

# Directorate of Town & Country Planning, Haryana

Nagar Yojana Bhavan, Plot No. 3, Sector 18 A, Madhya Marg, Chandigarh

Phone: 0172-2549349 e-mail:tcpharyana7@gmail.com

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Regd.  
To

M/s GLS Infraprojects Pvt. Ltd.,  
707, 7<sup>th</sup> floor, JMD Pacific Square,  
Sector-15, Part-II, Gurugram.

Memo. No. LC-4200 (A+B)/JE (DS)-2022/13222 Dated: 16-05-2022

**Subject:** Approval of Service Plan/Estimates of Commercial Plotted Colony on land measuring 2.95625 acres (License No. 103 of 2021 dated 08.12.2021) in Sector-95, Gurugram Manesar Urban Complex being developed by GLS Infraprojects Pvt. Ltd.

**Ref:** Chief Engineer-I, HSVP memo no. CE-I/ACE(HQ)/HDM(G)/2022/15868 dated 31.01.2022.

The Service Plan/Estimates of Commercial Plotted Colony on land measuring 2.95625 acres (License No. 103 of 2021 dated 08.12.2021) in Sector-95, Gurugram Manesar Urban Complex being developed by you, has been checked and corrected wherever necessary by Chief Engineer-I, HSVP, Panchkula and are hereby approved subject to the following terms & conditions:

1. That you will abide by all the conditions and notes mentioned in the Service Plan Estimates of the subject cited colony contained in the Chief Engineer-I, HSVP, Panchkula office memo dated 31.01.2022.
2. That you will have to pay the proportionate cost to the External Development Charges for setting up Commercial Plotted Colony for the services like water supply, sewerage, storm water drainage, roads, bridges, community building, street lighting, horticulture and maintenance thereof etc. on gross acreage basis as and when determined by HSVP. These charges will be modifiable as and when approved by the authority/State Govt. and will be binding upon the colonizer.
3. The category wise area shown on the plans and proposed density of population thereof has been treated to be correct for the purpose of services only.
4. That you shall be responsible for maintenance and upkeep of all roads, open spaces, public parks and public health services for a period of five years from the date of issue of the completion certificate under rule 16 unless earlier relieved of this responsibility and there upon to transfer all such roads, open spaces, public parks and public health services free of cost to the Government or the local authority, as the case may be.
5. The wiring system of street lighting will be under ground and the specifications of the street lighting fixture etc. will be as per relevant standard of HVPNL.


LED lamps shall be provided to meet the requirement of HVPNL and as well environment.

6. It is made clear that appropriate provision for fire-fighting arrangement as required in the NBC/ISI should also be provided by you and fire safety certificate should also be obtained from the competent authority before undertaking any construction. You shall be sole responsible for fire safety arrangement.
7. All technical notes and comments incorporated in the estimates in two sets will also be applicable. A copy of these is also appended as Annexure-A.
8. That you shall transfer the land forming part of 24 mtr wide service road/internal circulation road, free of cost in favour of Govt. and submit the mutation in this regard within 30 days.

**Note (1):-**

That you shall execute the development works as per Environmental Clearance and comply with the provisions of Environment Protection Act, 1986, Air (Prevention and Control of Pollution of Act 1981) and Water (Prevention and Control of Pollution of 1974). In case of any violation of the provisions of said statutes, you shall be liable for penal action by Haryana State Pollution Controlled Board or any other Authority Administering the said Acts.

A copy of the approved service plan/estimates is enclosed herewith. You are requested to supply three additional copies of the approved service plan/estimates to the Chief Administrator, HSVP, Panchkula under intimation to this office. DA/As Above.

  
(S.K Sehwat)  
District Town Planner (HQ)  
For Director, Town & Country Planning,  
Haryana, Chandigarh

Endst. No. LC-4200 (A+B)/JE(DS)/2022/

Dated:

A copy is forwarded to the Chief Engineer-I, HSVP, Panchkula with reference to his memo no. CE-I/ACE(HQ)/HDM(G)/2022/15868 dated 31.01.2022 for information and necessary action please.

(S.K Sehwat)  
District Town Planner (HQ)  
For Director, Town & Country Planning,  
Haryana, Chandigarh

**INTERNAL DEVELOPMENT WORKS**

**DESIGN AND COST ESTIMATES**

**FOR**

**PROPOSED LICENSE TO SET UP PLOTTED  
COMMERCIAL COLONY ON AN AREA  
MEASURING 2.95625 ACRES IN THE  
REVENUE ESTATE OF VILLAGE DHORKA,  
SECTOR-95, DISTT. GURUGRAM.**

**OWNER**



**M/S GLS INFRAPROJECTS PVT. LTD.**

**ESTIMATE FOR PROVIDING INTERNAL DEVELOPMENT WORKS OF PLOTTED COMMERCIAL COLONY ON AN AREA MEASURING 2.95625 ACRES IN THE REVENUE ESTATE OF VILLAGE DHORKA, SECTOR-95, DISTT. GURUGRAM**

**Report**

Gurugram town of Haryana State is situated in 30 Kms from Delhi. Being in the national capital Region, the town has fast developing tendency and potential. Further, it has also started sharing the growing Industrial load of Delhi. In order to relieve the growing pressure of population in National Capital of Delhi, Haryana Shahari Vikas Pradhikaran (HSVP) has already developed many commercial/residential sectors. Further to the increasing demand HSVP has planned to develop new sectors in Gurugram. This report and estimate is for approximately 2.95625 Acres, Sector - 95, Gurugram, proposed to be developed by M/S GLS INFRAPROJECTS PVT. LTD.

**WATER SUPPLY**

At present the source of water supply in this area is HSVP Supply direct connection to each plot. The water supply system has been designed as per the Hazen William formula.

**DESIGN**

The scheme has been designed for population as given in attached sheets.

**SEWERAGE SCHEME**

Sewer line from proposed development will be connecting to the proposed sewage treatment plant( STP). Surplus sewage / treated effluent shall be disposing to HSVP sewer line on Sector Road. The sewerage system has been marked on the respective plans.

Sewer lines have been designed for three times average D.W.F in relation to water supply demand. It has been assumed that about 80% of the domestic & flushing water supply shall find its way into the proposed sewer. Sewer lines shall be laid to a gradient maintaining minimum 2.46 ft./sec self-cleaning velocity. Sewer line up to 400mm dia has been designed to run half full and above 400mm dia has been designed to run three fourth full at peak flow. Necessary provision for laying S.W/RCC pipe sewer line, construction of required number of manholes etc., has been made in the estimate. Considering the future expansion/ development STP capacity is increased.

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

**STORM WATER DRAINAGE**

We are proposing to lay underground R.C.C. pipe drains with required number of catch basins, manholes and rainwater recharge pits with over flow to the Proposed HSVP storm drain on sector Road. The intensity of rain fall has been taken as ¼" per hour. R.C.C storm water line will be designed as per Manning's formula.



Plotted SCO Development at Sec-95, Gurugram

**SPECIFICATIONS**

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

**ROADS**

Estimate of Road work is prepared as per revised specifications adopted by HUDA

**STREET LIGHTING**

Provision for streets lights also has been made

**HORTICULTURE**

Estimates of plantation, landscaping, signage, etc., have been included

**RATES**

The estimate has been prepared based on the present market rates

**COST**

The total cost of the scheme, including cost of all services works out to be ~~RS. 2,56,62,625.99~~ <sup>30081904</sup> including 3% Contingencies and 49% Departmental Charges <sup>442.85 Lakh</sup>

Area of commercial development as per License ~~6.40625 Acre~~ <sup>2.95625 Acres</sup>

Net Cost Per Acre ~~Rs. 40,05,879.57~~ <sup>Rs 149.80 Lakh</sup>

For: **M/S GLS INFRAPROJECTS PVT. LTD.**

Authorized Signatory



**ESTIMATE FOR PROVIDING INTERNAL DEVELOPMENT WORKS OF PLOTTED COMMERCIAL COLONY ON AN AREA MEASURING 2.96825 ACRES IN THE REVENUE ESTATE OF VILLAGE DHORKA, SECTOR-95, DISTT. GURUGRAM.**

<b>DAILY WATER DEMAND &amp; PUMPING SYSTEM</b>													
Sl. No.	Description	Multi-dwelling unit or Area in Sqm.	Population /Unit or per Sqm.	Total Population	Water Demand in LPCD	Total Water Demand in LPD	Domestic Water Demand in LPCD	Total Domestic Water Demand in	Flushing Water Demand in LPCD	Total Flushing Water Demand in	80% of Domestic in LPCD	Sewage Flow of 100% Flushing in LPCD	Total Flow in LPD
1	Ground Floor	4187	3	1396									
1.1	First Floor	2589.50	6	432									
	Total			1827									
2	Permanent Population @ 10 %			183	45	8222.63	25	4568.13	20.00	3654.50	3654.50	3654.50	7309.00
3	Floaring Population @ 90 %			1645	15	24667.88	5	8222.63	10.00	16445.25	6578.10	16445.25	23023.35
4	Second Floor to Fourth Floor	10996.40	10	1100	45	49483.80	25	27491.00	20.00	21992.80	21992.80	21992.80	43985.60
5	Visitors @ 10 % of Office Staff			110	15	1649.46	5	549.82	10.00	1099.64	439.86	1099.64	1539.50
6	Maintenance Staff			10	45	450.00	25	250.00	20.00	200.00	200.00	200.00	400.00
8	Horticulture . Assumed area 15 % of the Plot @ 5 LPD/ sqm	LS				10000				10000			0
9	Filter Back Wash					1500		1500		0			1500
	Total			1292		95974		42582		53392			77757
<b>Domestic Water Demand</b>													
	Flushing water Demand								43 KLD				
	Irrigation Water Demand								43 KLD				
	Sewage Generated								10 KLD				
	STP Capacity adding 20 % extra as required by MOEF								78 KLD				
	SAY								93 KLD				
	Fire Water Tank Cap.								94 KLD				
	Fire demand = $100 * (P \text{ in thousand})^{1/2}$ = $100 * (1.292)^{1/2} = 113.67 \text{ KL}$ only for Underground static Reservoir)								43 KL				
	Total Underground Water Tank Capacity								115KLD				
1	Water Transfer Pumpset (Domestic)												
	a) Water Pump Capacity												
	i Total Domestic Demand (l)								43				KLD
	ii Daily Working Hrs for pumping								4				Hrs
	iii Required Pumping Capacity								177				LPM
	iv Proposed pump set $(1W + 1S)$												
	v Each pump Capacity								177				LPM
	b) Water Pump Head								180				LPM
	i Suction lift								0				Mtr
	ii Elevation Height								10				Mtr
	iii Residual Head required at farthest ferrule								17				Mtr
	iv Friction Head Loss								15				Mtr

Flushing Tank = 53392 X 60% = 32035.2 KL  
SAY 35 KL



**ESTIMATE FOR PROVIDING INTERNAL DEVELOPMENT WORKS OF PLOTTED COMMERCIAL COLONY ON AN AREA MEASURING 2.95625 ACRES IN THE REVENUE ESTATE OF VILLAGE DHORKA, SECTOR-95, DISTT. GURUGRAM.**

**FINAL ABSTRACT OF COST**

Description	Total of sub work	3% Contingencies	TOTAL	49% departmental	Grand Total
Sub Work-1	4700050/-	1410021/-	48410521/-	23721151/-	72131671/-
Water Supply	38,22,000	1,14,660	39,36,660	19,28,963	58,65,623
Sub Work-2	22990002/-	689701/-	23679701/-	11603051/-	35282751/-
Sewerage	26,32,000	78,960	27,10,960	13,28,370	40,39,330
Sub Work-3	21,10,000/-	633001/-	21733001/-	10649171/-	32382171/-
Sw Drainage	24,19,680	72,590	24,92,270	12,21,212	37,13,483
Sub Work-4	5045262	151358	5196620	2546344	7742964.00
Road Works	44,66,063	1,33,982	46,00,044	22,54,022	68,54,066
Sub Work-5	84148381/-	2524451/-	86672831/-	42469691/-	129142521/-
Street Lighting	2,95,625	8,869	3,04,494	1,49,202	4,53,696
Sub Work-6	7390631/-	221721/-	7612351/-	3730051/-	11342401/-
Plantation & Road side Trees/Horticulture	2,87,500	8,625	2,96,125	1,45,101	4,41,226
Sub Work-7	5565381/-	166961/-	5732341/-	2808851/-	8541191/-
MTC Charge and Resurfacing of Road	5778750	178313	5252113	2573535	7825648
	27,98,750	83,963	28,82,713	14,12,529	42,95,242
<b>TOTALS</b>	<b>Rs. 1,67,21,617.25</b>	<b>Rs. 5,01,648.52</b>	<b>Rs. 1,72,23,265.77</b>	<b>Rs. 84,39,400.23</b>	<b>Rs. 2,56,62,665.99</b>
<b>Amount</b>	<b>Rs. 2,56,62,665.99</b>				

A amount in Rs Lakh

72.13  
35.29  
32.38  
129.14  
11.34  
8.54  
153.99

Area of commercial development as per License **2.95625 Acre**

Net Cost Per Acre **442.85 Lakh** = **Rs. 149,80 Lakh** say **Rs 442.85 Lakh.**  
 = **Rs. 86,80,817.25** per **101.76** Acre

For: **GLS INFRA PROJECTS PVT. LTD.**

Authorized Signatory



Checked subject to comments in forwarding letter No. 15868.. Dt. 21/01/2022.....and notes attached with the estimate

Executive Engineer HSVP Division No. I, Gurugram

Additional Chief Engineer (HQ) for Chief Engineer-I, HSVP Ranchkula  
28.11.2022

Superintending Engineer, HSVP, Circle, Gurugram.

Director Town & Country Planning Haryana, Chandigarh

SUB WORK No. 1

WATER SUPPLY

ESTIMATE FOR PROVIDING INTERNAL DEVELOPMENT WORKS OF PLOTTED COMMERCIAL COLONY ON AN AREA MEASURING 2.95625 ACRES IN THE REVENUE ESTATE OF VILLAGE DHORKA, SECTOR-95, DISTT. GURUGRAM.

S No.	Heads	Description	Amount
1	Sub Head 1	HUDA Water Supply Distribution System	Rs. 3,06,900.00 185500/-
2	Sub Head 2	Pumping and machinery	Rs. 16,83,500.00 230600/-
3	Sub Head 3	Domestic Water supply	Rs. 15,71,230.00 1832750/-
4	Sub Head 4	Flushing/Irrigation System	Rs. 2,60,370.00 375800/-
TOTAL			Rs. 38,22,000.00 4700050/-





SUB WORK No. 1

WATER SUPPLY

Sub Head 1

HUDA Water Supply Distribution System

ESTIMATE FOR PROVIDING INTERNAL DEVELOPMENT WORKS OF PLOTTED COMMERCIAL COLONY ON AN AREA MEASURING 2.95625 ACRES IN THE REVENUE ESTATE OF VILLAGE DHORKA, SECTOR-95, DISTT. GURUGRAM.

S No.	Description	Amount
A	HUDA Rising Main	
1	Providing, laying, jointing and testing CI/DI pipe lines Including cost of excavation etc. complete in all respects.	22500/-
a)	50 mm dia pipe 18 Mtr. @ Rs. 800	12500/-
		Rs. 14,400.00
2	Providing and fixing sluice valve and air release valve including cost of surface boxes and masonry chambers etc. complete in all respects	12000/-
a)	100 mm dia 1 Nos. @ Rs. 6,500	19000/-
		Rs. 6,500.00
3	Providing and fixing indicating plates for sluice valve and air valves	1000/-
a)	1 Nos. @ Rs. 6,000 each	1000/-
		Rs. 6,000.00
4	Provision for carriage for materials and other unforeseen items (L/S)	20,000/-
		Rs. 30,000.00
5	Provision for cutting of roads and making good to its original conditions ( L/S)	
		Rs. 50,000.00
6	Provision for making connection with HSVP water main (L/S)	30,000/-
		Rs. 2,00,000.00
	4 Nos. @ Rs. 2,00,000	1,00,000/-
		Rs. 3,06,900.00
Total of Sub Head 1 Carried over to summary of Sub work - 1		185500/-



SUB WORK No. 1

WATER SUPPLY  
Pumping and machinery

ESTIMATE FOR PROVIDING INTERNAL DEVELOPMENT WORKS OF PLOTTED COMMERCIAL COLONY ON AN AREA MEASURING 2.9625 ACRES IN THE REVENUE ESTATE OF VILLAGE DHORKA, SECTOR-95, DISTT. GURUGRAM.

S No.	Description	Amount
1	Providing & installing VFD based pumping set of following capacity for Domestic Supply	2,00,000/-
a)	Capacity 200 LPM each pumps @ 45 mtr. 3HP 2 Nos. @ Rs. 1,60,000.00 each.	Rs. 3,20,000.00
2	Providing & installing VFD pumping set of following capacity for Flushing/Irrigation Pumps	2,50,000/-
a)	Capacity 230 LPM each pumps @ 45 mtr. 5HP 2 Nos. @ Rs. 1,90,000.00 each.	Rs. 3,80,000.00
3	Provisions for chlorination plant complete	1,00,000/-
4	Provision for making foundations and erection of pumping machinery	Rs. 50,000.00
4	-2 Set @ Rs. 50,000.00	Rs. 1,00,000.00
5	Provision for pipes, valves and specials inside the boosting chamber	1,00,000/-
5	-2 Set @ Rs. 40,000.00	Rs. 80,000.00
6	Provision for Gen Set.	10,000/-
6	15.7 KVA @ Rs. 4,500.00	Rs. 34,500.00
7	Provision for Plumbing, Plant Room and 168 KL Capacity water Tank complete in all respect	7,56,000/-
7	UGT 168 KL. @ Rs. 4,000.00 4500/- per KL	Rs. 6,72,000.00
9	Provision for carriage of material and other unforeseen items etc. L/S	Rs. 50,000.00
<b>TOTAL COST TO SUB-WORK -1</b>		<b>Rs. 16,83,500.00</b>

10. cost of boost chamber I NS (L.S)
11. Provision for electric connection include electric fittings complete L.S
12. Provision for G.S.S - I NS shed with foundation L.S



Rs 3,00,000/-  
Rs 1,00,000/-  
Rs 1,50,000/-  
Rs 23,06,000/-

SUB WORK No. 1

WATER SUPPLY

Sub Head 3

Domestic Water supply

ESTIMATE FOR PROVIDING INTERNAL DEVELOPMENT WORKS OF PLOTTED COMMERCIAL COLONY ON AN AREA MEASURING 2.95625 ACRES IN THE REVENUE ESTATE OF VILLAGE DHORKA, SECTOR-95,

S No.	Description	Amount
1	Providing, laying, jointing and testing DI pipe lines including fittings, valves, cost of excavation etc. complete in all respects. <i>1250/-</i>	<i>426250/-</i>
a)	100 mm Pipe 341 Mtr @ Rs. 890- per Mtr	Rs. 3,03,490
2	Providing and fixing sluice valve including cost of surface boxes and masonry chambers etc. complete in all respects. <i>12000/-</i>	<i>240000/-</i>
a)	100 mm 2 Each @ Rs. 5,620	Rs. 11,240
3	Providing and fixing External Fire Hydrants including chamber (8) Nos @ Rs. 7,000- <i>15000/-</i>	Rs. 7,000
4	Providing and fixing air release valve and scour valve (02) Nos @ Rs. 6,000 <i>10000/-</i>	Rs. 12,000
5	Indication plate for valves, hydrant AV etc.	Rs. 25,000
6	Provision for carriage of materials and other unforeseen items <i>L.S</i>	Rs. 40,000 <i>50,000/-</i>
7	Providing all material, tools & plants to lay pipe with trenchless method for following diameter, including horizontal trenching pulling of HDPE pipe butt welded at a depth of 1500-2500mm depth from grade level complete in all respect. 35 Mtr. @ Rs. 33,500 each <i>MTR</i>	Rs. 11,72,500.00
	<i>(7) Provision for cutting of roads &amp; making good the same</i>	<i>Rs 30,000/-</i>
<b>TOTAL CO to SUB WORK - 1</b>		<b>Rs. 15,71,230.00</b> <i>1832750/-</i>



**ESTIMATE FOR PROVIDING INTERNAL DEVELOPMENT WORKS OF PLOTTED COMMERCIAL COLONY ON AN AREA MEASURING 2.95625 ACRES IN THE REVENUE ESTATE OF VILLAGE DHORKA, SECTOR-95, DISTT. GURUGRAM.**

S No.	Line No	Total		Fixed Population			Floating Population			Domestic Water Demand @ 25 lpcd for Fixed Population and 5 lpcd for Floating Population	Total water demand ltr /day	Total water demand ltr /day (considering 6Hr pumping)	Length of Pipe Mtr	Proposed dia. MM	Velocity in m/sec	head losses Mtr/Mtr	self head losses Mtr	Total Head Loss	Residual Head	Remarks
		Self	Branch	Total	Self	Branch	Total	Self	Branch											
1	2	0	34	34	0	0	0	0	0	0	0	15	18	17	18	19	20	25	26	
		NOS	NOS	NOS	NOS	NOS	NOS	NOS	NOS	LPD	LPM	Mtr	MM	Mtr/Mtr	Mtr	Mtr	Mtr	Mtr	Mtr	
1	D1 - D2	0	34	34	0	1282	1282	0	1754.4	1754.4	41072.0	114.1	12	100	0.290	0.00143	0.0172	0.0172	44.986	
2	D2 - D2a	5	0	5	190	0	190	258	0	258	6040.0	16.8	38	100	0.043	0.00004	0.0016	0.0187	44.963	
3	D2 - D3	7	22	29	266	836	1102	361	1135.2	1496.4	35032.0	97.3	45	100	0.248	0.00107	0.0480	0.0667	44.985	
4	D3 - D3a	7	0	7	266	0	266	361	0	361.2	8456.0	23.5	44	100	0.060	0.00008	0.0034	0.0221	44.931	
5	D3 - D4	2	13	15	76	484	570	103	670.8	774	18120.0	50.3	60	100	0.128	0.00031	0.0189	0.0410	44.916	
6	D4 - D4a	1	0	1	38	0	38	52	0	51.6	1208.0	3.4	40	100	0.009	0.00000	0.0001	0.0173	44.916	
7	D4 - D5	2	10	12	76	380	456	103	516	619.2	14496.0	40.3	15	100	0.102	0.00021	0.0031	0.0204	44.913	
8	D5 - D6	3	0	3	114	0	114	155	0	154.8	3624.0	10.1	53	100	0.026	0.00002	0.0008	0.0181	44.912	
9	D5 - D5a	7	0	7	266	0	266	361	0	361.2	8456.0	23.5	34	100	0.060	0.00008	0.0026	0.0207	44.909	

341 Mtr



SUB WORK No. 1

Sub Head 4

WATER SUPPLY

Flushing/Irrigation System

AN AREA MEASURING 2.95625 ACRES IN THE REVENUE ESTATE OF VILLAGE DHORKA, SECTOR-95, DISTT. GURUGRAM.

S No.	Description	Amount
1	Providing, laying, jointing and testing pipes lines conforming uPVC pipe 10 Kg/Sq.cm Class-IV (IS: 4985) including cost of excavation etc. complete in all respects.	
1.1	75 mm Pipe 18 Mtr @ Rs. 575- <del>800/-</del>	Rs. 10,350.00
1.2	50 mm Pipe 208 Mtr @ Rs. 430- <del>500/-</del>	Rs. 89,440.00
1.3	40 mm Pipe 176 Mtr @ Rs. 330- <del>400/-</del>	Rs. 58,080.00
2	Providing and fixing sluice valve including cost of surface boxes and masonry chambers etc. complete in all respects.	
2.1	50 mm (5) 3-Each @ Rs. 3,500- <del>6000/-</del>	Rs. 10,500.00
3	Providing and fixing Garden Hydrant (20mm dia) 20 4 Nos. @ Rs. 2,500 each 3500/-	Rs. 10,000.00
4	Providing and fixing air release valve and scour valve 2 Nos. @ Rs. 2,000 each 10,000/-	Rs. 4,000.00
5	Indication plate for valves, hydrant AV etc. 27 Nos @ Rs 1000/-each	Rs. 30,000.00
6	Provision for carriage of materials and other unforeseen items	Rs. 48,000.00
<b>TOTAL CO to SUB WORK - 1</b>		<b>Rs. 2,60,370.00</b>

7. Provision for cutting of roads & material good the same. L S } Rs 20,000/-

Rs 375,800/-



ESTIMATE FOR PROVIDING INTERNAL DEVELOPMENT WORKS OF PLOTTED COMMERCIAL COLONY ON AN AREA MEASURING 2.95625 ACRES IN THE REVENUE ESTATE OF VILLAGE DHORKA, SECTOR-95, DISTT. GURUGRAM.

S No.	Line No	Total		Fixed Population		Floating Population		Flushing Water Demand @ 20 lpcd for Fixed Population and 10 lpcd for Floating Population	Total water demand ltr /day	Total water demand ltr /day (considering 6hr pumping)	Length of Pipe of Pipe dia.	Proposed line dia.	Velocity in m/sec	head losses	self head losses	Total Head Loss	HL at Start	HL at End	Residual Head	Remarks					
		Self	Branch	Total	Self	Branch	Total														Self	Branch	Total	Self	Branch
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
		NOS	NOS	NOS	NOS			NOS			LPM	LPD	LPM	Mtr	MM	Mtr/Sec	Mtr/Mtr	Mtr	Mtr	Mtr	Mtr	Mtr	Mtr	Mtr	Mtr
1	STP - F1	0	34	34	0	1292	1292	0	1754.4	1754.4	43384.0	43384.0	120.5	18	75	0.545	0.00843	0.1158	0.1158	45.00	44.88	44.88	44.88	44.768	
2	F1 - F2	2	32	34	76	1216	1292	103	1651.2	1754.4	43384.0	43384.0	120.5	43	50	1.227	0.04634	1.9927	2.1085	44.884	42.89	44.884	42.89	40.783	
3	F2 - F2B	1	30	31	38	1140	1178	52	1548	1599.6	39556.0	1276.0	109.9	40	40	1.748	0.11579	4.6316	6.7400	44.884	40.25	44.884	40.25	33.513	
4	F2 - F3	1	0	1	38	0	38	52	0	51.6	1276.0	1276.0	3.5	15	50	0.036	0.00007	0.0010	2.1095	42.892	42.89	42.89	40.781		
5	F3 - F3B	3	26	29	114	988	1102	155	1341.6	1496.4	37004.0	37004.0	102.8	54	40	1.635	0.10234	5.5262	7.6357	44.884	39.36	44.884	39.36	31.722	
6	F3 - F4	14	0	14	532	0	532	722	0	722.4	17864.0	17864.0	49.6	133	50	0.505	0.00866	1.1918	3.3013	42.891	41.70	42.891	41.70	38.397	
7	F4 - F5	12	0	12	456	0	456	619	0	619.2	15312.0	15312.0	42.5	82	40	0.677	0.01987	1.6375	1.7544	41.699	40.06	41.699	40.06	38.307	
8	F1 - F4	1	0	1	38	0	38	52	0	51.6	1276.0	1276.0	3.5	17	50	0.036	0.00007	0.0011	0.1169	41.699	41.70	41.699	41.70	41.581	



sub work no (2)

Sewerage

**ESTIMATE FOR PROVIDING INTERNAL DEVELOPMENT WORKS OF PLOTTED COMMERCIAL COLONY ON AN AREA MEASURING 2.95625 ACRES IN THE REVENUE ESTATE OF VILLAGE DHORKA, SECTOR-95, DISTT. GURUGRAM.**

S No.	Description	Amount ( RS)
1	Providing, laying, jointing and testing Sewer pipe lines (stoneware pipes class SP-1) including fittings, valves, Manholes & cost of excavation and connect to STP along with bypass to HSVP sewer line etc. complete in all respects.	
a)	200 mm dia Average Depth upto 2 Mtr. 292 Mtr. @ Rs. 1,300	Rs. 3,79,600.00
2	Providing, laying, jointing and testing Sewer by-pass pipe lines 90 od uPVC pipe 10kg/sqcm including fittings, Manholes & cost of excavation etc. complete in all respects. 90 mm OD Average Depth upto 1.5 Mtr. 80 Mtr. @ Rs. 1,150	Rs. 92,000.00
3	Sewage Treatment Plant of 94 KL (considering future expansion) @ Rs. 17600/KL	Rs. 16,54,400.00
4	Provision for providing oblique junctions (L.S)	Rs. 96,000.00
5	Provision for temporary timbering etc. (L.S)	Rs. 80,000.00
6	Provision for carriage of material (L.S)	Rs. 80,000.00
7	Provision for providing and fixing vent shaft at suitable places as per PH requirements. (L.S)	Rs. 1,00,000.00
8	Provision for making connection with HUDA sewer	Rs. 1,50,000.00
<b>TOTAL CO to FINAL ABSTRACT OF QUANTITY</b>		<b>Rs. 26,32,000.00</b>



ESTIMATE FOR PROVIDING INTERNAL DEVELOPMENT WORKS OF PLOTTED COMMERCIAL COLONY ON AN AREA MEASURING 2.96625 ACRES IN THE REVENUE ESTATE OF VILLAGE DHORKA, DESIGN STATEMENT OF SEWERAGE LINE																						
S No	Line No	Plot		Total water consumption	Daily waste water (80%) of water consumption	Total Waste water (peak=average*3)	Total Waste water (peak=average*3)	Dia Proposed	Gradient	Velocity	Design discharge	Check for carrying capacity	Length in Pipe Line (m)	Fall in Pipe Line (m)	G Level Upper	G Level Lower	Invert Level Upper	Invert Level Lower	Average Depth	REMARKS		
		Self Main Plots	Total Plots																		LPD	LPD
1	S1	3	3	7587	6069.6	18208.8	0.21	200	200	0.74	11.59	OK	54	0.27	0.450	0.450	-0.650	-0.920	1.2350			
2	S1a	1	1	2529	2023.2	6069.6	0.07	200	200	0.74	11.59	OK	40	0.20	0.450	0.450	-0.650	-0.850	1.2000			
3	S2	1	5	12645	10116	30348	0.35	200	200	0.74	11.59	OK	25	0.13	0.450	0.450	-0.920	-1.045	1.4325			
4	S3a	16	16	40464	32371.2	97113.6	1.12	200	200	0.74	11.59	OK	66	0.33	0.450	0.450	-0.650	-0.980	1.2650			
5	S3	1	22	55638	44510.4	133531.2	1.55	200	200	0.74	11.59	OK	17	0.09	0.450	0.450	-1.045	-1.130	1.5375			
6	S4a	12	12	30348	24278.4	72835.2	0.84	200	200	0.74	11.59	OK	82	0.41	0.450	0.450	-0.650	-1.060	1.3050			
7	S4	0	34	85986	68788.8	206366.4	2.39	200	200	0.74	11.59	OK	8	0.04	0.450	0.450	-1.130	-1.170	1.6000			
BY Pass connection								90-100														

200mm dia sewer line length = 292 Mtr  
 100mm dia D.I. pipe from STP to main line = 80 Mtr





SUB WORK No. 3

STORM WATER DRAINAGE

ESTIMATE FOR PROVIDING INTERNAL DEVELOPMENT WORKS OF PLOTTED COMMERCIAL COLONY ON AN AREA MEASURING 2.95625 ACRES IN THE REVENUE ESTATE OF VILLAGE DHORKA, SECTOR-95, DISTT. GURUGRAM.

S No.	Description	Amount
1	Providing, laying, RCC pipe class NP-2 excavation, manholes etc. complete in all respects	
a)	300 mm dia Average Depth upto 2 Mtr. 372 Mtr. @ Rs. 1,888	Rs. 7,02,336.00
	<i>2500/-</i>	<i>930,000/-</i>
	<i>400 Provision for carriage of material L-S</i>	<i>Rs 30,000/-</i>
2	<del>Provision for lighting and watching and temporary diversion of traffic</del>	<del>Rs. 2,00,000.00</del>
3	Provision for road gullies & connecting pipe L.S.	Rs. 2,50,000.00
4	Provision for rainwater harvesting arrangements	
	Rs. 1,75,000.00 per acre <i>3000 @ Rs 2,50,000/- each</i>	<i>7,50,000/-</i>
	2.95625 Acre	Rs. 5,17,343.75
5	Provision for timbering & shoring (L.S.) <i>lighting &amp; watching etc. L.S</i>	Rs. 1,50,000.00
6	Provision for making connection with HUDA (L/S)	Rs. 2,50,000.00
7	<del>Provision for making connection with HUDA Mains.</del>	<del>Rs. 2,50,000.00</del>
TOTAL CO to FINAL ABSTRACT OF QUANTITY		Rs. 24,19,679.75

*21,10,000/-*

ESTIMATE FOR PROVIDING INTERNAL DEVELOPMENT WORKS OF PLOTTED COMMERCIAL COLONY ON AN AREA MEASURING 2.98625 ACRES IN THE REVENUE ESTATE OF VILLAGE DHORKA, SECTOR-95, DISTT. GURUGRAM.

SL NO	LINE NO.	LENGTH	SELF AREA TO BE DRAINED IN	AREA IN HACTARES		DISCHARGE IN CUM/SEC INTENSITY =6.25mm	DISCHARGE IN M3/HR	DISCHARGE IN M3/SEC	Pipe Dia	SLOPE	VELOCITY	DISCHARGE CAPACITY	Check	GROUND LEVEL AT START	GROUND LEVEL AT END	FALL	INVERT LEVEL AT START	INVERT LEVEL AT END	REMARKS
				SELF	BRANCH														
FROM		MTR	SQM	SELF	BRANCH	TOTAL	M3/HR	IN M3/SEC	in mm	1 IN	M/SEC	IN M3/SEC		MTR	MTR	MTR	MTR	MTR	
1	D1 - D2	38.00	1234	0.12		0.12	4.628	0.0013	300	350	0.731	0.05	OK	0.450	0.450	0.109	-0.450	-0.559	
2	D2a - D2	96.00	1020	0.10	0.00	0.10	3.825	0.0011	300	350	0.731	0.05	OK	0.450	0.450	0.274	-0.450	-0.724	
3	D2 - D5	71.00	1340	0.13	0.23	0.36	13.478	0.0037	300	350	0.731	0.05	OK	0.450	0.450	0.203	-0.724	-0.927	
4	D3 - D4	78.00	3550	0.36	0.00	0.36	13.313	0.0037	300	350	0.731	0.05	OK	0.450	0.450	0.223	-0.450	-0.673	
5	D4a - D4	25.00	1845	0.18	0.00	0.18	6.919	0.0019	300	350	0.731	0.05	OK	0.450	0.450	0.071	-0.450	-0.530	
6	D4 - D5	43.00	1385	0.14	0.54	0.68	25.425	0.0071	300	350	0.731	0.05	OK	0.450	0.450	0.123	-0.673	-0.796	
7	D5-Outfall	21.00	1410	0.14	1.04	1.18	44.190	0.0123	300	350	0.731	0.05	OK	0.450	0.450	0.060	-0.927	-0.987	

372-418M



**SUB WORK No. 4 ROAD WORK**  
**ESTIMATE FOR PROVIDING INTERNAL DEVELOPMENT WORKS OF PLOTTED COMMERCIAL COLONY ON AN AREA MEASURING 2.95625 ACRES IN THE REVENUE ESTATE OF VILLAGE DHORKA, SECTOR-95, DISTT.**

Width in meter	length in meter	Metalled Portion	Area in Sqm.
5	70	5	350
6	220	6	1320
12	150	7	1050
24	150	14	2100
<b>Total</b>	<del>520</del> <b>590</b>		<del>4820</del> <b>4470</b>
			Add 5% for curves <b>241</b> <b>223.5</b>
			Total Area <b>506</b> <b>4693.5</b>
			SAY <b>506</b> <b>4700</b>

S No.	Description	Amount
1	Provision for leveling & earth filling as per site condition Approx <del>2.95625</del> <b>2.95625</b> Acre @ Rs. 80,000 per acre	<del>Rs. 2,36,500.00</del> <b>443438/-</b>
2a	P/L <del>100mm</del> <b>100mm</b> thick (compacted) WBM with earth as per most Specification using 63-40mm size stone aggregate. The rate is Inclusive of all labour, material & equipment etc. <del>4700</del> <b>5424</b> Sqm @ Rs. 250 per sqm	<del>Rs. 11,75,000.00</del> <b>694800/-</b> <del>1356000/-</del>
2b	Provision for making connection with HSVP (L/S) <b>Kerb &amp; channel (590 X 2 + 5% curves) = 1239m @ Rs 600/m</b> <del>4700</del> <b>5424</b> Sqm @ <del>Rs. 250</del> per sqm	<del>Rs. 11,75,000.00</del> <b>743400/-</b> <del>1356000/-</del>
2c	<del>25mm</del> <b>25mm</b> thick premix carpet with seal coat <del>4700</del> <b>5424</b> Sqm @ <del>Rs. 300</del> per sqm	<del>Rs. 14,10,000.00</del> <b>762200/-</b>
3	Provision for guide map and other unforeseen item <b>LS indication board etc</b>	<del>Rs. 80,000.00</del> <b>1,00,000/-</b>
4	Provision for plot indicators <b>LS &amp; demarcation burgies</b>	<del>Rs. 80,000.00</del> <b>80,000/-</b>
5	<del>Provision for demarcating burgies</del> <b>LS</b>	<del>Rs. 80,000.00</del>
6	Provision for traffic arrangement <b>LS</b>	<del>Rs. 1,20,000.00</del> <b>50,000/-</b>
7	<del>Provision for making approach to each plot.</del>	
	Approx <del>2.95625</del> <b>2.95625</b> Acre @ Rs. 10,000 per acre	<del>Rs. 29,562.50</del>
8	Provision for carriage of material & unforeseen items <b>LS</b>	<del>Rs. 80,000.00</del> <b>50,000/-</b>
<b>TOTAL CO to FINAL ABSTRACT OF QUANTITY</b>		<del>Rs. 44,66,062.50</del> <b>5045262</b> <b>8414838/-</b>

Road Area = 4700 Sqm

Parking Area = 12.40 x 6 = 74.40 Sqm

= 21.70 x 6 = 130.20 Sqm

= 30.00 x 6 = 180.00 Sqm

= 21.62 x 15.70 = 339.43 Sqm

724.03 sqm say 725.00 sqm

Total Road + Parking Area

5065 + 725 = 5790 sqm

~~4700 + 724.03 = 5424.03 Sqm~~ ~~5424.03 Sqm~~



SUB WORK No. 4

ROAD WORK

ESTIMATE FOR PROVIDING INTERNAL DEVELOPMENT WORKS OF PLOTTED COMMERCIAL COLONY ON AN AREA MEASURING 2.95625 ACRES IN THE REVENUE ESTATE OF VILLAGE DHORKA, SECTOR-

Sl. No.	Node	Road Width in Mtr.				
		5 Mtr. Wide	6 Mtr. Wide	9 Mtr. Wide	12 Mtr. Wide	24 Mtr. Wide
1	A	--	--	--	--	147.5
2	B	--	54.5	--	--	--
3	C	--	87	--	--	--
4	D	--	73.15	--	--	--
5	E	--	--	--	143.5	--
6	F	68.18	--	--	--	--
	<b>Total</b>	<b>68.18</b>	<b>214.65</b>	<b>0</b>	<b>143.5</b>	<b>147.5</b>
	<b>SAY</b>	<b>70</b>	<b>220</b>	<b>0</b>	<b>150</b>	<b>150</b>



SUB WORK No. 5

Street Lighting

ESTIMATE FOR PROVIDING INTERNAL DEVELOPMENT WORKS OF PLOTTED COMMERCIAL COLONY ON  
AN AREA MEASURING 2.95625 ACRES IN THE REVENUE ESTATE OF VILLAGE DHORKA, SECTOR-95,  
DISTT. GURUGRAM.

S No.	Description	Amount
1	Providing street lightning on roads as per standard specifications of HVPN.	
	Approx 2.95625 Acre @ Rs. 1,00,000 per acre	Rs. 2,95,625.00
	TOTAL CO to FINAL ABSTRACT OF QUANTITY	Rs. 2,95,625.00



SUB WORK No. 6

Plantation & Road side Trees/Horticulture

ESTIMATE FOR PROVIDING INTERNAL DEVELOPMENT WORKS OF PLOTTED COMMERCIAL COLONY ON AN AREA MEASURING 2.95625 ACRES IN THE REVENUE ESTATE OF VILLAGE DHORKA, SECTOR-95, DISTT. GURUGRAM.

S No.	Description	Amount
1	<b>Development of Green areas</b>	
a	Trenching the ordinary soil up to dept of 60 cm including removal and stacking of serviceable material and disposing of by spreading and leveling within a lead to 50m and making up the trenches area of proper leads by filling with earth mixed with manure before and after flooding trench with water including cost of imported earth and manure	
b	Rough dressing of roof area	
	Grassing with "Doob Grass" including watering and maintenance of lawns for 30 days till the grass a thick lawn, free weeds and fit for moving in rows 7.5m apart in either direction including provision for hedges and barbed wire fencing around park.	
	Approx. 2.95625 Acres @ Rs. <del>80,000</del> <sup>155,000</sup> per Acres	Rs. 2,36,500.00 <sup>443438/-</sup>
2	<b>Planting Tree</b>	
a	Provision of trees, along 12.0 M wide (One Side) and 24 M wide (Both Side) roads at 12 Mtr intervals.	
	(150/12) + ((150) x 2/12) = 87.68 @ Rs. 750 per tree <sup>1300/- each</sup>	Rs. 51,000.00 <sup>113150/-</sup>
	<b>TOTAL CO to FINAL ABSTRACT OF QUANTITY</b>	<b>Rs. 2,87,500.00</b> <sup>556538/-</sup>



SUB WORK No. 7

MTC Charge and Resurfacing of Road

**ESTIMATE FOR PROVIDING INTERNAL DEVELOPMENT WORKS OF PLOTTED COMMERCIAL COLONY ON AN AREA MEASURING 2.95625 ACRES IN THE REVENUE ESTATE OF VILLAGE DHORKA, SECTOR-95, DISTT. GURUGRAM.**

S No.	Description	Amount
1	Provision for maintenance charge for Water supply, sewerage, storm water, Drainage, roads, street light, Hort. Etc. Complete including operation & Establishment charges as per HSVP Norms after completion. <i>7,50,000/-</i>	<i>2217188/-</i>
	Area <b>2.95625 Acre</b> @ Rs. 1,20,000 per acre	Rs. 3,54,750.00
2	Provision for resurfacing of roads after First five year of maintenance. <i>Somm BM 2 25mm P.C.</i>	<i>3474000/-</i>
	Total Road area <i>5190</i> <del>4700.00</del> Sqmt @ Rs. <i>600/-</i> per Sqmt	<del>Rs. 2,82,000.00</del>
3	Provision for resurfacing of roads after 10 Years of MTC. <i>Somm BM 2 25mm P.C.</i>	<i>3240000/-</i>
	Total Road area <i>5190</i> <del>4700.00</del> Sqmt @ Rs. <i>120</i> <del>600</del> per Sqmt	<del>Rs. 5,64,000.00</del>
	<b>TOTAL CO to FINAL ABSTRACT OF QUANTITY</b>	<i>10033688/-</i>
		<del>Rs. 27,98,750.00</del>

*5278250.00*



*P.C = premix carpet*