

PROPOSED VATIKA MIND SCAPE , FARIDABAD

Sub Work No. I
Sub Head No. 02

**Water Supply
Pumping Machinery**
Amount in Rs.

1. Providing and installing electricity driven submersible pumping set capable of delivering about 12KL / 12Hr. of water against a total Head of 45 M complete with motor and other accessories. - 3 Nos. @ Rs. 2, 00,000/- <i>10 HP</i>	Rs.	6, 00,000
2. Provision for diesel engine genset each for standby arrangements For T.W. & Booster Pump complete with gear head arrangements of following capacities. - 1 No. 60 KVA @ Rs.2,50,000/- <i>10.5</i>	Rs.	<i>10.20 lacs</i> 2, 50,000
3. Providing & installing pumping set of following capacity For fire protection - 180 lpm at 150m Head 2 No. @ Rs. 250000/- [elect.]	Rs.	5, 00,000
- 2850 lpm at 150m Head 1 No. @ Rs. 10,00,000/- [diesel]	Rs.	10, 00,000
- 2850 lpm at 150m Head 2 No. @ Rs. 6,00,000/- each [elect.] <i>7.50</i>	Rs.	12, 00,000 <i>15.00</i>
4. Provision for chlorination plant complete 1 nos @ Rs.1,00, 000/- Each	Rs.	1,00,000
5. Provision for making foundations and erection of Pumping Machinery (lump sum)	Rs.	<i>2.50</i> 1,20,000
6. Provision for pipes, valves and specials inside the pump Chamber and boosting chamber. (Lump sum)	Rs.	2, 00,000
7. Provision for electric service connection including electrical Fittings for tube-well and boosting chamber etc. (lump sum) <i>including cost of transformer</i>	Rs.	3, 50,000
8. Provision for carriage of material and other unforeseen Items etc. L/S	Rs.	50,000 <i>2.00</i>
TOTAL	Rs.	52,70,000 <i>60.20 Lacs</i>

(C.O. cost to final abstract of cost Sub Work No.1).

PROPOSED VATIKA MIND SCAPE , FARIDABAD

Sub-Work No. I
Sub Head No. 03

Water Supply
Rising Main from HUDA
Amount in Rs.

1. Providing, laying, jointing and testing CI/DI pipe lines Including cost of excavation etc. complete in all respects. 100 mm dia. 342 m @ Rs. 1000/-M 125/-	Rs. 3,42,000 4.28 Lacs
2. Providing and fixing sluice valve including cost of surface boxes And masonry chambers etc. complete in all respects. 100 mm i/d 2 No. @ Rs. 12000/- each	Rs. 2,4000
3. Providing and fixing indicating plates for sluice valve and air valves 1 No. @ Rs. 1000/- each	Rs. 1,000
4. Providing and fixing air release and scour valve - 1no. @ Rs. 10000/- each	Rs. 1,0000
5. Provision for carriage for materials and other Unforeseen items (L/S)	Rs. 5,0000
6. Provision for cutting of roads and making good to its original Conditions.(L/S)	Rs. 1,50,000 0.50
7. Provision for making connection with HUDA line	Rs. 1,00,000 0.50
TOTAL	Rs. 6,67,000 6.14 Lacs

(C.O. cost to final abstract of cost Sub Work No.1).

Friction loss calculation for HUDA rising main:

S.NO.	Line	Daily Demand KL	Peak flow (1.5xav. Flow) KLD	Length Mtr.	Dia mm	Friction loss in line	Velocity ft/sec.
1	HUDA-UG tank	425 491 KLD	637.50 1404.8 1227.5 KLD	342	100 80	0.125 m	2.62 (0.8 m/s)

Bill of Materials [Reference drawing: PL-601]

MUNICIPAL WATER SUPPLY LINE MATERIAL STATEMENT		
S.NO.	NAME OF LINE	LENGTH OF WATER SUPPLY LINE IN MTR.
		100 800
1	M1 TO M2	236
2	M2 TO M3	50
3	M3 TO M4	46
4	M4 TO PUMP ROOM	10
	TOTAL	342 mtr

PROPOSED VATIKA MIND SCAPE , FARIDABAD

Sub Work No. 1
Sub-Head No. 04

Water supply
Distribution System
Amount in Rs.

- | | | |
|--|-----|-------------------|
| 1. Providing, Laying, jointing and testing D.I pipe line including Fittings cost of excavation etc. complete in all respect.
- D.I Pipe 100 mm, 320 M @ Rs1200/-
<i>1250/-</i> | Rs. | 4.00
3,84,000- |
| 2. Provision for carriage for materials and others unforeseen items | Rs. | 5,000 |
| 3. Providing and fixing sluice valve:
100 mm dia 2 Nos. @ Rs. 10000/- each | Rs. | 2,400 |
| 4. Providing for indicating plat for sluice valve
2Nos @rs.1000/- each | Rs. | 2,000 |

Total Rs. **4,60,000**

476 las

S.No	Line	Daily Demand 4 times avg. demand	Length Mtr	Dia mm	Friction loss in line	Velocity ft.sec.	Head available	Head of pump meter
1	UGT- Overhead tanks	528	320	100	5.94	3.95	69.06	75

	<i>100 mm dia</i>
UGT - m	<i>14 m</i>
m ₀ - m ₁	<i>163 m</i>
m ₁ - m ₂	<i>131 m</i>
m ₂ - Tower - A	<i>18 m</i>
m ₂ - Tower - D Reservoirs	<i>27 m</i>
m ₁ - Tower - C ₁	<i>17 m</i>
m - Tower - D	<i>10 m</i>

320 m h

PROPOSED VATIKA MIND SCAPE , FARIDABAD

(C.O. cost to final abstract of cost Sub Work No.1).

Sub Work No. I
Sub-Head No. 04

Water Supply
Fire fighting

Amount in Rs.

1. Providing, Laying, jointing and testing M.S pipe line Including fittings, cost of excavation etc. complete In all respects.		
- M.S. pipe 150mm dia 886 M @ Rs. 1350/- M	Rs.	1196100
2. Providing and fixing Sluice valve -150mm dia 3 no @ Rs. 12000/- each	Rs.	36000
3. Providing and fixing fire hydrants with accessories 20 nos @ Rs. 7500/- each	Rs.	150000
4. Provision for carriage of materials & other unseen items etc.L.S	Rs.	50,000
5. Provision for indicating plates 20 nos @ Rs. 800 each	Rs.	160000
TOTAL	Rs.	14,48,100

(C.O. cost to final abstract of cost Sub Work No.1).

Bill of Materials [Reference drawing: PL-601]

FIRE FIGHTING LINE MATERIAL STATEMENT		
S.NO.	NAME OF LINE	LENGTH OF FIRE PIPE LINE IN MTR.
		150Ø
1	UGT TO F1	6
2	F1 - F2	24
3	F2 - F3	52
4	F3 - F4	50
5	F4 - F5	208
6	F5 - F6	98
7	F6 - F7	271
8	F7 - F8	150
9	F8 - F3	27
	TOTAL	886 mh

PROPOSED VATIKA MIND SCAPE , FARIDABAD

Sub Work No. I

Water Supply

Sub Head - 05

Garden Irrigation / *Flushing*

S.NO.	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
1	<i>G1 to</i> Providing, laying, jointing and testing HDPE pipes lines conforming to IS-4984 including cost of excavation etc. complete in all respects. <i>Flushing</i>				
	<i>100mm Ø CP 103</i>		<i>298m</i>	<i>1250</i>	<i>3.73 lacs</i>
A	Pipe 90 mm-Ø.D.	Mtr	.858	-750-	6,43,500
2	Providing and fixing CI butterfly valve with valve chamber <i>100</i> mm size	Each	3	15000	45000
3	Providing and fixing irrigation pumps complete with foundation, motor control panel, cabling etc. Set of two pumps	.Set- <i>20mm irrigation line</i>		100000 <i>(6.3)</i>	1,00,000 <i>0.25 lacs</i>
4	Providing and fixing irrigation hydrant valves in all respect.			<i>3500</i>	<i>0.70 lacs</i>
A	20mm dia	Each	20	4000	20,000
5	Provision for carriage of materials and other unforeseen items	L/S	1	50,000	50,000
	TOTAL				8,58,500 <i>5.63 lacs</i>

(C.O. cost to final abstract of cost Sub Work No.1).

Sub Work No. I

Water Supply

Sub Head -05

Garden Irrigation

Bill of Materials [Reference drawing: PL-601]

IRRIGATION LINE MATERIAL STATEMENT		
S.NO.	NAME OF LINE	LENGTH OF IRRIGATION LINE IN MTR.
		90MM OD
1		
2	G1 TO G2	79
3	G2 TO G3	50
4	G3 TO G4	208
5	G4 TO G5	99
6	G5 TO G6	271
7	G6 TO G1	151
	TOTAL	858

Connect to Flushing line

TOTAL STORMWATER PIPE LENGTH- 858 Mtr @ 90mm OD

PROPOSED VATIKA MIND SCAPe , FARIDABAD

Sub-Work No. II

Sewerage Scheme
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. Complete. S.W		
a) RCC NP-4 pipe 250 mm i/d avg. depth 0-2 M 1626M @ Rs. 1250/M 1800	Rs. 1282500	18.47 Lacs
b) Provision for lighting and watching	Rs. 100000	
c) Provision for timbering and shoring	Rs. 100000	0.50 Lacs
d) Provision for making connection with HUDA	Rs. 100000	0.50 Lacs
e) Provision for carriage of material (L.S)	Rs. 200000	0.50 Lacs
f) Provision forecast of STP of 350 K.L	Rs. 5000000	45.00 Lacs
g) <i>Provision for cutting & joining and making and to be in original condition</i>		0.50 Lacs
TOTAL	Rs. 67,82,500	66.47 Lacs
Add 3% contingencies & PH charges	Rs. 2,03,475	1.99 Lacs
TOTAL	Rs. 69,85,975	68.46 Lacs
Add 49% Departmental charges, price escalation, Unforeseen admn. charges	Rs. 3423127.75	33.54 Lacs
TOTAL	Rs. 10409102.75	102.00 Lacs

(C.O. to final abstract of cost).

Say 104.09 Lakhs
102.00

Executive Engineer
HUDA Division No. 3
Faridabad

Design statement:

Carrying capacity of 250 mm dia sewer line at half full at 0.75m/sec. velocity = 0.12 Cum/sec
Max. Discharge from proposed site = 0.0048 Cum/sec
Therefore, proposed pipe diameter is enough

DESIGN CRITERIA FOR CALCULATION OF SEWERAGE DISCHARGE

Total domestic demand	=	425	491KLD
Peak flow	=	3 times average flow	
Flow of sewage	=	80% of peak flow	
Avg. Sewage discharge	=	425/24 x 0.80	= 393 KLD 340
Peak Sewage discharge	=	393/24 x 3	= 49.11 Cum/hr 14.17
	=	49.11/3600	= 0.0136 Cum/sec 42.51
	=	42.51	0.0118

Therefore the proposed dia of 250 mm @ 1:195 slopes is more than adequate.

Sub-Work No. II

Sewerage Scheme

PROPOSED VATIKA MIND SCAPE , FARIDABAD

Bill of Materials [Reference drawing: PL-601]

S.No.	Line Nos	Length	Slope	Pipe Dia
1	MH1- MH2	24	195	250
2	MH2- MH3	24	195	250
3	MH3- MH4	24	195	250
4	MH4- MH5	25	195	250
5	MH5- MH6	11	195	250
6	MH6- MH7	27	195	250
7	MH7- MH8	30	195	250
8	MH8- MH9	26	195	250
9	MH9- MH10	23	195	250
10	MH10- MH11	19	195	250
11	MH11- MH12	30	195	250
12	MH12- MH13	24	195	250
13	MH13- MH14	24	195	250
14	MH14- MH15	24	195	250
15	MH15- MH16	24	195	250
16	MH16- MH17	21	195	250
17	MH17- MH34	24	195	250
18	MH18- MH19	24	195	250
19	MH19- MH20	24	195	250
20	MH20- MH21	24	195	250
21	MH21- MH22	18	195	250
22	MH22- MH23	14	195	250
23	MH23- MH24	21	195	250
24	MH24- MH25	24	195	250
25	MH25- MH26	24	195	250
26	MH26- MH27	25	195	250
27	MH27- MH28	24	195	250
28	MH28- MH29	20	195	250
29	MH29- MH30	17	195	250
30	MH30- MH31	24	195	250
31	MH31- MH32	20	195	250
32	MH32- MH33	12	195	250
33	MH33- MH34	20	195	250
34	MH34 - STP	7	195	250
35	STP-M	6	195	250
36	M-M1	24	195	250
37	M1-Munipal	250	195	250
	TOTAL	1026		

TOTAL SEWERAGE PIPE LENGTH- 1026 Mtr @ 250mm DIA

PROPOSED VATIKA MIND SCAPE , FARIDABAD

Sub-Work No. III

Storm Water Scheme
Amount in Rs.


		<i>Joining, cutting</i>	
1a) Providing, laying, RCC pipe class NP-3 including Manholes etc. complete in all respects.			
a) 400mm dia RCC pipe 526 M @ 1750/M			13.15 lacs
b) Provision for road gullies & connecting pipe	<i>L.S. 300mm</i>		Rs. 920500
c) Provision for lighting and watching			Rs. 300000 <i>1.50 lacs</i>
d) Provision for timbering and shoring			Rs. 100000
e) Provision for making connection with HUDA	<i>on master road (L.S)</i>		Rs. 75000
f) Provision for carriage of material (L.S)			Rs. 400000 <i>0.50 lacs</i>
g) Provision for rainwater harvesting arrangements			Rs. 50000
8.793 @ Rs. 1.05 lakhs per acre			<i>8.80 lacs</i> Rs. 10,99,125
h) Provision for coosting drain of size 400 mm	<i>cutting of roads & making ford (L.S)</i>		<i>0.50 lacs</i>
526-mts @ 1500/- to its in original condition			Rs. 789000
Total			Rs. 3483625 <i>26.70 lacs</i>
Add 3% contingencies & P.H. charges			<i>0.80 lacs</i> Rs. 104508.75
Add 49% Departmental charges, price escalation, Unforeseen admn. charges			<i>27.50 lacs</i> Rs. 3588133.75
			<i>13.48 lacs</i> Rs. 1758185.537
Total			Rs. 5346319.287 <i>40.98 lacs</i>
Say			Rs. 53.47 Lakhs

(C.O. cost to final abstract of cost).

Design Statement

- 1. Area of site 8.793 acres
- 2. Run off @ 1/4" rainfall [For coefficient of runoff=0.7] - 3.435 cusec.
- 3. Average load per recharge pit (main 4 zones) - 0.429 cusec
- 4. Carrying capacity 400 dia pipe at 2.30-ft./sec velocities - 0.650 cusec.

Therefore, proposed drain size is enough to carry discharge from site.


 Executive Engineer
 HUDA Division No. 3
 Faridabad

For VATIKA LIMITED

 Authorised Signatory

PROPOSED VATIKA MIND SCAPE , FARIDABAD

Sub-Work No. III

Storm Water Scheme

Bill of Materials [Reference drawing: PL-601]

S.No.	Line Nos	Length	Slope	Pipe Dia
1	MH1 - MH2	24	550	400
2	MH2 - MH3	24	550	400
3	MH3 - MH4	24	550	400
4	MH4 - MH5	25	550	400
5	MH5 - RW PIT	0	550	400
6	MH6 - MH7	24	550	400
7	MH7 - MH8	24	550	400
8	MH8 - MH9	25	550	400
9	MH9 - MH10	24	550	400
10	MH10 - MH11	30	550	400
11	MH11 - MH12	20	550	400
12	MH12 - MH13	24	550	400
13	MH13 - RW PIT	0	550	400
14	MH14 - MH15	28	550	400
15	MH15 - MH16	12	550	400
16	MH16 - MH22	8	550	400
17	MH17 - MH18	24	550	400
18	MH18 - MH19	21	550	400
19	MH19 - MH20	17	550	400
20	MH20 - MH21	24	550	400
21	MH21 - MH22	24	550	400
22	MH22 - RW PIT	0	550	400
23	MH23 - MH24	24	550	400
24	MH24 - MH25	24	550	400
25	MH25 - MH26	24	550	400
26	MH26 - MH27	28	550	400
27	MH27 - RW PIT	0	550	400
	TOTAL	526		

TOTAL STORM WATER PIPE LENGTH- 526Mtr @ 400mm DIA

PROPOSED VATIKA MIND SCAPE, FARIDABAD

Sub Work No. IV

Road work

SUBHEAD IV - ROADS

Road Width	Length in Metres	Metalled portion	Area in Sq.mt.
5.0mt.	85.00	5 m	425.00
6.0mt.	912.00	6 m	5472.00
9.0mt.	874		5244
12.0mt.			
15.0mt.			
15.0mt.			
TOTAL	997.00 959		5897.00 5669

Add 10% for Curves

400.00 96

589.70 567

TOTAL AREA	1097.00 1055 only	-6486.70 6235.90
Car Parking	302 Nos 2.5 x 5.0	3775.00 3715
GRAND TOTAL		10261.70 10010.90
S. No.	Description of Work	Area in Sq.mt.

Say, 10000 Sqm

1	Provision for Leveling & Earth filling as per site Conditions 8.793 acres @Rs. 100000/-per acres	8,79,300
2	Soling coat 100 mm thick (63-45) mm gauge compacted to 75 mm thick WBM conforming to MOT specifications (Table 400-6, Grading No. 2)	
#	Wearing (Top coat) coat 100 mm thick (53-22.4) mm gauge compacted to 75 mm thick WBM conforming to MOT specifications (Table 400-6, Grading No. 3)	
#	25 mm thick premix carpet with seal coat 3775 sq.mt. @ Rs. 900/-per sq.mt.	3397500- 1000-2
3	Provision for Kerbs & Channels of CC 1:2:3 --- 1097 Rmt. @Rs. 600/- per Rmt.	6,58,200 6.33 Lacs
4	Provision for making approach to each block and pavements. LS Provision for guide map and other unforeseen & indicating board etc.LS	500000- 2.0
6	Provision for Traffic Light arrangement LS	200000
7	Provision for carriage of material & unforeseen charges LS	150000

TOTAL	-6835000 119.62
Add 3% contingencies & PE charges	175050 3.59
TOTAL Rs.	6010050 123.21 Lacs
Add 49% Department Charges, Price Escalation, unforeseen, Admn. Charges	-2944924.5 60.37 Lacs
GRAND TOTAL	183.58 Lacs
SAY	89.55 Lakhs

For VATIKA LIMITED

Authorized Signatory

Executive Engineer
HUDA Division No. 3
Faridabad

PROPOSED VATIKA MIND SCAPE , FARIDABAD

Sub Work No. V

Street Lighting

SUBHEAD V - STREET LIGHTING

S. No.	Description of Work	Area in Sq.mt.
1	Providing street lighting on roads as per standard specifications 8.793 acres @Rs. 100000/-per acres with CFL	8 13.19 las 8,79,300-
	Add 3% contingencies & PE charges	2,63,79 13,59 las
	TOTAL	9,05,679 6.66 la
	Add 49% Department Charges, Price Escalation, unforeseen, Admn. Charges	4,43,782 20.25 las
	GRAND TOTAL	13,49,461

Say Rs. 13.50 lakhs

(C.O. to final abstract of cost.)

Executive Engineer
HUDA Division No. 3
Faridabad

For VATIKA LIMITED

Authorised Signatory

PROPOSED VATIKA MIND SCAPE , FARIDABAD

Sub Work No. VI

Plantation & Road side Trees

SUBHEAD VI - HORTICULTURE

S. No.	Description of Work	Area in Sq.mt.
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1 Development of Lawn Areas

Trenching the ordinary soil upto depth of 60 cm i.e. removal and staging of serviceable material & disposing by spreading and levelling within a lead of 50 mt. and making up the trench area for proper levels by filling with earth or earth mixed with manure before or after flooding trench with water i.e cost of imported earth and manure

Rough dressing of Turfed Area

Grassing with " DOOB GRASS " i.e watering and maintenance of lawns for 30 days till the grass forma a thick lawn, free from weeds and fit mowing in rows 7.5cm part in either direction including provisioning for hedges and turbed wire around park. Approx. 0.425 acres organized green @ Rs. 100000/per acre.

Rs. 0.94 Lacs

0.939

2 Providing and planting trees along 6.0mt. Wide and more width at 12mt. Interval

Total Road Length = 912.0Rmt.

No. of Trees @ 12mt. c/c = 76Nos. 79.91 Say 100 Nos

Cost Details

Excavation Rs. 30.00

Manure Rs. 60.00

Tree Plant Rs. 60.00

Tree Guard Rs. 600.00

Total Rs. 750.00

Rs 0.75 Lacs

76 Nos. @ Rs. 800.00 each

TOTAL Rs. 60800.00

Add 3% contingencies & PE charges Rs. 1824.00

TOTAL Rs. 62624

Rs 1.69 Lacs

Rs 0.05 Lacs

Add 49% Department Charges, Price Escalation, unforeseen, Admn. Charges

Rs 1.74 Lacs

Rs 0.85 Lacs

TOTAL Rs. 30685.76

Rs 2.59 Lacs

GRAND TOTAL Rs. 93309.76

SAY Rs 0.933 Lakhs

Say Rs. 0.93 lakhs

(C.O. to final abstract of cost)

Executive Engineer
 HUDA Division No. 3
 Faridabad

For VATIKA LIMITED
 Authorised Signatory

PROPOSED VATIKA MIND SCAPe, FARIDABAD

Sub Work No. VI

Plantation & Road side Trees

SUBHEAD VI - HORTICULTURE

S. No.	Description of Work	Area in Sq.mt.
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1 Development of Lawn Areas

Trenching the ordinary soil upto depth of 60 cm i.e. removal and staging of serviceable material & disposing by spreading and levelling within a lead of 50 mt. and making up the trench area for proper levels by filling with earth or earth mixed with manure before or after flooding trench with water i.e cost of imported earth and manure

Rough dressing of Turfed Area

Grassing with " DOOB GRASS " i.e watering and maintenance of lawns for 30 days till the grass forma a thick lawn, free from weeds and fit mowing in rows 7.5cm part in either direction including provisioning for hedges and turbed wire around park. Approx. 0.125 acres organized green @ Rs. 100000/per. acre.

0.939

Rs. 0.94 Lacs

Providing and planting trees along 6.0mt. Wide and more width at 12mt.

Interval = 9.59
Total Road Length = 912.0Rmt.

2 No. of Trees @ 12mt. c/c = 76Nos. 79.91 say 100 Nos

Cost Details

Excavation Rs. 30.00
Manure Rs. 60.00
Tree Plant Rs. 60.00
Tree Guard Rs. 600.00
Total Rs. 750.00

76 Nos. @ Rs. 800.00 each
160

TOTAL Rs. 60800.00

Add 3% contingencies & PE charges Rs. 1824.00

TOTAL Rs. 62624

Add 49% Department Charges, Price Escalation, unforeseen, Admn. Charges

TOTAL Rs. 30685.76

GRAND TOTAL RS. 93309.76

SAY Rs. 0.933 Lakhs

Rs 0.75 Lacs

Rs 1.69 Lacs

Rs 0.05 Lacs

Rs 1.74 Lacs

Rs 0.85 Lacs

Rs 2.59 Lacs

Say Rs. 0.93 Lakhs

(C.O. to final abstract of cost)

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For VATIKA LIMITED
Authorised Signatory