

EXTERNAL DEVELOPMENT WORKS DESIGN AND COST ESTIMATES

FOR

**PROPOSED RESIDENTIAL PLOTTED
COLONY UNDER DEEN DAYAL JAN
AWAS YOJNA IN SECTOR - 36
SOHNA, OVER AN AREA OF (5.0
ACRES) BEING DEVELOPED BY**

**DEVELOPED BY
M/S SIGNATURE GLOBAL HOMES PVT. LTD.**

**PROPOSED RESIDENTIAL PLOTTED COLONY UNDER DEEN DAYAL JAN AWAS YOJNA IN
SECTOR - 36 SOHNA, OVER AN AREA OF (5.0 ACRES) BEING DEVELOPED BY SIGNATURE
GLOBAL HOMES PVT.LTD.**

REPORT

ESTIMATE FOR PROVIDING WATER SUPPLY, SEWERAGE, STORM WATER DRAINAGE, ROADS, STREET LIGHTING AND HORTICULTURE IN RESPECT OF 5.0 ACRES PROPOSED RESIDENTIAL PLOTTED COLONY UNDER DEEN DAYAL JAN AWAS YOJNA IN SECTOR - 36 SOHNA, OVER AN AREA OF (10.55 ACRES) BEING DEVELOPED BY SIGNATURE GLOBAL HOMES PVT.LTD.

The Haryana Government has prepared a master plan for development of Residential / Industrial/Commercial urban estate SOHNA. M/S SIGNATURE GLOBAL HOMES PVT LTD has decided to develop a part of the area in this master plan and has named this part as 5.0 Acres Residential plotted colony. This scheme is located in sector -36 of Haryana Urban Development Authority SOHNA. License has already been granted under by DGTCP read with licence no 3632 to be road with license no 22 of 2018 dated 21.3.2018. The brief details of the colony are as

WATER SUPPLY

At present the source of water supply in this area is borewells. As the underground water is potable, provision for 2 number of borewells has been made on temporary basis in this estimate. It has been proposed to construct the under ground tanks of capacity as per attached details, and at location for domestic purpose and for fire protection. The underground tanks will be fed from the borewells and HUDA supply, which will feed overhead tanks on the roof of the buildings. The water supply system has been designed as per Hazen Williams formula.

DESIGN

The scheme has been designed for population of 905 persons for Housing. The rate of water supply per head / day has been taken as 172.5 liters (150+15%) as per HUDA norms in addition to above necessary provision of water for club and parks etc. have been taken into account for calculating the maximum quantity of water requirement.

PUMPING REQUIREMENTS

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

PUMPING CHAMBER AND PUMPING EQUIPMENTS

It has been proposed to equip each tubewell with an electrically driven set ejecto type or submersible pump capable of driven 18000 liters per hour. The provision for standby generating set has also been provided in case of any electricity failure. Generator will be provided separately or added to the capacity of main generator.

PROPOSED RESIDENTIAL PLOTTED COLONY UNDER DEEN DAYAL JAN AWAS YOJNA IN SECTOR - 36 SOHNA, OVER AN AREA OF (5.0 ACRES) BEING DEVELOPED BY SIGNATURE UNDERGROUND STORAGE TANK

Underground storage tank provision has been made in two compartments, which cater for the domestic as well as for fire fighting requirement. The water for fire water compartment shall overflow to the domestic compartment so that the water in the fire compartment also remain full & fresh and will not contaminate.

BOOSTING STATION

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

DISTRIBUTION SYSTEM

The distribution system for this development has been designed to supply @ 150+15% UFW = 172.5 liter per head per day @ 3 times the average rate of flow on Hazen William formula. Necessary provision for laying CI/DI pipes conforming to relevant IS standard along with valves and special has been made in the project. The minimum terminal head at any point will be more than 27 Mtrs. so that it can be serve the stilt and four floor stories construction envisaged in the plan. Minimum pipe dia. for distribution is kept as 100 mm dia.

RISING MAIN

Raising main from HUDA water main or sector road to water work have also been proposed as provision has been made in this estimate.

SEWERAGE SCHEME

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

The 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 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. Necessary provision for laying S.W./R.C.C. pipe sewer line, construction of required number of manholes etc. has been made in the estimate.

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

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STORM WATER DRAINAGE**

Since the Master Scheme has been proposed with pipe drain, we proposed to lay pipe drains with required number of catch basins for disposal of storm water. The intensity of rain fall has been taken as 40mm per hour. A minimum size of 400 mm dia NP3 pipe storm water pipe will be provided and designed as per Manning's formula.

SPECIFICATIONS

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

ROADS

The roads in the colony have been planned as minimum 9 M wide. The following specification have been adopted which are reproduced below:

1. 300 mm GSB
2. 250 MM Stone aggregate
3. BW-50 mm thick
4. MSS-20 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 specification, IRC guide lines or HUDA specification, whichever ever applicable.

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STREETLIGHTING**

Provision of lighting on surrounding area has been made.

HORTICULTURE

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

RATES

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

COST

The total cost of the scheme, including cost of all services works out to Rs.364.54 Lacs Including 3% contingencies and 49% departmental charges, price escalation & other unforeseen charges. Cost per acres comes to Rs.72.91 lacs

M/S SIGNATURE GLOBAL HOMES PVT. LTD.

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TOTAL WATER REQUIREMENT

(I) DAILY WATER REQUIREMENT

A

a) A TYPE	=	34 Plots
b) B TYPE	=	27 Plots
c) M1 TYPE	=	4 Plots
d) M2 TYPE	=	2 Plots
Total	=	67 Plots
@13.5 Persons/Plot	=	904 Persons
Total population	=	905 Persons
@172.5 LPCD (150+15% U.F.W.)	=	156113 Liters/ Day
Say	=	156000 Liters/ Day

B Commercial

a) Commercial Building (797.069 sqm @ 3 sqmt/ person	=	266 Persons
i 10% staff / shopkeepers		27 Persons
For staff @ 45 lpcd		1215 Liters/day
ii 90% Visitors		239.4 Persons
For staff @ 15 lpcd		3591 Liters/day
b) Community Building =2032.428 sqm area	=	2032.428 Sqmt.
i 50% for office area		1016.214 Sqmt.
For office building @ 10 sqmt / person		102 Persons
For staff @ 45 lpcd		4572.96 Liters/day
ii 50% for community building		1016.214 Sqmt.
For community building @ 1.4 sqmt / person		726 Persons
For staff @ 15 lpcd		10888 Liters/day
c) Maintenance Staff (Such as Gardener, ESS Staff, Security Guards etc.)	=	20 Persons
@45 LPCD	=	900 Liters/day
d) Back Wash Filters - L.S.	=	10000 Liters/day
e) Floating Population 10% of Population	=	91 Persons
@ 15 LPCD	=	1365 Liters/day
Total Commercial		32532 Liters/day
SAY		33000 Liters/day

C Horticulture & Road side plantation

a) Area under Green area = 1668.31 sqmt. @ 5 Liters / sqmt.	=	8342.00 Liters/day
b) Area under road & paved area of 0.152 Acres@ 25 KL/Acer	=	3800.00 Liters/day
Total	=	12142.00 Liters/day
Or Say	=	20000.00 Liters/day

The demand of Horticulture & Road work will met from recirculated water after treament at S.T.P.

Total Water demand (A + B)	188644 Liters/day
Total Water demand (KLD)	188.64 KLD
Or Say	190.00 KLD

Domestic water demand

65% of AV/WD of (A) +35% of [B (a+b+c+e) + 100% of B (c)]	=	119359 Liters/day
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Domestic water demand (KLD)	=	119.36 KLD
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Or Say	=	120.00 KLD
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Flushing water demand

35% of AV/WD of (A) +65% of [B(a+b+d)]	=	69285 Liters/day
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Flushing water demand (KLD)	=	69.29 KLD
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Or Say	=	70.00 KLD
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Sewage Treatment Plant Capacity

Average Sewerage Contribution Considering 80% of AV = domestic water demand & 90% of AV/Flushing demand	=	159000 Liter / Day
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Sewage Treatment Plant Capacity (KLD)	=	159.00 KLD
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Or Say	=	160.00 KLD
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Sewage scheme

Peak discharge @3 times of sewage discharge plus sub soil infiltration @ 10% of total water demand	=	499000 Liters
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	=	110889 GPD
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	=	0.205 Cusces
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Hence 250 mm dia pipe having design cpacity 0.659 cusces is sufficient to carry the above discharge

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(I) BOREWELLS

Approx. discharge of borewells @ 18 KL/hour and working 16 hours/day

(a) Total domestic water demand	120
(b) Number of borewells $120/(18 \times 16)$	0.417
Total	0.417
Say	2.00
Total	1 Nos.

So, it is proposed to provide 1Set. of tube wells (1W+1S.) Moreover, the water demand for horticulture purposes is to met from recirculated water after treatment at STP and ultimate water supply is to provided by HUDA.

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(II) Pumping Machinery for Borewell

Gross working Head	=	30.0 Meters
Average Fall in S.L.	=	5.0 Meters
Depression Head	=	5.0 Meters
Friction loss in main + Postive head	=	10.0 Meters
Total	=	<u>50.0 Meters</u>
Or Say	=	<u>50.0 Meters</u>

$$\text{Pump HP} = \frac{18000 \times 50 \times 100}{60 \times 60 \times 75 \times 70} = 4.76 \text{ H.P.}$$

Or Say 5.00 H.P.

It is proposed Nos 2 Tube Wells of 5 H.P. each 50M head

(III) Under Ground Water Tanks

a) Total Domestic Water Demand	=	119359 Liters/day
Storage (One day)	=	119 KLD
Or Say	=	120.00 KLD

it is proposed to construct an underground tank of 120 KLD having 60 KLD for treated water, 60 KLD as raw water,

a) For Under Ground Tank		
Total water demand (Domestic)	=	120.00 KLD
Pumping 6 hour pumping	=	333.33 LPM
Or Say	=	350.00 LPM

Gross Working Head		
- Suction lift	=	3.00 Meters
- Delivery head	=	5.00 Meters
- Frictional loss in Mains & Specials+ Positive head	=	7.00 Meters
- Clear head required (S+4) =10+4x4	=	27.00 Meters
Total	=	<u>42.00 Meters</u>
Or Say	=	<u>45.00 Meters</u>

$$\text{Pump HP} = \frac{350 \times 45 \times 100}{60 \times 75 \times 70} = 5.00 \text{ H.P.}$$

Or Say 5.0 H.P.

It is proposed to provide 2 nos. of motors of 5 HP (1W+1S) sets of 350 LPM discharge at 45 M head for domestic supply & generator set of same capacity in case of electric failure) for domestice purpose.

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(IV) Under Ground Flushing Water Tanks (from STP)

a) Average Water Demand	=	188644 Liters/day
Flushing Water Demand	=	70.00 KLD
Or Say	=	70 KLD
Pumping 6 hour pumping	=	194.44 LPM
Or Say	=	200.00 LPM

$$\text{Pump HP} = \frac{200 \times 45 \times 100}{60 \times 75 \times 70} = 2.86 \text{ H.P.}$$

$$\text{Or Say} = 3.00 \text{ H.P.}$$

It is proposed to provide 2 nos. of motors of 3 HP (1W+1S) sets of 200 LPM discharge at 45 M head for flushing supply & generator set of same capacity in case of electric failure) for flushing purpose.

(V) Irrigation Pumping

a) Plot Area	=	5.0 Acres
	=	20234.25 Sqmt

$$\text{Water Demand of Horticulture + Road Area Plantion} = 20000.00 \text{ LPD}$$

$$4 \text{ Hours Pumping} = 83.33 \text{ LPM}$$

$$\text{Say} = 85 \text{ LPM}$$

$$\text{Head} = 35 \text{ Mtr.}$$

$$\text{Pump HP} = \frac{85 \times 35 \times 100}{60 \times 75 \times 70} = 0.94 \text{ H.P.}$$

$$\text{Or Say} = 2.00 \text{ H.P.}$$

It is proposed to provide 2 nos. of motors of 2.0 HP sets of 85 LPM discharge at 35 M head (One pump are working and one as standby & generator set of same capacity in case of electric failure.)

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(VII) GENERATING SETS

S. No	Equipment	QTY	HP	Total HP	
1	Borewell	1	5.0	5.0	
2	Booster Pump (for domestic) + Flushing+ irrigation pump	1+1+1	5+3+2	10.0	
	Total			15.0	
				11.19	KW
	Disversity 0.8 & Power factor 0.8			17.48	KVA
	Or Say			50.00	KVA

It is proposed to add 50.0 KVA capacity for above said machinery to the main DG set.

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FINAL ABSTRACT OF COST

Sub Work	Description			Amount
				(Rs.) in Lacs
I	Water Supply Scheme			90.00
II	Sewerage Scheme			55.49
III	Storm Water Drainage			42.74
IV	Road			85.68
V	Street Lighting			11.51
VI	Horticulture			7.06
VII	Maintenance Charges for 10 Years including Resurfacing of Roads after 1st 5 year & 5 years of mtc			72.05
	Total (in Lacs)			364.54
	Cost per acres (5.0) =			72.91

0

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Sub Work No.I		Water Supply			
Sub Head	Description				Amount (Rs.). In lacs
1	Head Works				18.21
2	Pumping Machinery				9.45
3	Rising Main				5.74
4	Distribution System				19.38
5	Fire Fighting				2.42
6	Irrigation				3.46
Say (In Lacs)					58.65
	Add 3% contingencies	Rs.			1.76
	TOTAL	Rs.			60.40
	Add 49% Department charges, Price Escalation & other unforeseen Charges.	Rs.			29.60
	TOTAL COST	Rs.			90.00

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Sub Work No-1					Water Supply			
Sub Work No-01					Head Works			
SI No	DESCRIPTION	Qty		Rate				AMOUNT (In Lacs.)
1	Boring and installing 200 mm i/d tubewell with reverse rotary rig complete with pipe and strainer to depth of about 150 m in all respect 2 Nos. @ Rs. 700000/- each	1	x	700000	Rs.			7.00
2	Provision for Rising Main connecting Bore well with water main and by-pass arrangement.							
2.1	80 mm dia. G.I. Pipe	155	x	1100	Rs.			1.71
2.2	100 mm dia. G.I. Pipe	0	x	1375	Rs.			0.00
3	Providing Boosting arrangement by pumps (5.0 HP) (capacity 300 lpm at 50 M head, 2 no. @ Rs. 50,000/- each (for Tube Well)	2	x	55000	Rs.			1.10
4	Providing Boosting arrangement by pumps 17.5 HP, capacity 350 LPM at 45 M head, 2 nos. each & @ Rs. 1,00,000/- each (For UGT) complete with panel, foundation etc.	2	x	100000	Rs.			2.00
5	Provision for carriage of materials and other unforeseen items	1	x		Rs.			0.50
6	Construction of U.G. tanks of total cap.(120 KL @ Rs. 4500 KL)	120	x	4500	Rs.			5.40
7	Provision for borewell chamber of size 1.5 x 1.5 m For Housing borewell 3 Nos. @ Rs. 50,000/- each	1	x	50000	Rs.			0.50
TOTAL					Rs.			18.21

Material statement of Borewell Rising Mains

S. No.	Name of line	Length of 80 mm dia. pipe			Length of 100 mm dia pipe
1	Borewell no. 1 to UGT	155			-
	Total	155			0

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Sub Work No-1					Water Supply			
Sub Work No-02					Pumping Machinery			
SI No	DESCRIPTION	Qty		Rate				AMOUNT (In Lacs.)
1	Providing and installing electricity driven Submersible pumping set capable of delivery about 18 KL / Hr. of water against a total Head of 50 M complete with motor and other accessories, 2 No @ 15,0000/-	1	x	100000	Rs.			1.00
2	Provision for diesel engine genset each for standby arrangements for T.W., booster pumps complete with gear head arrangement. - 1 No. 50 KVA	1	x	500000	Rs.			5.00
3	Providing for chlorination plant complete. 1 set @ 45,000/-	1	x	45000	Rs.			0.45
4	Provision for making foundations and erection of Pumping machinery @ Rs. 50000/-	1	x	50000	Rs.			0.50
5	Provision for pipes, valves and specials inside boosting chamber - 1 Set (L.S.) Rs. 50000/- for each	1	x	50000	Rs.			0.50
6	Provision for electric services connection including electric fitting for tube wells & boosting chamber & cost of transformer etc. Rs. 100000/-	1	x	100000	Rs.			1.00
7	Provision for carriage of material and unforeseen item. L.S. Rs. 100000/-	1	x	100000	Rs.			1.00
TOTAL					Rs.			9.45

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Sub Work No-1					Water Supply			
Sub Work No-03					Rising Main from HUDA			
SI No	DESCRIPTION	Qty		Rate				AMOUNT (In Lacs)
1	Providing, laying, jointing & testing 100 Dia D.I. (K-7) pipes including cost of excavation complete as per ISI marked.	230	@	1350	Rs.			3.11
2	Providing and fixing 100 mm dia. sluice valves including cost of surface boxes and masonry chambers etc., complete in all respects.	1	@	12000	Rs.			0.12
3	Providing and fixing indicating plates for sluice valves, air valves and fire hydrants.	1	@	1100	Rs.			0.011
4	Provision for carriage of material & other foreseen items etc., L.S.	1		50000	Rs.			0.50
5	Provision for making connection with HUDA main (L.S.) 1 job1 complete in all respect	1		100000	Rs.			1.00
6	Provision for cutting road and making good the same (L.S.) 2 job	1		100000	Rs.			1.00
TOTAL					Rs.			5.74

Material Statement and design statement of HUDA Rising Mains

S. No.	Name of line			Dia. in mm	Length in m from municipal to U.G.T.
1	Municiple Main To UGT			100	230
	Total				230

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Sub Work No-1					Water Supply			
Sub Head No-04					Distribution system			
SI No	DESCRIPTION	Qty		Rate				AMOUNT (In Lacs)
1	Providing, laying, jointing & testing D.I. (K-7) pipes including cost of excavation complete as per ISI marked.							
	100 mm I/D	960	@	1350	Rs.			12.96
	150 mm I/D	35	@	1650	Rs.			0.58
2	Providing, laying, jointing & testing uPVC pipes including Fitting, complete all respect for connection to plot holders.							
	25 dia uPVC pipe	536	@	200	Rs.			1.07
	20 dia uPVC pipe	134	@	175	Rs.			0.23
3	Providing and Fixing sluice valves including cost of brick masonry chamber complete in all respect.							
	100 mm I/D	4	@	12000	Rs.			0.48
	150 mm I/D	1	@	15000	Rs.			0.15
4	Providing & fixing full way lever operated forged brass ball valve of brass body with forged brass hard chrome plated steel ball tested to a pressure not less than 10 Kg / sqcm with threaded / flanged joints complete with nuts, bolts, gaskets, washers etc.							
	25 mm I/D	268	@	850	Rs.			2.28
	20 mm I/D	67	@	550	Rs.			0.37
5	Providing and Fixing air valves and scour valves including cost of brick masonry chamber complete.	2	@	10000	Rs.			0.20
6	Providing and Fixing indicating plates for sluice valves	5	@	1100	Rs.			0.06
7	Provision for carriage of material & other foreseen items etc., (L.S). 2 Job including cutting of road and making the same.	1	@	100000	Rs.			1.00
	TOTAL				Rs.			19.38

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S. No.	Description	200 mm	150 mm	100 mm	80 mm	25 mm	20 mm	Remarks
(A)	Domestic							
1	UGT-W1	-	15		-	-	-	
2	W1-W1A	-	-	140	-	-	-	
3	W1-W2	-	-	80	-	-	-	
4	W1-W3	-	-	60	-	-	-	
5	W3-W4	-	-	145	-	-	-	
6	W3-W5	-	-	60	-	-	-	
7	Dom. water connection to plot holders 67nos.and 4 seprate riser x 2m	-	-	-	-	536	-	
	TOTAL	0	15	485	0	536	0	
(B)	Flushing							
1	STP-FWS1	-	20		-	-	-	-
2	FWS1- FWS2	-	-	55	-	-	-	-
3	FWS2A- FWS2	-	-	140	-	-	-	-
4	FWS2- FWS3	-	-	60	-	-	-	-
5	FWS3A- FWS3	-	-	80	-	-	-	-
6	FWS3- FWS4	-	-	140	-	-	-	-
7	Flu. water connection to plot holders 67 nos. x 2m	-	-	-	-	-	134	-
	TOTAL		20	475	0	0	134	0
	GRAND TOTAL	0	35	960	0	536	134	0

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DOMESTIC WATER SUPPLY (HYDRAULIC CHART)																			
S. No	Ref of line	Length in mts	Self			Additional			AV/WD	Domestic Water demand @ 65% of AV/WD Apts +35% commercial	Peak Demand @ 3 time of AV/WD	Dia of Pipe	Velocity	Lose of Head in 1000 M (mts)	Loss of head in the line (mts)	Level in start			Remarks
			Plot @ 13.5 persons @ 172.50 LPCD	Floating Population @ 10% of Population (LPD) @ 15 LPCD	Commercial ,Community center, Backwash, Staff (LPD)	Plot @ 13.5 persons @ 172.50 LPCD	Floating Population @ 10% of Population (LPD) @ 15 LPCD	Commercial ,Community center, Backwash, Staff (LPD)								HL	GL	TH	
1	At UGT	-	-	-	-	67 Plots = 905 person =156115 Ltrs	91 Persons = 1365 Ltrs	Commercial + Community = 31170 Ltrs.	188.65	119.36	358.08	-	-	-	-	249.10	210.10	39.00	Ground level = 210.10 UGT Bed level= 207.10 Mtr Add Building head S+4 = 10+5x3.2 = 27 mts Add suction head = 5 mtrs Add Delivery head= 3mtr Add positive head = 4 mtrs Add friction loses = 3 mtr Head level = 249.10 mts
2	UGT-W1	15	67 Plots = 905 person =156115 Ltrs	91 Persons = 1365 Ltrs	Commercial + Community = 31170 Ltrs.	-	-	-	188.65	119.36	358.08	150	0.75	1.60	0.02	249.08	210.10	38.98	
3	W1-W1A	140	12 Plots = 162 person =27945 Ltrs	16 Person = 240 Ltrs	Commercial =4800 Ltrs	-	-	-	32.98	20.25	60.75	100	0.75	2.60	0.36	248.72	210.10	38.62	
4	W1-W2	80	22 Plots = 297 person =51235 Ltrs	30 Person = 450 Ltrs	-	-	-	-	51.70	33.45	100.35	100	0.75	1.60	0.13	248.59	210.10	38.49	
5	W1-W3	60	9 Plots = 122 person =21045 Ltrs	12 Persons = 180 Ltrs	-	24 Plots = 324 person =55890 Ltrs	32 Persons = 480 Ltrs	Community + Backwash = 26360 Ltrs.	103.95	68.80	206.4	100	0.75	3.80	0.23	248.36	210.10	38.26	
6	W3-W4	145	15 Plots = 203 person =35020Ltrs	20 Persons = 300 Ltrs	Community + Backwash = 26360 Ltrs.	-	-	-	61.68	40.85	122.55	100	0.75	3.80	0.55	247.81	210.10	37.71	
7	W3-W5	60	9 Plots = 122 person =21045 Ltrs	12 Persons = 180 Ltrs	-	-	-	-	21.25	13.75	41.25	100	0.75	4.80	0.29	247.52	210.10	37.42	
Note:- 1. Water supply lines should be laid as per N.B.C / Municipal Norms. 2. Water supply lines will have minimum 100mm C.I / D.I. 3. Level have been taken with reference to Road lvi. M.S.L = 210.10 4. Water line should be hydraulic tested & bleached brfore put in operation.																			

FLUSHING WATER CAPACITY (HYDRAULIC CHART)																			
S. No	Ref of line	Length in mts	Self			Additional			AV/WD	Flushing Water demand @ 35% of AV/WD Apts +65% of commerical	Peak Demand @ 3 time of AV/WD	Dia of Pipe	Velocity	Lose of Head in 1000 M (mts)	Loss of head in the line (mts)	Level in start			Remarks
			Plot @ 13.5 persons @ 172.50 LPCD	Floating Population @ 10% of Population (LPD) @ 15 LPCD	Community center+ ,Shopping Staff (LPD)	Plot @ 13.5 persons @ 172.50 LPCD	Floating Population @ 10% of Population (LPD) @ 15 LPCD	Community center+ ,Shopping Staff (LPD)	KLD							HL	GL	TH	
1	At STP	-	-	-	-	67 Plots = 905 persons =156115 Ltrs	91 Persons = 1365 Ltrs	Commercial + Community = 21170 Ltrs.	178.65	69.50	208.5	-	-	-	-	249.10	210.10	39.00	Ground level = 210.10 UGT Bed level= 207.10 Mtr Add Building head S+4 = 10+5x3.2 = 27 mts Add suction head = 5 mtrs Add Delivery head= 3mtr Add positive head = 4 mtrs Add friction loses = 3 mtr Head level = 249.10 mts
2	STP-FWS1	20	-	-	-	67 Plots = 905 person =156115 Ltrs	91 Persons = 1365 Ltrs	Commercial + Community = 21170 Ltrs.	178.65	69.50	208.5	150	0.75	2.60	0.05	249.05	210.10	38.95	
3	FWS1-FWS2	55	9 Plots = 122 person =21045 Ltrs	12 Person = 180 Ltrs	-	58 Plots = 783 person =135070 Ltrs	78 Persons = 1170 Ltrs	Commercial + Community = 21170 Ltrs.	178.65	69.50	208.5	100	0.75	2.60	0.14	248.91	210.10	38.81	
4	FWS2A-FWS2	140	15 Plots = 203 person =35020 Ltrs	20 Person = 300 Ltrs	Community + Backwash = 15465 Ltrs.	43 Plots = 581 person =100225 Ltrs	58 Persons = 870 Ltrs	Commercial = 4805 Ltrs.	156.70	61.25	183.75	100	0.75	3.20	0.45	248.46	210.10	38.36	
5	FWS2-FWS3	60	9 Plots = 122 person =21045 Ltrs	12 Person = 180 Ltrs	-	34 Plots = 459 person =79180 Ltrs	46 Persons = 690 Ltrs	Commercial = 4805 Ltrs.	105.90	38.75	116.25	100	0.75	2.20	0.13	248.33	210.10	38.23	
6	FWS3A-FWS3	80	18 Plots = 243 person =41920 Ltrs	24 Person = 360 Ltrs	-	16 Plots = 216 person =37260 Ltrs	22 Persons = 330 Ltrs	Commercial = 4805 Ltrs.	84.67	31.30	93.90	100	0.75	2.20	0.18	248.15	210.10	38.05	
7	FWS3-FWS4	140	16 Plots = 216 person =37260 Ltrs	22 Person = 330 Ltrs	-	-	-	Commercial = 4805 Ltrs.	42.40	16.4	49.20	100	0.75	2.20	0.31	247.84	210.10	37.74	

PROPOSED RESIDENTIAL PLOTTED COLONY UNDER DEEN DAYAL JAN AWAS YOJNA IN SECTOR - 36 SOHNA, OVER AN AREA OF (5.0 ACRES) BEING DEVELOPED BY SIGNATURE GLOBAL HOMES PVT.LTD.

Sub Work No-1					Water Supply			
Sub Work No-05					Fire fighting			
SI No	DESCRIPTION	Qty		Rate		AMOUNT (In Lacs.)		
1	Providing, laying jointing & testing M.S. pipe lines for rising main including cost of fitting, valves, connection etc., complete in all respects.							
	150 mm I/D for Fire Breigade	25	@	1750.00	Rs.	0.44		
	150mm I/D Two way connection	25	@	1750.00	Rs.	0.44		
	100 mm I/D for Tanker Inlet	25	@	1650.00	Rs.	0.41		
2	Providing & fixing valve including cost of surface boxes and masonry chambers etc. complete in all respects							
	- 150 mm dia.	2	@	15000.00	Rs.	0.30		
	- 100 mm dia.	1	@	10000.00	Rs.	0.10		
	- 80 mm dia.	0	@	7500.00	Rs.	0.00		
3	Providing for carriage of material (L.S.) 2 jobs	1	@	50000.00	Rs.	0.50		
4	Providing and fixing Indicating plate	3	@	1000.00	Rs.	0.03		
5	Providing, fixing, testing and commissioning one set of 4 way fire brigade connection of CI body with 4 Nos. 63 mm dia Stainless Steel male instantaneous inlet couplings, complete with cap and chain as reqd., suitable for connecting to 150 mm dia pipe header conforming to IS 904 complete as required.	1	@	11500.00	Rs.	0.12		
6	Providing, fixing, testing and commissioning one set of 2 way fire brigade connection of CI body with 2 Nos. 63 mm dia Stainless Steel male instantaneous inlet couplings, complete with cap and chain as reqd., suitable for connecting to 150 mm dia pipe header conforming to IS 904 complete as required.	1	@	8500.00	Rs.	0.09		
7	Providing and fixing Fire Hydrant with accessories complete.	0	@	10000.00	Rs.	0.00		
	TOTAL				Rs.	2.42		
Material Statement								
S. No.	Location	200 mm dia pipe	150 mm dia pipe	100 mm dia pipe	80 mm dia pipe	Fire Hydrant		
1	Tanker inlet connection 1 nos	-	-	25	-	-		
2	Fire Brigade 4 way	-	25	-	-	-		
3	Yard Hydrants	-	-	-	-	-		
4	Two way connection	-	25	-	-	-		
	Total	0	50	25	0	0		
Fire Hydrant System								
1	Valves 150mm dia			2	Nos.			
2	Valves 100mm dia			1	No.			
3	Valves 80mm dia			0	No.			
4	Fire Brigade Four way + Two Way Connections			2	No.			

PROPOSED RESIDENTIAL PLOTTED COLONY UNDER DEEN DAYAL JAN AWAS YOJNA IN SECTOR - 36 SOHNA, OVER AN AREA OF (5.0 ACRES) BEING DEVELOPED BY SIGNATURE GLOBAL HOMES PVT.LTD.								
Sub Work No-1					Water Supply			
Sub Work No-06					Irrigation			
SI No	DESCRIPTION	Qty		Rate		AMOUNT (In Lacs)		
1	Providing, laying, jointing and testing uPVC pipe line conforming to I.S 4985 including cost of excavation etc., complete in all respects.							
	20 mm O/D	20	@	230	Rs.	0.05		
	32 mm O/D	35	@	290	Rs.	0.10		
	40 mm O/D for Ring Main	300	@	550	Rs.	1.65		
	75 mm O/D for Ring Main	15	@	650	Rs.	0.10		
	90 mm O/D from STP to Ring Main	0	@	850	Rs.	0.00		
2	Providing and fixing Irrigation hydrant valve complete in all respect.	10	@	2000	Rs.	0.20		
3	Provision for carriage of material & other foreseen items etc., (L.S.) 2 jobs	1	@	50000	Rs.	0.50		
4	Providing & fixing ball valve 20 mm	10	@	350	Rs.	0.04		
5	Providing & fixing sluice valve complete with chamber.							
	- 40 mm dia.	2	@	925	Rs.	0.02		
	- 75 mm dia.	1	@	1250	Rs.	0.01		
	- 90 mm dia.		@	3500	Rs.	0.00		
6	Providing and fixing Irrigation pump 3.0 HP, 85 LPM @ 35 Mtr. Head complete with foundation & control panel etc.	2	@	40000	Rs.	0.80		
	TOTAL				Rs.	3.46		
Material statement of Irrigation System								
S. No.	Line Name	90 mm OD	75 mm OD	50 mm OD	40 mm OD	32 mm OD	20 mm OD	Irrigation Hydrants
1	STP - G1		15					
2	G1-G3			60				
3	G3-G1				95			
4	G3-G5			60				
5	G4-G5				95	15		
6	G5-G6				110	20		
7	Hydrant 10 No x 2 Mtr.						20	10
	Total	0	15	120	300	35	20	10

PROPOSED RESIDENTIAL PLOTTED COLONY UNDER DEEN DAYAL JAN AWAS YOJNA IN SECTOR - 36 SOHNA, OVER AN AREA OF (5.0 ACRES) BEING DEVELOPED BY SIGNATURE GLOBAL HOMES PVT.LTD.								
Sub Work No-II					Sewerage Scheme			
SI No	DESCRIPTION	Qty		Rate		AMOUNT (In Lacs)		
1	Providing, laying and jointing glazed stoneware pipes class SP-1 with stiff mixture of cement mortar in the proportion of 1:1 (1 cement : 1 fine sand) including testing of joints etc. complete :							
	200 mm dia	655	@	794.25	Rs.	5.20		
	250 mm dia	15	@	1173.70	Rs.	0.18		
2	Providing and laying cement concrete 1:5:10 (1 cement : 5 coarse sand : 10 graded stone aggregate 40 mm nominal size) all-round S.W. pipes including bed concrete as per standard design :							
2.1	200 mm diameter S.W. pipe	655	@	1164.80	Rs.	7.63		
2.2	250 mm diameter S.W. pipe	15	@	1346.95	Rs.	0.20		
3	Provision for lighting and watching L.S	1	@	50000.00	Rs.	0.50		
4	Provision for timbering and shuttering L.S.	1	@	100000.00	Rs.	1.00		
5	Provision form STP to HUDA main by pumping.	1	@	175000.00	Rs.	1.75		
6	Providing boosting arrangement by 1+1 nos. pump for flushing water supply 10 HP capacity 200 L.P.M., 45 Meter Head, Complete with foundation and panels.	2	@	85000.00	Rs.	1.70		
7	Provision for making STP (KLD)	160	@	10000.00	Rs.	16.00		
8	Provision for carriage of maternal (L.S.)	1	@	100000.00	Rs.	1.00		
9	Provision of cutting road & making it good as same in original condition - 1 job	1	@	100000.00	Rs.	1.00		
TOTAL					Rs.	36.16		
Add 3% contingencies					Rs.	1.08		
TOTAL					Rs.	37.24		
Add 49% Department charges, price escalation, other for unforeseen charges.					Rs.	18.25		
TOTAL COST					Rs.	55.49		

**PROPOSED RESIDENTIAL PLOTTED COLONY UNDER DEEN DAYAL JAN AWAS YOJNA IN SECTOR - 36 SOHNA,OVER AN AREA OF
(5.0 ACRES) BEING DEVELOPED BY SIGNATURE GLOBAL HOMES PVT.LTD.**

Material statement of Sewerage System – As per drawing sheet								
S. No.	Name of Pipe Line	Length of Pipe in M						Remarks
		200 mm	200 mm branch	250 mm	300 mm	450 mm		
1	S1-S2	165	50	-	-	-		
2	S2A-S2	75	55	-	-	-		
3	S2-S3	55	30	-	-	-		
4	S3A-S3	135	20	-	-	-		
5	S3-S4	50	20	-	-	-		
6	S4-STP	-	-	15				
	TOTAL	480	175	15	0	0		

PROPOSED RESIDENTIAL PLOTTED COLONY UNDER DEEN DAYAL JAN AWAS YOJNA IN SECTOR - 36 SOHNA,OVER AN AREA OF (5.0 ACRES) BEING DEVELOPED BY SIGNATURE GLOBAL HOMES PVT.LTD.																							
Calculations are based on Manning Formula $V = (1.486/n) \times m^{2/3} \times s^{1/2}$ in F.P.S System																							
(Hydraulic Design Sewerage Scheme)																							
Sl. No.	Name of Line	Length in Meter	Self				Additional				Average Daily Water Demand	Average Discharge 80% of Domestic + 90% of flushing	Sub Soil Infiltration @ 10% Of AV/ W.D	Peak Discharge @ 3.0 Times of AV Discharge including Sub Soil infiltration	Design of Pipe			Gradient	Drop	Level at Start		Level at End	
			Plots @ 13.5 persons/ plot @ 172.50 LPCD	Floating population 10% of Population @ 15 LPCD	Commercial + community center, Backwash (LPD)	Staff @ 45 LPCD / Person	Plots @ 13.5 persons/ plot @ 172.50 LPCD	Floating population 10% of Population @ 15 LPCD	Commercial + community center, Backwash (LPD)	Staff @ 45 LPCD / Person					Size of pipe (dia)	Capacity in cusec	Velocity			G.L	LL		
		m	LPD	LPD	LPD	LPD	LPD	LPD	LPD	mm					m	ft/sec	Mtr.			Mtr.	Mtr.		
1	S1-S2	165	16 plots =216 persons =37260 Ltrs	21 person =315 Ltrs	Commercial = 3590 Ltrs.	27 person =1215 Lts	-	-	-	-	42.40	35.40	4.24	0.05	200	0.458	0.75	1:145	1.14	210.10	209.20	210.10	208.06
2	S2A-S2	75	18 plot =243 persons =41920 Ltrs	24 person =360 Ltrs	-	-	-	-	-	-	42.30	35.30	4.23	0.05	200	0.458	0.75	1:145	0.52	210.10	209.20	210.10	208.68 208.06
3	S2-S3	55	9 plot =122 persons =21045 Ltrs	12 person =180 Ltrs	-	-	34 plots =459 person =79180 Ltrs	46 person =690 Lts	Commercial = 3590 Ltrs.	27 person =1215 Lts	105.92	88.35	10.59	0.11	200	0.458	0.75	1:145	0.38	210.10	208.06	210.10	207.68
4	S3A-S3	135	15 plot =203 persons =35020 Ltrs	20 person =300 Ltrs	Community Center + Backwash = 20888 Ltrs	102 person =4590 Lts	-	-	-	-	60.79	52.35	6.08	0.07	200	0.458	0.75	1:145	0.93	210.10	209.20	210.10	208.27 207.68
5	S3-S4	50	9 plot =122 persons =21045 Ltrs	12 person =180 Ltrs	-	-	58 plots =783 person =135070 Ltrs	78 person =1170 Lts	Commercial + Community + Backwash = 24480 Ltrs.	129 person =5805 Lts	187.75	158.35	18.78	0.20	200	0.458	0.75	1:145	0.34	210.10	207.68	210.10	207.34
6	S4-STP	15	67 plots =905 person =156115 Ltrs	91 person =1365 Ltrs	Commercial + Community + Backwash = 24480 Ltrs.	129 person =5805 Lts	-	-	-	-	187.75	158.35	18.78	0.20	250	0.659	0.75	1:190	0.10	210.10	207.34	210.10	207.24
Note:-	1	The Man hole shall be constructed as per HUDA/ N.B.C Norms																					
	2	All the level have been taken with Reference to road level																					
							=	210.10															

PROPOSED RESIDENTIAL PLOTTED COLONY UNDER DEEN DAYAL JAN AWAS YOJNA IN SECTOR - 36 SOHNA,OVER AN AREA OF (5.0 ACRES) BEING DEVELOPED BY SIGNATURE GLOBAL HOMES PVT.LTD.									
Sub Work No-III					Storm water drain				
S. No.	DESCRIPTION	Qty		Rate				AMOUNT (In Lacs)	
1	Providing, lowering, laying and jointing R.C.C NP-3 pipes and specials into trenches including manholes, chambers etc., excavation, back filling and disposal of surplus earth complete in all respects.								
1.1	400 mm I/D Avg. depth upto 2.0 M.	580	@	2500			Rs.	14.50	
2	Provision for Road Gullies L.S.	1	@	150000			Rs.	1.50	
3	Provision for lighting and watching	1	@	55000			Rs.	0.55	
4	Provision for timbering and shoring L.S.	1	@	150000			Rs.	1.50	
5	Provision for carriage of material & other foreseen items etc., L.S.	1	@	55000			Rs.	0.55	
6	Provision for Rain water harvesting arrangemte for (5.0 acre) @ 1.5 lakh / acre	5.000	@	150000			Rs.	7.50	
7	Provision for temporary connection with HUDA	1	@	175000			Rs.	1.75	
	TOTAL						Rs.	27.85	
	Add 3% contingencies						Rs.	0.84	
	TOTAL						Rs.	28.69	
	Add 49% Department charges, price esclation, other for unforeseen charges.						Rs.	14.06	
	TOTAL						Rs.	42.74	

PROPOSED RESIDENTIAL PLOTTED COLONY UNDER DEEN DAYAL JAN AWAS YOJNA IN SECTOR - 36 SOHNA, OVER AN AREA OF (5.0 ACRES) BEING DEVELOPED BY SIGNATURE GLOBAL HOMES PVT.LTD.			
STORM WATER DRAIN			
S. No	Name of Drain		400mm dia RCC pipe
Rain Water Harvesting - 1			
1	D1-D2		50
2	D2-RWH-1		10
3	Over Flow pipe		10
	Total		70
Rain Water Harvesting - 2			
1	D3-D5		80
2	D4-D5		60
3	D5-RWH-2		10
4	RWH - 2- Over Flow pipe		10
	Total		160
Rain Water Harvesting - 3			
1	D6-D7		45
2	D8-D7		80
3	D7-RWH-3		10
4	RWH - 3- Over Flow pipe		10
	Total		145
Rain Water Harvesting - 4			
1	D8-D9		75
2	D9-RWH-4		10
3	RWH - 4- Over Flow pipe		10
	Total		95
Rain Water Harvesting - 5			
1	D10-D11		90
2	D11-RWH-5		10
3	RWH - 5- Over Flow pipe		10
	Total		110
	GRAND TOTAL RWH (1-5)		580

PROPOSED RESIDENTIAL PLOTTED COLONY UNDER DEEN DAYAL JAN AWAS YOJNA IN SECTOR - 36 SOHNA, OVER AN AREA OF (5.0 ACRES) BEING DEVELOPED BY SIGNATURE GLOBAL HOMES PVT.LTD.

Hydraulic Design Chart

Storm Water Drain

Calculations are based on Manning Formula $V = (1.486/n) \times m^{2/3} \times s^{1/2}$ in F.P.S System

Sl. No.	Name of Line	Length in Meter	Catchment Area in sqmt		Total Area (Sqmt)	Discharge in Cusec (1 Acre = 1 Cusec)	Proposed dia of pipe (mm)	Velocity (mt/sec)	Design Capacity of Pipe (Cusecs)	Gradient	Drop (Mtr.)	Level at Start			Level at End		
			Self	Additional								G.L (Mtr.)	I.L (Mtr.)	Depth (Mtr.)	G.L (Mtr.)	I.L (Mtr.)	Depth (Mtr.)
Rain Water Harvesting - 1																	
1	D1-D2	50	2600	-	2600	0.642	400	0.75	3.328	1:500	0.10	210.10	208.90	1.20	210.10	208.80	1.30
2	D2-RWH-1	10	210	2600	2810	0.694	400	0.75	3.328	1:500	0.02	210.10	208.80	1.30	210.10	208.78	1.32
Rain Water Harvesting - 2																	
1	D3-D5	80	5575	-	5575	1.378	400	0.75	3.328	1:500	0.16	210.10	208.90	1.20	210.10	208.74	1.36
2	D4-D5	60	1565	-	1565	0.387	400	0.75	3.328	1:500	0.12	210.10	208.90	1.20	210.10	208.78	1.32
3	D5-RWH-2	10	150	7140	7290	1.801	400	0.75	3.328	1:500	0.02	210.10	208.78	1.32	210.10	208.76	1.34

PROPOSED RESIDENTIAL PLOTTED COLONY UNDER DEEN DAYAL JAN AWAS YOJNA IN SECTOR - 36 SOHNA, OVER AN AREA OF (5.0 ACRES) BEING DEVELOPED BY SIGNATURE GLOBAL HOMES PVT.LTD.

Hydraulic Design Chart

Storm Water Drain

Calculations are based on Manning Formula $V = (1.486/n) \times m^{2/3} \times s^{1/2}$ in F.P.S System

Rain Water Harvesting - 3

1	D6-D7	45	1310	-	1310	0.324	400	0.75	3.328	1:500	0.09	210.10	208.90	1.20	210.10	208.81	1.29
2	D8-D7	80	3545	-	3545	0.876	400	0.75	3.328	1:500	0.16	210.10	208.90	1.20	210.10	208.74	1.36
3	D7-RWH-3	10	100	4855	4955	1.224	400	0.75	3.328	1:500	0.02	210.10	208.74	1.36	210.10	208.72	1.38

Rain Water Harvesting - 4

1	D8-D9	75	2000	-	2000	0.494	400	0.75	3.328	1:500	0.15	210.10	208.90	1.20	210.10	208.75	1.35
2	D9-RWH-4	10	150	2000	2150	0.531	400	0.75	3.328	1:500	0.02	210.10	208.75	1.35	210.10	208.73	1.37

Rain Water Harvesting - 5

1	D10-D11	90	2910	-	2910	0.719	400	0.75	3.328	1:500	0.18	210.10	208.90	1.20	210.10	208.72	1.38
2	D11-RWH-5	10	10	-	2920	0.722	400	0.75	3.328	1:500	0.02	210.10	208.72	1.38	210.10	208.70	1.33

PROPOSED RESIDENTIAL PLOTTED COLONY UNDER DEEN DAYAL JAN AWAS YOJNA IN SECTOR - 36 SOHNA, OVER AN AREA OF (5.0 ACRES) BEING DEVELOPED BY SIGNATURE GLOBAL HOMES PVT.LTD.

SUB WORK NO. - IV					Road Work	
SI No	DESCRIPTION	Qty		Rate		AMOUNT (In Lacs)
1	Provision for leveling - earth filling / cutting as per site conditions. (In Acres)					
	Area = 5.0 Acre	5.000	@	100000	Rs.	5.00
2	Provision for Granular sub base 100mm, 150mm thick stone aggregate, 50mm thick B.M., 20mm thick pre mix carpet with seal coat	4260	@	800	Rs.	34.08
3	Provision of Paved path of C.C. 1:2:4	1140	@	550	Rs.	6.27
4	Provision for Kerbs & channels of CC 1:2:4	1140	@	700	Rs.	7.98
5	Provision for making approach to each block for C.C. pavements L.S.	1	@	50000	Rs.	0.50
6	Provision of guide maps & other unforeseen & indicator boards (L.S.)	1	@	50000	Rs.	0.50
7	Provision for traffic light arrangement - L.S.	1	@	50000	Rs.	0.50
8	Provision of carriage of material and unforeseen items - L.S.	1	@	100000	Rs.	1.00
TOTAL					Rs.	55.83
Add 3% contingencies					Rs.	1.67
TOTAL					Rs.	57.50
Add 49% Department charges, price escalation, other for unforeseen charges.					Rs.	28.18
TOTAL					Rs.	85.68

PROPOSED RESIDENTIAL PLOTTED COLONY UNDER DEEN DAYAL JAN AWAS YOJNA IN SECTOR - 36 SOHNA, OVER AN AREA OF (5.0 ACRES) BEING DEVELOPED BY SIGNATURE GLOBAL HOMES PVT.LTD.

Road Work					
S. No.	Name of Road	Length of Road (in Mtrs.)	Width Of the Road (Mtrs.)	CC Width (Mtrs.)	Area in Sqm.
	A	B	C	C	B x C
1	Road (A)	135	9 M	6	810.00
2	Road (B)	85	9 M	6	510.00
3	Road (C)	75	9 M	6	450.00
4	Road (D)	155	9 M	6	930.00
5	Road (E)	65	24 M	18	1170.00
	Total	515			3870.00
	Area	515			3870.00
	Add 10 % for curves				387.00
	Total				4,257.00
	Total				4,257.00
	Say				4,260.00
	Total Length of road	515			
	Add 10% curves	51.5			
	Total Length	567			
	Say	570	Mtrs.		
	CC foot paths on both side 9 mtr & 24 mtr road				
	CC foot paths on both side =2m x length of road	=	1140		=1140 sqm

PROPOSED RESIDENTIAL PLOTTED COLONY UNDER DEEN DAYAL JAN AWAS YOJNA IN SECTOR - 36 SOHNA, OVER AN AREA OF (5.0 ACRES) BEING DEVELOPED BY SIGNATURE GLOBAL HOMES PVT.LTD.

Sub Work No-V					Street Lighting	
SI No	DESCRIPTION	Qty		Rate		AMOUNT (In Lacs)
1	Providing street lighting on roads as per standard specifications on HVPN					
	Area = 5.0 Acre	5.000	@	150000	Rs.	7.50
TOTAL					Rs.	7.50
Add 3% contingencies					Rs.	0.23
TOTAL					Rs.	7.73
Add 49% Department charges, price escalation, other for unforeseen charges.					Rs.	3.79
TOTAL					Rs.	11.51

PROPOSED RESIDENTIAL PLOTTED COLONY UNDER DEEN DAYAL JAN AWAS YOJNA IN SECTOR - 36 SOHNA, OVER AN AREA OF (5.0 ACRES) BEING DEVELOPED BY SIGNATURE GLOBAL HOMES PVT.LTD.

Sub Work No-VI					Plantation & Road side trees	
SI No	DESCRIPTION	Qty		Rate		AMOUNT (In Lacs)
1	Development of Lawn Area :- a) Trenching the ordinary soil upto depth of 60 cm. including removal and packing of serviceable material and disposing at a lead of 50 M. and making up the trenched area to proper level 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 trenched area. c) Grassing with "doob grass" including watering and maintenance of lawns free from weeds and fit for moving in rows 7.50 cm. in either direction including for hedges and grill and barred wire fencing around park and green belts (As per HUDA norms)					
	Area = 5.0 Acre	5.000	@	75000	Rs.	3.75
2	Providing & Planting of trees with tree guards on roads at 12 m intervals					
	Total Road Length (M.)	570				
	Trees @ 12 M. c/c	48				
	Say (2 x 48) = 96 Or Say	100				
	Cost of One Tree :-					
	Excavation (Rs.) 50/-					
	Manure (Rs.) 50/-					
	Tree Plants (Rs.) 50/-					
	Tree Guards (Rs.) 600/-					
	Total Cost (each)					
	Cost of Total trees	100	@	850	Rs.	0.85
	TOTAL				Rs.	4.60
	Add 3% contingencies				Rs.	0.14
	TOTAL				Rs.	4.74
	Add 49% Department charges, price esclation, other for unforeseen charges.				Rs.	2.32
	TOTAL				Rs.	7.06

PROPOSED RESIDENTIAL PLOTTED COLONY UNDER DEEN DAYAL JAN AWAS YOJNA IN SECTOR - 36 SOHNA, OVER AN AREA OF (5.0 ACRES) BEING DEVELOPED BY SIGNATURE GLOBAL HOMES PVT.LTD.

SUB WORK NO. VII:				MTC. CHARGES AND RESURFACING OF ROADS.		
SI No	DESCRIPTION	Qty		Rate		AMOUNT (In Lacs)
1	Provision for maintenance charges for water supply, Area = 5.0 Acre	5.000	@	300000	Rs.	15.00
2	Provision for resurfacing of roads after first five	4,260	@	400	Rs.	17.04
3	Provision for resurfacing of roads after 10 years of Mtc. i.e. 20mm thick premix carpet with seal coat with mechanical paver. (Sqm)	4,260	@	350	Rs.	14.91
TOTAL					Rs.	46.95
Add 3% contingencies					Rs.	1.41
TOTAL					Rs.	48.36
Add 49% Department charges, price escalation, other for unforeseen charges.					Rs.	23.70
TOTAL					Rs.	72.05