

INTERNAL DEVELOPMENT WORKS DESIGN & COST ESTIMATES

FOR

**PROPOSED RESIDENTIAL PLOTTED COLONY
(ON 29.928 Acres)**

IN

**SECTOR - 84 & 85
AT GURUGRAM, HARYANA**



DEVELOPED BY

SS GROUP PVT. LTD.



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REPORT

Gurgaon is located at 28°28'N 77°02'E 28.47°N 77.03°E/28.47; 77.03. It has an average elevation of 220 metres (721 ft) Gurgaon district, comprising four blocks Pataudi, Sohna, Gurgaon and Farukh Nagar, was created on 15 August, 1979. On its north, it is bounded by the district of Rohtak and the Union Territory of Delhi. Faridabad district lies to its east. On its south, the district shares boundaries with the district of Mewat. To its west lies the district of Rewari and the State of Rajasthan. Gurgaon is situated between the Himalayas and Aravalli mountain ranges. It is surrounded on three sides by Haryana and to the east, across the river Yamuna by Uttar Pradesh. Its greatest length is around 13 miles and the greatest breadth is 17 miles. Delhi's altitude ranges between 213 to 305 meters above sea level.

1. WATER SUPPLY

a) SOURCE

In this area, the source of water supply is from tube well as underground water is sweet and fit for human consumption and it available at a reasonable depth. The average yield of tube wells will be about 18 KL per hour. Three tube well are required to cope up with the daily requirement of water for the initial period till such time potable water is available from HUDA.

b) TUBE WELLS

The proposed tube wells shall be 510 mm bore with reverse rotary rig and installed with 350/300 mm as housing and slotted pipes. The provision of tube wells taken in the estimate under the sum head tube wells includes the cost of pea size gravel packing around the pipes. THE provision of tube wells is made for providing initial water demand after prior approval of CWGA till such time the water from external source is made available by HUDA.

c) PUMP CHAMBERS AND PUMPING MACHINERY

It is proposed to provide each tube well with electricity driven pumping set-Electro type or submersible pump capable of delivering about 18 KL per hour. It is also proposed to equip the tube wells with 3 no pumping sets with stand by diesel gen set engines for operation during failure of electricity. Both the pumping sets as described above shall be of equal capacity. The provision for generating set has been provided in case of any electricity failure. The DG set will be provided separately or added to the capacity of main generator.

d) GROUND STORAGE

The distribution system for these houses has been designed as per the requirement of residential complexes. Necessary provision for laying C/I/GI and DI pipes conforming to IS standards along with valves and specials has been made in this estimate.



2. SEWERAGE

The internal sewer lines have been designed 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. All the SW/RCC pipes of water supply have been designed to run half/full /three full.

Necessary design statement for entire internal sewerage has been prepared and attached with the estimate.

Provision for the of sewer lines inclusive of the cost of materials has also been made in this estimate. The provision of sewerage system has been prepared treatment plant has been taken for $90 + 385 + 70 + 105 = 650$ KLD for the treatment of sewage. The treated sewage water shall be used for irrigation requirements and surplus water shall be disposed of in HUDA main sewer line by pumping through 65mm dia pipe.

3. STORM WATER DRAINAGE

It has proposed to lay underground RCC pipe drains with required number of catch basins for disposal of storm water, which will be connected to the HUDA drain. The intensity of rainfall has been taken as 6.25 mm per hour. A minimum size of 400 mm dia RCC storm water line will be provided and designed as per Manning's formula. Necessary rainwater harvesting arrangement also has been provided.

A) SPECIFICATIONS

The work shall be carried out in accordance with the standard specifications as laid down by the Haryana Government.

4. ROADS

The provision for the construction of roads as per the specifications of Haryana Government has been considered in this estimate.

5. STREET LIGHTING

The provision for street lighting has been considered in the this estimate

6. HORTICULTURE

The provision for horticulture, landscaping and signage's has been considered in this estimate.

7. RATES

The estimate has been based on the present market rates. The provision for the probable escalation in prices has also been considered in this estimate.

8. COST

The total cost of the scheme, including cost of all services works out to be Rs. 14,56,00,000 (Rupees Fourteen Crore Fifty six Lakh only) including 3% contingencies @ 49% departmental charges, price escalation, unforeseen and administration charges.

193072
161230 Lacs

112Ab Circular
2nd Floor

100% of Contract Amount
Billed

For M/s. M/S. SS GROUP PVT. LTD.

(Authorized Signatory)



112Ab Circular
2nd Floor
100% of Contract Amount
Billed

FINAL ABSTRACT OF COST

S. No.	Description	Rs. in Lakh
1.	Sub Work No. I Water Supply Checked subject to comments in forwarding letter No. <u>20/2021</u>	266.00 364.08
2.	Sub Work No. II Sewerage Dt. <u>20/10/2021</u> and notes attached with the estimate	224.30 386- 191.23
3.	Sub Work No. III Storm water Drainage	197.65 190- 211.41
4.	Sub Work IV Road Network Additional Chief Engineer (HQ) for Chief Engineer-I, HSVP	315.55 306 387.31
5.	Sub Work V Street Lighting Panchkula 30.11.2021	114.83 9- 17.83
6.	Sub Work VI Horticulture	49.80 47- 11.78
7.	Sub Work VII Maintenance of Services & Resurfacing of Roads	655.97 158- 650.08
	Total	1930.72 1 Rs. 1456 Lakh 1612.13
	(C.O. to Final Abstract of Cost) Say Rupees	1930.72 Rs. 1456 Lakh



cost. per Acre = ~~1612.13~~ / 24.928 = 64.51 Lakh
53.97 Lakh
 Superintending Engineer
 HSVP Circle No. 1,
 Gurugram

Executive Engineer
 HSVP Division No. V,
 Gurugram

Director
 Town & Country Planning
 Haryana, Chandigarh

ABSTRACT OF COST OF SUB WORK NO.1 (WATER SUPPLY)

S. No.	Description	Rs. in Lakh
1.	Sub Head No. I Head Works	162.59 178.8 / 180.05
2.	Sub Head No. II Pumping Machinery	84.03 105.0 / 106.35
3.	Sub Head No. III Rising main from HUDA	9.95 17.0 / 16.65
4.	Sub Head No. IV Domestic water supply + <i>Flushing water supply</i>	95.61 47.0 / 47.0
5.	Sub Head No. V Irrigation	11.90 10.0 / 7.96
	Total	364.08 Rs. 357 Lakh
	(C.O. to Final Abstract Of Cost) SAY Rupees	364.08 Rs. 360 Lakh



Sub Work - 1Sub Head I : Water Supply Head Works

S. No.	Description	Qty.	Unit	Rate (Rs.)	Amount (Rs.)
1	Boring and installing 510 mm i/d tube wells with reverse rotary rig complete with pipe and strainer to a depth of about 120 m. in all respect.	5	Nos.	10,00,000/- 750000	50,00,000/- 3750000
2	Provision of Boosting Station	5	LS	300000	1500000
3	Construction of U.G. tanks 160*680*130*180=1150 KL	1150 295 KL	KL	3500/- 4500/-	4025000/- 1327500/-
4	Provision for rising mains, connecting tube wells with Water main and Bye-pass arrangements				
	a. 100 mm dia	25	M	2000 1250	50000 31250
	b. 80 mm dia	425	M	1250 1000	531250 425000
5	Provision for construction of Tube well Chamber of size 1.5m x 1.5 m for housing tube well	5	Nos.	100000	500000
6	Providing and installing electrically driven pumping set capable of delivering 18KL/hr at 80 M complete with motor and other accessories.	5	No.	200000	1000000
7	Provision of 3 Nos. Sluice Valves including cost of surface box and machinery charges etc. complete in all respects.	5	Nos.	12000/- 25000	60,000/- 125000
8	Provision for carriage of materials & other unforeseen items	5	LS	50000	250000
	Total			10 593750/-	14731250
	Add 3% contingencies & PH charges			317813/-	3519375
	Add 49% Dept. Charges, Price Escalation Unforeseen, charge			10911563/- 534666/-	12085188/- 57483125
	Total			16258229/-	17831500
					18603993/-

SAY 178.00 Lacs

(C.O. to abstract of cost of Sub-work No. I)



Sub Work - 1

Sub Head - II : Pumping Machinery

S. No.	Description	Qty	Unit	Rate (Rs.)	Amount (Rs.)
1	Provision for diesel engine gen set each for stand by arrangements for T.W. of booster pump complete with gear head arrangement of following capacities -1 No. 35 KVA e 30 KVA e 20 KVA e 15 KVA	2	Nos.	300000	600000
2	Provision for diesel engine gen set each for stand by arrangements for T.W. of booster pump complete with gear head arrangement of following capacities -1 No. 40 KVA e 30 KVA e 20 KVA e 15 KVA	1	Nos.	400000	400000
3	Provision for diesel engine gen set each for stand by arrangements for T.W. of booster pump complete with gear head arrangement of following capacities -1 No. 60 KVA e 50 KVA e 40 KVA e 30 KVA	1	Nos.	600000	600000
4	Providing and installing pumping set of following capacities for domestic water - 400 lps at 40 mts Head for Pocket A 500 lps 400 lps 300 lps	2	No.	1,00,000	2,00,000
5	Providing and installing pumping set of following capacities for domestic water - 400 lps at 40 mts Head for Pocket B 500 lps 400 lps 300 lps	2	No.	125000	250000
6	Providing and installing pumping set of following capacities for domestic water - 100 lps at 40 mts Head for Pocket C 300 lps 200 lps 100 lps	2	No.	125000	250000
7	Providing and installing pumping set of following capacities for domestic water - 100 lps at 40 mts Head for Pocket D 300 lps 200 lps 100 lps	2	No.	125000	250000
8	Providing and installing pumping set of following capacities for irrigation water - 60 lpm at 35 mts Head for Pocket A 200 lpm 100 lpm 50 lpm	2	No.	75000	1,50,000
9	Providing and installing pumping set of following capacities for irrigation water - 100 lpm at 35 mts Head for Pocket B 200 lpm 100 lpm 50 lpm	2	No.	1,00,000	2,00,000
10	Providing and installing pumping set of following capacities for irrigation water - 60 lpm at 35 mts Head for Pocket C 200 lpm 100 lpm 50 lpm	2	No.	75000	1,50,000
11	Providing and installing pumping set of following capacities for irrigation water - 60 lpm at 35 mts Head for Pocket D 200 lpm 100 lpm 50 lpm	2	No.	75000	1,50,000
12	Provision for Chlorination plant complete	4	No	150000	6,00,000
13	Provision for making foundations & erection of pumping machinery	4	LS	300000	12,00,000
14	Provision for pipes, valves & specials inside boosting chamber	4	LS	150000	600000



Sub Work - 1

Sub Head - III : Rising Main from HUDA

S. No.	Description	Qty	Unit	Rate (Rs.)	Amount (Rs.)
1	Providing, laying, jointing and testing pipe lines including Fitting, valves, cost of excavation etc. complete in all respects. - GI Pipe 50 mm	10	RM	650 750	6500/- 7500/-
2	Providing, laying, jointing and testing pipe lines including Fitting, valves, cost of excavation etc. complete in all respects. - GI Pipe 65 mm	80	RM	850	68000
3	Providing, laying, jointing and testing pipe lines including Fitting, valves, cost of excavation etc. complete in all respects. - GI Pipe 100 mm	75	RM	1250/- 1200	93750/- 90000
2	Providing and fixing sluice valve including cost of surface box and masonry chamber etc. complete in all respects 50 mm i/d	1	No.	6000/- 5000	6000/- 5000/-
2	Providing and fixing sluice valve including cost of surface box and masonry chamber etc. complete in all respects 65 mm i/d	2	No.	9000/- 6500	18000/- 13000
2	Providing and fixing sluice valve including cost of surface box and masonry chamber etc. complete in all respects 100 mm i/d	1	No.	12000/- 8500	12000/- 8500/-
3	Providing and fixing indicating plates for sluice valve	4	LS	1000/- 3000	4000/- 12000
4	Provision for making connection with HUDA Pipe	4	LS	50000	200000
5	Provision for cutting the road and making good the same	4	LS	25000/- 100000	100000/- 400000
6	Providing and fixing Air valves and scour release valves etc.	4	LS	10000/- 20000	40000/- 80000
7	Provision for carriage for materials and other unforeseen items	4	LS	25000/- 50000	100000/- 200000
Total					1084000/-
Add 3% contingencies & PH charges					32520/-
Add 49% Dept. Charges, Price Escalation Unforeseen, charge					531460
Total					1647680

SAY 17.00 Lakh

(C.O. to abstract of cost of Sub-work No.I)

16.65 9.95 Lakh

1084000/-
32520/-
531460
1647680648250/-
19448/-
667698/-
327172/-
994870/-

Sub Work - 1

Sub Head - IV : Domestic Water Supply - Distribution system + flushing w/s

S. No.	Description	Qty	Unit	Rate (Rs.)	Amount (Rs.)
1	Providing, laying, jointing and testing pipe lines including Fitting, valves, cost of excavation etc. complete in all respects				
	- GI Pipe 25 mm	530	RM	350	185500
	- GI Pipe 32 mm	140	RM	475	66500
	- GI Pipe 40 mm	60	RM	575	34500
	- GI Pipe 50 mm	600	RM	800	480000
	- GI Pipe 65 mm	425	RM	1050	446250
	- GI Pipe 80 mm (100mm) = 3770 mtr	3770.85	RM	1250	4712500
	- GI Pipe 150 mm	760	RM	2000	1520000
2	Providing and fixing Butterfly valve	1	LS	100000	100000
3	Providing and fixing Air valves and scour release valves etc.	1	LS	50000	50000
4	Providing and fixing Indicating plate	1	LS	25000	25000
5	Provision for carriage of materials and unforeseen items	1	LS	50000	50000
	Total			Rs 6229500	3064000
	Add 3% contingencies & PH charges			Rs 186885	91920
	Add 49% Dept. Charges, Price Escalation Unforeseen, charge			Rs 6416385	4501360
	Total			Rs 3144291	4657280
				Rs 9560414	4657280

SAY 47.00 Lakh

(C.O. to abstract of cost of Sub-work No. I)

Sub Work - 1

Sub Head - V: Irrigation

S. No.	Description	Qty	Unit	Rate (Rs.)	Amount (Rs.)
1	Providing, laying, jointing and testing PVC pipeline conforming to IS 4985 including cost of excavation etc. complete in all respect.				
	a) 65 mm dia	15	RM	675700	10500-10125/-
	a) 50 mm dia	240	RM	500550	132000-1,20,000/-
	b) 40 mm dia	375	RM	460475	178125-150,000/-
	c) 32 mm dia	205	RM	350350	71750-
	d) 25 mm dia	1025	RM	300475	179375-3,07,500/-
2	Providing and fixing 25 mm dia, irrigation hydrant valve complete in all respect.	26	No.	1600	39000-91000/-
3	Provision for carriage of Material and other as foreseen items	1	LS	25000	25000
	Total				635750 775375/-
	Add 3% contingencies & PH charges				19072.5 23261/-
	Add 49% Dept. Charges, Price Escalation Unforeseen, charge				311517.5 798636/-
	Total				966340 391332/-
					975686500 1189968/-

1190

SAY 10.00 Lakh

(C.O. to abstract of cost of Sub-work No. I)



Annexure W1

S. No.	Line No.	Dia of GI pipe Length (m)	
	Tube well water line	80mm	110mm
1	Tube well water line	425	25
	Total	425	25



Annexure -DS-1

S. No.	Line No.	Dia of GI Pipe Length (m)							
		20 MM	25 MM	32 MM	40 MM	50 MM	65 MM	80 MM	150 MM
1	BLOCK A UGT TO BLOCK B UGT MAIN HEADER								756.8
2	DWS1 - DWS3		17.23						
3	DWS2 - DWS3		5.3						
4	DWS3 - DWS4			29.5					
5	DWS4 - DWS5						73.9		
6	DWS5 - DWS9						32.7		
7	DWS7 - DWS8		32.5						
8	DWS8 - DWS9						81.2		
9	DWS9 - M. HEADER							41.2	
10	DWS10 - DWS11		14.8						
11	DWS10A - DWS11		10.9						
12	DWS11 - DWS12						68.6		
13	DWS13 - DWS14		26						
14	DWS14A - DWS14		15.9						
15	DWS14 - DWS15					61.2			
16	DWS16 - DWS17		37.6						
17	DWS17A - DWS17		15						
18	DWS17 - DWS18		24.1						
19	DWS19 - DWS20		19.3						
20	DWS20A - DWS20		14.9						
21	DWS20 - DWS21				38.1				
22	DWS22 - DWS23		41.5						
23	DWS22 - DWS23		14.7						
24	DWS23 - DWS24		21.7						
25	DWS25 - DWS26		14.9						
26	DWS26 - DWS27		22.7						
27	DWS27A - DWS27		14.9						
28	DWS27 - M. HEADER				20.3				
29	BLOCK D UGT MAIN HEADER							20	

Residential plotted colony at Sector -84 & 85, Gurugram : Services Cost Estimate

[illegible]

Annexure -IRG-1

S. No.	Line References	65 mm (M)	50 mm (M)	40 mm (M)	32 mm (M)	25 mm (M)	Garden Hydrants (No.)
1	External Garden hydrant Pipe from STP-1			15.0		244.0	3
2	External Garden hydrant Pipe from STP-2	15.0	185.0	50.0	60.0	426.0	11
3	External Garden hydrant Pipe from STP-3		5.0		110.0	170.0	7
4	External Garden hydrant Pipe from STP-4		50.0	310.0	35.0	185.0	5
	TOTAL	15.0	240.0	375.0	205.0	1025.0	26.0



Design Calculations

S. NO	DESCRIPTION	POCKET - A			POCKET - B			POCKET - C			POCKET - D		
	Total No. of Plots (General)	47		Nos.	108		Nos.	38		Nos.	0		Nos.
	Total No. of Plots (EWS)	0		Nos.	0		Nos.	0		Nos.	48		Nos.
	Population per plot (general)	13.5		Persons	13.5		Persons	13.5		Persons	13.5		Persons
	Population per plot (EWS)	9		Persons	9		Persons	9		Persons	9		Persons
1	Therefore population (general)	634.5		Persons	1458		Persons	513		Persons	0		Persons
	Therefore population (EWS)	0		Persons	0		Persons	0		Persons	432		Persons
	Total Population	634.5		Persons	1458.0		Persons	513.0		Persons	432.0		Persons
		SAY	635	Persons	1458		Persons	513		Persons	432		Persons
			Domesti c	Flushing			Flushing			Flushing			Flushing
	Water requirement for plots (General & Ews)	@	121	51.5	@	121	51.5	@	121	51.5	@	121	51.5
			76835	32703		176418	75087		62073	26420		52272	22248
		or	76.8	32.7	or	176.4	75.1	or	62.1	26.4	or	52.3	22.2
													KLD (1)



S. NO	DESCRIPTION	POCKET - A			POCKET - B			POCKET - C			POCKET - D		
2	Other Utilities Building												
a	No. of Commercial	0			1						0		
	Daily water requirement	@ 70000	30000 -		@ 70000	30000		@ 70000	- 30000 -		@ 70000	30000	
	Therefore daily water requirement	0	0		22691	30000		0	0		0	0	
		or	0.0	0.0	2.3	30.0		or	0.0	0.0	or	0.0	0.0
					70.0	10							
b	No. of Nursery School	0			1						0		
	Daily water requirement	@ 25000 -	0		@ 25000	0		@ 25000	0		@ 25000	0	
	Therefore daily water requirement	0	0		1000	3000		0	0		0	0	
		or	0.0	0.0	7.1	3.00		or	0.0	0.0	or	0.0	0.0
					23.0	0.0							
c	No. of Nursing Home	0			0						1		
	Daily water requirement	@ 35000	15000		@ 35000	15000		@ 35000	- 15000 -		@ 35000	15000	
	Therefore daily water requirement	0	0		0	0		0	0		10.00	15000	
		or	0.0	0.0	or	0.0		or	0.0	0.0	or	35.0	15000
d	No. of Milk Booth	0			0						1		
	Daily water requirement	@ 3500 -	1500 -		@ 3500 -	4500 -		@ 3500 -	- 1500 -		@ 3500 -	1500	
	Therefore daily water requirement	0	0		0	0		0	0		2.1000	1500	
		or	0.0	0.0	or	0.0		or	0.0	0.0	or	35.0	1500
e	No. of Community Building	0			1						0		
	Daily water requirement	@ 70000 -	30000 -		@ 70000	30000		@ 70000	- 30000 -		@ 70000	30000	
	Therefore daily water requirement	0	0		3500	30000		0	0		0	0	
		or	0.0	0.0	7.50	30.0		or	0.0	0.0	or	0.0	0.0
					14.50	60.0							
	2 (a+b+c+d+e)	Total	0.0	0.0	Total	165.0		Total	0.0	0.0	Total	38.5	46.5
													(2)



S. NO	DESCRIPTION	POCKET - A			POCKET - B			POCKET - C			POCKET - D		
		Domesti c	Flushing		Domesti c	Flushing		Domesti c	Flushing		Domesti c	Flushing	
3	Area under Parks	0.15 4		1.75 5				0.59		0.1			acre
		@	25000	@	0	25000		@	25000	@	0	25000	lit/acre
		0	3850		0	43875		0	14750		0	2500	lit/day
		0	3.9		0	43.9		0	14.8		0	2.5	KLD
4	Area under Road	1.48		4.40				0.93		0.57			acre
		@	5000	@	0	5000		@	5000	@	0	5000	lit/acre
		0	7375		0	21985		0	4650		0	2850	lit/day
		0	7.4		0	22.0		0	4.7		0	2.9	KLD
	(3+4)	Total	11.2	Total	0.0	65.9		0.0	19.4		0.0	5.4	KLD
			11.3										
	Total daily requirement	Domesti c	Flushing		Domesti c	Flushing		Domesti c	Flushing		Domesti c	Flushing	
	a) For Domestic & Flushing use (1+2)	76.8	32.7		209.93 341.4	29.63 135.1		62.1	26.4		60 90.8	25.53 98.7	KLD
	b) Under Road+ Parks (3+4)	0.0	11.3 11.2		0.0	65.9		0.0	19.4		0.0	5.4	KLD
	Total Daily Requirement	76.8	43.9		209.93 341.4	155.53 200.9		62.1	45.8		60 90.8	30.93 44.1	KLD
		SAY	45	SAY	350	200		SAY	45	SAY	60	45	KLD
			45		210	160						35	
S. NO	DESCRIPTION	POCKET - A			POCKET - B			POCKET - C			POCKET - D		
		Domesti c	Flushing		Domesti c	Flushing		Domesti c	Flushing		Domesti c	Flushing	
I	Tubewell												
	Assuming working hours of tubewells		12			12			12			12	hours

Assuming discharge/hour of each tubewell	18	18	18	18	18	18	18	KL/hr.
Total domestic demand	76.8	341.4	62.1	62.1	62.1	62.1	62.1	90.8
No. of tubewells required	76.8	341.4	62.1	62.1	62.1	62.1	62.1	90.8
Add 5% standby	0.018	0.079	0.014	0.014	0.014	0.014	0.014	0.021
Total	0.374	1.660	0.302	0.302	0.302	0.302	0.302	0.441
Say	1	2	1	1	1	1	1	1
II Pumping machinery for tubewell								
Gross working load	45	45	45	45	45	45	45	45
Average fall in SL	3.05	3.05	3.05	3.05	3.05	3.05	3.05	3.05
Depression head	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1
Friction loss in main	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
Total	56.65	56.65	56.65	56.65	56.65	56.65	56.65	56.65
Say	60	60	60	60	60	60	60	60
BHP = $\frac{40000 \times 60 \times 1.60 \times 1.60 \times 1.75 \times 0.6}{1800}$	6.66	6.66	6.66	6.66	6.66	6.66	6.66	6.66
14.81	14.81	14.81	14.81	14.81	14.81	14.81	14.81	14.81
Say	15	15	15	15	15	15	15	15
III Underground Tank								
Daily requirement for domestic use	80	210	65	65	65	65	65	65
Capacity of under ground tank	40	105	65	65	65	65	65	65
12 48-hours storage	76.8	341.4	62.1	62.1	62.1	62.1	62.1	62.1
Say	460	680	130	130	130	130	130	130
It is proposed to provide the under ground tank of following capacity :	50 KL	110 KL	40 KL	40 KL	40 KL	40 KL	40 KL	40 KL
Capacity of Raw Water Tank-01	40	170	65	65	65	65	65	65
Capacity of Raw Water Tank-02	40	170	65	65	65	65	65	65

Total Population = $635 + 1458 + 513 + 432 = 3038$ Fire Tank = $12 \times 3038 / 100 \times 1/3 = 58 \text{ KL}$ Say 60 KL

S. NO	DESCRIPTION	POCKET - A		POCKET - B		POCKET - C		POCKET - D		
		UGT - 01		UGT - 02		UGT - 03		UGT - 04		
	Capacity of Domestic Water Tank-01		40		170		65		90	KL
	Capacity of Domestic Water Tank-02		40		170					KL
IV	BOOSTING MACHINERY									
	UG. Tank		80		210		65		60	KLD
	Daily requirement for domestic use		76.8		344.4		62.1		90.8	
	Assuming 8 hours pumping	4 pumps (with one standby)	13.33 KL	34.5 KL	65 KL	1100 KL	6	4 pumps (with one standby)	10	
	Discharge/hour	8.4 =	2.40	8.4 =	40.67	62.1	8.4 =	90.8	2.84	KL/HR
	Head of pump		2.40		28.525-33/2				2.84	
	i) Suction lifts		0		0				0	m
	ii) Friction loss in M & specials		10		10				10	m
	iii) Clear head		25		25				25	m
	iv) Residual head		5		5				5	m
	BHP of motor	Total	40	Total	40	Total	40	Total	40	m
			3.40		4.44		2.74		2.52	
			0.59		2.63		0.48		0.70	H.P.
			500		500		500		500	H.P.
	Gen Set	Nos.	2	Nos.	2	Nos.	2	Nos.	2	H.P.
	Pumps for UG. Tank	2	2	2	2	2	2	2	2	H.P.
	Tubewell	1	1	1	1	1	1	1	1	H.P.
	Lighting		15		25		10		10	H.P.
			32		46		27		27	H.P.
			36.83		51.47		30.21		30.21	KVA
			40		60		35		35	KVA

Residential plotted colony at Sector -84 & 85, Gurugram : Services Cost Estimate

S. NO	DESCRIPTION	POCKET - A			POCKET - B			POCKET - C			POCKET - D		
V	Sewage Treatment Plant Capacity (STP)												
	Gross water requirement / day			109.5			299.50 476.5			88.5		85.50 129.5	KLD
	Sewage flow 80% of total load			87.63			239.40 381.204			70.794		68.40 103.616	KLD
	Proposed STP. Capacity			90			240 385			70		70.00 105	KLD
				STP-1			STP-2			STP-3		STP-4	



Sub Work - 2

Sub Head : Sewerage Scheme

S. No.	Description	Qty	Unit	Rate (Rs.)	Amount (Rs.)
1	Providing, jointing, cutting & testing S.W. pipe Class 'A' and lowering into trenches including cost of excavation, bed concrete cost of manholes etc. complete in all respects (up to 4.5 M depth)	2260	RM	1500/-	33,90,000/-
2	a) SW pipe 200 mm iid	1	LS	1400	3164000
3	Provision of lighting and watching etc	1	LS	50000	50000
4	Provision of cutting the road and making good the same	1	LS	100000	100000
5	Provision of timbering and shoring	1	LS	100000	100000
6	Provision of vent pipe as per PH Department	4	LS	100000	400000
7	Provision for cartage of material	1	LS	50000	50000
8	Provision for making connection with HUDA	1	LS	200000	200000
9	Providing STP-1 - 90 KLD	1	LS	3000000	3000000
10	Providing STP-2 - 385 KLD	1	LS	11000000	11000000
11	Providing STP-3 - 70 KLD	1	LS	2500000	2500000
12	Providing STP-4 - 105 KLD	1	LS	4000000	4000000
13	Provision of overflow line from STP to HUDA Sewer line	4	LS	200000	800000
	Total			12460,000/-	25364000
	Add 3% contingencies & PH charges			373800/-	760920
	Add 49% Deptt. Charges, Price Escalation Unforeseen, charge			12853800/-	12428360
	Total			62856100/-	38553280



191.25
 SA Y Rs. 386.00 Lakh
 O. to abstract of cost of Sub-work No. 1)

Annexure -S1**SUSEWERAGE SCHEME - MATERIAL STATEMENT SEWERAGE**

S.No.	Line References	PIPE LENGTH IN (M)			
		150 dia	200 dia	250 dia	300 dia
	POCKET A&B				
1	SE1 TO SE2		108.87		
2	SE2 TO SE3		42.53		
3	SE3A TO SE3		98.67		
4	SE3 TO SE4		56.01		
5	SE4 TO SE5		28.12		
6	SE5 TO SE6		32.57		
7	SE6 TO SE12		5.25		
8	SE7 TO SE8		92.65		
9	SE8 TO SE9		51.54		
10	SE9A TO SE9		98.93		
11	SE9 TO SE10		71.55		
12	SE10 TO SE11		16.99		
13	SE11 TO SE12		81.57		
14	SE12 TO STP		2.80		
15	SE13 TO SE14		53.91		
16	SE14 TO SE15		39.44		
17	SE15 TO SE16		8.87		



Residential plotted colony at Sector -84 & 85, Gurugram : Services Cost Estimate

18	SE16A TO SE16			42.60		
19	SE16 TO SE17			53.77		
20	SE17A TO SE17B			9.83		
21	SE17B TO SE17			59.98		
22	SE17 TO SE18			39.43		
23	SE18 TO SE19			5.11		
24	SE19 TO SE20			42.88		
25	SE20 TO SE21			26.86		
26	SE21A TO SE21			52.42		
27	SE21 TO SE22			14.14		
28	SE22A TO SE22			80.75		
29	SE22 TO STP			2.09		
	POCKET C					
30	SE23 TO SE25			30.2		
31	SE24 TO SE25			20.7		
32	SE25 TO SE26			27.90		
33	SE26A TO SE26			7.5		
34	SE26 TO SE27			11.00		
35	SE27 TO SE28			79.60		
36	SE28 TO SE29			10.30		
37	SE29A TO SE29			13.5		
38	SE29 TO SE35			7.90		
39	SE30 TO SE31			11.2		
40	SE31 TO SE32			40.60		
41	SE32 TO SE35			6.20		



42	SE33 TO SE34			41		
43	SE34 TO SE35			4.00		
44	SE35 TO STP			1.70		
	POCKET D					
45	SE36 TO SE37			51.5		
46	SE37A TO SE37			7.1		
47	SE37 TO SE44			27.50		
48	SE38 TO SE39			63.6		
49	SE39 TO SE40			13.80		
50	SE40A TO SE40			19.6		
51	SE40 TO SE41			69.70		
52	SE41 TO SE42			59.80		
53	SE42 TO SE43			121.30		
54	SE43 TO SE44			158.50		
55	SE44 TO SE45			29.60		
56	SE45 TO STP			1.70		
TOTAL				2257		
SAY				2260		



SUBHEAD : SEWERAGE SCHEME - DESIGN CALCULATION

S. No.	Line References	Manning Constant	0.015	Sewerage Quantity after Evaporation Losses (20%)	Sewerage Discharge Peak at 3 Times	Pipe Dia	Gradient	Velocity	Length	Carrying Cap.	Gr. level	Invert Level		Manhole Depth	
												Start	End	Start	End
1	POCKET A&B	LPD	LPD	LPD	m ³ / Sec	mm	1 IN :	M/Sec	M	m ³ / Sec	M	M	M	M	M
1	SE1 TO SE2	48903.75	39123.00	39123.00	0.001	200	145	0.75	108.87	0.012	0.65	-0.350	-1.101	1.000	1.751
2	SE2 TO SE3	51232.5	40986.00	40986.00	0.001	200	145	0.75	42.53	0.012	0.65	-1.101	-1.394	1.751	2.044
3	SE3A TO SE3	46575	37260.00	37260.00	0.001	200	145	0.75	98.67	0.012	0.65	-0.350	-1.030	1.000	1.680
4	SE3 TO SE4	109451.25	87561.00	87561.00	0.003	200	145	0.75	56.01	0.012	0.65	-1.394	-1.780	2.044	2.430
5	SE4 TO SE5	109451.25	87561.00	87561.00	0.003	200	145	0.75	28.12	0.012	0.65	-1.780	-1.974	2.430	2.624
6	SE5 TO SE6	109451.25	87561.00	87561.00	0.003	200	145	0.75	32.57	0.012	0.65	-1.974	-2.199	2.624	2.849
7	SE6 TO SE12	109451.25	87561.00	87561.00	0.003	200	145	0.75	5.25	0.012	0.65	-2.199	-2.235	2.849	2.885
8	SE7 TO SE8	37260	29808.00	29808.00	0.001	200	145	0.75	92.65	0.012	0.65	-0.350	-0.989	1.000	1.639
9	SE8 TO SE9	37260	29808.00	29808.00	0.001	200	145	0.75	51.54	0.012	0.65	-0.989	-1.344	1.639	1.994
10	SE9A TO SE9	46575	37260.00	37260.00	0.001	200	145	0.75	98.93	0.012	0.65	-0.350	-1.032	1.000	1.682
11	SE9 TO SE10	83835	67068.00	67068.00	0.002	200	145	0.75	71.55	0.012	0.65	-1.344	-1.838	1.994	2.488
12	SE10 TO SE11	83835	67068.00	67068.00	0.002	200	145	0.75	16.99	0.012	0.65	-1.838	-1.955	2.488	2.605
13	SE11 TO SE12	116437.5	93150.00	93150.00	0.003	200	145	0.75	81.57	0.012	0.65	-1.955	-2.518	2.605	3.168
14	SE12 TO STP	225889.75	187650.00	187650.00	0.006	200	145	0.75	2.80	0.012	0.65	-2.518	-2.537	3.168	3.187
15	SE13 TO SE14	279452.5	223356.00	223356.00	0.001	200	145	0.75	53.91	0.012	0.65	-0.350	-0.722	1.000	1.372

Residential plotted colony at Sector -84 & 85, Gurugram : Services Cost Estimate

16	SE14 TO SE15	39588.75	31671.00	0.001	200	145	0.75	39.44	0.012	0.65	-0.722	-0.994	1.372	1.644
17	SE15 TO SE16	39588.75	31671.00	0.001	200	145	0.75	8.97	0.012	0.65	-1.194	-1.255	1.844	1.905
18	SE16A TO SE16	9315	7452.00	0.000	200	145	0.75	42.60	0.012	0.65	-0.350	-0.644	1.000	1.294
19	SE16 TO SE17	48903.75	39123.00	0.001	200	145	0.75	53.77	0.012	0.65	-1.255	-1.626	1.905	2.276
20	SE17A TO SE17B	2328.75	1863.00	0.000	200	145	0.75	9.83	0.012	0.65	-0.350	-0.418	1.000	1.068
21	SE17B TO SE17	20958.75	16767.00	0.001	200	145	0.75	59.98	0.012	0.65	-0.418	-0.831	1.068	1.481
22	SE17 TO SE18	90821.25	72657.00	0.003	200	145	0.75	39.43	0.012	0.65	-1.626	-1.898	2.276	2.548
23	SE18 TO SE19	90821.25	72657.00	0.003	200	145	0.75	5.11	0.012	0.65	-1.898	-1.933	2.548	2.583
24	SE19 TO SE20	90821.25	72657.00	0.003	200	145	0.75	42.88	0.012	0.65	-1.933	-2.229	2.583	2.879
25	SE20 TO SE21	95478.75	76383.00	0.003	200	145	0.75	26.86	0.012	0.65	-2.229	-2.414	2.879	3.064
26	SE21A TO SE21	13972.5	11178.00	0.000	200	145	0.75	52.42	0.012	0.65	-0.350	-0.712	1.000	1.362
27	SE21 TO SE22	109451.25	87561.00	0.003	200	145	0.75	14.14	0.012	0.65	-2.414	-2.511	3.064	3.161
28	SE22A TO SE22	25616.25	20493.00	0.001	200	145	0.75	80.75	0.012	0.65	-0.350	-0.907	1.000	1.557
29	SE22 TO STP	135067.5	108054.00	0.004	200	145	0.75	2.09	0.012	0.65	-2.511	-2.526	3.161	3.176
2	POCKET C													
30	SE23 TO SE25	10867.5	8694.00	0.000	200	145	0.75	30.2	0.012	0.65	-0.350	-0.558	1.000	1.208
31	SE24 TO SE25	13972.5	11178.00	0.000	200	145	0.75	20.7	0.012	0.65	-0.350	-0.493	1.000	1.143
32	SE25 TO SE26	31050	24840.00	0.001	200	145	0.75	27.90	0.012	0.65	-0.558	-0.751	1.208	1.401
33	SE26A TO SE26	1552.5	1242.00	0.000	200	145	0.75	7.5	0.012	0.65	-0.350	-0.402	1.000	1.052
34	SE26 TO SE27	38812.5	31050.00	0.001	200	145	0.75	11.00	0.012	0.65	-0.751	-0.827	1.401	1.477
35	SE27 TO SE28	38812.5	31050.00	0.001	200	145	0.75	79.60	0.012	0.65	-0.827	-1.376	1.477	2.026
36	SE28 TO SE29	38812.5	31050.00	0.001	200	145	0.75	10.30	0.012	0.65	-1.376	-1.447	2.026	2.097
37	SE29A TO SE29	1552.5	1242.00	0.000	200	145	0.75	13.5	0.012	0.65	-0.350	-0.443	1.000	1.093
38	SE29 TO SE35	40365	32292.00	0.001	200	145	0.75	7.90	0.012	0.65	-1.447	-1.501	2.097	2.151
39	SE30 TO SE31	7762.5	6210.00	0.000	200	145	0.75	11.2	0.012	0.65	-0.350	-0.427	1.000	1.077
40	SE31 TO SE32	18630	14904.00	0.001	200	145	0.75	40.60	0.012	0.65	-0.427	-0.707	1.077	1.357

Residential plotted colony at Sector -84 & 85, Gurugram : Services Cost Estimate

41	SE32 TO SE35	18630	14904.00	0.001	200	145	0.75	6.20	0.012	0.65	-0.707	-0.750	1.357	1.400
42	SE33 TO SE34	15525	12420.00	0.000	200	145	0.75	41	0.012	0.65	-0.350	-0.633	1.000	1.283
43	SE34 TO SE35	15525	12420.00	0.000	200	145	0.75	4.00	0.012	0.65	-0.633	-0.660	1.283	1.310
44	SE35 TO STP	74520	59616.00	0.002	200	145	0.75	1.70	0.012	0.65	-1.501	-1.513	2.151	2.163
3	POCKET D													
45	SE36 TO SE37	27945	22356.00	0.001	200	145	0.75	51.5	0.012	0.65	-0.350	-0.705	1.000	1.355
46	SE37A TO SE37	2328.75	1863.00	0.000	200	145	0.75	7.1	0.012	0.65	-0.350	-0.399	1.000	1.049
47	SE37 TO SE44	30273.75	24219.00	0.001	200	145	0.75	27.50	0.012	0.65	-0.705	-0.895	1.355	1.545
48	SE38 TO SE39	32602.5	26082.00	0.001	200	145	0.75	63.6	0.012	0.65	-0.350	-0.789	1.000	1.439
49	SE39 TO SE40	32602.5	26082.00	0.001	200	145	0.75	13.80	0.012	0.65	-0.789	-0.884	1.439	1.534
50	SE40A TO SE40	9315	7452.00	0.000	200	145	0.75	19.6	0.012	0.65	-0.350	-0.485	1.000	1.135
51	SE40 TO SE41	58218.75	46575.00	0.002	200	145	0.75	69.70	0.012	0.65	-0.884	-1.364	1.534	2.014
52	SE41 TO SE42	58218.75	46575.00	0.002	200	145	0.75	59.80	0.012	0.65	-1.364	-1.777	2.014	2.427
53	SE42 TO SE43	58218.75	46575.00	0.002	200	145	0.75	121.30	0.012	0.65	-1.777	-2.613	2.427	3.263
54	SE43 TO SE44	58218.75	46575.00	0.002	200	145	0.75	158.50	0.012	0.65	-2.613	-3.707	3.263	4.357
55	SE44 TO SE45	88492.5	70794.00	0.002	200	145	0.75	29.60	0.012	0.65	-3.707	-3.911	4.357	4.561
56	SE45 TO STP	88492.5	70794.00	0.002	200	145	0.75	1.70	0.012	0.65	-3.911	-3.922	4.561	4.572



Sub Work - 3Sub Head : Storm Water Scheme

S. No.	Description	Qty	Unit	Rate (Rs.)	Amount (Rs.)
1	Providing, lowering, laying, jointing RCC pipe class NP2 with cement joint, manholes, specials into trenches including manholes, chambers etc. excavation, backfilling and disposal of surplus earth complete in all respect.				
	a) RCC pipe 400 mm	2090	RM	2500/-	5225000/-
2	Provision for road gully & pipe connection	1	LS	2250	4702500
3	Provision for lighting and watching	1	LS	1000000	1000000
4	Provision for timbering and shoring	1	LS	100000	100000
5	Provision of cutting the road and making good the same	1	LS	500000	500000
6	Provision for cartage of material	1	LS	100000	100000
7	Providing Rain Harvesting arrangements (approx 29.928 acre @ 2.0 lakh each) <i>2.0 x 29.928 = 59.856 lakh</i>	29.928	Each	200000	5985600
	<i>Provision for material connection in system</i>				
	Total				12488100
	Add 3% contingencies & PH charges				374643
	Add 49% Deptt. Charges, Price Escalation Unforeseen, charge				6119469
	Total				18981912

211.41

SAY 190.00 Lakh

(C.O. to abstract of cost of Sub-work No. 1)



Annexure -D1**STORM SCHEME - MATERIAL STATEMENT STORM**

S. No.	Line References	PIPE LENGTH IN (M)			
		400 dia	500 dia	600 dia	700 dia
1	ST1 TO ST2	114.53			
2	ST2 TO ST3	42.17			
3	ST3A TO ST3	106.13			
4	ST3 TO ST4	5.9			
5	ST4 TO RWH4	3.7			
6	RWH4 TO ST5	1.8			
7	ST5 TO ST6	33.07			
8	ST6 TO MUNICIPAL LINE	30.42			
9	ST7 TO ST8	42.16			
10	ST8 TO ST9	82.53			
11	ST9 TO ST10	15.45			
12	ST10 TO ST11	59.27			
13	ST11A TO ST11B	11.58			
14	ST11B TO ST11	101.09			
15	ST11 TO ST12	44.89			
16	ST12 TO RWH3	3.35			
17	RWH3 TO ST13	2.18			
18	ST13 TO ST14	21.66			
19	ST14 TO ST15	17.12			



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20	ST15 TO ST16	80.46			
21	ST16 TO MUNICIPAL LINE	17.12			
22	ST17 TO ST18	73.38			
23	ST18 TO ST19	8.36			
24	ST19 TO ST20	44.34			
25	ST20 TO ST21	13.05			
26	ST21A TO ST21B	31.89			
27	ST21B TO RWH2	2.58			
28	RWH2 TO ST21C	1.86			
29	ST21C TO ST21	7.46			
30	ST21 TO ST22	55.57			
31	ST22A TO ST22	56.63			
32	ST22 TO ST23	62.14			
33	ST23 TO ST24	63.27			
34	ST24 TO ST25	32.57			
35	ST25 TO ST26	21.98			
36	ST26 TO RWH1	5.36			
37	ST27 TO ST28	46.57			
38	ST28 TO ST29	44.87			
39	ST29A TO ST29	6.99			
40	ST29 TO RWH1	8.93			
41	RWH1 TO ST30	2.21			
42	ST30 TO ST31	63.91			
43	ST31 TO MUNICIPAL LINE	63.91			
44	ST32 TO ST33	22.9			
45	ST33 TO ST36	10.7			
46	ST34 TO ST35	11.1			
47	ST35 TO ST36	11.2			
48	ST36 TO ST37	15.2			
49	ST37 TO ST38	19.4			
50	S38 TO MUNICIPAL LINE	14.3			



51	ST39 TO ST40	14.8				
52	ST40 TO ST41	36				
53	ST41 TO ST43	8.1				
54	ST42 TO ST43	31.7				
55	ST43 TO ST44	6.2				
56	ST44 TO ST45	16.8				
57	ST45 TO MUNICIPAL LINE	20				
57	ST46 TO ST47	63.1				
58	ST47 TO RWH5	2.7				
59	RWH4 TO MUNICIPAL LINE	13				
60	ST48 TO ST50	65.2				
61	ST49 TO ST50	18.3				
62	ST50 TO ST51	43.8				
63	ST51 TO ST52	23.6				
64	ST52 TO RWH6	5.2				
65	RWH6 TO ST53	1.9				
66	ST53 TO ST54	46.3				
67	ST54 TO MUNICIPAL LINE	15.1				
	TOTAL	2090.8	0.0	0.0	0.0	0.0
	SAY	2090				



[illegible]

10	ST8 TO ST9	0.016	153.5	400	570	82.53	0.61	0.039	0.65	-0.424	-0.569
11	ST9 TO ST10	0.017	159.8	400	570	15.45	0.61	0.039	0.65	-0.569	-0.596
12	ST10 TO ST11	0.024	186.8	400	570	59.27	0.61	0.039	0.65	-0.596	-0.700
13	ST11A TO ST11B	0.001	45.0	400	570	11.58	0.61	0.039	0.65	-0.350	-0.370
14	ST11B TO ST11	0.018	163.7	400	570	101.09	0.61	0.039	0.65	-0.370	-0.548
15	ST11 TO ST12	0.047	263.2	400	570	44.89	0.61	0.039	0.65	-0.700	-0.779
16	ST12 TO RWH3	0.048	264.8	400	570	3.35	0.61	0.039	0.65	-0.779	-0.784
17	RWH3 TO ST13	0.048	264.8	400	570	2.18	0.61	0.039	0.65	-0.934	-0.938
18	ST13 TO ST14	0.049	268.0	400	570	21.66	0.61	0.039	0.65	-0.938	-0.976
19	ST14 TO ST15	0.049	268.9	400	570	17.12	0.61	0.039	0.65	-0.976	-1.006
20	ST15 TO ST16	0.062	300.2	400	570	80.46	0.61	0.039	0.65	-1.006	-1.147
21	ST16 TO MUNICIPAL LINE	0.062	300.2	400	570	17.12	0.61	0.039	0.65	-1.147	-1.178
22	ST17 TO ST18	0.020	169.5	400	570	73.38	0.61	0.039	0.65	-0.350	-0.479
23	ST18 TO ST19	0.020	172.7	400	570	8.36	0.61	0.039	0.65	-0.479	-0.493
24	ST19 TO ST20	0.026	195.2	400	570	44.34	0.61	0.039	0.65	-0.493	-0.571
25	ST20 TO ST21	0.026	196.5	400	570	13.05	0.61	0.039	0.65	-0.571	-0.594
26	ST21A TO ST21B	0.009	115.2	400	570	31.89	0.61	0.039	0.65	-0.350	-0.406
27	ST21B TO RWH2	0.009	115.2	400	570	2.58	0.61	0.039	0.65	-0.406	-0.410
28	RWH2 TO ST21C	0.009	116.1	400	570	1.86	0.61	0.039	0.65	-0.560	-0.564
29	ST21C TO ST21	0.012	132.2	400	570	7.46	0.61	0.039	0.65	-0.564	-0.577
30	ST21 TO ST22	0.039	239.8	400	570	55.57	0.61	0.039	0.65	-0.594	-0.692
31	ST22A TO ST22	0.009	114.4	400	570	56.63	0.61	0.039	0.65	-0.100	-0.199
32	ST22 TO ST23	0.057	289.8	400	570	62.14	0.61	0.039	0.65	-0.692	-0.801
33	ST23 TO ST24	0.059	293.7	400	570	63.27	0.61	0.039	0.65	-0.801	-0.912
34	ST24 TO ST25	0.061	299.9	400	570	32.57	0.61	0.039	0.65	-0.912	-0.969
35	ST25 TO ST26	0.063	303.7	400	570	21.98	0.61	0.039	0.65	-0.969	-1.007
36	ST26 TO RWH1	0.064	306.5	400	570	5.36	0.61	0.039	0.65	-1.007	-1.017
37	ST27 TO ST28	0.005	88.6	400	570	46.57	0.61	0.039	0.65	-0.350	-0.432

38	ST28 TO ST29	0.009	115.6	400	570	44.87	0.61	0.039	0.65	-0.432	-0.510
39	ST29A TO ST29	0.002	56.0	400	570	6.99	0.61	0.039	0.65	-0.100	-0.112
40	ST29 TO RWH1	0.011	129.0	400	570	8.93	0.61	0.039	0.65	-0.510	-0.526
41	RWH1 TO ST30	0.076	333.0	400	570	2.21	0.61	0.039	0.65	-1.167	-1.171
42	ST30 TO ST31	0.096	375.6	400	570	63.91	0.61	0.039	0.65	-1.171	-1.283
43	ST31 TO MUNICIPAL LINE	0.096	375.6	400	380	63.91	0.75	0.047	0.65	-1.283	-1.451
3	POCKET D		0								
44	ST32 TO ST33	0.002	56.1	400	570	22.9	0.61	0.039	0.65	-0.350	-0.390
45	ST33 TO ST36	0.002	56.1	400	570	10.7	0.61	0.039	0.65	-0.390	-0.409
46	ST34 TO ST35	0.004	76.5	400	570	11.1	0.61	0.039	0.65	-0.100	-0.119
47	ST35 TO ST36	0.004	80.9	400	570	11.2	0.61	0.039	0.65	-0.119	-0.139
48	ST36 TO ST37	0.008	110.8	400	570	15.2	0.61	0.039	0.65	-0.409	-0.436
49	ST37 TO ST38	0.010	121.8	400	570	19.4	0.61	0.039	0.65	-0.436	-0.470
50	S38 TO MUNICIPAL LINE	0.010	121.8	400	570	14.3	0.61	0.039	0.65	-0.470	-0.495
51	ST39 TO ST40	0.002	48.7	400	570	14.8	0.61	0.039	0.65	-0.350	-0.376
52	ST40 TO ST41	0.004	76.5	400	570	36	0.61	0.039	0.65	-0.376	-0.439
53	ST41 TO ST43	0.004	76.5	400	570	8.1	0.61	0.039	0.65	-0.439	-0.453
54	ST42 TO ST43	0.003	61.8	400	570	31.7	0.61	0.039	0.65	-0.100	-0.156
55	ST43 TO ST44	0.007	103.9	400	570	6.2	0.61	0.039	0.65	-0.453	-0.464
56	ST44 TO ST45	0.008	110.6	400	570	16.6	0.61	0.039	0.65	-0.464	-0.493
57	ST46 TO ST47	0.015	150.1	400	570	63.1	0.61	0.039	0.65	-0.350	-0.461
58	ST47 TO RWH5	0.015	150.1	400	570	2.7	0.61	0.039	0.65	-0.461	-0.465
59	RWH4 TO MUNICIPAL LINE	0.015	150.1	400	570	13	0.61	0.039	0.65	-0.615	-0.638

TITLE : ROAD QUANTITY SHEET

AREA OF METTALED ROAD

S.No.	Road No	Width (M)	Length (M)	QTY	Total Area in SQM
1	R1	51.57	7	2	721.98
2	R2	101.7	7	2	1423.80
3	R3	5.06	7	1	35.42
4	R4	6.32	7	1	44.24
5	R5	42.06	7	1	294.42
6	R6	82.5	7	1	577.50
7	R7	25.58	7	1	179.06
8	R8	157.04	7	1	1099.28
9	R9	105.78	7	1	740.46
10	R10	31	10.5	1	325.50
11	R11	16.24	6.81	1	110.59
12	R12	7.75	7.84	1	60.76
13	R13	96.57	7	1	675.99
14	R14	23.45	10.7	1	250.92
15	R15	57.75	7	1	404.25
16	R16	125.12	7	1	875.84
17	R17	49	7	1	343.00
18	R18	112.18	7	1	785.26
19	R19	64.15	7	1	449.05
20	R20	42.15	7	1	295.05
21	R21	20.9	7	1	146.30
22	R22	101.76	7	1	712.32
23	R23	97.64	7	1	683.48
24	R24	21.31	7	1	149.17
25	R25	27.71	7	1	193.97
26	R26	23.02	7	1	161.14
27	R27	12.62	7	1	88.34
28	R28	14.78	6.05	1	89.42
29	R29	13.75	7	1	96.25
30	R30	29.6	7	1	207.20
31	R31	34.76	7	1	243.32
32	R32	8.9	7	1	62.30
33	R33	11.6	7	1	81.20
34	R34	74.92	7	1	524.44
35	R35	41.63	7	1	291.41
36	R36	17.2	7	1	120.40
37	R37	97.55	7	1	682.85
38	R38	74.46	7	1	521.22
TOTAL 2080.35					14747.10

Say = 2081 Mtr

Say 14750 Sqm

ROAD WORK

Total Area = 29848.47 sq.mt. (7.37 Acres) =

S. No.	Description	Qty	Unit	Rate (Rs.)	Amount (Rs.)
1	Providing laying and earth filling as per site condition.	29.928 7.37	Acre	150000 60000	4422000 4422000
2	Construction of roads by providing granular sub base 300mm as per MORT & H specification conforming to clause 410 grading B400.			100000	7570000
(i)	Providing laying spreading & compacting hand Broken /crushed aggregate to met mix macadam conforming to physical requirement laid in 400 of 300 mm GSB 250mm stone aggregate to 250 mm (125+125) by taking material 1.32 times of the thickness of the layer including per mixing of material mixer.				
(ii)	50mm thick BMF-DPM	14750		1200	17700000
(ii)	40mm thick SDBC 25mm B.C.	14747.22	sqm	1300	16221942
3	Providing for kerb and channel of CC(1:1.5:3). (998x1.5) 2081x2 = 4162 m (both sides)	4162 5000	rm	600	2497200 3000000
4	Provision for making approach to each block and pavement approach to each block	1	LS	180000	180000
5	Provision for guide map and other unforeseen items and indicating board etc	1	LS	142000	142000
6	Provision for traffic light control etc.	1	LS	140000	140000
7	Provision for cartage of material another unforeseen items.	1	LS	200000 60000	200000 60000
	Total (1-7)			25236400	20120142
	Add 3% contingencies & PH charges			757092	60370426
	Add 49% Deptt. Charges, Price Escalation Unforeseen, charge			25993492	986180955
	Total			38730303	30504736

Say Rs. 306.00 Lakhs

(C.O. to abstract of cost of Sub-work No. 4)



Sub Work - 5

Sub Head : Street Lighting

S. No.	Description	Qty	Unit	Rate (Rs.)	Amount (Rs.)
1.	Providing lighting at surrounding area as per standard specifications of HVPN	7.37 29.928	/ Acre	80000 250,000/- 150,000	589600 1105500
	Add 3% contingencies & P.E. Charges				17688
	Add 49% departmental charges				288904
	Total				8961920

114.83

Say Rs. 9.00 Lakhs

(C.O. to abstract of cost of Sub-work No. 5)



Sub Work - 6**Sub Head : Horticulture**

S. No.	Description	Qty	Unit	Rate (Rs.)	Amount (Rs.)
1	Development of Lawn area				
(a)	Trenches the ordinary soil up to depth of 60cm i.e. removal and stacking of serviceable materials & disposing by spreading and levelling with in a load of 50 m and making upto trench area for proper level by filling with earth or earth mixed manure before and after flooding trench with water i.e. cost of imported earth and manure.				
(b)	Rough dressing of turfed area.				
(c)	Grassing with "Doob Grass" i.e. watering maintain of grass for 30 days till the grass forms a thick lawn, free from weeds and fit moving in rows 7.5 cm part in either direction including provision for hedges and barbed wire around park. (4599.818sqm = 1.13-Acre)	2.102 2.59	Acre	150,000/- 160,000/-	315,300/- 414,400
2	Providing and planting trees along roads including excavation, manure, tree guard etc complete. 12 m d/c.	348 3000	No's	1300 900/-	452,400/- 270,000
	Total (1-2)				311,400 76,770/-
	Add 3% contingencies & PH charges				93432- 23031/-
	Add 49% Deptt. Charges, Price Escalation Unforeseen, charge				1526066- 387458/-
	Total				4733688 17779670-50 1178189/-

Say Rs. 47.00 Lakhs

(C.O. to abstract of cost of Sub-work No. 6)



Sub Work - 7Sub Head : MTC of services & Resurfacing of road

S. No.	Description	Qty	Unit	Rate (Rs.)	Amount (Rs.)
1	MTC of water supply, sewer, storm water drain, roads, street light, hort, etc., for period of 10 years including operation charges full establishment etc., complete in all respects.	29.928	/ Acre	500000 460000 7,50,000/-	224,46,000/- 4788480.00 149,64,000/-
2	Provision for resurfacing of roads after 1 st 5 years of maintenance by provision by providing 50mm thick B.M @25 mm thick premix carpet.	14736 14747.22	sqm	600/- 400 160	5898888/- 2359555.20 88,50,000/-
3	Provision for resurfacing of roads after 10 years providing 50mm thick B.M @25 mm thick premix carpet.	14750 14747.22	sqm	600/- 220 750/-	2848332/- 3244388.40 110,62,500/-
	Total			42358505/-	10392423.60- 24711220/-
	Add 3% contingencies @ P E Charges			1270755/-	311772.71- 891337/-
	Add 49% department charges			43629255/-	14952235/-
	Total			213783351/-	5892287.56- 155977809/-
	Total			650075901/-	15796484

650.08

Say Rs. 158 Lakhs

(C.O. to abstract of cost of Sub-work No. 7)

