

2.38125 ACRES COMMERCIAL COLONY

SECTOR-103

GURUGRAM MANESAR URBAN COMPLEX

GURUGRAM

**OCIMUM ESTATES
PVT. LTD. GURUGRAM**

**ESTIMATE FOR PROVIDING WATER SUPPLY, SEWERAGE, STORM
WATER DRAINAGE, ROADS, STREET LIGHTING AND
HORTICULTURE IN RESPECT OF 2.38125 ACRES COMMERCIAL
COLONY, SECTOR-103, GURUGRAM MANESAR URBAN COMPLEX,
GURUGRAM**

For OCIMUM ESTATES PVT. LTD.

Authorised Signatory

CONSERVE WATER

INDEX

Sr. No.	CONTENTS
1.	REPORT
2.	DESIGN CALCULATIONS
3.	FINAL ABSTRACT OF COST
4.	WATER SUPPLY
5.	SEWERAGE
6.	STORM WATER DRAINAGE
7.	ROADS
8.	STREET LIGHTING
9.	HORTICULTURE
10.	MAINTENANCE CHARGES AND RESURFACING OF ROADS
11.	DESIGN DATA OF ROADS
12.	DESIGN DATA OF WATER SUPPLY
13.	DESIGN DATA OF FLUSHING PIPE LINE
14.	DESIGN DATA OF SEWERAGE
15.	DESIGN DATA OF STORM WATER DRAINAGE
16.	LAYOUT DRAWINGS

For OCIMUM ESTATES PVT. LTD.



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ESTIMATE FOR PROVIDING WATER SUPPLY, SEWERAGE, STORM WATER DRAINAGE, ROADS, STREET LIGHTING AND HORTICULTURE IN RESPECT OF COMMERCIAL COLONY 2.38125 ACRES IN SECTOR-103 GURUGRAM MANESAR URBAN COMPLEX BEING DEVELOPED BY M/S OCIMUM ESTATES PVT. LTD. GURUGRAM.

REPORT

The Haryana Government has prepared a master plan for development of Residential /Industrial/Commercial GURUGRAM MANESAR URBAN COMPLEX M/S OCIMUM ESTATES PVT. LTD. GURUGRAM has decided to develop a part of the area in this master plan and has named this part as 2.38125 Acres Commercial colony Sector-103. License has already been granted by DTCP wide License No. 144 of 2014 dated 01.09.2014. The brief details of the scheme are as under:-

WATER SUPPLY

1 Source

The source of water supply in this area is tubewells at present as the underground water is potable and fit for human consumption. Moreover water is available at reasonable depth. The average yield of tubewell with 40-45 ft strainers will be about 15000 litre per hour. The recharging of underground water table in this belt is stated to be good. However still we shall resort to rain water harvesting system to keep up the recharging system. The number of tubewells required for the above area has been worked out and the tubewells will be bored in tune with growth of demand to avoid absence of the tubewells. The ultimate requirement of tubewells includes provisions of 10% stand by. Ultimately, water shall be supplied to the Project by GURUGRAM MANESAR URBAN COMPLEX, GURUGRAM.

2 Design

The scheme has been designed for visitors to the commercial colony. The rate of water supply per head per day for various structures has been taken as per HSVP and N.B.C. norms. In addition to above necessary provision of water for miscellaneous purposes have been taken into account for calculating the maximum quantity of water requirement.

[Pick the date]

3 Pump chambers and Pumping Machinery

Provisions has been made for pump chambers and pumping machinery for tubewells as the water supply is to be arranged by taking water from tubewells.

4 Under Ground Storage

Provision has been made for water which caters for the domestic as well as for firefighting requirement.

5 Boosting Station

The boosting station is being planned near underground storage tank and near S.T.P.catering to the above requirement

6 Distribution System

The distribution system for this development has been designed as per HSVP norms @ 3 times the average rate of flow on HazenWilliam formula. Necessary provision for laying CI/DI pipes conforming to relevant IS standards along with valves and specials has been made in the project. The minimum terminal head at any point will be more than 37.00 meters above G.L. so that it can serve ALL THE FLOORS construction envisaged in the plan. Minimum pipe dia for distribution is kept as 100 mm dia.

7 Rising mains

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


8 Sewerage

The sewer lines have been designed for 3 times average DWF in relation to the water supply demand assuming that 75% of the domestic water supply shall find its way into the proposed sewer. SW pipe sewers have been proposed and designed to run half full. The sewers have been designed on 0.77 M per second minimum velocity i.e. self cleansing velocity. Necessary provision for laying SW pipes manholes etc. has been made in this estimate. Provision has also been made for construction of S.T.P. of capacity of 0.075 MLD. The water connection for needs of flushing water will be made with the effluent of the sewage treatment plant.

[Pick the date]



2

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9 Storm water Drainage

The storm water drainage is being designed as per HSVP norms to carry 6.25mm rainfall per hour for intramural and 3.125mm rainfall intensity for extramural sewers. Also suitable provisions are contemplated in our scheme to ensure better recharging of underground water table in the area R.C.C. Hume pipes drain with minimum 400mm dia is proposed in this area. The storm water collected will be discharged into the main HSVP sewer lying near the commercial colony by pumping of storm water or by gravity.

10 Roads

The roads in the colony have been planned as per requirement of HSVP. The following specifications have been adopted which are reproduced below.

The specifications of roads

- (i) GSB-300 mm in one layer
- (ii) WBM-250 mm in two layers
- (iii) BM-50 mm thick
- (iv) SBC/MSS-40 mm thick

The above construction shall be done on well compacted sub grade as per specifications. Complete work will be carried out as per MORTH specifications, IRC guide lines or HSVP specifications, which ever applicable.

11 Street lighting

The provision has been made on lump sum basis.

12 Horticulture

The usual provision of road sideplantation and tree guards has been made for all roads. The parks shall be developed by providing lawns etc.

13 Specifications

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

14 Rates

Estimate for providing services in this pocket has been prepared on the recent market rates.

15 Cost

[Pick the date]

The total cost of development in this project including various P.H. and B & R services works out to ~~Rs.379.90~~ ^{304.45} Lac including 3% contingencies, P.F. charges, 49% departmental, price escalation, unforeseen administrative charges, maintenance charges and resurfacing of roads.

The cost per gross acre for the proposal works out to be ~~Rs.159.54~~ ^{127.25} Lac which covers the provision of services like water supply, sewerage, storm water drainage, roads, street lighting and plantation including maintenance thereof as well as future expansion whatsoever indicated.

[Pick the date]

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2.38125 Acres COMMERCIAL COLONY, SECTOR 103 GURUGRAM
MANESAR URBAN COMPLEX, GURUGRAM

DESIGN CALCULATIONS

Daily Requirement of Water Supply

DOMESTIC REQUIREMENT(On Area Basis)

- (a) Covered area on ground floor = 4742.510 Sq.mts
Population @ 10 Sqm per person = 474 Persons
= 4742.510/10 = 474.25
Requirement of water supply @ 45 ltr / head / day = 45 x 474 = 21330.00 Litre
= 21.33 KL
= 3844.620 Sq.mts
= 384 Persons
= 17280.00 Litre
= 17.28 KL
= 3326.250 Sq.mts
= 333 Persons
= 14985.00 Litre
= 14.98 KL
- (b) Covered area on first floor
Population @ 10 Sqm per person = 2175.10/10 = 217.51
Requirement of water supply @ 45 ltr/head/day = 218 x 45 = 9810.00 Litre
= 9.81 KL
= 1265.56 Sq.mts
= 127 Persons
= 6345.00 Litre
- (c) Covered area on second floor
Population @ 10 Sqm per person = 3326.250/10 = 332.62
Requirement of water supply @ 45 ltr/head/day = 333x 45 = 14985.00 Litre
= 14.98 KL
- (d) Covered area on third floor
Population @ 10 Sqm per person = 2175.10/10 = 217.51
Requirement of water supply @ 45 ltr/head/day = 218 x 45 = 9810.00 Litre
= 9.81 KL
= 1265.56 Sq.mts
= 127 Persons
= 6345.00 Litre
- (e) Covered area on fourth floor
Population @ 10 Sqm per person = 1265.56/10 = 126.56
Requirement of water supply @ 45 ltr/head/day = 127x 45 = 5715.00 Litre
= 5.71 KL
= 571.50 Sq.mts
= 57 Persons
= 2704.50 Litre
= 2.70 KL

[Pick the date]



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- f) Covered area on fifth floor (Office)
 Population @ 10 Sqm per person
 = 1405.41 / 10 = 140.54
 Requirement of water supply @ 45 ltr/head/day = 141 x 45
 = 6.34 KL
 = 1405.41 Sq.mts
 = 141 Persons
 = 6345.00 Litre
 = 6.34 KL
- g) Covered area on sixth floor (Office)
 Population @ 10 Sqm per person
 = 1260.52 / 10 = 126.05
 Requirement of water supply @ 45 ltr/head/day = 126 x 45
 = 1260.520 Sq.mts
 = 126 Persons
 = 5670.00 litre
 = 5.67 KL
- (h) Take requirement of water supply for
 Terrace floor mummy and basement
 = 4.00KL
- TOTAL = 85.12KL

DOMESTIC REQUIREMENT

- (a) Ground floor
 No. of shops
 No. of attendants @ 4 attendants per shop
 = 86 x 4
 Water requirement @ 70 ltr / head / day = 70 x 628
 = 86 Nos.
 = 344 Nos.
 = 24080 Litres
 = 24.08 KL
- (b) First floor
 No. of shops
 No. of attendants @ 4 attendants per shop
 = 85 x 4
 Water requirement @ 70 ltr / head / day = 70 x 340
 = 85 Nos.
 = 340 Nos.
 = 23800.00 Litres
 = 23.50 KL
 = 00.40 litres
 = 24.20

[Pick the date]



6

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(c) Second floor

(i) No. of shops
= 6 Nos.

No. of attendants @ 4 attendants per shop
= 6x4 = 24 Nos.

Water requirement @ 70 ltr / head / day = 70 x 24
= 1680.00 Litres
= 1.68 KL

(ii) Audies
No of Audies

No of Seats on 2nd floor = $752/3=250.67$
Water requirement @15 liter/seat 251 x15
= 376500 litres
= 3.76 KL

(iii) Restaurants

Area
No of Seats = 540/4
Water requirement @ 70 liters/seat = 135x70
Food court
No Seats
= 540 sq.m
= 135 Nos
= 9450.00 litres
= 9.45 KL

Water requirement @15 liter/seats = 15x196

Total

= 196 Nos
= 2940.00
= 2.94 KL
= 17.83 KL

(d) Third floor

(i) Audies
No of Seats on 3 floor

Water requirement @15 liter/seats= 251x15

= 251 Nos
= 3765.00 liters
= 3.76 KLD

(ii) Offices

Area of Offices

Population @10Sq.m per person
= $1016.42/10=101.64$

Water requirement@70 liters/head/day= 70×102

= 1016.42 Sq.m

= 102 persons
= 7014.00 liters

= 7.01 KLD

= 10.77 KLD

Total

[Pick the date]

(e) Fourth floor
 (i) Audis
 Total No of Seats Audies = 251 Nos
 Requirement of water supply @ 15
 liters/Seats = 15 x 251
 = 3765.00 liters
 = 3.76 KLD
 (ii) Office
 Area of Office = 780.00 Sq.m
 Population @ 10 Sq.m per
 parson = 780.00 / 10 = 78.00
 Requirement of water Supply @ 70
 liter/head/day = 70 x 78
 = 5460.00 liter
 = 5.46 KI
 = 9.22
 Total

(f) Fifth floor (offices)
 Covered area for offices = 1405.41 SQ M
 Population @ 10 sq.m. per person = 141 Nos.
 = 6345.00 Litres
 = 6.34 KL
 Water requirement @ 45 ltr / head / day = 45 x 141

(g) Sixth floor (offices)
 Covered area for offices = 1260.52 SQM.
 Population @ 10 sq.m. per person = 126 Nos.
 = 5670.00 Litres
 = 5.67 KL
 Water requirement @ 45 ltr / head / day = 45 x 126

(h) Terrace & mummy & basement = 1.50
 Add for visitors and miscellaneous = 5.00
 Total = 104.61

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Say

= 105.00 KL

Requirement on the basis of Thumb Rule of HSUP
@25000 litre/acre/day = 2.38125×25000

= 59531.25 litre

= 59.53 KL

Hence assume total water requirement of colony
perday

= 105.00KL

2. Assume requirement for horticulture

= 5000.00 Litres

= 5.00 KL

3. Area under roads = 0.64 Acres

Therefore daily water requirement for washing of roads = 5000.00 Litres
and floors etc

= 5.00 KL

4. Total daily requirement

a. For domestic use (1)

= 105.00 KL

b. Under parks & roads (2 + 3) = $5.00+5.00$

= 10.00KL

SAY

= 10.00KL

5. Assuming domestic requirement of water for flushing as
40 % of total domestic requirement. Then, daily
requirement of water supply for flushing

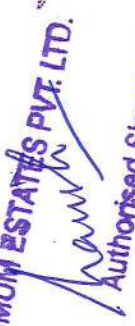
= 42.00 KL

= 0.40×105.00

SAY

[Pick the date]

9

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7. Daily requirement of potable domestic water
= 105.00-42.00

= 63.00 KL

~~105.00-42.00~~

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2.38125 Acres COMMERCIAL COLONY, SECTOR-103 GURUGRAM
MANESAR URBAN COMPLEX

TUBEWELLS

Assuming working hours of tube well = 16
Assuming discharge/hour of each tube well = 15000 Litre/Hour
Total domestic demand = 105.00KLD
No of tube wells Required for = $\frac{105.00}{16 \times 15.00}$ = 0.66
Add 10% as stand by = 0.66+0.07 = 0.73
Say 1 No.

Hence it is proposed to provide 1No. tubewell.

PUMPING MACHINERY FOR TUBE WELLS

Gross working load = 45.00 m
Average fall in is S.L. = 3.00 m
Depression head = 9.00 m
Friction Loss = 3.00m
Total = 60.00m
B.H.P. = $\frac{15,000 \times 60}{60 \times 60 \times 75 \times 0.6}$ = 5.50
Say 6.50

UNDERGROUND STORAGE TANK

(POTABLE DOMESTIC WATER SUPPLY)

Total daily requirement for domestic use = 63.00 KL

Capacity of underground tank reqd. = 63.00 / 2 = 31.50 KL

However it is proposed to construct underground storage tank of capacity 100.00 KL for domestic use.

UNDERGROUND STORAGE TANK

(FLUSHING AND IRRIGATION WATER)

Total daily requirement for flushing = 42.00 KL

Add for irrigation and sweeping of roads = 10.00 KL

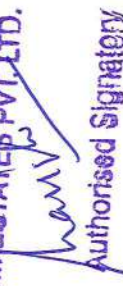
TOTAL = 52.00 KL

Capacity of underground tank reqd. = 52.00 / 2 = 26.00 KL
SAY 55.00 KL

Hence, it is proposed to provide underground R.C.C. tank of capacity 100.00 KL for domestic needs, 50.00 KL for flushing cum irrigation & 200.00 KL for firefighting purpose.



For OCIMUMESTATES PVT.LTD.



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BOOSTING MACHINERY (A) POTABLE WATER SUPPLY

Daily requirement for domestic use (Potable)	= 63.00 KL
Assuming 8 hours running 1 pumps (with one stand by)	
Discharge/hour	= $\frac{63.00}{8}$ = 7.875 KL/hr = 131.23.00 lpm
Head of Pump	SAY = 150.00 lpm
i) Suction lift	= 4.00M
ii) Friction Loss in main & specials	= 4.00M
iii) Free head required	= 37.00 M
TOTAL	= 45.00M
SAY	= 50.00 M
B.H.P. of Motor	= $\frac{150 \times 50}{60 \times 75 \times 0.6}$ = 2.77
	SAY = 3.00 B.H.P.

It is proposed to provide 2 Nos. of pumping sets each capable of delivering 150 lpm discharge with a total head of 50 m (one working and one stand by).

BOOSTING MACHINERY (B) WATER SUPPLY FLUSHING AND IRRIGATION

Daily requirement of water supply for flushing	= 42.00 KL
Add for irrigation	= 10.00
Assuming 8 hours running 2 pumps (with one stand by)	= 52.00
Discharge/hour	= $\frac{52.00}{8}$ = 6.50 KL/ hr Say = 108.33 lpm = 150.00 lpm
Head of Pump	
i) Suction lift	= 4.00 M
ii) Friction Loss in main & specials	= 4.00 M
iii) Free head	= 37.00 M
TOTAL	= 45.00 M
SAY	= 50.00 M

[Pick the date]

B.H.P. of Motor

$$= \frac{150 \times 50}{60 \times 75 \times 0.6} = 7.5$$

Say = 10.00H.P.

Hence it is proposed to provide 2 Nos. (1 Working & 1 Standby) pumping sets of 150 lpm with total head of 90.00 M as for boosting machinery of domestic flushing cum irrigation water supply.

~~10~~

PUMPS FOR FIRE PROTECTION

S.No.	PARAMETERS	LOCATION	PUMP SETS		
			Jockey	Main	Diesel
a.	Discharge in lpm	Pump Room	180 lpm	2280 lpm	2280 lpm
b.	Head in meters		120	120	120
c.	HP		7.5	125	125
d.	Quantity in nos.		1	1	1

RATING OF GEN SET (FOR BOOSTERS)

Pumps for boosting 2 Nos. @ 3.00 P.H. per each
Lighting etc.

= 6.00 H.P.

= 2.0 H.P.

= 8.00 H.P.

= 8.00 x 0.746 x 1.5

= 8.95KVA

= 0.89 KVA

= 10.84 KVA

= 12.5 KVA

Add 10% extra

Total

Say

RATING OF GEN SET (FOR TUBEWELL)

B.H.P of pumping set for tubewell

= 7.50

Rating of gen SES

= 7.5 x 0.746 x 1.5 = 8.39

Add 10 % extra

= 0.84

= 9.23

= 10 KVA

say

[Pick the date]

For OCIMUM ESTATES/PVT. LTD.

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2.38125 Acres COMMERCIAL COLONY, SECTOR-103,
GURUGRAM MANESAR URBAN COMPLEX,
GURUGRAM

FINAL ABSTRACT OF COST

	Amount (Rs. In Lac)
Sub Work No. I Water Supply	142.00 12.9.15
Sub Work No. II Sewerage	33.20 25.00
Sub Work No. III Storm Water Drainage	32.40
Sub Work No. IV Road Work	75.60 55.60
Sub Work No. V Street Lighting	5.00 5.50
Sub Work No. VI Horticulture Work	5.80
Sub Work No. VII Maintenance Charges for 10 years i/c resurfacing of roads after 1 st 5 years and 2 nd 5 years	-85.40- 58.50
TOTAL	304.45 -379.90

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Cost per Here = $\frac{304.45}{2.38125} = ₹ 127.85 \text{ Lac per Ha}$

[Signature]

Executive Engineer
HSVP Division No. V,
Gurugram

[Pick the date]

For OCIMUM ESTATES PVT. LTD.
[Signature]
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2.38125 Acres COMMERCIAL COLONY, SECTOR-103,
GURUGRAM MANESAR URBAN COMPLEX,
GURUGRAM

ABSTRACT OF COST (WATER SUPPLY)

	Amount (Rs. In Lac)
	TOTAL
Sub Work No. 1 Head Works	40.50 32.25
Sub Work No. 2 Pumping Machinery	61.40 56.80
Sub Work No. 3 Distribution System	11.00
Sub Work No. 4 Fire Ring Main	17.40
Sub Work No. 5 Flushing & Irrigation	11.70
TOTAL	129.15 -142.00



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Sub Head No.I	Water Supply Head Works	Amount (Rs. in Lac)
1. Boring and installing 200 i/d tubewell with reserve/direct rotary rig complete with pipe strainer to a depth of about 150 m complete. 1 Nos. @ 8,00,000/-each		7.00 8.00
2. Constructing pump chambers as per standard design of PWD PH/HSVP of size 1.5M x 1.55 M x 1.5M 1 Nos. @ 1,00,000/- L.S.		1.00
3. Construction of boosting chambers of suitable size along with underground tanks, pumping machinery and generating set etc. complete in all respect.		
Details of boosting Station		
i) Construction of boosting chamber (1 Nos.)		3.00
ii) U.G. tank 100 KL capacity for domestic water supply incl.200 KL for firefighting and 50 KL capacity at S.T.P. for flushing 350 KL @ Rs. 4.00 per ltr.		9.00 14.00
4. Add for carriage of materials (L.S.)		1.00
		27.00 21.00
Add 3% Contingencies & P.E. Charges		0.81 0.63
		27.81 21.63
Add 49% departmental charges price escalation, unforeseen charges		13.62 10.60
GRAND TOTAL		40.47 32.23
SAY		40.50 32.25

|| [Pick the date]

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2.38125 Acres COMMERCIAL COLONY, SECTOR-103,
GURUGRAM MANESAR URBAN COMPLEX,
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Sub Work I Sub Head No. II	Water Supply Pumping Machinery Amount (Rs. in Lac)
1. Providing and installing electricity driven electro or submersible sets capable of delivering about 15.00 KL water per hour against a total head of 60 M complete with motor and other accessories.	1.50
2. Provision for diesel engine Genset stand by arrangement for tubewell	2.00
1 No. 10 KVA @ 2,00,000/- each	
3. Provision for cheap pressure type chlorination plant complete.	
1 No. @ 1,00,000/-	1.00
4. Provision for making foundations wherever necessary and erection of pumping machinery	
1 Nos. (L.S)	1.00
5. Provision for pipes, valves, and specials inside the pump chamber (L.S)	
6. Provisions for electric services connection, transformer including electric fittings for tubewells chambers complete. (L.S)& transformer	2.00
7. Providing and installing centrifugal boosting pumping 2 sets, capable of delivering 150 lpm water at 50M head complete in all respects (3.00 H.P.) each& 2 sets capable of delivering 150 lpm of water at 50 m head complete in all respect (3.00H.P.) each at S.T.P.	
(a) 4 Nos. @ 1,00000/-each (L.S)	4.00

[Pick the date]

8. Providing and fixing pumping sets of following capacity for fire protection

i) 180 LPM at 120 M Head 1 No. 7.5 H.P.	2.50
ii) 2280 LPM at 120 M Head 1 No. 125 H.P.	7.50
iii) 2280 LPM at 120 M Head 1 No. Diesel Pump 125 H.P.	10.00
iv) 180 LPM at 120 M Head 1 No. Diesel Pump 7.5 H.P.	2.50
9. Provision for Gen set 12.50 KVA (L.S.)	2.50 3.00
10. Provision for carriage for materials and other unforeseen items L.S.	2.00
	<u>40.00</u> 37.00

Add 3% contingencies & P.E. charges

~~1.20~~ 1.11

TOTAL

41.20 38.11

Add 49% departmental, escalation & unforeseen charges.

~~20.19~~ 18.67

GRAND TOTAL

61.39 56.78

SAY

~~61.40~~ 56.80

[Pick the date]

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2.38125 Acres COMMERCIAL COLONY, SECTOR-103,
GURUGRAM MANESAR URBAN COMPLEX, GURUGRAM

Sub Work No. I Sub Head No. III	Water Supply Distribution System/Rising Main Amount (Rs. in Lac)
1. Providing, laying, jointing and testing D.I.K9 class pipes including cost of excavation complete as per specifications. 100 mm dia i/d 400 mtrs @ Rs. 1250/- mtr	5.00
2. Providing and fixing sluice valve or central valves including cost of brick masonry chambers complete in all respect. 100 mm dia i/d 2 Nos. @ Rs. 12000/- Each	0.24
3. Providing and fixing air valves and scour valves including cost of brick masonry chamber. 1 Nos. @ Rs. 10,000/- Each	0.10
4. Providing and fixing indicator plates for sluice valve, air valve etc. 3 Nos. @ Rs. 1000/-Each	0.03
5. Provision for rising main tubewells to U.G. tank i) 100mm i/d 20mtrs @ Rs. 1250/-m HSVP	0.25
6. Provision for rising main from main HSVP water line to U.G. tank. (L.S.) 100 mm i/d 60Mtrs @ Rs. 1250/-Mtr.	0.75
7. Providing for carriage of material L.S.	1.00
Add 3% P.E.& Contingencies	7.37
TOTAL	0.03
Add 49% Escalation, departmental, adm. and unforeseen charges.	7.40
	3.63
SAY	11.03
	11.00

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**2.38125 Acres COMMERCIAL COLONY, SECTOR-103,
GURUGRAM MANESAR URBAN COMPLEX, GURUGRAM**

Sub Work No. 1

Sub Head No. IV

Fire Ring Main
Amount (Rs. In Lac)

1 Providing, laying, jointing and testing M.S pipe for fire rising main including cost of fittings, valves, connection etc. complete in all respect.

i) 150mm M.S Pipe line 436 m @ Rs. 1750/- M 7.63

ii) 80mm M.S Pipe line 45 m @ Rs. 1000/- M 0.45

2 Providing and fixing sluice valves including cost of surface boxes and masonry chambers etc. complete in all respects.

150mm dia 2 Nos. @ 15,000/-Each 0.30

3 Providing and fixing air valves and scour valves including cost of brick chambers complete in all repeat

2 Nos. @ Rs. 15,000/- each 0.30

4 Providing and fixing fire hydrant with accessories 15 Nos. @ Rs. 10,000/- 1.50

5 Providing and fixing indicating plates

19Nos. @ Rs. 1000/- Each 0.19

6 Providing for carriage of material (L.S.) 1.00

TOTAL

11.37

Add 3% contingencies & P.E. charges

0.34

TOTAL

11.71

Add 49% departmental, escalation, adm. and unforeseen charges.

5.74

GRAND TOTAL

17.45

SAY

For OCIMUM ESTATES PVT. LTD.

**2.38125 Acres COMMERCIAL COLONY, SECTOR-103,
GURUGRAM MANESAR URBAN COMPLEX, GURUGRAM**

Sub Work No. 1

Sub Head No. V

Water Supply Flushing & Irrigation

Amount (Rs. in Lac)

1.	Providing, laying, jointing and testing D.I. K ₉ pipe line including cost of excavation etc. complete in all respect as per specification a) 80 mm dia 460M @ Rs. 1000/- M	4.60
2.	Providing and fixing sluice valves including cost of surface boxes and masonry chambers etc. complete in all respects. 80 mm dia 3 Nos. @ Rs. 10000 each	0.30
3.	Providing and fixing air valves and scour valves including cost of brick masonry chambers 2 Nos. @ Rs. 10000/- each	0.20
4.	Providing & fixing 25 mm dia irrigation hydrant valve complete in all respect 16 Nos. @ Rs. 2000/e each	0.32
5.	Providing and fixing indicating plates 21 Nos. @ Rs. 1000/- each	0.21
6.	Provision for carriage of materials and other unforeseen items.	2.00
	TOTAL	7.63
	Add 3% contingencies & P.E. charges	0.21
		7.84
	Add 49% departmental, escalation, adm. and unforeseen charges.	3.84
	GRAND TOTAL	11.63
	Say	11.70

[Pick the date]

24

For OCIMUMESTATES PVT. LTD.

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**2.38125 Acres COMMERCIAL COLONY, SECTOR-103,
GURUGRAM MANESAR URBAN COMPLEX, GURUGRAM**

**SUB HEAD II
SEWERAGE SCHEME**

	Amount (Rs. in Lac)
1. Providing, lowering, cutting, salt glazed stoneware pipes and specials into trenches including cost of excavation, bed concrete, cost of manholes complete in all respect. 200 mm i/d Av. Depth upto 3.0 M-190 M @ Rs. 1350/- Per M	4.12 7.50 -12.50
2. Provision for temporary disposal arrangement till HSVP sewer laid (Including cost of S.T.P capacity 0.075 MLD) respectively.	1.00
3. Provision for road cutting and making good the same in original condition (L.S.)	1.00
4. Provision of temporary timbering etc. (L.S.)	1.00
5. Provision for making connection with HSVP master sewer line L.S.	1.00
6. Provision for vent shaft at suitable location L.S	1.00
7. Provision for carriage of material etc. and other unforeseen charges. (L.S.)	1.00
TOTAL	<hr/> 21.62 16 62
Add 3% contingency & P.E Charges.	-0.65 0.50
	<hr/> 22.27 17.12
Add 49% departmental escalation unforeseen charges.	10.94 8.39
GRAND TOTAL	33.18 25.57
SAY	33.20 25.50

[Pick the date]



For OCIMUM ESTATES PVT. LTD.

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2.38125 Acres COMMERCIAL COLONY, SECTOR-103,
GURUGRAM MANESAR URBAN COMPLEX, GURUGRAM

SUB HEAD III

STORM WATER DRAINAGE

Amount
(Rs. in Lac)

1.	Providing, laying RCC pipes drain class NP-3 with cement joint, manholes, excavation etc. complete in all respect. i) 400 mm i/d Av. Depth upto 3.00M 300 M @ Rs. 2700/- Per M	8.10
2.	Provision for road gullies with 300 mm dia pipe connection L.S.	1.00
3.	Provision of Lighting, watching and temporary diversions of traffic L.S	1.00
4.	Provision of cutting of roads and carriage of materials etc. and other unforeseen items L.S.	1.00
5.	Provision for recharge pits.	3.00
6.	Provision for connection with main HSVP storm line	1.00
7.	Provision for timbering & shoring	1.00
8.	Provision for temporary disposal arrangements till HSVP Services are provided (L.S.)	5.00
	TOTAL	21.10
	Add 3% contingencies & P.E. charges.	0.63
	TOTAL	21.73
	Add 49% departmental, escalation and unforeseen charges.	10.65
	GRAND TOTAL	32.38
	SAY	32.40

[Pick the date]



For OCIMUMENTATES PVT. LTD.


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**2.38125 Acres COMMERCIAL COLONY, SECTOR-103,
GURUGRAM MANESAR URBAN COMPLEX, GURUGRAM**

SUB WORK NO. IV

ROADWORK

Item No.	Description of Item	Unit	Qty.	Rate (Rs.)	Amount (Rs. in Lac)
1	Site Clearance				
1.1	Clearing and grubbing road land including uprooting rank, vegetation, grass, bushes, shrubs, saplings and trees girth upto 300 mm, removal of stumps of trees cut earlier and disposal of unserviceable materials and stacking of serviceable materials to be used or auctioned, upto a lead of 1000mm including removal and disposal of top soil not exceeding 150 mm thickness by manual means in areas of light jungle as per drawings and Clause 201 of Morth Specifications.	Hectare	0.35	50,000	0.17
2	Earth Works				
2.1	Provision for leveling + earth filling as per site condition approximate	Acre	2.38125	150000	3.57
3	Provision for				
i.	300mm GSB				
ii.	250mm thick stone aggregate				
iii.	50mm thick B.M.				
iv.	40mm thick MSS				
				800	22.40
		Sqm	2800	1200	33.60
4	Miscellaneous Items				
4.1	Construction of cement concrete Kerb and Channels as per specifications	Meter	900	450	5.40
4.2	Provision for foot paths etc.	Sqm	L.S	600	3.60
4.3	Providing and fixing guide maps at selected locations (L.S.)				2.00
					0.50

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27

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4.4	Provision for plot indicators (L.S.)				0.50
4.5	Provision for demarcating burgies (L.S.)				1.00
4.6	Provision for traffic arrangement				0.50
4.7	Provision for carriage of material (L.S.)				2.00
	TOTAL				36.24 49.24
	Add 3 % contingencies and P.E charges				1.09 1.47
					37.53 50.71
	Add 49% departmental charges, price escalation , unforeseen and Adm charges				18.29 24.85
	GRAND TOTAL				55.62 75.56
	SAY				55.60 75.60

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FOI OCIMUM ESTATES PVT. LTD.

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**2.38125 Acres COMMERCIAL COLONY, SECTOR-103,
GURUGRAM MANESAR URBAN COMPLEX, GURUGRAM**

**SUB WORK NO. V
STREET LIGHTING**

Amount
(Rs. In Lac)

Providing street lighting on internal roads as per standard specification in 2.38125 Acres area @ Rs. 1,50,000/- Per Acre
2.38125 x 1,50,000

3.57

Add 3% contingency charge & P.E charges.

0.11

TOTAL

3.68

Add 49% departmental charges, escalation, unforeseen, admin. Charges.

1.80

GRAND TOTAL

5.48


SAY

5.50

C/O to Final Abstract of Cost



For OCIMUM ESTATES PVT. LTD.


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**2.38125 Acres COMMERCIAL COLONY, SECTOR-103,
GURUGRAM MANESAR URBAN COMPLEX, GURUGRAM**

SUB WORK NO. VI

COST ESTIMATE

HORTICULTURE

		Amounts (Rs. In Lac)
1	Development of Lawn Area	
a)	Trenching the ordinary soil up to depth of 60cm. including removal and packing of serviceable material and disposing at a lead of 50m/ and making up the trenched area to proper level by filling with earth mixed with manure including cost of improved earth and manure.	
b)	Rough dressing of trenched area.	
c)	Grassing with "doob grass" including watering and maintenance of lawns free from weeds and fit for moving rows 7.50cm in either direction including for hedges and grill and barbed wire fencing around park and green belts (as per HSVP norms) Area (L.S.)	2.50
2	Planting of trees with tree guards road at specified locations @ 12 m intervals (L.S.)	1.00
	TOTAL	3.50 0.10 <hr/> 3.60
	Add 49% departmental, escalation, adm. and unforeseen charges	2.23
	GRAND TOTAL	<hr/> 5.83
	SAY	5.80

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**2.38125 Acres COMMERCIAL COLONY, SECTOR-103,
GURUGRAM MANESAR URBAN COMPLEX, GURUGRAM**

SUB WORK NO. VII

MAINTENANCE CHARGES AND RESURFACING OF ROADS

2nd Phase after 5 years of 1st Phase

Amounts (Rs. In Lac)

1. Provision for maintenance charges for water supply, sewerage, storm water drainage, roads, streetlights, horticulture etc. complete including operation and establishment charges as per HSVP norm after completion and resurfacing of roads after 10 years.

2.38125Acres @ Rs. ^{5.00}7.50 Lacs

11.90
~~17.85~~

2. Provision for resurfacing of roads after 1st 5 years of maintenance i.e. 100mm thick B.M. & 25mm thick premix carpet with seal coat with mechanical paver.

2800Sqm @ Rs⁵⁰⁰750/- P. Sqm

14.00
~~21.00~~

3. Resurfacing of road after 10 years of maintenance by providing 25mm thick premix carpet with seal coat with mechanical paver.

2800 Sqm @ Rs.²⁵⁰600/- per sqm total

7.00
~~16.80~~

TOTAL

~~55.65~~ 32.90

Add 3% P.E. and contingency charges

1.67 0.99

TOTAL

~~57.32~~ 33.89

Add 49% departmental charges, price, escalation unforeseen and administrator charges.

28.09 16.60

**GRAND TOTAL
SAY**

~~85.41~~ 50.49
85.40 50.50

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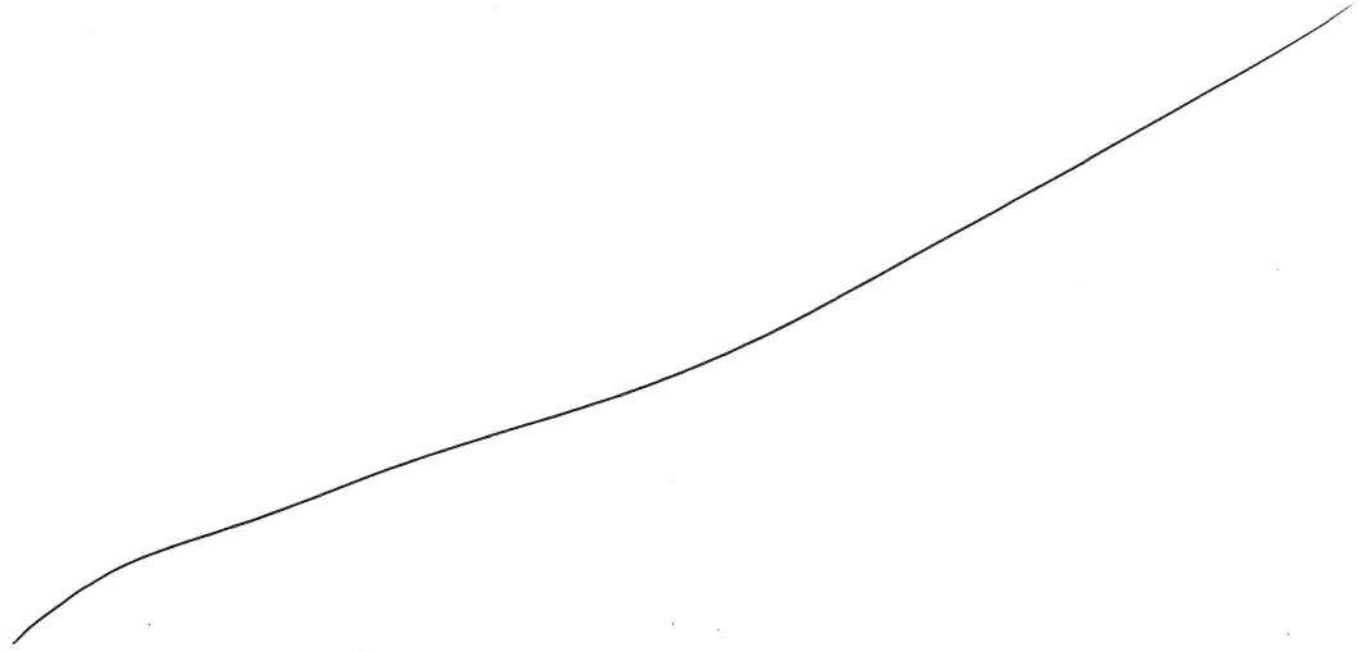
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HYDRAULIC STATEMENT WATER SUPPLY

Providing Water Supply Scheme 2.38125 Acres OCIMUM ESTATE PVT. LTD., GURUGARAM

Sr. No.	Name of Pipe Line	Type of building	Water requirement for non residential plots in KLPD	Gross water requirement in KLPD	Gross requirement of water in gallons per day
1	RA				
2	AB	Shops, Restaurant, Office	40.00	40.00	88000
3	BC	Shops, Restaurant, Food court, Office	65.00	65.00	14300

For OCIMUM ESTATES PVT. LTD.

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DESIGN STATEMENT FOR WATER SUPPLY

Providing Water Supply Scheme 2.38125 Acres OCIMUM ESTATES COLONY GURUGRAM MANESAR URBAN COMPLEX

Sr. No.	Name of Line	Water load in gallons per day			3 Times Water Load in Gallons per day	Designed Water load in gallons per day with	Size in MM	Length in M	Head loss per 1000 Mtr in M	Head Loss in pipe in Mtr	Hydraulic Level in M		Formation Level at L/E in Mtr	Terminal Head at L/E in Mtr
		Self	Branch	Total							U/E	L/E		
1	RA	5940	22000	22000	66000	72000	100	15.00	4.72	0.07	254.87	254.80	214.60	40.20
2	AB	7700	17160	7700	23100	24000	100	50.00	0.62	0.03	254.80	254.77	210.77	44.00
3	BC	14300	138600	14300	42900	48000	100	320.00	2.23	0.65	254.80	254.15	210.84	43.31

For OCIMUM ESTATES PVT. LTD.

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Schedule Quantities of D.I. Pipes & S.V.S.

Providing Water Supply Scheme 2.38125 Acres OCIMUM ESTATES PVT. LTD.

GURUGRAM

Sr. No.	Name of Line	Diameter of Pipe in MM / Length in M	Diameter of S.V. in MM / Quantity in No.	100	150	200	100	150	200
1	RA	15.00	1						
2	AB	50.00	1						
3	BC	320.00	1						
Total		385.00	3						
Say		400.00	3						

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STATEMENT FOR CALCULATION OF SEWAGE LOAD				
Providing Sewerage Scheme 2.38125 Acres OCIMUM ESTATE PVT. LTD., GURUGRAM				
Sr. No.	Name of Line	Type of building	Water Requirement in KLPD	Quantity of Sewage @ 75% of Water Requirement in cusecs
1	AB	Shops, Restaurant, Office	40.00	0.012
2	BC	Shops ,Restaurant, Office	20.00	0.006
3	CD			
4	DID!	Shops, Restaurant, Office, Food court	45.00	0.013
5	D-STP			
6	STP- HUDA SEWER	Overflow		

For OCIMUM ESTATES PVT. LTD.


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DESIGN DATA OF ROADS

2.38125 Acres COMMERCIAL COLONY GURUGRAM MANESAR URBAN COMPLEX

SECTOR-103 GURUGRAM

6.0 M WIDE ROAD

S.NO	Name of Road	Length in M	
1	R1	145.00	
2	R2	120.00	
3	R3	26.00	
4	R4	110.00	
	TOTAL	401.00	
	Add 10 % at curves	40.00	
		441.00	
	SAY	450.00	SQ.M
	Paved Area of Roads= 450.00M X 6 M	2700.00	SQ.M
	Add for extra area at entry & exit ramps and other widening	50.00	SQ.M
	Total paved area of Roads= 2700.00+50	2750.00	SQ.M
	say	2800.00	SQ.M
	Length of kerbs = 450 X 2=	900.00	M



For OCIMUM ESTATES PVT. LTD.

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DESIGN STATEMENT

Providing Sewerage Scheme 2.38125 Acres OCIMUM ESTATES PVT. LTD., GURUGRAM

S. NO.	Name of Line	Sewage Load in Cusecs			3 Times Sewage Load in Cusecs	Designed Discharge in Cusecs	Size in MM	Length in M	Slope in	Velocity in M/Sec.	Fall in M	Road Formation Level in M		Invert Levels in M		Depth in M	Avg. Depth in M
		Self	Branch	Total								U/E	L/E	U/E	L/E		
1	AB	0.012	-	0.012	0.470	200	10.00	200	0.82	0.050	214.80	214.78	213.30	213.250	1.500	1.530	1.520
2	BC	0.006	0.012	0.018	0.470	200	135.00	200	0.82	0.680	214.78	214.74	213.25	212.570	1.530	2.170	1.850
3	CD		0.018	0.018	0.470	200	10.00	200	0.82	0.050	214.74	214.75	212.57	212.520	2.170	2.230	2.200
4	DID	0.013		0.013	0.470	200	80.00	200	0.82	0.400	214.84	214.75	213.34	212.940	1.500	1.810	1.660
5	D-STR	0.009	0.031	0.031	0.470	200	15.00	200	0.82	0.080	214.75	214.75	212.52	212.440	2.230	2.310	2.290
6	STP-HUDA SEWER	0.007	0.031	0.031	0.470	200	40.00	200	0.82	0.200	214.75	214.97	213.25	213.050	1.500	1.920	1.710




 For OCIMUM ESTATES PVT. LTD.
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Schedule Quantities of S.W. Pipes			
Providing Sewerage Scheme 2.38125 Acres OCIMUM ESTATES PVT. LTD., GURUGARAM			
Sr. No.	Name of Line	Length in M	
		200	250
1	AB	10.00	
2	BC	135.00	
3	CD	10.00	
4	DID	80.00	
5	D-STP	15.00	
6	OVERFLOW	40.00	
	Total	290.00	
	Say	300.00	
			300

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For OCIMUM ESTATES PVT. LTD.
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DESIGN STATEMENT

Providing Storm Water Drainage 2.38125 Acres OCIMUM ESTATES PVT.LTD., GURUGRAM

Sr. No.	Name of Line	Area in Acres			Discharge @1/4" in Rain Fall in causes	Designed Discharge in Cusecs	Size in MM	Length in M	Slope 1 in M	Velocity in M/Sec.	Fall in M	Formation Level in M		Invert Levels in M		Depth in M	Avg. Depth in M
		Total	Branch	Self								U/E	L/E	U/E	L/E		
1	AB	1.81	-	1.81	0.45	400	135.00	400	0.91	0.34	214.80	214.74	213.87	213.53	0.93	1.21	1.07
2	BIB	0.01	0.61	0.61	0.05	400	105.00	400	0.91	0.26	214.84	214.74	213.87	213.53	0.97	1.13	1.05
3	B-HUDA STORM	-	2.42	2.43	0.61	400	40.00	400	0.91	0.1	214.76	213.97	213.53	213.43	1.21	1.54	1.38



For OCIMUM ESTATES PVT. LTD.


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Schedule of Quantities of R.C.C Pipes

Providing Storm Water Drainage 2.38125 OCIMUM
ESTATES PVT. LTS., GURUGRAM

Sr. No.	Name of Line	Length in M		
		300	400	500
1	AB		135.00	
2	BIB		105.00	
3	CD		40.00	
	TOTAL		280.00	
	SAY		300.00	



For OCIMUM ESTATES PVT. LTD.
Mohit
Authorised Signatory