

LODHA

EXTERNAL/INTERNAL DEVELOPMENT WORKS DESIGN AND COST ESTIMATES

FOR

PROPOSED BUILDING PLAN OF COMMERCIAL COLONY AREA MEASURING
4843.03 SQ. MTR. IN SECTOR-28, GURUGRAM

DEVELOPED BY:
LODHA DEVELOPERS LIMITED

Nancy Lodha



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PROPOSED BUILDING PLAN OF COMMERCIAL COLONY AREA MEASURING 4843.03 SQ. MTR. IN SECTOR-28, GURUGRAM BEING DEVELOPED BY LODHA DEVELOPERS LIMITED.

REPORT

Estimate for providing water supply, sewerage, storm water drainage, roads, street lighting, and horticulture in respect of the proposed building plan of a commercial colony on an area measuring 4843.03 sq. mtr. (Building Plan Memo No. CTP/STP(LH)/PT/216275 dated 20/07/2026) in Sector-28, Gurugram, being developed by Lodha Developers Limited.

Situated in Sector-28, Gurugram, within the Gurgaon-Manesar Urban Complex of Haryana State and part of the National Capital Region (NCR), this location exhibits rapid development and immense potential. Furthermore, it has started sharing the growing residential load of Delhi. To relieve population pressure in the National Capital of Delhi, the Haryana Government decided to establish various residential, commercial, and infrastructure sectors in Gurugram, including this proposed commercial colony.

WATER SUPPLY

At present, the source of water supply in this area is water tanks/ boosting station/ HSVP/GMDA Water Supply. It has been proposed to construct the underground tanks of capacity as per attached details, and at location for domestic purpose and for fire protection. The underground tanks will be fed from the tankers and HSVP supply, which will feed overhead tanks on the roof of the buildings. The water supply system has been designed as per Hazen Williams formula.

DESIGN

The scheme has been designed for population of approximately 3671 persons for the commercial building. The rate of water supply per head / day has been taken as per HSVP norms (Staff 45 litres, Visitors 15 litres, Restaurant 70 litres). In addition to above necessary provision of water for club and parks etc, have been taken into account for calculating the maximum quantity of water requirement.

PUMPING REQUIREMENTS

It has been proposed to install pumping set as described with standby of equal capacity. The provision for standby generating set has also been provided in case of any electricity failure.

UNDERGROUND STORAGE TANK

Underground storage tank provision has been made in two compartments, which cater to the domestic as well as firefighting requirement. The water for fire water compartment shall overflow to the domestic compartment so that the water in the fire compartment also remain full & fresh and uncontaminated.

BOOSTING STATION

The boosting station is being planned near underground storage tank catering to above requirements.

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DISTRIBUTION SYSTEM

The distribution system for this development has been designed to supply @ (Staff 45 litres, Visitor= 15 litres, Restaurant= 70 litres) per head per day @ 3 times the average rate of flow on Hazen William formula. Necessary provision for laying DI pipes conforming to relevant IS standard along with valves and specials, have been made in the project. The minimum terminal head at any point will be more than 130m so that it can serve the 6B+GF+23 floors construction envisaged in the plan. Minimum pipe dia for external distribution is kept as 100 mm.

RISING MAIN

Rising main from HSVP water main or sector road to waterworks has also been proposed and provision has been made in this estimate.

SEWERAGE SCHEME

This scheme has been designed for sewer connecting to STP & over flow of STP connected to HSVP sewer main. The sewerage system has been marked on respective plans.

The sewer lines have been designed for three times the average D.W.F. in relation to water supply demand. It has been assumed that about 80% of the domestic water supply shall find its way into the proposed sewer. Sewer lines shall be laid to a gradient maintaining minimum self-cleaning velocity of 2.46 ft/sec.

Necessary design statement for entire sewerage system has been prepared and attached with the estimate. Manning's formula has been used for the design of the sewerage system.

STORM WATER DRAINAGE

Since the Master Scheme proposes pipe drains integrated with rainwater harvesting pits, we propose laying pipe drains with the required number of catch basins for storm water disposal. Rain intensity has been taken as 50 mm/hour. A minimum storm water pipe size of 400 mm diameter will be provided and designed according to Manning's formula.

FIRE

As per N.B.C. (National Building Code), fire tanks & required capacity pumps have been provided as shown on the plan. Similarly, irrigation pumps of required capacity have been provided.

SPECIFICATIONS

The work will be carried out in accordance with the standard specifications of P.H. as laid down by the Haryana Government/HSVP.

ROADS

Cost of road has been taken in the estimate.

STREET LIGHTING

Provision of lighting on surrounding area has been made.

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HORTICULTURE

Estimates and details of plantation, landscaping, signage etc, has been included.

RATES

The estimate has been prepared based on the present market rates.

COST

Sr. No.	Particulars	Estimated Expenditure
1	Internal Roads and Pavements	353.35
2	Water Supply system	97.45
3	Storm Water drainage	116.94
4	Sewerage system	97.45
5	Street Lighting	50.01
6	Play grounds and Parks	103.80
7	Electricity supply system	136.43
8	Security and fire-fighting	300.02
9	STP	83.63
10	Underground water tank	38.98
11	Rain water harvesting	27.45
12	Electrical sub station	38.98
13	DG	371.82
14	Ventilation	139.05
Total		1955.36

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(AUTHORIZED SIGNATORY)



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