मुरादाबाद विकास प्राधिकरण, मुरादाबाद।

पत्रांक: 1300 /मु0वि0प्रा0/अभियंत्रण खण्ड/2025–26 दिनांक: 7 /3 /2026

SONAKPUR CONSTRUCTION WORK SPECIFICATIONS

1. Roads & Pavements
Proposed road hierarchy: 18 m, 12 m, 9 m, and 7.5 m wide internal roads.
Roads constructed as per IRC standards.
Road Crust Specifications:
P/L Granular Sub-Base (GSB)
P/L Wet Mix Macadam (WMM)
P/L Graded Bituminous Macadam with bitumen @ 4.5% by weight of total mix over tack coat @ 0.60 kg/m²
P/L Bituminous Concrete Top Layer with bitumen @ 5%
P/L Saucer Drain along side of the road.

Footpaths / Side Pathways:
80 mm thick M30 precast I-shape paver blocks on shoulders
Kerb stones provided along road edges

Road Markings & Safety:
Thermoplastic road signage & markings

Integrated Road Drainage:
RCC roadside drains with adequate slope
Designed for self-cleansing velocity; cross-sections as per road width (7.5 m to 18m)
Surface runoff discharged into existing trunk drains along the Sonakpur Flyover/24.00-meter-wide road.
Provision for rainwater harvesting along major roads

2. Water Supply System
Potable water supplied through a network of DI / CI / PVC pipelines (250 mm to 80 mm dia.)
Water sourced from underground strata via tube wells near park areas
Rising main in K-9 Class pipes
Storage through Overhead Tanks (4 Nos.), each 250 KL capacity with 20 m staging height
Distribution network ensures adequate pressure for residential, mixed-use and commercial plots
One-day storage capacity maintained
Fire Hydrants along 12 m and 18 m wide roads and major intersections

3. Sewerage System
Dedicated sewerage network using NP-2 class RCC pipes:
200 mm for house connections
250 mm, 300 mm, 450 mm and 60mm dia for higher flow zones
Pipes laid on proper concrete bedding with slopes ensuring self-cleansing velocity.
Sewer Manhole Size: 900mm, 1200mm and 1500mm dia.

Manholes:
900 mm × 800 mm rectangular for 200 mm lines
900–1500 mm dia circular for larger lines
Located at required intervals and junctions
Minimum 1.0 m earth cover as per CPHEEO guidelines.
Sewage conveyed through gravity flow to central sump well.

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STP Capacity:
1500 KLD (Phase-1) using MBBR technology
Total (Phase 1 + 2): 2000 KLD

MBBR Advantages:
Low power consumption
No sludge recirculation
High treatment efficiency
Small footprint (~1/10th of conventional systems)
Handles load variations effectively

4. Storm Water Drainage
RCC drains designed for efficient surface runoff from all plots and roads
Adequate longitudinal slope for quick discharge
Network of small drains connected to trunk drains
Final discharge into existing trunk drains along the Sonakpur Flyover/24.00-meter-wide road drains, ultimately flowing to Gangan River
Adequate number of Rainwater Harvesting Pits provided across the layout

5. Rain Water Harvesting:
Runoff from the rooftops shall be collected in the individual recharge pits proposed in green area.
RWH pits in the parks and green area proposed to recharge the groundwater with storm runoff thereby improving the quality of the ground water.
Considerable green spaces will help the natural percolation of runoff into the ground.
7M x 3M Size 17 Nos. RWH Pits are proposed in the area.

6. Electrical Works
Underground electrical distribution network
132 kV Substation (12 MVA), approx. area for this is 1 acre for Phase-1 load
33 nos. 11/0.433KV substations shall be located in Respective pocket to limit voltage drop within acceptable limits.
Separate HT metering for commercial areas shall be provided due to differential tariff.
Street lighting with energy-efficient LED luminaires
Provision for individual domestic connections and future OFC/telecom utilities
RCC Electrical Trench Size: 600x600mm and 900x900mm Internal Size.

7. Parks & Green Areas
18 neighbourhood parks (600 sqm to 4500 sqm)
One Central Park / Sports Centre (~18,600 sqm)
Facilities in all parks:
Walking / jogging tracks
Tot lots (children's play areas)
Seating zones & shaded green pockets
Landscape development with native and ornamental species
Open fitness elements where feasible
Landscaping principles emphasize well-being, accessibility, sustainability and adaptability.

8. Community Facilities
Land reserved for:
School
Healthcare
Commercial
Community buildings
Layout designed for safe pedestrian movement and barrier-free access.

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9. Solid Waste Management

Door-to-door collection through public-private collaboration
Waste segregation at source encouraged
Community bins at designated locations
Daily transportation to disposal site through mechanized system
Regular street sweeping and drain cleaning by maintenance teams

10. Other Infrastructure

Integrated signages for roads, plots and parks
Provision for future services such as telecom, fibre-optic ducts, etc.
Utility corridors planned for easy maintenance and expansion

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