

INTERNAL SERVICE ESTIMATE

Total area of site = 17.55 acre
Part area developed (-) 6.80 acre (Estimate prepared)
For future = 10.75 acre.

PROJECT REPORT / ESTIMATE

FOR PROVIDING INTERNAL SERVICES e.g. WATER SUPPLY, SEWERAGE, STORM WATER DRAINAGE, ROADS, STREET LIGHTING AND HORTICULTURE

REPORT

Gurgaon town of Haryana State is situated on Delhi - Jaipur National Highway No.8 at a distance of 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, it has been decided by the Haryana Government to establish various residential Sectors along with infrastructure facilities in Gurgaon. At present the colonizer is developing only **6.80** acres of the total licenced area. The balance area has been left for "**FUTURE DEVELOPMENT**" and will be developed in near future by the colonizer. This project report consists of developing a **GROUP HOUSING COLONY MEASURING 6.80 ACRES OUT OF THE TOTAL 17.55 ACRES (LICENCE NO-16 OF 2008 DATED 31/01/2008) IN SECTOR-59, GURGAON.**

WATER SUPPLY

At present the source of water supply in this area is bore well and connection from HUDA water main. As the underground water is potable, provision for One numbers of bore - wells have been made in this estimate. It has been proposed to construct underground tanks of capacity as per attached details for domestic purpose. The underground tanks will be filled up from the proposed bore wells or HUDA riser and the water will be pumped to the tank proposed on the roof of the buildings. Since the complex is totally air conditioned water requirement for air conditioning based ISHRAE recommendation also has been included.

DESIGN

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

PUMPING EQUIPMENTS

It has been proposed to install pumping set as described with stand by or equal capacity. The provision for standby generating set has been providing in case of any electricity failure. Power back up will be provided separately or added to the capacity of main generator.

SEWERAGE SCHEME

This scheme is designed for sewer connecting to the HUDA sewer passing in front of site on the 45.00 Mts. Wide Sector Dividing Road. The sewerage system has been marked on the respective plans. The sewer lines have been designed for three items average D .W .F .in relation to water supply demand. It has been assumed that about 75% to 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 / RCC pipe sewer line, construction of required number of manholes etc have been made in the estimate.

Necessary design statement for entire sewerage system has been prepared and attached with estimate



STORM WATER DRAINAGE

It is proposed to lay underground RCC pipe drains for disposal of storm water. Since the Ground water table is very high in this zone, no catch basins or Rain Water Harvesting pits have been proposed. The intensity of rain fall has been taken as 1/4" per hour. A minimum size of 400 mm RCC storm water line will be provided and designed as per Manning's formula.

SPECIFICATIONS

The work will be carried out in according with the standard specification of P.H as laid down by the Haryana Govt. / HUDA.

ROADS

Cost of road has been taken in the estimate.

STREET LIGHTING

Provision for lighting on surrounding area has been made.

HORTICULTURE

Estimate and details of plantation, Landscaping, Signage etc has been included.

RATES

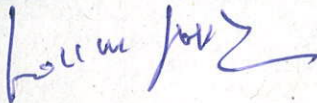
The estimate has been based on the present marked rates.

COST

The total cost of the scheme, including cost of all services work out be ~~896.57~~ ^{799.97} **Rs.1400.40 lacs** including 3% contingencies @ 49% departmental charges price escalation, unformed Admn. Charges.

For

M/s BASE EXPORTS PVT. LTD.



Authorized Signatory



I. DESIGN CALCULATION

Sr.No	Category	Number of Flats	Persons Per Flat	Total Persons
1	Main D.U.'s	360	5	1800
2	Service Personal	58	2	116
2	EWS @ 15%	65	5	325
			Total Persons	2241

WATER REQUIREMENT

2241 Persons @ 172.5 Litres

= 386.57 KLD

II. FOR COMMUNITY SITES

(a) Commercial 78.85 Sq.mt or 0.019 acres @ 25 KL/Acres = 0.48 KLD

(b) Community Building = 20.00 KLD

(c) For Horticulture purpose 10652.85 Sq.mt or 2.63 Acres = 65.75 KLD

@ 25 KLD per acres to be met out treated water From STP

Total Requirement for Sr. No I and II

U.G.T Capacity (Half day Storage)

For Fire Fighting

U.G.T (Capacity)

= 472.80 KLD

= 236.40 KLD

= 200.00 KLD

= 436.40 KLD

SAY = 450.00 KLD

III. Requirement of Domestic Water = 450 KLD @ 65%

= 292.50 KLD

SAY 300 KLD

IV. Requirement of Flushing Water = 450 KLD @ 35%

= 157.5 KLD

SAY 150 KLD

1. BOREWELLS

Approx. discharge of bore wells @ 18 KL/Hr. and working 10 hrs/ day.

a) Total Water Demand = 450 KLD.

b) Number of bore wells - 300/10/18 = 1.66 Nos.

c) Add 10 % as standby = 0.16 Nos.

Total = 1.82 Nos.

Say 2.0 Nos.

Since the entire water to the proposed development is to be supplied by HUDA from the canal filtration scheme, it is proposed to install **one** number of borewell to meet the present demand.

2. PUMPING MACHINERY FOR BOREWELLS:

a) Gross working head = 104.00 Mts.

b) Average fall in S.L. = 2.00 Mts.

c) Depression head = 6.00 Mts.

d) Friction Loss in main = 3.00 Mts.

Total = 115.00 Mts.

HP = $18000 \times 115 \times 1 / (60 \times 60 \times 75 \times 0.6) = 12.77$ Say 15.00 HP

3. UNDERGROUND TANKS:

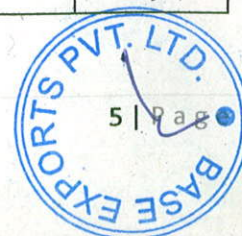
- a) Daily demand (Domestic) @ 65% = 300 KLD
b) $\frac{1}{2}$ Daily demand = $300/2$ = 150 KLD

Therefore it is proposed to construct underground tank of 150 KL each in two compartments for domestic use, 75 KL raw & 75 KL treated water and 200 KL for firefighting purpose.

TOTAL = 350 KL

4.	PUMPS FOR DOMESTIC WATER SUPPLY		
i	Potable Water Requirement Per Day	300	KL
ii	Pumping Duration Per Day	8	Hrs
iii	Suction Lift	4	Mts
iv	Clear Head Required	104	Mts
v	Residual Head	0	Mts
vi	Friction Head Loss	10	Mts
vii	Total head required	126	Mts
viii	Discharge of Pump $300/8=37.5\text{cum/ h}=625\text{ lpm}$ Say 650 lpm	650	LPM
ix	Power Required $(\text{Lpm} \times \text{head(m)})/4500 \times .60 (\text{effi.})$	30.33	HP
	SAY	30.00	HP
	It is proposed to provide 2 No. Pumps (1 Working & 1 Stand by) of 30.00 HP each		
5.	PUMPS FOR FLUSHING WATER SUPPLY		
i	Flushing Water Requirement Per Day	150	KL
ii	Pumping Duration Per Day	8	Hrs
iii	Suction Lift	4	Mts
iv	Clear Head Required	104	Mts
v	Residual Head	0	Mts
vi	Friction Head Loss	10	Mts
vii	Total head required	126	Mts
viii	Discharge $=150/8=18.75\text{ cum/ h}=312.5\text{ lpm}$ Say 350 lpm	350	LPM
	Power Required $(\text{Lpm} \times \text{head(m)})/4500 \times .60 (\text{effi.})$	16.33	HP
	SAY	20.5 17.50	HP
	It is proposed to provide 2 No. Pumps (1 Working & 1 Stand by) of 17.50 HP each		

6.	PUMPS FOR FIRE PROTECTION				
	Parameters	LOCATION	Jockey	Main/Sprinkler	Diesel
a)	Discharge in lpm	PUMP ROOM	180	2850	2850
b)	Head in Mtrs.	PUMP ROOM	126	126	126
c)	HP	PUMP ROOM	10	100 150	400 150
d)	Quantity in Nos.	PUMP ROOM	1	2	1



7.	CAPACITY OF DG SETS				
			Qty	HP	Total HP
a)	Borewell		1	15	15.00
b)	Fire Jockey		2	10	20.00
c)	Booster Pump (Domestic)		2 1	30	60.00
d)	Booster Pump (Flushing)		2 1	20 17.50	35.00 20
e)	Lighting				15.00
				TOTAL	145.00 160
				SAY	145.00

1070.746 x 1.50 = 160.90 KVA

Requirement of 135 KVA capacity will be added in to the main D.G. set to provide stand by supply.

FINAL ABSTARCT OF COST

		Amount in Rs. <i>Lacs</i>
SUB WORK NO-I	WATER SUPPLY SCHEME	471.58 lacs 205.67 198.06 lacs
SUB WORK NO-II	SEWERAGE SCHEME	84.02 lacs 102.44 96.65 lacs
SUB WORK NO-III	STORM WATER SCHEME	53.50 lacs 48.80 49.69 lacs
SUB WORK NO-IV	ROADS	503.51 lacs 255.42 166.45 lacs
SUB WORK NO-V	STREET LIGHTING	9.89 lacs 12.56 26.09 lacs
SUB WORK NO-VI	HORTICULTURE	8.06 lacs 7.26 6.57 lacs
SUB WORK NO-VII	MAINTENANCE CHARGES FOR 10YEARS INCLUDING RESURFACING OF ROADS AFTER 1 ST 5 YEARS & 2 ND 5 YEAR OF MTC (AS PER HUDA NORMS)	256.13 lacs 264.42 256.46 lacs
	Total	1086.69 lacs 799.97 lacs

799.97
~~896.57~~

Cost per Acres = $1086.69 / 6.80 \text{ acres}$
= ~~159.80~~ Lacs Per Acre
131.85 *117.64*

For.
M/S BASE EXPORTS PVT.LTD.

Authorized Signatory

[Signature]
Superintending Engineer,
HUDA, Circle-II, Gurgaon

Executive Engineer
HUDA Division No. I
GURGAON

Checker subject to comments
in forwarding letter No. 13114
Dt. 19/11/14 and notes attached
with the estimate

19/11/14
Executive Engineer (W)
for Chief Engineer
HUDA Panchkula

Sub Work No.-I

Water Supply

Sr. No.	Sub Head No.	Name of Work	Amount in Rs.
1.	Sub Head No.01	Head works	27.25 lacs 32.32 35.62 lacs
2.	Sub Head No.02	Pumping Machinery	52.00 lacs 58.50 52.50 lacs
3.	Sub Head No.03	Rising Main	4.36 lacs 6.36 2.59 lacs
4.	Sub Head No.04	Distribution System	40.55 lacs 14.52 16.67 lacs
5.	Sub Head No.05	Fire Ring Main	15.46 Lacs 17.46 18.08 lacs
6.	Sub Head No.06	Irrigation	2.19 lacs 4.85 3.60 lacs
		Total	111.81 lacs 134.01 129.06 lacs
		Add 3% contingencies & PH charges	3.35 lacs 4.02 3.87 lacs
		Total	115.16 lacs 138.03 132.93
		Add 49% Departmental charges, price escalation, Unforeseen & Admin. Charges	56.42 lacs 67.64 65.13
		TOTAL	171.58 lacs 205.67 198.06 lacs

C.O. to final abstract of cost



ESTIMATE FOR GROUP HOUSING COLONY MEASURING 6.80 ACRES OUT OF TOTAL 17.55 ACRES (LICENCE NO. 16 OF 2008 DATED 31.01.2008) IN SECTOR-59, GURGAON BEING DEVELOPED BY M/s BTVs BUILDWELL PVT. LTD., M/s ORNAMENTAL REALTORS PVT. LTD., M/s ADSON SOFTWARE PVT. LTD. C/o M/s BASE EXPORTS PVT. LTD.

Sub Work No.-I
Sub Head No. 01

Water Supply
Head works

Sr. No.	Description	Qty. / Rate / Unit	Amount in Rs.
1.	Boring and installing 510 mm i/d bore well with reverse rotary rig complete with pipe and strainer to a depth of about 100 meters- 1 No. @ 3.00 lacs		Rs. 3.00 Lacs 7.00
2.	Provision of rising mains, connecting bore wells with water main and bye pass arrangements: 150 mm 15 M @ 1400/- per mtr		Rs. 0.07 Lacs 0.24
3.	Providing boosting arrangement by pumps:		
a)	650 LPM @ 126 M Head, 2 Nos. @ 2.50 lacs each (30HP)(Dom.)		Rs. 5.00 Lacs 6.00
b)	350 LPM @ 126 M Head, 2 Nos. @ 1.50 lacs each (30HP)(Flus.)		Rs. 3.00 Lacs 4.00
4.	Provision for carriage of materials (L.S.)		Rs. 1.00 Lacs 0.50
5.	Construction of U.G. Tanks UGT capacity of 350 KJ @ 3500/- / KL		Rs. 12.25 Lacs 14.88
6.	Provision for Bore well chamber 1800 x 1200 x 2000, 1 No. @ 1.00 Lakh each.		Rs. 1.00 Lacs 1.00
7.	Provision for construction of chowkidar hut for facilities for Mtc. Staff		Rs. 5.00 Lacs 5.00
	TOTAL		Rs. 27.25 Lacs 32.32

32.32 lacs.
35.62

(C/O to Abstract of cost for Sub Work No. 1)



Sub work No.-I
Sub Head No.2

Water supply & Fire Fighting
Pumping Machinery

Sr. No.	Description	Qty. / Rate / Unit	Amount in Rs.
1.	Providing and installing electricity booster driven submersible pumping set capable of delivering water against a total head of 90 M complete with motor and other accessories- 1 No. @ Rs. 3,00,000/- Each		Rs. 3.00 Lacs
2.	Provision for Diesel Engine Generator set each for standby arrangements for Booster Pump complete with gear head arrangements of following capacities. 1 No. 135 KVA		Rs. 16.00 Lacs
3.	Providing and installing Fire pumping set of following capacities for fire protection:-		
	-180 lpm at 126 M head 1 No. Jockey Pump @ Rs. 2,00,000/- (10 HP)		Rs. 2.00 Lacs
	-2850 lpm at 60 M head 1 No. main fire pump @ Rs. 10,00,000/- (100 HP)		Rs. 10.00 Lacs
	-2850 lpm at 60 M head 1 No. Sprinkler Pump @ Rs. 10,00,000/- (100 HP)		Rs. 10.00 Lacs
	-2850 lpm at 60 M head 1 No. Diesel Engine Pump @ Rs. 7,50,000/- (100 HP)		Rs. 7.50 Lacs
4.	Provision for chlorination plant complete -1 No @ Rs.1,00,000/- (L.S.)		Rs. 1.00 Lacs.
5.	Provision for making foundations and erection of Pumping machinery. (L.S.)		Rs. 2.00 Lacs
6.	Provision for pipes, valves and specials inside boosting Chamber (L.S.)		Rs. 2.00 Lacs
7.	Provision for electric service connection including electrical fitting for bore-well and boosting chamber etc. (L.S.)		Rs. 5.00 Lacs
8.	Provision for carriage of material and other unforeseen Items etc. (L.S.)		Rs. 1.00 Lacs.
	TOTAL		Rs. 52.00 Lacs

(C/O to Abstract of cost for Sub Work No. 1)



Sub Work No.-I
Sub Head No. 03

Water Supply
HUDA Rising main

Sr. No.	Description	Qty. / Rate / Unit	Amount in Rs.
1.	Providing, laying, jointing and testing pipe lines including cost of fittings, valves, connections etc. Complete in all respects. C.I./D.I. Pipe 100 mm i/d = 70 mtr. @ Rs. 1200/- Per Mtr.		Rs. 0.84 ^{0.88} Lacs
2.	Providing and fixing of sluice valves with haudies. Complete in all respects. 100 mm dia = 2 Nos. @ Rs. 15,000/- each		Rs. 0.30 ^{0.24} Lacs
3.	Providing and fixing indicating plates for sluice valves – 2 Nos. @ Rs. 1000/- each		Rs. 0.02 Lacs
4.	Providing and fixing air release and scour valves – 2 Nos. @ Rs. 10000/- each		Rs. 0.20 Lacs
5.	Provision for carriage of materials and other unforeseen items		Rs. 1.00 ^{0.25} Lacs
6.	Provision for cutting of roads & making good to its original condition.		Rs. 0.50 ^{1.00 0.50} Lacs
7.	Provision for making connection with HUDA line (L/S)		Rs. 2.50 ^{0.50} Lacs
	TOTAL		Rs. 4.36 ^{6.36} Lacs

^{2.59}

(C/O to Abstract of cost for Sub Work No. 1)

Sub work No.-I
Sub Head No.04

Water supply
Distribution System
(Domestic & Flushing)

Sr. No.	Description	Qty. / Rate / Unit	Amount in Rs.
1.	Providing, laying, jointing and testing of C.I./ D.I. pipe lines including cost of fitting valves & excavation complete in all respects. <u>DOMESTIC:</u> 150 mm dia = 8 mtr. @ Rs. 1500/- Per Mtr. 100 mm dia = 49 mtr. @ Rs. 1250/- Per Mtr. 80 mm dia = 152 mtr. @ Rs. 1000/- Per Mtr. 65 mm dia = 363 mtr. @ Rs. 850/- Per Mtr. <u>FLUSHING:</u> 150 mm dia = 4 mtr. @ Rs. 1500/- Per Mtr. 100 mm dia = 195 mtr. @ Rs. 1250/- Per Mtr. 80 mm dia = 60 mtr. @ Rs. 1000/- Per Mtr. 50 mm dia = 308 mtr. @ Rs. 500/- Per Mtr. Rising main from HUDA to UGT 100 mm dia = 70 Mtr. @ Rs. 4000/- Per Mtr.	1575 575 1520 3080 1575 564 600 1544 1260/- 4000/-	Rs. 0.12 Lacs Rs. 0.61 Lacs Rs. 1.52 Lacs Rs. 1.99 Lacs Rs. 0.06 Lacs Rs. 2.44 Lacs Rs. 0.48 Lacs Rs. 1.23 Lacs Rs. 0.70 Lacs
2.	Providing & fixing of sluice valve including chamber etc. complete in all respects. 150 mm dia = 2 No. Dom. & Flush. & 1 No. Rising Main = 3 Nos. @ Rs. 15,000/- Each 100 mm dia (Dom. & Flush. Line) = 2 No. @ Rs. 10000/- Each	 12	Rs. 0.45 Lacs Rs. 0.20 Lacs
3.	Providing and fixing indicating plates for sluice valve and air valves etc. 5 Nos. @ Rs. 1000/- Each		Rs. 0.05 Lacs
4.	Provision for carriage for materials and other unforeseen items. (L.S.)		Rs. 1.00 Lacs
	TOTAL		Rs. 10.55 Lacs

5. Prov. for Road cutting & making its original condition (L.S.) = Rs. 2.00 Lacs.

(C/O to Abstract of cost for Sub Work No. 1)

14.52 Lacs.
16.67



DOMESTIC WATER MATERIAL STATEMENT					
Sl. No.	Name Of Line	LENGTH OF PIPE IN MTRS			
		150 MM	100 MM	¹⁰⁰ 80 MM	¹⁰⁰ 65 MM
1	UGT-A	8.00			
2	A-B				36.00
3	A-C		49.00		
4	C-D			60.00	
5	D-D'				8.00
6	D-E				102.00
7	C-F			92.00	
8	F-F'				27.00
9	F-G				190.00
	TOTAL	8.00	49.00	152.00	363.00
	GRAND TOTAL		572.00		

FLUSHING WATER MATERIAL STATEMENT					
Sl. No.	Name Of Line	LENGTH OF PIPE IN MTRS.			
		150 MM	100 MM	¹⁰⁰ 80 MM	¹⁰⁰ 50 MM
1	STP-a	4			
2	a-a'				88
3	a-b		101		
4	b-b'				26
5	b-c		94		
6	c-c'				84
7	c-d			60	
8	d-d'				7
9	d-e				103
	TOTAL	4	195	60	308
	GRAND TOTAL		567		

Dom + Flushing

Total 150 mm 100 mm

8 + 4 = 12 mtr 572 + 567 = 1139 mtr

say 15 mtr say 1140 mtr



Sub Work No.-I
Sub Head No.05

Water Supply
Fire Fighting

Sr. No.	Description	Qty. / Rate / Unit	Amount in Rs.
1.	Providing, laying, jointing and testing MS pipe lines including fittings, cost of excavation etc. complete in all respects. 150 mm i/d = 908 mtr. @ Rs. 1551/- Per Mtr.		14.30 Rs. 9.08 Lacs
2.	Providing and fixing Valve including cost of surface boxes and masonry chambers etc. complete in all respect. 150 mm dia = 28 Nos. @ Rs. 10000 each		0.50 Rs. 2.80 Lacs
3.	Providing and fixing fire hydrants with accessories 28 Nos. @ 10000 each		Rs. 2.80 Lacs
4.	Provision for carriage of materials and other unforeseen items		Rs. 0.50 Lacs
5.	Provision for indicating plate- 28 Nos. @ 1000/- each		Rs. 0.28 Lacs
	TOTAL		Rs. 15.46 Lacs

6. Prov. for Road cutting and making it original. Rs. 2.00 lacs.
cond. L's 0.50
17.46 lacs.
18.08

MATERIAL STATEMENT OF FIRE FIGHTING RING			
S. No.	Name of Line	Dia of Pipe	Length in Mts.
1	UGT-A	150	8
2	A-B	150	38
3	B-C	150	176
4	C-D	150	140
5	D-E	150	177
6	E-B	150	59
7	E-F	150	60
8	F-G	150	81
9	G-H	150	107
10	H-A	150	62
	TOTAL		908

Sub Work No.-I
Sub Head No.06

Water Supply
Irrigation

Sr. No.	Description	Qty. / Rate / Unit	Amount in Rs.
1.	Providing, laying, jointing and testing pipe line Confirming to IS 4985 (UPVC / HDPE) including cost of excavation etc. complete in all respects. Garden hydrant line 50/40/32/25 mm (L.S.) (Detail below)		2.50 Rs. 0.50 Lacs
2.	Providing and fixing 25mm dia. irrigation hydrant Valve complete in all respect. 25 mm dia = 15 Nos. @ Rs. 3500 each 1000/-		Rs.0.53 Lacs
3.	Provision for Garden Hydrant- 32 Nos. @ 500/- each		Rs. 0.16 Lacs 0.32
3.	Provision for cutting of roads & making good to its original condition.		1.00 Rs. 0.50 Lacs
4.	Provision for carriage of materials and other unforeseen items		Rs. 0.50 Lacs 0.25
	TOTAL		Rs. 2.19 Lacs 4.85 3.60

MATERIAL STATEMENT OF IRRIGATION RING			
S. No.	Name of Line	Dia of Pipe	Length in Mts.
1	STP-a	50	4
2	a-b	40	144
3	b-c	32	19
4	c-d	25	40
5	d-e	25	66
6	e-f	25	67
7	f-g	25	66
8	g-c	25	27
9	b-h	32	63
10	h-i	25	100
11	i-j	25	60
12	j-k	32	55
13	k-a	40	62
	TOTAL		773

50 mm = 4 mtr.
40 mm = 144+62 = 206
32 mm = 19+63+55 = 137
25 mm = 40+66+67+66
27+100+67
= 426 M.

50 mm = 4 mtr. @ Rs. 600/- P.mtr. = 2400/-
40 mm = 206 mtr. @ Rs. 450/- P.mtr. = 92700/-
32 mm = 137 mtr. @ Rs. 350/- P.mtr. = 47950/-
25 mm = 426 mtr. @ Rs 250/- P.mtr. = 106500/-
249550/-

say Rs. 2.50 lacs.



Sub Work No.-II

Sewerage Scheme

S. No.	Description	Qty. / Rate / Unit	Amount in Rs.
1	Providing, jointing, Cutting and testing SW pipe class "A" and lowering into trenches including cost of Excavation, bed concrete, cost of manholes etc.	1250/-	6.38
	200 mm i/d = 510 Mts (0.0 to 3.0 Mts.) @ Rs.1500/- Per Mtr.		Rs. 7.65 Lacs
2.	Provision for carriage of materials and other unforeseen items (L.S.)		Rs. 0.50 Lacs
3.	Provision for lighting and watching (L.S.)		Rs. 0.50 Lacs
4.	Provision for cutting of roads & making good to its in Original condition (L.S.)		Rs. 0.50 Lacs
5.	Provision for making connection with HUDA Line (L.S.)		Rs. 3.00 Lacs
6.	Provision for construction of Sewerage Treatment Plant of capacity of 400 KLD including machinery complete in all respects. (Treatment Level shall be tertiary) (L.S.)		Rs. 50.00 Lacs
7.	Provision for timbering & shoring (L.S.)		Rs. 0.50 Lacs
8.	Providing and laying 150 mm dia CI/DI rising main from STP to HUDA sewer line- 130 mts @ 2000/- Per Mtr.	1575/-	Rs. 2.60 Lacs
9.	Provision for vent pipe as per P.H. requirement. (L.S.)		Rs. 1.00 Lacs
	TOTAL		Rs. 54.75 Lacs
	Add 3% Contingencies		Rs. 1.64 Lacs
	P.E. Charges TOTAL		Rs. 56.39 Lacs
	Add 49 % Departmental charges, price escalation, Unforeseen & Admin. Charges		Rs. 27.63 Lacs
	TOTAL		Rs. 84.02 Lacs

66.75
2.00
68.75
33.69
102.44 lacs

CARRIED OVER TO FINAL ABSTRACT OF COST

MATERIAL STATEMENT OF SEWERAGE SYSTEM			
Sl. No.	Name Of Line	Size of Pipe in mm	Length of Line in Mts
1	S1-S2	200	62
2	S2-S3	200	75
3	S3-S4	200	50
4	S4'-S4	200	59
5	S4-S5	200	180
6	S5'-S5	200	79
7	S5-STP	200	5
	TOTAL		510 mh
8	STP-OUT	150 CI/DI	130



Sub Work No.III

Storm water Scheme

S. No.	Description	Qty. / Rate / Unit	Amount in Rs.
1	Providing and laying R.C.C. pipe class NP-3 with cement joint, manholes excavation etc complete in all respects.	2500	
a)	RCC pipe 400 mm i/d avg. depth 0-4 M = 915 Mts @ 1750/- Per Mtr.		Rs. 18.30 Lacs
2.	Provision for construction of Double Road Gullies with 2500 mm i/d RCC pipe connecting with manholes complete in all respects. 915/20=45.75 Say 46 Nos. 30000 (L.S.)		Rs. 22.86 Lacs
3.	Provision for carriage of materials and other unforeseen items		Rs. 0.50 Lacs
3(a)	Prov. for const. of Rain water Harvesting pit 7.0 (L.S.)		Rs. 5.50 Lacs
4.	Provision for lighting and watching (L.S.)		Rs. 1.00 Lacs
5.	Provision for making connection with HUDA Line (L.S.)		Rs. 2.50 Lacs
6.	Provision for cutting of roads & making good to its in Original condition (L.S.)		Rs. 1.00 Lacs
7.	Provision for timbering and Shoring (L.S.)		Rs. 1.00 Lacs
	TOTAL		Rs. 34.87 Lacs
	Add 3% Contingencies		Rs. 1.04 Lacs
	PE charges TOTAL		Rs. 35.91 Lacs
	Add 49 % Departmental charges, price escalation, Unforeseen & Admin. Charges		Rs. 17.59 Lacs
	TOTAL		Rs. 53.50 Lacs

CARRIED OVER TO FINAL ABSTRACT OF COST

MATERIAL STATEMENT OF STORM WATER DRAINAGE SYSTEM			
Sl. No.	Name Of Line	Size of Pipe in mm	Length of Line in Mts
1	A1-A2	400	81
2	A2-A5	400	103
3	A3-A4	400	91
4	A4-A5	400	93
5	A5-OUT	400	12
6	A6-A7	400	165
7	A7-A10	400	139
8	A8-A9	400	70
9	A9-A10	400	149
10	A10-OUT	400	12
	TOTAL		915

Sub – work No IV

Road Work

Sr. No.	Description	Unit / Qty / Rate	Amount in Lacs.
1.	Provision for leveling & each filling as per site conditions 6.54 6.80 acres (50 % of total site area) @ Rs. 1,00,000/- 125000/-		8.18 8.50 Lacs Rs. 6.54 Lacs
2 (i)	Construction of roads by providing Granular sub base 300 mm as per MORT & H specification conforming to clause 401 grading B 400.1		
(ii)	Providing, Laying, spreading & compacting hand broken/ crushed stone aggregate to wet mix macadam conforming to physical requirement laid in 250 mm stone aggregate MORT & H specification in two layers (compacted to 250 mm (125+125) by taking material 1.32 times of the (thickness of the layer) including per mixing of material with water in mechanical mixer.		
(iii)	50 mm thick BM		
(iv)	20 mm thick mix seal surfacing SDBC 13420 Sqm. @ Rs. 850/- 1000/- 58m		131.84 64.20 Lacs Rs. 114.07 Lacs 13.48 Lacs
3.	Provision for kerbs and Channels of CC (1:2:4) on both sides of road. 2(827+255+10%) 1819 RMt @ Ras. 600/Per Mtr.		14.28 Rs. 10.91 Lacs
4.	Provision for making approach to each block and pavement. (L.S.)		10.00 Lacs. Rs. 4.50 Lacs
5.	Provision for Guide Map & other unforeseen items. (L.S.)		5.00 Rs. 1.00 Lacs
6.	Provision for carriage of material & all other unforeseen items (L.S.)		Rs. 1.00 Lacs
7.	Provision for Traffic light Arrangement (L.S.)		Rs. 2.50 Lacs
	TOTAL		Rs. 137.52 Lacs 166.43
	Add 3% Contingencies		Rs. 4.12 Lacs 4.99
	P.E. Charges TOTAL		Rs. 141.64 Lacs 171.42
	Add 49 % Departmental charges, price escalation, Unforeseen & Admin. Charges		111.71 84.00 Rs. 165.58 Lacs 255.42
	TOTAL		Rs. 503.51 Lacs 166.45 255.42

CARRIED OVER TO FINAL ABSTRACT OF COST



Hard green road Specs:

HSR 10-29 C.C. 1:8:16 with stone aggregate 20mm nominal size in foundation & Plinth

HSR 10-132 C.C. 1:2:4 with stone aggregate 20mm nominal size in Pavement, road, Taxi track and runway. Laid to required slope and Camber including consolidation finishing and comping complete

Taking 10 mtr Length

(2") 1:8:16 $10 \times 6 \times 0.05 = 3.00 \text{ cum}$ @ ₹ 336.25 P.cum ₹ 1008.75

(3") 1:2:4 $10 \times 6 \times 0.075 = 4.50 \text{ cum}$ @ ₹ 729.30 P.cum ₹ 3281.85

Add 450% C. Premium.

₹ 19307.70
23598.30

Rate per mtr = $23598.30 / 10 = 2359.83$

say 2360/- mtr

Length of road = $519 \text{ m} + 10\% \text{ curves} = 571 \text{ mtr}$

571 mtr @ ₹ 2360/-

₹ 13.48 lacs

ESTIMATE FOR GROUP HOUSING COLONY MEASURING 17.55 ACRES, SEC-59, GURGAON BY M/s BASE EXPORTS PVT. LTD.

MATERIAL STATEMENT FOR ROADS

NAME OF ROAD	CO-EFF.		LENGTH IN MTS.		WIDTH IN MTS.	AREA IN SQ. MTS.
1	1	X	35.00	X	5.00	175.00
2	1	X	21.00	X	5.00	105.00
3	1	X	45.00	X	5.00	205.00
4	1	X	80.00	X	5.00	400.00
5	1	X	14.00	X	9.00	126.00
6	0.5	X	62.00	X	7.00	217.00
7	1	X	70.00	X	6.00	420.00
8	1	X	127.00	X	5.00	635.00
9	1	X	14.00	X	5.00	70.00
10	1	X	27.00	X	5.00	135.00
11	1	X	11.00	X	5.00	55.00
12	1	X	13.00	X	5.00	65.00
13	1	X	62.00	X	5.00	310.00
14	1	X	51.00	X	5.00	255.00
15	1	X	27.00	X	5.00	135.00
16	1	X	12.00	X	5.00	60.00
17	1	X	83.00	X	6.00	498.00
18	1	X	12.00	X	9.00	108.00
19	1	X	17.00	X	5.00	85.00
20	1	X	18.00	X	5.00	90.00
21	1	X	16.00	X	5.00	80.00
22	1	X	14.00	X	6.00	84.00
TOTAL			827.00			4313.00

12 m wide service road 255

5.50

1402.50

5518.50 sqm + 10% = 6070 sqm

MATERIAL STATEMENT FOR HARD GREEN

NAME OF ROAD	CO-EFF.		LENGTH IN MTS.		WIDTH IN MTS.	AREA IN SQ. MTS.
a	1	X	44.00	X	6.00	264.00
b	1	X	42.00	X	6.00	252.00
c	1	X	44.00	X	6.00	264.00
d	1	X	44.00	X	6.00	264.00
e	1	X	42.00	X	6.00	252.00
f	1	X	44.00	X	6.00	264.00
g	1	X	40.00	X	6.00	240.00
h	1	X	33.00	X	6.00	198.00
i	1	X	40.00	X	6.00	240.00
j	1	X	33.00	X	6.00	198.00
k	1	X	13.00	X	7.00	91.00
l	1	X	56.00	X	6.00	336.00
m	1	X	44.00	X	6.00	264.00
TOTAL			519.00			7887.00

Compounding = 28 nos

28 x 2.50 x 500 = 350 sqm

Total = 6070 + 350 = 6420 sqm

6420 + 3440 = 9860 sqm



ESTIMATE FOR GROUP HOUSING COLONY MEASURING 6.80 ACRES OUT OF TOTAL 17.55 ACRES (LICENCE NO. 16 OF 2008 DATED 31.01.2008) IN SECTOR-59, GURGAON BEING DEVELOPED BY M/s BTVs BUILDWELL PVT. LTD., M/s ORNAMENTAL REALTORS PVT. LTD., M/s ADSON SOFTWARE PVT. LTD. C/o M/s BASE EXPORTS PVT. LTD.

Sub Work No V
Sub Head no. 01

Street lighting
Amount in Rs.

S.No.	DESCRIPTION	Amount in Rs.
1.	Providing Street lighting on roads as per standard specification of DHVPN. <i>with CFL 125000 2.50 lacs</i>	
	6.54 Acres (Complete) @ Rs. 1,00,000/- Per Acre	Rs. 6.54 Lacs <i>17.00 lacs</i>
	<i>6.80</i> Add 3% Contingencies <i>Rs.</i>	Rs. 0.20 Lacs <i>0.51 lacs</i>
	<i>P.E. Charges</i> TOTAL	Rs. 6.64 Lacs
	Add 49 % Departmental charges, price escalation, Unforeseen & Admin. Charges	8.43 <i>4.13</i> Rs. 3.25 Lacs <i>8.58 lacs</i>
	TOTAL	Rs. 9.89 Lacs
		<i>12.56 lacs. 26.09 lacs</i>

CARRIED OVER TO FINAL ABSTRACT OF COST



Sub Work No VI

Horticulture

S. No.	Description	Amount in Rs.
1.	Development of Lawn Area:-	
a)	Trenching of ordinary soil up to depth of 60 cm i/c removal & stacking of serviceable material & disposing by spreading and leveling within a lead of 50 M and marking up the trench area for proper levels by filling with earth or earth mixed with manure before and after flooding trench with water i/c cost of imported earth and manure. <i>Green Area in total site = 10652.855 sqm Green area in (G1-G12) in 6410.555</i>	
b)	Rough Trenching of Turfed area. <i>Part area balance 4242.35 sqm will be provided in future area</i>	
c)	Grassing with "DOOB GRASS" i/c watering and maintenance of lawns for 30 days till the grass forms a thick lawn, free from weeds and fit for mowing in row 7.5 cm part in either direction. <i>1.60 2.63 Acres @ Rs. 1,00,000/- 1.50 Lacs 6410.555 sqm 2.40</i>	Rs. 2.63 Lacs
2	Provision of trees, Guards and planting trees along road at 12 M intervals. Total Road Length = 2102 M <i>827 + 519 = 1346 MTR.</i> No. of Trees = $2102/12 = 175.16 \times 2 = 350.33$ Nos. <i>1082 1346 Say 350 Nos. 224 180</i> Cost Details: Excavation = 30 Manure = 60 Tree Plant = <i>60 150 60</i> Tree Guard = 600 TOTAL = 750 Rs. Per Tree <i>250 350 Trees @ Rs.750/- Per Tree</i>	<i>1.88 Lacs</i> <i>2.10</i> Rs. 2.62 Lacs
	Total	Rs. 5.25 Lacs <i>4.73</i>
	Add 3% Contingencies	Rs. 0.16 Lacs <i>0.14</i>
	P.E. charges TOTAL	Rs. 5.41 Lacs <i>4.87</i>
	Add 49 % Departmental charges, price escalation, Unforeseen & Admin. Charges	<i>4.41 Lacs</i> Rs. 2.65 Lacs <i>2.39</i>
	TOTAL	Rs. 8.06 Lacs <i>7.26</i>

CARRIED OVER TO FINAL ABSTRACT OF COST

Say Rs. 7.26 Lacs



Sub Work No VII

Maintenance of Services & Resurfacing of Roads

S. No.	Description	Amount in Rs.
1.	Providing of M/C charges for water supply, storm water drainage, Road, Street Lighting, Horticulture etc. complete in all respects, including Operational and establishment charges as per HUDA norms for 10 Years completion.	34.00
6.80	6.54 Acres @ 5.00 Acres	Rs. 32.70 Lacs
2.	Providing of resurfacing of roads after 5 years 100 mm thick layer 100 mm thick BUSG complete to 25 mm thick premix carpet with seal cost.	93.06 lacs
9860 15510	33860 Sq. Mts. @ Rs. 400/- Per Sq. Mts.	Rs. 135.44 Lacs
3.	Providing of resurfacing of roads after 10 years with 25 mm thick premix carpet with seal cost with mech. paver.	73.95 46.53
9860 15510	33860 Sq. Mts. @ Rs. 600/- Per Sq. Mts.	Rs. 203.16 Lacs
	Total	Rs. 371.30 Lacs
	Add 3% Contingencies	Rs. 11.14 Lacs
	TOTAL	Rs. 382.44 Lacs
	Add 49 % Departmental charges, price escalation, Unforeseen & Admin. Charges	Rs. 487.40 Lacs
	TOTAL	Rs. 569.84 Lacs

CARRIED OVER TO FINAL ABSTRACT OF COST

Say Rs. 264.42 lacs