



Government of the people's Republic of Bangladesh  
Ministry of Housing and Public Works  
Urban Development Directorate  
82 Segunbagicha, Dhaka-1000

PREPARATION OF DEVELOPMENT PLAN FOR MEHERPUR ZILLA

## REPORT ON ASSIGNMENT-8

Conduct Suitability Analysis of the Project Area required for Specific Sector

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Population projection of Meherpur Paurashava:

This Table presents the projected population of Meherpur Paurashava, Ward-wise from 2024 to 2046, following **Cohort Method** segmented into various demographic or administrative groups. The total population is expected to grow steadily over the next two decades, with notable trends across different segments that have implications for urban planning, resource allocation, and service delivery.

Year		2024	2026	2031	2036	2041	2046
Population	Ward 1	7599	9004	10409	11815	13220	14626
	Ward 2	4678	5249	5819	6390	6960	7530
	Ward 3	3256	3186	3115	3045	2975	2904
	Ward 4	7988	9863	11737	13611	15485	17360
	Ward 5	4683	5533	6382	7232	8081	8931
	Ward 6	3883	4278	4674	5069	5465	5860
	Ward 7	7390	8682	8724	8766	8808	8850
	Ward 8	4331	4576	4618	4660	4702	4744
	Ward 9	7855	10107	10149	10191	10233	10275
		51663	60478	65629	70780	75930	81081

Source: Prepared by Consultant,2025

Overview of Population Projection:

Ten distinct population groups are included in the projections. The last row represents the **total projected population** of Meherpur Paurashava.

Ward	2024	2026	2031	2036	2041	2046	Change (2024– 2046)	Trend
Ward 1	7,599	9,004	10,409	11,815	13,220	14,626	+7,027	High growth
Ward 2	4,678	5,249	5,819	6,390	6,960	7,530	+2,852	Steady increase
Ward 3	3,256	3,186	3,115	3,045	2,975	2,904	-352	Gradual decline
Ward 4	7,988	9,863	11,737	13,611	15,485	17,360	+9,372	Rapid expansion
Ward 5	4,683	5,533	6,382	7,232	8,081	8,931	+4,248	Strong growth
Ward 6	3,883	4,278	4,674	5,069	5,465	5,860	+1,977	Moderate rise
Ward 7	7,390	8,682	8,724	8,766	8,808	8,850	+1,460	Near saturation
Ward 8	4,331	4,576	4,618	4,660	4,702	4,744	+413	Stabilizing

Ward	2024	2026	2031	2036	2041	2046	Change (2024– 2046)	Trend
Ward 9	7,855	10,107	10,149	10,191	10,233	10,275	+2,420	Initial surge, then stable
Total	51,663	60,478	65,629	70,780	75,930	81,081	+29,418	Steady, substantial growth

Source: Prepared by Consultant, 2025

## Key Findings

- **Highest Growth:** Ward 4 shows the **highest projected population increase (+9,372)**, signaling a need for **targeted development** in **housing, roads, drainage, and utilities** in that ward.
- **Declining Population:** Ward 3 is the **only ward** projected to experience a **decrease (–352)**, possibly due to **aging population, out-migration, or economic stagnation**.
- **Stabilizing Wards:** Wards 7, 8, and 9 are expected to **plateau after 2031**. These may have reached **near-capacity** or reflect a **stabilizing birth/migration rate**.
- **Consistent Growth:** Wards 1, 2, and 5 show **healthy, consistent population increases** and may require **phased infrastructure scaling**.

## Settlement pattern distribution for Meherpur Paurashava:

The ward-level Nearest Neighbor Analysis (NNA) of Meherpur Paurashava demonstrates a predominantly **clustered spatial pattern** across the municipality. Out of the nine wards, **seven wards (01, 04, 05, 06, 07, 08, and 09)** exhibit **clustered distributions**, indicating a tendency for urban features or settlements to be spatially concentrated. This suggests that development or population density is more centralized in these areas, possibly due to economic activities, infrastructure, or historical growth patterns. **Ward No. 03** displays a **dispersed pattern**, which may point to more rural or low-density development, while **Ward No. 02** shows a **random distribution**, indicating no clear spatial tendency. These findings are crucial for urban planners and policymakers, as they highlight areas where resources are densely focused versus areas that may require more balanced development to ensure equitable service access across the Paurashava.

Ward No	RESULT
01	Clustered
02	Random
03	Dispersed
04	Clustered
05	Clustered
06	Clustered
07	Clustered
08	Clustered
09	Clustered

Source: Prepared by Consultant,2025

### **Ward-wise present settlement pattern of Meherpur Paurashava:**

**Ward no 01:** The settlement pattern of Ward No. 1 in Meherpur Paurashava is currently characterized as **clustered**. This pattern reflects a concentration of residential and commercial structures in close proximity, typically around key infrastructure or communal facilities. The clustered layout may have evolved due to socio-economic interactions, availability of services,

and traditional land use practices. It facilitates community cohesion but may also lead to challenges such as limited space for expansion, traffic congestion, and strain on public utilities.

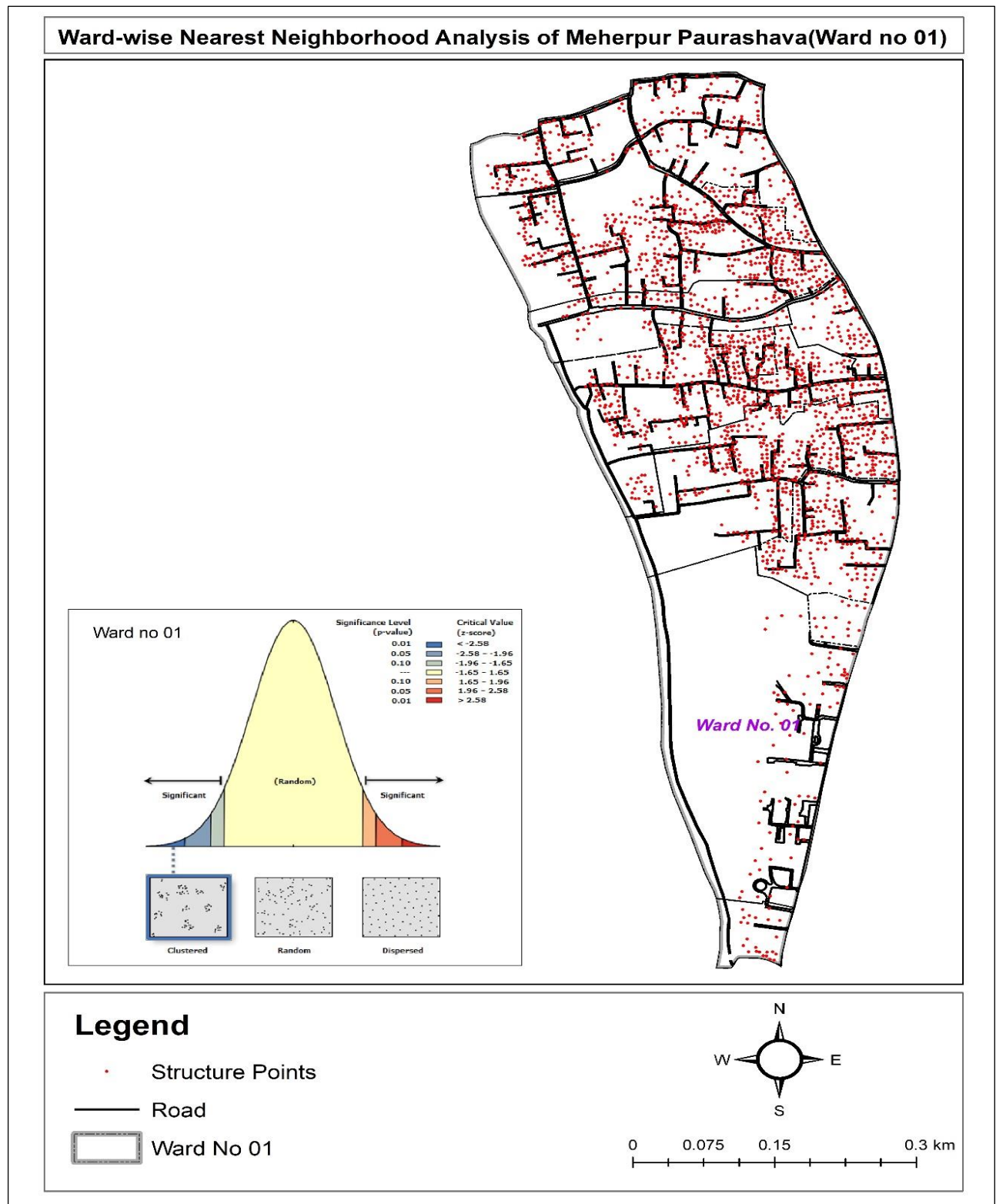


Figure: Nearest Neighborhood Analysis of Ward no 01

Source: Prepared by Consultant,2025

**Ward no 02:** The neighborhood pattern observed in Ward No. 2 of Meherpur Paurashava can be described as **random**. In this context, the term "random" refers to a lack of systematic spatial arrangement in the distribution of buildings and infrastructure. Structures are scattered irregularly, often without adherence to a formal layout or zoning plan.

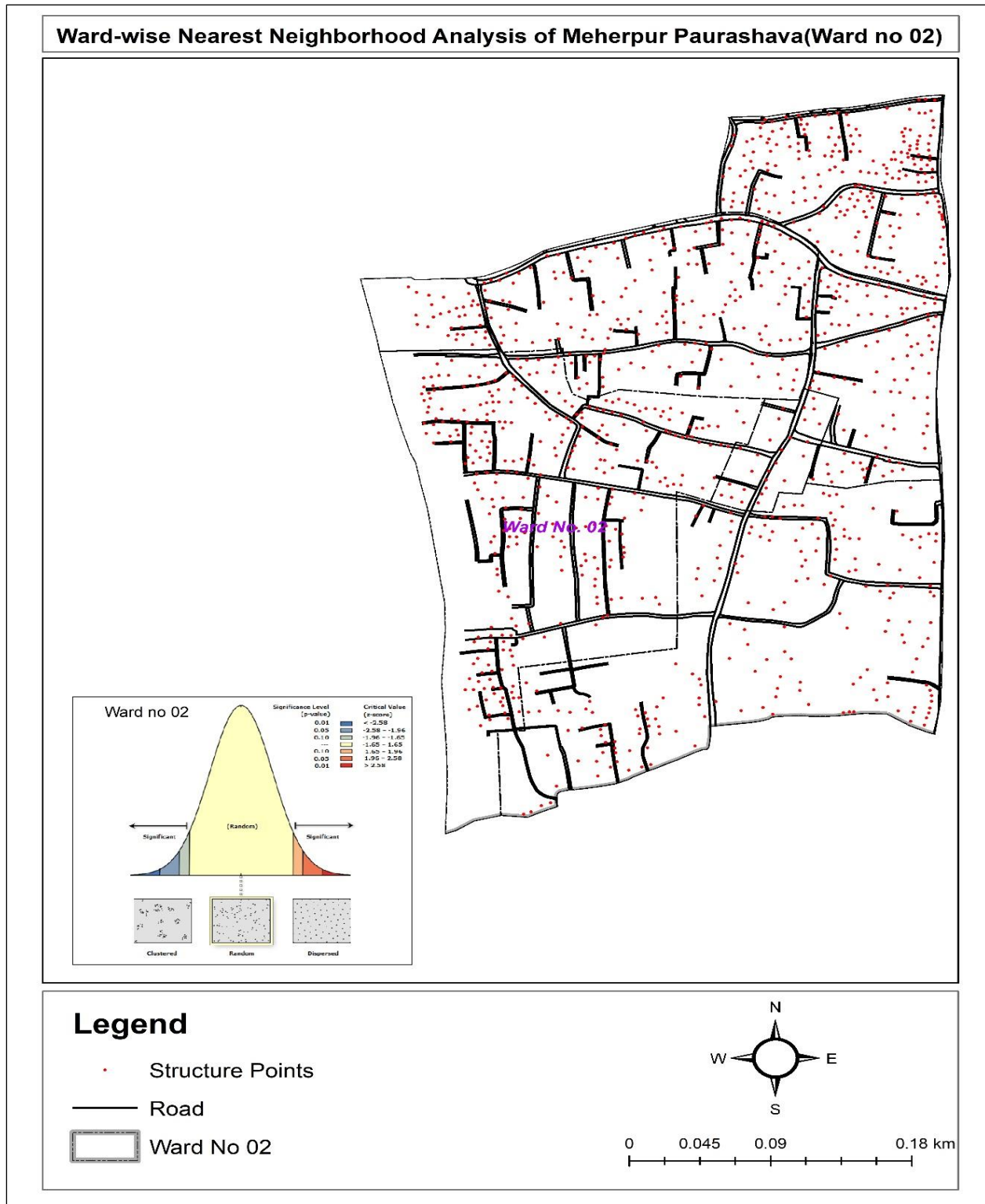


Figure: Nearest Neighborhood Analysis of Ward no 02

Source: Prepared by Consultant,2025

This random pattern may result from unplanned or informal development over time, influenced by individual land ownership, topography, or lack of regulatory enforcement. While such a layout can reflect organic growth and adaptability, it may also lead to inefficiencies in service delivery, poor connectivity, and limited access to essential infrastructure.

Addressing the challenges posed by this development pattern will require targeted urban planning interventions, such as regularization schemes, infrastructure upgrades, and community-based planning initiatives aimed at improving livability and sustainability in the ward.

**Ward no 03:** Ward No. 3 is characterized by a **dispersed** settlement pattern, where houses are widely spaced, often with agricultural or vacant land in between. This type of pattern is common in peri-urban or transitioning rural areas. While it may offer a peaceful living environment and room for expansion, it also leads to higher costs in providing infrastructure and services such as roads, electricity, and water supply. Development policies should aim to improve access while preserving open space.

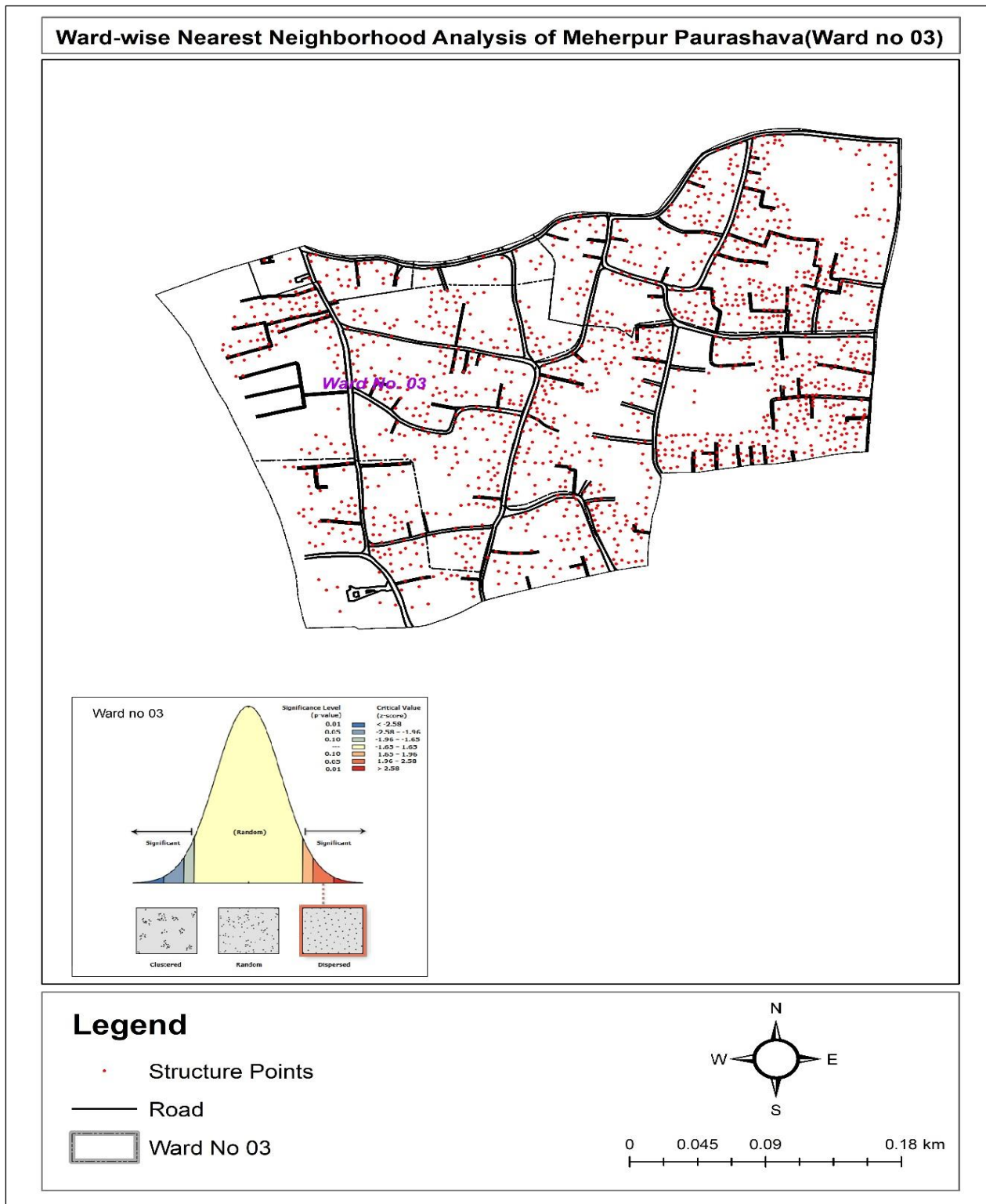


Figure: Nearest Neighborhood Analysis of Ward no 03

Source: Prepared by Consultant,2025



**Ward no 04:** Ward No. 4 exhibits a **clustered** urban form, with settlements concentrated in well-defined zones. The proximity of buildings encourages efficient resource use and community interaction. However, to support sustainable growth, planning authorities must manage land use density, road networks, and service delivery to prevent overcrowding and ensure livable conditions.

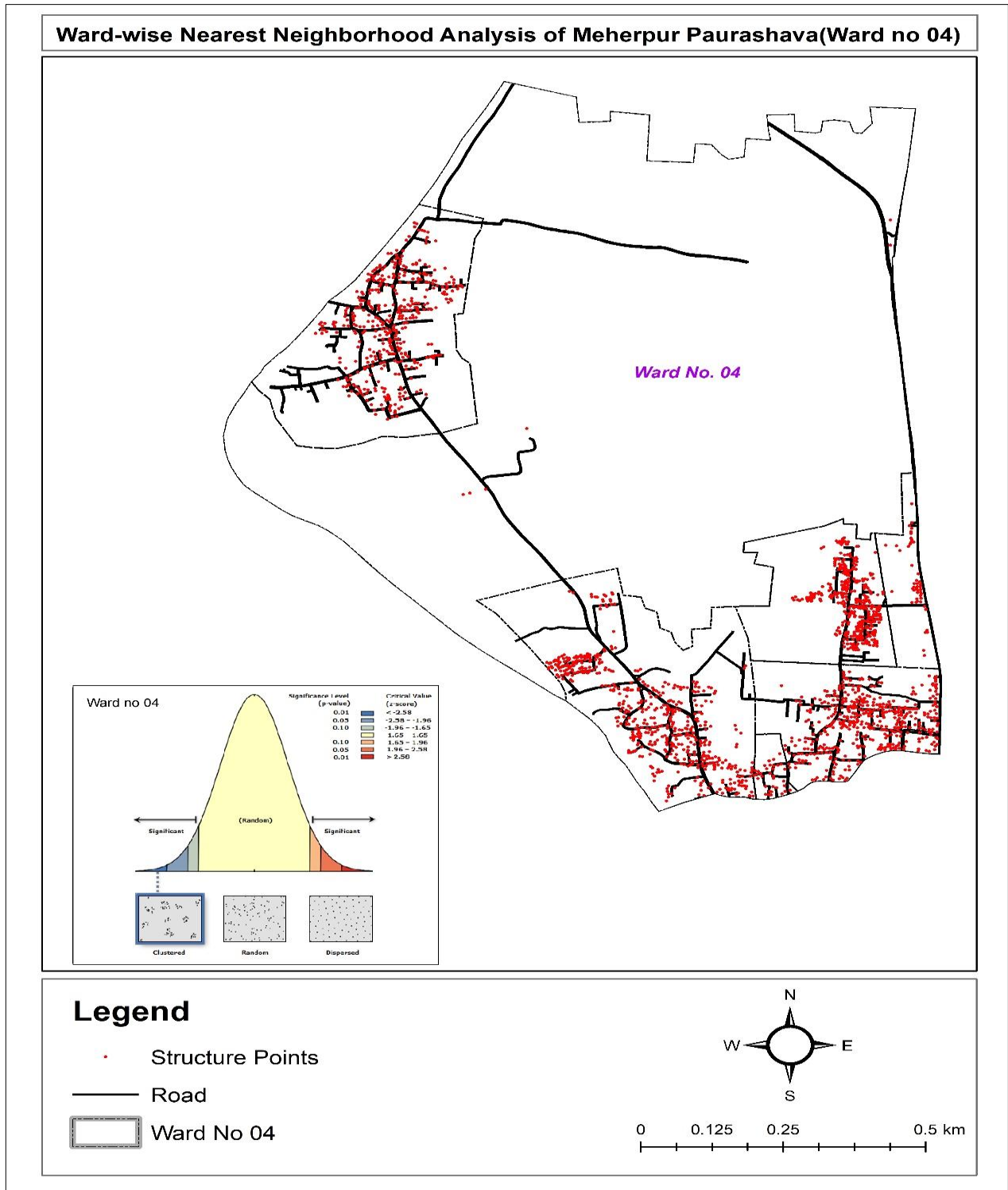


Figure: Nearest Neighborhood Analysis of Ward no 04

Source: Prepared by Consultant,2025

**Ward no 05:** Ward No. 5 also follows a **clustered** pattern, indicative of dense population centers with strong social and economic ties. This layout enables better access to public amenities and reduces infrastructure costs per capita. Nonetheless, without adequate urban management, such density may lead to pressure on land, housing, and environmental resources.

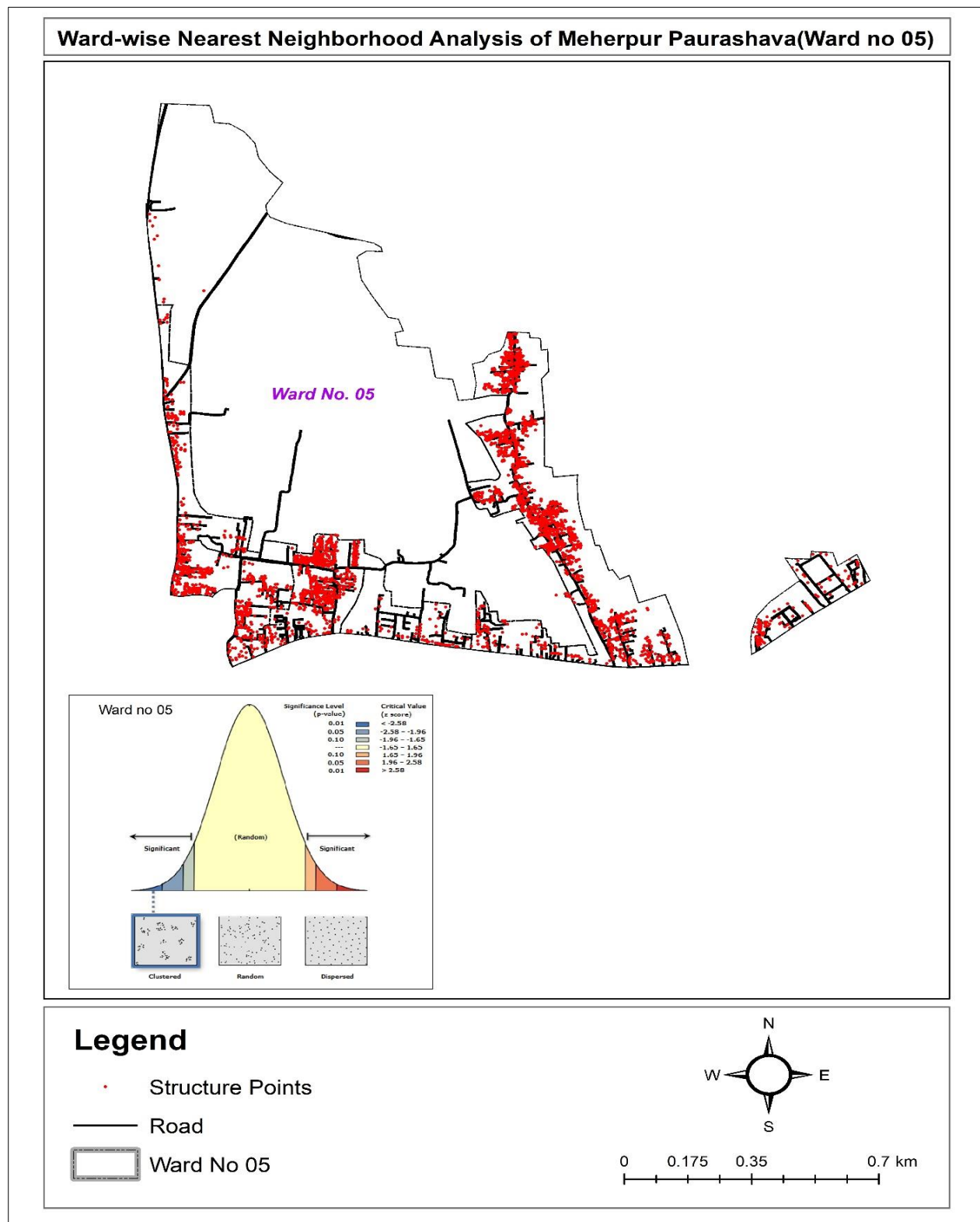


Figure: Nearest Neighborhood Analysis of Ward no 05

Source: Prepared by Consultant,2025

**Ward no 06:** In Ward No. 6, the **clustered** development shows signs of concentrated residential and commercial zones, often shaped by land availability and traditional settlement behavior. While this pattern benefits from close-knit communities and cost-effective infrastructure, there is a need for careful spatial planning to avoid congestion, waste management issues, and traffic bottlenecks.

#### Ward-wise Nearest Neighborhood Analysis of Meherpur Paurashava(Ward no 06)

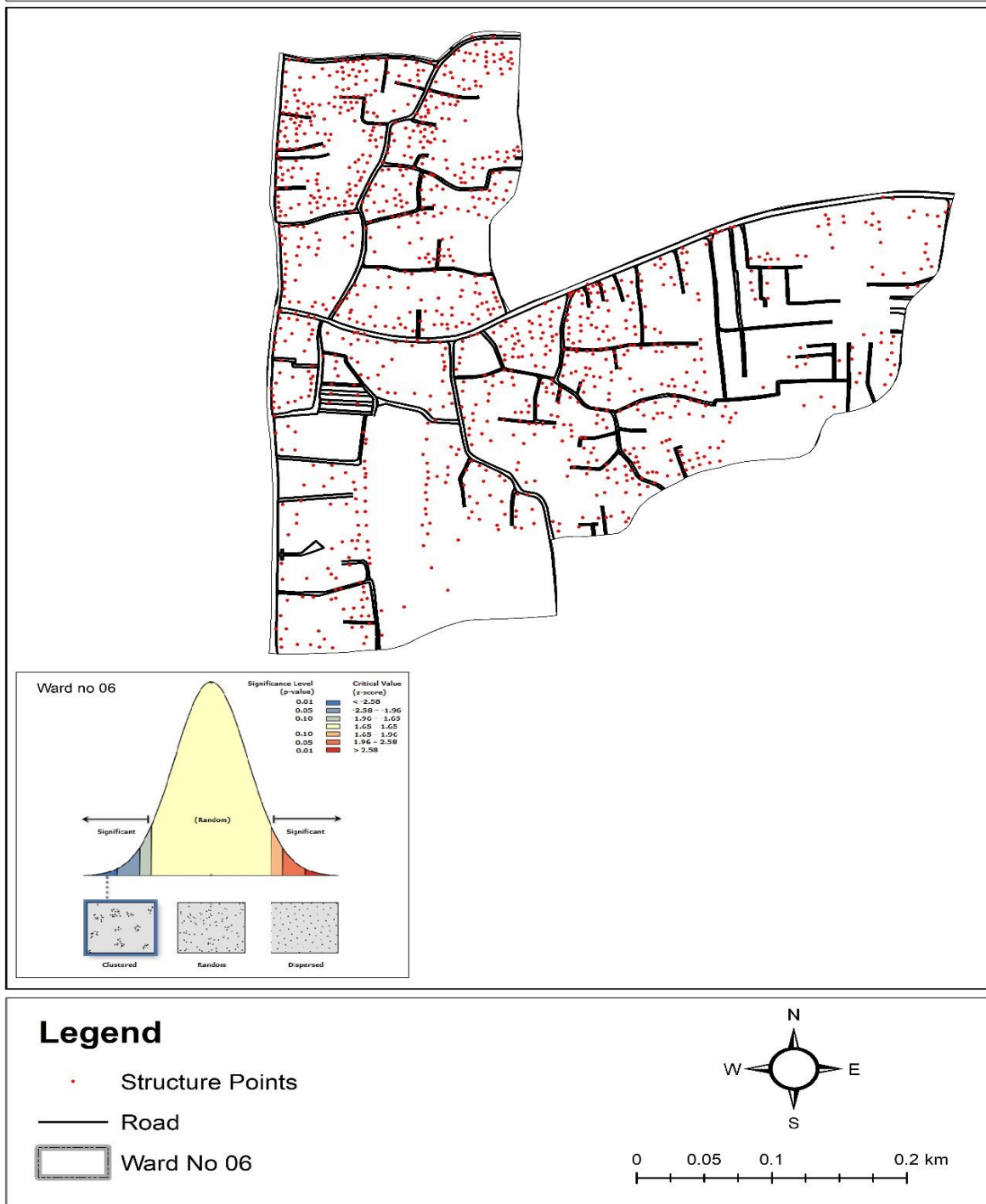


Figure: Nearest Neighborhood Analysis of Ward no 06

Source: Prepared by Consultant, 2025

**Ward No 07:** Ward No. 7 displays a **clustered** neighborhood structure, where the population is primarily grouped in central or easily accessible areas. This urban form helps in creating vibrant local economies and shared public spaces but must be supported with proper zoning, green spaces, and emergency services to maintain a healthy living environment.

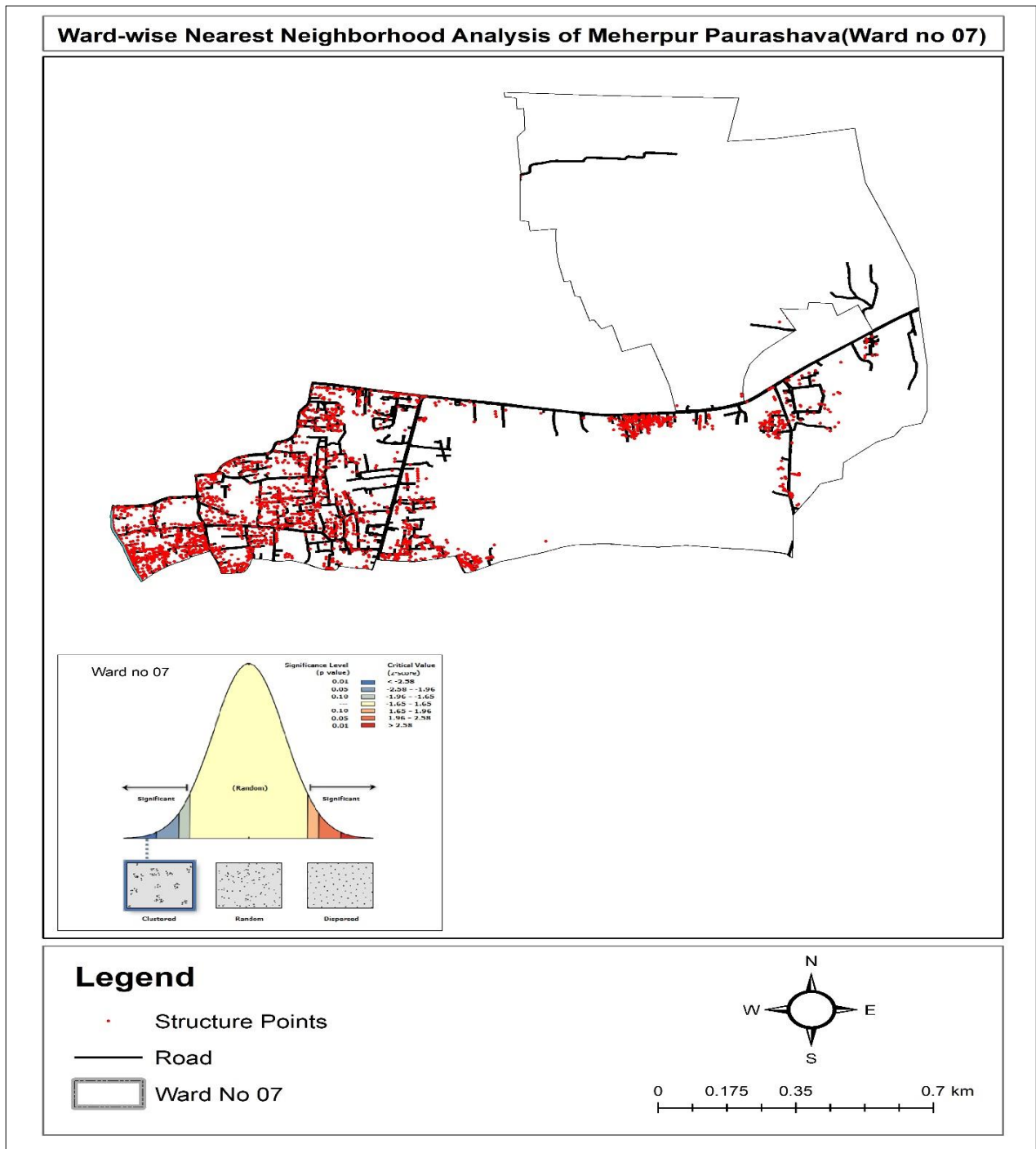


Figure: Nearest Neighborhood Analysis of Ward no 07

Source: Prepared by Consultant,2025

**Ward no 08:** The **clustered** pattern in Ward No. 8 indicates a well-established community, with settlements grouped around roadways or important services. Such arrangements often evolve around trade centers or historical roots. However, challenges like limited open space, high housing demand, and traffic congestion require proactive planning measures and infrastructure upgrades.

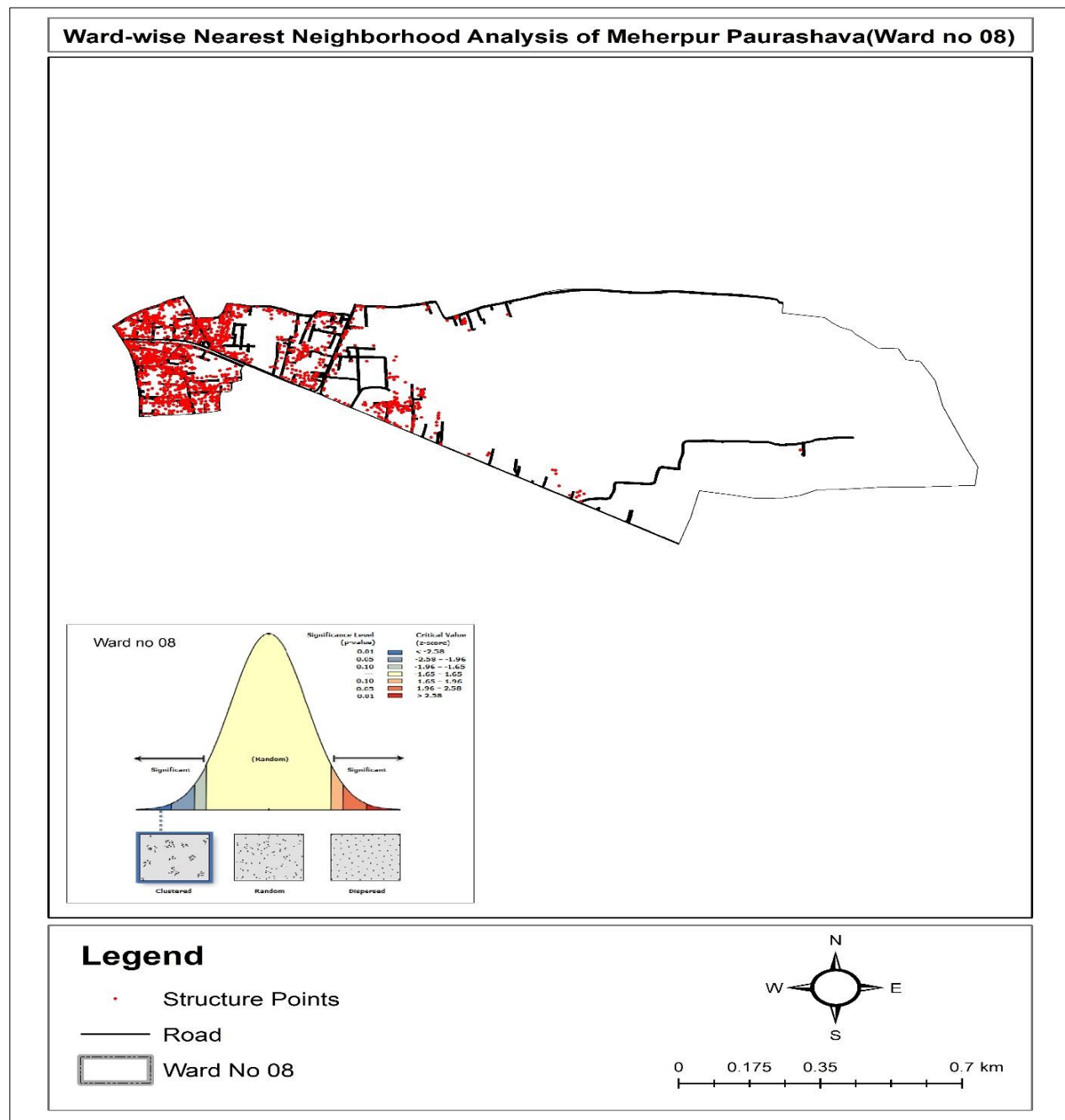


Figure: Nearest Neighborhood Analysis of Ward no 08

Source: Prepared by Consultant,2025

**Ward no 09:** Ward No. 9, continuing the trend, exhibits a **clustered** settlement pattern. With residents living in close proximity, this setup allows for efficient service distribution and active community life. To accommodate future growth, it is essential to invest in infrastructure expansion, land management, and sustainable development practices.

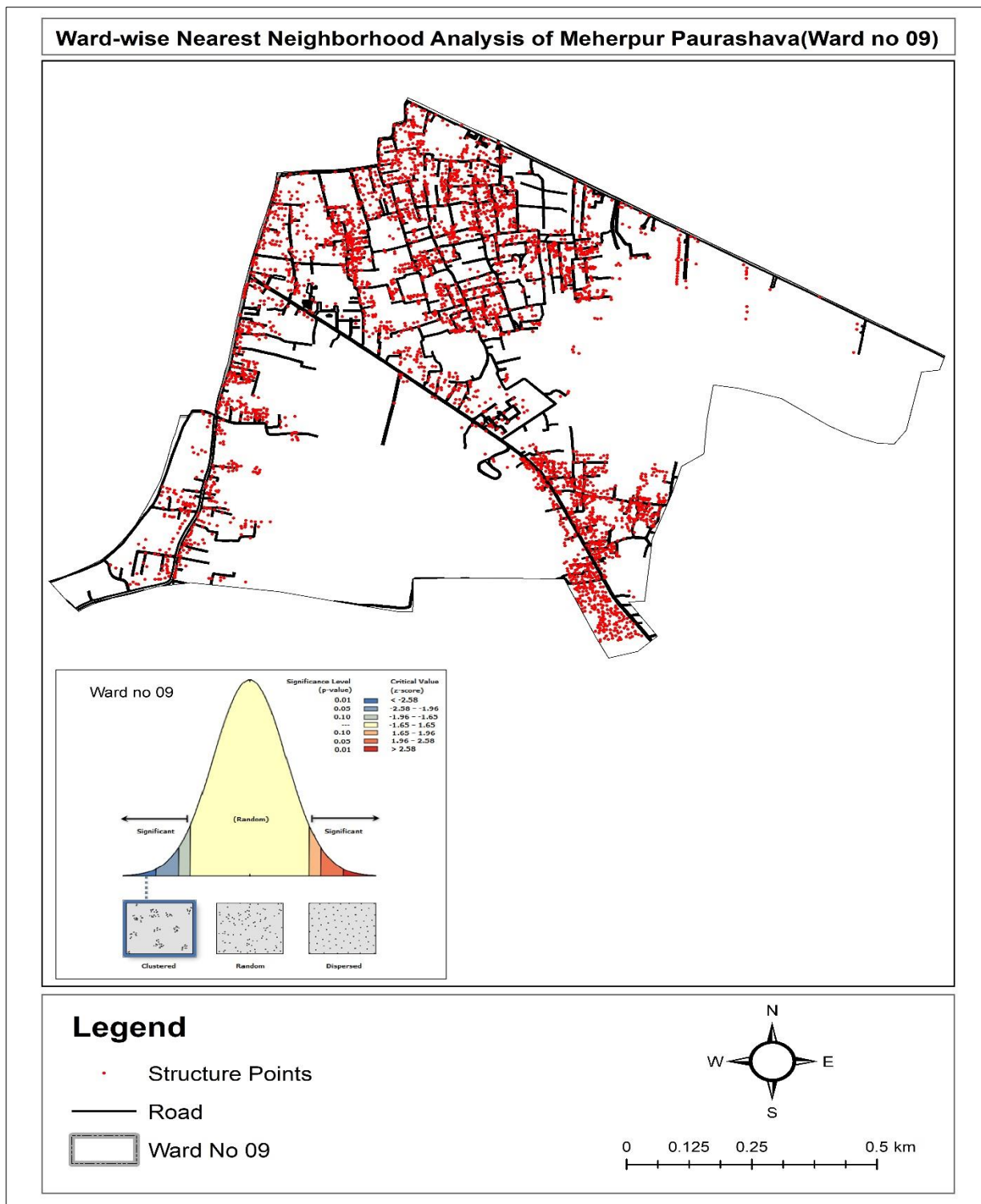


Figure: Nearest Neighborhood Analysis of Ward no 09

Source: Prepared by Consultant,2025



## Settlement forecasting for Future settlement of Meherpur Paurashava:

An estimation of **household requirements** in the year **2046** across the wards of **Meherpur Paurashava**, based on a standard **household size of four**, highlights both **growth trends** and **spatial dynamics**. **Ward No. 1** is projected to require approximately **1,756 households**, supported by **146.47 acres** of land, indicating a relatively **dense future settlement**. **Ward No. 2** will need around **713 households**, with **138.48 acres** available, suggesting **moderate density**. Interestingly, **Ward No. 3** shows a **negative household need (-88)**, which may indicate **population decline**, **outmigration**, or **data anomalies** that warrant further investigation, despite its substantial area of **145.26 acres**. **Ward No. 4** shows the **highest projected need** at **2,343 households**, aligning with its large area of **753.81 acres**, making it a **significant zone for future urban development**. **Ward No. 5** has a need for **1,062 households**, but its vast land area of **1,341.09 acres** points to a **low population density** and **potential for expansion**. **Ward No. 6**, with a requirement of **494 households** over **100.59 acres**, and **Ward No. 7**, needing **365 households** across **572.65 acres**, both suggest **relatively low residential densities**. **Wards 8 and 9** show projected needs of **103** and **605 households**, respectively, with each possessing **considerable land (648.73 and 659.02 acres)**, which also implies a **lower density** and **potential for accommodating future growth**. Overall, the data reflects **diverse urban pressures** across wards, highlighting areas like **Ward 4** as **priority zones for housing expansion** and others like **Ward 3** as candidates for **further demographic or planning review**.

Ward No.	Need HH in 2046(Household size 4)	Area in Acre
Ward no 01	1756.75	146.473
Ward no 02	713	138.476
Ward no 03	-88	145.262
Ward no 04	2343	753.813
Ward no 05	1062	1341.091
Ward no 06	494.25	100.590
Ward no 07	365	572.648
Ward no 08	103.25	648.725
Ward no 09	605	659.017

Source: Prepared by Consultant,2025

## Future settlement distribution of Meherpur Paurashava:

The future settlement distribution strategy for **Meherpur Paurashava** must be guided by a balance between urban growth and the preservation of essential natural and agricultural resources. One of the core principles of the plan is to **protect agricultural lands**, especially **three- and four-crop-producing areas**, which are vital for food security and rural livelihoods. These high-yield zones should be designated as **non-developable** to ensure long-term agricultural sustainability. Additionally, all existing **waterbodies**, including ponds, canals, and wetlands, must be conserved to maintain ecological balance, support groundwater recharge, and mitigate flood risks.

The housing strategy will prioritize upgrading existing **katcha houses** by relocating them into planned residential clusters, providing access to utilities and infrastructure, while discouraging further unplanned growth. **Future settlements will be located within 100 meters of existing roads**, ensuring accessibility and reducing the need for extensive new road construction. This proximity also promotes cost-effective infrastructure delivery and connectivity.

To ensure affordability and optimal land use, the minimum **lot size will be fixed at 1.5 kathas**, allowing compact, low-rise development suitable for small to medium-income families. The implementation will follow a **5-year phased development plan**, focusing initially on underutilized land parcels with minimal agricultural or environmental value. Locations with **low-density population, existing infrastructure access, and limited environmental sensitivity** will be prioritized in the first phase. Later phases will gradually expand as needed, guided by population growth and urban demand, while continuously monitoring land use impact and ensuring compliance with the development guidelines.

This approach supports a **sustainable, inclusive, and environmentally conscious urban expansion model**, ensuring Meherpur Paurashava grows without compromising its agricultural productivity and natural ecosystems.

Criteria	Planning Strategy
Agricultural Land	<b>Protect 3-crop and 4-crop</b> productive land from development; designate as non-developable.
Waterbodies	Preserve all <b>existing ponds, canals, wetlands</b> , and natural drainage channels.
Existing Katcha Houses	Gradual relocation into planned residential zones with infrastructure access focusing on <b>Katcha</b> house.
Proximity to Roads	New settlements to be located within <b>100 meters</b> of existing roads to ensure accessibility.
Plot Size	Minimum lot size of <b>1.5 kathas</b> to allow affordable and compact development.
Phased Implementation	Development in <b>5-year phases</b> , like 2025,2030,2035,2040,2046 based on suitable location.
Environmental Consideration	Avoid flood-prone, ecologically sensitive, or agriculturally valuable zones.
Initial Focus Areas	Underutilized, low-density zones with existing infrastructure and limited crop value.

Source: Prepared by Consultant,2025



## Suitable location for Future settlement of Meherpur Paurashava

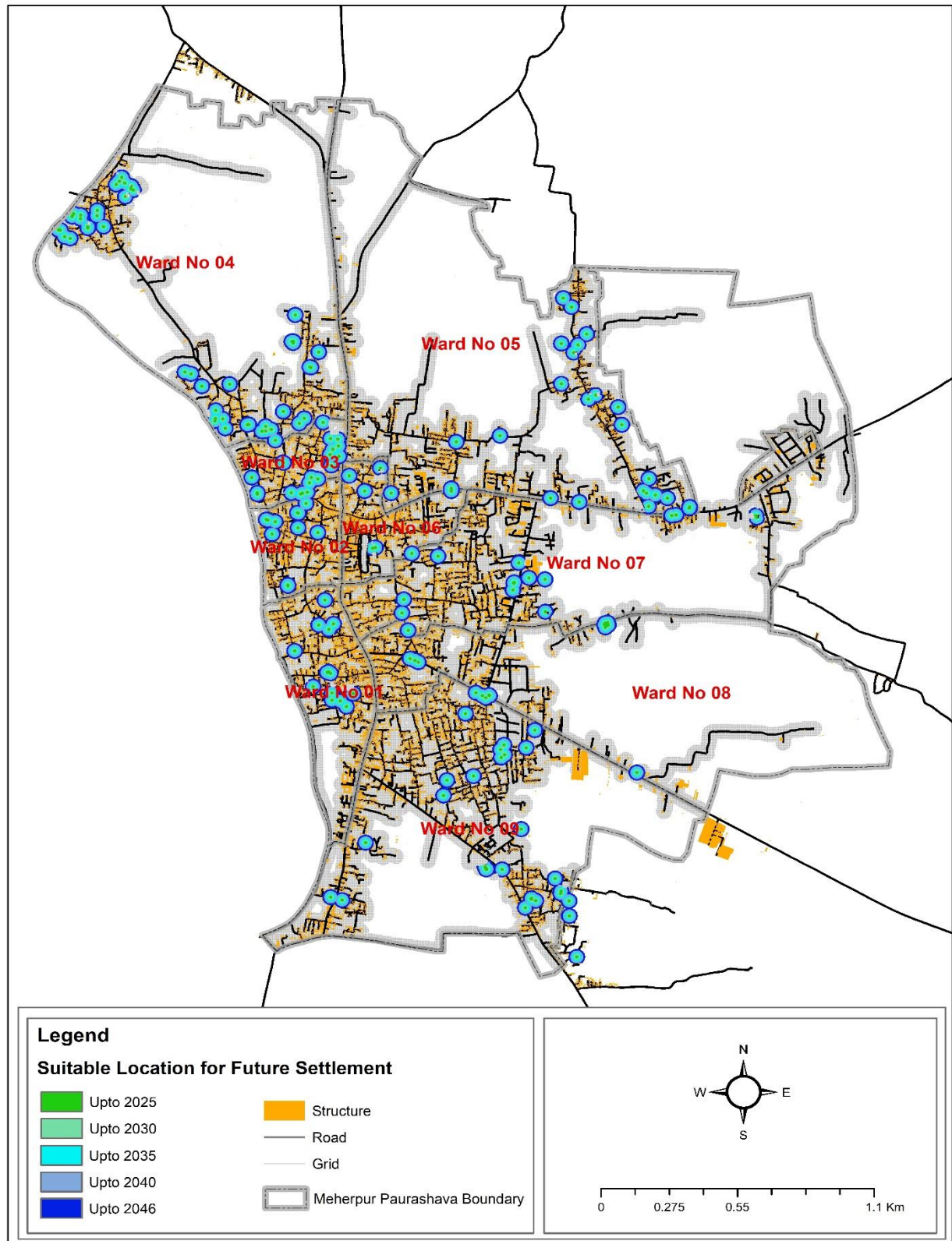
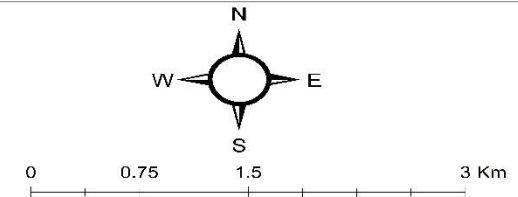
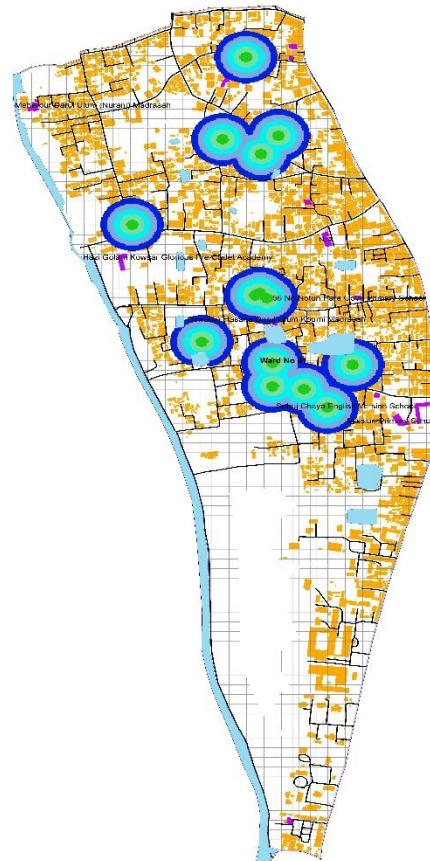


Figure: Suitable Location for future settlement of Meherpur Paurashava Consultant,2025

Source: Prepared by

## Suitable location for future settlement pattern of Meherpur Paurashava(Ward no 01)



### Legend

#### Suitable Location for Future Settlement

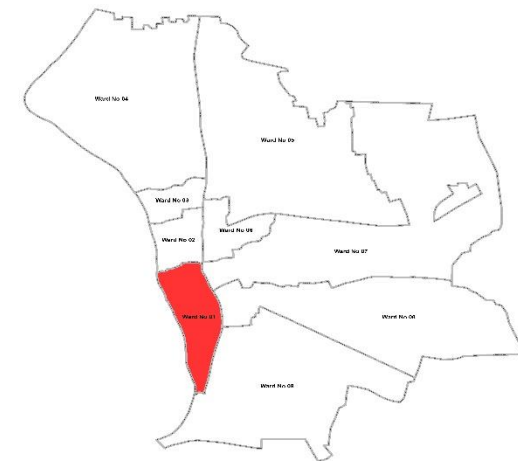
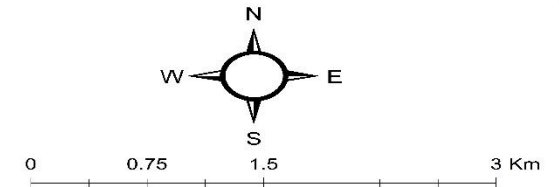
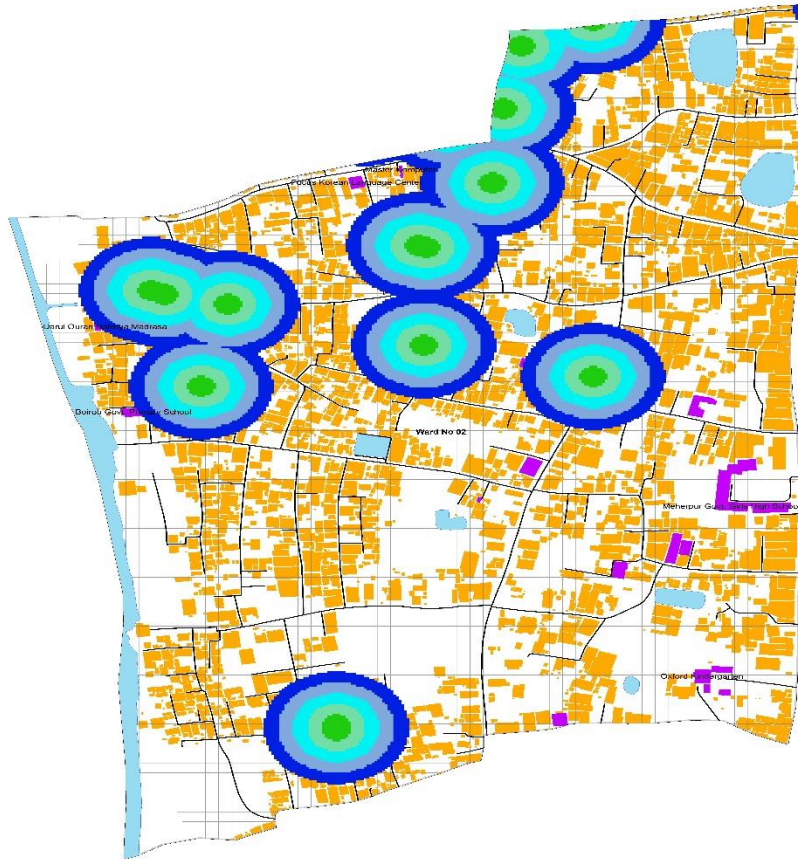


Figure: Suitable Location for ward no 01

Source: Prepared by Consultant,2025

## Suitable location for future settlement pattern of Meherpur Paurashava(Ward no 02)



### Legend

#### Suitable Location for Future Settlement

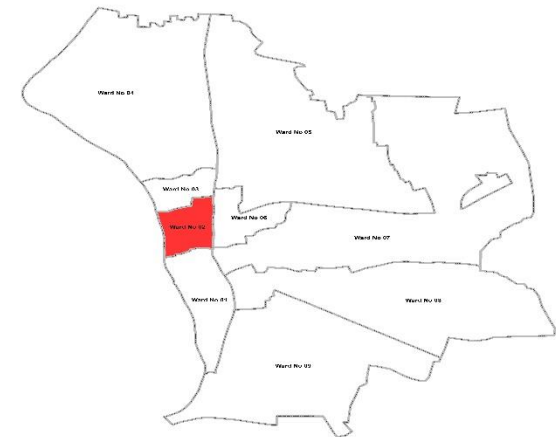


Figure: Suitable Location for ward no 02

Source: Prepared by Consultant,2025



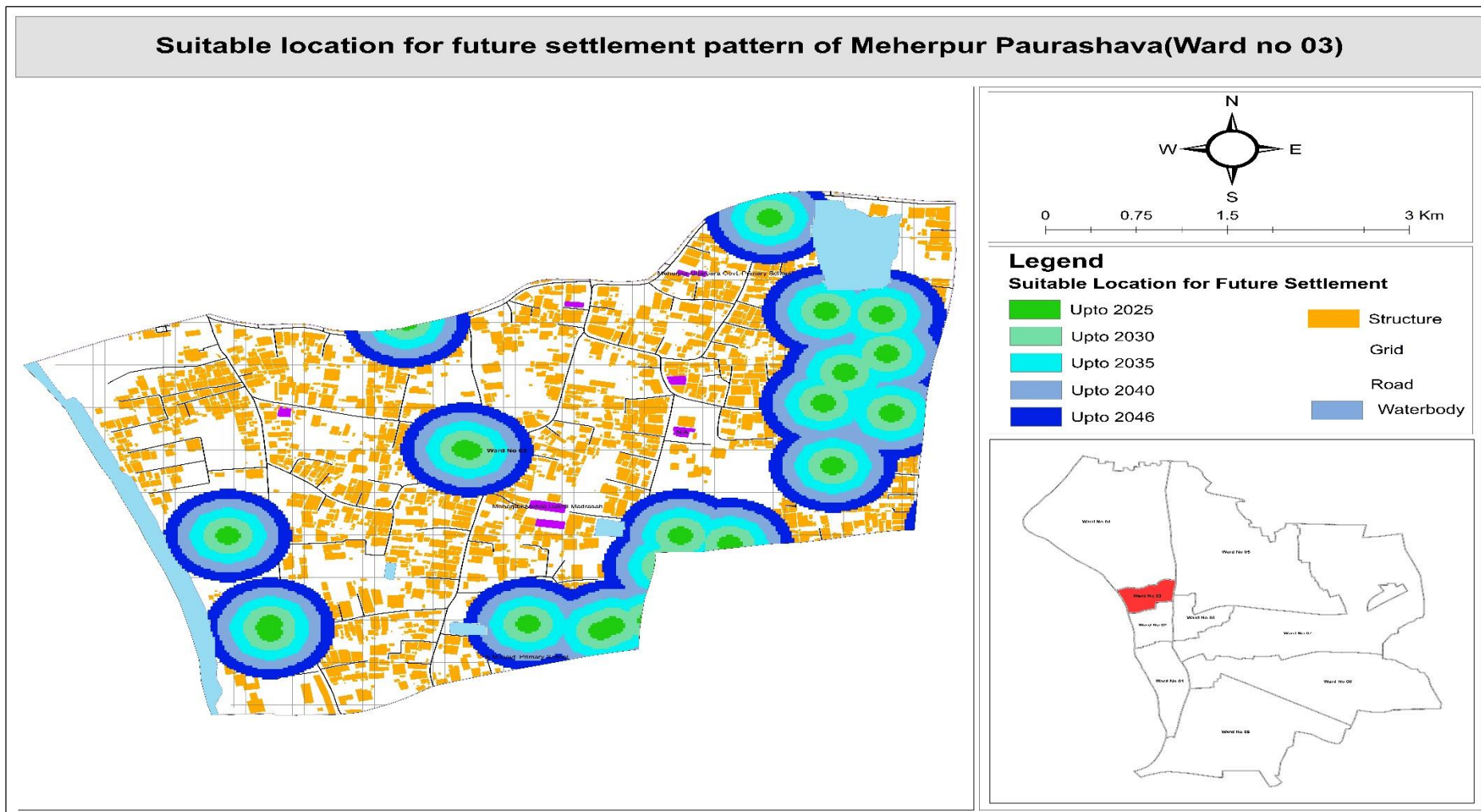


Figure: Suitable Location for ward no 03

Source: Prepared by Consultant,2025

### Suitable location for future settlement pattern of Meherpur Paurashava(Ward no 04)

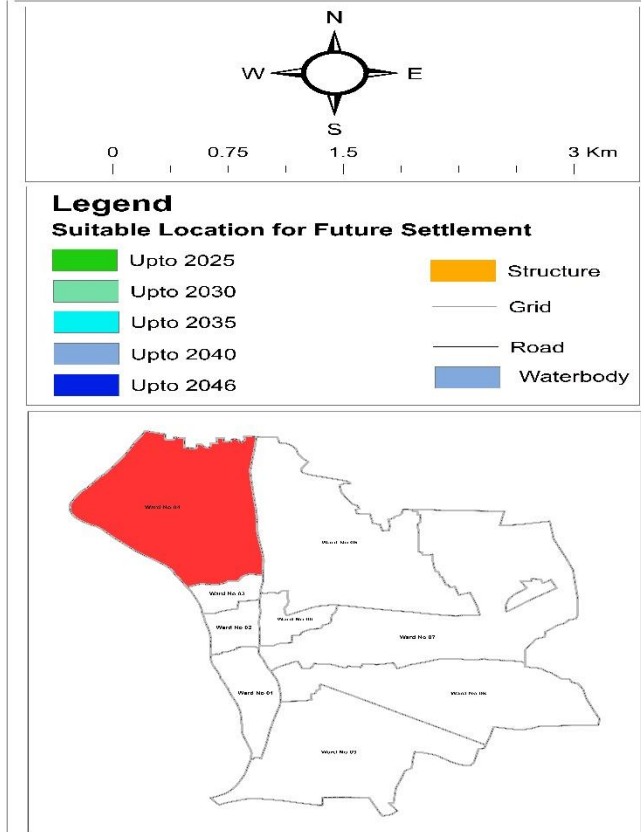
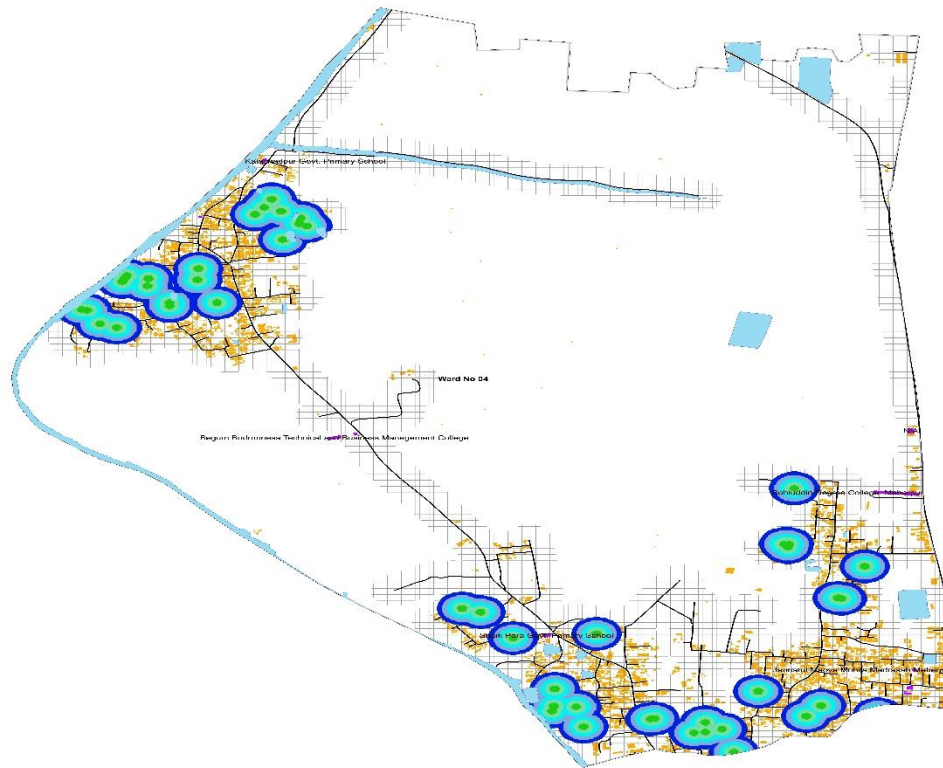


Figure: Suitable Location for ward no 04

Source: Prepared by Consultant,2025

## Suitable location for future settlement pattern of Meherpur Paurashava(Ward no 05)

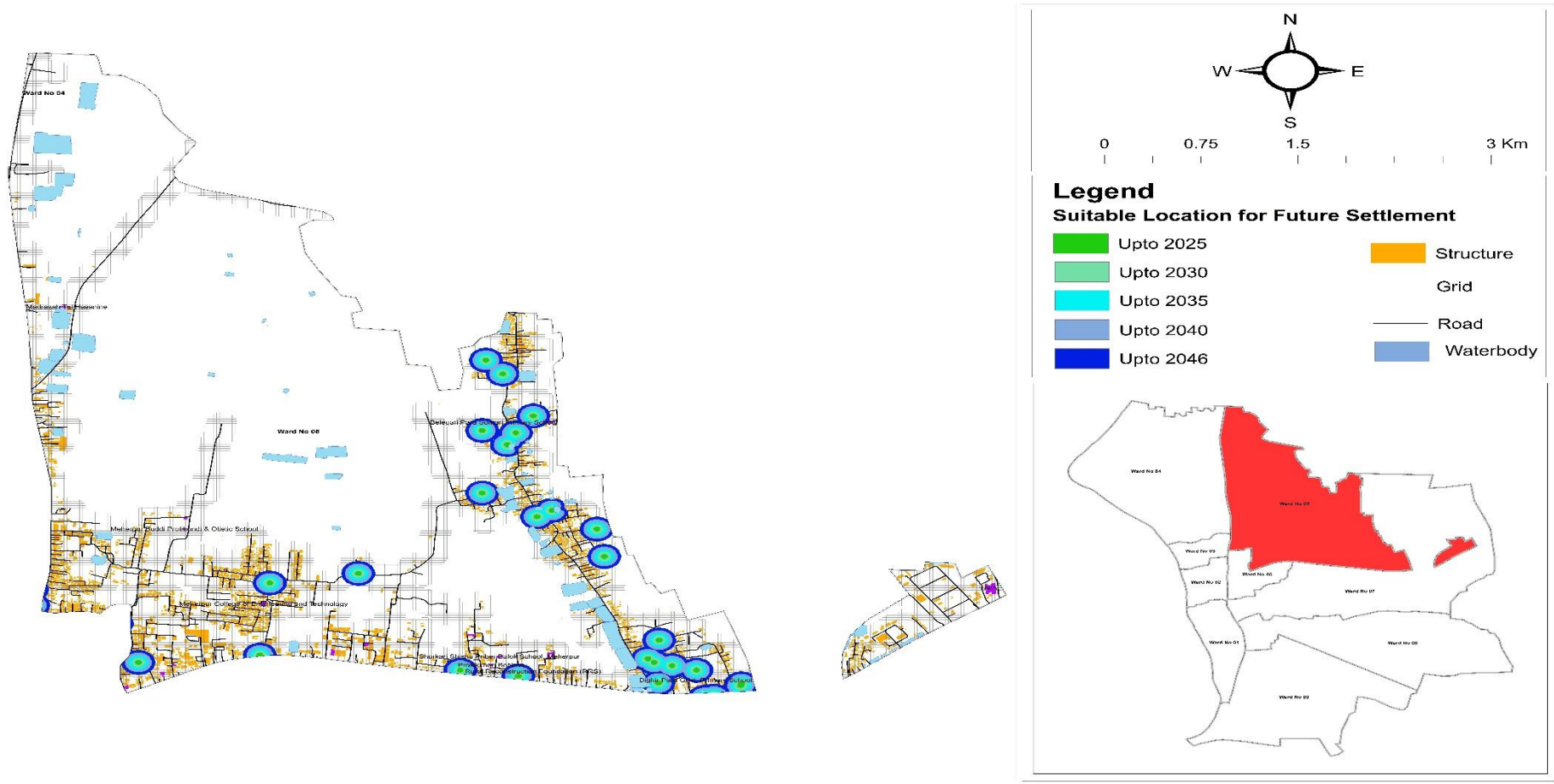
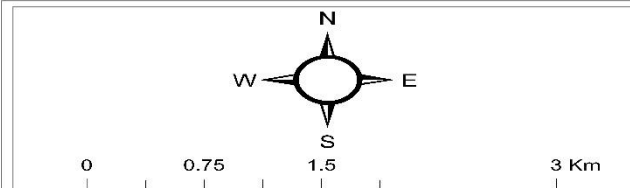
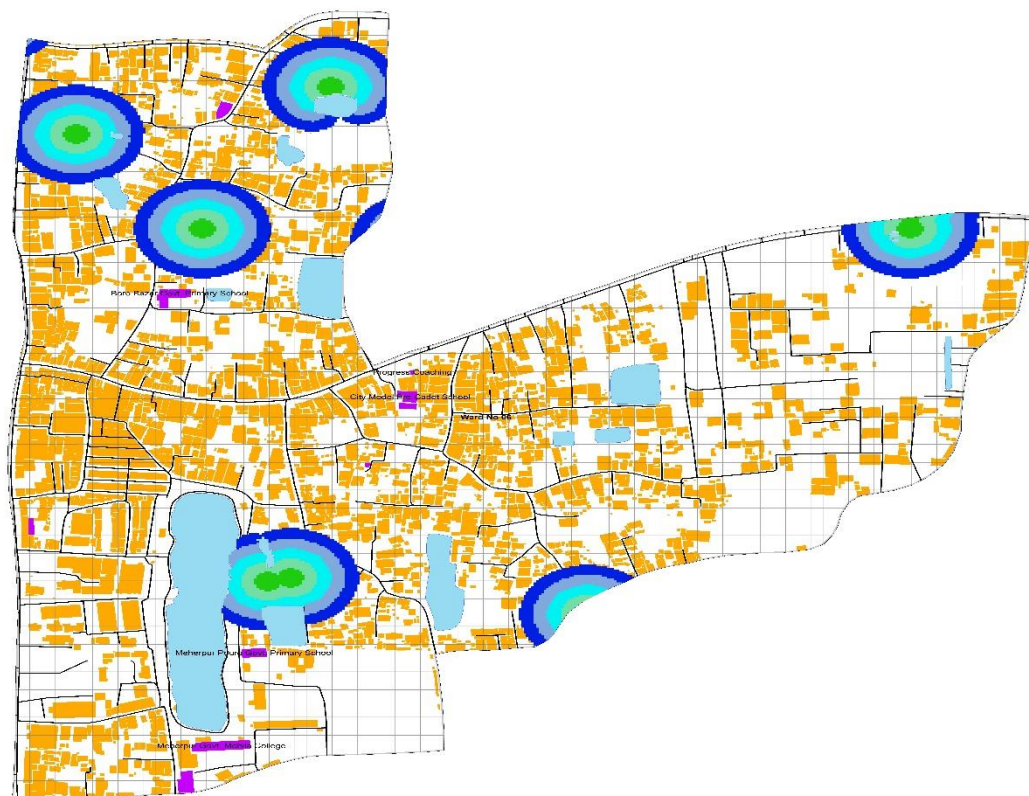


Figure: Suitable Location for ward no 05

Source: Prepared by Consultant,2025

## Suitable location for future settlement pattern of Meherpur Paurashava(Ward no 06)



### Legend

#### Suitable Location for Future Settlement



Figure: Suitable Location for ward no 06

Source: Prepared by Consultant,2025



## Suitable Location for Future settlement pattern of Meherpur Paurashava (Ward no 07)

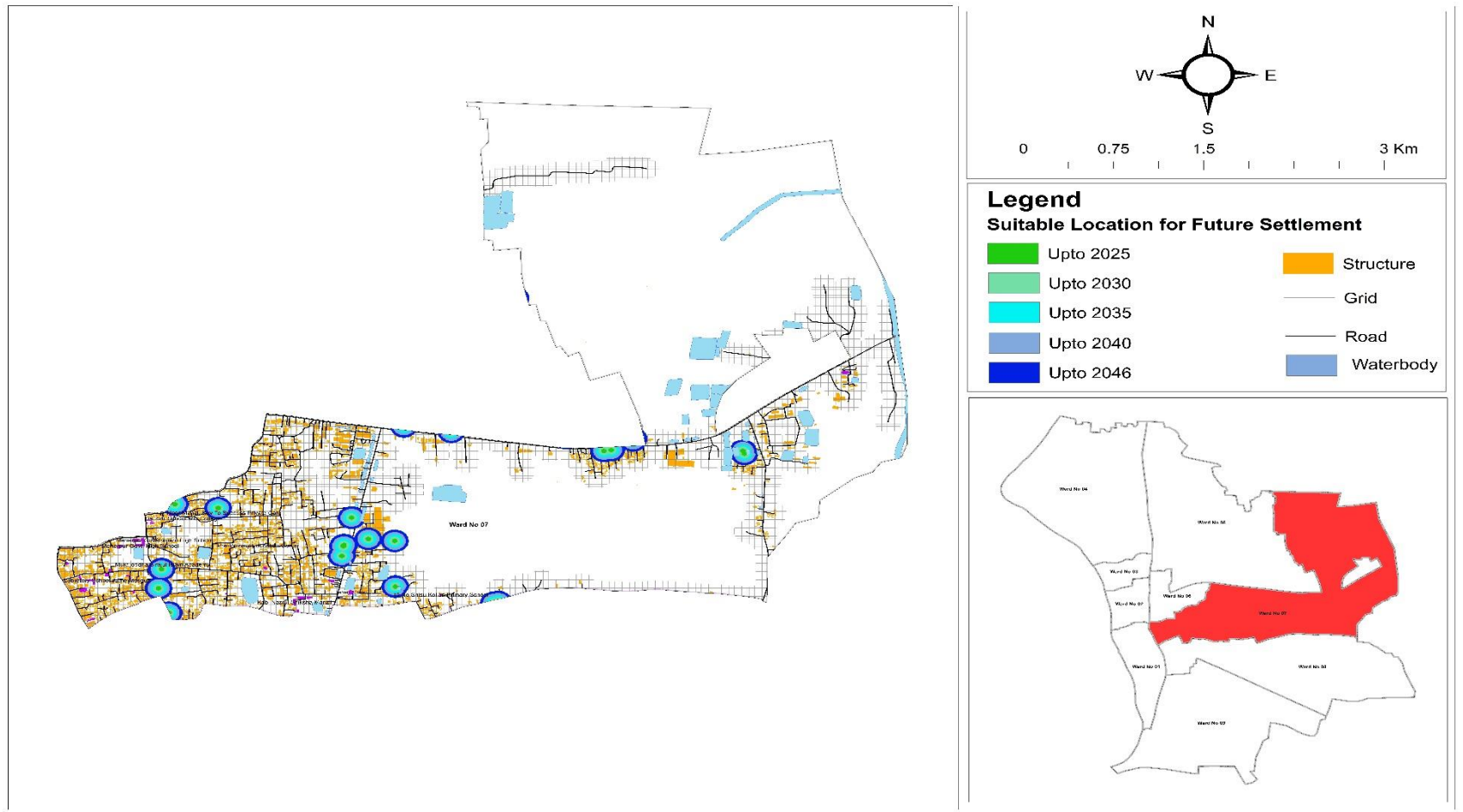


Figure: Suitable Location for ward no 07

Source: Prepared by Consultant, 2025



### Suitable location for future settlement pattern of Meherpur Paurashava(Ward no 08)

**Legend**

**Suitable Location for Future Settlement**

- Upto 2025
- Upto 2030
- Upto 2035
- Upto 2040
- Upto 2046

Structure

Grid

Road

Waterbody

Figure Suitable Location for ward no 08

Source: Prepared by Consultant, 2025

**Suitable location for future settlement pattern of Meherpur Paurashava(Ward no 09)**

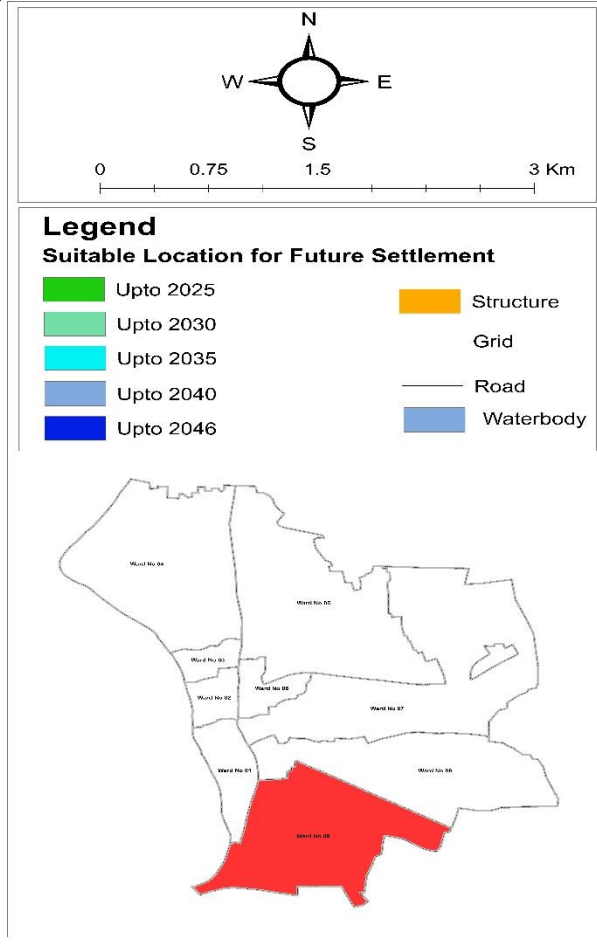
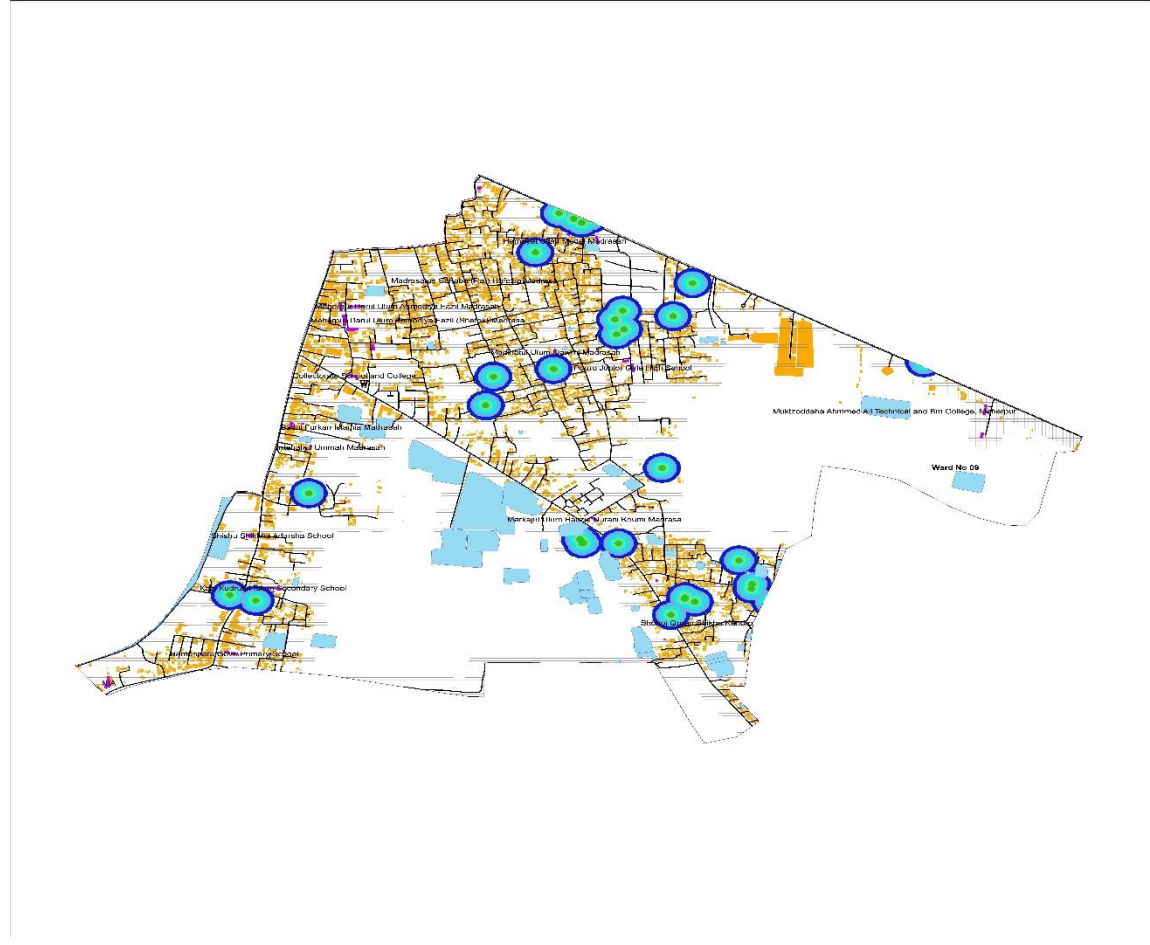


Figure: Suitable Location for ward no 09

Source: Prepared by Consultant, 2025