DISTRICT LAND USE & ZONING PLANS FOR LOCAL GOVERNMENTS IN PUNJAB

DISTRICT SAILKOT
(2023-2043)

Project Management Unit (PMU)

Local Government and Community Development Department

Planning Today for Resilient Tomorrow

FOREWORD

Conventionally, Local Governments play a crucial role in achieving the targets of sustainable development. The optimum allocation and utilization of land is essential to address the challenges posed by rapid urban sprawl. By focusing on land use planning, we can steer urban expansion in a way that preserves agricultural land, conserves resources, and ensures long-term food security. With clear, actionable strategies, we are confident in our ability to build vibrant, sustainable communities for the future. The Land Use Plan will serve as a comprehensive guide, ensuring that urban growth is managed effectively and align with Sustainable Development Goals (SDGs).

While the law obligates each Local Government to independently formulate plans to address present and future needs, numerous challenges have hindered their ability to fulfill this mandate. To support Local Governments, the department has established a centralized Project Management Unit (PMU) to lead the preparation of Land Use Plans across Punjab and provide technical and financial resources without compromising the independence of Local Governments by actively involving them in the planning process. The purpose is to ensure inclusivity and ownership of these 20-years Land Use Plans.

We have successfully completed the District Land Use and Zoning Plans for Punjab, introducing a comprehensive policy framework that equips Local Governments with the tools to manage land use effectively. This milestone was achieved on fast-track due to strong collaboration between the Local Government & Community Development Department and the District Administrations. These Plans have been duly approved and notified under the Punjab Local Governments Land Use Plan (Classification, Reclassification, and Redevelopment) Rules 2020.

(Shakeel Ahmad Mian)
Secretary to Government of the Punjab
LG&CD Department

EXECUTIVE SUMMARY

One of the key responsibilities of the Local Governments is the regulation and optimal utilization of the precious land resource. The unchecked horizontal growth of our cities has led to depleting prime agriculture land, environmental degradation, and poor land management, which further threatened food security and climate resilience, leaving cities ill-equipped to meet global benchmarks like the Sustainable Development Goals (SDGs). The disjointed framework for land use planning called for a structured and strategic approach to guide sustainable urban development.

Recognizing the capacity constraints of Local Governments, the Local Government & Community Development Department initiated a centralized support unit for the preparation of Land Use Plans. Tasked with this responsibility, the Project Management Unit (PMU) has been established to lead these efforts across Punjab's districts. The primary objective is to provide financial and technical assistance to local governments while ensuring a standardized and inclusive approach to planning.

The Land Use and Zoning Plans were crafted using a balanced and data-driven approach designed to address the distinct needs of local communities. Through a context-specific and rational methodology, future land demand was meticulously projected to foster compact urban growth and maximize land efficiency. The structure plan strategically integrates a hierarchical road network to organize urban development, ensuring seamless mobility, enhanced accessibility, and greater social inclusivity. Central to the plan is a focus on economic vitality, with provisions for robust commercial, industrial, and agricultural activities supported by key infrastructure, including commercial corridors, industrial zones, and farm-to-market roads. Throughout the process, stakeholder engagement was prioritized, embedding a participatory framework to guarantee comprehensive input from all relevant parties.

These Land Use and Zoning Plans are now equipped for implementation as comprehensive frameworks for regulating land use, optimizing urban infrastructure, and driving sustainable development across the region. Developed through the collaborative efforts of Project Management Unit (PMU), Planning Officers in each Local Government, Consultants, and local stakeholders, the plans provide actionable guidelines for shaping urban growth. Their implementation will focus on creating

balanced residential, commercial, industrial, and agricultural zones while addressing environmental sustainability and socio-economic inclusivity.

Consultancy firms registered with Pakistan Council of Architects and Town Planners (PCATP) possessing competent professionals have developed these plans, under the guidance and administration of Project Management Unit (PMU) ensuring firm compliance with project's approved Terms of Reference (TORs). This includes a range of activities and deliverables, such as vision formulation, situational analysis, district profiling, projection of a city's future requirements of land, housing, connectivity and social infrastructure, to come up with the data-driven plan. These plans not only outline the urban growth limits for the next 20 years but also ensure a balanced distribution of land for various purposes, including residential, educational, health, IT neighborhoods, commercial, economic, and industrial zones. Additionally, the plans enhance district connectivity through a network of roads, including the Ring Road, bypasses, structure plan roads, farm-to-market roads, intercity corridors, and the widening of existing revenue paths.

WAY FORWARD

True transformation of cities lies in the implementation of plans that determine their future urban form. For effective implementation, our team has developed the Planning Support System (PSS)—the first of its kind—to support local bodies and field hierarchies responsible for land use regulation through a centralized surveillance system. The PSS will assist planning officers in zoning decisions through the "Automated Zoning Report" and help control violations of approved Land Use Plans using a Geo-AI land cover change detection system. The PMU will provide essential training to planning officers to ensure the PSS is utilized to its fullest potential. The system will be further strengthened with feedback from citizens and other stakeholders.

Another challenge in the effective implementation of plans is the missing link between revenue records and proposed land use zoning. Integrating these through the superimposition of revenue records/maps onto Land Use Plans is the way forward—an upcoming venture we are committed to achieving.

(Ume Laila Naqvi)
Project Director

ABOUT **CONSULTANT**

The preparation of the District Land Use and Zoning Plan for Sialkot was awarded to MM Pakistan (Pvt.) Ltd.

Recognized for its excellence in multidisciplinary consultancy, **MM Pakistan (Pvt.) Ltd. (MMP)**, established in 1986, has earned a stellar reputation for delivering innovative planning, engineering, and management solutions across Pakistan. Accredited in Category P1 by the Pakistan Council of Architects and Town Planners (PCATP), the firm boasts an impressive portfolio of over 500 completed projects, including more than 75 Master Plans and Land Use Plans spanning Punjab, Sindh, AJ&K, GB, and KP.

Leading this initiative is Urban Planner Dr. Hamid Arshad, with 12 years of experience, as the team leader for the Sialkot project. He holds a master's and a Ph.D. from the Asian Institute of Technology, Thailand, and is currently serving as the Head of Department at the University of Management and Technology (UMT), Lahore. He is registered with Pakistan Council of Architects and Town Planners (Registration No. P-0850).

PLAN'S OVERVIEW

Plan's Overview: Land Use & Zoning Plan for District Sialkot

The Land Use and Zoning Plan for District Sialkot is prepared as a comprehensive framework to guide the development, urban growth, rural-urban integration, housing, and economic progression for the next two decades. Envisioned to achieve a "Smart Sialkot"—a sustainable export region that balances industrial and agricultural development—this plan is grounded in the principles of equitable growth, environmental sustainability, and enhanced connectivity. The Plan consists of several core components, each addressing different aspects of land use, development, and strategic zoning at both the district and tehsil levels.

At the district level, the plan fosters integration across multiple dimensions: land use, infrastructure, connectivity, housing, and economic activities. It aims to create a synergistic relationship between urban and rural areas, leveraging the unique strengths of each tehsil to achieve the overall district vision. This plan outlines the vision for District Sialkot and specifies the approach and strategies necessary to achieve the intended outcomes.

Strategic Land Use Planning and Zoning

The land use planning and zoning strategy for each tehsil within District Sialkot follows a customized approach to accommodate the unique characteristics and development needs of each area, following the principles outlined in the Punjab Local Government Land Use Plan Rules of 2020. Each tehsil's plan focuses on evaluating existing land use classifications, analyzing notified commercial roads, and identifying zones for residential, commercial, industrial, agricultural, and other uses to support the district's economic goals.

Sialkot Tehsil: A Hub for Balanced Development

Tehsil Sialkot plays a critical role as the district headquarters, with a focus on balanced urban and industrial development. The existing Land Use Classification (LUC) and a review of notified roads serve as foundational inputs for developing the Site Development Zone (SDZ) Structure Plan for 2043. The LUC map identifies land use categories, including residential, commercial, industrial, agricultural, and notified zones, offering insights into diverse land uses within the tehsil.

The SDZ Structure Plan for Sialkot (2023–2043) is formulated under the Punjab Local Government Land Use Plan (Classification, Reclassification, and Redevelopment) Rules, 2020. It aims to achieve an average population density of 69 people per acre by 2043, requiring approximately 15,000 acres of new development. This plan accommodates rural-urban migration trends, expanding residential, commercial, and industrial areas while ensuring infrastructure and land use compatibility with adjacent zones. Special consideration is given to creating new industrial zones aligned with district-level economic goals.

Sambrial Tehsil: Supporting Regional Integration

Tehsil Sambrial serves as a significant industrial and logistics hub due to its strategic proximity to Sialkot city and the Sialkot International Airport. The SDZ Structure Plan for Sambrial focuses on optimizing land use to support industrial growth, logistics, and residential needs. A comprehensive review of the existing LUC and notified roads guides the allocation of approximately 2,700 acres for future development, targeting a 76 ppa density by 2043.

This plan promotes industrial and logistical functions while integrating residential zones to support the workforce. The SDZ Structure Plan for Sambrial aligns with regional strategies, including the Punjab Spatial

Strategy and the Gujranwala Regional Development Plan, to ensure coordinated development across the district.

Daska Tehsil: A Blend of Industry and Agriculture

Tehsil Daska's SDZ Structure Plan aims to balance industrial and agricultural activities, reflecting its dual economic role. The tehsil's LUC identifies key areas for residential, commercial, industrial, and agricultural uses, along with a review of 48 notified commercial roads. The plan anticipates a population density of 79 ppa by 2043, necessitating around 5,000 acres for new development.

Daska's strategy focuses on expanding industrial areas while maintaining its agricultural base. The plan encourages mixed-use development zones, enhancing rural-urban linkages, and promoting balanced growth that aligns with the broader district objectives. Strategic connectivity improvements ensure that Daska remains well integrated with Sialkot's economic and transportation networks.

Pasrur Tehsil: Fostering Agricultural Growth

Tehsil Pasrur remains a predominantly agricultural area with potential for agro-industrial development. The SDZ Structure Plan targets a population density of 65 ppa by 2043, requiring approximately 5,000 acres for new development. It supports the district's agricultural economy by designating areas for agro-processing industries, enhancing rural connectivity, and preserving agricultural land.

The plan integrates Pasrur into the district's broader economic framework by establishing an agro-processing zone that boosts local agricultural output while maintaining the tehsil's rural character. Connectivity enhancements and improved infrastructure will enable Pasrur to contribute more effectively to the district's overall economic goals.

Envisioning the Future: The Site Development Zone (SDZ) Structure Plan for 2043

The SDZ Structure Plan (2023–2043) sets the stage for future development across all tehsils, ensuring that each area contributes to the district's growth objectives. This plan identifies key land use zones—residential, commercial, industrial, agricultural, and notified areas—based on current trends, spatial and temporal growth patterns, existing infrastructure, and regional development plans. The structure plan ensures coherent development by aligning with the district's connectivity strategy, housing strategy, and economic development goals.

District-Level Integration: Land Use, Connectivity, Housing, and Economic Development

Expanding on the tehsil-level strategies, the District Land Use Plan emphasizes the critical role of connectivity as a driver of Sialkot's growth and development. The plan promotes robust inter-district, intra-district, and farm-to-market connectivity to strengthen the movement of goods and people, vital for Sialkot's export-oriented economy. By enhancing infrastructure that links economic zones, residential areas, and social amenities, the plan ensures that all settlements with development potential are seamlessly integrated into the broader transportation network. This connectivity is pivotal in maintaining Sialkot's position within regional and national economic networks, supporting its role as a dynamic export hub.

While prioritizing connectivity, the plan also addresses housing needs by promoting a balanced mix of residential options across urban and rural areas, focusing on affordability, accessibility, and sustainable densification. Additionally, it aligns economic development strategies with land use, fostering specialized industrial zones, agro-processing centers, and commercial hubs to diversify the local economy and build resilience against market fluctuations.

By integrating these components, the District Land Use and Zoning Plan for Sialkot ensures a cohesive, sustainable, and future-ready approach to growth, aligned with both local needs and broader economic objectives by 2043.

LIST OF ABBREVIATIONS

ADB	Asian Development Bank
BHU	Basic Health Unit
DC	District Council
DHQ	District Head Quarter
DPDC	District Planning & Design Committee
EBA	Established Built-up Area
GIS	Geographical Information System
GoP	Government of Punjab
GRA	Growth Rate Analysis
HH	Household size
HQ	Headquarter
LC	Land Cover
LFS	Labor Force Survey
LG	Local Government
LG & CDD	Local Government and Community Development Department
LOPs	Layout Plans
LUC	Land Use Classification
MC	Municipal Corporation/Committee
MOP	Municipal Officer Planning
NH	National Highway
NHP	National Housing Policy, 2001
NOC	No Objection Certificate
NRM	National Reference Manual
ODP	Outline Development Plan
PBS	Pakistan Bureau of Statistics
PCP	Punjab Cities Project

PDS	**Punjab Development Statistics**
PHATA	**Punjab Housing and Town Planning Agency**
PICIIP	**Punjab Intermediate Cities Improvement Investment Program**
PLG	**Punjab Local Government**
PLGA	**Punjab Local Government Act**
PMRC	**Pakistan Mortgage Refinance Company**
PMU	**Project Management Unit**
POIs	**Point of Interest**
PSLM	**Pakistan Social and Living Standards Measurement**
PSS	**Punjab Spatial Strategy**
PUSP	**Peri-Urban Structure Plan**
ROW	**Right of Way**
SDZ	**Site Development Zone**
SEZ	**Special Economic Zone**
SWM	**Solid Waste Management**
TC	**Town Committees**
TEVTA	**Technical Education and Vocational Training Authority**
TTD	**Traffic Tendency Survey**
UCC	**Upper Chenab Canal**
UGB	**Urban Growth Boundary**
WAPDA	**Water & Power Development Authority**
WHO	**World Health Organization**

TABLE OF CONTENTS

LIST OF MAPS

LIST OF TABLES

LIST OF FIGURES

CHAPTER 1

INTRODUCTION

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INTRODUCTION

1.1 Vision and Objectives

The aim is to guide future growth by developing a comprehensive approach to land use and spatial planning. By conducting a detailed analysis of existing conditions and identifying potentials that will strengthen the economic sector, the studies will help to address the knowledge gap and build capacity of urban centers in each Tehsil of District Sialkot.

The project covers both urban and rural areas of the district. Land Use Classification Maps are developed at all local levels (District, Tehsil and Municipal) while Site Development Zones (SDZs) Structure Plans are prepared in the Tehsil headquarters and potential Town Committees (defunct). Inclusion of the Town Committees and other major urban settlements was based on the criteria of population, growth rate, specialized development potential, its distance from the Sialkot and Daska cities and stakeholder consultation. Further, the rural settlements, Addas and Villages identified by the concerned district administration are provided with Natural Growth Boundary keeping in view their current footprint and potential future requirement.

1.2 District Land Use & Zoning Plan

This district Land Use Plan involves detailed and systematic planning for land use at the local government (LG) level. The key components of this plan include Land Use Classification, Review Of Roads and Site Development Zone.

Detailed classification maps have been created to outline and categorize different land uses within the district. These maps visually represent the designated purposes of various land parcels, such as residential, commercial, industrial, agricultural, and recreational areas. This classification aids in effective urban planning and zoning regulations. Each Local Government (LG) area within the district has been evaluated and provided with a Site Development Zone (SDZ) structure plan. This ensures that specific areas are designated for targeted development initiatives, focusing on economic growth, infrastructure improvement, and urban management. The plan also addresses the integration of commercial roads within the district. These roads are critical for the economic vitality of the district, ensuring accessibility to commercial hubs and markets.

The District Land Use & Zoning Plan also includes a District Connectivity Plan, highlighting farm-to-market roads, marking villages and settlements, natural growth boundaries in case of important villages, settlements or addas and identifying nullahs (water channels). These elements are integrated to create a cohesive, efficient, and sustainable development plan for the entire district, ensuring improved transportation, infrastructure, and resource management. This plan provides a clear framework for future development, ensuring that land is utilized efficiently and sustainably, aligning with the overall vision and goals of the district's development strategy.

1.3 Administrative Structure

District Sialkot has four Tehsils. Each Tehsil forms an administrative unit known as Tehsil Council Sialkot, Daska, Pasrur and Sambrial. Each Tehsil has both urban and rural areas. Urban centres are identified as Municipal Corporation Sialkot, Municipal Committee of Daska, Sambrial and Pasrur and 12 Town Committees as listed in the table below.

Table 1-1: Name of Local Governments in District Sialkot

Sr. no.	Administrative Area	Population (2017 census)
1	District Council Sialkot	3,893,672
2	Municipal Corporation Sialkot	592,604
3	Municipal Committee Daska	175,416
4	Municipal Committee Sambrial	109,438
5	Municipal Committee Pasrur	82,457

Town committees listed as urban settlements by the district government are given in the table below with their population in 2020. Letter by the District Government is attached in the annexure identifying the following settlements.

Table 1-2: Urban Settlements in District Council Sialkot

Sr. no.	Names of Urban Settlement	Population 2017 census	Sr. no.	Names of Urban Settlement	Population 2017 census
1	Town Committee Akbarabad	-	2	Town Committee Langriali	-
3	Town Committee Pakki Kotli	-	4	Town Committee Dalowali	-
5	Town Committee Bharat	-	6	Town Committee Chawinda	26,906
7	Town Committee Ugoki	-	8	Town Committee Jamky	28,600
9	Town Committee Kotli Loharan	24,134	10	Town Committee Bhopalwala	20,165
11	Town Committee Begowala	8,338	12	Town Committee Kalaswala	12,351

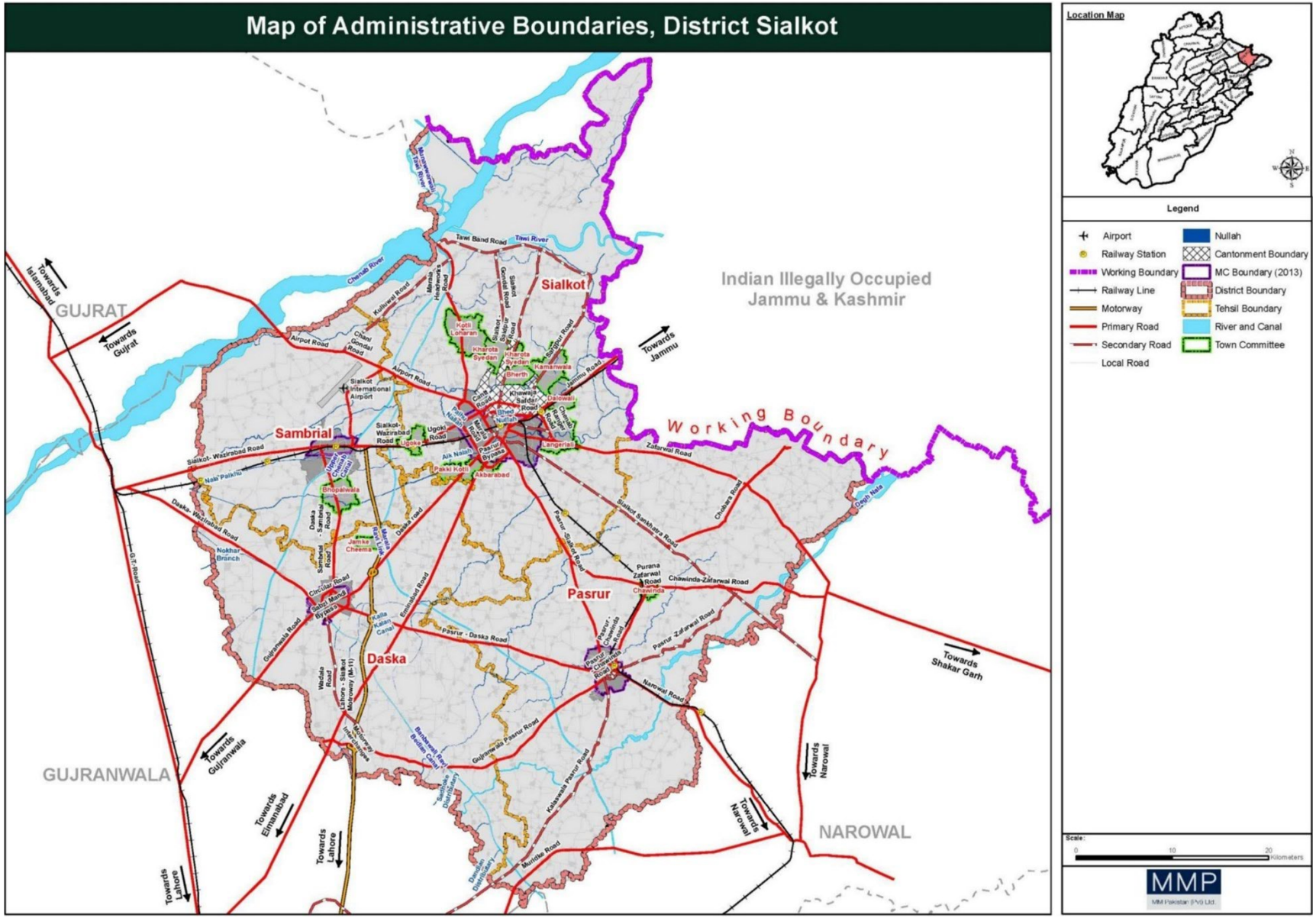
Source: LG&CDD[1] and PBS 2017 census

The Sialkot district is the 12th largest district[2] of Pakistan and covers an area of 745,269 Acres (3,016 km^2) and has the following administrative setup. The map provided below features all major MC's and TC's boundaries listed in the tables above which fall within the District of Sialkot.

[1] Local Government and Community Development Department. (n.d.). *Demarcation Maps of LGs- District Sialkot.* https://lgcd.punjab.gov.pk/district-sialkot

[2] The Urban Unit. (n.d.). *Regional Development Plan of Gujranwala*. https://www.urbanunit.gov.pk/publications/P3SP

Map 1: Map of Administrative Boundaries, District Sialkot



1.4 Review of Previous Plan

1.4.1 Peri-Urban Structure Plan (PUSP)

Peri Urban Structure Plan, notified in 2016 for 20 years was prepared with the vision of compact development and is currently a valid plan. The map along with the supporting document has been critically reviewed using the following indicators and appraisal has been conducted.

1.4.1.1 Summary of Proposals

- Extended urban limit has been marked on a map to accommodate city growth in the South Eastern side of the city.
- Each (five) sector has blocks marked. The blocks are classified into residential, commercial and industrial blocks.
- The variation in the distance between the two ring roads suggests growth direction is expected to be in the South Western side.
- Tannery Zone was approved in 2013 in mouza Khambranwala, with an 800m wide buffer zone.
- There are two Rings roads proposed in the plan i.e.., inner ring road and outer ring road. The proposed Right of Way (ROW) of two ring roads, inner and outer having 120 feet and 200 feet width. The linkages are provided for improved connection between the two ring roads.

1.4.1.2 Appraisal

- 'Extended Urban limits' marked in the South Eastern side of the city is currently a part of EBA.
- As per the plan, the proposed roads are demarcated based on the prevailing road networks and passages. Whereas the inner ring road does not follow the concept mentioned for demarcation.
- The alignment of the inner ring road at some point needs to be reconsidered as it is intersecting the builtup uses and natural features i.e., in the Northern direction the fish farm Kharota Syedan, in some sections-built structures are located.
- The alignment of the outer ring road in the North to West direction does not align with the concept of the ring road. It has been demarcated along the tertiary network having right of way (ROW) less than 10 feet.
- The link roads between two ring roads will enhance mobility within the city. It will provide improved linkages and distribute the traffic between the two proposed sections.
- Agricultural land into residential block
- There is a buffer of 800 m marked around the tannery zone for the restriction on village
- With help from the Government of Punjab, the project will assist in moving the 230–250 tanneries that are currently dispersed among ten (10) clusters in Sialkot city to a designated Tannery Zone in Khambranwala. The zone is located 5 km from the Sialkot International Airport where approximately 396 acres of land have been purchased for this purpose.
- The total area of Peri-Urban Structure Plan is approximately 64,000 acres, which includes 35,522 acres of cultivable area according to the existing land use falling in peri-urban boundary.
- Prime agricultural land falls in its boundary, where according to the plan, development can be allowed anywhere without considering compact planning principles. Hence, the planning area permitted by the PUSP (2016) must be curtailed as it is leading to urban sprawl and absorption of agricultural land.

CHAPTER 2

LAND USE CLASSIFICATION

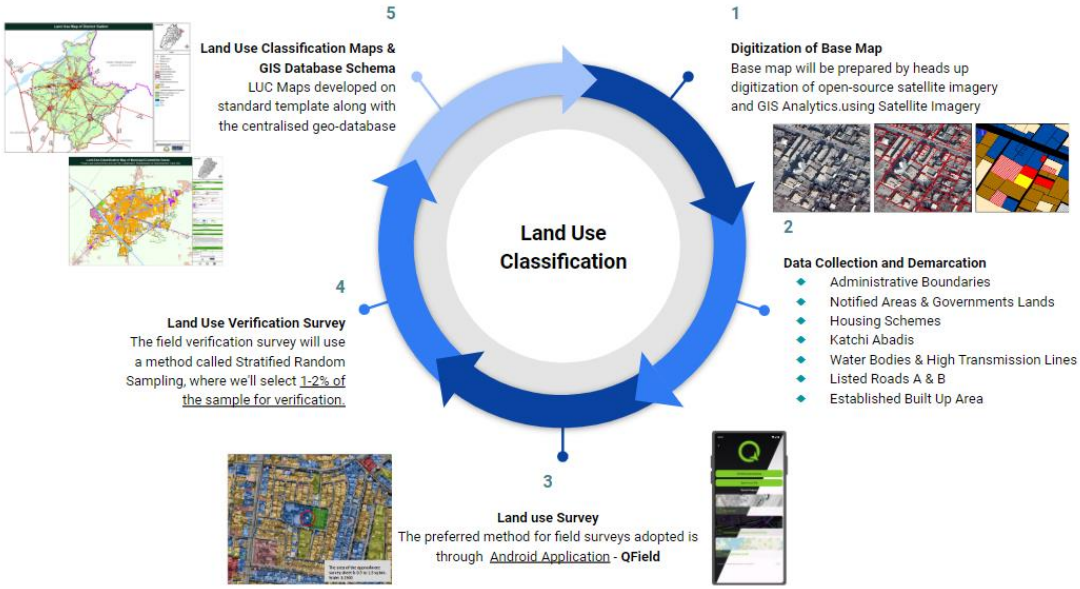
District Land Use & Zoning Plans
for Local Governments in Punjab

CHAPTER 2
LAND USE CLASSIFICATION

2.1 Process of Land Use Classification

The land use classification map(s) are prepared by following the procedure illuminated in the figure 2 below:

Figure 2-1: Process and Components of Land Use Classification



2.2 Land Use Classification of Local Governments

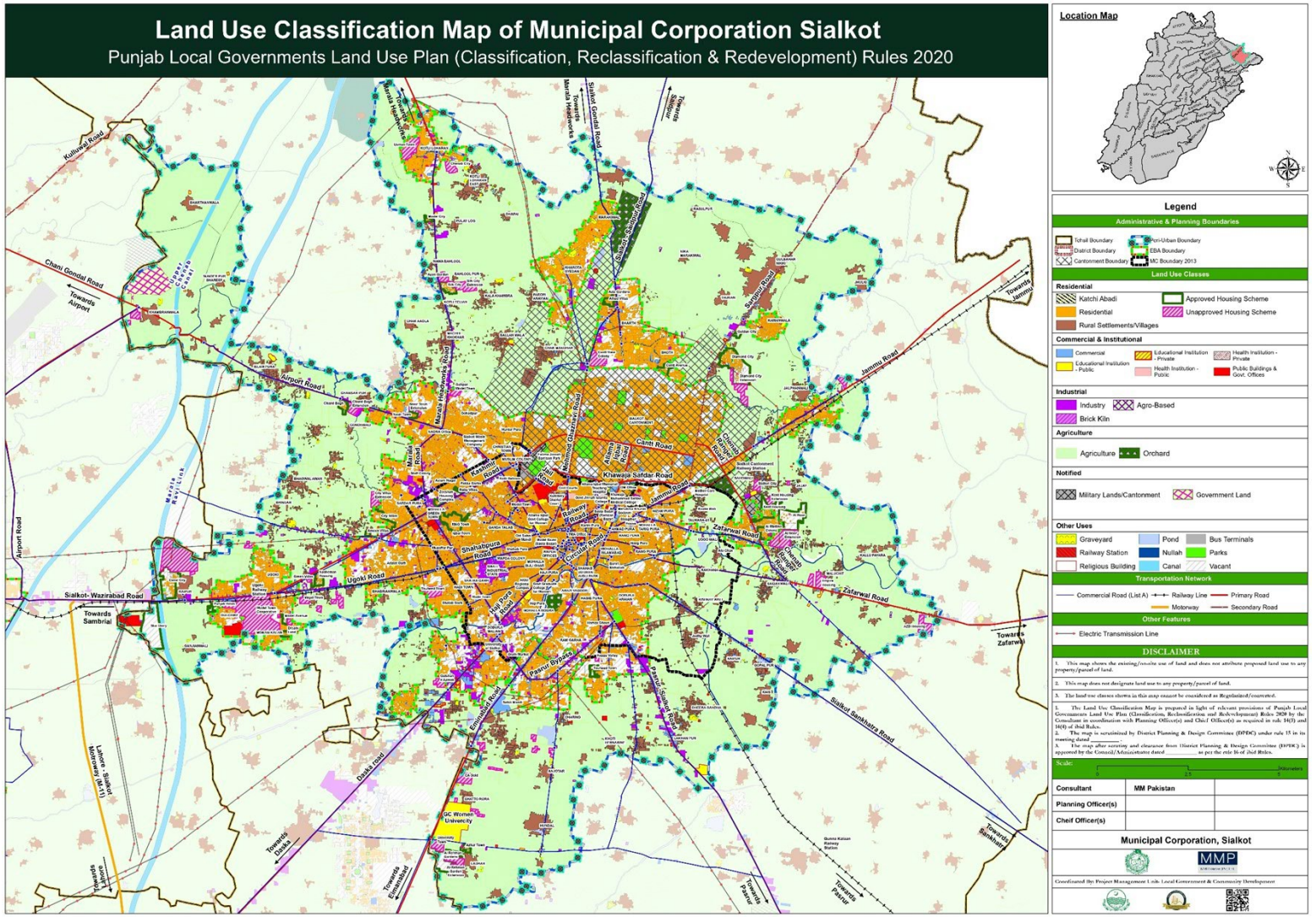
Local government is organized under a framework provided by the Punjab Local Government Act (2022) (PLGA). The PLGA is administered by the provincial Local Government and Community Development Department (LG&CD) Department, which is responsible for implementing the local government system in Punjab as well as the financing and staffing of administrative set-ups at the district and municipal levels.

Sialkot district's administrative authority is held by the deputy commissioner, who is responsible for coordinating and working with the respective local governments. Five local governments are in place in the district; District Council, Municipal Corporation Sialkot, Municipal Committee Daska, Municipal Committee Pasrur and Municipal Corporation Sialkot.

2.2.1 Municipal Corporation Sialkot

A. Municipal Corporation Sialkot Land Use Classification Map

Map 2: Land Use Classification map of Municipal Corporation Sialkot



B. Land Use Distribution, Municipal Corporation Sialkot

Table 2-1: Municipal Corporation Sialkot Land Use Classification

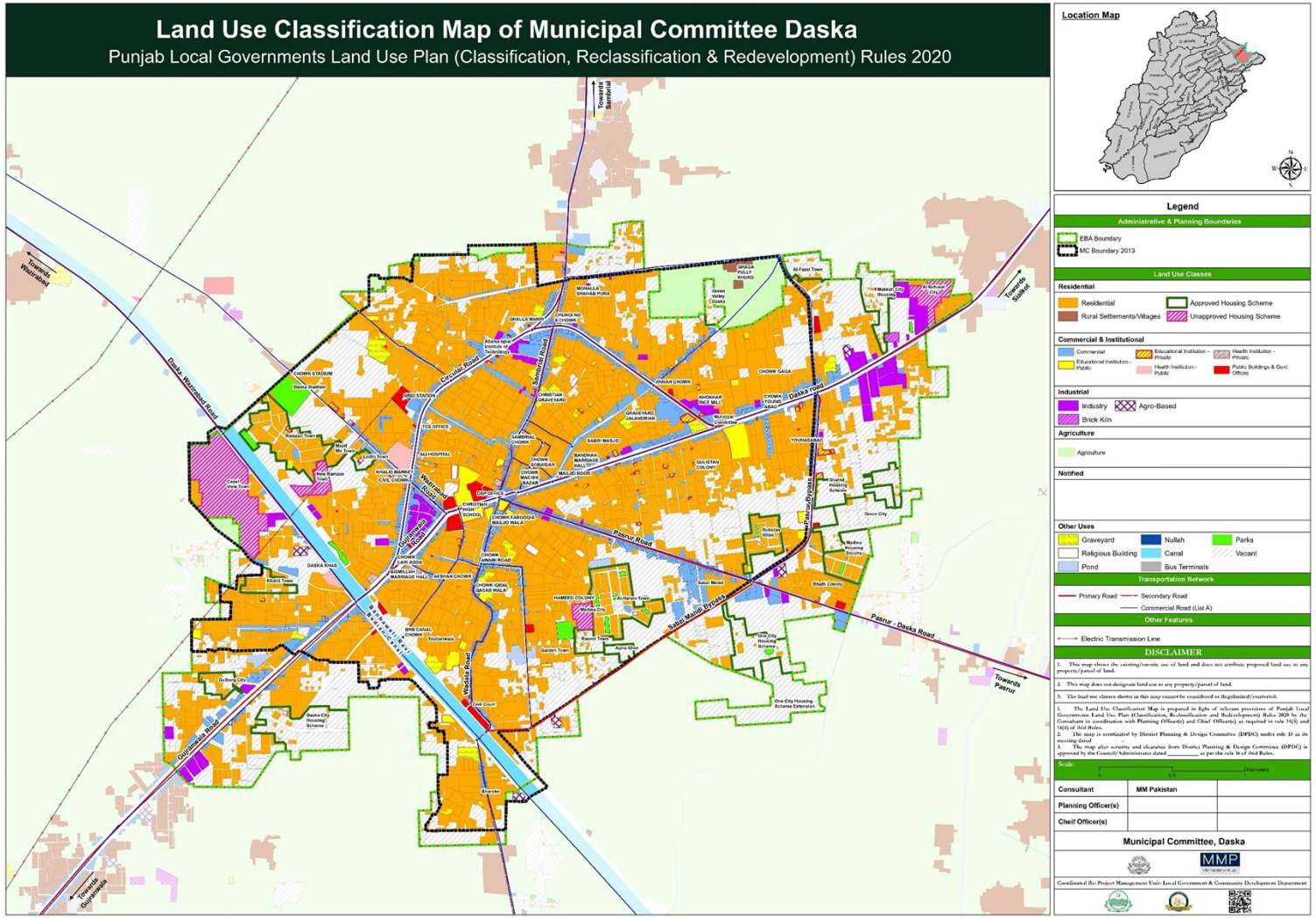
Land Use Classes & Sub-classes	Total EBA		MC (Inside EBA)		MC (Outside EBA)		Total MC Sialkot	
	Area (Acres)	%Age	Area (Acres)	%Age	Area (Acres)	%Age	Area (Acres)	%Age
Residential	7,657.69	44%	3,086.63	41.94%	0.51	0.03%	3,087.14	32.97%
Rural Settlements	0.00	0%	0	0	206.34	10.26%	206.34	2.20%
Residential Class:	**7657.69**	**44.50%**	**3,086.63**	**41.94%**	**206.85**	**10.28%**	**3,293.48**	**35.18%**
Commercial	1,214.32	7%	708.19	9.62%	24.55	1.22%	732.74	7.83%
Educational Institutions (Public)	195.71	1%	122.14	1.66%	0	0	122.14	1.30%
Educational Institutions (Private)	68.97	0%	41.91	0.57%	1.17	0.06%	43.08	0.46%
Health Institutions (Public)	57.06	0%	48.7	0.66%	0.78	0.04%	49.48	0.53%
Health Institutions (Private)	20.94	0%	16.47	0.22%	0.33	0.02%	16.8	0.18%
Religious Building	89.25	1%	55.75	0.89%	0.96	0.05%	56.9	0.61%
Public Buildings & Govt. Offices	192.89	1%	174.18	2.37%	0.01	0.00%	174.2	1.86%
Commercial (including institutional) Class:	**1839.15**	**10.69%**	**1,167.35**	**15.89%**	**27.79**	**1.38%**	**1,195.33**	**12.77%**
Industrial	804.26	5%	431.6	5.87%	9.07	0.45%	440.67	4.71%
Industrial Class:	**804.26**	**4.67%**	**431.6**	**5.87%**	**9.07**	**0.45%**	**440.67**	**4.71%**
Cultivable (Seasonal & Permanent)	0.01	0%	0	0	1,580.97	78.59%	1,580.97	16.89%
Forest (Dense Plantation)	43.60	0%	43.55	0.59%	2.29	0	45.84	0.49%
Agriculture Class:	**43.61**	**0.25%**	**43.55**	**0.59%**	**1,583.26**	**78.59%**	**1,626.81**	**17.37%**
Graveyard	169.32	1%	107.79	1.46%	10.42	0..52%	118.21	1.26%
Bus Terminal	24.45	0%	3.21	0.04%	0	0	3.21	0.03%
Railway Station	10.03	0%	9.81	0.13%	0	0	9.81	0.10%
Parks	305.12	2%	41.35	0.56%	0	0	41.35	0.44%
Vacant Area	4,324.52	25%	1,371.69	18.64%	0.35	0.02%	1,372.24	14.66%
Water bodies	106.15	1%	73.5	1.00%	47.07	2.34%	120.57	1.29%
Transportation Network	1,924.28	11%	1,012.14	13.75%	128.96	6.42%	1,141.31	12.19%
Other Land Uses Class:	**6,864.06**	**39.89%**	**2,619.68**	**35.60%**	**186.8**	**9.30%**	**2,806.69**	**29.98%**
Total Area (Acres)	**17,209.18**	**100.00%**	**7,349.21**	**100.00%**	**2,013.78**	**100.00%**	**9,362.99**	**100.00%**

Note: The boundary of MC Sialkot, as notified in 2013, has been used for calculations. The total Established Built-up Area (EBA) includes both the EBA within the limits of MC and the EBA extending beyond those limits.

2.2.2 Municipal Committee Daska

A. Municipal Committee Daska Land Use Classification Map

Map 3: Land Use Classification Map of Municipal Committee Daska



B. Land Use Distribution, Municipal Committee Daska

Table 2-2: Municipal Committee Daska Land Use Classification

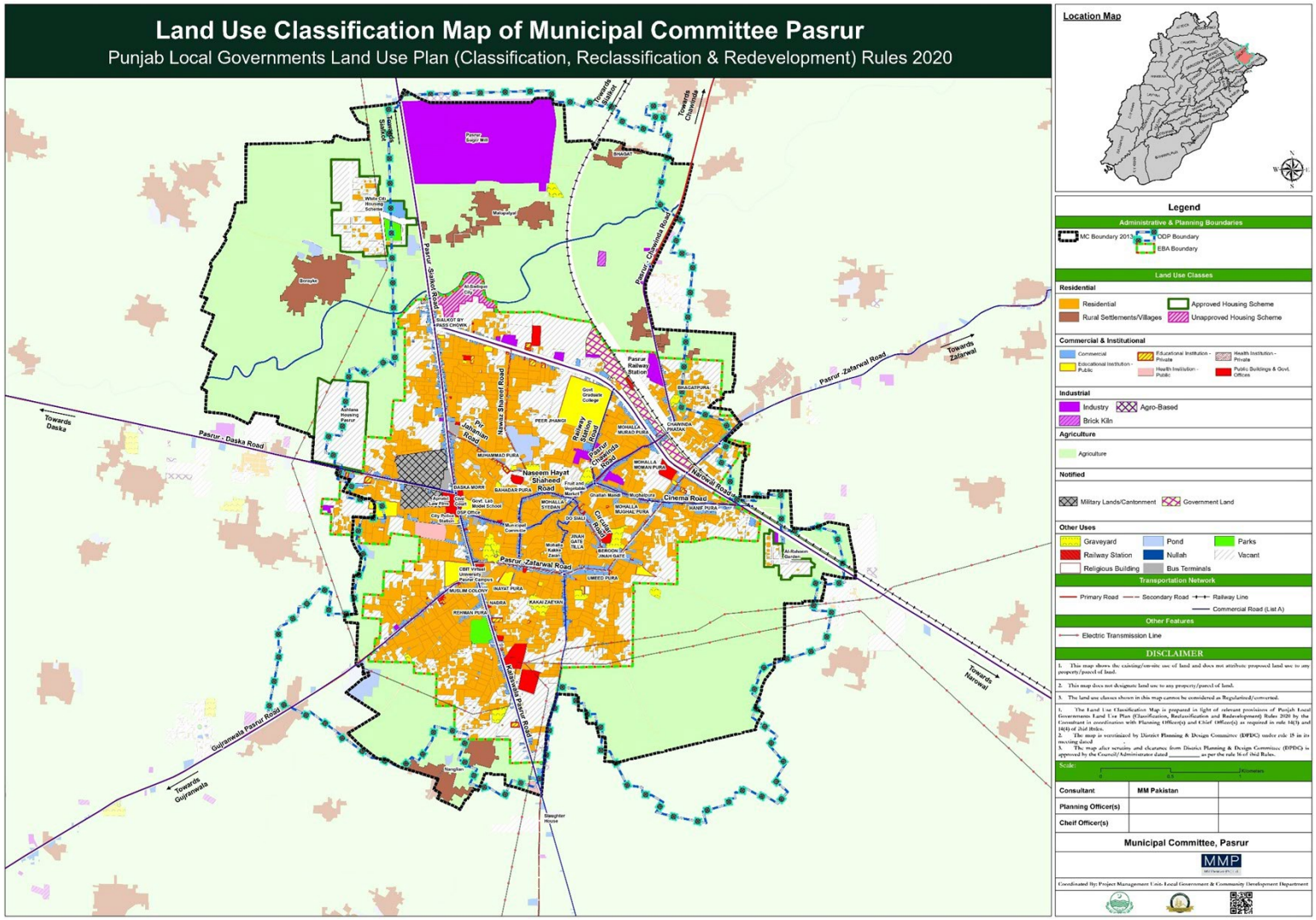
Land Use Classes & Sub-classes	Total EBA		MC (Inside EBA)		MC (Outside EBA)		Total MC Daska	
	Area (Acres)	%Age	Area (Acres)	%Age	Area (Acres)	%	Area (Acres)	%Age
Residential	1,498.97	43%	1,290.08	50.63%	0.56	0.51%	1,290.64	48.56%
Rural Settlements	0.00	0%	0	0	4.59	4.17%	4.59	0.17%
Residential Class:	**1498.97**	**43.44%**	**1,290.08**	**50.69%**	**5.15**	**4.68%**	**1,295.22**	**48.73%**
Commercial	234.67	7%	202.35	7.94%	0	0	202.35	7.61%
Educational Institutions (Public)	37.30	1%	36.34	1.43%	0	0	36.34	1.37%
Educational Institutions (Private)	9.47	0%	7.66	0.30%	0	0	7.66	0.29%
Health Institutions (Public)	8.90	0%	8.12	0.32%	0	0	8.12	0.31%
Health Institutions (Private)	5.05	0%	4.83	0.19%	0	0	4.83	0.18%
Religious Building	9.85	0%	9.14	0.36%	0	0	9.14	0.34%
Public Buildings & Govt. Offices	19.94	1%	17.44	0.68%	0	0	17.44	0.66%
Commercial (including institutional) Class:	**325.18**	**9.42%**	**285.89**	**11.22%**	**0**	**0%**	**285.89**	**10.76%**
Industrial	63.66	2%	26.86	1.05%	0	0	26.86	1.01%
Brick Kilns	1.63	0%	0	0	0	0	0	0
Agro-based Industry	5.22	0%	1.87	0.07%	1.07	0.98%	2.95	0.11%
Industrial Class:	**70.51**	**2.04%**	**28.73**	**1.13%**	**1.07**	**0.98%**	**29.8**	**1.12%**
Cultivable (Seasonal & Permanent)	0.33	0%	0.33	0.01%	89.29	81.17%	89.62	3.37%
Agriculture Class:	**0.33**	**0.01%**	**0.33**	**0.01%**	**89.29**	**81.17%**	**89.62**	**3.37%**
Graveyard	27.41	1%	25.34	0.99%	0	0	25.34	0.95%
Bus Terminal	1.99	0%	1.99	0.08%	0	0	1.99	0.08%
Railway Station	0.00	0%	0	0	0	0	0	0
Parks	21.50	1%	19.63	0.77%	0	0	19.63	0.74%
Vacant Area	919.32	27%	449.02	17.62%	5.01	4.55%	454.03	17.08%
Water bodies	69.07	2%	66.65	2.62%	2.05	1.86%	68.69	2.58%
Transportation Network	516.73	15%	380.34	14.93%	7.43	6.76%	387.78	14.59%
Other Land Uses Class:	**1,556.02**	**45.09%**	**942.97**	**37.01%**	**14.49**	**13.17%**	**957.46**	**36.02%**
Total Area (Acres)	**3,451.00**	**100.00%**	**2,548.00**	**100.00%**	**110**	**100.00%**	**2,658**	**100.00%**

Note: The boundary of MC Daska, as notified in 2013, has been used for calculations. The total Established Built-up Area (EBA) includes both the EBA within the limits of MC and the EBA extending beyond those limits

2.2.3 Municipal Committee Pasrur

A. Municipal Committee Pasrur Land Use Classification Map

Map 4: Land Use Classification Map of Municipal Committee Pasrur



B. Land Use Distribution, Municipal Committee Pasrur

Table 2-3: Municipal Committee Pasrur Land Use Classification

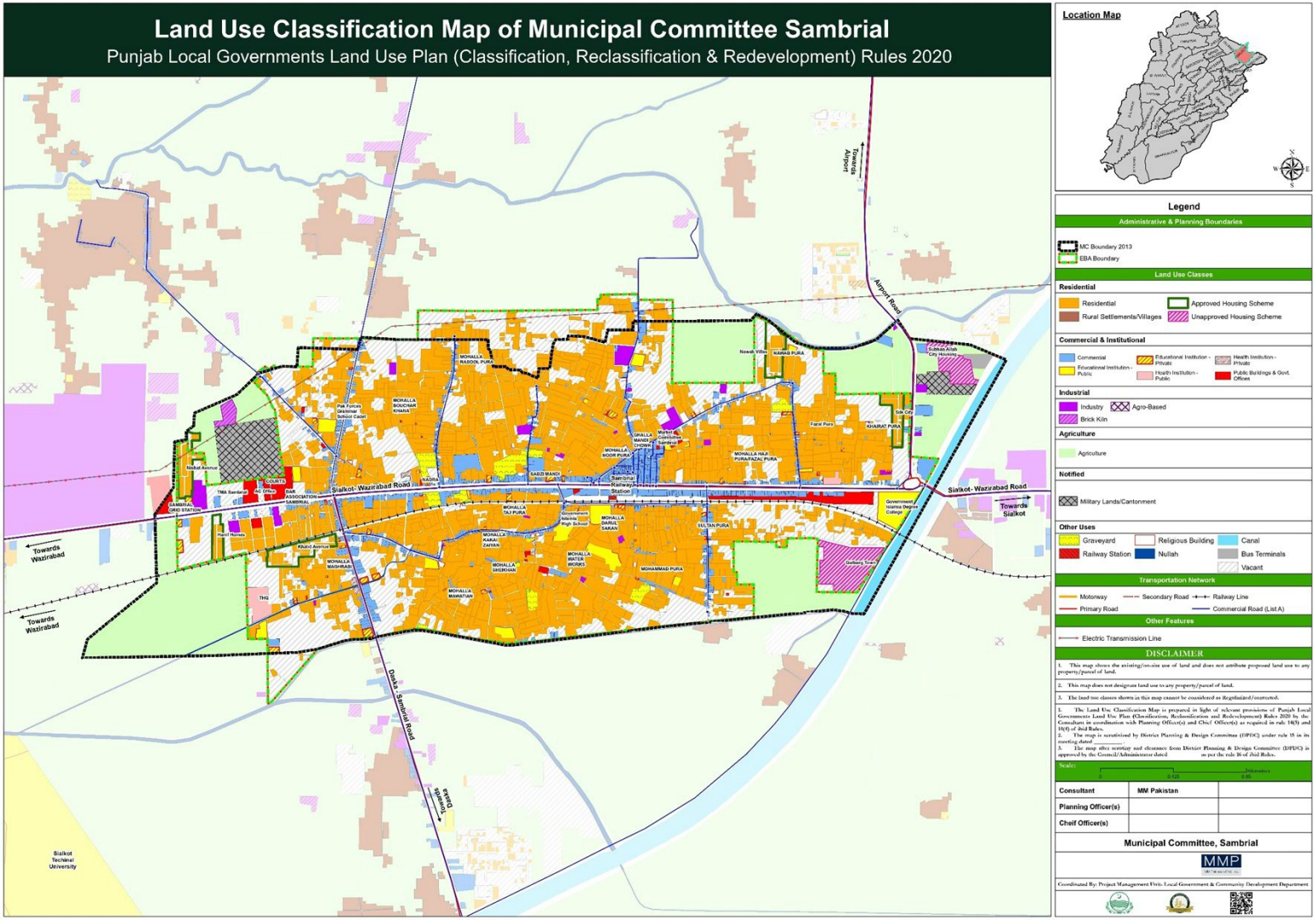
Land Use Classes & Sub-classes	Total EBA		MC (Inside EBA)		MC (Outside EBA)		Total MC Pasrur	
	Area (Acres)	%Age	Area (Acres)	%Age	Area (Acres)	%	Area (Acres)	%Age
Residential	587.35	39%	583.43	39.53%	5.78	0.27%	589.21	16.39%
Rural Settlements	0	0%	0	0	97.07	4.58%	97.07	2.70%
Residential Class:	**587.35**	**39.22%**	**583.43**	**39.53%**	**102.85**	**4.85%**	**686.28**	**19.09%**
Commercial	95.77	6%	95.77	6.49%	6.66	0.31%	102.43	2.85%
Educational Institutions (Public)	47.1	3%	46.32	3.14%	0	0	46.32	1.29%
Educational Institutions (Private)	7.42	0%	7.42	0.50%	0	0	7.42	0.21%
Health Institutions (Public)	6.15	0%	6.15	0.42%	1.12	0.05%	7.28	0.20%
Health Institutions (Private)	2.06	0%	2.06	0.14%	0	0	2.06	0.06%
Religious Building	5.61	0%	5.61	0.38%	0	0	5.61	0.16%
Public Buildings & Govt. Offices	27.92	2%	27.92	1.89%	0	0	27.92	0.78%
Commercial (including institutional) Class:	**192.02**	**12.82%**	**191.24**	**12.96%**	**7.79**	**0.37%**	**199.03**	**5.54%**
Industrial	14.02	1%	13.23	0.90%	152.24	7.18%	165.47	4.65%
Brick Kilns	0	0%	0	0	1.53	0.07%	1.53	0
Industrial Class:	**14.02**	**0.94%**	**13.23**	**0.90%**	**153.77**	**7.26%**	**167**	**4.65%**
Cultivable (Seasonal & Permanent)	0.02	0%	0.02	0.00%	1,589.20	74.84%	1,585.95	44.21%
Agriculture Class:	**0.02**	**0.00%**	**0.02**	**0.00%**	**1,589.20**	**74.84%**	**1,585.95**	**44.21%**
Military Land / Cantonment	29.89	2%	29.89	2.03%	0	0	29.29	0.83%
Government Land	22.69	2%	22.69	1.54%	1.44	0.07%	24.14	0.67%
Notified Land Uses Class:	**52.59**	**3.51%**	**52.59**	**3.56%**	**1.44**	**0.07%**	**53.03**	**1.50%**
Graveyard	23.81	2%	23.81	1.61%	3.18	0.15%	26.99	0.75%
Bus Terminal	5.22	0%	5.22	0.35%	0	0	5.22	0.15%
Railway Station	0.67	0%	0.67	0.05%	0	0	0.67	0.02%
Parks	6.09	0%	6.09	0.41%	4.06	0.19%	10.15	0.28%
Vacant Area	430.78	29%	415.75	28.17%	121.54	5.74%	537.3	14.95%
Water bodies	8.41	1%	8.41	0.57%	28.89	1.36%	37.3	1.04%
Transportation Network	176.75	12%	175.53	11.89%	109.55	5.17%	285.08	7.93%
Other Land Uses Class:	**651.76**	**43.52%**	**635.5**	**43.06%**	**267.21**	**12.61%**	**902.71**	**25.11%**
Total Area (Acres)	**1,497.74**	**100.00%**	**1476**	**100.00%**	**2,119.00**	**100.00%**	**3,595**	**100.00%**

Note: The boundary of MC Pasrur, as notified in 2013, has been used for calculations. The total Established Built-up Area (EBA) includes both the EBA within the limits of MC and the EBA extending beyond those limits.

2.2.4 Municipal Committee Sambrial

A. Municipal Committee Sambrial Land Use Classification Map

Map 5: Land Use Classification Map of Municipal Committee Sambrial



B. Land Use Distribution, Municipal Committee Sambrial

Table 2-4: Municipal Committee Sambrial Land Use Classification

Land Use Classes & Sub-classes	Total EBA		MC (Inside EBA)		MC (Outside EBA)		Total MC Sambrial	
	Area (Acres)	%Age	Area (Acres)	%Age	Area (Acres)	%	Area (Acres)	%Age
Residential	721.57	46%	695.51	46.84%	0.68	0.17%	696.19	36.99%
Rural Settlements	0	0%	0	0%	0.04	0.01%	0.04	0.00%
Residential Class:	**721.57**	**45.71%**	**695.51**	**46.84%**	**0.72**	**0.18%**	**696.23**	**36.99%**
Commercial	115.67	7%	114.5	7.71%	3.59	0.91%	118.1	6.28%
Educational Institutions (Public)	30.34	2%	30.34	2.04%	0	0	30.34	1.61%
Educational Institutions (Private)	10.19	1%	10.19	0.69%	0	0	10.19	0.54%
Health Institutions (Public)	6.93	0%	6.93	0.47%	0.13	0.03%	7.06	0.38%
Health Institutions (Private)	2.92	0%	2.92	0.20%	0	0	2.92	0.16%
Religious Building	5.32	0%	5.32	0.36%	0	0	5.32	0.28%
Public Buildings & Govt. Offices	21.7	1%	21.7	1.46%	1.86	0.47%	23.55	1.25%
Commercial (including institutional) Class:	**193.07**	**12.23%**	**191.9**	**12.92%**	**5.58**	**1.45%**	**197.48**	**10.49%**
Industrial	15.13	1%	15.13	1.02%	1	0.25%	16.14	0.86%
Brick Kilns	0	0%	0	0	2.94	0.74%	2.94	0.16%
Agro-based Industry	0.16	0%	0.16	0.01%	0	0	0.16	0.01%
Industrial Class:	**15.3**	**0.97%**	**15.3**	**1.03%**	**3.94**	**0.99%**	**19.24**	**1.02%**
Cultivable (Seasonal & Permanent)	0.56	0%	0.56	0.04%	284.5	71.66%	285.06	15.15%
Agriculture Class:	**0.56**	**0.04%**	**0.56**	**0.04%**	**284.5**	**71.66%**	**285.06**	**15.15%**
Military Land / Cantonment	0	0%	0	0	38.04	9.58%	38.04	2.02%
Notified Land Uses Class:	**0**	**0.00%**	**0**	**0.00%**	**38.04**	**9.58%**	**38.04**	**2.02%**
Graveyard	17.77	1%	17.77	1.20%	0.02	0.01%	17.79	0.95%
Bus Terminal	0	0%	0	0	2.69	0.68%	2.69	0.14%
Railway Station	0.28	0%	0.28	0.02%	0	0	0.28	0.01%
Vacant Area	406.94	26%	347.36	23.39%	10.03	2.53%	357.39	18.99%
Water bodies	1.62	0%	1.62	0.11%	21.9	5.52%	23.53	1.25%
Transportation Network	221.3	14%	214.7	14.46%	29.43	7.45%	244.28	12.98%
Other Land Uses Class:	**647.91**	**41.05%**	**581.73**	**39.17%**	**64.07**	**16.18%**	**645.95**	**34.32%**
Total Area (Acres)	**1,578.41**	**100.00%**	**1,485.00**	**100.00%**	**397**	**100.00%**	**1882**	**100.00%**

Note: The boundary of MC Sambrial, as notified in 2013, has been used for calculations. The total Established Built-up Area (EBA) includes both the EBA within the limits of MC and the EBA extending beyond those limits.

2.2.5 District Council, Sialkot

A. Land Use Distribution, District Council Sialkot

Map 6: Land Use Classification Map of District Sialkot

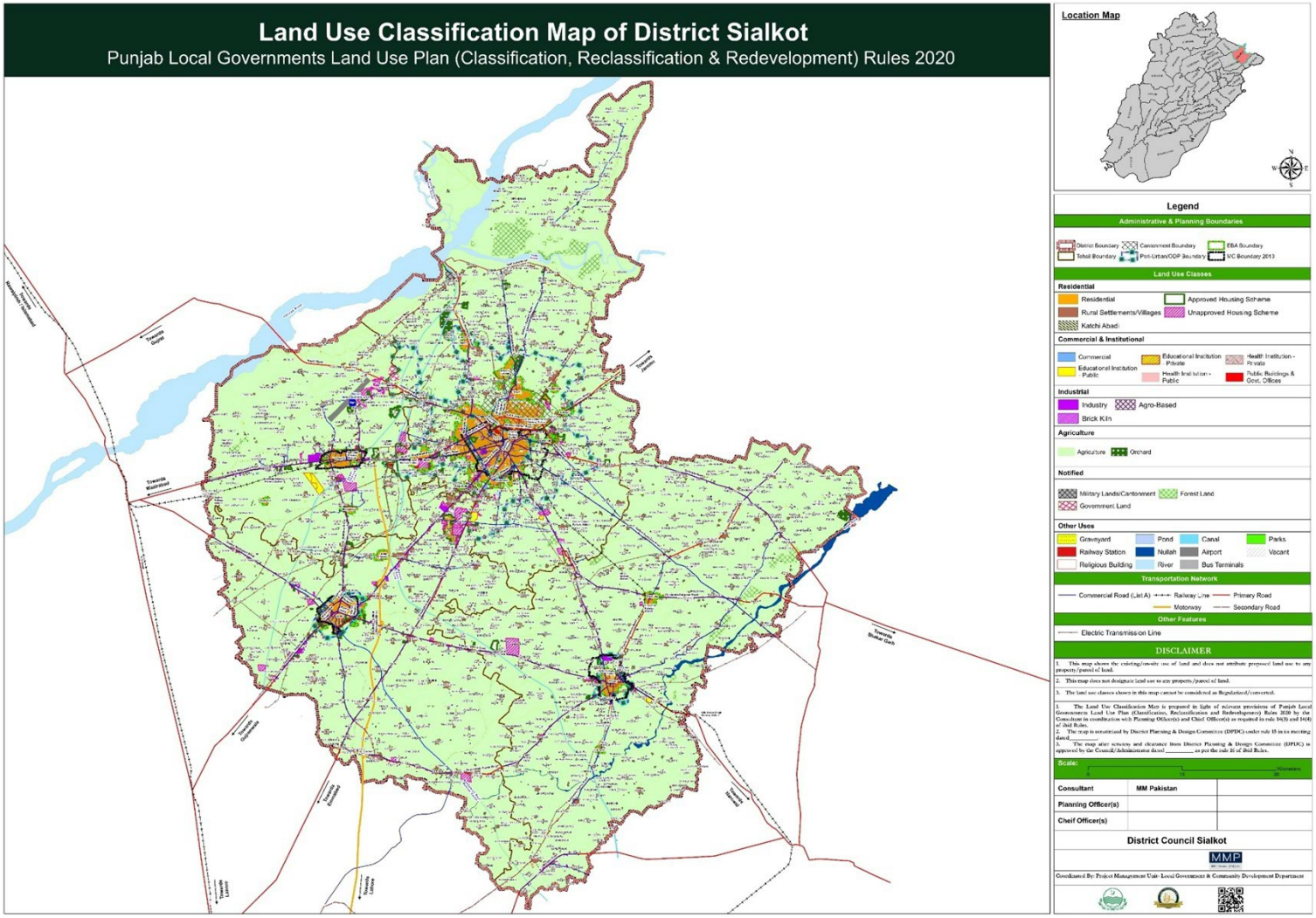


Table 2-5: District Council Sialkot Land Use Classification

Land Use classes & Sub-classes		EBA Sialkot in District Council		EBA Daska in District Council		EBA Pasrur in District Council		EBA Sambrial in District Council		All Other EBAs in District Council		District Council area outside EBAs	
		Area (acres)	Percentage (%)	Area (acres)	Percentage (%)	Area (acres)	Percentage (%)	Area (acres)	Percentage (%)	Area (acres)	Percentage (%)	Area (acres)	Percentage (%)
Sub-classes	Residential	4,571.06	46.36%	208.89	23.13%	3.92	18.05%	26.06	27.90%	1,919.15	44.05%	330.8	0.05%
	Rural Settlements	-	-	-	-	-	-	-	-	0.0013	0.00%	30,703.88	4.31%
	Katchi Abadis	-	-	-	-	-	-	-	-	-	-	-	-
Residential Class:		**4,571.06**	**46.36%**	**208.89**	**23.13%**	**3.92**	**18.05%**	**26.06**	**27.90%**	**1,919.15**	**44.05%**	**31,034.68**	**4.36%**
Sub-classes	Commercial	506.13	5.13%	32.32	3.58%	-	-	1.17	1.26%	247.4	5.68%	1,345.43	0.19%
	Educational Institutions (Public)	73.57	0.75%	0.96	0.11%	0.78	3.57%	-	-	54.39	1.25%	1,133.73	0.16%
	Educational Institutions (Private)	27.06	0.27%	1.81	0.20%	-	-	-	-	25.24	0.58%	75.85	0.01%
	Health Institutions (Public)	8.36	0.08%	0.78	0.09%	-	-	-	-	15.23	0.35%	45.8	0.01%
	Health Institutions (Private)	4.47	0.05%	0.22	0.02%	-	-	-	-	3.44	0.08%	6.51	0.00%
	Religious Building	33.5	0.34%	0.71	0.08%	-	-	-	-	28.06	0.64%	61.08	0.01%
	Public Buildings & Govt. Offices	18.71	0.19%	2.5	0.28%	-	-	-	-	52.84	1.21%	124.11	0.02%
Commercial (including institutional) Class:		**671.8**	**6.81%**	**39.29**	**4.35%**	**0.78**	**3.57%**	**1.17**	**1.26%**	**426.59**	**9.79%**	**2,792.51**	**0.39%**
Sub-classes	Industrial	372.66	3.78%	36.8	4.08%	0.79	3.62%	-	-	89.15	2.05%	1,737.05	0.24%
	Brick Kilns	-	-	1.63	0.18%	-	-	-	-	0	0.00%	533.04	0.07%
	Agro-based Industry	-	-	3.35	0.37%	-	-	-	-	0	0.00%	181.37	0.03%
Industrial Class:		**372.66**	**3.78%**	**41.78**	**4.63%**	**0.79**	**3.62%**	**-**	**-**	**89.15**	**2.05%**	**2,451.46**	**0.34%**
Sub-classes	Cultivable (Seasonal & Permanent)	0.01	0.0001%	-	-	-	-	-	-	0.44	0.01%	631,333.62	88.60%
	Forest (Dense Plantation)	0.05	0.0001%	-	-	-	-	-	-	1.85	0.04%	1,941.31	0.27%

Land Use classes & Sub-classes		EBA Sialkot in District Council		EBA Daska in District Council		EBA Pasrur in District Council		EBA Sambrial in District Council		All Other EBAs in District Council		District Council area outside EBAs	
		Area (acres)	Percentage (%)	Area (acres)	Percentage (%)	Area (acres)	Percentage (%)	Area (acres)	Percentage (%)	Area (acres)	Percentage (%)	Area (acres)	Percentage (%)
Agriculture Class:		**0.06**	**0.001%**	**-**	**-**	**-**	**-**	**-**	**-**	**2.3**	**0.05%**	**633,274.93**	**88.88%**
Sub-classes	Military Land / Cantonment	-	-	-	-	-	-	-	-	26.98	0.62%	309.85	0.04%
	Government Land	-	-	-	-	-	-	-	-	-	-	448.08	0.06%
	Forest Land	-	-	-	-	-	-	-	-	-	-	7,761.79	1.09%
Notified Land Uses Class:		-	-	-	-	-	-	-	-	**26.98**	**0.62%**	**8,519.72**	**1.20%**
Sub-classes	Graveyard	61.53	0.62%	2.07	0.23%	-	-	-	-	112.52	2.58%	688.69	0.10%
	Bus Terminal	21.24	0.22%	-	-	-	-	-	-	-	-	-	-
	Railway Station	0.22	0.001%	-	-	-	-	-	-	0.21	0.00%	0.39	0.00%
	Airport	-	-	-	-	-	-	-	-	-	-	1,015.85	0.14%
	Waterbodies	32.65	0.33%	2.42	0.27%	-	-	-	-	22.34	0.51%	20,287.24	2.85%
	Parks	263.77	2.68%	1.87	0.21%	-	-	-	-	28.37	0.65%	130.3	0.02%
	Vacant Area	2,952.83	29.95%	470.3	52.08%	15.03	69.13%	59.58	63.78%	1,257.36	28.86%	5,021.15	0.70%
	Transportation Network	912.14	9.25%	136.39	15.10%	1.22	5.63%	6.6	7.07%	471.52	10.82%	40,053.07	1.03%
Other Land Uses Class:		**4,244.38**	**43.05%**	**613.05**	**67.89%**	**16.26**	**74.76%**	**66.18**	**70.85%**	**1,892.32**	**43.44%**	**34,464.04**	**4.84%**
Total Area (acres)		**9,859.97**	**100%**	**903**	**100%**	**21.74**	**100%**	**93.41**	**100%**	**4,356.50**	**100%**	**712,537.34**	**100%**

Note: The boundaries of Municipal Committees, as notified in 2013, have been used for calculations. The Established Built-up Areas (EBAs) extending beyond the MC boundaries includes areas that fall under the jurisdiction of the District Council (DC).

2.2.6 Urban Blocks of District Sialkot

The Established Built-up Area (EBA) of each Local Government has been divided into urban blocks, with each block classified as residential, commercial, industrial, and notified based on the predominant land use in accordance with the Punjab Local Governments Land Use Plan (Classification, Reclassification, and Redevelopment) Rules 2020. A summary of urban blocks in District Sialkot is provided below. For detailed information on each urban block, please refer to the notified plan:

Table 2-6: Urban Blocks in District Sialkot

Administrative Unit	Local Governments	Residential	Commercial	Industry	Notified
Municipal Corporation/ Committees	Sialkot	629	37	29	48
	Daska	128	5	3	-
	Sambrial	60	-	-	-
	Pasrur	44	1	1	2

Note: If a land use is marked as non-conforming in urban block maps based on the predominant land use, it may be treated as per its designated use in the previously notified Outline Development Plan (ODP).

CHAPTER 3

SITE DEVELOPMENT ZONE STRUCTURE PLAN (2023-2043)

District Land Use & Zoning Plans
for Local Governments in Punjab

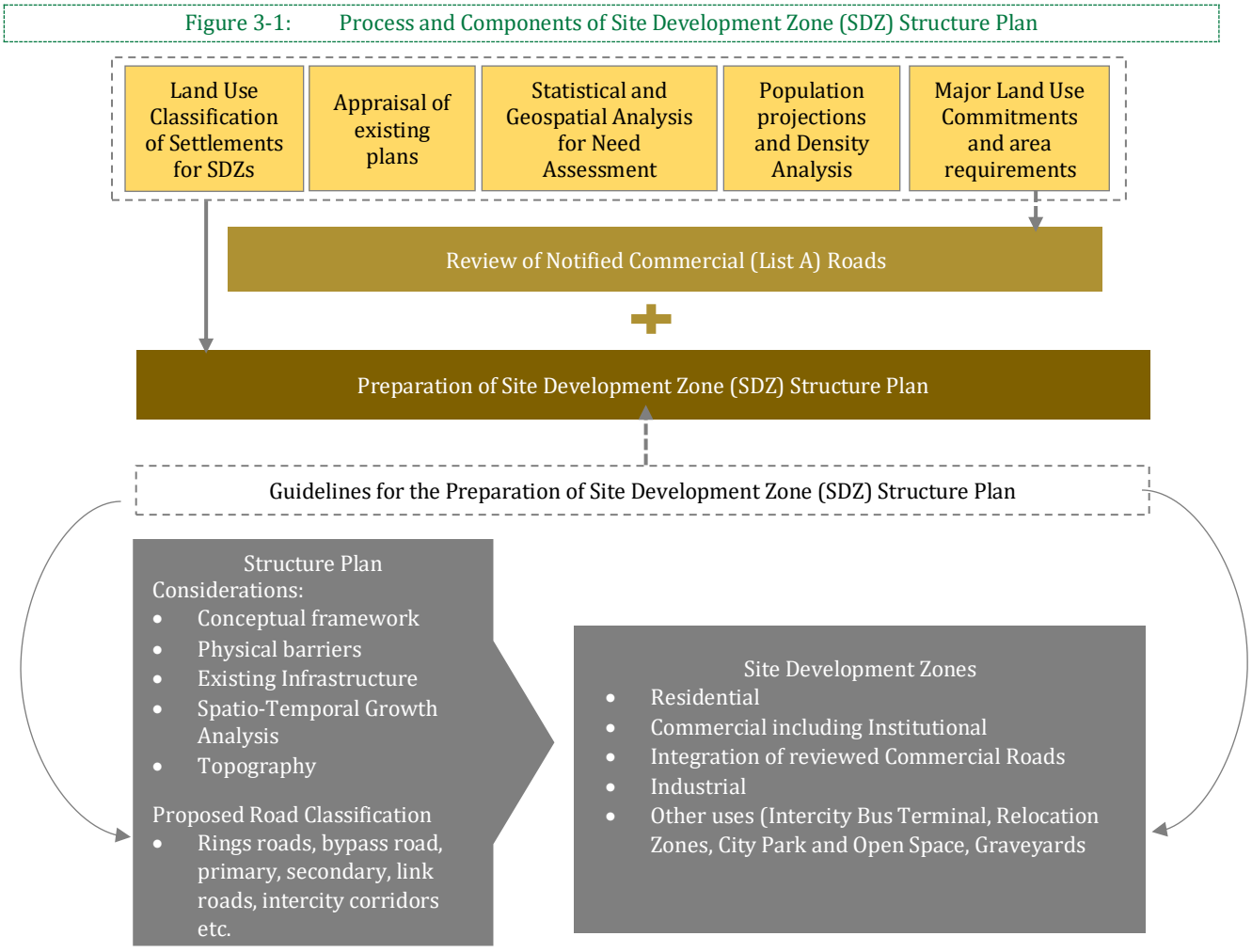
CHAPTER 3
SITE DEVELOPMENT ZONE (SDZ) STRUCTURE PLAN (2023-2043)

3.1 Process

The process will examine the Existing Built-up Areas (EBAs) within the district for which the Site Development Zone (SDZ) Structure Plan will be prepared. A density analysis of the EBA will be conducted to determine the current density. Keeping in view the density trends and population growth rate, the future density will be planned for a period of 2023-2043. The planned density will determine the total city area needed by 2043, which will be allocated across various zones based on the land use analysis in EBAs while fulfilling the current gaps where necessary. The proposed land use zones will be provided with the spatial understanding of the location of the existing road network, compatibility between the land uses and planning principles. A road network will be proposed to form the city structure and guide the future development prior to demarcation of zones.

The following interdependent activities will make the process interactive in order to achieve the set goals through data driven plans followed by inputs from concerned Local Governments and stakeholders eventually leading to an inclusive plan:

Figure 3-1: Process and Components of Site Development Zone (SDZ) Structure Plan



3.2 Site Development Zone (SDZ) Structure Plan

The district Sialkot comprise of four tehsils namely Sialkot, Sambrial, Pasrur and Daska. A list of 16 urban settlements in the district is prepared in consultation with the focal person. The consultants have demarcated the EBA boundaries undertaking the prescribed guidelines from the LG & CD Department. The table below illustrates the list of all Local Governments (LGs) / Urban Settlements.

Table 3-1: List of Local Governments / Urban Settlements

Sr. No	Tehsil	LGs / Settlements	Area (Acre)	Administrative Levels	Requirement
1	Daska	Daska	3,509	Municipal Committee	Site Development Zone Structure Plan
2	Daska	Jamke Cheema	352.70	Town Committee	
3	Pasrur	Pasrur	1,515.56	Municipal Committee	Site Development Zone Structure Plan
4	Pasrur	Chawinda	477	Town Committee	Natural Growth Boundary
5	Pasrur	Kalaswala	143	Town Committee	Natural Growth Boundary
6	Sambrial	Sambrial	1,578	Municipal Committee	Site Development Zone Structure Plan
7	Sambrial	Bhopalwala	253	Town Committee	Natural Growth Boundary
8	Sambrial	Begowala	139.20	Town Committee	Natural Growth Boundary
9	Sialkot	Sialkot	17,209	Municipal Corporation	Site Development Zone Structure Plan
10	Sialkot	Kamanwala	139	Town Committee	
11	Sialkot	Kotli Loharan	439	Town Committee	
12	Sialkot	Ugoke	1,054	Town Committee	
13	Sialkot	Langeriali	310	Town Committee	
14	Sialkot	Dalowali	268	Town Committee	
15	Sialkot	Kharota Syedan	685	Town Committee	
16	Sialkot	Pakki Kotli	96	Town Committee	

As per the Land use Plan Rules 2020, the SDZs have been aligned with the followings:

- Population Density
- Temporal analysis of land cover
- Densification
- Boundary has been drawn keeping in view the physical barriers
- The limits of the Site Development Zones (SDZs) do not extend into the restricted areas
- The location of the SDZ can be outside established built up area and close to its boundary to ensure a compact and contiguous form
- Connectivity to existing infrastructure and accessibility

Note: All on-ground developments with no legal/approval status are marked as "Area Under Development (AUD)" and their fate may be decided by the DPDC/LG&CDD.

3.2.1 Analyses and Projections

The geo-spatial and statistical analysis will include a land use cover analysis, providing insights into land use patterns and trends over the past 30-40 years. Accessibility analysis will assess connectivity and access to other facilities. Additionally, this section will discuss social infrastructure, including health, education, and recreational facilities, in terms of both quantity and quality.

3.3 Tehsil Sialkot

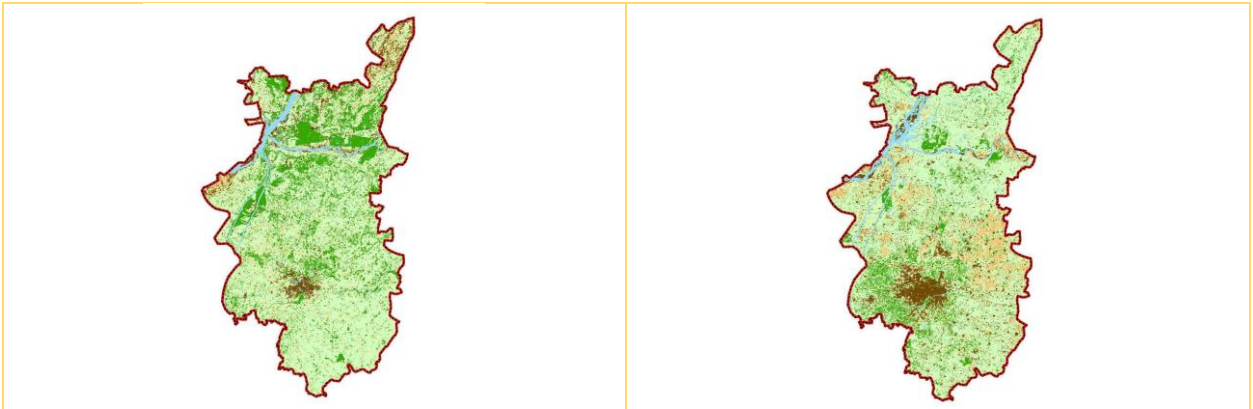
3.3.1 Exploring Past Trends of Land Use Transformation in Tehsil Sialkot

The land cover change analysis for Tehsil Sialkot from 1990 to 2022 highlights major shifts in the built-up area that has significantly expanded, particularly in urban regions, while the tree cover has notably decreased, especially in the northern and western parts. Agricultural land has seen minimal reduction, whereas barren land and water bodies have increased, reflecting broader environmental and developmental changes in the region. The details are provided in the following table:

Table 3-2: Land Cover Change (2022-1990) - Tehsil Sialkot

	1990		2022		Change (2022-1990)	
Land Cover	**Area (acres)**	**Percentage**	**Area (acres)**	**Percentage**	**Area (acres)**	**Percentage**
Agriculture	178,714.03	78.89%	179,331.79	79.17%	617.76	0.35%
Shrubs & Trees	27,011.09	11.92%	10,660.13	4.71%	(16,350.96)	-60.53%
Built Up	7,635.56	3.37%	11,799.28	5.21%	4,163.73	54.53%
Barren Land	6,993.08	3.09%	17,418.46	7.69%	10,425.38	149.08%
Water	6,175.16	2.73%	7,319.26	3.23%	1,144.10	18.53%

Figure 3-2: Comparative Analysis of Land Cover Map of Tehsil Sialkot

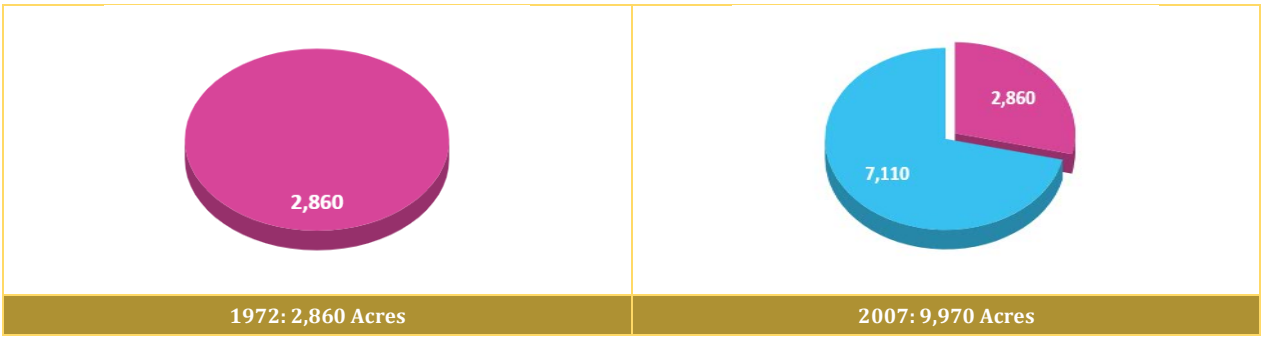


Land Cover Map of Tehsil Sialkot (1990) | Land Cover Map of Tehsil Sialkot (2022)

3.3.2 Analysing Sialkot's Growth Trends (1972-2022)

The growth trend analysis of the EBA reveals that MC Sialkot has experienced rapid and uneven physical expansion over the past 50 years. The city's growth has been irregular, driven largely by its role as an export hub and the influx of a large industrial labor force. This expansion has led to significant increases in the city's size, particularly on the outskirts.

Figure 3-3: Analysis of Urban Growth Trends in Sialkot Existing Built-up Area (EBA)



1972: 2,860 Acres | 2007: 9,970 Acres

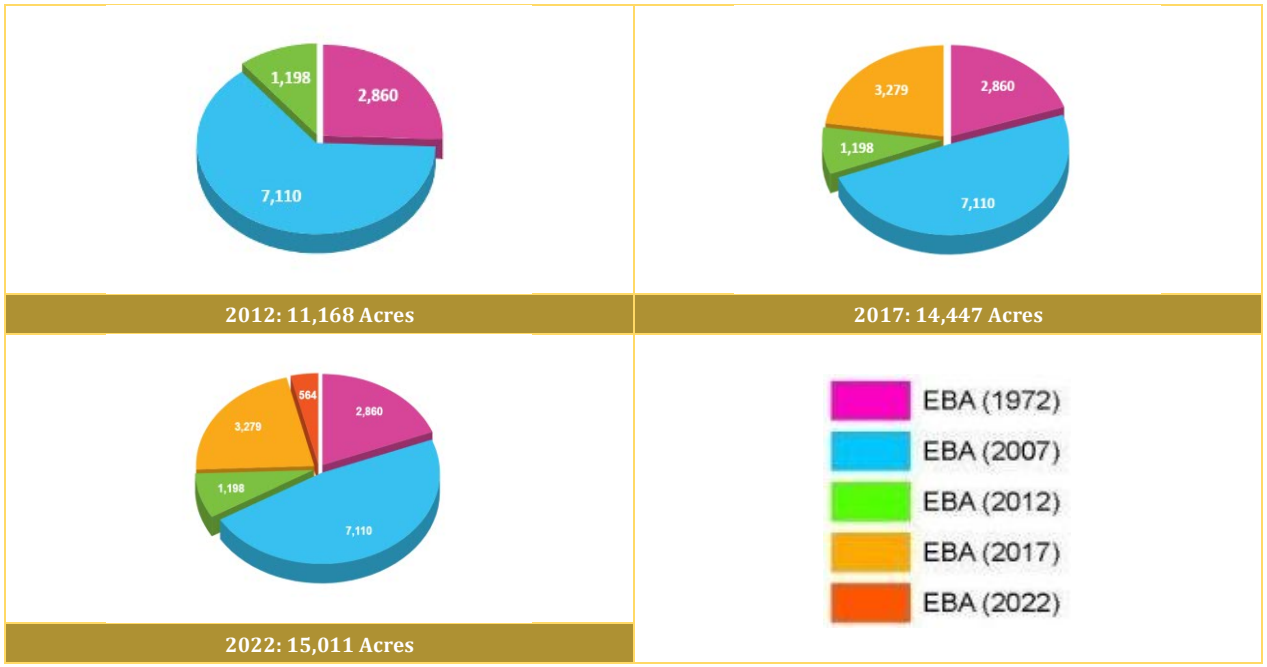
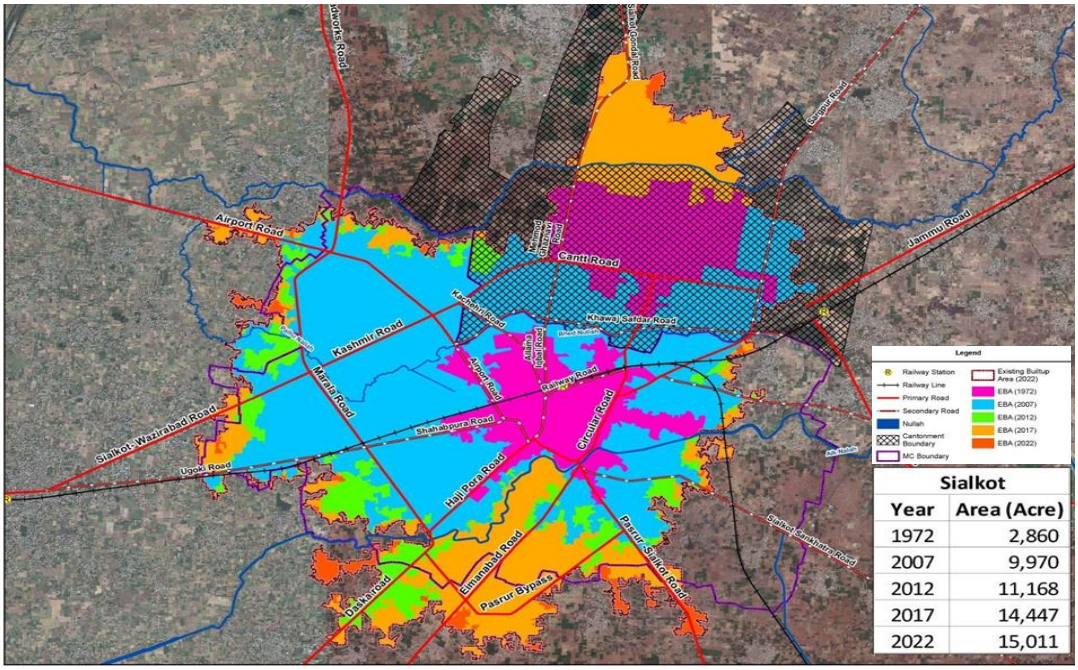


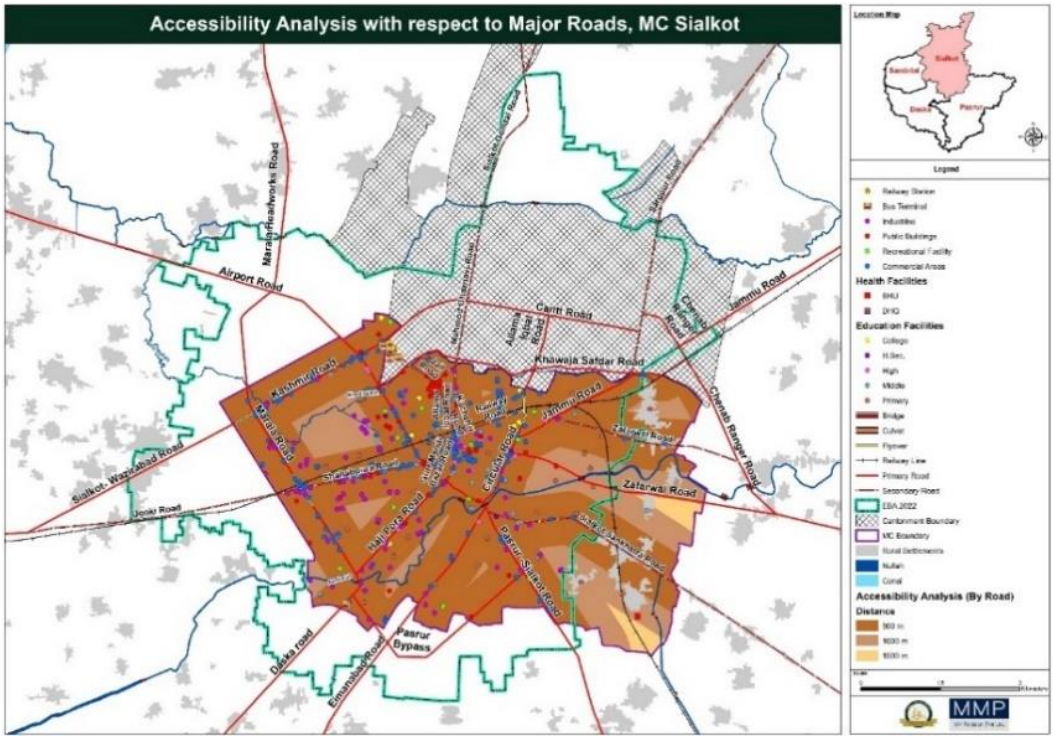
Figure 3-4: Urban Growth Analysis of the Sialkot Existing Built-up Area (EBA) 1972-2022



3.3.3 Assessing Accessibility in Municipal Corporation Sialkot

The accessibility of MC Sialkot is analysed with the help of figure below that highlights buffer zones of 500, 1,000, and 1,500 meters around major roads. The analysis indicates that accessibility is generally favorable, with settlements within these buffer zones having good access to numerous POIs supported by key roads. However, the lack of sustainable transport options, particularly public transportation, may limit access for those without private vehicles, potentially causing environmental issues due to increased reliance on personal transport.

Figure 3-5: Accessibility Mapping of Municipal Corporation Sialkot's Major Roads and Point of Interests



3.3.4 Population Projections & Growth Trends (2023-2043)

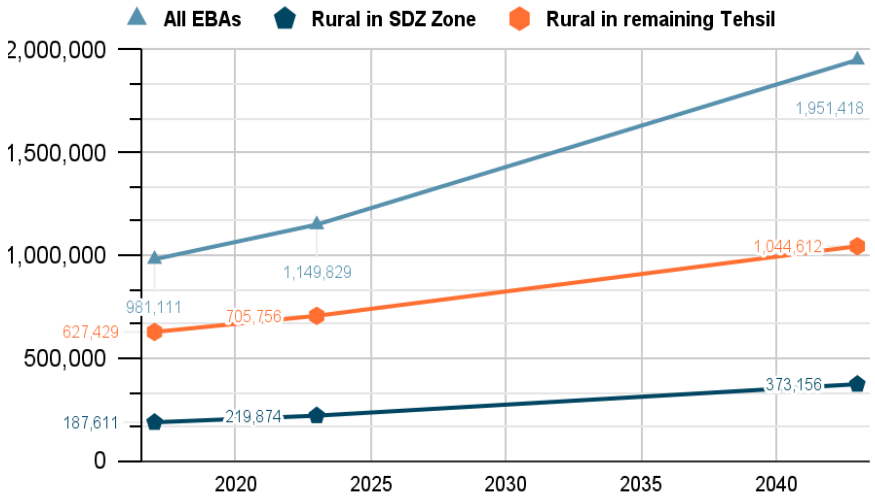
Population projections for the 2023-2043 planning horizon are based on the 2017 Census data. These projections are used to determine the area requirements for the SDZ Structure Plans and are calculated using the geometric formula.

Pn = Po[1 + (r/100)]^n
Where,
Po: last known population,
Pn: Projected population after 'n' number of years,
n: number of years between Po and Pn and,
r: growth rate

Table 3-3: Population Projections for Sialkot Tehsil

Description	Census Population (2017)	Growth Rate (2017)	Growth Rate for Projection till 2023	Projected Population (2023)	Considered Growth Rate beyond 2022 till 2043	Projected Population (2043)
Sialkot Tehsil						
MC Sialkot	592,604	2.68%	2.68%	694,512	2.68%	1,178,683
Cantt	64,126	0.08%	0.08%	64,434	0.08%	65,473
EBA Sialkot Urban blocks* (GIS)	865,084	2.32%	2.32%	992,708	2.32%	1,570,478
All EBAs	981,111	-	2.68%	1,149,829	2.68%	1,951,419
Rural Population falling in SDZ Zone (all mouza)	187,611	2.68%	2.68%	219,874	2.68%	373,156
Rural population in remaining Tehsil (outside SDZ zone)	627,429	1.98%	1.98%	705,756	1.98%	1,044,611
Total Tehsil Population (Published census)	**1,796,151**	-	-	**2,035,828**	-	**3,369,187**

Figure 3-6: Sialkot Tehsil Population Projection Graph



3.3.5 Density Analysis of Tehsil Sialkot

The Sialkot MC area covers 11,785 acres, while the collective area of all EBAs span 20,200 acres. The total population of EBAs is calculated to be 1,149,829 by 2023, resulting in an average density of 58 persons per acre. To meet urban planning needs, the density was adjusted to 68 people per acre with a 20% increase.

Table 3-4: Density Calculations of Tehsil Sialkot

Description	Values	Unit
All EBA Areas for density/ Rural area in SDZ Zone / Rural Settlement in remaining Tehsil	20,200	acres
All EBA Population 2023/ Population falling in SDZ zone / Rural Population outside zone, in Tehsil	1,149,829	People
Current average population density in selected EBAs	57	People / acres
Desired Density with 20% increase	68	People / acres

3.3.6 Future Land Needs Assessment

Since the SDZ Structure Plan will serve the entire population of the Tehsil Sialkot, both rural and urban population will be considered as the base population. The base population includes three components:

- Urban Population in the EBA (A): This includes the urban population of the respective EBAs in the Tehsil.
- Rural Population adjacent to the EBA (B): This is the total population of the areas that are expected to be in the growth boundary.
- Rural Population in the Remaining Tehsil (C): This is calculated by subtracting the populations A and B from the total Tehsil population. In this case, only 60% of this population will be analysed for Area Requirement Analysis.

The total population for 2023, after summing A, B, and C, is 2,075,459 which is projected to be 3,369,186 in 2043 using the same growth rates. The future land need assessment is carried out using the desired density (see Table 12). To serve the additional population of the future, a total area of 17,918 acres is required. The existing vacant areas are proposed to be developed first as 'infill development. The details are provided in the table below:

Table 3-5: Density and Area Calculation for Sialkot Tehsil

	Description	Census Population (2017)	Growth Rate (2017)	Projected Population (2023)	Projected Population (2043)	Total Area Required (Existing + New) acres	Base area / Existing area acres	Additional Area acres
A	All EBAs	981,111	2.68%	1,149,829	1,951,418	28,568	20,200	8,368
B	Rural Population falling in SDZ Zone (all mouza)	187,611	2.68%	219,874	373,156	5,463	1,659	3,804
C	Rural population in remaining Tehsil (outside SDZ zone)	627,429	1.98%	705,756	1,044,612	15,293	8,432	4,117
	Total Tehsil Population	**1,796,151**	**-**	**2,075,459**	**3,369,186**	**49,323**	**30,290**	**17,918**

*1.98% is the growth rate for Cantt population as published in PBS-Census of 2017.

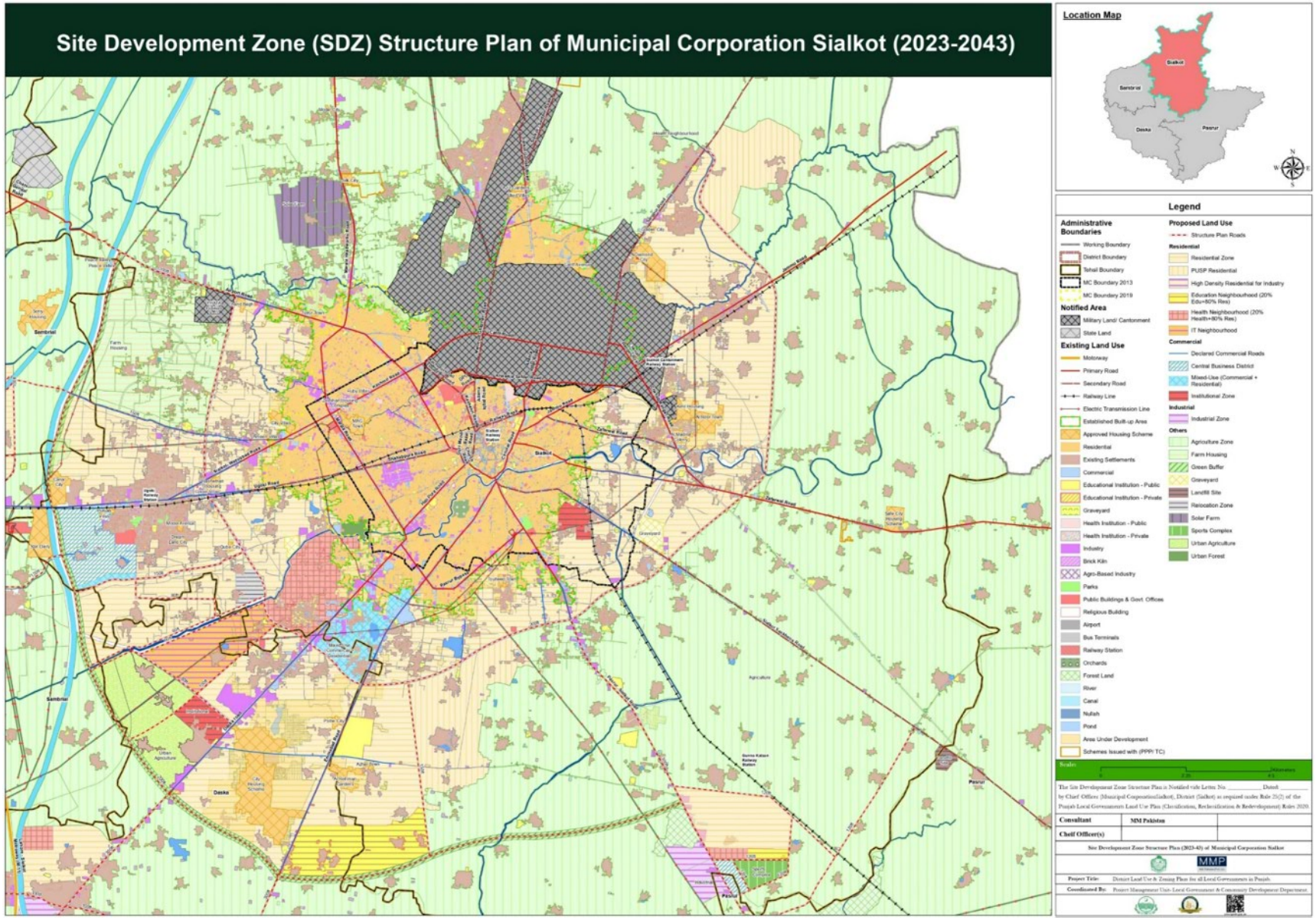
3.3.7 Sialkot Site Development Zone Structure Plan (2023-2043)

The SDZ Structure Plan of Sialkot is prepared with transportation (circulation) as a priority to control the overall shape. Several zones are then proposed keeping in view the planning principles and factors outlined in the previous chapter. The distribution of various zones proposed in SDZ Structure Plan are shown in the table below.

Table 3-6: Proposed Site Development Zones (SDZ) Sialkot for Plan Period 2023- 2043

Proposed Site Development Zone	Area (Acres)	Land Use Percentage
Residential Proposed Uses	21,555.35	73.4%
Commercial Proposed Uses	1,473.36	5%
Industrial Proposed Uses	317	1.1%
Other Land Uses	6,023	20.5%
Total of all Zones	**29,369**	**100%**

Map 7: Proposed Site Development Zones (SDZ) of Sialkot for Plan Period 2023- 2043



Proposed Residential Zone

Residential Site Development Zones are proposed totaling an area of 21,392 acres including infill development within the EBA. The residential zones are further categorized into five types, as detailed in the table:

Table 3-7: Proposed Residential Zones (2023-2043) in Municipal Corporation Sialkot

Land Use	Area (acres)	Percentage of the total proposed area	Symbology
Proposed Residential Area (PRA)	16,538.59	76.7%	
Proposed Educational Neighborhood (20% area to be allocated for education)	1,017.53	4.7%	
Proposed Health Neighborhood (20% area to be allocated for health)	676.00	3%	
Proposed IT Neighborhood (20% area to be allocated for IT related services)	771.82	3.5%	
PUSP Residential	2,550.94	12%	

- Neighborhood

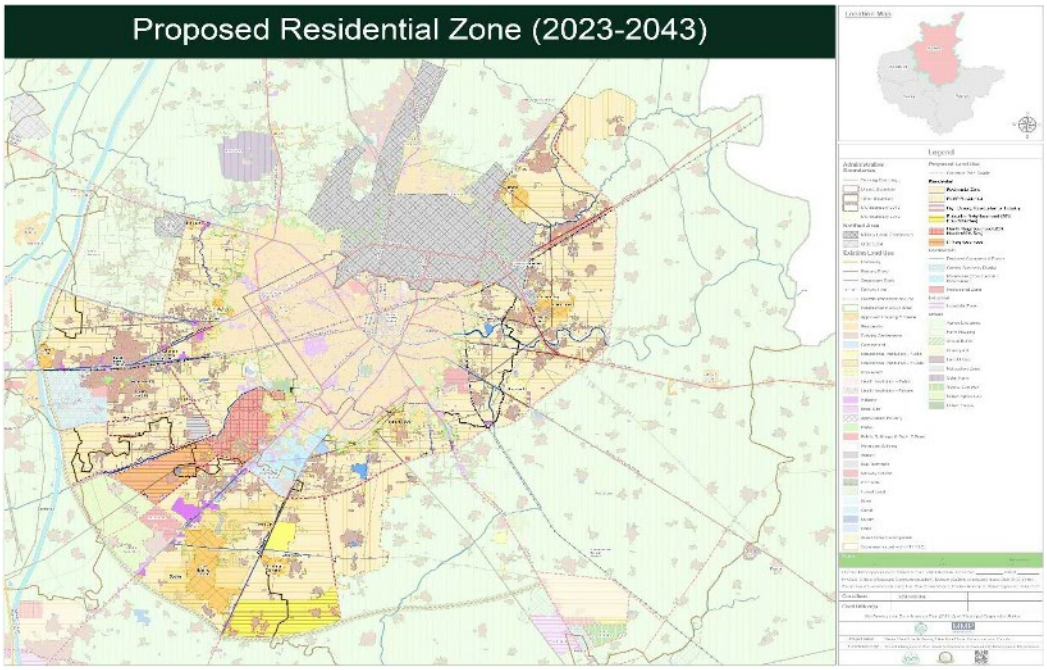
Neighborhood planning integrates essential facilities such as health, education, IT, and economic hubs within residential spaces, creating vibrant and self-sufficient communities. By mandating private developers to reserve and develop a portion of their scheme for higher-order public infrastructure ensures balanced development and also alleviates the burden on public institutions paving the way for sustainable urban growth.

The detailed proposal of each neighborhood in District Sialkot is as under:

Neighborhoods	Proposed
Health Neighborhood	In these residential zones/neighbourhoods, a residential scheme may be allowed subject to condition that 20% of the total area shall be reserved and developed for higher order health facilities (City level health care functions) buildings, higher order health uses: Hospital, Medical Institute, Medical Research, Nursing Home, Diagnostic Centers.
Educational Neighborhood	In these residential zones/neighbourhoods, a residential scheme may be allowed subject to condition that 20% of the total area shall be reserved and developed for higher order educational facilities (City level education facilities) buildings, higher order education uses: School, College, University, Research Institute, Community School
IT Neighborhood	In these residential zones/neighbourhoods, a residential scheme may be allowed subject to condition that 20% of the total area shall be reserved and developed for higher order IT facilities (City level IT functions) buildings, higher order IT uses: IT related industries, services and products (Software, Hardware, data communication infrastructure, telecommunications, Research and Training institutes

Note: The LG&CD Department may devise rules and regulations for such proposed neighbourhoods.

Figure 3-7: Proposed Residential Zones in Municipal Corporation Sialkot



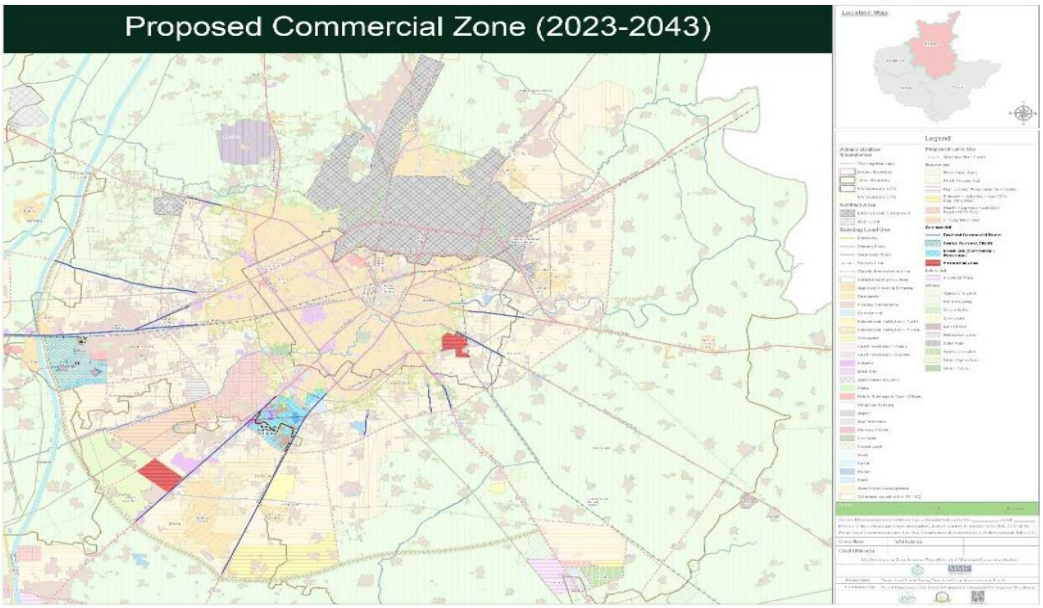
- **Proposed Mixed Use/ Commercial Zone**

The proposed commercial zones, covering around 1,637 acres, have been proposed to support higher-order commercial activities including, Central Business District, Institutional and Mixed-use activities. Additionally, the Intercity Corridors along two major routes i.e. Daska Road and Emenabad Road are also proposed. These intercity corridors will improve inter-city mobility and foster economic growth. The details are presented in Table 3-8 below.

Table 3-8: Proposed Commercial Zones (2023-2043) in Municipal Corporation Sialkot

Land Use	Area (acres)	Percentage of the total proposed area	Symbology
Central Business District	635.69	43%	
Institutional Zone	335.05	23%	
Mixed-Use (Commercial + Residential)	502.61	35%	

Figure 3-8: Proposed Commercial Development Zone in Municipal Corporation Sialkot



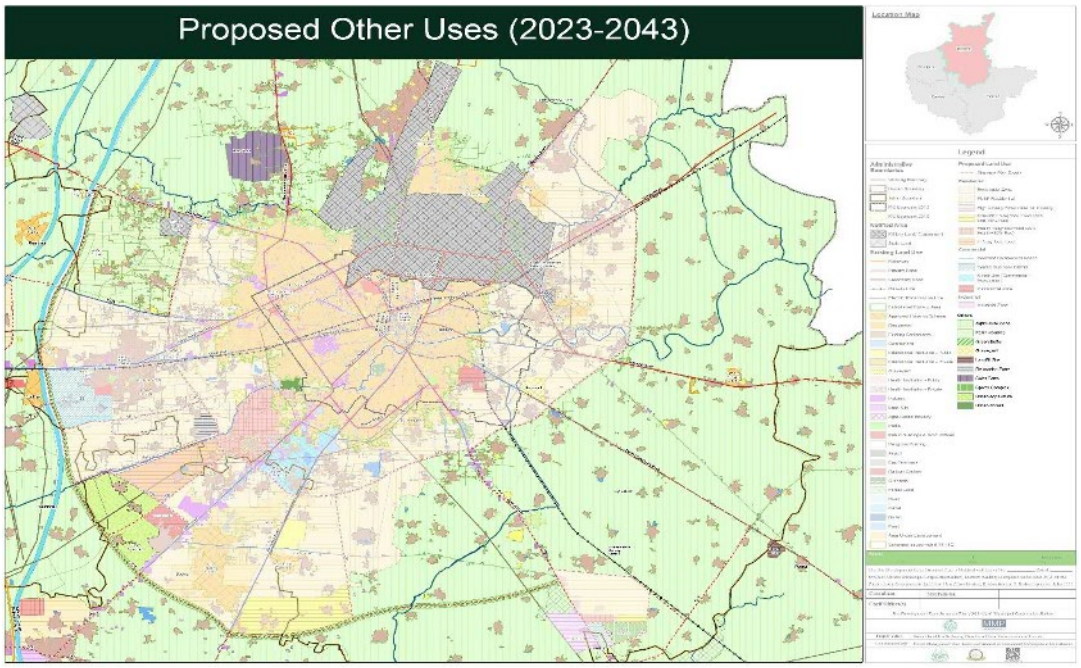
Other Proposed Uses

The other proposed zones include various uses include three major zones i.e., such as graveyards, landfill site, sports complex and relocation zones. These uses account for 2% of the total proposed area. The purpose of Relocation Zone is aimed at relocating certain congested facilities such as Sabzi Mandi, Bakra Mandi, Fish Market, bus terminals or any other informal commercial markets. Furthermore, a higher-order institutional zone is proposed to provide institutional facilities in one location to facilitate the residents. A state-of-the-art business and expo center is also planned to support business and industry.

Table 3-9: Other Proposed Uses (2023-2043) in Municipal Corporation Sialkot

Land Use	Area (acres)	Percentage of the total Proposed Area	Symbology
Sports Complex	196.29	3.3%	
Relocation Zone	128.18	2.1%	
Landfill Site	63.81	1.1%	
Graveyard	151.52	2.5%	
Farm Housing	2,396.53	39.8%	
Green Buffer	1,180.06	19.6%	
Solar Farm	696.39	11.6%	
Urban Agriculture	1,161.23	19.3%	
Urban Forest	49.41	0.8%	
Total Area	**6,023**	100%	

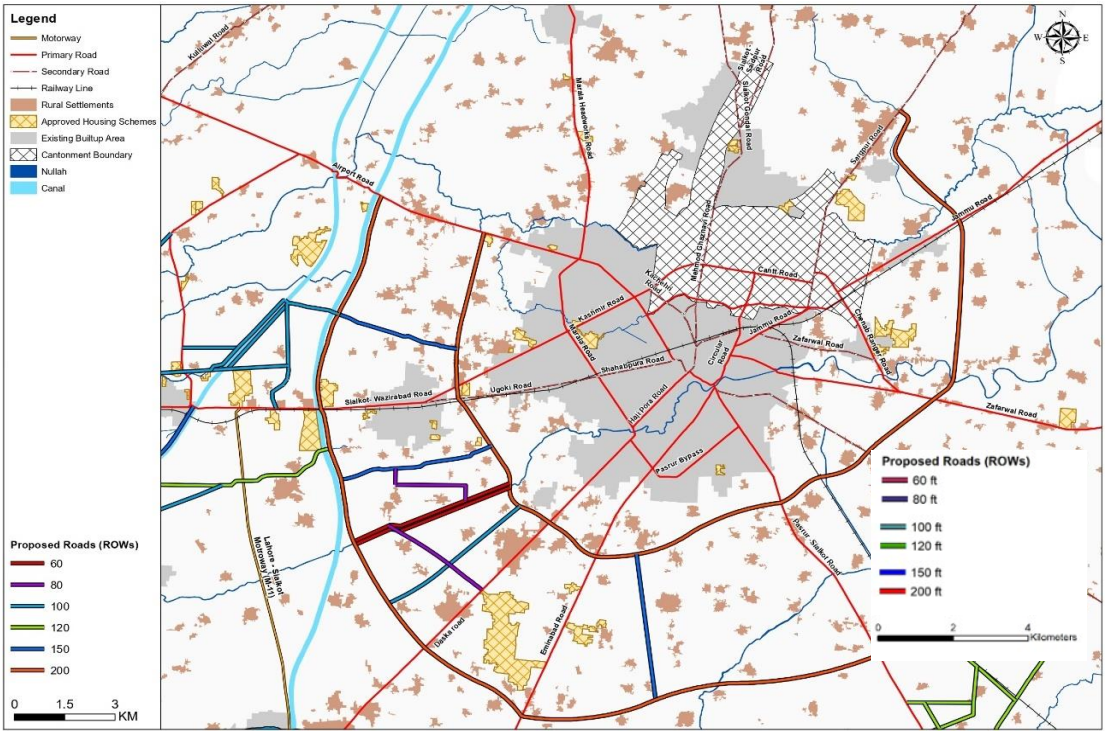
Figure 3-9: Other Proposed Uses in Municipal Corporation Sialkot



3.3.8 Proposed Structure Plan for Sialkot Tehsil 2023-2043

The Structure Plan for Sialkot has been developed for the next 20 years (2023-2043) based on factors such as connectivity of existing infrastructure, growth trends, topography, and land use patterns. When proposing new roads in a city, it is crucial to carefully consider the route proposals and alignments to ensure that the roads serve their intended purposes effectively while minimizing negative impacts. To support Sialkot City's future development, a proposal has been made that includes the construction of two ring roads i.e., an Inner Ring Road and an Outer Ring Road along with a network of structure plan roads. The proposal also includes the rehabilitation of existing roads, focusing on widening and improvements to enhance connectivity between urban and rural areas. Further details on these proposals are provided in the following sections.

Figure 3-10: Proposed Structure Plan of Municipal Corporation Sialkot



Rings Roads

Two ring roads i.e., an inner and an outer alignment having ROW 150 feet are proposed within the SDZ Structure Plan which will serve as a physical barrier for future development of Sialkot. The proposed inner ring road is intended to serve the population traveling from congested areas of Sialkot to educational, or commercial centers. This will help reduce traffic on busy urban roads like Gur Mandi Bazaar Road, Trunk Road, and other major routes. The outer ring road is designed to connect Airport Road with Pasrur Road, forming a loop that crosses Sialkot-Wazirabad Road, Daska Road, and Eminabad Road. This loop extends to the southeastern edge of the city, linking rural settlements in the Tehsil to Sialkot and providing routes to other cities, including Daska and Sambrial. The tables below provide detailed information about the proposed ring roads:

Table 3-10: Proposed Inner Ring Road in Sialkot

Road Name	Road Type	ROW	Length (km)	Start_X	Start_Y	End_X	End_Y
P1-(2043) (Airport Road to Sargpur Road)	Primary Road-I	200	30	74.602	32.563	74.470	32.528

Table 3-11: Proposed Outer Ring Road in Sialkot

Road Name	Road Type	ROW	Length (km)	Start_X	Start_Y	End_X	End_Y
P2-(2043) (Airport Road to Jammu Road)	Primary Road-I	200	34	74.596	32.408	74.438	32.538

Proposed Primary Structure Plan Roads

Primary roads with 150 ft. and 100 ft. ROWs are proposed to support the future development and land uses outlined in the SDZ Structure Plan for Sialkot. The table 21 below lists five segments designed to enhance connectivity for new residential developments and associated land uses within the plan. These proposals primarily focus on the north western and eastern directions. The proposed zones are interconnected by primary linkages to ensure improved connectivity between future developments.

In the west, residential development extending beyond the EBA is organized around P3-2043, which serves as a buffer between the residential zone and urban agricultural areas. This segment connects Ghuinki-Ugoki Sharaf Shah Link Road with Sialkot Road. Segment P4-2043 enhances connectivity for proposed residential developments on the southern side and also limits further urban expansion in that direction. Additionally, this segment acts as a link road connecting the outer and inner ring roads.

The primary roads with a 100 ft width are also part of the plan. Segments P5, P6, and P7-2043 are intended to improve connectivity for the proposed residential areas in the west. These roads are scheduled for development and completion by 2043 to ensure efficient connectivity across each sub-zone within the SDZ.

Table 3-12: Proposed Structure Plan Roads (Primary Roads) in Municipal Corporation Sialkot

Road Name	Road Type	ROW	Length (km)	Start_X	Start_Y	End_X	End_Y
P3-(2043)	Primary Road-II	150	3.441	74.441	32.444	74.470	32.426
P4-(2043)	Primary Road-II	150	5.170	74.519	32.436	74.511	32.390
P5-(2043)	Primary Road-III	100	2.091	74.443	32.456	74.465	32.456
P6-(2043)	Primary Road-III	100	4.955	74.441	32.422	74.482	32.450
P7-(2043)	Primary Road-III	100	0.48	74.465	32.456	74.465	32.451

Proposed Secondary Structure Plan Roads

A network of secondary roads with a ROW 60 feet is also proposed in the SDZ Structure Plan. The following table provides information about the proposed secondary roads.

Table 3-13: Proposed Structure Plan Road (Secondary Roads) in Municipal Corporation Sialkot

Road Name	Road Type	ROW	Length (km)	Start_X	Start_Y	End_X	End_Y
S1-(2043)	Secondary Road	60	5.009	74.479	32.455	74.430	32.439
S2-(2043)	Secondary Road	60	5.037	74.430	32.440	74.479	32.456

Rehabilitation of Existing Roads

A primary connection outside the Ugoke-EBA, running east-west in the rural part of the Tehsil parallel to Daska Road, is also proposed for widening. This road connects the proposed land uses between the Marala-Ravi Link Canal and the Inner Ring Road. Currently, the ROW of unnamed road 20 feet, which is proposed to be extended to 100 feet, as it will serve as a primary connection in the Tehsil for the SDZ 2043.

Additionally, Roras Road, classified as a primary road, is proposed for rehabilitation. Located west of the Sialkot-Wazirabad Road, Roras Road connects settlements to the proposed residential zones. The current ROW of this road has narrowed from 25 feet to 10 feet is inadequate. With the expected development of residential areas along its sides, a segment of Roras Road is proposed to serve as the primary circulation route with a 150 feet ROW. A 3.8 km stretch from Marala Link Canal to the proposed residential zone will be widened.

Another primary connection with a 100 feet ROW is proposed in the plan. The existing ROW of Ghuinki-Ugoki Sharaf Shah Link Road ranging between 20 and 30 feet, is insufficient for its function as a city center road. Details of primary roads proposed for widening are provided in the following tables.

Table 3-14: Rehabilitation of Existing Primary Roads in Municipal Corporation Sialkot

Road Name	Road Type	ROW	Length (km)	Start_X	Start_Y	End_X	End_Y
Sahowala Link Road	Primary Road	150	4.674	74.473	32.467	74.425	32.457
Roras Road	Primary Road	150	3.847	74.423	32.505	74.462	32.495
Ghuinki-Ugoki Sharaf Shah Link Road	Primary Road	100	0.512	74.443	32.460	74.443	32.456

3.4 Tehsil Sambrial

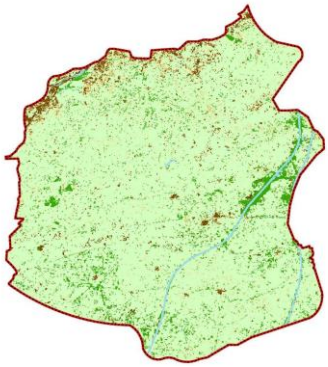
3.4.1 Past Trends of Land Use Transformation in Tehsil Sambrial

The analysis of Tehsil Sambrial shows a clear trend of increasing urbanization, with significant growth in built-up areas, particularly around key settlements and infrastructure routes. This urban expansion has come at the expense of agricultural land and area of shrubs & trees, which have both decreased. Additionally, there has been a notable increase in water bodies, likely due to natural factors such as rainfall and river expansion.

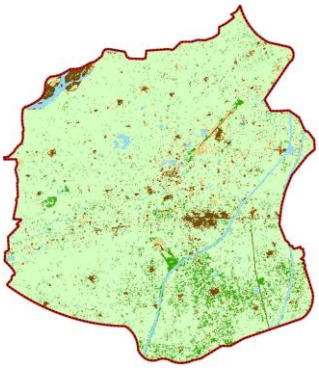
Table 3-15: Land Cover Analysis, Tehsil Sambrial

Tehsil Sambrial						
	1990		2022		Change (2022-1990)	
LC	Area (Acres)	Percentage	Area	Percentage	Area	Percentage
Agriculture	93,801.20	90.62%	92,713.94	89.57%	-1,087.26	-1.16%
Shrubs & Trees	4,101.95	3.96%	3,261.79	3.15%	-840.16	-20.48%
Builtup	2,273.37	2.20%	2,817	2.72%	543.63	23.91%
Barren Land	2,162.17	2.08%	2,438.93	2.36%	276.76	12.80%
Water	1,183.64	1.15%	2,273.37	2.20%	1,089.74	92.07%
Total	**103,512**	**100%**	**103,512**	**100%**	**-**	**-**

Figure 3-11: Comparative Analysis of Land Cover Map of Tehsil Sambrial



Land Cover Map of Tehsil Sambrial (1990)

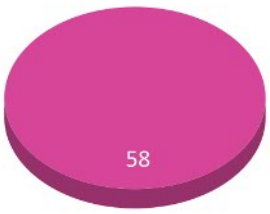


Land Cover Map of Tehsil Sambrial (2022)

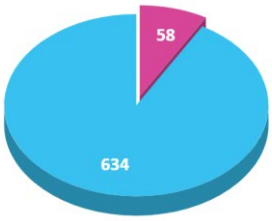
3.4.2 Spatial-Temporal Growth

The analysis of Sambrial's growth over the past 32 years shows a pattern of rapid but uneven expansion, particularly after gaining Tehsil status in 2004. The city has more than doubled in size, with major growth along the Sialkot-Wazirabad and Daska-Sambrial roads. Initially a rural settlement, Sambrial's transformation into an urban area began in the early 2000s, with development spreading primarily along these two corridors. The growth trend suggests a continued expansion in the same directions, guiding the preparation of future Site Development Zones (SDZs).

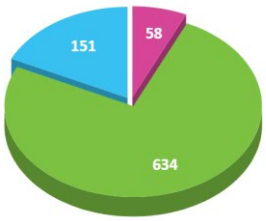
Figure 3-12: Urban Growth rate analysis of the Existing Built-up Area (EBA) within Municipal Committee Sambrial 1990-2022



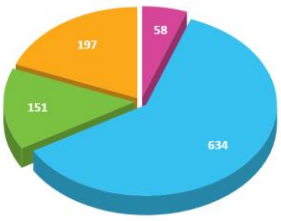
1990: 58 Acres



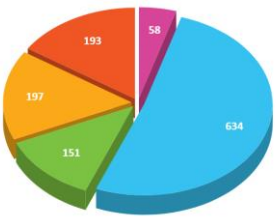
2007: 692 Acres



2012: 842 Acres

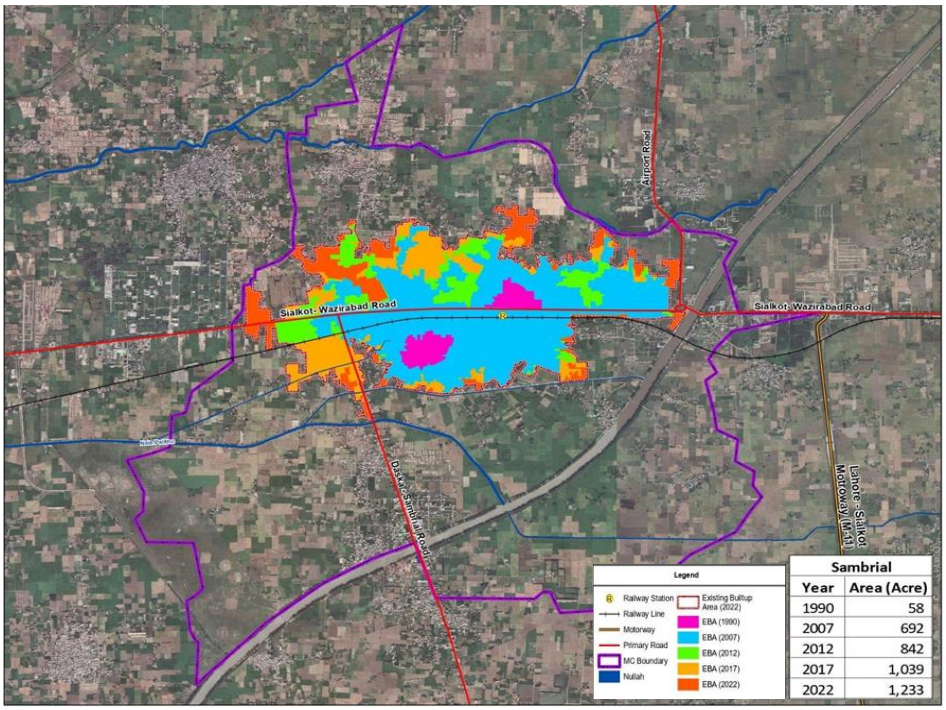


2017: 1,039 Acres



2022: 1,207 Acres

Figure 3-13: Urban Growth analysis of the Existing Built-up Area (EBA) within Municipal Committee Sambrial 1990-2022

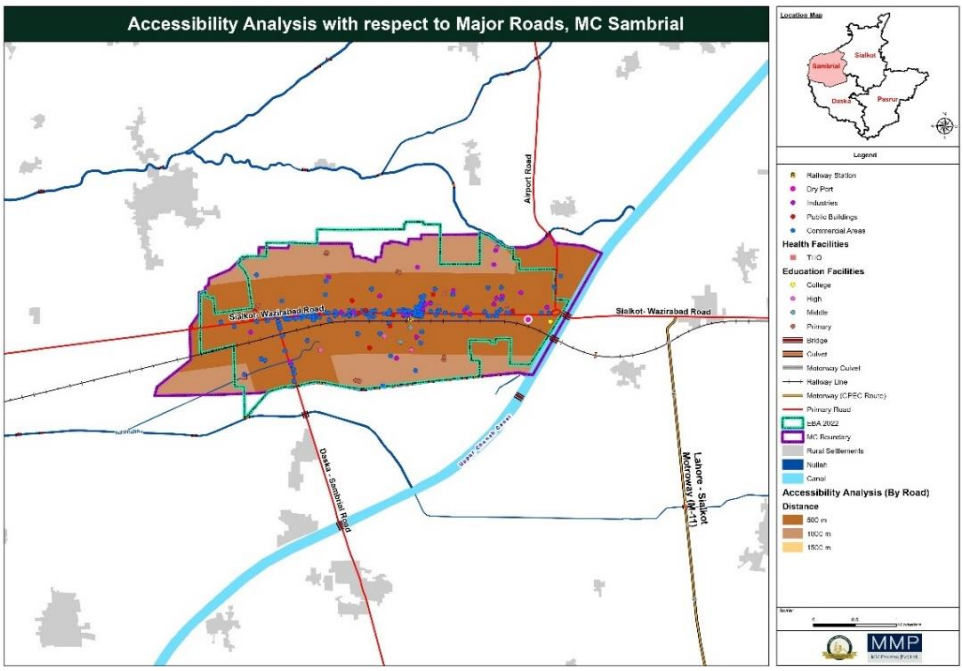


3.4.3 Assessing Accessibility Municipal Committee Sambrial

The map below shows that accessibility within MC Sambrial is generally favorable, especially near major roads like Sialkot-Wazirabad Road, Daska-Sambrial Road, and Airport Road. These roads provide convenient access to various points of interest (POIs) for nearby settlements. Additionally, the Sialkot-Lahore Motorway (M-11) connects to the Sialkot-Wazirabad Road, further enhancing accessibility.

However, the lack of sustainable public transportation options poses a challenge. While many settlements are physically close to major roads, the absence of reliable public transit limits effective access to POIs, especially for those without private vehicles. This could lead to increased reliance on cars, potentially harming the environment and making it difficult for some residents to fully utilize available services. Thus, despite the proximity to major roads, the lack of sustainable transport options remains a significant barrier to accessibility for certain communities.

Figure 3-14: Accessibility Analysis w.r.t. Major Roads in Established Built-up Area Sambrial



3.4.4 Population Projection & Growth Trend for Planning horizon 2022-2043

Population projections for the 2023-2043 planning horizon are based on the 2017 Census data. These projections are used to determine the area requirements for the SDZ Structure Plans and are calculated using the geometric formula.

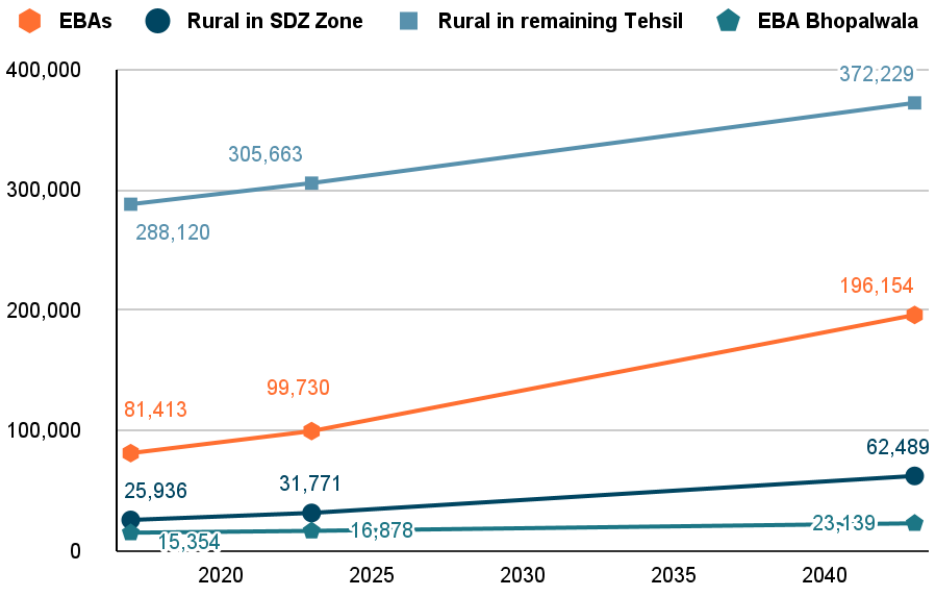
Pn = Po[1 + (r/100)]^n
Where,
Po: last known population,
Pn: Projected population after 'n' number of years,
n: number of years between Po and Pn and,
r: growth rate

The table below shows the statistics of the three sets of population for 2043 for which the newly planned development zones need to be considered.

Table 3-16: Population Projections for Municipal Committee Sambrial

Description	Census Population (2017)	Growth Rate (2017 census)	Projected Population (2023)	Considered Growth Rate beyond 2022 till 2043	Projected Population (2043)
EBA of MC Sambrial (GIS)	81,413	3.44%	99,730	3.44%	196,154
Rural Population falling in SDZ Zone	25,936	3.44%	31,771	3.44%	62,489
Rural population in remaining Tehsil (outside SDZ zone)	288,120	0.99%	305,663	0.99%	372,229
EBA Bhopalwala	15,354	1.59%	16,878	1.59%	23,139
Total Tehsil Population	**410,823**	**-**	**454,043**	**-**	**654,011**

Figure 3-15: Tehsil Sambrial Population Projection Graph



3.4.5 Density Analysis

EBA Sambrial covers 1,578 acres having a population of 99,730 in 2023 resulting in an average density of 63.17 persons per acre. To promote urban compactness and reduce sprawl, the planning team agreed to increase the target density by 20%, resulting in a proposed density of 76 persons per acre.

Table 3-17: Density Calculations for Established Built-up Area Sambrial

Description	Values	Unit
Census block boundary of EBA Sambrial	1,578.77	acres
Current EBA Population 2023	99,730.24	People
Current average population density	63.17	People / acres
Desired Density with 20% increase	76	People / acres

- **Existing Built-up Area (EBA) Bhopalwala**

EBA Bhopalwala spans 253 acres, having a population of 16,878 by 2023. The current population density is 60.59 people per acre. This density reflects the area's lack of social infrastructure and urban facilities, representing mostly residential use. Given this, further densification isn't recommended, as it would perpetuate the current pattern of development without improving amenities. Therefore, the usual 20% density increase won't be applied to smaller urban settlements like Bhopalwala, unlike major EBAs of MCs.

Table 3-18: Density Calculations for Established Built-up Area Bhopalwala

Description	Values	Unit
Census block boundary of EBA Bhopalwala	253.00	acres
Current EBA Population 2023	16,878	People
Current average population density	60.59	People / acres
Desired density for future	60.59	People / acre

3.4.6 Future Lands Assessment

The total population for 2023 is 454,042 which is projected to be 654,011 in 2043. The zoning plan has been prepared considering current growth trends, patterns, and dominant land uses. The strategy prioritizes utilization of existing vacant areas through infill development before expanding into new land. Future land requirements are based on projected population and density. By 2043, to accommodate an estimated population of 654,011, a total of 2,679 acres is required. The details are provided in the table below:

Table 3-19: Fact Sheet for Area Calculation of Tehsil Sambrial for Plan Period 2023-2043

Description	*Statistics*
Population of MC (2017 census)	109,438
EBA Sambial 2023 (Existing)	1,578 Acres
Density of EBA Sambrial (2023)	63 PPA
EBA Bhopalwala 2023 (Existing)	253 Acres
Density of EBA Bhopalwala (2023)	60.59 PPA
Increase in Density for year 2043 for Sambrial	20%
Proposed Density for the year 2043 (Sambrial)	76 PPA
Planning population Sambrial Tehsil[3] (2017)	410,823
Planning population 2023 (Estimated)	454,042
Planning population 2043 (Projected)	654,011
Future area requirement by 2043 for the SDZ	2,679 Acres

3.4.7 Sambrial Site Development Zone (SDZ) Structure Plan (2023-2043)

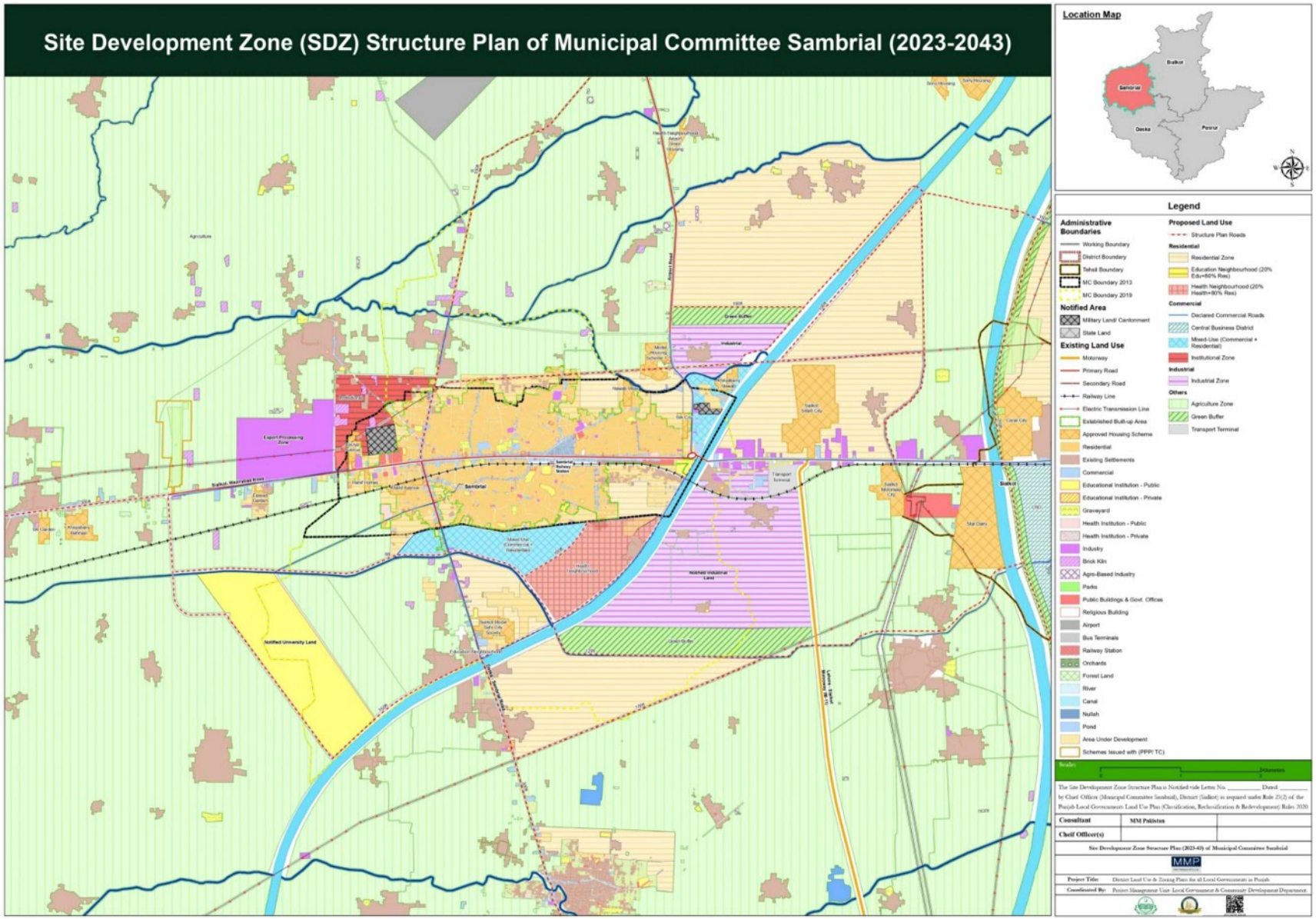
The estimated land demand for 2043 is around 2,700 acres. To allocate the proposed area of approximately 2,700 acres, a conceptual design was created based on urban planning principles with a focus on transportation to guide the city's structure. Physical barriers were also considered in marking the zones. The final plan covers 7,029 acres, ensuring an effective layout that supports both circulation and the projected land demand. The area distribution of these proposed zones is detailed in the table below.

Table 3-20: Proposed Site Development Zones for Plan for Municipal Committee Sambrial

Proposed Site Development Zone	Area (Acres)	Land Use Percentage
Residential Proposed Uses	3,127.03	54.5%
Commercial Proposed Uses	351.67	6.1%
Industrial Proposed Uses	976.73	17.0%
Other Land Uses	1,287	54.5%
Total of all zones	**7,029**	**100%**

[3] The planning population includes all EBAs, areas adjacent to EBA falling within MC and the remaining rural population in Tehsil. Urban growth rate of 3.44 is applied on EBA and MC area adjacent to EBA while rural growth rate of 0.99 is applied on the rural population of Tehsil.

Map 8: Proposed Site Development Zone Plan for Municipal Committee Sambrial



Proposed Residential Zone (PRZ)

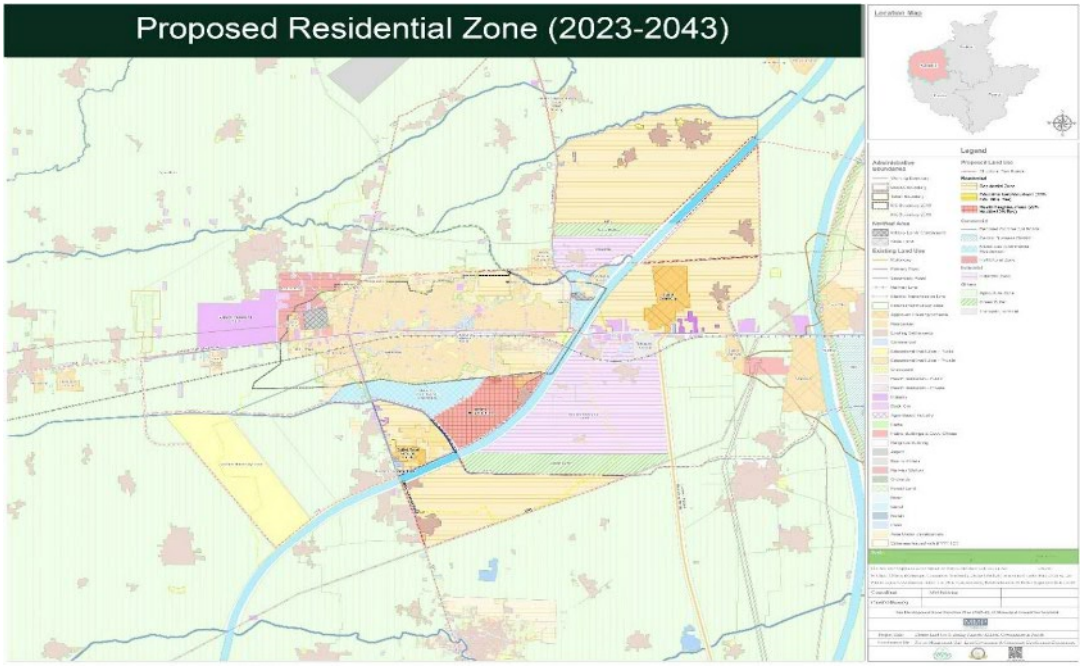
Residential Site Development Zones are proposed totalling an area of 21,392 acres including infill development within the EBA. The residential zones are further categorized into five types, as detailed in the table:

Table 3-21: Proposed Residential Zones in Municipal Corporation Sambrial

Land Use	Area (acres)	Percentage of the total proposed area	Symbology
Proposed Residential Area (PRA)	2,894.38	93%	
Proposed Health Neighborhood (20% area to be allocated for health)	232.51	7%	
Proposed Educational Neighborhood (20% area to be allocated for education)	0.14	0.005%	
Total Area	3,127.03	100%	

The residential zones proposed in secondary zones are designed to accommodate the residential as well as social infrastructure demand of both major urban centres i.e. Sambrial and Sialkot. The residential area provision is classified into three categories: residential, education and health neighbourhoods. To ensure the provision of higher-order services and specialized facilities, the "neighbourhood" concept has been introduced. In a "health neighbourhood," 20% of the land must be allocated to healthcare services, while in an "education neighbourhood," 20% is reserved for educational facilities. The remaining 80% of the land will function as standard residential zones. This ensures the availability of essential services and creates opportunities for basic facilities, and city development.

Figure 3-16: Proposed Residential Zones in Municipal Corporation Sambrial



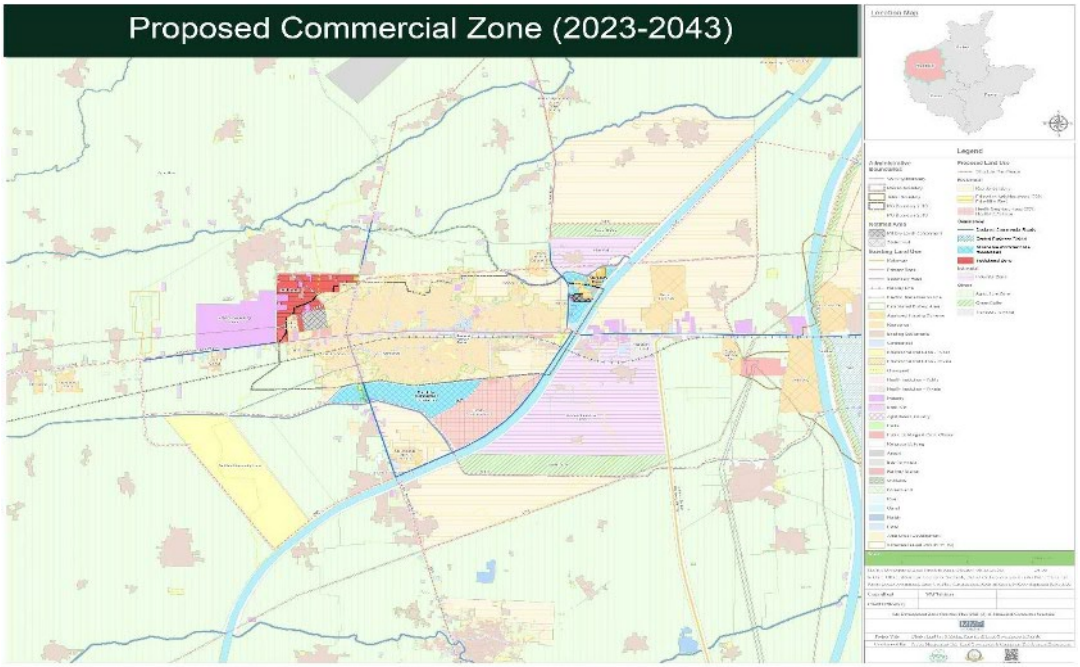
Proposed Commercial Zone

Mixed use commercial zones (around 217 acres) have been proposed to mainly cater the higher order commercial activities. The proposed commercial zone will also include mixed use commercial and residential development. Moreover, commercial roads are also proposed on Airport Road, Wazirabad Road and Daska Road. In addition to the mentioned zones, Intercity Corridor has also been demarcated to be developed in the future. In the case of Sambrial one major corridor is marked for the development i.e., Daska-Sambrial Road. These intercity corridors will play a crucial role in the development of the city through provision of improved inter-city mobility as well as creating economic growth opportunities. The allocated zones with their areas and symbolizes are represented in the Table 20 below:

Table 3-22: Proposed Commercial Zones (2023-2043) in Sambrial

Land Use	Area (acres)	Percentage of the total proposed area	Symbology
Mixed-Use (Commercial + Residential)	217.48	62%	
Institutional Zone	134.19	38%	
Total Area	**351.67**	**100%**	

Figure 3-17: Proposed Commercial Zones in Municipal Committee Sambrial



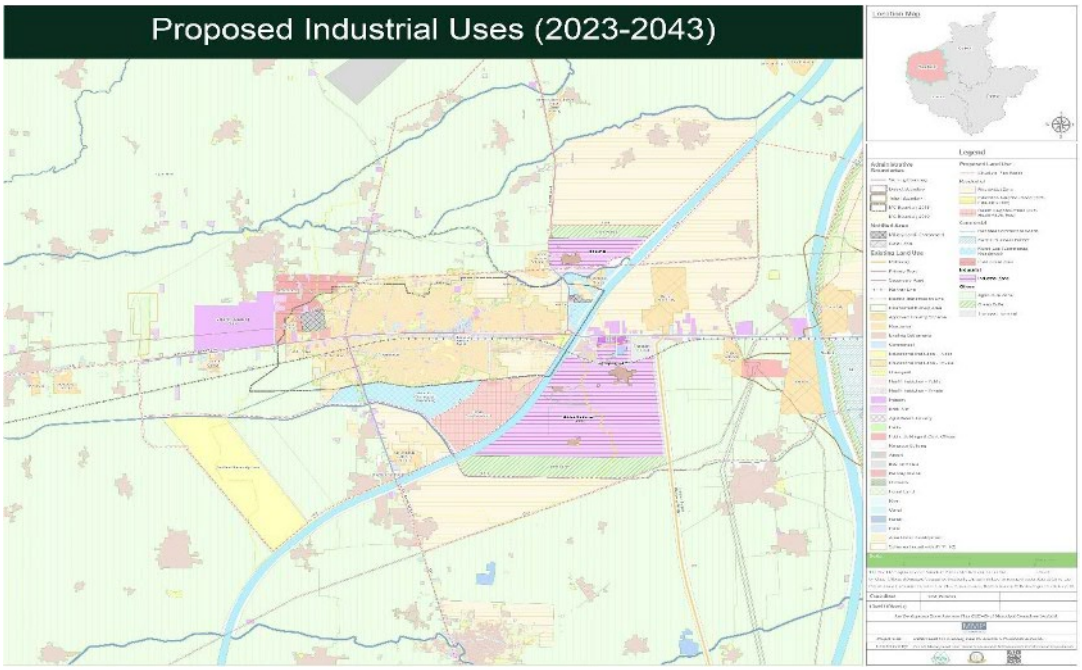
Proposed Industrial Zone (PIZ)

The current development pattern of industries shows higher concentration of industries is emerging in Sambrial. Therefore, the industrial estate has been proposed in the proposed plan along the Sialkot-Wazirabad corridor. The proposals are also supported by the industrial corridor development as specified in Punjab Spatial Strategy (PSS), 2047. The industrial zone falling in Sambrial's secondary zone not only caters to these Tehsil, but are part of the district level plan. The optimal location selected falls in the Sambrial tehsil; however, it serves the purpose of the entire district. Similarly in Sialkot, there was a lack of industrial zones as industries are present within dense parts of the city. Therefore, the industrial development will also be covering the industrial activity of Sialkot in the proposed location.

Table 3-23: Proposed Industrial Zones in Municipal Committee Sambrial

Land Use	Area (acres)	Percentage of the total proposed area	Symbology
Proposed Industrial Zone	976.73	14%	

Figure 3-18: Proposed Industrial Zones in Municipal Committee Sambrial



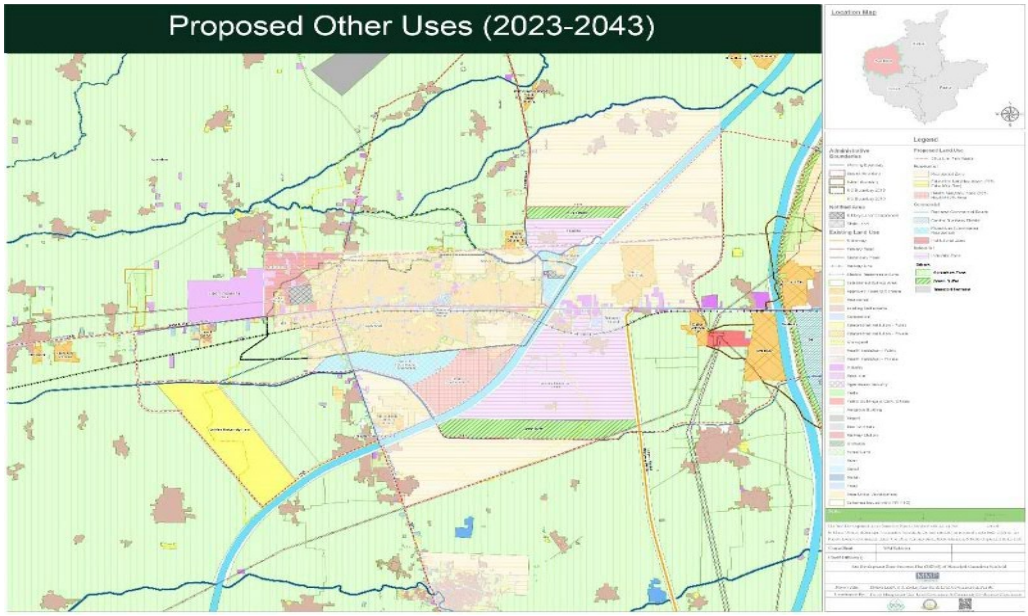
Other Proposed Uses

The other uses proposed in the Site Development zones are classified as transportation zone. The percentage coverage of the total proposed area shows that 0.45 percent of the land use is designated under this use. A total area of 31.74 acres for the other land uses is proposed. Transport terminals on approximately 32 acres of land is also proposed along Lahore-Sialkot Motorway.

Table 3-24: Other Proposed Uses in Municipal Committee Sambrial

Land Use	Area (acres)	Percentage of the total proposed area	Symbology
Transport Terminal	31.74	2.5%	
Farm Housing	924.49	71.8%	
Green Buffer	331	25.7%	
Total Area	**1,287**	100%	

Figure 3-19: Proposed Other Uses in Municipal Committee Sambrial



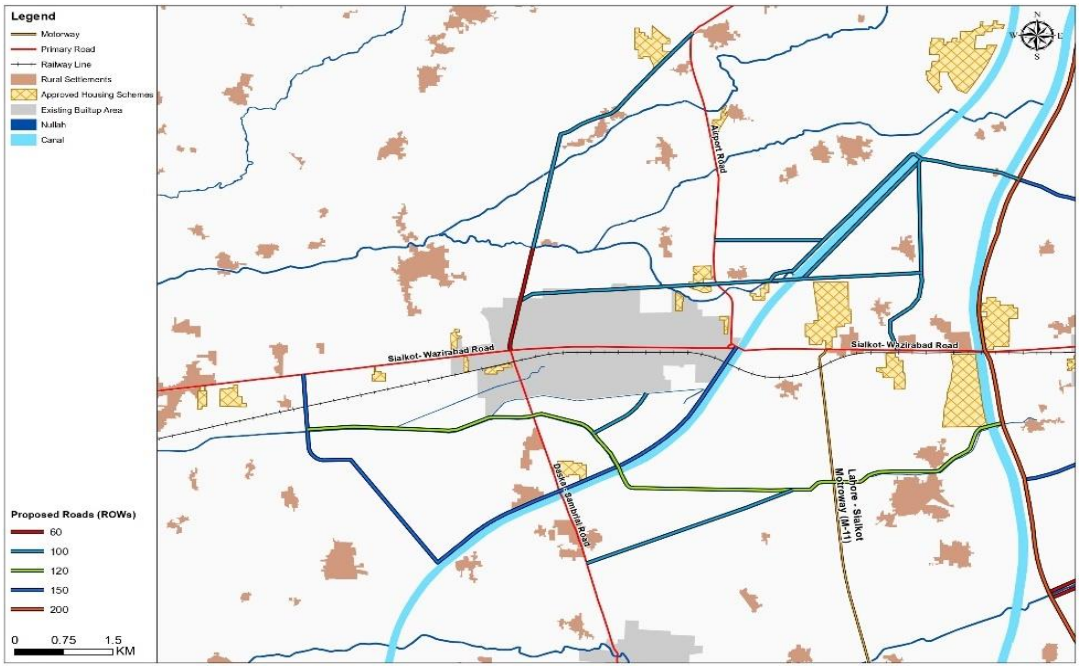
3.4.8 Proposed Structure Plan for Sambrial Tehsil 2023-2043

The Structure Plan for Sambrial is guided by parameters such as existing infrastructure, growth trends, and land use patterns. Connectivity plays a key role in shaping the city's development. New road proposals are designed with thorough route planning, traffic studies, and alignment considerations to

enhance functionality, safety, and sustainability while minimizing negative impacts. These strategic approaches ensure that new roads contribute positively to the city's overall livability.

The review of Sambrial City's existing road patterns reveals a diverse mix typical of intermediate cities. At the tertiary level, the layout features organic and curvilinear patterns, while secondary and primary roads follow a radial alignment, including Airport Road, Wazirabad Road, and Daska Road. These roads are crucial for intercity connectivity and intra-city mobility.

Figure 3-20: Proposed Structure Plan of Tehsil Sambrial



To develop the Structure Plan, the following steps were taken:

- **Growth Direction Analysis:** Identified key growth directions based on spatial pattern evaluations and intensity of growth pressures.
- **Integration with Existing Structure:** The primary network's radial pattern was maintained, with concentric designs interwoven into the radial roads through necessary modifications.
- **Major Connectivity Considerations:** Proposed a primary road network that includes bypass roads to alleviate traffic from Wazirabad Road, facilitating access to various uses.
- Enhanced Circulation: The primary roads aim to improve traffic circulation and accessibility to key areas.
- **Secondary Roads for Local Mobility:** Where local roads are insufficient, new roads will be developed, utilizing existing roads for rehabilitation and widening where possible.
- **Guiding Development:** The plan aims to direct growth proactively, with structure plan lines serving as guidelines for zoning and development.
- **Categorization of Areas:** The plan divides areas into road-facing strips for specialized activities and other zones for diverse uses.
- **Integrated Structure:** This approach creates a cohesive structure linking the existing EBA with new developments following planned patterns.

For 2043, the proposal includes constructing bypasses and a network of structured roads, informed by traffic studies. Rehabilitation of existing roads will focus on widening and improving connectivity between urban and rural areas. Detailed information about these proposals is provided in the following section.

Bypass Roads

A 150ft bypass road is proposed to run southward, starting from Wazirabad Road and extending to the western edge of Sambrial. It will cross the site of Sialkot Technical University and connect with the revenue path along the Upper Chenab Canal, which is also set to be widened and upgraded to a 150-foot right-of-way. This road will loop back to Wazirabad Road near Dry Port Chowk and connect with Daska Road to the south.

The bypass will facilitate traffic moving towards Wazirabad, Daska, or Sialkot, effectively relieving congestion on the Sialkot-Wazirabad urban road. Additionally, the bypass roads will act as a physical barrier for future Site Development Zones (SDZs), enclosing proposed areas for residential zones, health and education neighborhoods, agro-farms, and poultry operations.

Tables below detail the proposed bypass roads, including road typology, right-of-way specifications, lengths, and geographical coordinates of starting and ending points.

Table 3-25: Proposed Bypass Road (Southern Bypass Segments) in Tehsil Sambrial

Road Name	Road Type	ROW	Length (km)	Start_X	Start_Y	End_X	End_Y
Southern Bypass (University Road to Alewali Garbi Road)	Primary Road	150	10.33	74.308	32.473	74.378	32.478

The network of structure plan roads, which consists of primary and secondary roads, is proposed for the year 2043 to support the future development of Sambrial City. The proposal is based on findings from traffic studies that were completed for the Site Development Zone (SDZ) Structure Plan for Sambrial. These proposals are holistically integrated into the traffic and transportation plan.

Proposed Primary Roads

To alleviate traffic on the central artery, Wazirabad Road, new structure plan roads are proposed for both the northern and southern parts of Sambrial City. Three primary connections are included in the Site Development Zone Structure Plan, aimed at linking various development zones.

In the south, a 120-foot-wide primary road (P1-2043) will connect University Road to Gajianwali Road, linking residential and commercial areas in the southwest with industrial and health neighborhoods in the southeast. Another primary road (P2-2043), 100 feet wide, will run from Begowala Link Road to the revenue path along Sambrial Aik Connecting Drain, segregating urban agricultural uses from planned residential developments.

In the north, a 100-foot-wide road (P3-2043) will extend from Kulowala Road to the revenue path along the Upper Chenab Canal, supporting industrial activities while providing access to existing and proposed residential areas. Another link road P4-2043 has been proposed that will help control unplanned growth from future developments.

The proposed roads prioritize design, connectivity, and circulation patterns, as shown in the attached map.

Table 3-26: Proposed Structure Plan Road (Primary Roads) in Tehsil Sambrial

Road Name	Road Type	ROW	Length (km)	Start_X	Start_Y	End_X	End_Y
P1-2043 (University Road to Ganjianwali Road)	Primary Road-I	120	11.8	74.309	32.465	74.422	32.466
P2-2043 (Begowala link road to revenue path along Sambrial Aik Connecting Drain)	Primary Road-II	100	1.09	74.355	32.464	74.364	32.471
P3-2043 (Kulowala Road to revenue path along Upper Chenab canal)	Primary Road-II	100	7.27	74.343	32.485	74.407	32.508
P4-2043	Primary Road-II	100	1.81	74.389	32.489	74.408	32.490
P5-2043	Primary Road-II	100	3.51	74.408	32.507	74.405	32.478
P6-2043	Primary Road-II	100	3.41	74.354	32.444	74.388	32.455
P7-2043	Primary Road-II	100	1.66	74.392	32.495	74.375	32.495

Rehabilitation of Existing Roads

Future land use plans depend on the functioning of existing land uses as well as the proposed developments in the SDZ. To improve the functioning of the existing built-up area, various traffic & transportation improvement plans and recommendations have been proposed. One such recommendation is also for road improvement, widening and rehabilitation. Considering the existing and future land use demand, this recommendation is proposed for the roads where the road capacity is restricted to meet future demands. Consequently, new developments are expected to generate increased traffic, necessitating road capacity enhancements to meet both present and future demands. Furthermore, these improvements will also facilitate the smooth movement of traffic to the newly proposed development zones. In a nutshell, rehabilitation of existing roads of Sambrial will also support future city development by enhancing safety, improving transportation options, and ultimately making the city a better place to live, work, and invest in.

For Sambrial, widening is proposed at variant right of ways while priority has been given to the design, connectivity, and circulation pattern. Two primary roads have been proposed for rehabilitation, named as Southern By-pass Road and Jagatpur Road. One secondary connection i.e., Kulowala road is also proposed for widening as it is catering various land uses and is appeared to be one of the congested segments to cater the volume of traffic.

The southern bypass road has been proposed in the SDZ structure plan. The road network is proposed keeping intact the existing infrastructure. The segment is proposed by following the alignment of university road, which ultimately connects in the south with the revenue path and all the way connects with the Dry port Chowk in the east of the city. The existing road segments are not sufficient to meet the standard width for a by-pass road. The road width of the existing road segments also varies i.e. for university road it ranges between 85-80 ft and for the revenue path the ROW between 30-20 ft. is observed. Hence, the road widening of the whole corridor is proposed for the segment of road mentioned in the table. The Jagatpur connection falls outside the proposed development zone which has significance at tehsil level. The road segment provides connection to the International Airport present in the outskirts of the city. Therefore, widening up to 100 ft right of way is proposed. The Kulowala Road (secondary road) segment is one of the busiest sections that is accommodating the commercial and institutional uses. This segment also serves as a route to access the airport via Jagatpur Road. The existing right of way is not sufficient to cater the traffic demand. At present the ROW of Kulowala Road is 40 ft, which is proposed to be extended till 60 ft. This road will also be serving the future planned residential zones proposed in the same direction. Similarly, Roras Road and Upper Chenab Canal Road-I has been proposed for widening in the future.

The details of each of the classified primary and secondary road for which widening is proposed along with details regarding road name, encompassing road typology, proposed right-of-way, road length, and geographical coordinates of its starting and ending points are represented in the following three tables:

Table 3-27: Rehabilitation of Existing Primary & Secondary Roads in Tehsil Sambrial

Road Name	Road Type	ROW	Length (km)	Start_X	Start_Y	End_X	End_Y
Southern Bypass	Primary Road	150	10.330	74.308	32.473	74.378	32.478
Jagatpur Road	Primary Road	100	4.777	74.345	32.493	74.371	32.527
Roras Road	Primary Road	100	1.53	74.408	32.508	74.424	32.505
Upper Chenab Canal Road-I	Primary Road	100	3.19	74.384	32.488	74.407	32.508
Kulowala Road	Secondary Road	60	1.823	74.342	32.477	74.345	32.493

3.5 Tehsil Daska

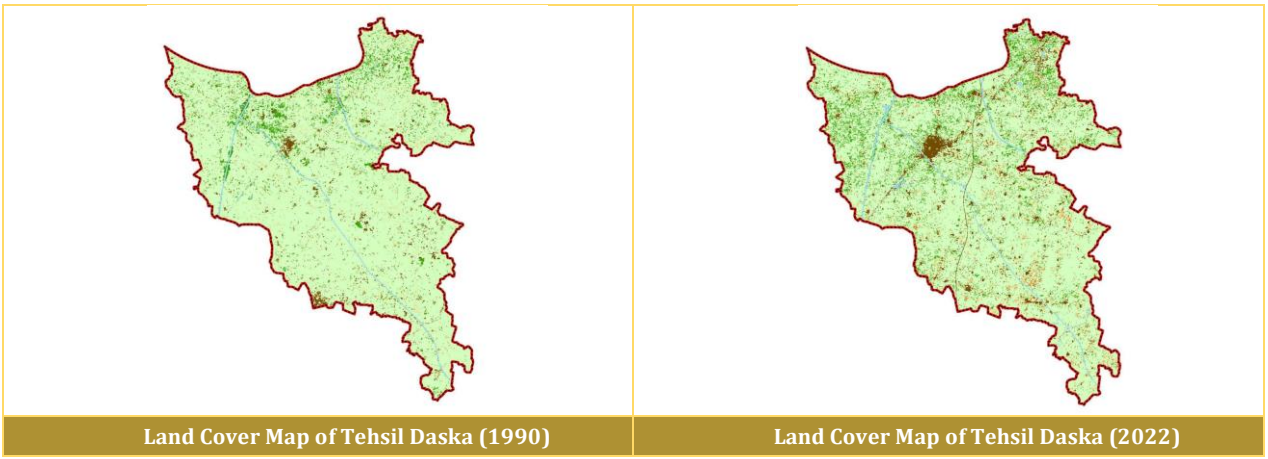
3.5.1 Land Cover Analysis for past 32 years of Tehsil Daska

From 1990 to 2022, Tehsil Daska saw a major growth in built-up areas, mainly due to the expansion of residential and commercial areas, especially within the MC and along major roads and water bodies. Agricultural land decreased, while shrub and tree cover expanded, with green pockets emerging in the northern and western regions. Barren land experienced significant growth, and water bodies increased, possibly influenced by flooding or canal development.

Table 3-28: Land Cover Change Analysis of the year 1990 and 2022 in Daska Tehsil

	1990		2022		Change (1990-2022)	
Land Covers	Area (acres)	Percentage	Area (acres)	Percentage	Area (acres)	Percentage
Agriculture	163,371.25	94.34%	155,478.71	89.89%	(7,892.54)	-4.83%
Shrubs & Trees	4,012.99	2.32%	5,438.79	3.14%	1,425.80	35.53%
Built Up	2,332.68	1.35%	5,013.77	2.90%	2,681.09	114.94%
Barren Land	1,791.51	1.03%	5,228.75	3.02%	3,437.24	191.86%
Water	1,665.49	0.96%	2,013.91	1.16%	348.42	20.92%
Total	**173,173.92**	**100**	**172,974.12**	**100**		

Figure 3-21: Comparative Analysis of Land Cover Map of Tehsil Daska



Land Cover Map of Tehsil Daska (1990) | Land Cover Map of Tehsil Daska (2022)

3.5.2 Spatial-Temporal Growth

A spatio-temporal growth analysis of the EBA Daska over the past 30 years shows that Daska has grown four times, making it the district's most urbanized city. However, development has been haphazard, spreading along low-density roads to nearby cities, primarily towards the northeast, aligning with the proposed SDZ and connecting Daska to Jamke Cheema and Sialkot. Initial growth occurred along three main routes, expanding further by 2007. By 2012, the trend of development especially in the Southern and Western directions i.e., along

Gujranwala-Daska Road was observed. From 2017 to 2022, development accelerated, driven by improved connectivity like the Pasrur bypass. It has been recognized that spatial development and infrastructure improvement, whether it occurs concurrently or sequentially, is required for cohesive development. The charts and map below represent the statistical value of growth and spatial trends over the decades.

Figure 3-22: Urban Growth rate analysis of the Existing Built-up Area (EBA) within Municipal Committee Daska 1988-2022

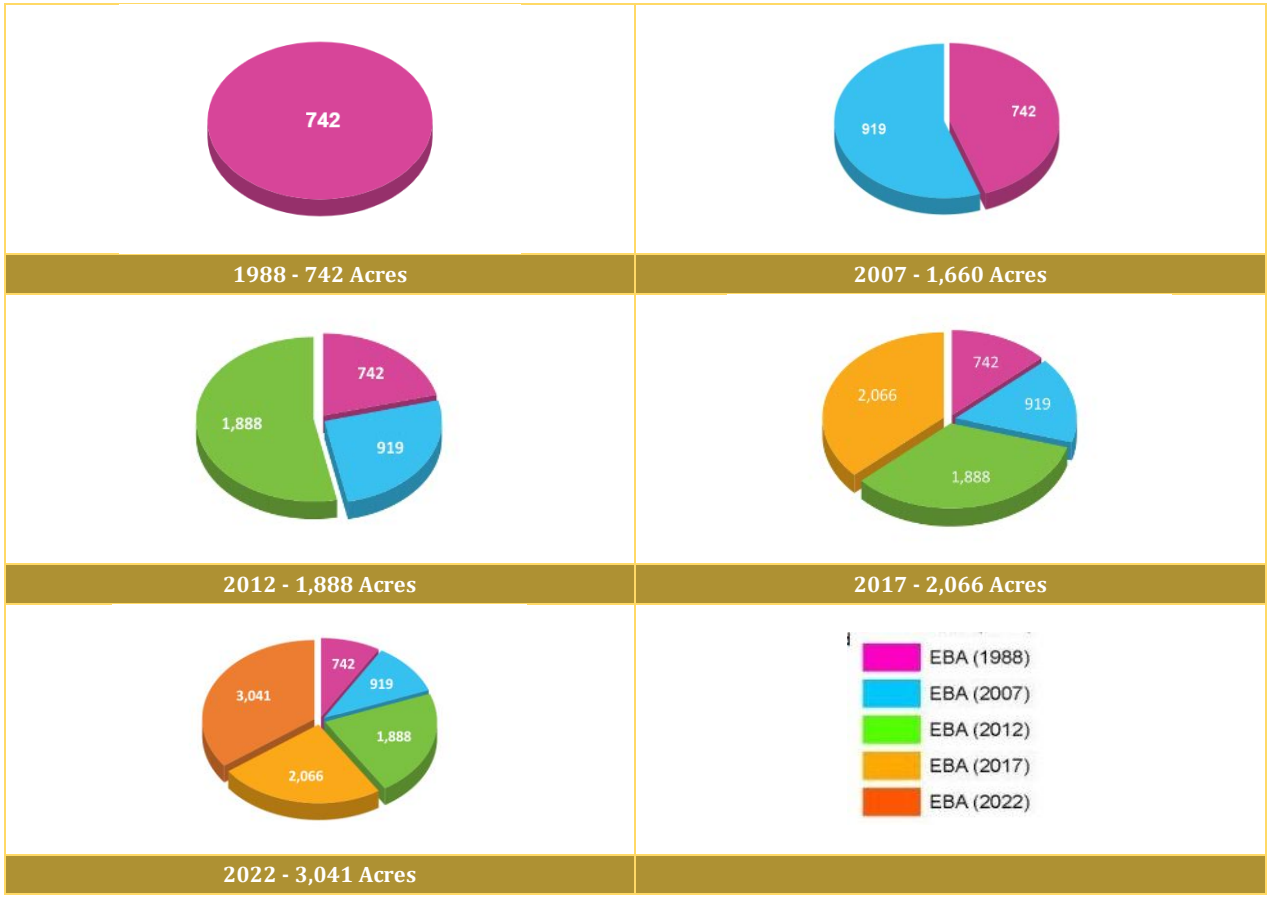
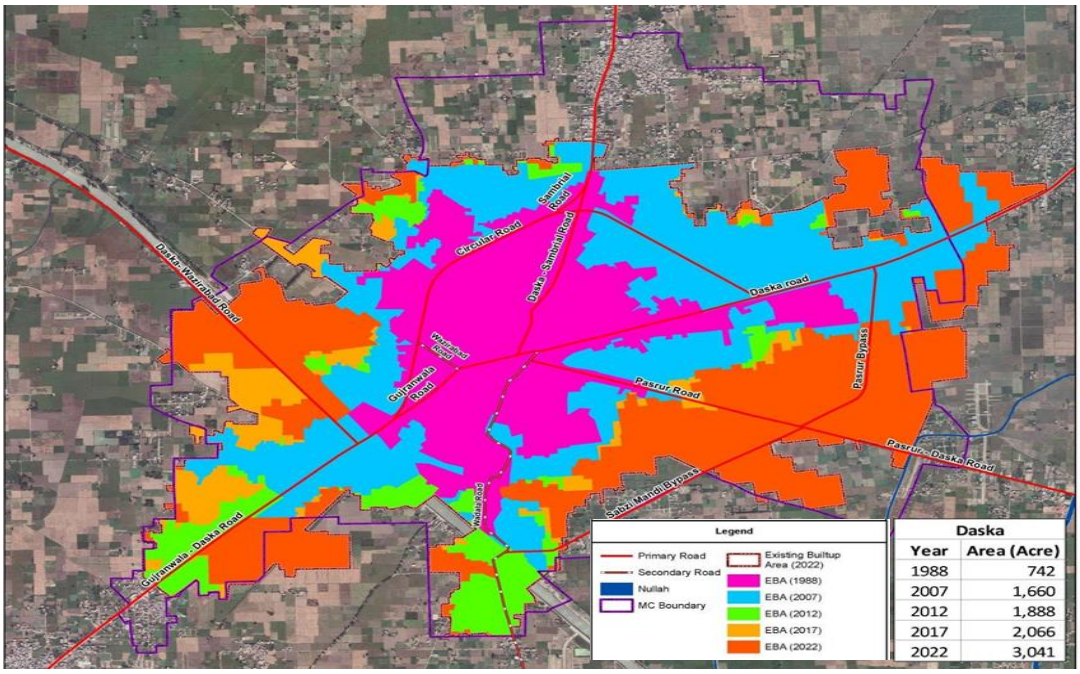


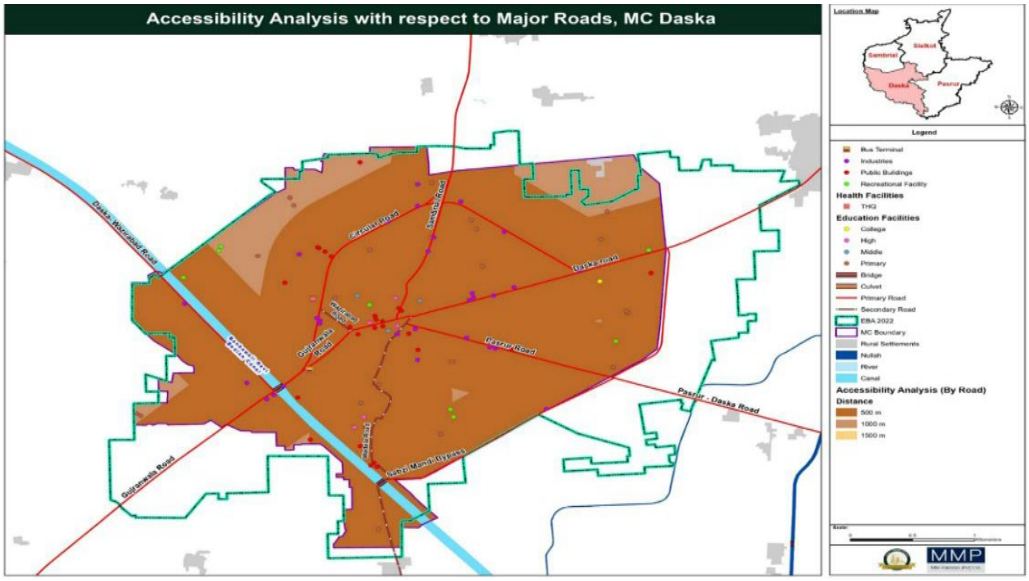
Figure 3-23: Urban Growth analysis of the Existing Built-up Area (EBA) within Municipal Committee Daska 1988-2022



3.5.3 Accessibility Analysis

The map below depicts accessibility within MC Daska based on buffer zones of 500, 1,000, and 1,500 meters around major roads, and accessibility of key points of interest (POIs). Settlements within these zones generally have access due to the presence of major roads, including Circular Road, Gujranwala Road, Pasrur Road, Sambrial Road, and Pasrur Bypass. These roads provide connectivity to POIs like Sabzi Mandi. However, the absence of integrated public transport could hinder accessibility for some communities, limiting effective access despite proximity to major roads. This reliance on private transport may also negatively impact environmental sustainability in the city.

Figure 3-24: Accessibility Analysis w.r.t. Major Roads of Established Built-up Area Daska



3.5.4 Population Projections & Growth Trends (2023-2043)

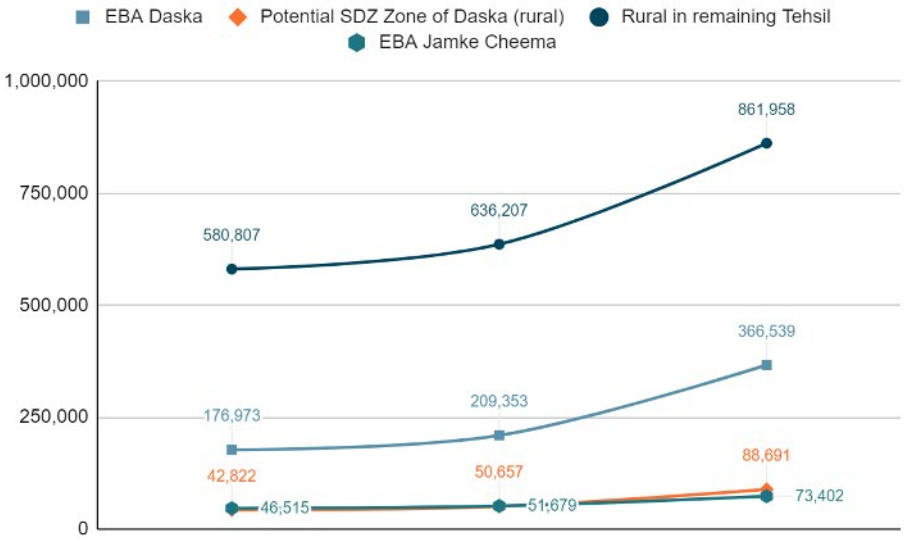
Population projections for the 2023-2043 planning horizon are based on the 2017 Census data. These projections are used to determine the area requirements for the SDZ Structure Plans and are calculated using the geometric formula.

Pn = Po[1 + (r/100)]^n
Where,
Po: last known population,
Pn: Projected population after 'n' number of years,
n: number of years between Po and Pn and,
r: growth rate

Table 3-29: Population Projections for Tehsil Daska

Description	Census Population (2017)	Growth Rate (2017 census)	Projected Population (2023)	Considered Growth Rate beyond 2022 till 2043	Projected Population (2043)
EBA of MC Daska (GIS)	176,973	2.84%	209,353	2.84%	**366,539**
Rural Population falling in SDZ Zone	42,822	2.84%	50,657	2.84%	**88,691**
Rural population in remaining Tehsil (outside SDZ zone)	580,807	1.53%	636,207	1.53%	**861,958**
Jamke Cheema TC, SDZ region and adjacent settlements mouzas	46,515	1.77%	51,679	1.77%	**73,402**
Total Tehsil Population	847,117		**947,895**		**1,390,590**

Figure 3-25: Tehsil Daska Population Projection Graph



3.5.5 Density Analysis

Density analysis is performed for both EBAs, Daska and Jamke Cheema separately. While the process to compute the current average density is the same, the strategy to determine the desired density is different in both cases.

- **Existing Built-up Area (EBA) Daska**

The current EBA Daska population density is calculated to be 65.75, which is low for compact city development. The general rule, mutually agreed by the planning team, was applied to increase the densities by 20%. In order to promote the planning values of compactness, contagiousness and to curtail low density sprawl, the SDZ planning will be proposed at a higher density. Hence, the increased density is 79 people/acre, which is 19,521 people/ square kilometer.

Table 3-30: Density Calculations for Established Built-up Area Daska

Description	Values	Unit
Census block boundary of EBA Daska	3,184.17	acres
Current EBA Population 2023	209,352.91	People
Current average population density	65.75	People / acres
Desired Density with 20% increase	79	People / acres

- **Existing Built-up Area (EBA) Jamke Cheema**

EBA Jamke Cheema has a census block boundary of 352.70 acres. The current EBA population density is calculated to be 62.33 using this data. This density shows the current state when the urban settlement is lacking social infrastructure and other urban facilities. Therefore, it has been decided that a 20% increase in density will not be applied for smaller urban settlements other than major EBAs of MCs.

Table 3-31: Density Calculations for Established Built-up Area Jamke Cheema

Description	Values	Unit
Census block boundary of EBA Jamke Cheema	352.70	acres
Current EBA Population 2023	21,985.00	People
Current average population density	62.33	People / acres
Desired density for future	62.33	People / acre

3.5.6 Future Land Assessment

The zoning plan for 2023 and 2043, prepared under Rules 2 and 19-26 of the LG Land Use Plan Rules 2020, is based on current growth trends and dominant land uses. It prioritizes the development of existing vacant areas through infill development. Future land requirements are calculated using population density and projections for the period 2023-2043. To accommodate the projected population of 1,390,590 by 2043, a total of 4,997 acres will be required for future city development.

Table 3-32: Fact Sheet for Area Calculation of Tehsil Daska for Plan Period 2023-2043

Description	Statistics
Population of MC (2017 census)	592,604
EBA Daska 2023 (Existing)	3,451 Acres
Density of EBA Daska (2023)	65.75 PPA
EBA Jamke Cheema 2023 (Existing)	353 Acres
Density of EBA Jamke Cheema (2023)	62.33 PPA
Increase in Density for year 2043 for Daska only	20%
Proposed Density for the year 2043 (Daska)	79 PPA
Proposed Density for the year 2043 (Jamke Cheema)	62.33 PPA
Planning population Daska Tehsil[4] (2017)	847,117
Planning population 2023 (Estimated)	947,895
Planning population 2043 (Projected)	1,390,590
Future area requirement by 2043 for the SDZ	4,997 Acres

3.5.7 Daska Site Development Zone Structure Plan (2023-2043)

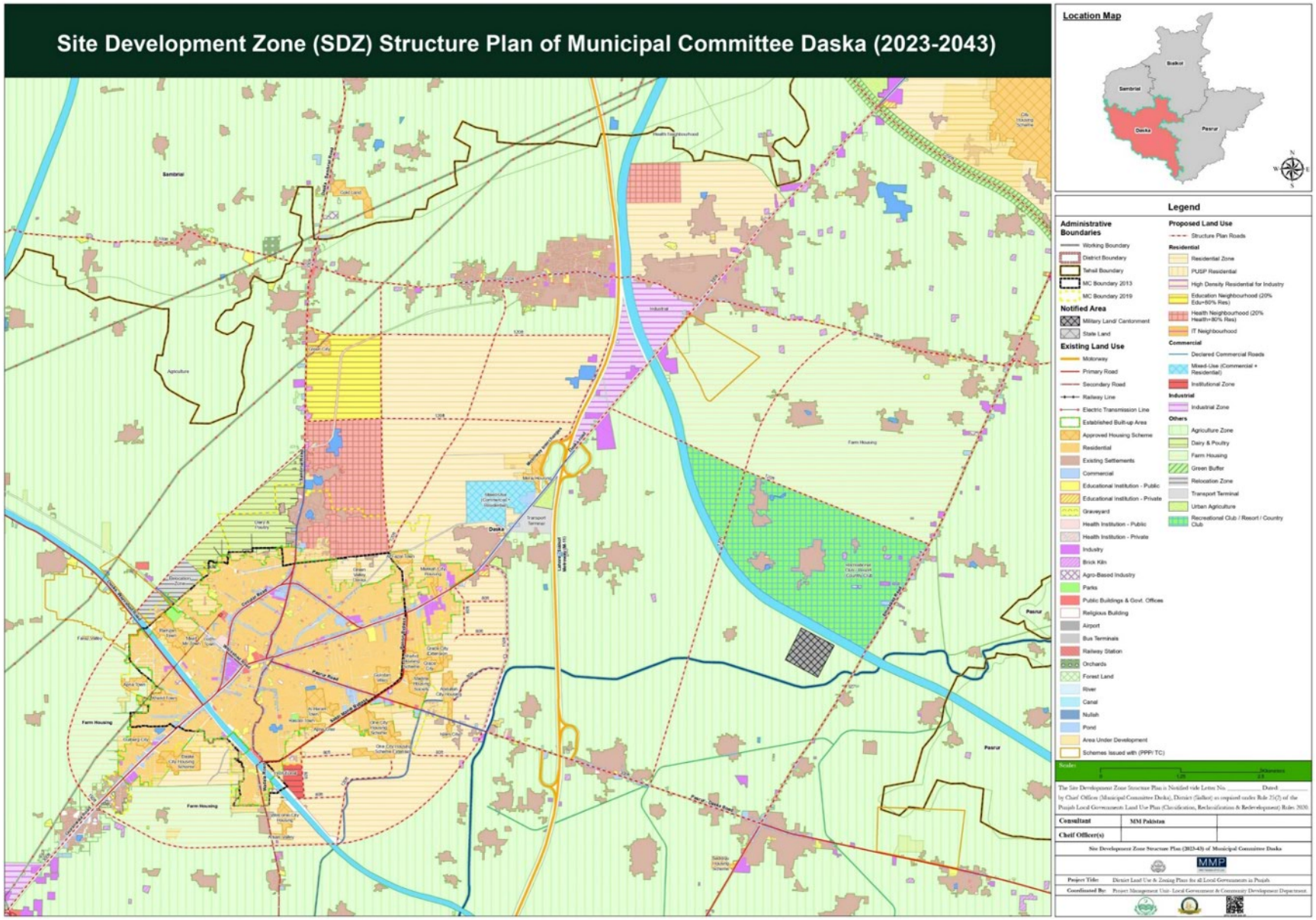
The SDZ Structure Plan of Daska is prepared with transportation (circulation) as a priority to control the overall shape. Several zones are then proposed keeping in view the planning principles and factors outlined in the previous chapter. The distribution of various zones proposed in SDZ Structure Plan are shown in the table below.

Table 3-33: Proposed Site Development Zones (SDZ) of Municipal Committee Daska

Proposed Site Development Zone	Area (Acres)	Land Use Percentage
Residential Proposed Uses	5,982.1	48.6%
Commercial Proposed Uses	171.8	1.4%
Industrial Proposed Uses	669.27	5.4%
Other Land Uses	5,486	48.6%
Total of all zones	**12,309**	**100%**

[4] The planning population includes Daska and Jamke Cheema EBAs, areas adjacent to EBA falling within MC and the remaining rural population in Tehsil. Urban growth rate of 2.84 is applied on EBA and MC area adjacent to EBA while rural growth rate of 1.98 is applied on the rural population of Tehsil.

Map 9: Proposed Site Development Zones (SDZ) Municipal Committee Daska



Proposed Residential Zone (PRZ)

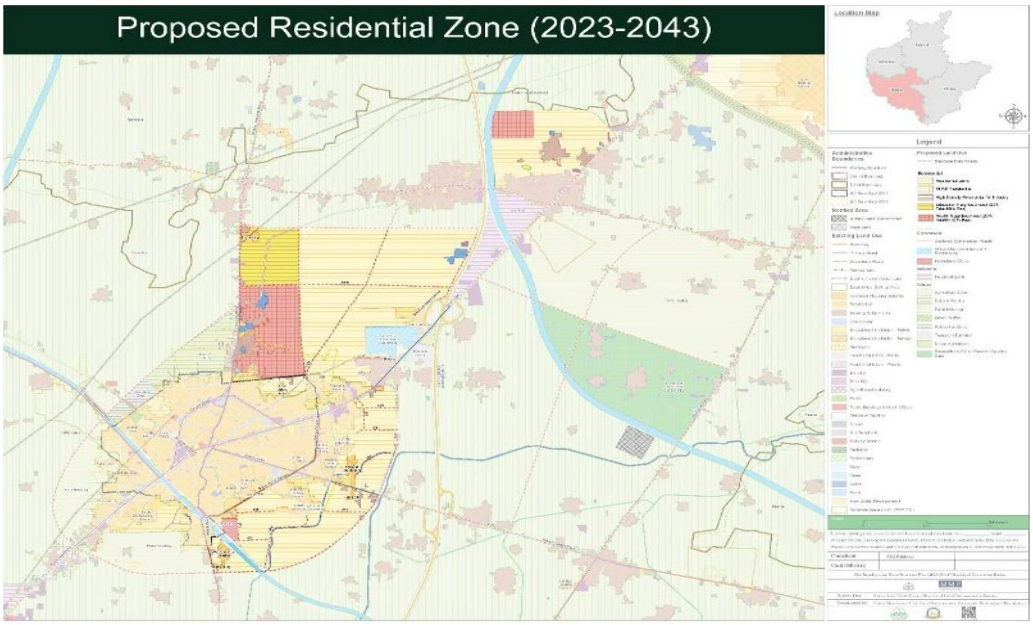
Residential Site Development Zones are proposed totalling an area of 5,982 acres including infill development within the EBA. The residential zones are further categorized into five types, as detailed in the table:

Table 3-34: Proposed Residential Zones in Municipal Committee Daska

Land Use	Area (acres)	Percentage of the total proposed area	Symbology
Proposed Residential Area (PRA)	4,995.17	84%	
Proposed Health Neighborhood (20% area to be allocated for health)	635.66	11%	
Proposed Educational Neighborhood (20% area to be allocated for education)	351.30	6%	
Total Area	**5,982.1**	100%	

The concept of Neighborhoods including "Educational", "Health" and "IT" are introduced in order to improve services and facilities for residents. 20% of the land must be set aside for the specific uses while the remaining 80% of the land will be used for regular residential purposes. This will ensure high-quality services and creates business opportunities for developers, which can boost development.

Figure 3-26: Proposed Residential Zone in Municipal Committee Daska



Proposed Commercial Zone

Mixed use commercial zones (around 140 acres) have been proposed to mainly cater the higher order commercial activities. An institutional zone is also been proposed in the Daska plan. In addition to the mentioned zones, Intercity Corridor has also been demarcated to be developed in the future. There are five major corridors marked for the development i.e., Eimanabad Road, Pasrur-Daska road, Gujranwala-Daska Road, Daska-Sambrial Road, and Daska road. These intercity corridors will play a crucial role in the development of the city through provision of improved inter-city mobility as well as creating economic growth opportunities. The allocated zones with their areas are presented in Table 16 below.

Table 3-35: Proposed Commercial Zones in Municipal Committee Daska

Land Use	Area (acres)	Percentage of the total proposed area	Symbology
Mixed-Use (Commercial + Residential)	137.58	80%	
Institutional Zone	34.23	20%	
Total Area	**171.8**	100%	

Figure 3-27: Proposed Commercial Zone in Municipal Committee Daska

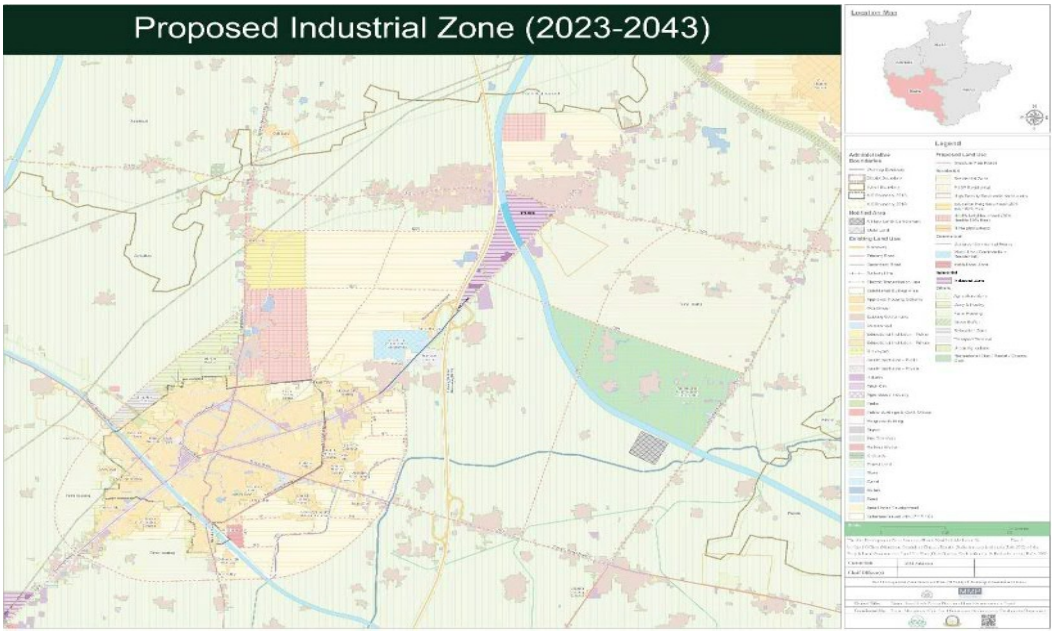
Proposed Industrial Uses

The current development pattern of industries shows higher concentration of industries is directed towards Sialkot and Gujranwala. Therefore, the small and medium scale industries have been proposed in the proposed plan along the two major corridors i.e., Gujranwala-Daska and Sialkot corridor. The proposals are also supported by the industrial corridor development as specified in Punjab Spatial Strategy (PSS), 2047. The proposed zone will be developed on 669.27 acres of land that will contribute to the economic growth of the district. The industrial zone falling in Daska SDZ not only cater to these Tehsil, but are part of the district level plan. The optimal location selected falls in Daska zone however, it serves the purpose of the entire district. Similarly in Sialkot SDZ, there was lack of industrial zone as industries are not being promoted within dense cities rather, they have been proposed in Peri-urban areas and corridors connecting major cities.

Table 3-36: Proposed Industrial Zones in Municipal Committee Daska

Land Use	Area (acres)	Percentage of the total proposed area	Symbology
Proposed Industrial Zone	669.27	5%	

Figure 3-28: Proposed Industrial Zones in Municipal Committee Daska



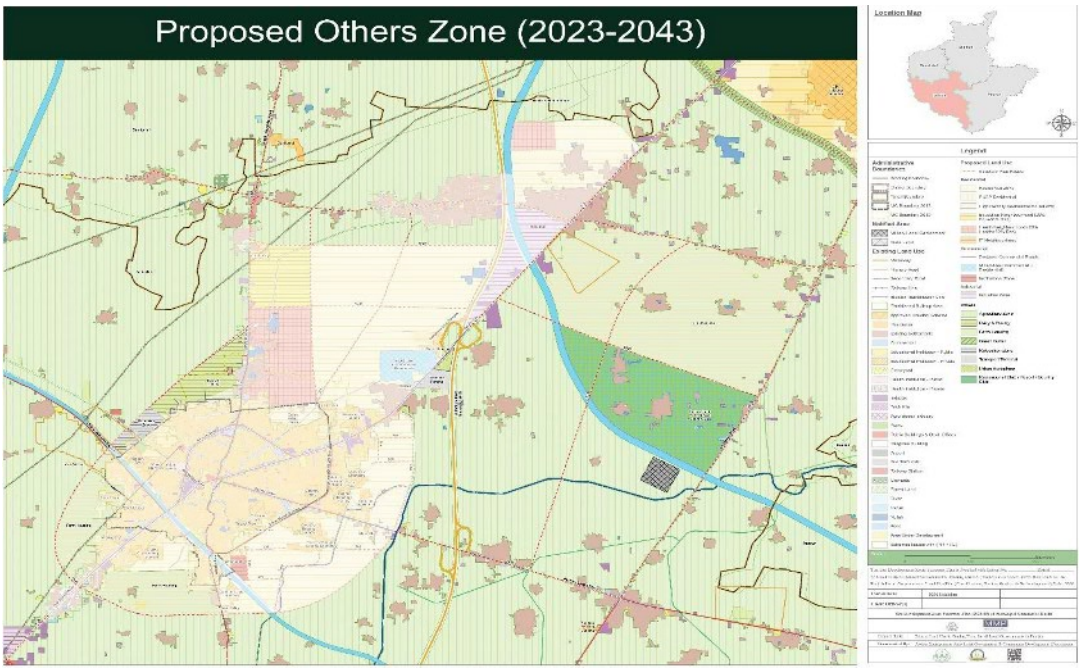
Other Proposed Uses

The other uses proposed in the Site Development zones are classified as transportation, and relocation zones. The percentage coverage of the total proposed area shows that 1 percent of the land use is designated under this use. A total area of 137 acres for the other land uses is proposed. An area of 93 acres is allocated for the relocation zone that will accommodate the displaced uses. Transport terminals on 44 acres of land is also proposed along Lahore-Sialkot Motorway.

Table 3-37: Other Proposed Uses in Municipal Committee Daska

Land Use	Area (acres)	Percentage of the total proposed area	Symbology
Relocation Zone	92.68	1.7%	
Transport Terminal	44.47	0.8%	
Farm Housing	3,732.42	68.0%	
Dairy & Poultry	336.70	6.1%	
Urban Agriculture	35.04	0.6%	
Recreational Club / Resort / Country Club	1,244.21	22.7%	
Total Area	**5,486**	100%	

Figure 3-29: Other Proposed Uses in Municipal Committee Daska



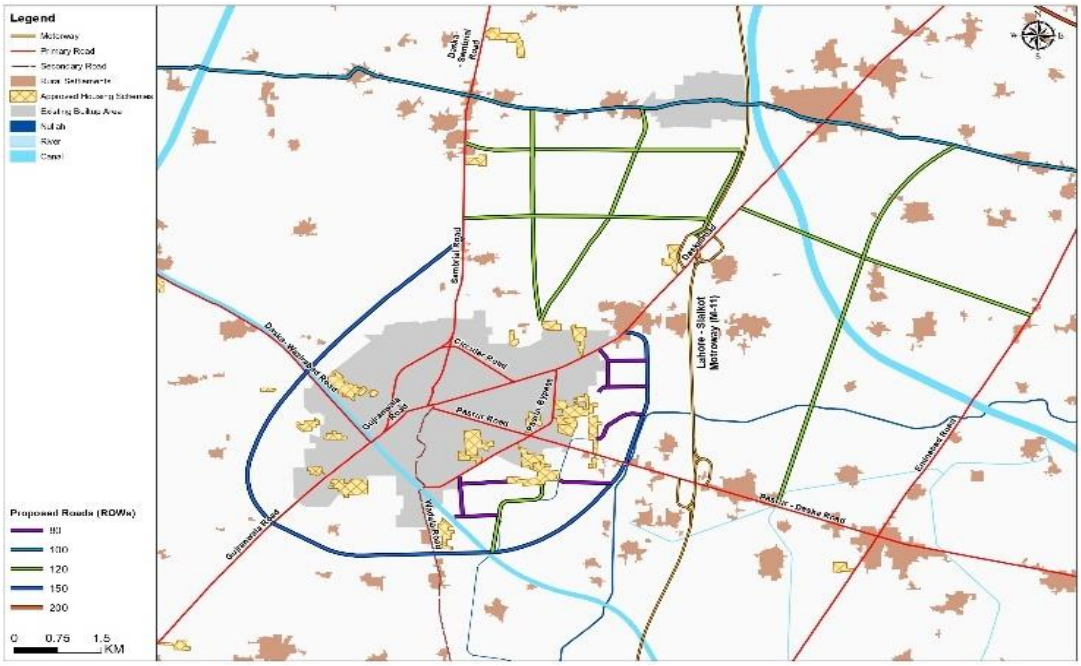
3.5.8 Structure Plan for Daska Tehsil 2023-2043

The Structure Plan for Daska has been developed for the next 20 years (2023-2043), based on key guiding parameters such as existing infrastructure, growth trends, and land use patterns. The city's development is influenced by connectivity, topography, and strategic land allocation.

When proposing new roads, careful consideration of route proposals and alignments is crucial to ensure that they serve their intended purpose while minimizing negative impacts. Key factors include functionality, safety, sustainability, and overall liability. By addressing these considerations, the proposed roads aim to enhance the city's infrastructure and support future growth effectively.

Daska City's road network, like other intermediate cities, features a mix of road patterns. Tertiary roads have organic or curvilinear layouts, while secondary and primary roads follow radial and circular patterns. Key radial roads, including Sambrial, Sialkot, Pasrur, and Gujranwala Roads, form concentric zones, enhancing intercity and intra-city connectivity.

Figure 3-30: Structure Plan in Tehsil Daska



To develop the Structure Plan, the following steps were taken:

- **Growth Analysis and Integration**: The city's growth directions were identified based on growth trends and spatial patterns. The existing radial pattern with concentric zones was extended with a circular road around the city, integrating the proposed structure plan with the existing road network.
- **Primary Road Network**: A circular road is proposed to connect all major radial roads, including Sialkot, Pasrur, Gujranwala, Daska-Wazirabad, and Sambrial Roads, enhancing connectivity and circulation.
- **Link Roads and Secondary Roads**: Additional link roads connect the circular road to improve traffic flow and accessibility. Secondary roads have been marked for local mobility, considering existing infrastructure and geographic features.
- **Guided Development**: The plan aims to guide growth proactively, channeling development along structured lines. Road-facing strips are designated for specialized activities, while other zones are marked for varied uses, ensuring a well-integrated urban structure.
- **Future Proposals for 2043**: To support future development, the plan proposes Northern and Southern bypasses forming a ring around the SDZ of Daska. This network of primary and secondary roads, based on traffic studies, will alleviate urban congestion and improve connectivity between urban and rural areas.

Bypass roads

- **Northern Bypass**: Starting from Gujranwala Road in the southwest, it connects to Sialkot Road in the northeast and links with Sambrial Road. This bypass reduces traffic load on inner city roads like College and Circular Roads.
- **Southern Bypass**: Extending from Gujranwala Road to Sialkot Road, it crosses major routes like Wadala Road and Bedian Canal, providing connections from rural settlements to the city and other urban centers.
- Both bypasses, with a right-of-way of 150 ft, form a ring around the city, serving as a physical boundary for SDZ development and containing proposed zones for residential, health, education, urban agriculture, and specialized activities. Detailed road typologies, rights-of-way, lengths, and coordinates are provided in the accompanying tables.

Table 3-38: Proposed Bypass Road (Southern Bypass segments) in Tehsil Daska

Road Name	Road Type	ROW (ft)	Length (Km)	Start_X	Start_Y	End_X	End_Y
P1-2043 (Pasrur Road till Sialkot Road.)	Primary Road-I	150	2.85	74.388	32.321	74.387	32.345
P2-2043 (Gujranwala Road till Pasrur Road.)	Primary Road-I	150	6.88	74.323	32.310	74.387	32.321

Table 3-39: Proposed Bypass Road (Northern Bypass) in Tehsil Daska

Road Name	Road Type	ROW (ft)	Length (Km)	Start_X	Start_Y	End_X	End_Y
P3-2043 (Gujranwala Road till Daska-Sialkot Interchange)	Primary Road-I	150	7.16	74.323	32.310	74.398	32.362

Proposed Structure Plan Roads

The network of structure plan roads, which consists of primary and secondary roads, is proposed for the year 2043 to support the future development of Daska City. The proposal is based on findings from traffic studies that were completed for the Site Development Zone (SDZ) Structure Plan for Daska. These proposals are holistically integrated into the traffic and transportation plan.

Proposed Primary Roads

Primary roads are proposed with a 120 ft Right of Ways (ROW) to support the future development and proposed land uses under Site Development Zone (SDZ) Structure Plan for Daska. The table below enlists 9 segments proposed to improve the connectivity of new residential development and associated land uses proposed in the SDZ. These proposals are majorly in the direction from Northern to East and South. Residential areas are proposed from the North of EBA till Jamke Cheema, with an Agro farms buffer in between. The second proposal for residential development is in the West and Southwest. Beyond the Sialkot-Daska interchange, recreational club/resort and agro farms are proposed. The purpose of Primary Structure plan roads is to connect all these new development zones. The residential development in the South, extending beyond the EBA is structured by P4-2043 which is partially aligned with the existing flood drainage channel. Furthermore, the residential development in the North is proposed to connect with the current EBA via Daska Sambrial road and a new road proposed parallel to it P11-2043. The segments P7 and P12-2043, enrich the existing connectivity of the proposed residential development in the North to the education and health neighborhoods, Jamke Cheema, M11 interchange and Daska-Sambrial Road. The primary roads, P5 and P6-2043, develop connectivity of the agro-farms and recreational club in the East to the proposed intercity corridors, Sialkot Road, Pasrur Road and Eimanabad Road. These roads are proposed to be developed and completed till the planning period 2043 for efficient connectivity of each sub-zone proposed in the SDZ.

Table 3-40: Proposed Structure Plan Road (Primary Roads) in Tehsil Daska

Road Name	Road Type	ROW (ft)	Length (Km)	Start_X	Start_Y	End_X	End_Y
P4-2043	Primary Road-II	120	1.91	74.372	32.317	74.363	32.305
P5-2043	Primary Road-II	120	5.42	74.461	32.348	74.408	32.367
P6-2043	Primary Road-II	120	7.91	74.461	32.314	74.447	32.378
P7-2043	Primary Road-II	120	4.19	74.358	32.365	74.402	32.365
P8-2043	Primary Road-II	120	1.89	74.400	32.363	74.408	32.378
P9-2043	Primary Road-II	120	1.78	74.390	32.378	74.408	32.378
P10-2043	Primary Road-II	120	1.38	74.373	32.378	74.358	32.379
P11-2043	Primary Road-II	120	4.20	74.372	32.347	74.371	32.385
P12-2043	Primary Road-II	120	1.57	74.373	32.378	74.390	32.378

Proposed Secondary Roads

A network of secondary roads is also proposed under the traffic and transportation plan to provide connectivity for each proposed sub-zones under the Site Development Zone (SDZ) Structure Plan. The suggested right of way (R.O.W) for each secondary road is 80'. Each of the new secondary roads proposed is given a unique road name. Below is a table that provides information about the proposed secondary roads, including their road typology, proposed right-of-ways, proposed road lengths, and geographical coordinates of their starting and ending points.

Table 3-41: Proposed Structure Plan Road (Secondary Roads) in Tehsil Daska

Road Name	Road Type	ROW (ft)	Length (Km)	Start_X	Start_Y	End_X	End_Y
S1-2043	Secondary Road	80	0.877	74.383	32.334	74.392	32.335
S2-2043	Secondary Road	80	0.803	74.366	32.318	74.358	32.318
S3-2043	Secondary Road	80	0.642	74.358	32.318	74.358	32.312
S4-2043	Secondary Road	80	0.149	74.358	32.318	74.358	32.319
S5-2043	Secondary Road	80	0.762	74.357	32.312	74.365	32.313
S6-2043	Secondary Road	80	1.039	74.383	32.326	74.391	32.330
S7-2043	Secondary Road	80	0.776	74.385	32.335	74.383	32.342
S8-2043	Secondary Road	80	0.671	74.385	32.340	74.392	32.340
S9-2043	Secondary Road	80	0.898	74.385	32.318	74.376	32.319

Rehabilitation of Existing Roads

Future land use plans depend on the functioning of existing land uses as well as the proposed developments in the SDZ. To improve the functioning of the existing built-up area, various traffic & transportation improvement plans and recommendations have been proposed. One such recommendation is also for road improvement, widening and rehabilitation. Considering the existing and future land use demand, this recommendation is proposed for the roads where the road capacity is restricted to meet future demands. Consequently, new developments are expected to generate increased traffic, necessitating road capacity enhancements to meet both present and future demands. Furthermore, these improvements will also facilitate the smooth movement of traffic to the newly proposed development zones. In a nutshell, rehabilitation of existing roads of Daska will also support future city development by enhancing safety, improving transportation options, and ultimately making the city a better place to live, work, and invest in.

For Daska, widening is proposed at variant right of ways while priority has been given to the design, connectivity, and circulation pattern. Two primary roads have been proposed for rehabilitation, named as Badiana Road and Jamke road.

Badiana road falls in the rural park of Daska Tehsil running in an East-West direction from Badiana in Pasrur towards Sialkot Road where it intersects near Motra Ghumman. This road sets the physical boundary of agro-farms located South of the road as proposed in the SDZ. At present, the ROW of Badiana Road is 20ft, which is proposed to be extended till 100ft as it will serve as a primary connection in Tehsil for the SDZ 2043. This road runs perpendicular to and intersects with 2 inter-city corridors, Eimanabad Road and Daska road hence it is expected to attract heavy traffic and light traffic both. Secondly, Jamke road classified as primary is also proposed to be rehabilitated. Jamke road starts from within the center of Daska and runs through the rural area until Jamke Cheema. The urban portion of the road is wide, while the ROW is reduced from 30ft to 10ft when crossing the farms. As residential areas will develop along its sides, a segment of Jamke Road is proposed to serve as the primary circulation with 120 ft ROW. A 2.2 km stretch from Jamke Cheema till the proposed Northern bypass will be widened. Another segment crossing from settlement Jamke Cheema has been proposed that needs to be rehabilitated up to 100 ft.

The details of each of the classified primary road for which widening is proposed along with details regarding road name, encompassing road typology, proposed right-of-way, road length, and geographical coordinates of its starting and ending points are represented in the following three tables:

Table 3-42: Rehabilitation of Existing Primary Roads in Tehsil Daska

Road Name	Road Type	ROW (ft)	Length (Km)	Start_X	Start_Y	End_X	End_Y
Badiana Road	Primary Road	100	4.87	74.425	32.383	74.475	32.374
Jamke Road	Primary Road	120	2.26	74.385	32.366	74.390	32.385
Jamke Road-II	Primary Road	100	6.23	74.359	32.387	74.423	32.382

Punjab Municipal Development Fund Company (PMDFC) Proposal for Road Network Development

Road network lays the foundation of spatial development hence an integrated transportation plan is essential for future development. The Site Development Zone Structure Plan reviewed the existing valid, proposed, and on-going projects which also include Sectoral Boundary, Proposed Access Routes, and City Roads within MC Boundary Daska, a component of PMDFC project "Detailed Design of Infrastructure Sub-Projects Sectoral Planning and Resident Supervision in 16 Cities of Punjab."

Following list of roads are endorsed in the SDZ Structure Plan, coming from findings of the Infrastructure Project. These roads shall be rehabilitated on priority basis as they are the urban roads currently serving the existing and growing

population. The existing built-up areas need to function efficiently otherwise there is going to be a rift between newer developments and existing networks. The listed roads are in the stage of project feasibility and further.

Table 3-43: Punjab Municipal Development Fund Company (PMDFC) Proposal for Road Network Development in Tehsil Daska

Road Name	ROW (ft)	Length (Km)	Start_X	Start_Y	End_X	End_Y
College Road	30	1.50	74.3517	32.3318	74.3615	32.3344
Katchery Road	100-120	0.35	74.3481	32.3307	74.3517	32.3318
Wazirabad Road	60	0.30	74.3481	32.3307	74.3453	32.3328
Stadium Road	30	1.20	74.3453	32.3328	74.3365	32.3395
Bank Road	35-38	1.00	74.3437	32.327	74.3481	32.3307
Awami Road	24	1.30	74.3505	32.3277	74.3542	32.3175
Wadala Road	20-25	1.00	74.351	32.3173	74.35	32.326
Jamkey Road	30-35	0.90	74.3558	32.3329	74.3631	32.3388
Awan-e-Farasat Road	20	0.40	74.3623	32.3345	74.3624	32.3296
Jamshed Road	20	0.60	74.3615	32.3344	74.3625	32.3288
Sohawa Road	15-18	0.70	74.3483	32.339	74.3414	32.3433
College Road	18	1.0	74.368	32.3364	74.3692	32.3318
Bara Gaga Road	18	0.40	74.3712	32.3373	74.3694	32.3393
Pasrur Road	45-50	1.70	74.3526	32.3315	74.3704	32.3267

3.6 Tehsil Pasrur

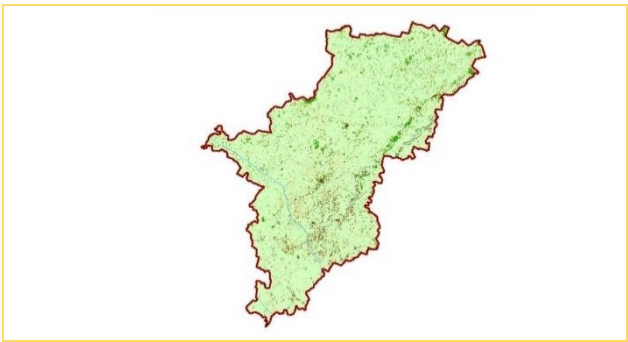
3.6.1 Land Cover Analysis for past 30-40 years of Tehsil Pasrur

The land cover analysis of Tehsil Pasrur from 1990 to 2022 highlights notable changes. The built-up area has significantly expanded, driven by urban growth in MC Pasrur, TC Chawinda, and the development of rural settlements. There has also been a increase in built-up areas along Degh Nala. The area covered by water bodies has slightly decreased, while more ponds and nullahs have been develop. Agricultural land has declined over the period, while the presence of shrubs and trees has increased, especially around new rural settlements. Additionally, barren land has expanded considerably. Despite agriculture being the primary land use, the reduction in agricultural land calls for further investigation.

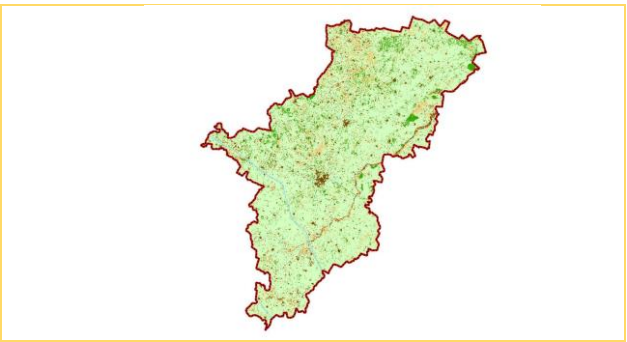
Table 3-44: Land Cover Analysis, Tehsil Pasrur

Tehsil Pasrur						
	1990		2022		Change (2022-1990)	
LC	Area (acres)	Percentage	Area (acres)	Percentage	Area (acres)	Percentage
Agriculture	227,638.42	94.42%	215,910.80	89.55%	-11,727.62	-5.15%
Shrubs & Trees	5,080.49	2.11%	6,172.69	2.56%	1,092.21	21.50%
Built Up	2,723.10	1.13%	5,186.74	2.15%	2,463.64	90.47%
Barren Land	4,077.24	1.69%	12,565.31	5.21%	8,488.07	208.18%
Water	1,581.47	0.66%	1,267.7	0.53%	(313.82)	-19.84%
Total	**241,103**	**100**	**241,103**	**100**		

Figure 3-31: Comparative Analysis of Land Cover Map of Tehsil Pasrur



Land Cover Map of Tehsil Pasrur (1990)

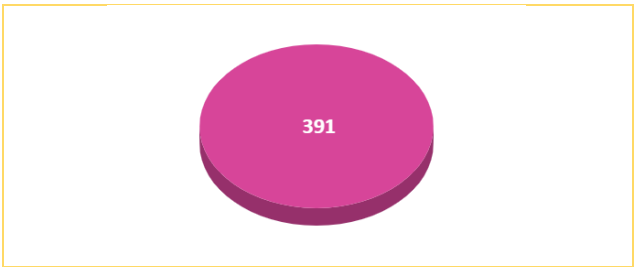


Land Cover Map of Tehsil Pasrur (2022)

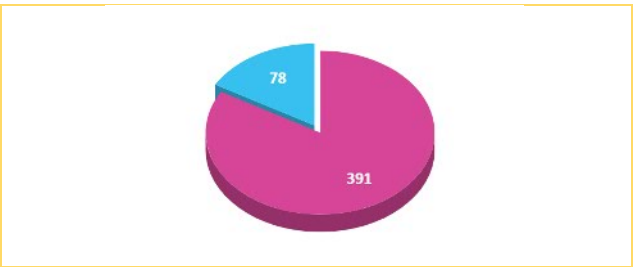
3.6.2 Spatial-Temporal Growth

A spatio-temporal growth analysis of Pasrur's EBA over the past 30 years shows that the city has significantly expanded, three times to its original size. Initially, the city grew westward and eastward, influenced by improved road and rail connections. By the early 2000s, development accelerated, particularly along key corridors such as Pasrur-Sialkot, Kalaswala, and Gujranwala-Pasrur roads. The city's expansion continued steadily in all directions, with notable growth along major routes like Narowal and Pasrur-Zafarwal roads.

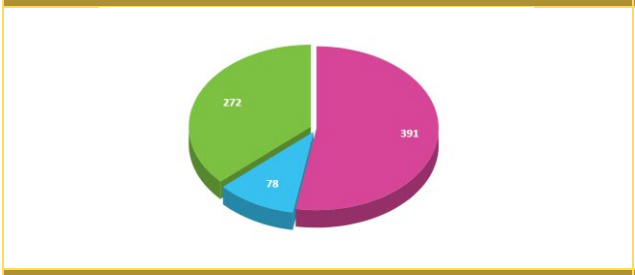
Figure 3-32: Spatio-Temporal Growth Trend of Municipal Committee Pasrur



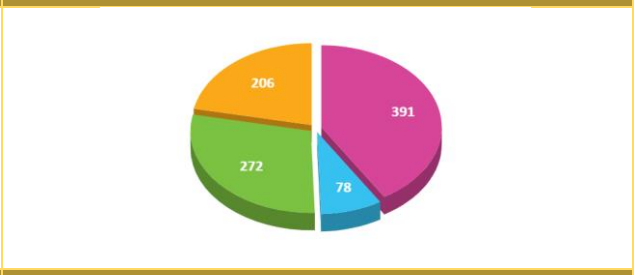
1988: 391 Acres



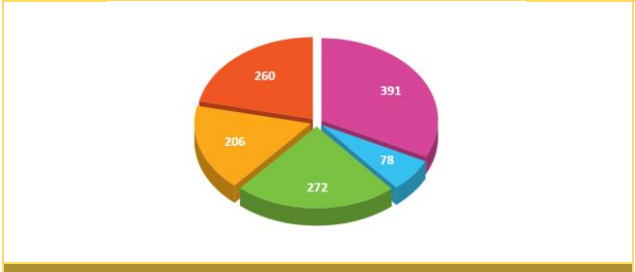
2007: 469 Acres



2012: 741 Acres

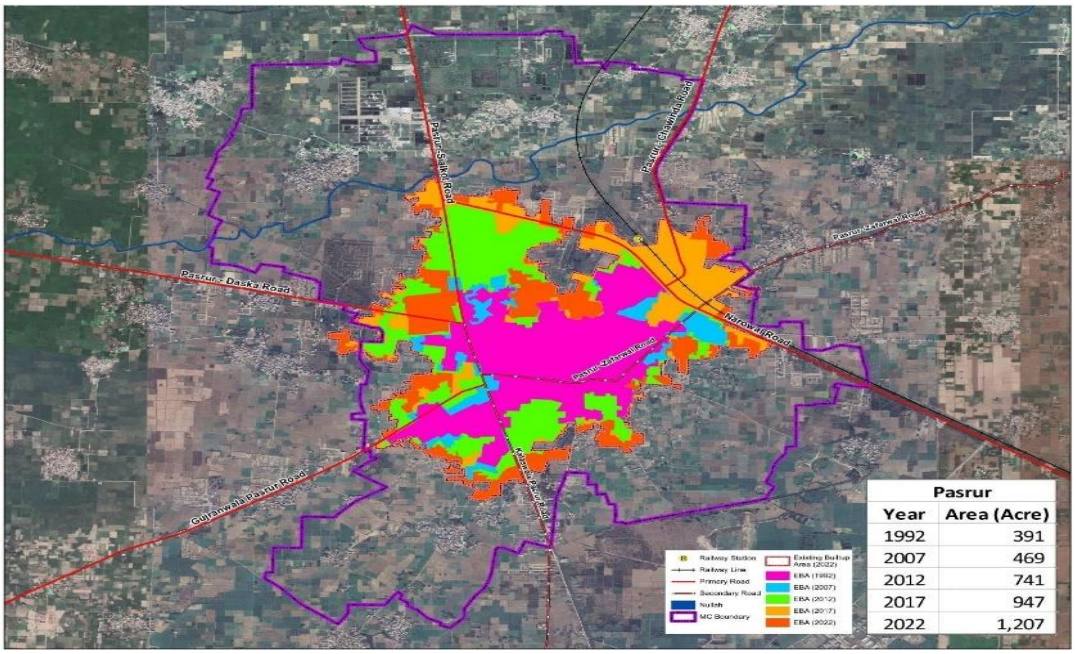


2017: 947 Acres



2022: 1,207 Acres

Figure 3-33: Urban Growth analysis of the Existing Built-up Area (EBA) within Municipal Committee Pasrur

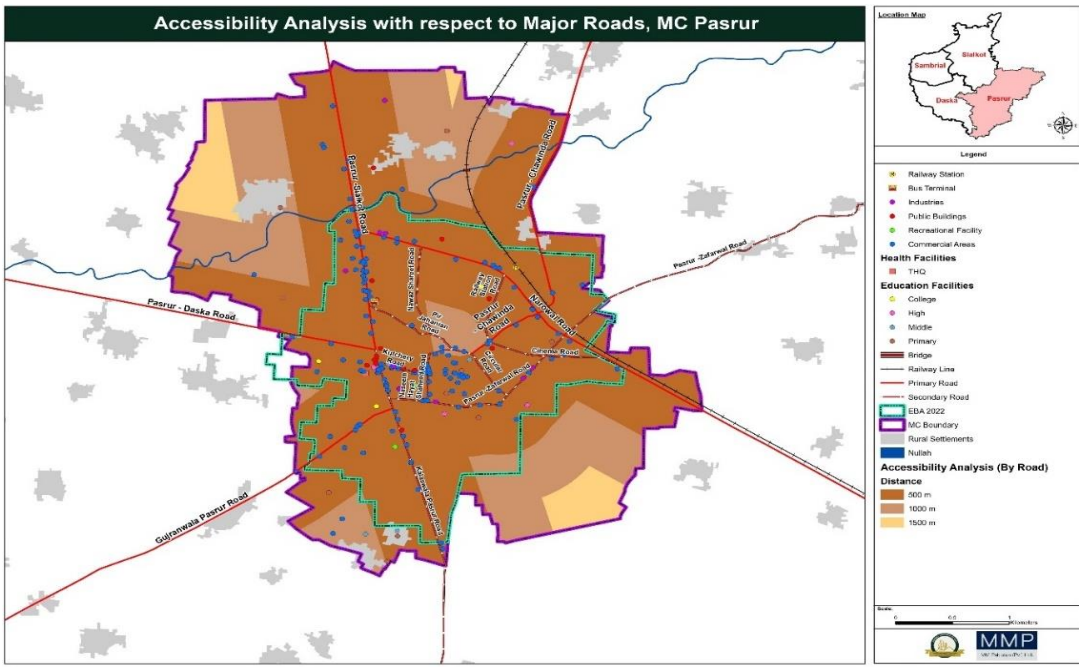


3.6.3 Accessibility Analysis

The accessibility in MC Pasrur in relation to major roads, with buffer zones of 500, 1,000, and 1,500 meters shows the access of points of interest (POIs). The analysis reveals favourable accessibility for settlements within these buffers, major roads like Pasrur Sialkot Road, Pasrur Chawinda Road, Narowal Road, Daska Road, and Gujranwala Road, which provide easy access to various POIs.

However, the lack of sustainable public transportation limits effective accessibility for some settlements, despite their proximity to major roads. Without reliable transport options, residents may struggle to reach POIs, relying on private vehicles, which could also have environmental impacts. Therefore, while physical proximity suggests good accessibility, the absence of sustainable transport poses significant barriers for certain communities.

Figure 3-34: Accessibility Analysis w.r.t. Major Roads in Established Built-up Area Pasrur



3.6.4 Population Projections & Growth Trends (2023-2043)

Population projections for the 2023-2043 planning horizon are based on the 2017 Census data. These projections are used to determine the area requirements for the SDZ Structure Plans and are calculated using the geometric formula.

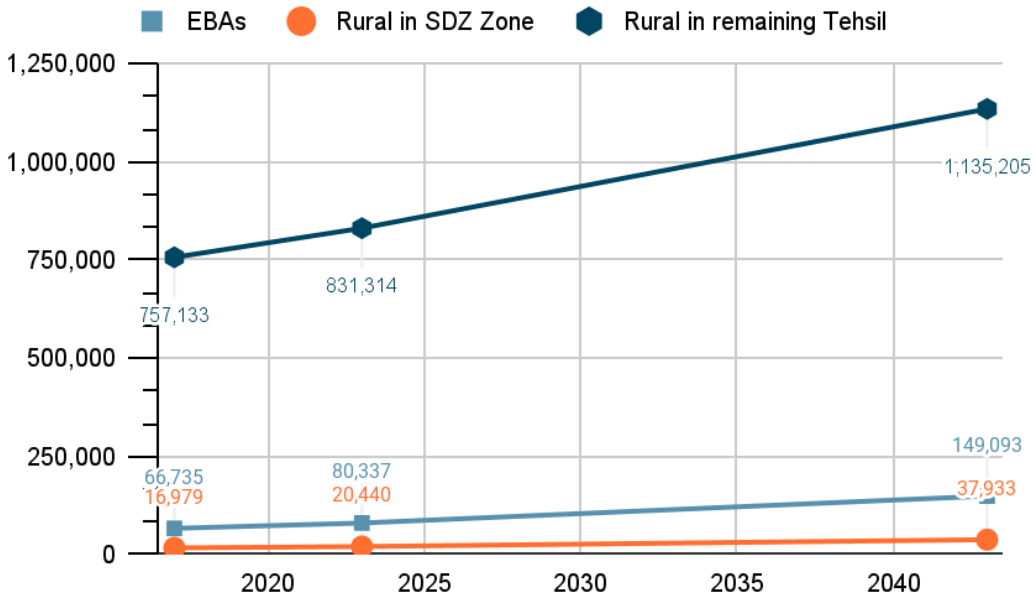
Pn = Po[1 + (r/100)]^n
Where,
Po: last known population,
Pn: Projected population after 'n' number of years,
n: number of years between Po and Pn and,
r: growth rate

Table 3-45: Population Projections for Tehsil Pasrur

Description	Census Population (2017)	Census Growth Rate (2017)	Growth Rate for Projection till 2023	Projected Population (2023)	Considered Growth Rate beyond 2022 till 2043	Projected Population (2043)
EBA of MC Pasrur	66,735	3.14%	3.14%	80,337	3.14%	149,093
Rural Population falling in SDZ Zone	16,979	3.14%	3.14%	20,440	3.14%	37,933
Rural population in remaining Tehsil (outside SDZ Zone) *	757,133	1.57%	1.57%	831,314	1.57%	1,135,205
Total Tehsil Population	**840,847**	**-**	**-**	**932,090**	**-**	**1,322,230**

*Rural population in remaining Tehsil also includes the population of TC Chawinda

Figure 3-35: Tehsil Pasrur Population Projection Graph



3.6.5 Density Analysis

Density analysis is performed for the EBA Pasrur as the major urban settlement. This density assessment leads towards a future land demand calculation. However, for the rural areas, the density assessment is not required. The residential development of rural settlements in the entire Tehsil will continue in their locations, however, the demand for higher order infrastructure will only be included in the SDZ of Pasrur.

Existing Built-up Area (EBA) Pasrur

The current EBA population density is calculated to be 54, which is low for compact city development. The general rule, mutually agreed by the planning team, was applied to increase the densities by 20%. Therefore, the increased density is 65 people/acre, which is 16,062 people/ square kilometer.

Table 3-46: Density Calculations for Existing Built-up Area Pasrur

Description	Values	Unit
Census block boundary of EBA Pasrur	1,476.16	Acres
Current EBA Population 2023	80,337	People
Current average population density	54	People / acres
Desired Density with 20% increase	65	People / acres

3.6.6 Area Requirement Analysis

It is estimated that in 2043, to cater the future needs of a projected population of 1,322,230 inhabitants, a planned area of 5,094 acres will be required for future development of the city.

Table 3-47: Fact Sheet for Area Calculation of Municipal Committee Pasrur for Plan Period 2023-2043

Description	Statistics
Population of EBA Pasrur (2017 census)	66,735
EBA Pasrur 2023 (Existing land use)	1,498 Acres
Density of EBA Pasrur (2023)	54 PPA
Increase in Density for year 2043 for MC Pasrur only	20%
Proposed Density for the year 2043 (Pasrur)	65 PPA
Planning population Daska Tehsil[5] (2017)	840,847
Planning population 2023 (Estimated)	932,090
Planning population 2043 (Projected)	1,322,230
Future area requirement by 2043 for the SDZ	5,094 Acres

3.6.7 Proposed Site Development Zones (SDZ)

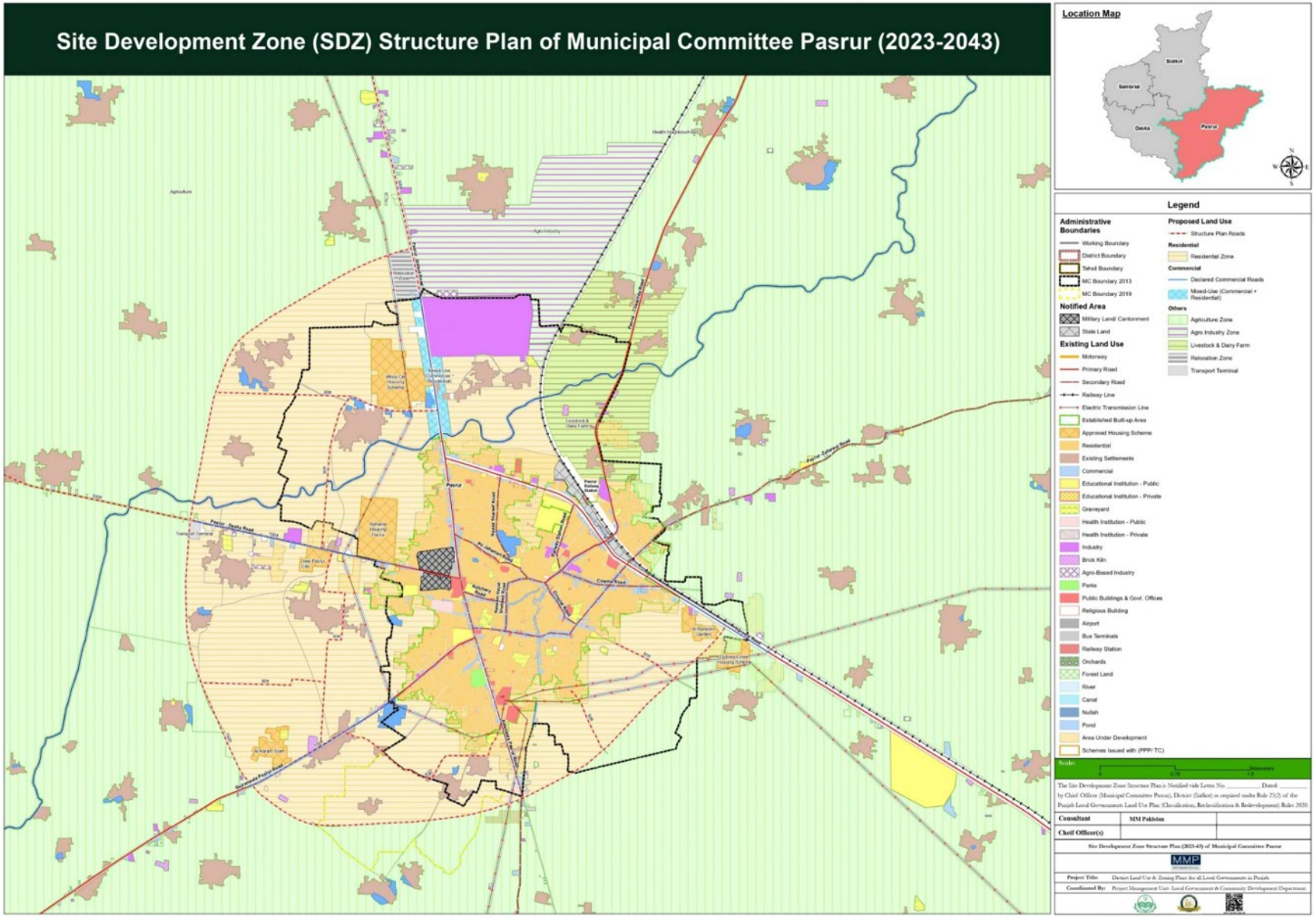
Keeping in view the Punjab Local Government Land Use Rules 2020, the SDZ structure plan of Pasrur have been proposed (map in annexure). The estimated land need for 2043 is around 5,000 acres, but the final zoning covers approximately 4,508 acres, ensuring an efficient layout while prioritizing transportation and geographical barriers.

Table 3-48: Proposed Site Development Zones for Tehsil Pasrur

Proposed Site Development Zone	Area (Acres)	Land Use Percentage
Residential Proposed Uses	2,753.77	71.3%
Commercial Proposed Uses	57.72	1.5%
Industrial Proposed Uses	610.3	15.8%
Other Land Uses	443	71.3%
Total of all zones	**3,865**	**100%**

[5] The planning population includes Daska and Jamke Cheema EBAs, areas adjacent to EBA falling within MC and the remaining rural population in Tehsil. Urban growth rate of 2.84 is applied on EBA and MC area adjacent to EBA while rural growth rate of 1.98 is applied on the rural population of Tehsil.

Map 10: Proposed Site Development Zones (SDZ) of Pasrur for Municipal Committee Pasrur



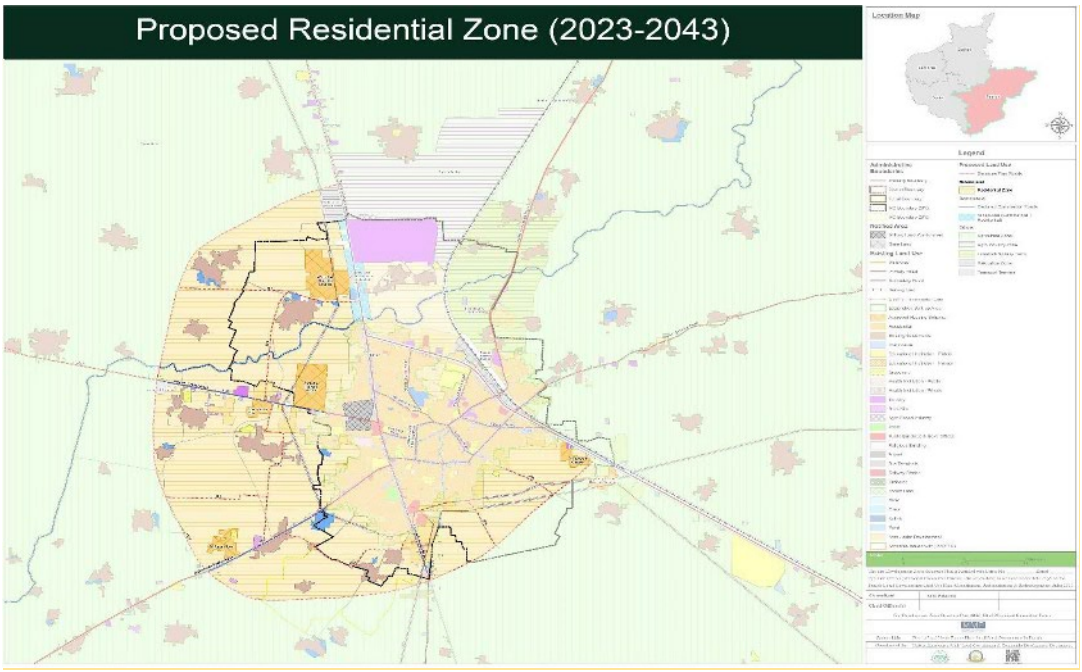
Proposed Residential Zone (PRZ)

In order to accommodate an additional population of 481,383 up to the year 2043 (69,264 households @6.95 HHS), 2,754 acres of land (in addition to infill land in current compact area) is proposed for residential purposes. The residential zones are proposed alongside the established built-up area for infill development having densification of 65ppa in Pasrur. Proposed residential zone of 2,754 acres for the period 2022-2043 has been proposed in the North, West and South of the existing EBA. This direction receives maximum growth factor due to its accessibility and development on Sialkot Road, Daska road and Gujranwala road.

Table 3-49: Proposed Residential Zones in Municipal Committee Pasrur

Land Use	Area (acres)	Percentage of the total proposed area	Symbology
Proposed Residential Area	2,754	80%	

Figure 3-36: Proposed Residential Zone in Municipal Committee Pasrur



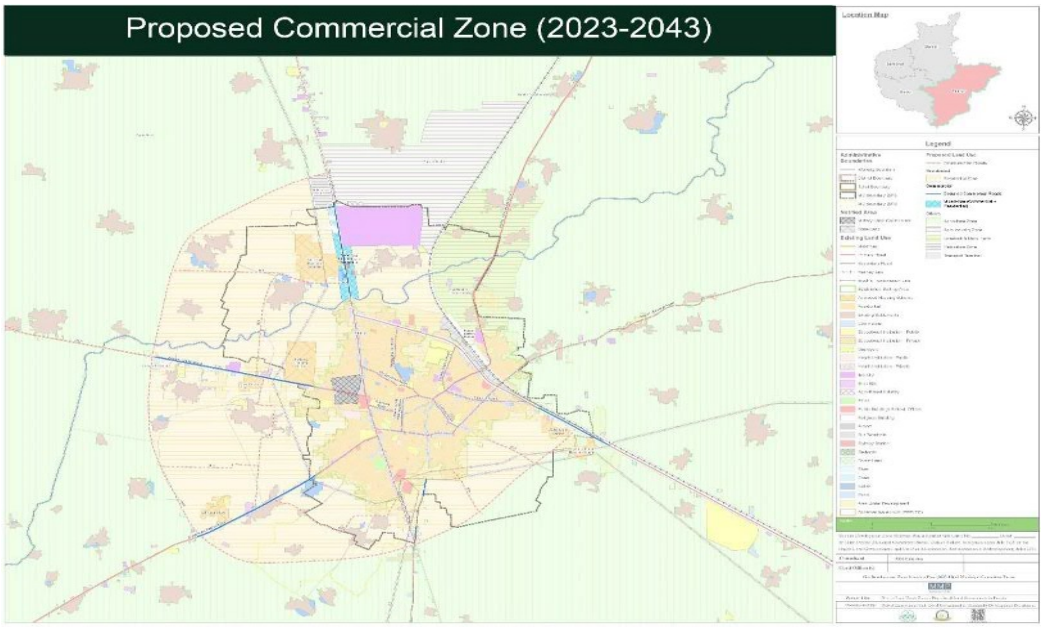
Proposed Mixed Use/ Commercial Zone

The proposed commercial / mixed use zone has been proposed in pasrur in a way that will combine existing zones with new areas proposed in the SDZ for 2043. Current commercial hubs like Pasrur-Zafarwal Road, Circular Road, and Sialkot Road will continue, with improved accessibility through traffic and transport plans. A 33-acre mixed-use commercial zone is proposed on Pasrur-Sialkot Road to accommodate growing demand. Additional commercial roads are proposed along Pasrur-Daska, Gujranwala-Pasrur, and Narowal roads, aligning with residential zones. Two intercity corridors, Sialkot and Pasrur-Daska Roads, will enhance mobility and economic growth opportunities.:

Table 3-50: Proposed Commercial Zones in Municipal Committee Pasrur

Land Use	Area / Length	Percentage of the total proposed area	Symbology
Mixed-Use (Commercial + Residential)	33 Acres	1%	

Figure 3-37: Proposed Commercial Zones in Municipal Committee Pasrur



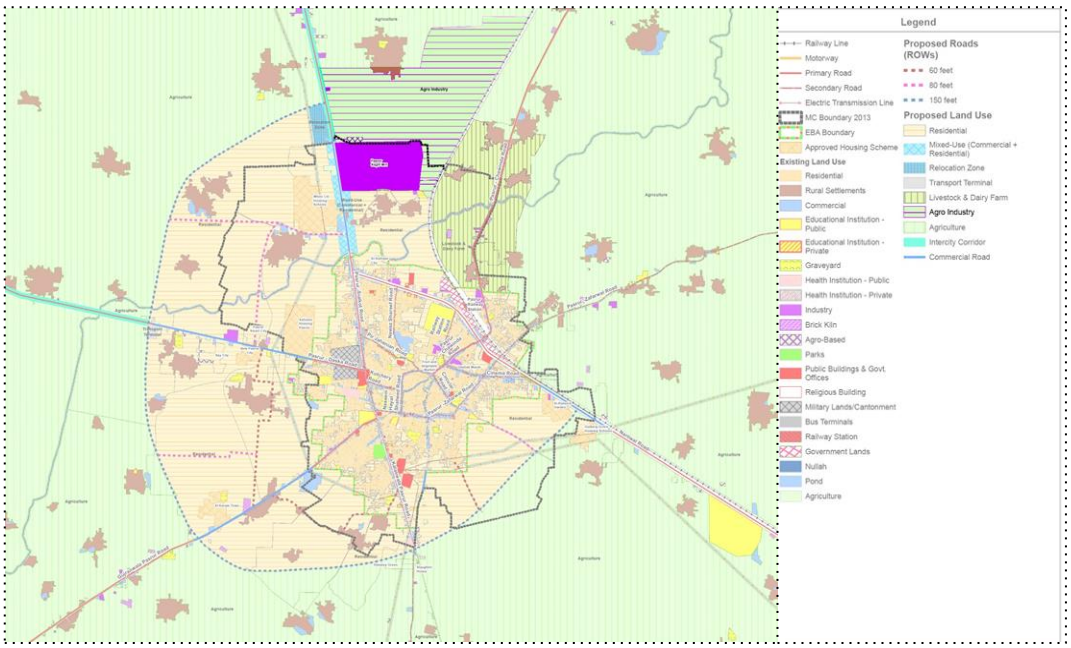
Proposed Industrial Uses

The current development pattern of industries shows an inclination of industrial development towards Sialkot, Daska and Gujranwala. One of the major agro-industrial uses, Pasrur Sugar Mills is located in the North of the city. Since Pasrur is an agricultural economy, the development of chemical or heavy industries is not prevalent in the Tehsil. In the light of contextual relevance, an Agro-industrial area of 610 acres is proposed in the North of Pasrur Sugar Mills, geographically bounded by Sialkot Road and Railway line. The proposals are also supported by the agro-industrial development as specified in Punjab Spatial Strategy (PSS), 2047 and Gujranwala Development Plan.

Table 3-51: Proposed Industrial Zones in Municipal Committee Pasrur

Land Use	Area (acres)	Percentage of the total proposed area	Symbology
Proposed Industrial Zone	610	18%	

Figure 3-38: Proposed Industrial Zones in Municipal Committee Pasrur



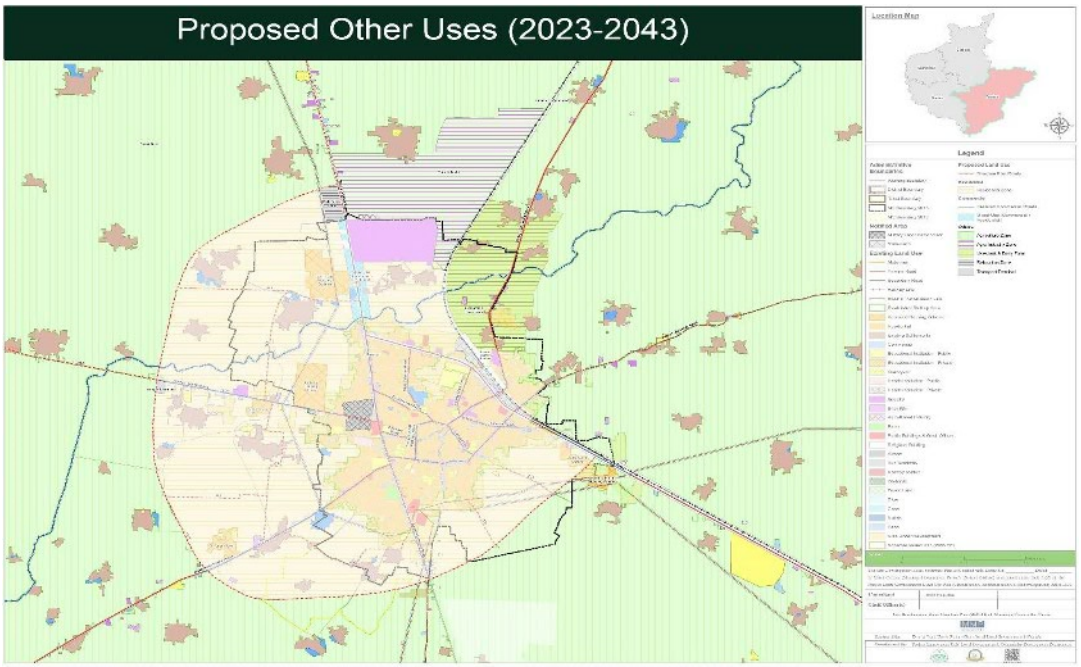
Other Proposed Uses

The other uses proposed in the Site Development zones are classified as transportation, relocation zones and landfill sites. The percentage coverage of the total proposed area shows that 2 percent of the land use is designated under this use. A total area of 94 acres falls under the other land uses. An area of 25 acres is allocated for the relocation zone that will accommodate vegetable and fruit markets, and Ghalla Mandi. These two uses are currently located on a congested inner city commercial road, Naseem Hayat Shaheed Road. Furthermore, transport terminals on 5 acres of land is also proposed along Pasrur-Daska road to ease accessibility.

Table 3-52: Proposed Other Uses in Municipal Committee Pasrur

Land Use	Area (acres)	Percentage of the total proposed area	Symbology
Transport Terminal	5	1.1%	
Relocation Zone	25	5.6%	
Livestock & Dairy Farm	413	93.2%	
Total Area	**443**	**100%**	

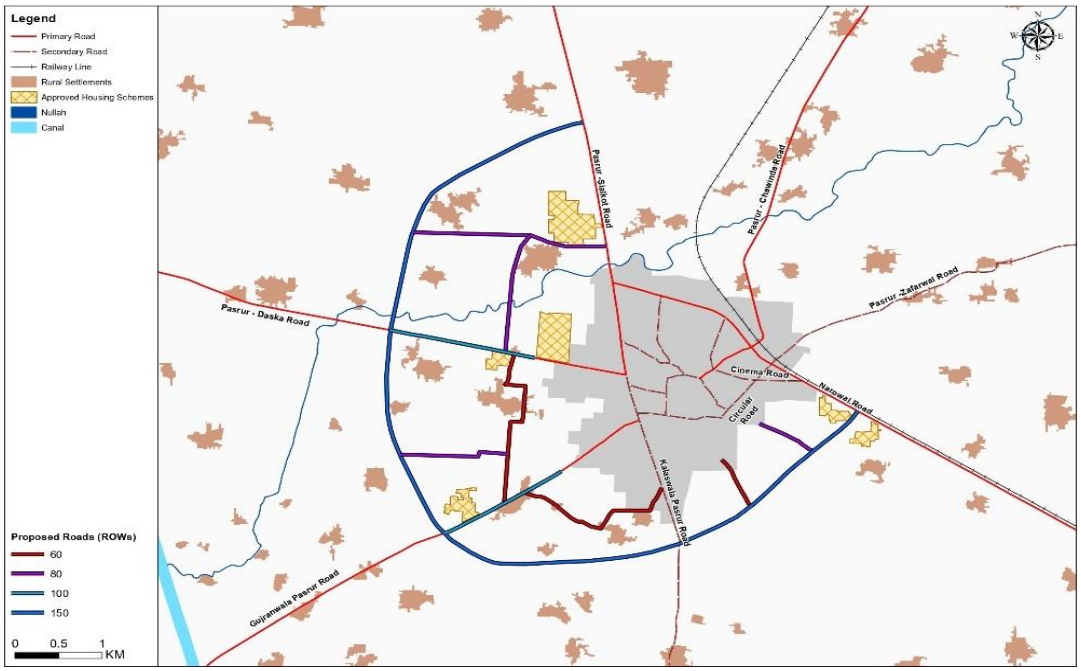
Figure 3-39: Proposed Other Uses in Municipal Committee Pasrur



3.6.8 Structure Plan for Pasrur Tehsil 2023-2043

The Structure Plan for Pasrur City has been prepared for the next 20 years (2023-2043), guided by key parameters such as existing infrastructure, growth trends, topography, and land use patterns. The city's planning primarily focuses on improving connectivity and ensuring sustainable development by integrating new road proposals with existing patterns. Pasrur exhibits a diverse mix of road patterns.

Figure 3-40: Structure Plan for Tehsil Pasrur



Tertiary roads are typically organic or curvilinear, while primary and secondary roads follow radial and circular patterns. Major radial roads, including Narowal, Sialkot, Daska, and Gujranwala Roads, connect the city's concentric zones, facilitating intercity and intracity mobility. To develop the Structure Plan, the following steps were taken:

- **Growth Analysis:** Growth directions were identified based on spatial patterns and growth pressures.
- **Integration of Road Networks:** The existing radial network was extended with circular roads to connect the primary radial roads, enhancing overall city connectivity. The circular roads link major routes from Pasrur-Sialkot Road to Pasrur-Daska Road and from Gujranwala-Pasrur Road to Narowal Road.
- **Link Roads and Secondary Roads:** Multiple link roads connect the circular roads, improving traffic flow and accessibility. Secondary roads were marked to enhance local mobility.
- **Guiding Development:** The structure plan aims to guide development in targeted growth areas proactively. Structure plan roads will channelize zoning and development activities, categorizing areas into road-facing strips for specialized activities and various zones for other uses.
- **Future Proposals (2043):** The structure plan includes a network of primary and secondary roads, especially in the northern and western parts of the city. It also suggests the rehabilitation of existing roads through widening and improvements to strengthen urban-rural connectivity.

Bypass Roads

A 120 ft. bypass road is proposed to run from the North to the South via the Western half, reducing congestion on the main Pasrur Road. The bypass comprises two segments:

- **Northern Bypass (P1-2043):** Starting from Sialkot Road in the North, adjacent to a proposed relocation zone, it continues westward, crossing the future transport terminal site on Daska Road.
- **Southern Bypass (P2-2043):** Extending from Gujranwala Road, it crosses Kalaswala-Pasrur Road up to Narowal Road, enhancing access to planned areas in the Western and Southern zones.

These bypass roads form part of the broader structure plan, providing enhanced connectivity to new development zones while serving as key corridors for future growth. Detailed information on road typologies, rights-of-way, and proposed routes is provided in the accompanying tables.

Table 3-53: Proposed Bypass Roads in Tehsil Pasrur

Road Name	Road Type	ROW	Length (km)	Start_X	Start_Y	End_X	End_Y
P1-2043	Primary Road-I	150	6.618	74.650	32.295	74.633	32.247
P2-2043	Primary Road-I	150	5.558	74.633	32.247	74.683	32.26

- **Proposed Secondary roads**

A network of secondary roads is also proposed under the traffic and transportation plan to provide connectivity for each proposed sub-zones under the Site Development Zone (SDZ) Structure Plan. The suggested right of way (R.O.W) for each secondary road is 80'. Below is a table that provides information about the proposed secondary roads, including their road typology, proposed right-of-way, proposed road lengths, and geographical coordinates of their starting and ending points.

Table 3-54: Proposed Structure Plan Road (Secondary Roads) in Tehsil Pasrur

Road Name	Road Type	ROW	Length (km)	Start_X	Start_Y	End_X	End_Y
S1-2043	Secondary Road	80	0.715	74.671	32.260	74.678	32.257
S2-2043	Secondary Road	80	2.24	74.629	32.282	74.652	32.281
S3-2043	Secondary Road	80	1.573	74.643	32.282	74.640	32.268

- **Rehabilitation of Existing roads**

Future land use plans depend on the functioning of existing land uses as well as the proposed developments in the SDZ. To improve the functioning of the existing built-up area, various traffic & transportation improvement plans and recommendations have been proposed. One such recommendation is also for road improvement, widening and rehabilitation. Considering the existing and future land use demand, this recommendation is proposed for the roads where the road capacity is restricted to meet future demands. Consequently, new developments are expected to generate increased traffic, necessitating road capacity enhancements to meet both present and future demands. Furthermore, these improvements will also facilitate the smooth movement of traffic to the newly proposed development zones. In a nutshell, rehabilitation of existing roads of Pasrur will also support future city development by enhancing safety, improving transportation options, and ultimately making the city a better place to live, work, and invest in.

For Pasrur, widening is proposed at variant right of ways while priority has been given to the design, connectivity and circulation pattern. Four existing roads have been proposed for rehabilitation, named as Sharm Kot Road, Nangal Mirza Road, Nanglian Road and Satrah Modd Road. The first road of 80 ft is proposed for rehabilitation/widening is a segment that will be serving the circulation of inhabitants living in the proposed neighborhood in the Southwest of the city. The proposed segment (Sharm Kot Road) will be well-connected with the other section of the city via another segment of 60 ft road in the same direction. Starting from Daska road, it goes in the Southwest direction serving the residential area along it. It extends beyond the urban built up area to the rural area, intersects with Nanglian Road coming from Gujranwala Road, and further continuing as Satrah Modd road. Both the roads, Rehmanpura and Satrah Modd will be upgraded to secondary roads with ROW 60 ft, from the existing ROW of 20 ft and 10 ft respectively, to provide efficient access to the future residential zones proposed in the Southwest of the city.

Furthermore, rehabilitation of an existing unnamed local road is proposed as S1-2043 in the South of the city, starting from Mohalla Umeedpura, running southwards through the proposed residential zone to connect with the proposed bypass road as proposed in SDZ. At present it is a Kutcha Road with 12 ft ROW with villages surrounding it. It is proposed to be rehabilitated as a secondary road with ROW 60ft.

Table 3-55: Rehabilitation of Existing Roads in Tehsil Pasrur

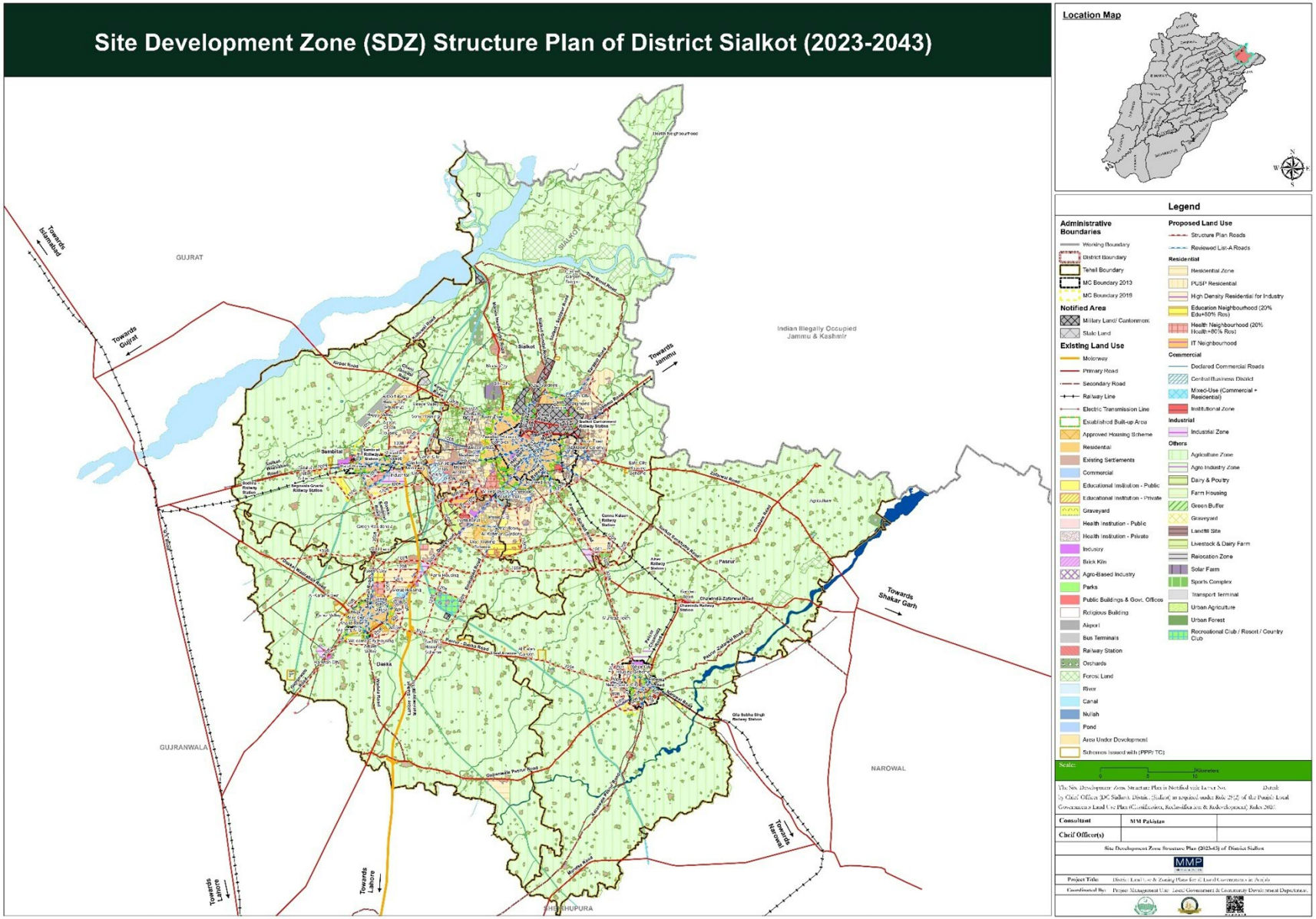
Road Name	Road Type	ROW	Length (km)	Start_X	Start_Y	End_X	End_Y
Sharm Kot Road	Secondary Road	80	1.280	74.627	32.256	74.641	32.256
Mohalla Umeedpura Link Road	Secondary Road	60	0.698	74.670	32.250	74.666	32.256
Nanglian Road	Secondary Road	60	2.049	74.643	32.252	74.659	32.252
Nangal Mirza Road	Secondary Road	60	2.318	74.641	32.268	74.640	32.250

3.7 Sialkot District Land Use Plan

The planning process has been iterative with the preparation of SDZs as well as considerations of district level strategies of economic development and connectivity. All of these parallel and interdependent processes have culminated in the spatial form of District Land Use and Zoning Plan. The plan integrates the following:

- All Administrative boundaries
- All EBAs of District Sialkot
- Four (4) SDZs prepared in District Sialkot prepared around major urban centers
- Growth boundaries of major urban settlements
- Structure plan roads
- District connectivity roads
- Drainage network with their ROWs

Map 11: Site Development Zone Structure Plan of District Sialkot



3.8 Recommendation

For implementation of Site Development Zones are listed as follows:

- Overlay of Structure Plan Roads with Revenue Maps: Section 4: Integrating revenue records with the SDZ structure plan through GIS mapping is crucial for effective urban planning, land management, and identifying roads within specific revenue units. After integrating revenue records with the SDZ structure plan, road segments will be aligned with Section 4 to govern future land transactions within the proposed zones. This integration is essential for guiding future development. The district administration will issue No Objection Certificates (NOCs) to ensure compliance with the plan, maintaining the integrity of the structure plan roads for the next twenty years.
- Zoning regulations implementation by respective local govt.: Policy guidelines for proposed zones are discussed in relevant sections of the Site Development Zone. It is proposed that local governments and authorities will develop their implementation frameworks or regulations based on these guidelines. Land use rules should be reviewed and amended according to the policy guidelines, integrated into the regulations by the respective authorities.
- Enforcement Measures for LG Department: The Local Government (LG) department should use satellite surveillance, periodic inspections, and Geographic Information Systems (GIS) to enforce zoning plans effectively. These tools can monitor land use, identify unauthorized constructions, and track changes over time. Additionally, public awareness campaigns, inter-agency collaboration, and a strengthened legal framework with clear penalties will support enforcement and ensure the integrity of urban planning.

CHAPTER 4

REVIEW & INTEGRATION OF DECLARED COMMERCIAL ROADS

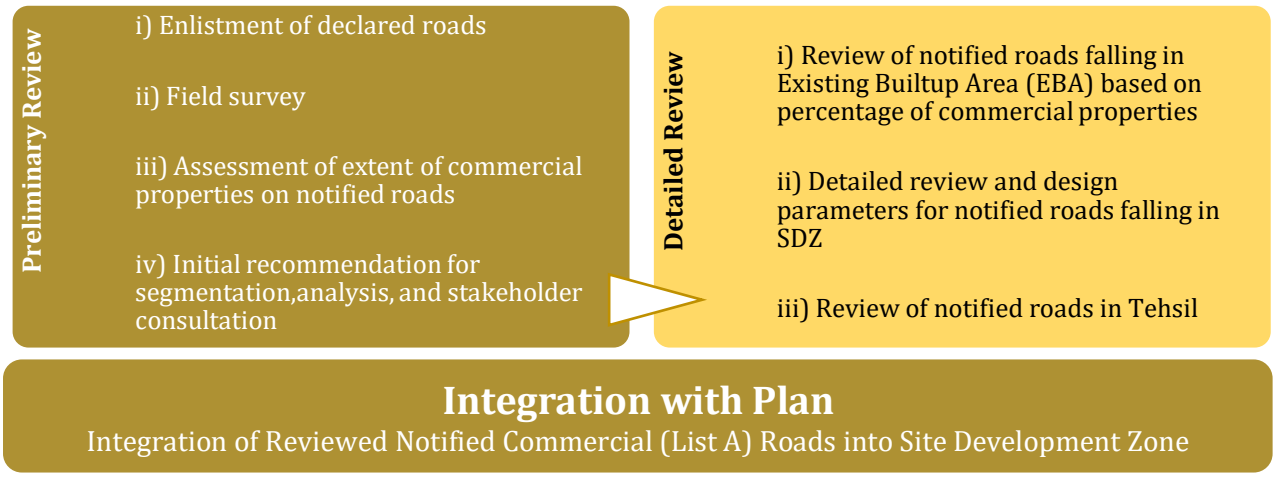
CHAPTER 4
REVIEW & INTEGRATION OF DECLARED COMMERCIAL ROADS

4.1 Process

4.1.1 Review Mechanism for Notified Commercial (List-A) Roads

The analysis of the notified roads (List-A) within the study area is organized into a three-stage framework. The first stage involves data preparation and a preliminary review. The second stage conducts a more in-depth examination based on the parameters established in the PLG Land Use Rules 2020. The third stage integrates the roads into SDZ Structure Plan. Each stage is explained in the following sections for clarity.

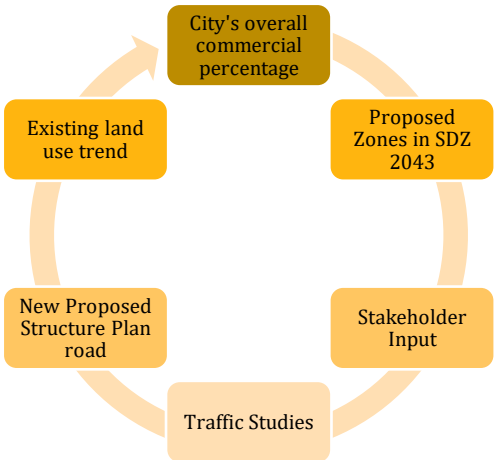
Figure 4-1: Analysis of Notified Commercial (List-A) Roads



4.1.2 Review Mechanism for List B Roads

All roads where commercialization is frozen will be reviewed to assess their potential for commercialization based on existing land use, proposed land use zones, stakeholder feedback, and findings from the transportation study. Additionally, new linkages proposed in the SDZ Structure Plan will also be evaluated for their potential to serve as commercial roads. The decision to consider List B roads for commercial use and recommend their inclusion in List A results from a comprehensive assessment aimed at balancing economic development with sustainable urban growth. The figure summarizes the methodology used for this review.

Figure 4-2: Review of Notified (List-B) Roads



4.2 Review & Recommendation for Continuation of Commercial Use

The Land Use Plan harmonizes different land uses and ensures a balanced distribution, considering land use suitability factors. Commercial activity is a significant land use that greatly influences urban dynamics and can impact the performance of other urban systems, such as transportation. To manage the spread of commercial activity along city roads, all roads are classified into two categories. The first category, known as Notified Commercial (List-A) Roads, allows commercial activity, enabling property owners to convert their properties into commercial use after following the proper procedures. The second category, List B roads, prohibits commercial activity, and properties on these roads cannot be converted for commercial use.

The Review of Notified Roads report thoroughly presents the Notified Commercial (List-A) Roads of Sialkot district, as outlined under Chapter III (Enlistment and Review of Listed Roads) of the Punjab Local Government Land Use Plan (Classification, Reclassification, and Redevelopment) Rules, 2020 - Rule 12.

4.3 List of Roads Proposed for Continuation as Commercial Segment

The identified segments from the proposed structure plan roads, as well as the existing roads recommended for commercialization under List-A notification are given in the table below.

Table 4-1: Roads/Segments (List A) Recommended to Continue as Commercial Roads in District Sialkot

Road #	Road Name	Start Point	End Point	Verified ROW	Recommendation
Tehsil Sialkot					
1.	Eid Gah road naya miana pura	Lunda Phatak	Iqbal Town	18'	Continue as list A Recommended G+2 setback
2.	Greenwood street 1	32°29'32.25"N 74°32'1.81"E	Jamnu Moh. Molvi Ibrahim wali gali & Tehsil Bazar	15'	Continue as list A Recommended G+2 setback
3.	Bonkan road 1 / Liaqat shaheed road	32°30'34.75"N 74°30'24.06"E	Bounkan Chowk	30'	Continue as list A Recommended 10' setback
4.	Latifabad road	32°30'21.75"N 74°29'55.94"E	Sui Gas Office	32'	Continue as list A Recommended 10' setback
5.	Roras road	Shahab Pura road	Defence road	30'	Continue as list A Recommended 10' setback
6.	Murray College Road	Mori Gate	Overhead bridge	45'	Continue as list A Recommended 10' setback
7.	Greenwood street 2	Railway road	Chowk dara arrian	20'	Continue as list A Recommended G+2 setback
8.	Taj Pura road	32°29'33.08"N 74°31'52.86"E	Chowk dara Arrian	20'	Continue as list A Recommended G+2 setback
9.	Jammat Khana road	Chowk Islamabad	Hakeem Aslam	30'	Continue as list A Recommended 10' setback
10.	Moh. Chiragh Pura road	32°29'19.51"N 74°32'9.36"E	32°28'45.31"N 74°31'29.66"E	80'	Continue as list A Recommended 20' setback
11.	Bogra road	32°28'45.31"N 74°31'29.66"E	32°28'23.37"N 74°31'5.98"E	100'	Continue as list A Recommended 10' setback
12.	Gali Buddan Shah wali	Tehsil Bazar	Haji Pura Chowk	18'	Continue as list A Recommended G+2 setback
13.	Rang pura Bun Road	32°29'19.16"N 74°33'40.87"E	Kakywali bun	25'	Continue as list A Recommended 10' setback
14.	Bank road	Kingra road MCB Bank	Ruby Sweets	25'	Continue as list A Recommended 10' setback
15.	Moh. Chiragh Pura road	Church road	Bagh Mai Sabraan	18'	Continue as list A Recommended G+2 setback
16.	Gohad Pur Murad Pur Road Bazar	Islamia School	Marala road Nawa Pindd Chowk	15'	Continue as list A Recommended G+2 setback
17.	Kotla Amban wala road	32°28'12.87"N 74°32'51.49"E	End of MC limits	30'	Continue as list A Recommended 10' setback
18.	Zinda Peer road	32°28'57.77"N, 74°33'41.83"E	Nalah Aik	20'	Continue as list A Recommended G+2 setback
19.	Bonga Road	32°28'55.38"N 74°33'18.86"E	Jodhy wali	18'	Continue as list A Recommended G+2 setback
20.	Gala Mehar Billu wala	32°29'36.64"N 74°33'4.29"E	32°29'44.16"N 74°33'5.04"E	30'	Continue as list A Recommended 10' setback
21.	Kaky wali Road	Kaky wali Kingra road	Bilal Town Kaky wali Puli,	30'	Continue as list A Recommended 10' setback

Road #	Road Name	Start Point	End Point	Verified ROW	Recommendation
22.	Tower Road	Kamela Road	Rang pura road	18'	Continue as list A Recommended G+2 setback and 10' Setback
23.	Miana Pura road	Cheema chowk	32°29'41.05"N 74°31'19.73"E	12'	Continue as list A Recommended G+2 setback
24.	Aamanat Pura Road	Circular road	Jammu road	25'	Continue as list A Recommended 10' setback
25.	Boota Road	Kashmir road	Khangah Ghorry wali & along embankment nallah bhed to Rizwan colony	25'	Continue as list A Recommended 10' setback
26.	Water Works Gala Phatak - Segment 1	32°29'46.55"N 74°32'17.56"E	32°29'51.67"N 74°32'15.51"E	70'	Continue as list A Recommended 20' setback
27.	Water Works Gala Phatak - Segment 2	32°29'59.49"N 74°33'7.50"E	32°29'52.84"N 74°33'11.43"E	15'	Continue as list A Recommended G+2 setback
28.	Jail Road	32°30'31.43"N 74°31'43.27"E	32°30'36.18"N 74°31'35.93"E	60'	Continue as list A Recommended 20' setback
29.	Islamia Park road	Classico chowk	Jail road Pulli	30'	Continue as list A Recommended 10' setback
30.	Nishat Park road	Paris road	Graveyard	35'	Continue as list A Recommended 10' setback
31.	Rawail Garha Road	32°29'0.41"N 74°30'36.75"E	32°28'50.69"N 74°30'4.09"E	25'	Continue as list A Recommended 10' setback
32.	Ajmal Garden Road	Adalat Garha Phatak	Link Shatab Garha road	20'	Continue as list A Recommended 10' setback
33.	Sahowala Link Road	32.467, 74.473	32.457, 74.425	15'-20'	Recommended for List A with proposed rehabilitation for ROW of 150 ft in SDZ
34.	Roras Road	32.505, 74.423	32.495, 74.462	15'-25'	Recommended for List A with proposed rehabilitation for ROW of 150 ft in SDZ
35.	P3-(2043)	32.444, 74.44	32.426, 74.470	-	Recommended structure plan road with ROW of 150 ft
36.	S1-(2043)	32.455, 74.479	32.439, 74.430	-	Recommended structure plan road with ROW of 60 ft
37.	S2-(2043)	32.440, 74.430	32.456, 74.479	-	Recommended structure plan road with ROW of 60 ft
			Tehsil Sambrial		
38.	Same Nali Road	Daska Sambrial Road	Canal Road	20'-30'	Recommended for List A Recommended setback 10 ft
39.	Firdous Pura Road	Daska Sambrial Road	Catholic Church Firdous Pura	16'-6''	Recommended for List A Recommended Height restriction G+2
40.	Buchar khana Road	Sialkot Wazirabad Road	Majra Road	15'-20'	Recommended for List A Recommended Height restriction G+2
41.	Tehsil Head Quarter Hospital Road	Daska Sambrial Road	Tehsil Head Quarter Hospital	18'-22'	Recommended for List A Recommended setback 10 ft
42.	Bund Phatak Road	Sialkot Wazirabad Road	Railway Line	30'-40'	Recommended for List A Recommended setback 10 ft
43.	Segment of P1 (2043) Proposed road along Sambrial Aik Connecting Drain	Intersection of Sambrial Aik Connecting Drain with Begowala link (32.466, 74.338)	Canal Road Intersection (32.459, 74.359)	-	Recommended for List A Proposed ROW of 120ft with 20ft setback in SDZ
			Tehsil Daska		
44.	Gala Talian wala	Chowk Sambrial Road	Chowk Circular Road Grade station	20'	Recommended for List A Recommended Height Restriction G+2
45.	Shahedan wala Gala	Chowk Shahidan road	Chowk Circular Road	20'	Recommended for List A Recommended Height Restriction G+2
46.	Ladhey Road/Pasrur By-pass Road	Chowk Family Hospital	Ladhey Road Mubeen Chowk	80'	Recommended for List A Recommended setback of 10'
47.	Canal Road	Shahbaz Sharif Park	Canal Bridge Daska	50'	Recommended for List A Recommended setback of 10'
48.	Jando Road	Cheema Hospital Chowk	Canal View Town	50'	Recommended for List A Recommended setback of 10'
49.	Changa Road	Chowk Daska Gujranwala Road	Village Chowk Changa	40'	Recommended for List A Recommended setback of 10'
50.	Jamkay Road-II	Chowk Noor Masjid	Chowk Jinnah Chowk	40'	Recommended for List A Recommended setback of 10'

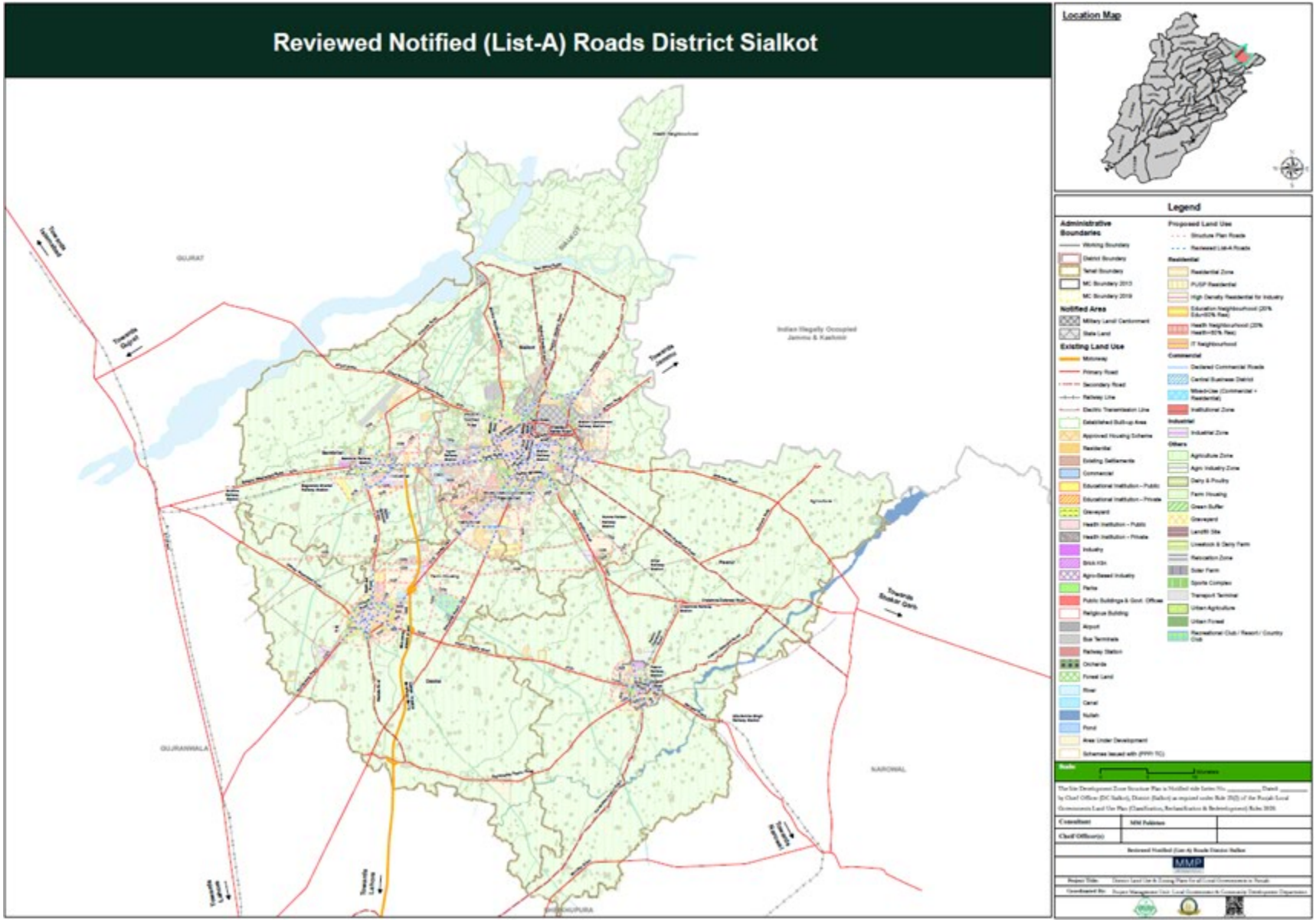
Road #	Road Name	Start Point	End Point	Verified ROW	Recommendation
51.	Gala Chicken Munch	Link Gala Bank Road	Link Gala Circular Road	60’	Recommended for List A Recommended setback of 10'
52.	Muslim Market	Link Gala Bank Road	Link Circular Road	30’	Recommended for List A Recommended setback of 10'
53.	Gala Godam wala	Link Gala Sambrial Road	Link Gala Itehad CNG Circular Road	30’	Recommended for List A Recommended setback of 10'
54.	Gala Barkt Town	Chowk Govt.Degree College boys	Chowk Pasrur Road	40’	Recommended for List A Recommended setback of 10'
55.	Jamshed Road	Link College Road	Link Pasrur Road	40’	Recommended for List A Recommended setback of 10'
56.	Rustam Road	Rustam Road/Link College Road	Pasrur Road Al- Noor Marque	40’	Recommended for List A Recommended setback of 10'
57.	Sabzi Mandi/ Kachahri Road	Chowk Pasrur Bypass New Kachahri Road	BRB Canal Bridge Bahrokay	110’	Recommended for List A Recommended setback of 20'
58.	Main Sabzi Mandi Road Area with Link Gala.	Link Pasrur Road Sabzi Mandi	Link New Kachahri Road	40’	Recommended for List A Recommended setback of 10'
59.	Gala National Bank wala	Gala Abdullah Book Depo	Canal BRB with Gala Toheed Iqbal Butt	30’	Recommended for List A Recommended setback of 10'
60.	Pull Nehar Road judicial complex	Office Agriculture Road	New Kachahri Road to judicial complex	80’	Recommended for List A Recommended setback of 10'
61.	Gala Khan Hotel	Chowk Patwarkhana	Awais Chowk Model Town	25’	Recommended for List A Recommended setback of 10'
62.	Gala Cheenah Advocate Wala	Dera Cheenah wala	Chowk Model Town Kothi Moran wali	20’	Recommended for List A Recommended Height Restriction G+2
63.	Gala Haji Ghulam Hussain Gujar	Lari Ada Chowk	Gala Tohide Iqbal Butt	16’	Recommended for List A Recommended Height Restriction G+2
64.	Gala Al-Harrm Town	Link Gala New Kachahri/Sabzi Mandi Road	Gate Al-Haram Town	80’	Recommended for List A Recommended setback of 10'
65.	Pasrur Road Link Gala	Gala Al-Haram Town	Main Gate AL- Haram Town	80’	Recommended for List A Recommended setback of 10'
66.	Gala Ishfaq Rice Mill wala	Circular Road	Ishfaq Rice Mill	40’	Recommended for List A Recommended setback of 10'
67.	Gala Hakeem Yaseen wala	Masjid Nawab Din	Circular Road	20’	Recommended for List A Recommended Height Restriction G+2
68.	Gala Lodhi Town wala	Stadium Road	Lodhi Town	40’	Recommended for List A Recommended setback of 10'
69.	P4-2043	Intersection at Bharoke road (74.373 E 32.318 N)	Road Segment of one city Housing scheme (extension) 74.364 E 32.306 N	120’	Recommended as List A To be upgraded up to 120ft Recommended setback of 20'
70.	P11-2043	Intersection at Jamke road and Bypass Road (74.372 E 32.347 N)	Jamke Road 74.371 E 32.385 N	120’	Recommended as List A To be upgraded up to 120ft Recommended setback of 20'
Tehsil Pasrur					
71.	Peer Jahaniya Road	Ghala Mandi National Bank (32.26616 N 74.66261 E)	Peer Jahaniya Graveyard (32.26708 N 74.66176 E)	20’	Recommended for List A Recommended Height restriction G+2
72.	Gali Arainyan	Filter point (32.26493 N 74.66029 E)	Loharan Mandi (32.264194 N 74.661942 E)	20’	Recommended for List A Recommended Height restriction G+2
73.	Main Bazar/ Mehmood Butt Street	Intersection of Asif Razzaq Street and Main Bazaar (32°15'45.27"N 74°39'47.55"E)	Gate Kakayzainyian (32.260947 N 74.663673 E)	8’	Recommended for List A Recommended Height restriction G+2
74.	Main Bazar/ Main Street	Daniyal traders shopping mall (32°15'56.76"N 74°39'39.96"E)	Main bazar Kakayzainya (32.26370 N 74.66319 E)	5’	Recommended for List A Recommended Height restriction G+2
75.	Circular road (Pasrur-Zafarwal road)	Chowk Khokhran (32.26141 N 74.66021 E)	Laal Masjid (32°15'39.13"N 74°39'49.21"E)	50’	Recommended for List A Recommended 10’ setback

Road #	Road Name	Start Point	End Point	Verified ROW	Recommendation
76.	Civil Hospital Road	Al-Shifa Medical Complex (32°15'50.57"N 74°39'20.92"E)	HUS construction (32°15'53.20"N 74°38'43.08"E)	40'	Recommended for List A Recommended 10' setback
77.	Daska-Pasrur Road	Superior College Girls Campus Pasrur (74.627 E 32.271 N)	Auto workshop (32.271 E 74.644 N)	100'	To be demarcated as list A To be upgraded as 100' road in SDZ Recommended 20' setback
78.	Pasrur-Gujranwala Road	Zeeshan Filling Station (74.633 E 32.247 N)	Maqbool Marriage Hall 74.648 E 32.255 N	100'	To be demarcated as list A To be upgraded as 100' road in SDZ Recommended 20' setback
79.	S1-2043 (Chand Road)	Abdullah college of health sciences pasrur (74.671 E 32.260 N)	End point of SDZ Limit (74.678 E 32.257 N)	80'	To be demarcated as list A To be upgraded as 80' road in SDZ Recommended 20' setback
80.	S2-2043 (Godha Road)	Intersection of Pasrur road and Godha Road (74.652 E 32.281 N)	End point of SDZ Limit (74.629 E 32.282 N)	80'	To be demarcated as list A To be upgraded as 80' road in SDZ Recommended 20' setback
81.	WS3-2043 (Nanglian Road)	Intersection of Pasrur-Gujranwala Road and Nangalian Road (74.643 E 32.252 N)	Intersection of Sialkot Road and Nangalian Road (74.659 E 32.252 N)	60'	To be demarcated as list A To be upgraded as 60' road in SDZ Recommended 20' setback
82.	Sharm Kot Road	Intersection of Dulamwala Road and Proposed primary road P2 (74.627 E 32.256 N)	Intersection of Dulamwala Road and Sharm kot road (74.641 E 32.256 N)	80'	To be demarcated as list A To be upgraded as 80' road in SDZ Recommended 20' setback

Integration of Reviewed Commercial Roads

- The consultant has integrated the review of commercialized roads as an essential part of the SDZ Structure Plan review process. This approach ensures that roads under commercialization are comprehensively evaluated and aligned with the overall development strategy.

Map 12: Reviewed Notified List-A Commercial Roads, District Sialkot



CHAPTER 5

DISTRICT LAND USE AND ZONING PLAN

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DISTRICT LAND USE AND ZONING PLAN

The District Connectivity Plan for Sialkot addresses the challenges of increasing mobility, congestion, and the need for sustainable transportation. As Sialkot evolves into a potential economic hub, the plan provides context-specific recommendations to create a well-connected and accessible region, ensuring efficient movement, enhanced safety, and improved quality of life.

The plan adopts a comprehensive approach, focusing on inter- and intra-district connectivity by improving existing infrastructure and proposing new routes. By employing data-driven analysis, engaging stakeholders, and applying best practices in transportation planning, the goal is to optimize the current system and adapt to future growth and changing mobility patterns. The plan also includes proposals for a ring road/bypass and a network of primary, secondary, and link roads, along with the rehabilitation of existing roads through widening. These efforts aim to enhance connectivity within the district and with other regions, supporting Sialkot's growth and sustainable development.

5.1 Recommendation for Existing Infrastructure Improvement

The recommendations include the road improvements, widening, and rehabilitation based on transportation studies.

5.1.1 Intercity Corridors

A total of ten (10) intercity corridors (primary roads) with 300 ft ROW are proposed on major roads connecting cities and key landmarks. These corridors will boost the Sialkot region's economy by improving accessibility and transportation efficiency for goods and services, supporting future growth. Detailed descriptions of these roads are provided below:

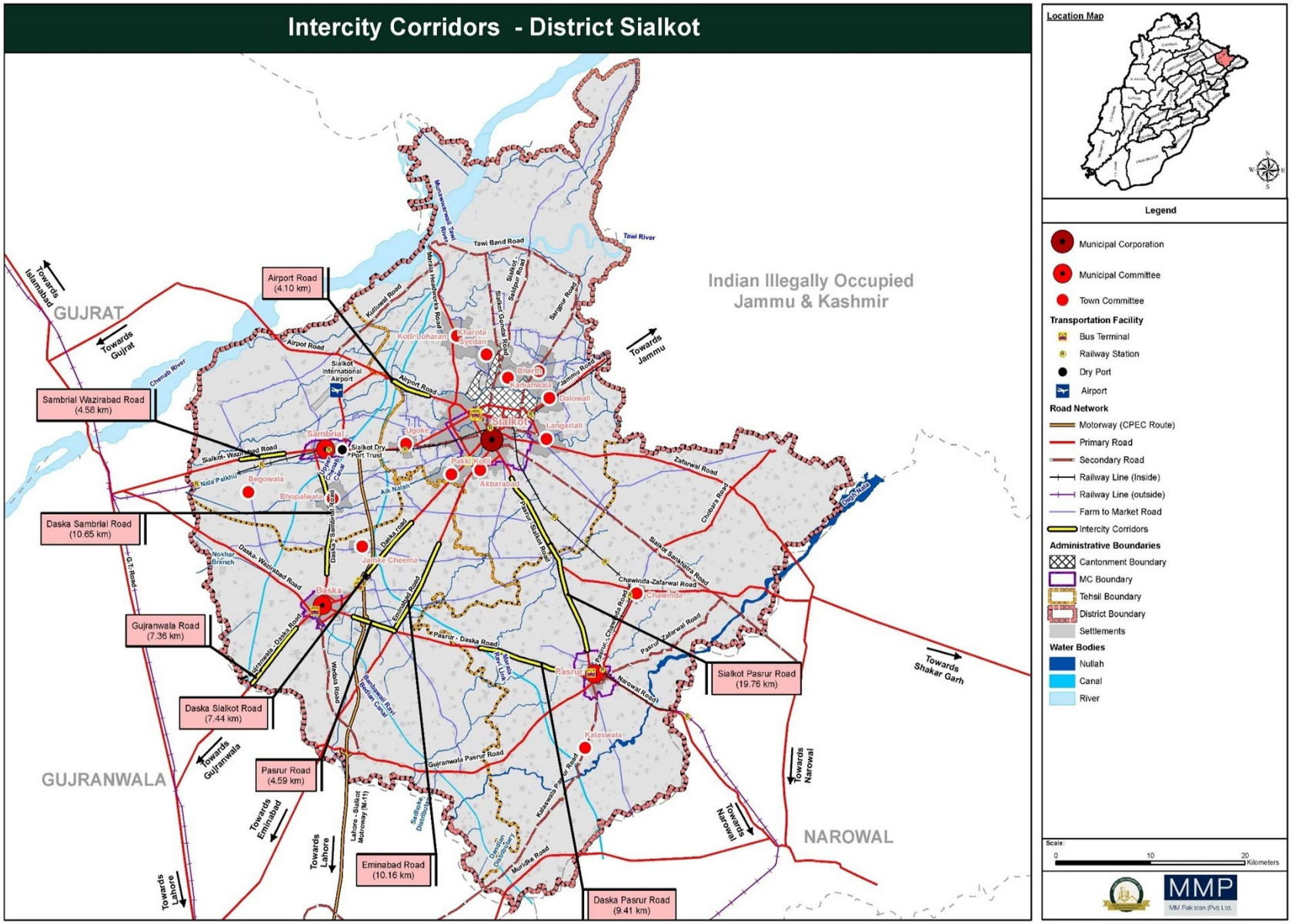
- **Airport Road:** Connects Sialkot city with Sialkot International Airport. The road has a high percentage of commercial activity (73.60%). Designating it as an intercity corridor will enhance connectivity to the airport, benefiting economic activity and infrastructure.
- **Sialkot-Pasrur Road:** The longest proposed corridor at 19.76 km, split into Sialkot Pasrur Road-I (7.73 km) and Sialkot Pasrur Road-II (12.03 km). This primary connection between Sialkot and Pasrur faces increasing traffic due to economic growth. It connects with the high-commercial activity Dodha Road and supports future development trends.
- **Daska-Sialkot Road:** This corridor is a key industrial route connecting Daska and Sialkot. It supports commercial and industrial activities, aligning with the Gujranwala development plan, which identifies this road as part of the "Golden Triangle" for industries.
- **Daska-Sambrial Road:** Both ends of this corridor are characterized by significant commercial activity, especially in Daska and Sambrial. Designating this route as an intercity corridor will enhance economic connectivity, especially for the growing town of TC Bhopalwala, which lies on this corridor.
- **Eminabad Road:** This road stretches 10.17 km and connects the proposed SDZ in Sialkot to agro-farms and rural areas, improving the connectivity of agricultural products and supporting industrial activities in both Sialkot and the surrounding rural regions.
- **Pasrur Road:** This corridor connects the rural settlements with educational institutions and healthcare facilities, improving accessibility for residents and local commerce.
- **Daska-Pasrur Road:** This corridor serves as a critical link for the transport of building materials and goods between Daska and Pasrur. The route supports prevailing economic activities of building materials and a significant number of rural settlements with schools and BHU.
- **Gujranwala Road:** This road is important for industrial development, identified in the Gujranwala development plan. The corridor will serve ongoing industrial expansion, along with significant real estate development projects.

- **Sambrial-Wazirabad Road:** This corridor addresses heavy traffic flow by providing access to the Export Processing Zone, institutional zones, and secondary roads leading to the airport. The proposed bypass in Sambrial will ease congestion, further enhancing economic connectivity.

Table 5-1: Proposed Intercity Corridors in District Sialkot

Road Name	ROW (ft)	Length (km)	Start X	Start Y	End X	End Y
Airport Road	300	4.10	74.43115	32.54215	74.47124	32.52843
Sialkot Pasrur Road-II		7.73	74.56528	32.45193	74.60684	32.39232
Daska Sialkot Road		7.44	74.401	32.35941	74.45285	32.4097
Daska Sambrial Road		10.66	74.35027	32.45554	74.35809	32.36172
Eimanabad Road		10.17	74.48362	32.39029	74.43396	32.30904
Pasrur Road		4.60	74.43379	32.30871	74.38798	32.32184
Daska Pasrur Road		9.41	74.6267	32.27126	74.53082	32.2931
Gujranwala Road		7.37	74.32375	32.31082	74.27499	32.25888
Sambrial Wazirabad Road		4.59	74.30859	32.47372	74.26024	32.46806
Sialkot Pasrur Road-II		12.03	74.60684	32.39232	74.65101	32.29149

Map 13: Proposed Intercity Corridors in District Sialkot



5.1.2 Proposed Roads Widening

A total of two (02) roads are proposed for a 100ft widening to meet the current needs and support future development in the district, enhancing overall connectivity. Detailed descriptions of these roads are provided below:

Badiana Road: This road connects Gojra Ghumman with Pero Chak, Motra, and Adamke Cheema.

Jagatpur Road: Connecting Sambrial to Dhanawali and Sialkot International Airport, the proposed widening will enhance the link between Sambrial and the airport.

Table 5-2: Rehabilitation of Existing Primary Roads in District Sialkot

Road Name	ROW (ft)	Length (km)	Start X	Start Y	End X	End Y
Jagatpur Road	100	4.78	74.34573435	32.49379409	74.37149299	32.52790013
Badiana Road		18.36	74.616433	32.3787059	74.423886	32.382848

5.1.3 Proposed Roads in Area Development Plan for District Sialkot

To prepare the comprehensive District Connectivity Plan, review of ADP Schemes roads has been done for District Sialkot and proposed roads have been identified for the district which is shown in below table.

Table 5-3: Area Development Plan Proposals for Road Network Development in District Sialkot

Sr. No.	Name	Status
1	Construction of Road from Manjipur to MangaPull	Approved
2	Rehabilitation/Improvement of Road from Sambrial Dry Port Chowk to Sialkot Airport	
3	Reconstruction/Rehabilitation of Ugoke Road	
4	Construction of Road from from Sokanwind via Ratta Jhatol, Basopanno, Jiowali to Hanjra	
5	Rehabilitation/Improvement of Jammu Road	
6	Rehabilitation/Widening of Sialkot Bhagowal Road	
7	Dualization of Pasrur-Sialkot Road	
8	Dualization of Sialkot Eminabad Road upto Dharam Kot	
9	Construction of Dual Carriageway from Daska to Sambrial	
10	Construction of Metalled Road from Nandipur to Goindke	
11	Rehabilitation/Construction of Road from Bismillah Chowk to Rashara via Rehmat Abad i/c Link Malanay	
12	Construction of road from Qila Ahmedabad to Dhoda via Takhatpur	
13	Construction of road from Bajra Garhi to Virk to Kak to Chahr Bajwa to Kandal to Adda Kakhanwali	
14	Construction of road from Dhulam Kahlwan to Tatar Pur to Joya to Khido Chak to Pindi Minhasan	
15	Rehabilitation/Improvement of Wazirabad Daska Road	Unapproved
16	Rehabilitation /Improvement of Badiana-Chawinda-Zafarwal Road at Adda Chawinda	
17	Construction/Rehabilitation of road from Head Bombanwala to Nikka Kala	
18	Construction/Rehabilitation of road from Civil Hospital to Bambanwala	
19	Construction/ Rehabilitation of road from Bambawala to Bhakariali	
20	Rehabilitation /Improvement of road from Chak Chohar to Rangpur Pull	
21	Rehabilitation/Widening/ Improvement of Road from Adda Khoje Chak to Sadar Pura	
22	Construction of road from Goindkey to Naukarian	
23	Rehabilitation / Improvement of Sialkot-Marala Road (Balance Portion)	
24	Rehabilitation/Improvement/Widening of Moutra-Badiana Road	

5.1.4 Proposals for New Connections

The proposed roads in District Sialkot are categorized into three types: ring roads/bypasses, primary roads, and secondary roads. These are designed to support future development and enhance connectivity within the district.

- **Ring Roads:** Two ring roads, one inner and one outer, are proposed around Sialkot City. With a 200 ft right-of-way (ROW), these ring roads connect Airport Road at one end and Ghalib Road and Pasrur Road at the other. The total lengths are 34.039 km (P1-2043) and 30.034 km (P2-2043). These roads will provide fast routes for intra- and inter-district traffic, bypassing Sialkot City and connecting to other cities such as Daska, Pasrur, and Sambrial. They will also serve proposed zones in the Sialkot Development Zone (SDZ), including residential areas, health and education neighborhoods, and agricultural zones.
- **Bypasses for Daska City:** Three bypasses, with a 150 ft ROW (P4-2043, P5-2043, and P6-2043), are proposed to form a ring around Daska City. These will connect Daska with M-11, Daska-Sialkot Road, Daska-Gujranwala Road, Daska-Wazirabad Road, and Daska-Sambrial Road, reducing traffic within Daska by providing efficient routes to Sambrial, Sialkot, Pasrur, and Gujranwala.
- **Bypasses for Sambrial and Pasrur Cities:** The existing road around Sambrial City will be widened to 150 ft ROW (P3-2043) to serve as a bypass connecting east and west sides of Sialkot-Wazirabad Road. Additionally, P7-(2043) and P8-(2043) are proposed as bypasses for Pasrur City with a 150 ft ROW, linking Narrowal-Pasrur Road, Gujranwala-Pasrur Road, Daska-Pasrur Road, and Sialkot-Pasrur Road.

Detailed descriptions of these roads are provided below:

Table 5-4: Proposed Ring Roads/Bypasses in District Sialkot

Road Name	Road Type	ROW	Length	Start X	Start Y	End X	End Y
P1-(2043)	Primary Road-I	200	34.039	74.60253101	32.5639241	74.47070636	32.52849457
P2-(2043)		200	30.024	74.59677553	32.40842975	74.43817414	32.53882723
P3-(2043)	Primary Road-II	150	10.32	74.30859449	32.47371708	74.37886894	32.47832133
P4-(2043)		150	6.880	74.32375307	32.31082128	74.38766374	32.32158097
P5-(2043)		150	11.210	74.32375307	32.31082128	74.39876532	32.36240992
P6-(2043)		150	2.852	74.38801679	32.32193711	74.38782559	32.34513838
P7-(2043)		150	5.558	74.63331788	32.24746041	74.68354508	32.26189839
P8-(2043)		150	6.618	74.65003427	32.29576548	74.63331788	32.24746041

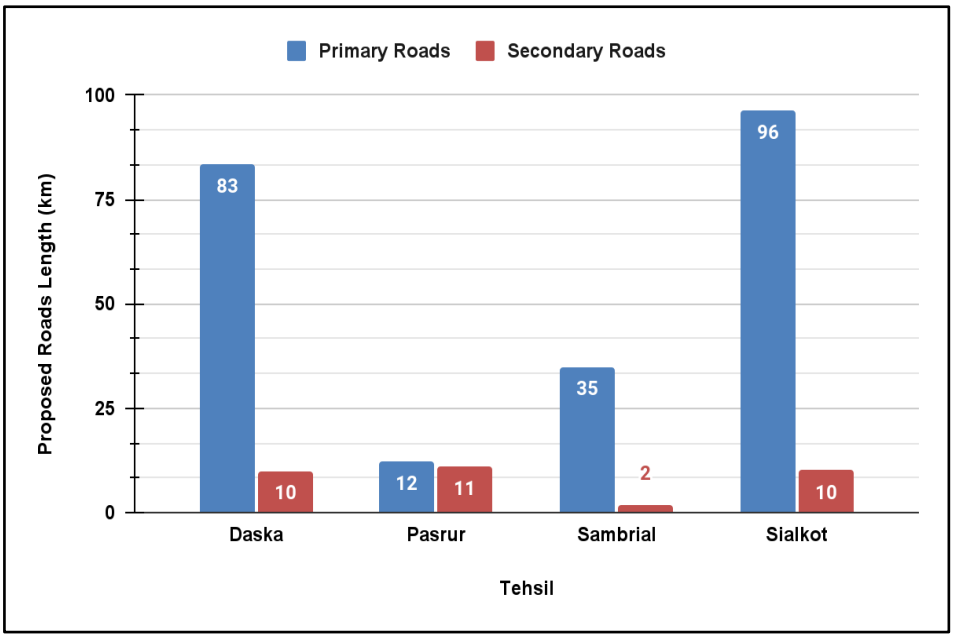
All the proposed bypasses/ring road (outer) linked with the proposed intercity corridors and proposed new roads in the Sialkot District will provide improved and fast connectivity for traffic movement, while, supporting the future development within the district especially for Site Development Zones (SDZ's) by providing connectivity to commuters between existing and future landuses. The below table is listed with three (3) proposed primary roads within the district with 120 ft right of way named P9-(2043), P10-(2043), and P11-(2043).

Table 5-5: Proposed Primary Roads in District Sialkot

Road Name	Road Type	ROW	Length	Start X	Start Y	End X	End Y
P9-(2043)	Primary Road-III	120	5.516	74.46511463	32.354792	74.40862441	32.36734919
P10-(2043)		120	7.905	74.41554615	32.31430781	74.44772094	32.37848776
P11-(2043)		120	**5.543**	74.39042681	32.38508274	74.43664556	32.39544344

Overall, the primary roads (widening and new roads) of 96 km have been proposed in the Tehsil Sialkot while secondary roads are of 10 km. Similarly, primary roads with length of 83 km, 12 km, and 35 km have been proposed in Daska, Pasrur, and Sambrial while, the proposed secondary roads length is 10 km, 11 km, and 2 km

Figure 5-1: Tehsil-wise Proposed Roads in District Sialkot

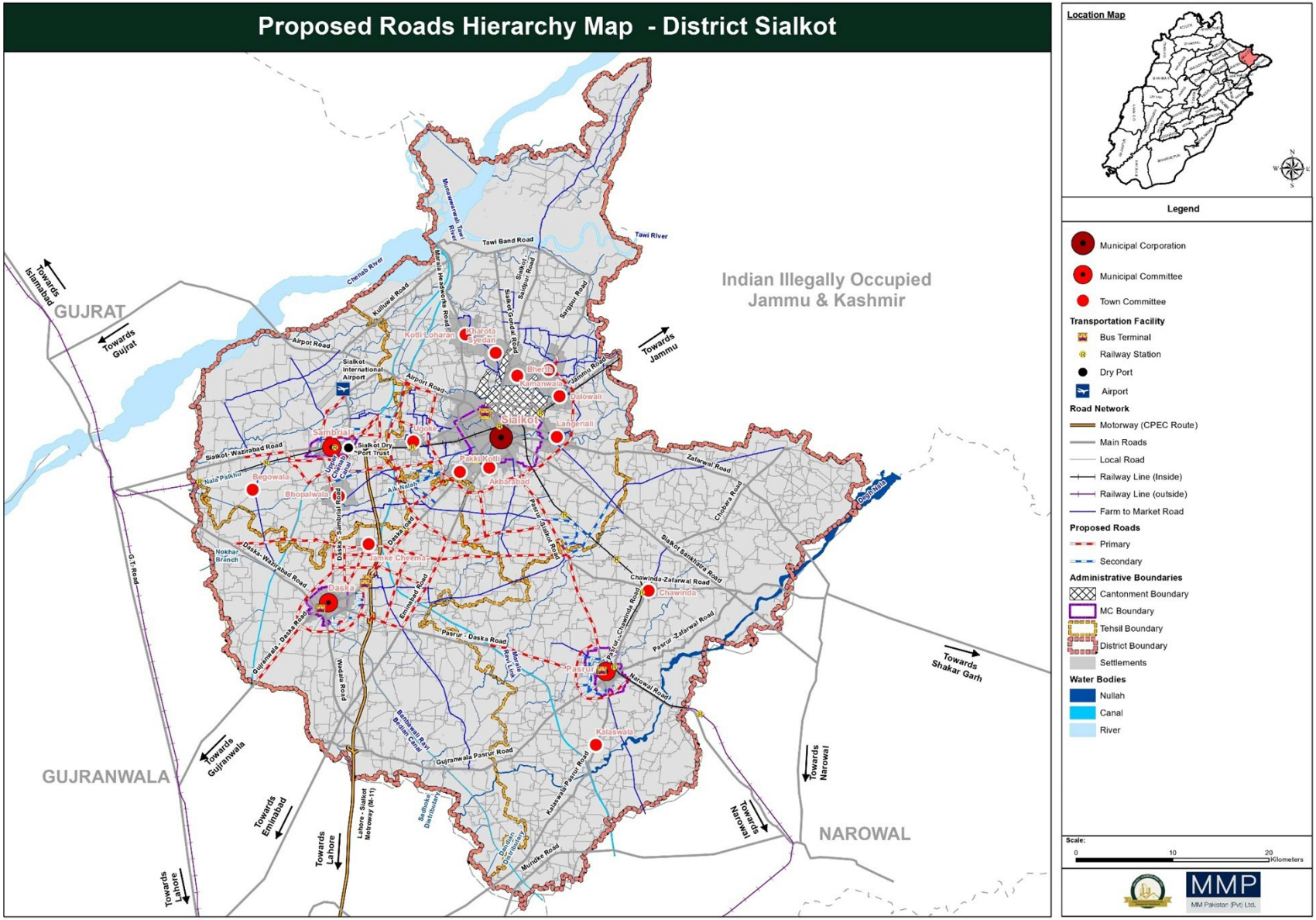


5.2 Nullah's and Drains

The district contains a Nullah (drain) that flows through the project area. Proper mapping of these water bodies is crucial, as encroachments along Nullahs contribute to disorganized development and increase the risk of flash floods. To safeguard the natural integrity of the area, detailed mapping has been conducted. To address this issue, the Right of Way (ROW) for Nullahs and drains has been proposed. According to revenue records, the ROW for the existing Nullah running through the proposed zones has been demarcated. Buffers have been introduced around each water body according to their hierarchy.

As per the River Protection Act, a 50-foot buffer is required on both sides of Nullahs and drains within settlement boundaries, resulting in a total ROW of 100 feet for the Nullah passing through the proposed residential zones.

Map 14: Proposed Road Hierarchy Map of District Sialkot



5.3 District Land Use and Zoning Plan

The District Land Use and Zoning Plan for Sialkot provides a comprehensive framework for urban and regional development across the district. It integrates existing land use patterns, administrative boundaries, proposed site development zones, economic activity hubs, allied agricultural zones, and a comprehensive network of structure plan roads. The plan aims to optimize land resource utilization, ensuring orderly development in line with regulatory requirements and growth projections.

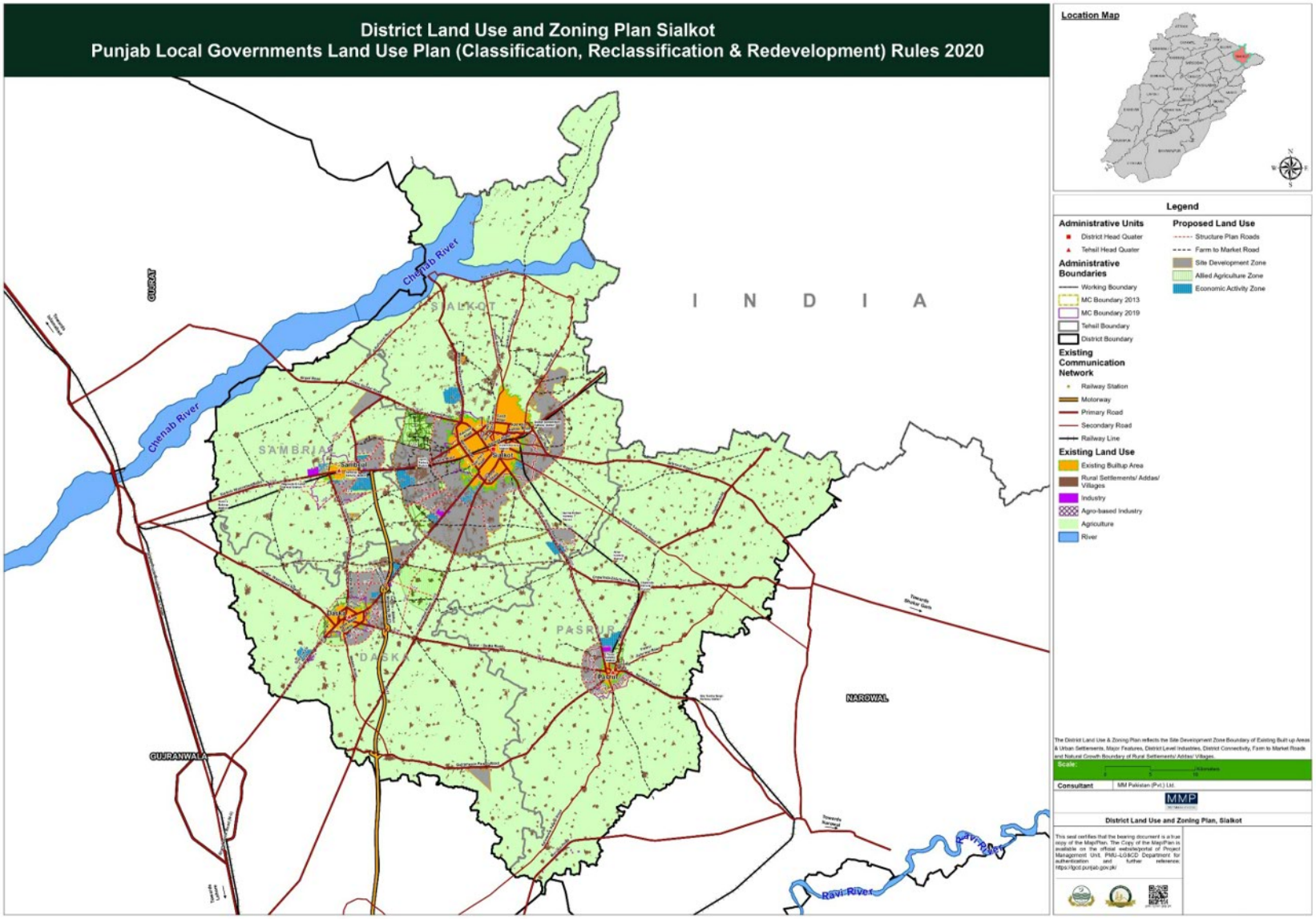
This plan consolidates Established Built-up Areas (EBAs), Site Development Zones (SDZs), and delineated growth boundaries for settlements across the district. It covers the Site Development Zone (SDZ) Structure Plans for seven Municipal Corporation/Committees (Sialkot, Pasrur, Daska, and Sambrial) and potential urban settlements. These spatial components are systematically aligned to ensure uniformity in planning and zoning strategies, addressing urban expansion and rural growth simultaneously.

The plan incorporates zoning principles to proposed specific land uses effectively. Site Development Zones (SDZs) are proposed to plan the urban expansion areas and mitigate unplanned sprawl. Economic Activity Zones are identified to concentrate industrial, commercial, and service-oriented development activities, maximizing economic productivity. Allied Agricultural Zones are designated to sustain agriculture and agro-industrial activities, preserving the rural economy while integrating it with urban growth. These zoning provisions are complemented by detailed structure plan roads to enhance regional connectivity and support the transportation needs of economic corridors and settlement clusters.

In compliance with the Land Use Rules 2020 and the standing instructions issued on 17.09.2022, the plan ensures adherence to planning regulations, aligning all proposed interventions with legal standards. Detailed mapping and analysis underpin the zoning classifications, including the integration of List-A roads and the identification of future development zones.

The Land Use and Zoning Plan serves as a regulatory framework for the comprehensive spatial development of Sialkot. It ensures structured and sustainable land management by addressing the spatial requirements of residential, commercial, industrial, and agricultural activities. The plan supports infrastructure development, enhances regional connectivity, and fosters economic integration through precise zoning and development strategies. By employing rigorous technical methodologies and aligning with statutory regulations, this framework provides a clear and actionable roadmap for the district's long-term spatial planning and economic growth. This strategic and sustainable framework provide beyond the traditional zoning practices, addressing both current and future development needs while ensuring a cohesive and community-focused approach. The detailed land use plan including the existing land use classification, notified List-A roads as well as proposed Site Developments Zones has been shown in below map.

Map 15: District Land Use & Zoning Plan Sialkot



Planning Support System:

The Planning Support System is a comprehensive digital platform equipped with advanced tools to assist Local Governments in implementing and monitoring Land Use Plans. It generates Automated Zoning Reports, detects Land Cover Changes and supports policymakers in reviewing and updating the plans effectively. To access the portal, please visit:

http://pmu-lgcdd.gop.pk/portal/

Project Management Unit (PMU)

Local Government and Community Development Department

http://pmu-lgcdd.gop.pk/public/