7 WATER BODY ZONE

No activity is permitted in this zone unless expressly allowed by the concerned authority.

7.1.8 SPECIAL RESERVATIONS ZONE

Defence / Military Lands

Defense/Military Lands are lands under occupation of the Defense Services or otherwise earmarked for defense services. These cannot be put to other uses. The areas covered by Defense lands and certain adjoining areas as may be specifically notified, may be subjected to restrictions on constructions or on the use of lands in the interest of safety and security of the defense services or the civil population living in the contiguous areas.

7.1.9 TRANSPORTATION AND COMMUNICATION USE ZONE

The various uses permitted and prohibited in Transportation and Communication Zone are as mentioned in the following table.

Uses Permitted	Uses Permissible on application to competent	Uses Prohibited
I	II	II
• Accessory and support shopping activity • Helipad • Any other use/activity incidental to transport and communication • Booking offices • Goods terminals • Motor garage • Observatory and weather office • Parking areas/buildings • Radio and television station • Repair and repair shop and facilities such as night shelter • Residential dwelling units for essential staff and watch and ward • Restaurants • Road transport terminals (bus terminals and depots) • Truck terminal • Bus Stop and Terminal	• Petrol Pump Godowns Ware housing	• Use/activity not specifically permitted herein.

7.2 BUILDING BYELAWS

7.2.1 RESIDENTIAL USE ZONE

The residential areas are developed either as: a) Plotted Development or b) Group Housing/ Flatted Development. The density pattern i.e. (high density, medium density or low density) are followed for working out the pattern of development with respect to the size of the plot to number of dwelling units on each plot, setbacks, FAR and no. of storey's/ height of the building. The development norms for different use/ activities and on different size of plots shall be applied for sanctioning of the plan. These are based on development control rules applicable to Municipality as per Master Plan/ Zonal Plan/ Layout Plan.

Residential use in designated core area of old Town:

The designated area of old city shall compromise of the congested part of the city. In essence it shall comprise of the densely populated wards of the old city. These areas can be developed under courtyard planning also up to max. Plot area of 250 sqm.

Max. Ground Coverage permissible - 75%

No. of storeys - Ground + 2

Note:

No building shall be allowed on lands with more than 30% slope. Building line for proposed building shall be governed by Ribbon Development Act and National Highway building line respectively.

Minimum size plots: The minimum plot size for economically weaker section of society may be 25 Sq. mts plot coverage, No. of permissible storey and setbacks are given in the following table:-

7.2.1.1 PLOTTED HOUSING

Table 7-1: Building bye-laws of plotted housing – Reasi town

Area (In Sq. mt)	Max. Ground Coverage	No. of Storeys	Type of Const.	Set Back Limits (Minimum)			
				Front (M)	Rear (M)	Side (M)	Side (M)
25-100	75%	G+2	Row	1.5	1.0	0	0
101-250	65%	G+2	Row	3.5	1.5	0	0
251-350	55%	G+2	Semi-detached	4.0	2	2	0
351-450	50%	G+2	Semi-detached	6.0	2	2	0
451-500	45%	G+2	Detached	7.5	2	3	2
501-1000	40%	G+2	Detached	8.5	3	3	2
Above 1000 Sqm	35%	G+2	Detached	12	3	3	2

Note:

i) No side setbacks shall be required in plots of irregular proportions/ dimensions up to the width of 30 feet. Minimum front set back of 5' and rear set back of 3' shall be permitted in cases where depth of such irregular plots is up to 40 feet. However, there shall be no change in permissible ground coverage, No. of storeys and height of the building as given in the table above.

ii) Height of each storey in a residential house should not be less than 3.0 mts. Staircase, Mumty height up to 2.5 mts shall be in addition to G+2 storeys permissible.

iii) Garage/ Porch to the extent of 16.00 Sqmts each shall be allowed in semi-detached and detached houses. Room over porch only on one storey shall be allowed.

iv) Mezzanine floor shall not be allowed in residential area.

v) Basement shall not be permitted in residential plots of Govt. approved colony.

vi) The height of basement shall not exceed 2.6 mts from finished floor to slab soft.

I. Regulations for Private/ Public Developers

i) Group Housing/ Flatted Development:

	In Plains	**In Hills**
Minimum plot size	0.40 ha (4000 Sqm)	0.40 ha (4000 Sqm)
Max. Ground Coverage	40%	30%
Max. FAR	240%	150%
Maximum Height	40 mts.	15 mts
Min. Set backs	to be determined @ one- third of the height of each building or 25'-0"	

Note:

a) Basement, if constructed and used for parking, services and for essential storage shall not be counted in FAR.
b) The quantum of basement varies between 33. 1/3% to 75% of the plot area and shall not be included in FAR if used for Parking/ Services.
c) In-house back-up facilities to be provided for buildings beyond four storeys.
d) Minimum 1 ECS per dwelling unit shall be provided for MIG and HIG Housing.
e) Stilts, Balconies, lift stairs, lift ducts shall not be counted in FAR.

ii) Housing Colonies:

1. A person or group of persons or a co-operative society or firm intending to plot out an estate into more than 4 plots (1000 Sqm or more) shall give notice in writing to the competent authority which will be accompanied by a layout plan of entire land showing the areas allotted for roads, open spaces, plot and public buildings, the specification of the roads, drains and other infrastructures.

2. **Min. Width of road**

i) Housing colony up to 50 Kanals

Entry from the main road shall not be less than 30' and no internal road shall be less than 20'-0".

ii) Housing colony beyond 50 Kanals.

Entry from the main road shall not be less than 50' and no internal road shall be less than 20'-0".

3. Roads, Drains, water mains and electric lines required for the colony shall be constructed by the developer at his own cost and no plot shall be eligible for any services and utilities from the Govt. and/or Municipality unless the colony is developed properly and approved by the competent authority. No building plan shall be considered by the Municipality or prescribed authority in any plot of such a colony which has not received the prior approval of the competent Authority.

4. No housing colony can be allowed in the area not specified as the residential in the proposed Master Plan (if approved by Govt.) unless considered in any special circumstances by the competent authority with the approval of govt. In such housing colonies, the following standards shall apply:-

    a) **Area under roads:** Min. 15% to 20% of the total area of land under the proposed colony.
    b) Land to be allotted for open spaces, schools and public building for a housing colony of 20 plots and above shall not be less than 15% of the total area of the colony. However, if the competent authority feels that an open space or a school site is absolutely necessary within the layout plan of less than 20 plots; necessary provision shall have to be made by the developer in the layout plan.

5. No housing colony will have shop plots of more than one for every ten plots. After the developed land is sold by the developer the roads and drains etc. constructed by the developer shall be transferred to the Municipality for their maintenance. Area under commercial use shall be 4% to 5%.

6. Land use of the layout plan approved by the competent authority shall not be changed without the prior consent of the competent authority.

    Open spaces allocated for parks, play-fields, school sites and public building in a colony shall be deemed to have been sold along with the plots as a amenities of the colony by the developer to the plot holders of the colony.

    No permission shall be accorded for construction of a building in any notified area which shall cause nuisance by way of odor, smoke, noise or disturbance to inhabitants of the locality or be injurious to health of the residents of the buildings or to the inhabitants in the surrounding areas.

7.2.2 COMMERCIAL USE

A. <u>Single Shops:</u>

Plot Area less than 100 Sqmts

Max. Ground Coverage	80%

In Plains:

No. of Storeys	G+2
Max. Height	11 mts
Max. FAR	240%

In Hills:

No. of Storeys	G+1
Maximum Height	9 mts.
Max. FAR	160%

Front set back shall be governed by the building line of the road.

B. Shopping Cluster:

a)	Plot Area	100 Sqmt- 750 Sqmts

In Plains:

Max. Ground Coverage	60%
Max. FAR	180%
Maximum Height	15 mts.

In hills:

No. of Storeys	G+1
Max. Ground Coverage	60%
Max. FAR	120%
Maximum Height	9 mts

Set Backs:

Front setbacks to be governed by the approved building line of the abutting road. Rear set back should be 3 mts and side set back should be 3 mts on one side only up to plot of 500 Sqm & 10'-0" on both sides for area more than 500 Sqm.

C. Commercial Complex:

a.) Plot Area	751 Sqmts to 4000 sqmts
Max. Ground Coverage	45%

	In Plains	**In Hills**
No. of Storeys	G+3	G+2
Max. FAR	180%	135%
Max. Height	20 mts.	12 mts

Set Backs:

Front setback shall be governed by the building line or 20 ft from the plot line whichever is more. Rear 1/3rd of the height of the building and sides 10'-0" on each side.

Plot Area	More than 4000 Sqm
Max. Ground Coverage	40%
Max. FAR	200%
Max. Height	25 mts.

Set Backs:

Front setback to be governed by the building line or 40 ft from the plot line whichever is more.

Side Setback	10'-0" on each side.
Rear Setback	1/3rd of the height

Note:

Shopping permissible on ground and 1st floor only.

Commercial use Zone:

The use, coverage., FAR, setbacks, open spaces shall be as per provisions of Master plan/ Development Plan approved by the Govt. or as per the simplified development promotions, regulations of the urban development plan formulation and implementation guidelines and where these are silent on such issues or which requires interpretations, the norms decided by the authority shall apply. The permission of uses/ use activities in premises shall be permitted in accordance with the provisions of Master Plan/ zonal plan/ layout plan.

Note:

Height of mumty/ lift wall above the terrace shall be in addition to the prescribed height.

D. Cinemas/ Cineplex:

Plot Area	0.40 hectare or 4000 Sqm
Max. Ground Coverage	50%
Max. FAR	150

However the height of the building should not be more than 30 mts. Other regulations as proposed in Cinematography Act shall apply in this case.

Front set back shall be governed by building line of the road or 30 ft from the plot line whichever is more.

Rear and side setbacks shall be 1/3rd of the height of the building.

E. Hotels:

a) Plot Area	1000-2000 Sqmts
Max Ground Coverage	40%
In Plains	
No. of Storeys	G+5
Max. FAR	200%
Max. Height	25 mts.
In Hills	
No. of Storeys	G+3
Max. FAR	150%
Max. Height	16 mts
b.) Plot Area	2000 Sqmts and above
Max. Ground Coverage	35%
In Plains	
No. of Storeys	G+5

Max. FAR	200%
Max. Height	25 mts.

In Hills

No. of Storeys	G+3
Max. FAR	150%
Max. Height	16 mts.

Set Backs:

Front setback to be governed by the building line or 20 ft from the plot line whichever is more.

Side and rear setbacks should be minimum 1/3rd of the height of the building or 3 mts whichever is more.

Parking:

Minimum 1 ECS for 3 guest rooms plus 1 ECS for 4 seats in case of restaurant & Bar. If banquet hall is to be provided in Hotel, the prevailing norms given in for banquet hall shall apply over and above.

F. Multiplexes:

Definition: - Multiplex complex shall mean an integrated entertainment and shopping centre/ complex having at least 2 cinema halls/ PVRs. The minimum area on which this use shall be permitted should not be less than 0.40 Hectares, or 4000 Sqmts. Apart from cinema halls, the multiplexes shall also have a restaurant, fast food, outlet, pubs, Health spas/ centers, hotels and other recreational activities. The shopping center may have retail outlet, video games, parlors, bowling alleys, health centers, shopping malls, office space.

Existing cinema halls can be considered for conversion into a multiplex by the Building Permission Authority provided it has a minimum plot area of 4000 Sqmts.

Land Use:

Multiplex may also be permitted on land earmarked for commercial use or cinema halls in the approved Master Plans/ Development Plans.

Bye Laws:

Minimum Plot Area	4000 Sqmts or 0.40 hectares
Maximum Ground Coverage	40%
Maximum FAR	200
Maximum height of Building	25 mts.

Side Setbacks:

Front setback to be governed by the building line of the road on which a multiplex is proposed. In case it is not facing any major road the minimum front setback for a

multiplex should be 12 mts from the plot line. Rear and side setbacks shall be minimum 1/3rd of the height of the structure or 6 mts whichever is minimum.

Parking:

Three level basement parking will be permissible within the complex. Parking under the basement shall be permissible over 75% of the plot area subject to a minimum set back of 3 mtrs, on all sides. 15% of the basement area shall be reserved for locating services like Generator Room, Electric Room/ Plant Room etc. Portion of the basement where these services are proposed should be segregated suitably from the other uses so as to ensure adequate safeguards against the hazards.

Parking space to be provided within the proposed multiplex shall be @ 2 car space for every 100 Sqmts of floor space.

Area to be considered under parking in basement/ stilts/ open shall be as under:

i)	Basement	28 Sqmts per car space
ii)	Stilts	23 Sqmts per car space
iii)	Open to Sky	18 Sqmts per car space

Note:

Area under parking/ services in the basement floor and stilts shall not be counted towards the calculation of FAR.

G. Janjghar/ Community Center/ Banquet Hall:

Minimum Plot Area	1.5 acres (12 Kanals)
Max. Ground Coverage	30%
No. of Storeys	G + 2
Max. FAR	100%
Max. Height	15 mts

Set Backs:

Front setback to be governed by the building line or 30 ft from the plot line whichever is more.

Side and rear setbacks shall be minimum 1/3rd of the height of the building.

H. Ware Housing, Storage Vegetables & Fruit Mandis:

Minimum Plot area	2.5 Ha (25000 Sqm)
Maximum Coverage	25%
FAR	100%
Max. Height	15 mts.

I. Petrol Pumps:

The following regulations are recommended for locating petrol pumps cum service stations:-

i. Minimum distance from the road intersections.
   a. 50 mts. on roads having R/W up to 30 mts
   b. 100 mts. on roads having R/W more than 30 mts
ii. The minimum distance to the property line of Pump from the center line of the road should not be less than 15 meters on roads having less than 30 mts R/W. In case of road having 30 mts. or more R/W building line of the road should be protected.
iii. Plot Size (Minimum);
   a. Only filing station 30 mts. X 17 mts.
   b. Filling cum service Station minimum size 36 mts x 30 mts.
   c. Frontage of the plot should not be less than 30 mts.
   d. Longer side of the plot should be the frontage.
   e. New petrol pump shall not be located on any road having R/W less than 15 mts.

b) Other Controls:

i. Filling cum Service Station (Size 30 mt. x 36 mts. and above)

a.	Ground Coverage	20 %
b.	FAR	20%
c.	Max. Height	6 mts
d.	Canopy Equivalent to permissible ground coverage within setback line.	
e.	Front Setback 6 mts (min) or B/L whichever is more	

ii. Filling Station (Size 30 mt x 17 mts)

a.	Ground Coverage	10 %
b.	FAR	10%
c.	Max. Height	6 mts
d.	Canopy	Equivalent to permissible ground coverage within setback line
e.	Front Setback	3 mts (min) or b/l whichever is most

c) Compressed Natural Gas (CNG) Mother Station

i.	Plot Size (minimum)	36 mt. x 30 mt.
ii.	Max. Ground Coverage	20 %
iii.	Max. Height	4.5 mt. (Single Storey)
iv.	Building Component Control room /office /dispensing room, Store, Pantry and W.C	

d) Other Regulations:-

i. Shall be accepted to Explosive /Fire Deptt.
ii. Ground Coverage will exclude canopy area
iii. Mezzanine if provided will be counted in FAR
iv. Whenever the plot is more than 33 mt x 45 mt. development norms shall be restricted to as applicable to the size i.e. 33 mt x 45 mt both in urban and rural areas.

7.2.3 PUBLIC AND SEMI PUBLIC/INSTITUTIONAL USE

A. Government Offices:

Max. Ground Coverage	35%
Max. Far	175%
Max. Height	20 mts

Set Backs:

Front setback to be governed by the building line or 30 ft from the plot line whichever is more. Rear and side setbacks shall be minimum 1/3rd of the height of the building.

Note:

i. The integrated office complex shall include Central Govt. Offices, local Govt. offices, public sector undertaking offices, courts and other Govt. offices, institutions.

ii. Basement up to the maximum extent of 75% of the plot area after leaving the setbacks mentioned above shall be allowed and if used for parking and services, the same should not be counted towards FAR.

B. Educational:

a) Nursery School:

Minimum Plot Area	750 Sqmt.
Maximum Ground Coverage	25%
Maximum FAR	50
Maximum Height	9 mts

Front set back shall be governed by the building line of the road or 20' from the plot line whichever is more. Rear and side setbacks should be 3 mts.

b) Primary School:

Minimum Plot Area	2000 Sqmts.	
Maximum Ground Coverage	25%	
	In Plains	**In Hills**
Maximum FAR	75%	50%
Maximum height	15 mts	9mts.

Set Backs:

Front set back shall be governed by the building line of the road or 20' from the plot line whichever is more. Rear and side setbacks should be 1/3rd of the height of the building.

Note:

School for handicapped shall have the same norms as the primary school.

c) Middle School:

Minimum Plot Area	4000 Sqmts

Maximum Ground Coverage	25%	
	In Plains	**In Hills**
Maximum FAR	100%	75%
Maximum height	15 mts	12mts.

Front set back shall be governed by the building line of the road or 30' from the plot line whichever is more. Rear and side setbacks should be 1/3rd of the height of the building.

d) <u>High/ Higher Secondary School:</u>

Minimum Plot Area	7500 Sqm.
Maximum Ground Coverage	25% including Hostel/ Residential accommodation for staff

	In Plains	**In Hills**
Maximum FAR	100%	75%
Maximum height	18mts	12mts.

Front set back shall be governed by the building line of the road or 30' from the plot line whichever is more. Rear and side setbacks should be 1/3rd of the height of the building.

e) <u>College:</u>

Minimum Plot Area	30000 Sqm
Maximum Ground Coverage	25% including Hostel/ Admin. Block/ Residential accommodation for staff.

	In Plains	**In Hills**
Maximum FAR	100%	75%
Maximum height	18mts	12mts.

Front set back shall be governed by the building line of the road or 30' from the plot line whichever is more. Rear and side setbacks should be 1/3rd of the height of the building.

Note:

i) In case of specialized professional institutions like B. Ed Colleges, Law Colleges, Coaching Centers, Tutorials etc. plot area limitation shall be regulated by the Building Permission Authority on the merits of the case in accordance with the requirements/ guide lines of the regulating authority like Medical Council of India, AICTE, UGC etc.

ii) Minimum road width in front should not be less than 12 mts.

iii) Basement up to the building envelope to the maximum extent of 50% plot area shall be allowed and if used for parking and services should not be counted for FAR.

f) <u>Educational and Research Center, (Large campus i.e. above 8 ha.):</u>

i) Academic including Administration (45% of the total land area):

Max. Ground Cov.	20%	
	In Plains	**In Hills**
Max. FAR	80%	60%
Max. Height	20 mts	12 mts

ii) Residential (25% of the total land area):

Regulations as provided in group housing/ flatted development shall apply.

iii) Sports and Cultural Activities (15% of the total land area):

Maximum Ground Coverage	10%
Maximum FAR	15%

iv) Parks and Landscape Areas (15%of the total land area):

Note:

Basement below the ground floor and to the maximum extent of ground coverage shall be allowed and if used for parking and services should not be counted in FAR.

C. Health:

a) Hospital:

Minimum Plot Area	6000 Sqm
Maximum Ground Coverage	25%
Maximum FAR	100
Maximum height	18 mts

Note:

i. Area to be used for housing of essential staff is indicated in the norms for health facilities. In such an area the regulations of group housing shall apply.

ii. Basement below the ground floor and to the extent of ground coverage shall be allowed and if used for parking and services should not be counted in FAR.

iii. Front set back shall be governed by the building line of the road or 30' from the plot line whichever is more.

iv. Minimum rear and side setbacks should be 1/3rd of the height of the building.

b) Health Center/ Nursing Home:

Minimum Plot Area	1000 Sqm
Maximum Ground Coverage	35%
Maximum FAR	100%
Maximum height	15 mts

Note:

Front set back shall be governed by the building line of the road or 20' from the plot line whichever is more.

Minimum rear and side setbacks should be 1/3rd of the height of the building or 10'-0".

D. Facilities And Amenities:

i. Religious Premises:

Plot Area	500 Sqm
Maximum Ground Coverage	30%
Maximum FAR	60%
Maximum height (Excluding minars, shikahrs and Domes)	11 mts

ii. Police Post:

Plot Area	500 Sqm
Maximum Ground Coverage	35%
Maximum FAR	70%
Maximum height	12 mts

iii. Police Station/ Fire Station

Plot Area	10000 Sqm
Maximum Ground Coverage	25%
Maximum FAR	100%
Maximum height	15 mts

iv. Post & Telegraph Office

Plot Area	500 Sqm
Maximum Ground Coverage	25%
Maximum FAR	100%
Maximum height	15 mts

v. General (Public & Semi Public Premises)

Plot Area	500 Sqm
Maximum Ground Coverage	25%
Maximum FAR	100%
Maximum height	15 mts

vi. Non- Residential Premises:

i) Hostel

Maximum Ground Coverage	25%
Maximum FAR	100%
Maximum Height	15 m
Min. No. of occupants	40

Note:

i. Front set back shall be governed by the building line of the road or 25 ft from the plot line. The rear and side set back shall be 1/3rd of the height of the building or 10'-0".

ii. Min. approach road width should not be less than 12 mts.

iii. Basement upto the building envelope to the max. extent of 50% of plot area shall be allowed & if used for parking & services should not be counted in FAR

ii) Guest House, Boarding House and Lodging House

Minimum Plot Size	500 Sqm.
Maximum ground Coverage	33.33%
Maximum FAR	100%
Maximum Height	18 m

Parking @ 1.0 ECS for every 100 Sqm. shall be provided within own premises.

Note:

i. Front set back shall be governed by the building line of the road or 20 ft from the plot line. The rear and side set back shall be 1/3rd of the height of the building or 10'-0".

ii. Max. No. of rooms shall be 12 (double bed room).

7.2.4 INDUSTRIAL USE:

a. Flatted Group Industry and Service Centre:

Minimum Plot Area	2000 Sqm	
Maximum Ground Coverage	30%	
	In Plains	**In Hills**
Maximum FAR	120%	100%
Maximum height	15mts	12mts.

Other Controls:

Basement upto the building envelop line to the maximum extent of 50% plot area shall be allowed and if used for parking and services should not be counted in FAR.

b. Light and Service Industry:

S. No.	Plot Size (Sqm)	Max. Ground Coverage	Max. FAR in		Max. height in	
			Plains	Hills	Plains	Hills
1	100 to 400	60%	125%	100%	12 m.	**9 m**
2	400 to 4000	50%	125%	100%	12 m.	**12 m**
3	4000 to 12000	45%	125%	100%	12 m.	**12 m**
4	Above 12000	40%	100%	75%	12 m.	9 m

Other Controls:

i. Maximum floors allowed shall be basement, ground floor and 1st floors; basement should be below ground floor and to the maximum extent of ground coverage shall be counted in FAR. In case the basement is not constructed, the permissible FAR can be achieved on the second floor.

ii. In case of truss, height of building should be adjusted/ relaxed.

c. Extensive Industry (Medium & Large Industry):

S. No.	Plot Size (Sqm)	Max. Ground Coverage	Max. FAR in		Max. height (m)
			Plains	Hills	
1	400 to 4000	50%	100%	75%	9

2	4000 to 12000	45%	90%	60%	9
3	12000 to 28000	40%	80%	50%	9
4	28000 & Above	30%	60%	45%	9

Note:

i. Single Storey building with basement is allowed. Basement shall be below the ground level and the maximum extent of the ground coverage and shall not be counted in FAR.
ii. In case of truss, height of building should be adjusted/ relaxed.
iii. Height relaxation can be considered by the competent authority for specialized industries requiring more height.

7.2.5 PARKING STANDARDS

The following table may be referred for deciding the parking norms for different use zones/ activity depending upon local vehicle ownership mass transportation and parking needs.

S. No.	Use/ Use Permitted	Equivalent Car Spaces (ECS) per 100 Sqm of floor area
1	**Residential** Group Housing	1 ECS for each dwelling unit for MIG & HIG having covered area above 800 Sft, 1 ECS for LIG having area between 500 to 799 and 0.5 ECS for EWS.
	Commercial i) Wholesale, retail, shopping, office & Hotels/ G. Houses ii) Cinemas iii) Community/ Banquet Hall/ Janjghar iv) Restaurant /Fast food/ Bar	2.0 per 100 Sqm of total built up area on all floors. Area under lifts/ stairs, ducts, balconies shall not be counted while calculating parking. 1 ECS for 10 seats Minimum 100 ECS up to an area of 12 Kanals in case the area is more 6 car spaces shall be added after every additional 1 kanal of area. 1 ECS for 4 seats. Note: If banquet hall is to be provided in Hotel the prevailing norm given for banquet halls shall apply over & above
2	**Public /Semi Public** i. Nursing Home/ , hospitals, socio-cultural and other institutions, government and semi government offices ii. School, college, university and Govt. hospitals.	1.0
3	**Industrial.** Light and service industry flatted group industry extensive industry.	0.75

Note:

i. Areas under lift, open Stairs, ducts, balconies shall not be counted while calculating parking.
ii. If basement and stilts are used for parking it shall not be counted in FAR.

7.3 ENVIRONMENTAL CONSIDERATIONS

1. All the electroplating units within industrial zone shall be required to set up treatment plants individually or collectively to achieve zero liquid discharge and meet all the requirements laid down by central pollution control board.

2. Minimum green buffer of 15 meters depth in the shape of a belt comprising of broad leaf trees shall be provided around the boundary of village abadi. Also between residential areas and air polluting industries falling in industrial zone of Master Plan located within 100 meters, shall be provided with a green buffer of min. of 15 meters/max 50 meters depth all along the industrial/residential zone. The provision of buffer strip shall be made by the owner of Land use, which comes later.

7.4 SAFETY

7.4.1 FIRE

Fire services have to play vital role and be fully prepared in protecting people from fire hazards, building collapse, road accidents and other unforeseen emergency etc. At present there is only one fire station in town.

7.4.1.1 DEVELOPMENT CONTROLS FOR SAFETY/ FIRE FACILITIES

Guidelines for locating fire stations & other firefighting facilities in urban extensions per zoning plan/building byelaws of the local body/any other concerned agency or as per state govt. instructions issued from time to time.

Fire station shall be so located that the fire tender are able to reach any disaster site immediately within minutes.

1. Fire station shall be located on corner plots as far possible and main roads with minimum two entries.
2. In new layouts, concept of underground pipelines for fire hydrants on periphery, exclusively for firefighting services shall be considered.
3. Fire stations are permitted in all land use zone/sectors except in recreational use zone.
4. Necessary provisions for laying underground/over ground firefighting measures, water lines, hydrants etc. may be kept wherever provision of fire station is not possible.
5. The concerned agencies shall take approval from fire department for firefighting measures while laying the service for an area.

7.4.2 DISASTER MANAGEMENT CENTRE

Reasi is placed in seismic zone IV according to the Indian seismic zone map, which means high damage risk zone. Such natural and man-made disasters neither can be prevented nor predicted. However, with the technological advancement to some extent mechanism can be developed to mitigate the after effects of the disaster. Areas of vulnerability can be identified and necessary measures can be proposed by the concerned agencies. The concerned local bodies should keep updating the building byelaws to safe guard against disasters and ensure effective and impartial enforcement. Following policies and strategies for disaster management are proposed:

7.4.2.1 PRE-DISASTER PREPAREDNESS

1. Micro-zonation surveys shall be referred for land use planning and be considered while preparing the sectors/zonal plans and layout plans.
    a. Seismic micro-zonation for selected areas having high growth rates shall be taken up on priority.
    b. On the basis of vulnerability studies and hazard identification, which includes soil conditions, probable intensity of earthquake, physiographic conditions of the area, fault traces, etc., local level land use zoning and planning shall be undertaken.

2. Building byelaws shall incorporate the aspects of multi hazard safety, and retrofitting.
    a. Priority shall be given to public buildings (such as hospitals, educational, institutional, power stations, infrastructure, heritage monuments, lifeline structures and those which are likely to attract large congregation) for their ability to withstand earthquake of the defined intensity.
    b. Reasi fire services being the nodal agency for disaster management shall identify vulnerable areas such as areas with high density and poor accessibility in the city and propose suitable measures. Proposed disaster management centers should be established in every zone/sector to deal with the disasters, including bio-chemical and nuclear disasters.

7.4.2.2 POST DISASTER MANAGEMENT

1. It has been observed that any disaster is generally followed by break down of communication lines and disruption of essential services. Therefore, the key communication centers shall be protected from natural disasters i.e. flood, fire and earthquake etc. and services restoration shall be taken up on top most priority. Necessary setup shall be created in each of the concerned department for such eventualities.

2. Standard type designs and layout shall be prepared by the local bodies and made available to the people so that crucial time may not lose in approval of layout plans and building plans after disaster.
3. Disaster Management Centers have been proposed to serve people in the case of disaster and provide emergency shelters.

7.5 OTHER DEVELOPMENT CONTROLS AND GUIDELINES

1. Regulation for village abadis: Special building regulations shall be prepared for the development and regulation of an area falling within the lal dora or phirni of the villages falling in the local planning area.

2. All panchayat land of villages falling in local planning area shall be used exclusively for public and semi-public uses including utilities, services, physical and social infrastructure, parks, open spaces, community facilities etc. and not for any other purpose.

3. The existing high tension lines shall be shifted along the road but outside the right of way to ensure unhindered ROW for traffic and other services for all times.

4. The minor drains shall have minimum 10 meters wide (or as may be specified by the state govt. from time to time) green strips on either side of the drain. Other major water bodies shall have minimum 30 meters (or as may be specified by the state govt. from time to time) green strips on each side. Realignment of water bodies shall be permissible wherever feasible, subject to the certification by the engineering department to ensure free flow of storm water.

5. Contiguous expansion of village abadis in non-residential zones of Master Plan is not permissible. However, for the village abadi falling in the residential zone of Master Plan, no such restrictions shall be applicable.

7.5.1 TRANSFERABLE DEVELOPMENT RIGHTS

To facilitate development, it is necessary to accord top priority to the implementation of public utilities and infrastructure (such as roads, parks, green belts etc.) which will in turn encourage planned development/regulated urbanization. However, the respective technical agency or authority will not be able to proceed with its implementation programmes until the ownership of private land affected by these public utilities and infrastructure has been transferred to the state or to the relevant authority(s).Acquisition of private land for this purpose is proposed to be carried out through one of the following options:

1. Cash compensation to be paid to affected land owners whose land is to be acquired or a land-pooling scheme may be formulated and implemented.

Out of these options, use of mechanism of TDR (Transfer of Development Rights) is recommended due to the reasons specified below:

1. It is relatively simple and direct mechanism to implement and execute.
2. The requisite public infrastructure projects can be implemented quickly, thus facilitating rapid urban development.
3. The interests of affected landowners are protected.

The TDR scheme shall be restricted to development projects for public infrastructure and facilities which shall be announced from time to time. The additional FAR shall not be transferable from one LPA to another. The competent authority on priority shall finalize detailed policy guidelines on the operation and implementation of TDR Scheme.

Important note:

- In addition to all these building byelaws and development controls, the byelaws described in the Jammu and Kashmir municipal council act 2000 may also be applied on any building as per the site requirement.

7.6 RESIDENTIAL DENSITIES

The entire Residential zone for LPA, Reasi has been defined in the proposed land use. The residential zone has been divided into two sub zones. Keeping in view the peculiar quality and pattern of development within core town, the area enclosed within the core town has been designated as especially residential zone whereas remaining residential area has been put into other category. The maximum permissible residential density in core city shall be 88 persons per hectare while the overall density of the LPA shall be 52 pph.

7.6.1 CORE TOWN

Keeping in view the special character of the core town and its pattern of development, special regulations for the development of area falling within core town shall be formulated in order to ensure decongestion of population and decongestion of activities for creating more open spaces and improving the quality of life by making available land for physical and social infrastructure. Strategies would also include pedestrianisation of the congested area of core town, minimizing change of land use, minimizing sub-division of land, preserving and enhancing the ambience of buildings of historical, cultural and religious importance besides rationalizing the traffic and transportation.

7.7 CONTROLS AND REGULATIONS

Facade treatment and the architectural detail of buildings contribute significantly to the way a building ‘reads’ from the street and to the character and continuity of the streetscape. The composition and detailing of the building façade also has an impact on the apparent bulk and scale of a building. It is important when considering the design of new development that the predominant patterns, compositions and articulation of facades reinforce the character and continuity of the streetscape.

Design consideration is to be given to the underlying building materials that contribute to the character of a building. Such things include roof shape, pitch and overhangs; entry porches, verandas, balconies and terraces; materials, finishes, fixtures, patterns, fenestrations, colors and detailing; the location and proportion of windows and doors.

In case of Reasi, only the Zone one (core town) area depicts a special character and there is a need to frame a facade controls measures for this area. Following are the suggestive measures for facade control in this area.

1. The facade of the building/blocks shall be maintained on old lines in case of reconstruction of existing buildings, however the internal changes shall be permissible.
2. The existing parks and green open spaces shall be preserved as such.
3. Signs and outdoor display structures / including street furniture on heritage site shall be framed by urban design wing (proposed in the development authority). In addition, regulations or guidelines to regulate signs, outdoor display structures and street furniture on heritage sites/ or in area shall also be framed.
4. Widening of the existing roads under the Master Plan of the city or in the layout plan shall be carried out considering the existing heritage buildings (even if they are not included in a Zone 1) or which may affect natural features areas.

7.8 IMPLEMENTATION OF THESE REGULATIONS

1. All authorities competent to grant permission for layout or sub-division of land or construction of building or development of land in any other form shall ensure that the permitted development is in compliance with these regulations.
2. Landowners desirous of developing their land can obtain, by applying to the designated authority in writing and giving details of their land along with necessary maps, a list of permissible uses.
3. Similarly, landowners proposing development of certain uses on their land can obtain certificate of "Compliance with Master Plan" from a designated authority.

CHAPTER 8. INSTITUTIONAL FRAMEWORK AND IMPLEMENTATION MECHANISM

8.1 IMPLEMENTATION STRATEGY

After the formal submission of the Master Plan for Reasi, the Planning Area thereby declared under J&K Development Act 1970 would come under the purview of suitable authority appointed by the Government, for planning and development of Reasi as an upcoming class-II town. With an objective of developing Reasi as a self-sustained town, the proposals of the Master Plan felt the need of having a long-term policy framework to guide its development in a cohesive and sustainable manner. Town Planning Organization, Jammu prepared the Master Plan for Reasi with due recognition of its fragile environs and rich water resources resource base. Special planning considerations were adopted while preparing the master plan. The Master Plan implementation requires (i) development of new areas (ii) redevelopment of existing developed areas and (iii) conservation of eco-sensitive areas. Land use plan, Land use zoning, sub-division and development control regulations would in general be the base for all development, and redevelopment in the city.

8.2 URBAN LAND POLICY

Master Plan is a set of coherent policies for ensuring living environment in a town or city through a vision for location criteria and factors of accessibility, functionality, optimization and sustainability of urban uses. In the Master Plan, an attempt has been made to make Urban Land Policy more realistic by taking cognizance of economic forces, urban forces, ground realities, fiscal empowerment, and structure/functions of local agencies and requirement of the community at large. The Master Plan of Reasi for a horizon period of 20-years (2014-2034) proposes development encompassing roughly about 335 hectares of land within the Planning Area Limits. About 90 % of the land is in private ownership, which is likely to generate impediments in the implementation and enforcement of the Master Plan proposals. Due to ownership constraints of land, it has been observed over the period of time in cities/towns, that most of the Master Plans are not able to achieve the desired goals of planned development. Master Plan recommends the development of a model for the implementation of proposals by the local authority using the Public-Private Partnership and Public-Public Partnership. Land is the medium on which the entire human superstructure of human settlement is created. In planning, the use of land leads to socio-economic and physical development of urban and rural areas. Land being a scarce entity envisages it is most effective and judicious utilization in the best interest of a community through the instrument of development plans.

Land procurement through such means naturally requires huge capital investment, which is beyond the fiscal capabilities of many of the local authorities. As a result, many plans remain confined to paper planning only. There is a growing consciousness that urban planning should be self-financing with minimum burden on local authorities or the government. In this context, the Master Plan proposes a set of techniques for land assembly or land procurement on the pattern of states like Maharashtra, Gujarat and Andhra Pradesh, which includes the following:

- Town Planning Scheme (TPS) by way of land pooling and redistribution;

- Mechanism of Transfer of Development Right;
- Large scale ownership of land by the government in the town;
- Amendment to land acquisition act;
- Disposal of urban land by the government on lease hold basis;
- Development of private lands in accordance with the development act;

As per the Development Act of 1970 of Jammu and Kashmir, there is only option of zonal development plans for the development of urban areas.

Following are the current features of Development Act of Jammu and Kashmir, 1970 are:

- Provides overall development framework;
- Overall direction of urban expansion;
- Land use zoning;
- City level infrastructure;
- Reservation of land for other public semi-public purposes;
- Reservation of land for the housing for poor;
- Development control regulations (DCRs).

8.2.1 ZONAL DEVELOPMENT PLAN UNDER DEVELOMENT ACT 1970;

1. Area to be declare for development or redevelopment;
2. Specify standards of population density;
3. Provisions related to all any of the following:
    - Sub division of land/ site in to plan.
    - Land reserved for roads/pen spaces/ parks etc.
    - Amenities to be provided in relation to the site buildings.

Some of the other points which will be cover under ZDPs:

- Development
- Acquisition and Disposal of Land
- Betterment Charges
- Man Power
- Development Charges

There is a need for the review of Development Act, so that the private players can be involve for development and acquisition of land through negations and land pooling just like the following models of some states of India.

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- Mechanism of Transfer of Development Right.
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- Amendment to land acquisition act.
- Disposal of urban land by the government on lease hold basis.
- Development of private lands in accordance with the Development Act.

8.2.2 LAND MANAGEMENT PROCESS – GUJARAT

Urban Planning in Gujarat is two-step process as prescribed in the GTPUDA and its rules. The Ist step is to prepare a Development Plan (DP) for the entire town/city or development area. The 2nd step is to prepare Town Planning Schemes (TPs) for the smaller portions of the development area for which the development plan is prepared.

8.2.2.1 TOWN PLANNING SCHEMES (TPS)

- It is an effective instrument for importance of Master Plan.
- Land reconstitution.
- Local level infrastructure implementation.
- Neighbourhood level road network.

8.2.3 PUBLIC PRIVATE PARTNERSHIP FOR AFFORDABLE HOUSING – RAJSTHAN

Public Private Partnership is merging as an efficient model for delivery of several areas and various sectors. The concept of PPP in housing sectors has evolved in order to meet the large demand of housing.

Public Private Partnership Model allows state agencies to overcome reserve deficit, improve cost recovery and increase supply of houses based on demand.

8.2.4 POLICY DIRECTIVES

- The effective public control over land particularly through large-scale acquisition, especially for creating land banks for achieving major proposals of the Master Plan e.g. housing, nodal facilities, terminus centres, socio cultural activities, parallel corridors etc. It is also likely to help to regulate future development of the town and give financial sustainability to weak Urban Local agencies of the town ensuring control over land values.
- Provision of Utilities and Services after acquisition of land by local agencies and encouraging the builders and housing cooperatives, urban local agencies etc registered with the planning agencies and making them vital component of urban development of Reasi.

- Government besides propagating plot reconstitution and plan layout shall also develop planned colonies after bulk acquisition/land pooling to cater the urban poor who otherwise due to non-affordability are left out of land market. Plots in Housing colonies developed by Government/Private Entrepreneurs/individuals shall be reserved for the urban poor (EWS & LIG) as per norms in vogue to avoid growing of urban slums.
- The implementation agencies should invite applications from the interested parties or individuals having chunk of land within the Master Plan limits to promote private interventions in the implementation of land use proposals.
- In the Planning Area, patches of Government land exist. Government land, pasture land, within the Master Plan limits shall be taken over by the Local Authority constituted for the purposes of Planning and Development of Reasi under the provisions of the J&K Development Act, 1970, while as such land within the Municipal Committee limits shall be handed over to Municipal Committee for creation of assets, development of amenities/facilities as per the provisions of the J & K Municipal Act, 2000.

8.3 IMPORTANCE OF LEGAL FRAMEWORK

Contemporary city planning, through government machinery seeks to regulate market forces, in a sequential manner towards city building processes with the intention of furthering citizen's wellbeing. The proposed Master Plan apart from seeking to lay-out a physical pattern of land use and transportation linkages for Reasi local planning area as a whole, will serve as a guide for public and government agencies to conform and integrate their sectoral projects into programmes. Hence it is important that suitable strategies are evolved for implementation of the plan proposals. The authorities have to be identified within the framework of existing legal framework wherever possible and if required frame new set of rules and regulations or amend the existing ones.

8.3.1 EXISTING LEGAL FRAMEWORK

At present the building and land development activities in Reasi are regulated by the following regulations:

1. The Jammu and Kashmir Development Act, 1970.
2. The Jammu and Kashmir State Town Planning Act, 1963. Act No. XX of 1963.
3. The Jammu and Kashmir Municipal Act, 2000. Act No. XX of 2000.
4. The Jammu and Kashmir Municipal Laws (Second Amendment) Act, 2010.

Out of the above, the Jammu and Kashmir State Town Development Act, 1963 provide for preparation of Master Plan and regulate development for matters connected therewith the procedures in the preparation of Master Plan, there are no clear-cut provisions regarding monitoring and implementation of the plan. Chapter IV provides for use of land and building as per the Master Plan provisions and permission is to be granted by the town planner.

The Jammu and Kashmir Municipal law deals primarily with the financial allocation as per the annual plans, five year plans and perspective plans pertaining to various sectors.

The Jammu Municipal Act 2000, 1999 deals with the rules and regulations and procedures for issuing building license within the jurisdiction of the council.

The town planning act 1963 deals with procedures relating to approval of Master Plan, modifications to the plan, application for planning permission and fees structure for development or redevelopment.

8.3.2 STRENGTHENING THE LEGAL FRAMEWORK

Development Regulations proposed in the Master Plan is applicable to the entire Reasi planning area. In case of conflict between the proposed development regulation and Municipal Committee byelaws or any other law, the provisions contained in the proposed development regulation will be implemented.

The Reasi planning area includes Reasi municipal town and 18 revenue villages. The J&K Municipal Committee Building Byelaws, 1999 are applicable only within Reasi municipal area. The provisions of the same may be extended to the entire planning area.

The Reasi municipal committee building byelaws contains certain planning parameters like FAR, minimum plot size, setback and parking etc. Since the proposed development regulations comprehensively cover all the planning parameters, some of the provisions of the Reasi Municipal Council building byelaws need to be amended to this effect.

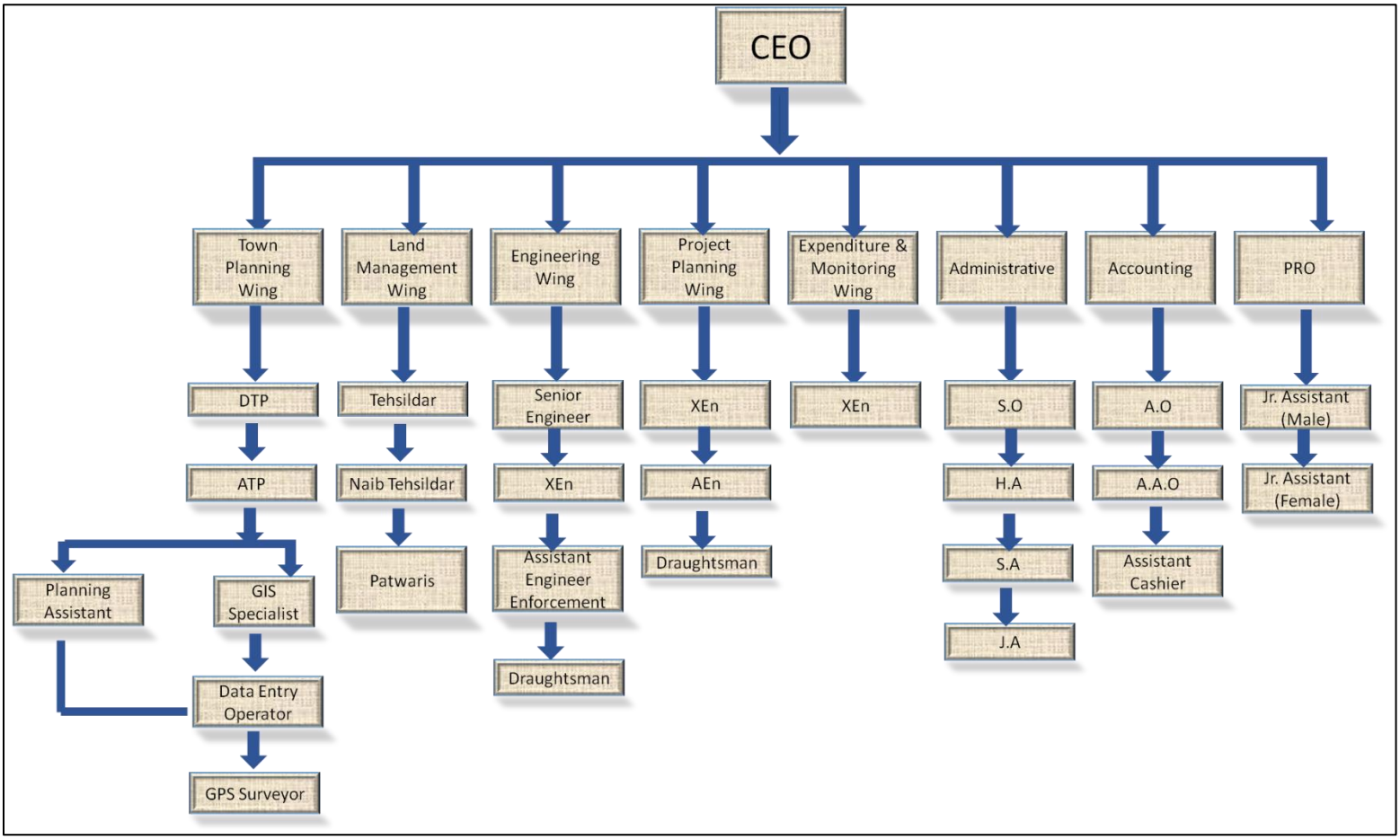
8.4 RESTRUCTURING ADMINISTRATION

At present there is the district development board which is the Planning and the execution agency including the public representatives headed by the District Development Commissioner (DDC) with the responsibility of formulation of district plan and fixing of the priorities and the monitoring the progress and financial department. As per our field survey there is no coordination between various departments. Reasi being the district headquarters, it is proposed that **Reasi Development Authority** as apex controlling agency needs to be setup to regulate, guide and control the integrated development as per proposed Master Plan.

8.4.1 ORGANIZATIONAL STRUCTURE OF REASI DEVELOPMENT AUTHORITY

To implement the Master Plan 2035 proposals following organizational setup has been proposed with its various functional wings. We propose that the District Commissioner shall get the additional charge to head the Development Authority in the capacity of CEO. Moreover for the implementation of the Master Plan, the Municipal Committee may be strengthened.

Figure 8.1: Proposed Organizational Structure of Reasi Development Authority.



Besides general administration, including accounting and the maintenance of statistics, RDA should have the following major functional wings.

1. Town Planning Wing
2. Land Management Wing
3. Public Relation Wing
4. Project Planning Wing
5. Expenditure And Monitoring and Development Control Wing

RDA should function only as controlling agency but should have limited execution function. Execution work mostly will be done by respective departments. Since the execution is to be carried out by different departments, monitoring and development control wing of RDA has to be capable enough to monitor and control all these execution works. Modern techniques including computer planning to plan development projects should be there.

8.4.1.1 PROJECT PLANNING WING

PPW/Monitoring developing has to function in close conjunction these wings should be headed by an executive engineer and should be under control of CEO. Major function of this wing should be to phase

out projects, set targets according to available resources and achievable capabilities, set land procedures and call for tenders. This wing should integrate various projects / schemes within the flow of funds.

8.4.1.2 EXPENDITURE AND MONITORING AND DEVELOPMENT CONTROL WING

This wing should monitor the progress of projects upgrade these if necessary.

1. Impose cost control techniques
2. Monitor physical progress forecast cash flow
3. Schedule resources optimality
4. Optimize the project cost

8.4.1.3 LAND MANAGEMENT WING

This wing is the major functional wing should have to prepare the inventory of all lands are acquiring to give details of Khasra no., ownership, cost etc.

8.4.1.4 TOWN PLANNING WING

This wing should review the development in view of Master Plan, review the target premises of Master Plan at suitable intervals and prepare long term development objectives and structures and view on environmental issues.

This being the first Master Plan for Reasi and since there are also proposals for preparation of Master Plans for more towns in J&K, it is required that the office of the town planner, as provided for in the Town Planning Act, 1963 is further strengthened for effective implementation and monitoring of the plan proposals.

8.4.2 POWERS AND FUNCTIONS

The proposed authority will be vested with powers such as, review and revision of Master Plan for the planning area, implementation of the provisions contained in the approved Master Plan, programmes and projects contemplated in the Master Plan. It will have jurisdiction over the entire planning area including Reasi town. The main functions of the authority will include the following:

1. Framing policies and strategies towards implementation of Master Plan.
2. Realization of identified programmes and projects of the Master Plan, by evolving suitable implementation mechanism.
3. Approval of building plans and layouts.
4. Change of land use and reclassification.
5. Dealing with land and building activities in contravention to the provision of the Master Plan.
6. Initiate, approve and implement major infrastructure development projects.

8.4.3 ROLE AND RESPONSIBILITIES OF THE AGENCIES

A measure of success of the Master Plan would be the extent to which the proposals envisaged in the plan are implemented in the plan period. The role of various agencies including the government departments of the Jammu and Kashmir is critical in this regard, and convergence of efforts of all the concerned stakeholders is required. The departments responsible for the projects enlisted in the Master Plan need to initiate actions towards preparation of detailed project reports (DPRs) and environmental impact assessment (EIA) reports wherever necessary and obtain clearance from all relevant authorities.

The Reasi Development Authority could play its role importantly in implementation of the various development projects enunciated in the Master Plan. The authority could help channelizing the required funds for the projects through application of innovative public private partnership models.

As land is an essential component of every project conceived in term of spatial context, the government departments are to take appropriate steps in acquiring lands for the development projects.

The Master Plan shall propose amendments to the Municipal Committee Building Byelaws, 2000 in consonance with the proposed development regulations, and suggests that the same may be made applicable for the entire planning area till such time, a common byelaws for all panchayats in the Reasi LPA are enacted.

8.5 RESOURCE MOBILIZATION STRATEGY

Implementation of Master Plan generally requires massive financial investment, mobilization of which is a complex task. In the pursuit of spatial development, the government should not always be expected to spend money or participate directly in development activities rather private resources should also be appropriately mobilized. The role of private sector shall be duly recognized and utilized in plan implementation.

As a general fiscal policy on resource mobilization, it would be desirable to have a proper mix of public and private sectors, both playing a symbiotic role in such a way that the public infrastructure programme is implemented through budgetary sources and marketed infrastructure and the facilities are provided through private sector while a joint venture could also be explored where practical. The local authority as such has to come up with innovative fiscal instruments and ways to mobilize financial resources. One of the ways to enhance fiscal capabilities of the authority is to shed some of its functions and evolve alternative institutional arrangements for the performance of such functions. Already some headway has been made in this regard in other parts of our country. BOT, BOOT, OMT, etc. are emerging variations of such partnership arrangements, which need to be explored. Resource Mobilization especially in terms of fiscal investment during horizon period of Master Plan for achieving targets is proposed in the light of alternative investment models. Attempt has been made to explore potential areas of investment for private investors especially in the operation and maintenance of infrastructure created by local area authority. As such Master Plan proposes a restrained role for

private sector participation with respect to fragile environs and environmental sustainability of the area. It is felt that private investment in certain selective areas of development will provide necessary impetus for infrastructure development in the area.

8.6 PHASING

With limited resources in hand, debarring from horticulture resources, the Master Plan asserts that local area authority should evolve a scientific mechanism for resource mobilization and implementation of development proposals. It has been proposed that private participation shall be encouraged to cater the potential infrastructure demand during horizon period of 20 years. It is urged that the authority shall provide a conducive environment for public-private-participation and should develop a mechanism to safeguard the area from destruction through effective checks on development carried out by private developers. Based on priority of targets, potential demand and fiscal investment, it is held that the Master Plan will have a horizon period of 20 years to be implemented in four phases of 5-years.

It proposes that Phase – I shall comprise all those components which may act as catalysts and contain multiplying effects for development. Therefore, apart from road connectivity, acquisition for development of housing colony, industrial development, logistics, dislocation and rehabilitation of shops and residential structures at major road intersections shall be taken up in Phase-I and Phase-II.

The follow-up phases i.e. Phase-III and IV shall have thrust on further tourism expansion, land acquisition for further infrastructure development. The Master Plan of Reasi being a guiding policy document asserts that possibilities have to be explored to check migration to other major urban centers by providing the entire infrastructure envisaged in the Master Plan.

8.6.1 PHASE FIRST (2016-2020)

1. Shifting of government offices and bus stand.
2. Development of district hospital.
3. Developments of parking lots along the major roads likes inner roads and new railway road.
4. Conservation of fort and heritage structures within the core area.
5. Development of proposed roads.
6. Up-gradation of identified existing roads.

8.6.2 PHASE SECOND (2021-2025)

1. Development of major residential/ commercial area.
2. Development of STPs.
3. Up-gradation and development of drainage system.

8.6.3 PHASE THIRD (2026-2030)

1. Development of residential area for population and adequate infrastructure.
2. Development of river fronts.

8.6.4 PHASE FOURTH: (2031-2035)

1. Development of residential area for population and adequate infrastructure.
2. Development of gaps by review of all phases.

Reasi due to its location, linkages, population growth and urban sprawl is developing, it is important to effectively implement the proposal of Master Plan. This however will depend considerably on the availability of infrastructure such as housing, power, transport, water supply, drainage etc.

The present level of infrastructure provision is largely indicated which has to be increased considerably to fulfill the future needs of Reasi.

8.7 INTO FUTURE

The proposed Land use plan 2035 reflects the development strategies evolved on the basis of many parameters such as physical, social, economic and environmental. The Master Plan aims to promote the socio-economic conditions coupled with improvements in quality of life. For successful implementation of the same the following action programmes are required.

1. Prepare and implement detailed development plans for the various nodes as suggested in the Master Plan proposals.
2. Horizontal and vertical integration of all the sectoral programmes envisaged in the Master Plan and initiation of action in implementing the same within the timeframe stipulated.
3. Promotion of public private partnership mode of development, especially in the tourism, industries and housing sectors.
4. Review of the Master Plan periodically, to assess the developments taking place and suggest amendments in accordance with policies of the government and the priorities of the people.

CHAPTER 9. RESOURCE MOBILIZATION AND IMPLEMENTATION

Adequate amount of land and financial resources will be required to implementation the proposal of Master Plan. The State and local budgetary support are inadequate for the development of existing and proposed infrastructure facilities. Since urban development is a continuous phenomenon, city administration needs to improve its internal resources and management. In the age of the market economy, there is nothing like availability of free services and facility. The expenditure incurred on provision of services and facilities will have to be recovered through direct and indirect mean from the users. Private sector participation needs to be increased in means to be encouraged in order to efficient delivery of services. Besides budgetary support and mobilization of resources from the market, the following, the following land base resource mobilization efforts need to be taken up by the urban local body.

9.1 ESTABLISHMENT OF LAND/PROPERTY BANK

1) Preparation of base map for the municipal area and for the development area through recent satellite images and GIS technology.
2) Identification of additional land on the basis of satellite imagery and revenue records.
3) Acquisition of land for public facilities, services and transport through preparation of urban land consolidation measures. Town planning scheme can also be adopt here. Thus the detailed record ownership and management of land will be available with urban local body and administration which can be used as land bank.

9.2 ASSESSMENT OF USER CHARGES AND HOUSE TAX ON THE BASIS OF ACTUAL USE

There are many properties in urban areas which either is unauthorized or developed in access of approved development. These have been used mainly for commercial purposes and it is difficult to remove these properties. There is need to identify such property and penalty in terms of user charges and house tax.

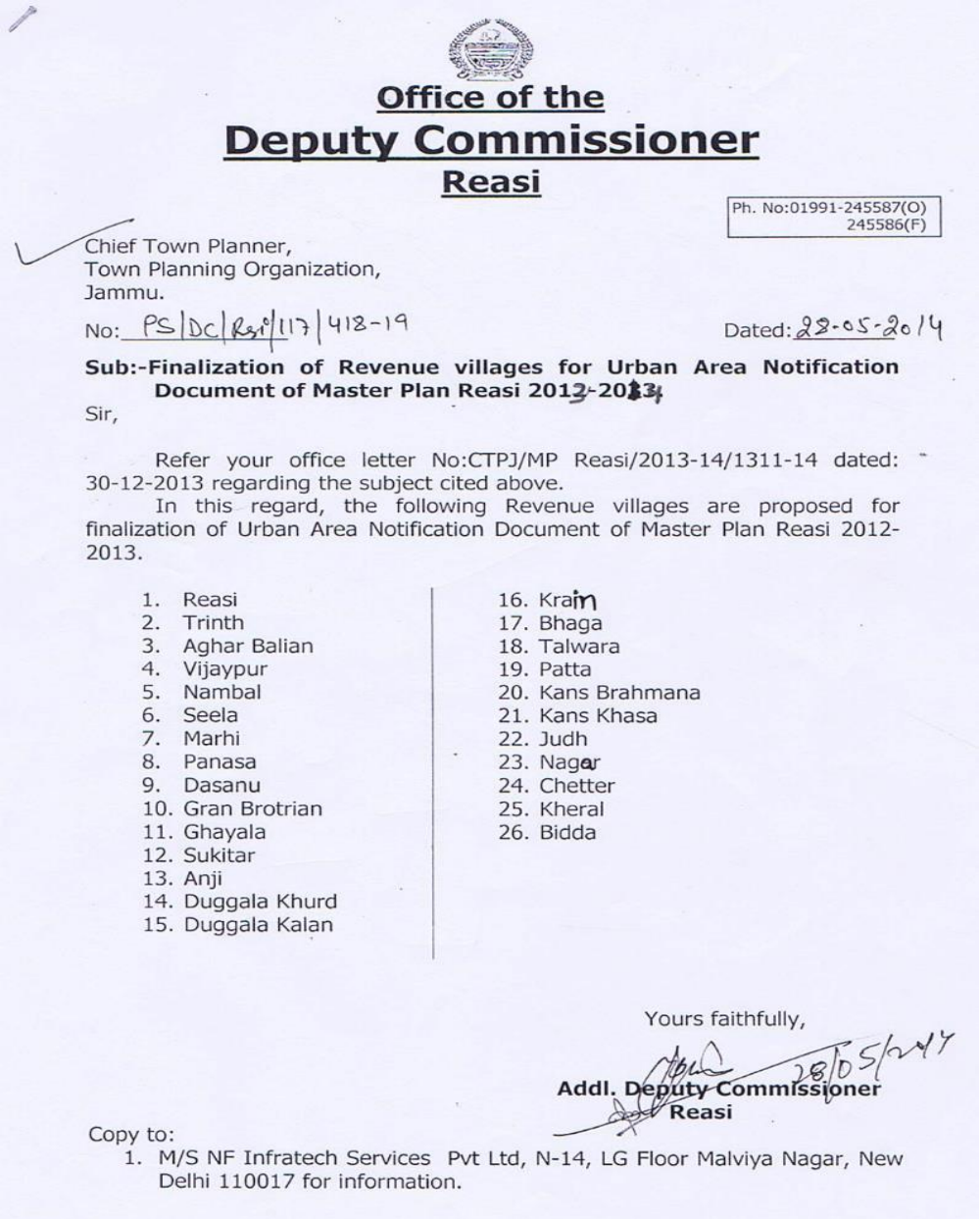
- Penalties and Punitive charges need to be incorporated. Similarly, additional house tax needs to be planned for unauthorized development.
- As many heavy and light vehicles have parked on the public land, especially in night. Therefore, monthly rent needs to collect from these vehicles.
- Permissible FAR needs to be increased up to 1.0 in urban areas. Additional FAR of the marked sites can be sold out. FAR from 1-2 meter may be saleable by the development authority.
- Additional FAR can be permissible to those land owners who give their land free of cost for the construction of roads or development of parks. This additional FAR, he can use himself or sold to any person.
- External development charge and betterment charge needs to be regulated on the basis of actual displacement expenditure.

- User charges revenue from various public facilities should be increased on the basis of corresponds to costing.
- Land use conversion charge and Impact fee needs to be collected on the basis of actual constructed property.
- "Free land use Zone" also can be developed by the development authority in which various non-polluted activities can be permitted after charging of additional impact fee on the basis of actual demand.

Therefore, these charges will help in efforts to strengthen the financial resource mobilization for development in the urban area.

CHAPTER 10. ANNEXURE

10.1 ANNEXURE 1: PS/DC/REASI/117/418-19



Office of the
Deputy Commissioner
Reasi

Ph. No:01991-245587(O)
245586(F)

Chief Town Planner,
Town Planning Organization,
Jammu.

No: PS|DC|Rsi|117|418-19 Dated: 28-05-2014

Sub:-Finalization of Revenue villages for Urban Area Notification Document of Master Plan Reasi 2013-2033

Sir,

Refer your office letter No:CTPJ/MP Reasi/2013-14/1311-14 dated: 30-12-2013 regarding the subject cited above.

In this regard, the following Revenue villages are proposed for finalization of Urban Area Notification Document of Master Plan Reasi 2012-2013.

1. Reasi
2. Trinth
3. Aghar Balian
4. Vijaypur
5. Nambal
6. Seela
7. Marhi
8. Panasa
9. Dasanu
10. Gran Brotrian
11. Ghayala
12. Sukitar
13. Anji
14. Duggala Khurd
15. Duggala Kalan
16. Kraim
17. Bhaga
18. Talwara
19. Patta
20. Kans Brahmana
21. Kans Khasa
22. Judh
23. Nagar
24. Chetter
25. Kheral
26. Bidda

Yours faithfully,

28/05/2014

Addl. Deputy Commissioner
Reasi

Copy to:
1. M/S NF Infratech Services Pvt Ltd, N-14, LG Floor Malviya Nagar, New Delhi 110017 for information.

10.2 ANNEXURE 1: SETTLEMENT-WISE POPULATION AND AREA DETAILS REASI LPA (2011)

Settlement	Population (2011)	% of LPA population	Households	Average household size	Area (Ha)
Reasi LPA Total	**27,335**	**100.0%**	**5,204**	**5.25**	**4,643.0**
Reasi LPA Rural	**19,539**	**71.5%**	**3,662**	**5.34**	**4,381.3**
Tranth	511	1.9%	106	4.82	177.90
Aghar Balian	1,151	4.2%	196	5.87	122.43
VijayPur	792	2.9%	144	5.50	92.92
Seela	2,577	9.4%	371	6.95	473.78
Nambal	561	2.1%	78	7.19	45.68
Patta	792	2.9%	149	5.32	129.55
Kans Brahmana	254	0.9%	47	5.40	175.21
Panasa	753	2.8%	132	5.70	238.12
Dosanu	618	2.3%	111	5.57	363.67
Sokitar	384	1.4%	72	5.33	510.56
Garan	755	2.8%	138	5.47	449.88
Talwara	5,125	18.7%	841	6.09	257.11
Marhi	4,392	16.1%	924	4.75	484.03
Bidda	624	2.3%	254	2.46	123.47
Dugal kallan	35	0.1%	8	4.38	24.84
Dugal khhurd	20	0.1%	6	3.33	20.61
Ghiyala	195	0.7%	85	2.29	72.62
Reasi LPA Urban	**7,796**	**28.5%**	**1,542**	**5.06**	**261.7**
Reasi MC Ward 1	657	2.4%	126	5.21	16.20
Reasi MC Ward 2	1,035	3.8%	202	5.12	40.20
Reasi MC Ward 3	717	2.6%	155	4.63	28.90
Reasi MC Ward 4	1,035	3.8%	145	7.14	40.00
Reasi MC Ward 5	468	1.7%	168	2.79	4.40
Reasi MC Ward 6	574	2.1%	99	5.80	21.30
Reasi MC Ward 7	431	1.6%	83	5.19	5.30
Reasi MC Ward 8	310	1.1%	64	4.84	5.30
Reasi MC Ward 9	758	2.8%	117	6.48	37.30
Reasi MC Ward 10	382	1.4%	115	3.32	5.20
Reasi MC Ward 11	544	2.0%	109	4.99	7.30
Reasi MC Ward 12	500	1.8%	96	5.21	19.20
Reasi MC Ward 13	385	1.4%	63	6.11	31.10

Source: *Census of India, 2011*

10.3 ANNEXURE 3: HOUSEHOLD SURVEY – REASI TOWN (2014)

As per the clause 2.4 (i) of the RFP, a sample survey of five percent of the total population within the urban area was conducted and various attributes have been collected by NF Infratech Service Pvt. Ltd. (New Delhi).

150 no. houses were surveyed which constitute 10% of the total 1542 households. The survey data was collected for every 20th house from the Town. This sample survey represents the entire LPA because the town has a scattered settlement and having agricultural landuse. The total no. of persons residing in these 150 houses is found to be 750. The various characteristics of the surveyed population are as follows:

Age and Sex:

Table 10-1: Age and Sex Distribution - Reasi Town (2014).

Age years	Males	Females	Total	% of Total
0-6	28	26	54	7.2
6-20	180	166	346	46.1
20-55	120	121	241	32.1
55-above	60	49	109	14.5
Total	388	362	750	100

Source: *Primary Socio Economic Survey, 2014*

Occupational Structure:

40 percent of the total workers are engaged in their own business like shops, rehris, etc. Service sector in government sector as well as in private sector also play an important role in the economic growth of the town. The survey shows that > 45% of the population is engaged in the service sector while 15% of the population is engaged in the primary and secondary activities.

Educational Structure:

Table 10-2: Educational Structure - Reasi town (2014).

Qualification	No. of persons	%age of total population
Primary	182	24.27
Secondary	270	36.00
Higher secondary	189	25.2
Graduation	76	10.1
Post-graduation	13	1.7
Ph.D.	0	0.0
Illiterate	20	2.7
Total	750	100

Source: *Primary Socio Economic Survey, 2014*

Per Capita Income:

Out of 150 families surveyed, 80 have a per capita income of INR 2000 - 5000 per month, 40 families have a per capita income of INR 5000 - 10000 per month and only 30 families have a per capita income less than INR 2000 per month.

Housing Type:

On the basis of material used in the flooring, superstructure and roof, the surveyed houses can be categorized into three types, i.e., Kaccha House, Pucca House and semi Pucca House. The percentage of each type has been given in Table 11-3.

Table 10-3: Houses by type - Reasi town (2014).

S. No.	Type	%age
1	Pucca	68
2	Kaccha	15
3	Semi pucca	17

Source: *Primary Socio Economic Survey, 2014*

Ownership Status:

Ownership status of the houses indicates that of the total population, 94 percent people have their own houses and only 6 percent are living as tenants.

Households by Source of Drinking Water:

As per the survey, about 96 percent of the total surveyed households are getting the drinking water from piped water supply provided by PHE Department and the remaining 4 percent depend on the wells, springs, etc.

Households by Availability of Sanitation Facility:

Table 10-4: Households by availability of sanitation facility – Reasi town (2014).

S. No.	Type	%age
1	Septic tank	84
2	Pit Tank	7
3	Direct in Drain	4
4	No facilities	5

Source: *Primary Socio Economic Survey, 2014*

10.4 ANNEXURE 4: LETTER NO.330/0Q/03/08/2015

OFFICE OF THE TEHSILDAR REASI

To

Chief Town Planner,

Town Planning organisation,

Jammu.

No:- 330/09 Date:- 03/08/15

Subject:- Providing Revenue record of Govt. Land of various villages under local Planning area of Reasi, master Plan.

Sir,

Kindly refer to the subject cited above, In this connection , it is requested that vide your letter No. NFIT /DL /CTPJ/MP/2015/17 dated 07/07/2015. The requisite information are prepared by the field staff but the khasra map could not be prepared because the AKS Musari or AKS Latha are not available of the said villages.

Therefore, the Khasra wise statement of state land is submitted for kind perusal.

Yours Faithfully,

Tehsildar
TEHSILDAR
Reasi

10.5 ANNEXURE 5: KHASRA-WISE DETAILS OF VILLAGES IN REASI LPA

Table 10-5: Khasra Wise Statement of Villages in Reasi LPA.

S. No.	Name of Village	Khasra Number
1	Reasi (MC)	1 -1164
2	Marhi (CT)	1 -1888
3	Bidda	1 – 485
4	Trintha	1 – 273
5	Talwara (CT)	1 – 580
6	Panasa	1 – 269
7	Seela	1 – 1189
8	Aghar Balian	1 – 730
9	Garan	1 – 1205
10	Kans Brahmana	1 – 114
11	Vijaypur	1 – 283
12	Dasanu	1 - 770
13	Sukitar	1 - 719
14	Patta	1 - 168
15	Duggala Kalan	1 - 21
16	Nambal	1 - 68
17	Duggala Khurd	1 – 15
18	Ghayala	1- 170

10.6 ANNEXURE 6: VILLAGE WISE KHASRA DETAILS OF STATE LAND IN REASI

Table 10-6: Khasra Wise Statement of State Land- Reasi Town

S. No.	State Land		Revenue Land		Khasra No.	Name of Village
1	Kanal	Marla	Kanal	Marla		
			0	15	95	Panasa
	3	17	5	9	225/1	
	3	7	0	0	92	
			0	0	93	
2	1	12	0	0	644/593/153	Sukitar
	7	13	0	0	592/153	
	1085	4	0	0	608/595/553	
	67	7	0	0	599/127	
	0	18	0	0	643/593/153	
	142	2	0	0	642/602/148	
	105	13	0	0	604/525	
	18	11	0	0	645/593/153	
3	0	0	12	9	330	Aghar Balian
	0	0	2	8	334	
	0	0	0	18	334	
	0	0	0	6	599/578/1	
	0	0	4	0	641/586/134	
	0	0	0	12	663/654	
	0	0	40	9	593/577	
	0	0	484	6	675/665	
	0	0	116	14	615/576	
4	0	0	4	0	61	Marhi
	0	0	29	4	304	
	0	0	8	16	438	
	0	0	1	12	479	
	0	0	1	3	498	
	0	0	1	7	500	
	0	0	0	9	529	
	0	0	4	15	531	
	0	0	0	16	539	
	0	0	0	8	542	
	0	0	0	6	546	
	0	0	0	18	547	
	0	0	1	4	550	
	0	0	1	14	553	
	0	0	1	14	573	
	0	0	1	9	601	
	0	0	1	9	605	
	0	0	0	19	913	
	0	0	954	0	1075	
	0	0	5	13	1135	
	0	0	399	10	1155	
	0	0	50	6	1231	
	0	0	19	1	1353/1362/100	
	0	0	3	2	1446/1427/35	

	0	0	0	9	1400/1352/35	
	0	0	1	2	1430/1320	
	0	0	0	7	1432/1319	
	0	0	0	10	1434/1377	
	0	0	2	13	1438/1335	
	0	0	1	3	1442/1405	
	0	0	3	5	1444/1405/1	
	0	0	1017	0	1445/1405/1	
	0	0	1595	0	1456/1427/35	
5	0	0	0	19	36	Trintha
	0	0	2	0	69	
	0	0	2	4	72	
	0	0	2	4	72	
	0	0	1	0	72/1	
	0	0	6	13	73	
	0	0	0	13	74	
	0	0	537	12	82	
	0	0	1	12	88	
	0	0	5	7	89	
	0	0	28	1	92	
6	3	1	0	0	386/360/307	Bidda
	654	15	0	0	395/360/307	
	17	3	0	0	388/360/307	
	854	1	0	0	315	
	688	4	0	0	318	
	1	2	0	0	349/309	
	3024	1	0	0	424/394/308	
	87	19	0	0	408/309	
	88	1	0	0	310	
	0	4	0	0	359/310	
	1	9	0	0	354/314	
	37	0	0	0	425/402	
7	8	7	0	0	5	Nambal
	14	16	0	0	52	
	505	13	0	0	10	
	9	12	0	0	14	
	6	9	0	0	39	
	2	13	0	0	16	
	12	19	0	0	37	
	18	6	0	0	49	
	0	14	0	0	12	
	9	16	0	0	44	
	31	8	0	0	11	
	50	2	0	0	1	
	1205	11	0	0	51	
8	2	4	0	0	722/780	Reasi
	1	0	0	0	723/780	
	1	3	0	0	734/780	
	46	0	0	0	834/781	
	2	8	0	0	732/728/615	
	190	14	0	0	615/608	

	37	7	0	0	609	
	524	5	0	0	610	
	110	12	0	0	611	
9	4	13	0	0	5	Ghayala
	33	3	0	0	125/16	
	11	13	0	0	39	
	32	1	0	0	41	
	5	12	0	0	42	
	13	8	0	0	43	
	10	13	0	0	44	
	13	18	0	0	58	
	0	3	0	0	60	
	5	6	0	0	61	
	11	19	0	0	63	
	3	16	0	0	71	
	1	10	0	0	73	
	3	10	0	0	74	
	20	8	0	0	76	
	45	19	0	0	86/81	
	5	11	0	0	88/80	
	30	9	0	0	92/54	
	0	3	0	0	93/54	
	62	12	0	0	124/75	
	2166	12	0	0	70	
	460	2	0	0	72	
	221	6	0	0	79	
	104	16	0	0	84	
	72	18	0	0	85	
	25	2	0	0	89/80	
	164	7	0	0	116/72/10	
	91	17	0	0	110/82	
	92	4	0	0	119/113/83	
	7	0	0	0	170/113/83	
	2	6	0	0	171/11/81	
	25	4	0	0	172/111/87/81	
10	Nil	Nil	Nil	Nil	Nil	Duggala Kalan
11	Nil	Nil	Nil	Nil	Nil	Duggala Khurd
12	Nil	Nil	Nil	Nil	Nil	Vijaypur
13	27	11	0	0	261	Seela
	23	18	0	0	276	
	12	0	0	0	291	
	4	6	0	0	502	
	20	2	0	0	507	
	9	11	0	0	509	
	8	3	0	0	510	
	2	11	0	0	512	
	13	2	0	0	513	
	6	3	0	0	516	
	2	0	0	0	521	
	7	2	0	0	527	
	2	10	0	0	528	

	1	3	0	0	529	
	1	0	0	0	604	
	3	9	0	0	620	
	5	4	0	0	327	
	5	10	0	0	16	
	1	0	0	0	41	
	0	19	0	0	49	
	6	0	0	0	73	
	1	3	0	0	108	
	3	0	0	0	117	
	2	0	0	0	239	
	8	19	0	0	292	
	2	0	0	0	321	
	5	6	0	0	326	
	26	1	0	0	343	
	22	2	0	0	344	
	6	16	0	0	345	
	7	9	0	0	372	
	10	9	0	0	386	
	4	11	0	0	407	
	9	15	0	0	449	
	10	0	0	0	451	
	0	19	0	0	595	
	15	16	0	0	654	
	31	11	0	0	655	
	3	4	0	0	656	
	9	10	0	0	658	
	5	19	0	0	659	
	3	19	0	0	660	
	3	6	0	0	686	
	14	8	0	0	688	
	2	6	0	0	689	
	6	7	0	0	692	
	12	0	0	0	693	
	7	1	0	0	694	
	2	19	0	0	695	
	6	14	0	0	704	
	2	0	0	0	733	
	23	13	0	0	739	
	10	19	0	0	745	
	410	19	0	0	748	
	206	1	0	0	749	
	170	16	0	0	752	
	1247	8	0	0	756	
	1847	18	0	0	757	
	2636	2	0	0	758	
	1076	10	0	0	759	
	86	0	0	0	774/744	
	39	5	0	0	787/525	
	0	18	0	0	784/765/641	
	9	11	0	0	787/769/541	

	21	10	0	0	505/746	
14	6	17	0	0	779/525	
	1	11	0	0	789/776/722	
	16	8	0	0	790/776/732	
	8	7	0	0	790/772/732	
	557	3	0	0	792/565	
	3	15	0	0	798/721	
15	20	8	0	0	689/122	Talwara
	6	2	0	0	694/122	
	100	15	0	0	696/179	
	16	3	0	0	576	
	3	12	0	0	576	
	2	2	0	0	601/587	
16	2	2	0	0	170/32	Patta
	11	11	0	0	41	
	1	2	0	0	71	
	10	0	0	0	184/167	
	78	8	0	0	190/1	
17	9	4	0	0	51	Kans Brahmana
	1	11	0	0	56	
	1	13	0	0	102	
	21	4	0	0	108	
18	18	19	0	0	622/593/563	Gran Brotrain
	148	14	0	0	664/524/563	
	21	12	0	0	664/627	
	1	15	0	0	665/627/565	
	7	17	0	0	667/627/565	
	3	1	0	0	671/587/100	
	4	10	0	0	587/100	
	1	15	0	0	673/587/100	
	6	4	0	0	674/587/100	
	1	16	0	0	677/655	
	4	12	0	0	628/656	
	179	12	0	0	657/555	
	0	15	0	0	688/656/556	
	0	15	0	0	681/656/556	
	0	6	0	0	682/656	
	1	6	0	0	664/656/556	
	1	4	0	0	685/656/556	
	0	8	0	0	686/656/556	
	0	8	0	0	687/656/556	
	86	9	0	0	689/658/556	
	4	1	0	0	58	
	0	11	0	0	438	
	21	9	0	0	458	
	3	13	0	0	519	
	45	2	0	0	558	
	2	4	0	0	596	
	14	0	0	0	567	
	15	11	0	0	568	
	7	15	0	0	590/563	

	512	8	0	0	658/598/445	
	1242	12	0	0	658/598/563	
	12	18	0	0	666/622/565	
	164	6	0	0	569	
	1184	7	0	0	589/555	
	10	3	0	0	610/571	
	5	4	0	0	619/593	
	3	12	0	0	632/555	
	6	0	0	0	633/555	

10.7 ANNEXURE 7. COMMENTS GIVEN BY DC OFFICE, REASI ON STAKEHOLDERS PRESENTATION HELD ON 11-01-2017

OFFICE OF THE MUNICIPAL COMMITTEE REASI

To

The Chief Town Planning Organization,

Jammu.

No:- MC/R/2016-17/811 Dated:- 16 /03/2017

Subject:- Submission of Reasi Master Plan Reasi-2035 draft proposal.

Sir,

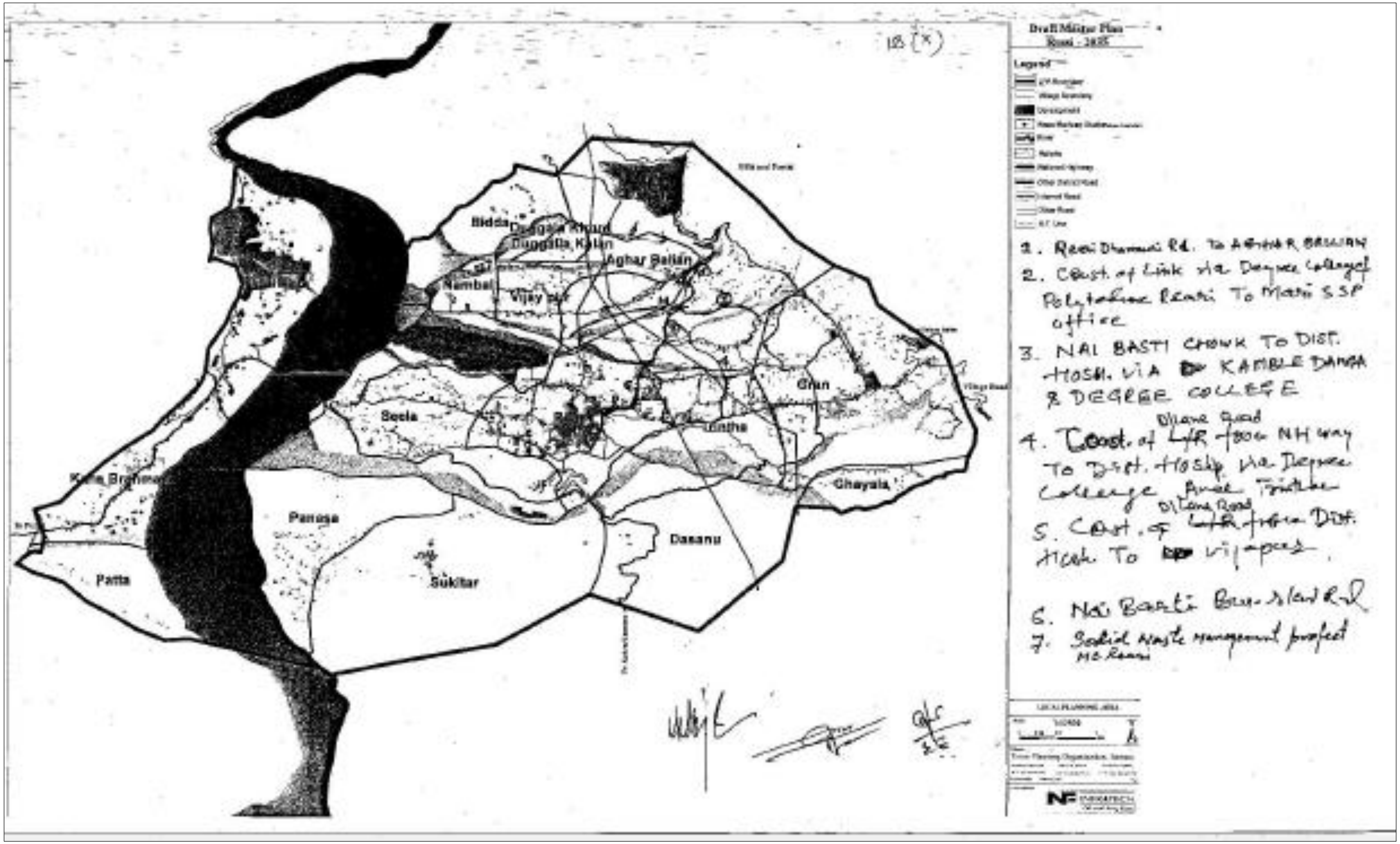
Kindly refer to the subject cited above, in this connection the undersigned is directed to submit the Draft Proposal of Master Plan of Reasi Town, in this regard I am enclosing the Joint Draft Master Plan Proposal, of Municipal Committee Reasi and Executive Engineer, PWD Reasi for your kind perusal please.

Yours Faithfully

Executive Officer
Municipal Committee
Reasi

Copy to the:-

1. Deputy Commissioner, Reasi for kind information please.


Draft Master Plan
Reasi - 2035
Legend
Bidda
Duggala Khurd
Duggalla Kalan
Aghar Ballan
Nambal
Vijay pur
Seela
Gran
Lintha
Chayala
Panasa
Patta
Sukitar
Dasanu
3. NAI BASTI CHOWK TO DIST. HOSH. VIA KAMBLE DANGA & DEGREE COLLEGE
7. Solid Waste management project
LOCAL PLANNING AREA
Town Planning Organization, Jammu

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