



हरियाणा शहरी विकास प्राधिकरण

HARYANA SHEHARI
VIKAS PRADHIKARAN

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Address: C-3, HSVP, HQ Sector-6
Panchkula

CE-I No. 147080
Dated: 05/07/2023
Annexure-A

SUB:- Approval of service plan estimate for Affordable Residential Plotted Colony (DDJAY-2016) area measuring 15.06875 acres (licence no. 81 of 2023 dated 17.04.2023) in the revenue estate of Village Sohna, Sector-5, Sohna, Distt.-Gurugram being developed by M/s JMS Infrabuild Pvt. Ltd.

Technical note and comments:-

1. All detailed working drawings would have to be prepared by the colonizer for Integrating the internal services proposals with the master proposals of town.
2. The correctness of the levels will be the sole, responsibility of the colonizer for the integration of internal proposals, with the master proposals, of town and will be got confirmed before execution.
3. The material to be used shall the same specifications as are being adopted by HSVP and further shall also confirm to such directions, as issued by Chief Engineer, HSVP from time to time.
4. The work shall be carried out according to Haryana PWD specification or such specifications as are being followed by HSVP. Further it shall also confirm to such other directions, as are issued by Chief Engineer, HSVP from time to time.
5. The colonizer will be fully responsible to meet the demand of water supply and allied services till such time these are made available by State Government/ HSVP. All link connections with the State Government/ HSVP system and services will be done by the colonizer. If necessary extra tube-wells shall also be installed to meet extra demand of water beyond the provision according to EDC deposited.
6. Structural design & drawings of all the structures, such as pump chamber, boosting chamber, RCC OHSR, underground tanks, quarters, manholes chamber, sections of RCC pipes sewer and SW pipes, sewer, ventilating shafts for sewerage and Masonry Ventilation Chamber for Chamber for storm water drainage, temporary disposal/ arrangement etc. will be as per relevant I.S codes and PWD specifications, colonizer himself will be responsible for structural stability of all structures.
7. Potability of water will be checked and confirmed and the tube-wells will be put into operation after getting chemical analysis of water tested.
8. Only C.I/D.I pipes will be used in water supply and flushing system, UPVC/HDPE pipe for irrigation purposes.
9. A minimum 100 i/d C.I/D.I, 200mm i/d SW and 400mm id RCC NP-3 pipes will be used for water supply, sewerage and storm water drainage respectively.



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10. Standard X-section for S.W. pipes sewer, RCC pipes sewer etc. will be followed as are being adopted in Haryana Public Health Engineering Deptt. or HSVP. If needed, the same may be sought by the colonizer from concerned Executive Engineer of HSVP.
11. The X-section, width of roads, will be followed as approved by the Chief Town Planner, Haryana, Chandigarh. The kerbs and channels will also be provided as per approved X-section and specifications. If needed, the same may be sought by the colonizer from concerned Executive Engineer of HSVP.
12. The specifications for various roads will be followed as per IRC/MORTH specifications.
13. The wiring system of street lighting and specifications of street lighting fixture will be as per relevant standards.
14. This shall confirm to such other conditions as are incorporated in the approved estimate and the letter of approval.


Superintending Engineer (HQ),
for Chief Engineer-I, HSVP,
Panchkula.

SD Ew-1

AFFORDABLE RESIDENTIAL PLOTTED COLONY UNDER DDJAY OVER AN AREA MEASURING 15.06875 ACRES FALLING IN, SECTOR-5, SOHNA DIST-GURUGRAM, HARYANA

DEVELOPED BY M/S JMS INFRA BUILD PRIVATE LIMITED.

ESTIMATE FOR PROVIDING WATER SUPPLY,SEWERAGE. STORM WATER DRAINAGE, ROADS,STREET LIGHTING AND HORTICULTURE IN RESPECT OF AFFORDABLE RESIDENTIAL PLOTTED COLONY UNDER DDJAY OVER AN AREA MEASURING 15.06875 ACRES FALLING IN, SECTOR-5, SOHNA DIST-GURUGRAM, HARYANA.

Sohna is a town and a Municipal Council in the Gurgaon district of Haryana, India. A popular tourist weekend and conference retreat, it is on the highway from Gurgaon to Alwar near a vertical rock. Sohna tehsil is part of Ahirwal Region.

PROJECT REPORT/ESTIMATE FOR PROVIDING WATER SUPPLY, SEWERAGE, STORM WATER DRAINAGE, ROADS, STREET LIGHTING AND HORTICULTURE IN RESPECT OF AFFORDABLE RESIDENTIAL PLOTTED COLONY UNDER DDJAY OVER AN AREA MEASURING 15.06875 ACRES FALLING IN, SECTOR-5, SOHNA DIST-GURUGRAM, HARYANA.

The Haryana Government has prepared a master plan for development of Residential/Industrial/ Commercial urban estate Sohna, Gurugram. Project is developed by M/s Jms Infra Build Private Limited. They have decided to develop the area in this master plan as a plotted residential colony and has named this part as Proposed Affordable residential plotted Colony for an area measuring 15.06875 Acres Falling in Sector-5 Sohna, Dist-Gurugram, Haryana.

Water Supply

1

Source

The source of water supply in this area is from **HSVP** how ever tubewells shall be proposed for Emergency if permission will get from CGWA. At present water supply is from HSVP municipal supply and tanker supply is sweet and fit for human consumption. However in borewell water is available at reasonable depth. The average yield of tubewell with 40-45 ft strainers will be about 20,000 litre per hour. The recharging of underground water table in this belt is stated to be good. However still we shall resort to rain water harvesting system to keep up the recharging system. The number of tubewells required for the above area has been worked out and the tubewells will be bored after the permission from CGWA in tune with growth of demand. The ultimate requirement of tubewells includes provisions of 10% stand by. Ultimately, water shall be supplied to the Project by **HARYANA SHAHARI VIKAS PRADHIKARAN, GURUGRAM, HARYANA.**



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2

Design

The scheme has been designed for approved population of **5796 persons in 15.06875 acres**. The rate of water supply per head per day has been taken as 155.25 litres (150+15%) as per NBC 2016 / HSVP norms. In addition to above necessary provision of water for community area, commercial area, parks etc. have been taken into account for calculating the maximum quantity of water requirement.

3

Pumping Equipments

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

4

Under Ground Storage

Underground storage tank provision has been made for **480KL** capacity. In 4 compartments, which caters for the raw, domestic as well as for firefighting requirement. The water from fire compartment shall overflow to the raw water compartment so that the water in the fire compartment always remains fresh.

5

Boosting Station

A boosting station having monoblock centrifugal pump set is planned near under ground reservoir to pump water from domestic/ treated under ground water tank to overhead water tank provided at individual plot terrace.

6

Distribution System

The distribution system for this development has been designed to supply @ 155.25 litre per head per day @ 2.5 times the average rate of flow on 'Hazen William' formula with C-140. Necessary provision for laying D.I. pipe K-7 conforming to relevant IS standards along with valves and specials has been made in the project. The minimum terminal head at any point will be more than 30.00 meters so that it can serve the stilt and four floors stories construction envisaged in the plan. Minimum pipe dia for distribution is kept as 100 mm dia for domestic water supply.

7

Rising Mains

Rising mains from HSVP water main or sector road to water works have also been designed and provision for 100 mm dia D.I. pipe line (dia as/ design) has been made in this estimate.


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8 Sewerage

This scheme is designed for sewer connecting to the proposed sewage treatment plant. The sewage system has been marked on the respective plans. The sewer lines have been designed for 3 times average DWF in relation to the water supply demand assuming that 80% of water supply shall find its way into the proposed sewer. DWC HDPE SN8 pipe sewers have been proposed and designed to run half full. The sewers have been designed on 0.75 M per second minimum velocity i.e. self cleansing velocity Necessary provision for laying DWC HDPE SN8 pipes and manholes etc. has been made in this estimate.

Size/ Shape of Manholes

As per IS 4111:1986 "Circular type of manholes are much stronger than rectangular and arch type manholes thus these type of manholes are preferred over rectangular as well as arch type manholes. However both rectangular and circular type of manholes are proposed to be provided. The brick masonry rectangular manhole is proposed to be provided for depth upto 0.9m.

The brick masonry/ concrete circular manholes are proposed to be provided for all depth exceeding 0.9 m upwards. Circular manholes are straight down in lower portion and slanting on top portion so as to narrow down the top opening equal to internal dia of manhole cover.

Depending on the depth of manhole, brick circular manhole of dia 910, 1220, 1520, 1820 mm dia are proposed to be provided.

9 Storm Water Drainage

The storm water is designed to carry 6.25 mm rainfall per hour or 0.123 cusecs per acre as discharge. Also suitable provisions are contemplated in our scheme to ensure better recarg of underground water table in the area. Underground R.C.C. pipe drain with minimum 400 mm dia are proposed to be provided in this area with circular manhole.

Necessary design statement for entire storm water system has been prepared and attached with estimate.

10 Rain Water Harvesting

The main emphasis on recharging the underground aquifers and safe disposal of storm water with flooding the site has been laid in designing/ planning of storm water drainage system. Conventional type rain water harvesting are proposed to be provided.

11 Roads

The roads are proposed to be provided in the plotted development in such a way that main 9 m wide colony road connects with 24 m sector road. Internal service of the roads of the colony 9m wide provide approach for construction of roads to the plots. Detailed calculation of the various item of works have been made on the basis of the detail design of the roads as approved by Chief Engineer HSVP, Gurugram.

12 Street Lighting



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Street lighting system has been designed to provide illumination of 15 to 20 lux on roads. Street lights are provided on 6 m high steel tubular poles are located on one side of 9.0 m wide road. Luminaires with 65 watts LED lights are proposed to be provided for achieving the desired illumination.

13 Horticulture

Provision of road side plantation of trees with tree guards has been made for all roads. The parks shall be developed by providing lawns & ornamental trees with tree guards.

14 Specifications :

The work will be carried out in accordance with the standard specification of P.H. Department as laid down by HSVP & Haryana Government.

15 Rates

Estimate for providing services in this pocket has been prepared on the recent HSVP rates.

16 Cost

The total cost of development in this project including various P.H. and B & R services works out to **Rs. 1444.22 Lacs** which includes 3% contingency and PE charges and 49% departmental charges also.

95.84

The cost per gross acre for this phase works out to App. **Rs. 97.63 Lacs/acre** which covers the provision of services like water supply, sewerage, storm water drainage, roads, street lighting and plantations including plantations maintenance thereof as well as future expansion whatsoever indicated.

DESIGN CALCULATION

Daily water requirement

Total No. of Plots (General)

Total No. of Plots (EWS)

Population per plot (General)

Population per plot (EWS)

1 Therefore population (General)

Therefore population(EWS)

Total Population

For 15.06875 Acres

Acres

322

0

Unit

Nos

Nos

Person/Plot

Person/Plot

Persons

Persons

Persons

5796

0

5796

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Total daily Water requirement for plots (135 LPCD + 15%)		SAY	5796	Persons	
		@	155.25	LPCD	
			Domestic @ 65%	Flushing @ 35%	
			584888.85	314940.15	LPD
		Or Say	584.90 585 PL	315.00 PL	KLD (1)
2 Non Residential building water requirement					
a	No. of commercial area		1	No.	
	Daily water requirement		32000	Ltrs/Acre/day	
	Area of commercial	@	0.369	Acre	
	Daily water requirement	@	20800	11200	Ltrs/Acre/day
	Therefore daily water requirement		7675.20	4132.80	lit/day
		Or Say	7.68	4.13	KLD
b	No. of community center		1	No.	
	Area of community center		1.507	Acre	
	Daily water requirement	@	25000	lit/acre/day	
	Daily water requirement		24488.75	13186.25	lit/day
		Or Say	24.49	13.19	KLD
c	No. of milk booth		1	No.	
	Daily water requirement	@	1000	lit/acre/day	
	Daily water requirement		650	350	lit/day
		Or Say	0.65	0.35	KLD
Total 2 (a+b+c)			32.81	17.67	KLD (2)
3	Area under Parks		1.130	Acre	
	Daily water requirement	@	25000	lit/acre/day	
	Therefore daily water requirement			28250	lit/day


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	=	56.65	m
Say	=	60.00	m
	=	7.41	HP
Proposed		7.50	HP
BHP = (20x1000x60)/(60x60x75x0.6)			
With 60% efficiency			
It is proposed to install 2 no. Submersible pumping set with a discharge of 20000 ltr./hour (335 lpm) driven with 7.5 HP electric motor.			
IV Underground Tank			
Daily requirement for domestic use and other except fire fighting	=	647.74 620 KL	KLD
Capacity of under ground tank 14 hr storage except fire fighting @ 60% storage requirement	=	370.63 372 KL	KLD
Total Population in General plots	=	380.00	KLD
Total Population in Commercial area	=	5796	Person
Total Population in community centre	=	498	Person
Total Population	=	2033	Person
Fire Tank Capacity as 100 x [sqrt(8327) /1000] x 1/3	=	8327	Person
	=	96.19	KLD
Say	=	100.00	KLD
Total		480.00	KLD
It is proposed to provide 1 no. under ground tank of capacity 480 KL which also includes 100 KL capacity for fire fighting.			
Tank will have four compartments, Two for fire, one for raw and one for domestic use. The water first enters the fire compartment, then over flows to the domestic water use compartment so that the water in the fire compartment shall remain fresh.			
It is proposed to provide under ground tank of following capacity			
a) Capacity of Fire tank-1		50.00	KLD
b) Capacity of Fire tank-2		50.00	KLD
c) Capacity of Raw tank		190.00	KLD
d) Capacity of Domestic tank		190.00	KLD

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V BOOSTING MACHINERY (Drinking water)

UG. Tank

a) Filter Feed Pump

Daily requirement for domestic use

Assuming 12 hours running 1 pumps (with one standby)

Discharge/hour

Head of pump

i) Suction lifts

ii) Friction loss in M<main & specials

iii) Clear head

Say

BHP of motor $(860 \times 35) / (60 \times 75 \times 0.6)$

=	617.71	KLD
=	51.48	KL/HR
Or Say	857.94	LPM
	860.00	LPM
=	0.0	m
=	0.0	m
=	35.0	m
=	35.0	m
=	35.0	m
=	11.15	HP
Or Say	12.5	HP

b) Domestic Water Transfer Pump

Daily requirement for domestic use

Assuming 8 hours running 2 pumps (with one standby)

Discharge/hour

Head of pump

i) Suction lifts

ii) Friction loss in M<main & specials

iii) Clear head

iv) Residual head

Say

=	617.71	KLD
=	38.61	KL/HR
Or Say	643.45	LPM
	650.00	LPM
=	5.0	m
=	10.0	m
=	27.0	m
=	45.0	m
=	45.0	m

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BHP of motor $(650 \times 45) / (60 \times 75 \times 0.6)$

		=		10.83		HP	
		Or Say		12.50		HP	
VI	Gen Set	Nos.	HP				
a)	Raw Water Transfer Pump	1	12.5			12.5	HP
b)	Domestic Water Transfer Pump	2	12.5			25	HP
c)	Flushing Water Transfer Pump	2	7.5			15	HP
d)	Tubewell	2	7.5			15	HP
e)	Lighting		5.0			5.0	HP
						72.5	HP
						60.0	KVA
						81.1	KVA
						90	KVA
						70	KVA

60
or $72.5 \times 0.746 \times 1.50$
Say

67.14

5 Sewage Treatment Plant capacity
Gross domestic + Flushing water requirement/day

Sewage flow will be 80% of total load

950.4 KLD

760.3 KLD

STP Capacity required at 5% extra margin

798.32 KLD

Say 2 800 KLD

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STP Capacity (Or Say)		~ 800.00	KLD
VII STP Treated Tank			
Daily requirement for flushing, horticulture, road washing	=	376.97	KLD
Capacity of under ground tank 14 hr storage @60% storage	=	226.18	KLD
Say	=	230.00	KLD
VIII BOOSTING MACHINERY (Flushing water)			
STP			
Daily requirement for Flushing & Horticulture use Assuming 8 hours running 2 pumps (with one standby) Discharge/hour	=	376.97	KLD
	=	23.56	KL/HR
	Or Say	392.68	LPM
		400.00	LPM
Head of pump			m
i) Suction lifts	=	5.0	m
ii) Friction loss in M<main & specials	=	10.0	m
iii) Clear head	=	13.0	m
iv) Residual head	=	42.0	m
Say	=	45.0	m
	=	45.0	m
	=	45.0	m
BHP of motor (400*45)/(60*75*0.6)	=	6.70	HP
	Or Say	7.50	HP

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FINAL ABSTRACT OF COST

Amount (Lacs.)
For 15.06875 Ac

Sub Work 1- Water Supply

~~215.00~~
~~291.55~~

Sub Work 2- Sewerage

~~373.26~~
~~263.69~~

Sub Work 3- S.W. Drainage

~~142.84~~
~~160.65~~

Sub Work 4- Roads

~~330.26~~
~~289.80~~

Sub Work 5- Street Lighting

57.82 ✓

Sub Work 6- Horticulture

~~9.30~~
~~9.45~~

Sub Work 7- Maintenance of services for 10 years including resurfacing of roads after 1st 5 years & II. Phase i.e. 10 years maintenance (as per HSVP norms)

~~371.06~~
~~342.59~~

TOTAL
COST / ACRE

Rs 1444.10 lac
15.06875 Acre ~ 95.84 lac per gross area
say Rs 1444.10 lac

Executive Engineer
HSVP Division No. VI
Gurgaon

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Checked subject to Comments
In forwarding letter No. 14720
Dt. 8/11/2023 and notes
attached with the estimate

Superintending Engineer,
HSVP Circle, Gurugram

Director
Town & Country Planning
Haryana, Chandigarh

Superintending Engineer (HQ)
for Chief Engineer-I
HSVP, Panchkula

5022-21

WATER SUPPLY HEAD

Sub Head 1- Head Works

Sub Head 2- Pumping Machinery

Sub Head 3- Distribution System

Sub Head 4- Irrigation scheme

Total**Add 3% Contingencies & PE Charge****Add 49% Departmental Charges****(CO to final abstract of cost)***Dam → Flushing + Rising main**, unforseen, price escalation
Admin.***Amount (Lacs.)
For 15.06875 Ac**~~59.80~~*93.55*~~32.50~~*33.50*~~46.60~~*61.47*~~4.19~~*1.45*~~140.09~~*189.97*~~4.20~~*5.70*~~144.29~~*195.67*~~70.70~~*95.88*~~214.99~~*291.55 / as*~~215.00~~**TOTAL****SAY**

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Sub Head I

Water Supply
Head Works
Rs. (lakhs)

S. No.	Description	Unit	Qty	Rate	Amount
1	Boring and installing 510 mm i/d tubewells with reverse/direct rotary rig complete with pipe strainer to a depth of about 80m. complete.	Nos.	2	1000000.00	20.00
2	Constructing pump chambers as per standard design of PWD PH/HSPV of size 1.50x1.50 m.	Nos.	2	1000000.00 1.80 L	2.00
3	Construction of boosting chambers of suitable size along with under ground tank pumping machinery and generating set etc. complete in all respects. Details of boosting station				
i)	construction of boosting chamber	KL.	LS	5.00	
ii)	construction of UG Tank <i>480 cap. incl. 100 KL cap. for fire fighting in two compartments and 230 KL for F-tank near STP</i>	KL.	480 + 230 710 KL	60000.00 55000	28.80 39.05
4	Provision for carriage of material and other unforeseen items	LS	LS	2.00	
5	Provision for facilities staff for Maintenance.	LS	LS	7.50 3.00	
6.	<i>Prov. for boundary wall around T.W site</i> <i>(C.O. to abstract of cost of Sub-work No.1)</i> <i>water works 1 No @ 3.00 L</i> <i>T.Well 2 Nos @ 1.50 L</i>			3.00 59.80 3.00 59.80 2.00	
7.	<i>Prov. for foot path, hedges and lawn at T.Well</i>				

Rs. 93.55 / L

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Sub Work I
Sub Head No. II

Water Supply
Pumping Machinery
Amount (Rs.)
(in Lakhs)

S. No.	Description	Unit	Qty	Rate	Water Supply Pumping Machinery Amount (Rs.) (in Lakhs)
1	Providing and installing electricity driven electro or submersible pumping set capable of delivering about 20 KL water per hour against a total head of 60 M complete with motor and other accessories. (7.50 lakhs)	Nos.	2	200000.00 1.50 lakhs	4.00
2	Provision for cheap pressure type chlorination plant complete.	LS			1.00
3	Provision for making foundations & erection of pumping machinery.	LS			1.00
4	Provision for pipes, valves & specials inside the pump chamber.	LS			1.00
5	Provision for electric services connection including electric fittings for tubewells chambers complete. Including cost of trasfermer.	LS			2.00
6	Providing and installing electricity driven pumping set, capable of delivering 860 LPM of water at 35M head complete in all respects. (For Filter Feed Pump) (12.5 HP) (1 working + 1 standby)	Nos.	2	180000.00	3.60
6	Providing and installing electricity driven pumping set, capable of delivering 650 LPM of water at 45M head complete in all respects. (12.5HP) (Domestic Water Transfer Pump) (2 working + 1 standby)	Nos.	3	2.50 lakhs 180000.00	7.50 lakhs 5.40

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8	Providing and installing electricity driven pumping set, capable of delivering 400 LPM of water at 45M head complete in all respects. (7.5 HP) (Flushing Water Transfer Pump) (2 working + 1 standby)	Nos.	3	150000.00	4.50
9	Provision of diesel generator set of each for standby arrangements for booster pump complete with gear head arrangements of following capacities 70 KVA.	LS			10.50 9.00
10	Provision for carriage of materials and other unforeseen items.	LS			1.00
(C.O. to abstract of cost of Sub-work No.I)					
TOTAL					32.50
SAY					32.50
					33.50

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S. No.	Description	Unit	Qty	Rate	IN LACS
1	Providing, laying, jointing & testing D.I. K-7 pipes including cost of excavation complete as per ISI marked. (For Domestic water supply line)				
i)	150 mm dia	M	252-173	2040/-	5.14
ii)	100 mm dia	M	982-1167	1875.00 1475.00 1460/-	3.24 17.24 14.34
2	Providing, laying, jointing & testing D.I. K-7 pipes including cost of excavation complete as per ISI marked. (For borewell line)				
i)	100 mm dia	M	40-185	1475.00	0.59
			225m		3.29
3	Providing, laying, jointing & testing HDPE-PE-80 ^{DI} pipes including cost of excavation complete as per ISI marked. (For Flushing water supply line)				
i)	150 mm dia	M	274-163	2040/-	5.59
ii)	100 mm dia	M	1103	1000.00 800.00 1460/-	4.63 9.34 16.10
4	Providing and fixing sluice valves including cost brick masonry chambers complete in all respects.				
i)	150 mm i/d	Nos.	6	35000.00	0.90
ii)	100 mm i/d	Nos.	18	25000.00 12000/-	0.35 4.50 1.44
5	Providing, fixing and testing butterfly valves including cost of valve chambers complete in all respects.				
i)	100 mm i/d	Nos.	5	15000.00	0.75
6	Providing and fixing 100 mm dia NRV including cost of valve chambers complete in all respects.				
i)	150 mm dia	Nos.	1	35000.00	0.35
ii)	100 mm dia	Nos.	1	25000.00	0.25

7	Providing and fixing air valves and scour valves including cost of valve chambers complete in all respects.	Nos.	4	10000.00	0.40
8	Providing and fixing indicating plates for sluice valve, air valve etc.	Nos.	18 25	2000.00	0.30 0.18
9	Provision for carriage of material <i>see other under same items</i>	Nos.		LS	2.00
10	Provision for cutting the roads and making to its original condition	Nos.		LS	1.00
11	Providing and fixing fire hydrants complete with masonry chambers.	Nos.	14	15000.00	2.10
12	Making water supply connection <i>with HVP line on main for road</i>	Nos.		LS	2.00
13	Provision for rising main from HSVP water supply line to UG Tank	M			5.65 5.74
i)	100 mm dia (DI Pipe K-7)		387	14601 1475.00	46.60 61.47
(C.O. to abstract of cost of Sub-work No.1)				TOTAL	46.60
				SAY	46.60

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Sub Work I
Sub Head No. IV

Water Supply
Irrigation

S. No.	Description	Unit	Qty	Rate	IN LACS
1	Providing, laying, jointing & testing HDPE PE-80 pipes including cost of excavation complete as per ISI marked.				
i)	25 mm dia	M	85	400.00 340	0.26 0.340
ii)	32 mm dia	M	42	530.00 450	0.223 0.19
2	Providing & fixing 20 mm PVC Irrigation hydrant valve with PVC lid complete in all respect including cost of PVC keys	Nos.	15	3500.00 3500	0.53 0.75
3	Provision for carriage of material	LS		40000.00	0.25 0.40
(C.O. to abstract of cost of Sub-work No.I)				TOTAL SAY	1.45 1.19 1.19



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Sub Work II				Sewerage Scheme	
S. No.	Description	Unit	Qty	Rate	in Lacs
1	Providing, lowering, jointing, cutting DWC HDPE SN8 pipes and specials into trenches including cost of excavation, bed concrete lot of manholes complete.				
i)	200 mm i/d	M			
a)	Average depth upto 1.5 m	M	42	2270.00	0.27
b)	Average depth 1.5 m to 4.5 m	M	1438	2370.00	26.97
			1151	18007	20.72
ii)	250 mm i/d	M			
a)	Average depth 1.5 m to 4.5 m	M	39	2000	0.78
				2430.00	0.95
iii)	300 mm i/d	M			
a)	Average depth 1.5 m to 4.5 m	M	198	2880	5.70
				2700.00	5.35
2	Provision for lighting, watching and temporary diversion traffic			LS	5.00
3	Provision for timbering & shoring			LS	1.00
4	Provision for cutting of roads and carriage of materials etc. and other unforeseen charges			LS	3.00
5	Provision for sewer connection with HSVP on master line			LS	2.00
6	Providing and installation of STP 800 KL including civil tanks and all electro mechanical works. It also includes flushing tank.	KL	800	25000.00	200.0
				16007	128.0
7	Provision for DI K-7 pipe from S.T.P. to HSVP main line (Over flow line)				
i)	100 mm dia pipe	M			
				14607	5.62
				1475.00	5.68
					243.22
					171.82


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Add 3% contingencies & PE charges

Add 49% Deptt. Charges , *plus escalation, ungravel*
Admin.

(C.O. TO FINAL ABSTRACT OF COST SUB WORK - II)

TOTAL
SAY

BF

171.82

7.97

5.15

273.69

176.97

86.72

134.11

407.79

407.79



V

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Sub Work III

Storm water
drainage

S. No.	Description	Unit	Qty	Rate	In Lacs
1	Providing, lowering, jointing, cutting RCC NP2 pipes and specials into trenches including cost of excavation cost of manholes, ventilating chambers etc. complete in all respects.				
i)	400 mm i/d	M	106	2500/-	2.65
a)	Average depth upto 1.5 m			2950.00	3.13
b)	Average depth 1.5 m to 4.5 m	M	134	3050.00	41.14
	500 mm d	m	25 m		35.35
2	Provision for road gully and drain. pipe 300mm			LS	0.68
					5.00
3	Provision for lighting, watching and temporary diversion of traffic.			LS	1.00
4	Provision for cutting of roads and carriage of materials etc. and other unforeseen items.			LS	7.30
					1.00
5	Construction of rain water harvesting pit as per details and specification given below and as per attached drawing including, cost of excavation of all ind soil foundation trenches of drain including dressing of sides of ramming and getting out excavation of soil. at selected places	Nos	9	450000.00	40.50
					31.50
6	Provision for connection with HSVP. Line on master Road			(LS)	2.00 lacs
	400 mm i/d (Average depth 1.5 m to 4.5 m)	M	10	3050	0.31
7	Provision for connection with HSVP line			LS	1.00
	Temporary Connection Disposal arrangement till HSVP services are reached & timbering & shoring				104.68 lacs

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Add 3% contingencies *to PE charts*

Add 49% Deptt. Charges, *price escalation, unforseen work*

(C.O. TO FINAL ABSTRACT OF COST SUB WORK-III)

104.68	93.08
3.14	2.79
<u>107.82</u>	<u>95.87</u>
52.83	46.98
<u>160.65</u>	<u>142.84</u>
	142.84

TOTAL
SAY



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Sub Work IV

Road Work

S. No.	Description	Unit	Qty	Rate	In Lacs
1	Provision for levelling and earth filling as per site conditions.	Acre	15.06875	175000.00	26.37
2	Construction of road by- i) 150 mm thick W.B.M. stone aggregate layer ii) 100 mm thick PCC iii) 50 mm thick sand bed iv) 80 mm thick conc. pavers Total	Sq. M	8164	1500.00	122.46
3	Miscellaneous items (a) Providing for Kerbs & Channels for 15.06875 ACRES 9M wide road 1484 x 2 = 2968 RM	RMT	2968	600.00	17.81
(b)	Provision of foot path of precast conc. for 15.06875 acres (9m wide road) 9 wide road 1484 x 1.75 x 2 = 5194 SQM	Sq. M	5194	750.00	38.955
4	Provision for traffic lighting and guide map	LS		100000.00	1.00
5	Provision for carriage of material	LS		100000.00	5.00
6	Provision for plot indicator	LS		100000.00	2.00

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7 Provision for demarcation & unforeseen items LS

100000.00

31.00

8 Provision for parking & pavement for commercial area
@ 50% 1493.67 = 746.84 sqm

sqm

746.84

750.00

15000

Add 3% contingencies *as per Charty*

Add 49% Deptt. Charges, *price escalation*
unforeseen, Delum,

(C.O. TO FINAL ABSTRACT OF COST) ~~SUB-WORK-IV~~

TOTAL

SAY

5.60

11.26

188.84

215.19

6.46

221.65

194.50

408.61

95.30

330.26

330.26

289.80

10.5

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Sub Work VI

Horticulture

Amount
In Lacs

Rate

Qty

Unit

Description

S. No.

1	Development of lawn area			
a)	Trenching the ordinary soil upto depth of 60 cm. including removal and apcking of servicable material and disposing at the lead of 50m and making upto the tranched area to prope level by filling with earth mixed with manure before and after flooding trenches with water including cost of imported earth and manure.			
b)	Rough dressing of trenched area.			
c)	Grassing with including watering and maintenance of lawns free from weds and fit for moving in rows including for hedges, shrubs and green belt (as per HSVP Norms)	1.1300	150000.00	
2	Planting of trees with tree guards on roads at 12 m intervals			
	Total length of roads = 1484 mtr			
	No of trees @ 12m c/c = $1484 \times 2 / 12 = 247.33$ nos			
	say = 248 nos	250		
	Cost of the tree @ 1800/- each	248	1800.00	

TOTAL

Add 3% contingencies ~~45~~ PE charges

Add 49% Deptt. Charges, unforseen, price escalation
Addum -

(C.O. TO FINAL ABSTRACT OF COST SUB WORK - VI)

TOTAL

SAY

Rs 1.70 lacs

4.50
4.46
6.20 lacs
6.16

0.18

6.34
3.14

9.45

9.45

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Sub Work VII

S. No.	Description	Unit	Qty	Rate	Maintenance In Lacs
1	Provision for maintenance charges for water supply, sewerage, storm water drainage, roads, street light, horticulture etc. complete including operation and establishment charges as per HSVP norms after completion and resurfacing of roads after 10 years or 1st phase.	Acre	15.06875	750000.00 8.00 lacs	113.02 120.55 lacs
2	Provision for resurfacing and strengthening of roads after 1st five years of 1st phase with 80 mm thick concrete pavers @ 600 + sqm	Sq. M	8164	66% 600.00	53.89 48.98
3	Provision for resurfacing and strengthening of road after 10 years of 2nd phase with 80 mm thick concrete pavers @ 750 + sqm	Sq. M	8164	82% 750.00	67.35 61.23
Add 3% contingencies					241.79 223.23
Add 49% Deptt. Charges , prior escalation, uniform Admin.					6.70 7.25 lacs
					249.04 229.93
					112.66 122.62
TOTAL					342.59 371.06
(C.O. TO FINAL ABSTRACT OF COST SUB WORK - VII)					342.59
SAY					



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PROJECT - AFFORDABLE RESIDENTIAL PLOTTED COLONY UNDER DDJAY OVER AN AREA MEASURING 18 MATS ACRES FALLING IN SECTOR-3, SOHRA, DIST. GURUGRAM, HARYANA																								
TITLE :- DOMESTIC WATER SUPPLY HYDRAULIC CHART FOR RING LINES																								
S.NO	Line No		PLOTS (GENERAL)			Water Requirement for Non Residential Plots.					Peak Demand @ 2.5 Times	Flow Rate	Length of Pipe	Head Loss Mtr	Total Head Loss	Dis Pipe	Road LVL at start	Hydraulic LVL at start	Head at start	Road LVL at End	Hydraulic LVL at End	Head at End		
	From	To	Nos.	Population @ 18 persons / Plot	Water Requirement @ 155.25 Lit head / day	Commercial Area in Acres	TYPE OF BUILDING	Basic of Water Requirement in commercial LPO	COF	Total Water Requirement in LPO													Gross Water Requirement (Load on Line)	Average Demand
				18	100.91																			
1	UGT	D-01	322	5796	584889	0.369	COMMERCIAL + MB	8325	24489	32814	617703	618	1544	1072	45	0.0068	0.28	150	241.55	45.00	201.55	241.27	39.72	
2	D-01	D-02	322	5796	584889	0.369	COMMERCIAL + MB	8325	24489	32814	617703	618	1544	1072	87	0.0068	0.59	150	241.55	39.72	201.55	240.68	39.13	
3	D-02	D-03	284	5282	534029	0.369	COMMERCIAL + MB	8325	24489	32814	569843	567	1417	984	70	0.0058	0.25	150	240.68	39.13	201.55	240.43	38.88	
4	D-03	D-04	56	1008	101720	0.369	COMMERCIAL + MB	8325	24489	32814	134534	135	336	234	208	0.0029	0.60	100	201.55	240.43	201.05	239.83	38.78	
5	D-03	D-05	229	4122	415961		PLOTS	0	0	0	419661	416	1040	722	44	0.0234	1.03	100	201.55	240.43	201.55	239.40	37.85	
6	D-05	D-06	54	972	98097		PLOTS	0	0	0	98087	98	245	170	161	0.0016	0.31	100	201.55	239.40	201.05	239.09	38.04	
7	D-05	D-07	166	2988	301527		PLOTS	0	0	0	301527	302	754	523	43	0.0129	0.55	100	201.55	239.40	201.55	238.84	37.29	
8	D-07	D-08	50	900	90821		PLOTS	0	0	0	90821	91	227	158	173	0.0014	0.24	100	201.55	238.84	201.05	238.60	37.55	
9	D-07	D-09	116	2088	210705		PLOTS	0	0	0	210705	211	527	366	41	0.0066	0.27	100	201.55	238.84	201.55	238.57	37.02	
10	D-08	D-10	45	828	83556		PLOTS	0	0	0	83556	84	209	145	162	0.0012	0.19	100	201.55	238.57	201.05	238.38	37.33	
11	D-09	D-11	61	1098	110802		PLOTS	0	0	0	110802	111	277	192	51	0.0020	0.08	100	201.55	238.57	201.55	238.49	36.94	
12	D-11	D-12	61	1098	110802		PLOTS	0	0	0	110802	111	277	192	225	0.0020	0.54	100	201.55	238.49	201.05	237.95	36.90	

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PROJECT- AFFORDABLE RESIDENTIAL PLOTTED COLONY UNDER DDJAY OVER AN AREA MEASURING
HYDRAULIC SEWER DESIGN

S No.	Line No.		Number of Plots	Population @ 18 persons / Plot.	Water Requirement @ 155.25 Ltr/ head / day	Type of Building	Water Requirement	Gross Water Requirement (Self Load on Line)	Sewage Flow (Self Load on Line) LPD	Sewage Flow (Self Load on Line) KLD	Previous Load	Progressive Discharge (Average)	Progressive Discharge (Peak)	Infiltration @ 25% Av. Discharge	Total Discharge
	From	To	Nos.	Nos.	lpd.		lpd	lpd.	80%	1000	Kld.	lpd.	lpd.	lpd.	lpd.
1	S-01	S-03	61	1098	170465	PLOTS	0	170465	136372	136.37	0.00	1.58	4.74	0.39	5.13
2	S-02	S-03	46	828	128547	PLOTS	0	128547	102838	102.84	0.00	1.19	3.57	0.30	3.87
3	S-03	S-05	5	90	13973	PLOTS	0	13973	11178	11.18	239.21	2.90	8.69	0.72	9.42
4	S-04	S-05	50	900	139725	PLOTS	0	139725	111780	111.78	0.00	1.29	3.88	0.32	4.20
5	S-05	S-07	6	108	16767	PLOTS	0	16767	13414	13.41	362.17	4.35	13.04	1.09	14.13
6	S-06	S-07	54	972	150903	PLOTS	0	150903	120722	120.72	0.00	1.40	4.19	0.35	4.54
7	S-07	S-09	7	126	19562	PLOTS	0	19562	15649	15.65	496.30	5.93	17.78	1.48	19.26
8	S-08	S-09	55	990	153698	COMMERCIAL +MB +COMMUNITY CENTRE	50483	204181	163344	163.34	0.00	1.89	5.67	0.47	6.14
9	S-09	S-11	6	108	16767	PLOTS	0	16767	13414	13.41	675.30	7.97	23.91	1.99	25.91
10	S-10	S-11	2	36	5589	PLOTS	0	5589	4471	4.47	0.00	0.05	0.16	0.01	0.17
11	S-11	S-12	30	540	83835	PLOTS	0	83835	67068	67.07	693.18	8.80	26.40	2.20	28.60
12	S-12	STP	0	0	0	PLOTS	0	0	0	0.00	760.25	8.80	26.40	2.20	28.60



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Length (mtr.)	Pipe Size (mm)	Slope (1 in)	Fall (mtr.)	Velocity (m/s) (V)	Capacity of Pipe (lps.)	Road Formation level at Start	Invert Levels at Start	Road Formation level at End	Invert Levels at End	Manhole Start Depth (mtr.)	Manhole Depth End (mtr.)	Average Depth (mtr.)	Number of Manhole (nos.)	Type of Manhole			
														910 Dia Up to 1.67m	1220 Dia From 1.87 to 2.29m	1520 Dia From 2.29 to 4.18m	1820 Dia Above 4.18m
305	200.00	145.00	2.10	1.13	17.70	201.50	200.30	201.50	198.20	1.20	3.30	2.25	22	0	22	0	0
172	200.00	145.00	1.19	1.13	17.70	201.50	200.30	201.50	199.11	1.20	2.39	1.79	14	0	14	0	0
40	200.00	145.00	0.28	1.13	17.70	201.50	198.20	201.50	197.92	3.30	3.58	3.44	3	0	0	3	0
190	200.00	145.00	1.31	1.13	17.70	201.50	200.30	201.50	198.99	1.20	2.51	1.86	14	0	14	0	0
39	250.00	195.00	0.20	1.13	27.68	201.50	197.92	201.50	197.72	3.58	3.78	3.68	3	0	0	3	0
217	200.00	145.00	1.50	1.13	17.70	201.50	200.30	201.50	198.80	1.20	2.70	1.95	16	0	16	0	0
48	300.00	250.00	0.19	1.12	39.75	201.50	197.72	201.50	197.53	3.78	3.97	3.87	4	0	0	4	0
215	200.00	145.00	1.48	1.13	17.70	201.50	200.30	201.50	198.82	1.20	2.88	1.94	17	0	17	0	0
36	300.00	250.00	0.14	1.12	39.75	201.50	197.53	201.50	197.39	3.97	4.11	4.04	3	0	0	3	0
12	200.00	145.00	0.08	1.13	17.70	201.50	200.30	201.50	200.22	1.20	1.28	1.24	1	1	0	0	0
109	300.00	250.00	0.44	1.12	39.75	201.50	197.39	201.50	196.95	4.11	4.55	4.33	9	0	0	0	9
5	300.00	250.00	0.02	1.12	39.75	201.50	196.95	201.50	196.93	4.55	4.57	4.56	1	0	0	0	1



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200 mm Ø S.W ~ 1151 mtr
250 mm Ø S.W ~ 39 mtr
300 mm Ø S.W ~ 198 mtr

PROJECT - AFFORDABLE RESIDENTIAL PLOTTED COLONY UNDER DDJAY OVER AN AREA MEASURING 15.06875

TITLE :- FLUSHING WATER SUPPLY HYDRAULIC CHART FOR

S.NO	Line No		PLOTS (GENERAL)				Water Requirement for Non Residential Plots.					Green Area Water Requirement	Gross Water Requirement (Load on Line)
	From	To	Nos.	Population @ 18 persons / Plot.	Water Requirement @ 155.25 Ltr/ head / day	Commercial Area in Acre	TYPE OF BUILDING	Basis of Water Requirement in LPD	OCF	Total Water Requirement in LPD	LPD	LPD	
				18	54.34								
1	STP	F-01	322	5796	314940	0.369	COMMERCIAL + MB	4483	13186	17669	28250	360859	
2	F-01	F-02	322	5796	314940	0.369	COMMERCIAL + MB	4483	13186	17669	20750	353359	
3	F-02	F-03	294	5292	287554	0.369	COMMERCIAL + MB	4483	13186	17669	20100	325323	
4	F-03	F-04	56	1008	54772	0.369	COMMERCIAL + MB	4483	13186	17669	5075	77516	
5	F-03	F-05	229	4122	223979		PLOTS	0		0	15025	239004	
6	F-05	F-06	54	972	52816		PLOTS	0		0	4000	56816	
7	F-05	F-07	166	2988	162360		PLOTS	0		0	11025	173385	
8	F-07	F-08	50	900	48904		PLOTS	0		0	3525	52429	
9	F-07	F-09	116	2088	113457		PLOTS	0		0	7500	120957	
10	F-09	F-10	46	828	44991		PLOTS	0		0	4600	49591	
11	F-09	F-11	61	1098	59663		PLOTS	0		0	2900	62563	
12	F-11	F-12	61	1098	59663		PLOTS	0		0	2900	62563	

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ACRES FALLING IN SECTOR-5, SOHNA, DIST- GURUGRAM, HARYANA													
R RING LINES.													
Average Demand	Peak Demand @ 2.5 Times	Flow Rate	Length of Pipe	Head Loss Mtr/Mtr	Total Head Loss	Velocity	Dia of Pipe	Road LVL at start	Hydraulic LVL at start	Head at start	Road LVL at End	Hydraulic LVL at End	Head at End
KLD	KLD	LPM	MTR.	MTR.	MTR.	M/SEC	MM	MTR.	MTR.	MTR.	MTR.	MTR.	MTR.
361	902	626	32- 24	0.0158	0.51	1.329	100	196.55	241.55	45.00	201.55	241.04	39.49
353	883	613	87- 99	0.0152	1.32	1.301	100	201.55	241.04	39.49	201.55	239.72	38.17
325	813	565	66	0.0131	0.57	1.198	100- 150	201.55	239.72	38.17	201.55	239.15	37.60
78	194	135	208- 222	0.0027	0.57	0.446	180	201.55	239.15	37.60	201.05	238.58	37.53
239	598	415	44- 34	0.0219	0.96	1.375	150	201.55	239.15	37.60	201.55	238.19	36.64
57	142	99	192- 162	0.0015	0.29	0.327	180	201.55	238.19	36.64	201.05	237.89	36.84
173	433	301	43- 32	0.0121	0.52	0.998	150	201.55	238.19	36.64	201.55	237.67	36.12
52	131	91	173- 162	0.0013	0.23	0.302	180	201.55	237.67	36.12	201.05	237.44	36.39
121	302	210	66	0.0062	0.25	0.896	180	201.55	237.67	36.12	201.55	237.41	35.86
50	124	86	152- 152	0.0012	0.19	0.285	180	201.55	237.41	35.86	201.05	237.23	36.18
63	156	109	66	0.0018	0.07	0.360	180	201.55	237.41	35.86	201.55	237.34	35.79
63	156	109	268- 235	0.0018	0.49	0.360	180	201.55	237.34	35.79	201.05	236.85	35.80

150 mm ϕ DI = 274 mtr
100 mm ϕ DI = 1103 mtr

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938, Sector-14, Gurgaon

PROJECT- AFFORDABLE RESIDENTIAL PLOTTED COLONY UNDER DDJAY OVER AN AREA MEASURING 15.06875 ACRES FALLING IN SECTOR-5, SOHNA, DIST- GURUGRAM, HARYANA										
S. No.		Name of Sewer Line		Plots (DDJAY)			Water Requirement for Non Residential Plots			
				Number of Plots	Population @ 18 persons / Plot.	Water Requirement @ 155.25 Ltr/ head / day	Other Type of Building	Other Water Requirement	Gross Water Requirement (Load on Line)	Sewage Flow (Self Load on Line)
			Nos.	Nos.	lpd.			lpd.	lpd.	kld.
		From	To	18	155.25			Lumpsum	80%	1000
1		S-01	S-03	61	1098	170465	PLOTS	0	170465	136.37
2		S-02	S-03	46	828	128547	PLOTS	0	128547	102.84
3		S-03	S-05	5	90	13973	PLOTS	0	13973	11.18
4		S-04	S-05	50	900	139725	PLOTS	0	139725	111.78
5		S-05	S-07	6	108	16767	PLOTS	0	16767	13.41
6		S-06	S-07	54	972	150903	PLOTS	0	150903	120.72
7		S-07	S-09	7	126	19562	PLOTS	0	19562	15.65
8		S-08	S-09	55	990	153698	COMMERCIAL +MB +COMMUNITY CENTRE	50483	204181	163.34
9		S-09	S-11	6	108	16767	PLOTS	0	16767	13.41
10		S-10	S-11	2	36	5589	PLOTS	0	5589	4.47
11		S-11	S-12	30	540	83835	PLOTS	0	83835	67.07
12		S-12	STP	0	0	0	PLOTS	0	0	0.00



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PROJECT :- PROPOSED "AFFORDABLE RESIDENTIAL PLOTTED COLONY UNDER DDJAY OVER AN AREA MEASURING 15.06875 ACRES sector-5 SOHNA, DISTRICT GURUGRAM HARYANA"							
Discription	Type	Number	Dimension			Calculation	Result
			Length	Height	Breadth		
R1	Rectangle	1	91.00	X	5.50	Length X breadth	500.500
R2	Rectangle	1	169.00	X	5.50	Length X breadth	929.500
R3	Rectangle	1	288.65	X	5.50	Length X breadth	1587.575
R4	Rectangle	1	222.18	X	5.50	Length X breadth	1221.990
R5	Rectangle	1	190.03	X	5.50	Length X breadth	1045.165
R6	Rectangle	1	172.04	X	5.50	Length X breadth	946.220
R7	Rectangle	1	154.00	X	5.50	Length X breadth	847.000
R8	Rectangle	1	126.71	X	5.50	Length X breadth	696.905
Total Addition =			1414				7775
ADD 5 % FOR CURVED ROAD			71				389
Total Mettalic Road Area =			1484				8164

VIMAL BAJAJ
Architect CA/96/19791
938, Sector-14, Gurgaon



TITLE: STORM WATER DRAINAGE - HYDRAULIC DESIGN CHART

S. No.	Line No.	Length in mtr.	Self area in sq.mtr.	Self Area (Hec)	Previous area in Hec.	Total Area (Hec)	Run Fall mm/mtr.	Discharge cumec	Pipe dia (mm)	Slope (mm) 1 in	Velocity m/sec.	Cap of pipe in ips.	Fall in line mtr.	Road level at Start	Invert Level at Start	Road level at End	Invert Level at End	Depth at Start	Depth at End	Average Depth	No. of Manhole	Manhole Type			
																						510 Dia upto 1.87m Type-A	1250 Dia upto 2.25m Type-B	1520 Dia From 2.25 to 4.18m	1820 Dia Above 4.18m
1	R-01	203	8165	0.817	0.000	0.817	6.25	17.36	400	450	0.923	116.07	0.45	201.55	200.15	201.55	199.70	1.40	1.85	1.63	16	0	0	0	0
2	R-02	178	6885	0.689	0.000	0.689	6.25	11.36	400	450	0.923	116.07	0.39	201.55	200.15	201.55	199.76	1.40	1.79	1.80	14	0	0	0	0
3	R-03	40	1101	0.110	1.505	1.615	6.25	28.43	400	450	0.923	116.07	0.09	201.55	199.70	201.55	199.61	1.85	1.94	1.90	3	0	3	0	0
4	R-04	189	7720	0.772	0.000	0.772	6.25	13.41	400	450	0.923	116.07	0.42	201.55	200.15	201.55	199.73	1.40	1.82	1.61	14	0	0	0	0
5	R-05	60	1428	0.143	2.387	2.530	6.25	9.52	400	450	0.923	116.07	0.13	201.55	199.61	201.55	199.43	1.94	2.12	2.03	4	0	4	0	0
6	R-06	206	8937	0.894	0.000	0.894	6.25	13.52	400	450	0.923	116.07	0.46	201.55	200.15	201.55	199.69	1.40	1.86	1.63	15	0	0	0	0
7	R-07	37	426	0.043	3.424	3.466	6.25	42.12	400	450	0.923	116.07	0.08	201.55	199.43	201.55	199.34	2.12	2.21	2.16	2	0	2	0	0
8	R-08	20	545	0.055	0.000	0.055	6.25	0.95	400	450	0.923	116.07	0.04	201.55	200.15	201.55	200.11	1.40	1.44	1.42	2	0	0	0	0
9	R-09	86	5143	0.514	0.000	0.514	6.25	8.36	400	450	0.923	116.07	0.19	201.55	200.15	201.55	199.96	1.40	1.59	1.50	7	0	0	0	0
10	R-10	44	1106	0.111	0.569	0.679	6.25	11.78	400	450	0.923	116.07	0.10	201.55	199.96	201.55	199.86	1.59	1.69	1.64	4	0	0	0	0
11	R-11	161	3471	0.347	0.000	0.347	6.25	4.22	400	450	0.923	116.07	0.36	201.55	200.15	201.55	199.79	1.40	1.76	1.58	11	0	0	0	0
12	R-12	212	15546	1.555	1.027	2.581	6.25	11.66	400	450	0.923	116.07	0.47	201.55	199.79	201.55	199.32	1.76	2.23	1.99	16	0	16	0	0
13	R-13	22	250	0.025	6.047	6.072	6.25	105.41	400	450	0.923	116.07	0.04	201.55	199.32	201.55	199.18	2.33	2.39	2.35	1	0	1	0	0

400 mm ϕ = 1434 m say 1440 mk
 500 mm ϕ = 22 m say 25 mk

Directorate of Town & Country Planning, Haryana

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

Web site: tcpharyana.gov.in - e-mail: tcpharyana7@mail.com

FORM LC -V

(See Rule 12)

License No. 81 of 2023

This License has been granted under the Haryana Development and Regulation of Urban Areas Act 1975 & the Rules 1976 made there under to JMS Infra Build Pvt. Ltd., Plot No. 2380- SP, Sector- 46, Gurugram to set up an Affordable Plotted Colony (DDJAY-2016) over an area measuring 15.06875 acres in the revenue estate of village Sohna, Sector 5, Sohna, District Gurugram.

1. The particulars of the land, wherein the aforesaid affordable residential plotted colony is to be set up, are given in the schedule of land annexed hereto and duly signed by the Director, Town & Country Planning, Haryana.
2. The Licence is granted subject to the following conditions:-
 - a) That the affordable residential plotted colony will be laid out in confirmation to the approved layout/building plan and development works will be executed in accordance to the designs and specifications shown in the approved plans.
 - b) That the licensee will pay the Infrastructure Development Charges amounting to Rs. 1,88,66,687/- in two equal installments. First Installment will be due within 60 days of grant of license and second Installment within six months of grant of license failing which 18% PA interest will be liable for the delayed period.
 - c) That the licensee shall abide by the Deen Dayal Jan Awas Yojna policy dated 08.02.2016, subsequent amendments from time to time and other direction given by the Director time to time to execute the project.
 - d) That the conditions of the agreements already executed are duly fulfilled and the provisions of Haryana Development and Regulation of Urban Areas Act, 1975 and the Rules 1976 made there under are duly complied with.
 - e) That the licensee shall maintain and upkeep of all roads, open spaces, public park and public health services for a period of five years from the date of issue of the completion certificate unless earlier relieved of this responsibility and thereupon to transfer all such roads, open spaces, public parks and public health services free of cost to the Govt. or the local authority, as the case may be, in accordance with the provisions of Section 3(3)(a)(iii) of the Haryana Development and Regulation of Urban Areas Act, 1975.
 - f) That the licensee shall integrate the services with Haryana Shahari Vikas Pradhikaran services as and when made available.
 - g) That the licensee shall transfer 10% area of the licensed colony free of cost to the Government for provision of community facilities or develop such area on its own in accordance with clause 4(j) of policy dated 08.02.2016 amended vide notification dated 25.08.2022.


Director for General
Town & Country Planning
Haryana, Chandigarh

- h) That the licensee shall transfer the part of licenced land falling under sector road/green belt free of cost to the Govt. or the local authority, as the case may be, in accordance with the provisions of Section 3(3) (a) (iii) of the Haryana Development and Regulation of Urban Areas Act, 1975.
- i) That the licensee understands that the development/construction cost of 30 m/24 m/18 m major internal roads is not included in the EDC rates and they shall pay the proportionate cost for acquisition of land, if any, alongwith the construction cost of 30 m/24 m/18 m wide major internal roads as and when finalized and demanded by the Department.
- j) That the licensee shall obtain NOC/Clearance as per provisions of notification dated 14.09.2006 issued by Ministry of Environment & Forest, Govt. of India, if applicable before execution of development works at site.
- k) That the licensee shall make arrangements for water supply, sewerage, drainage etc to the satisfaction of DTCP till these services are made available from External Infrastructure to be laid by Haryana Shehri Vikas Pardhikaran or any other execution agency.
- l) That the licensee shall pay the differential amount if there will be any change in the said rates from the original calculation required to be deposited as and when demanded by the Department as the EDC have been charged on the basis of EDC Indexation Mechanism Policy dated 11.02.2016.
- m) That the licensee shall obtain clearance from competent authority, if required under Punjab Land Preservation Land Act, 1900 and any other clearance required under any other law.
- n) That the rain water harvesting system shall be provided as per Central Ground Water Authority Norms/Haryana Govt. notification as applicable.
- o) That the provision of solar water heating system shall be as per guidelines of Haryana Renewable Energy Development Agency and shall be made operational where applicable before applying for an Occupation Certificate.
- p) That the licensee shall use only LED fitting for internal lighting as well as campus lighting.
- q) That the licensee shall convey the 'Ultimate Power Load Requirement' of the project to the concerned power utility, with a copy to the Director, within two months period from the date of grant of license to enable provision of site in licensed land for Transformers/Switching Stations/Electric Sub Stations as per the norms prescribed by the power utility in the zoning plan of the project.
- r) That it will be made clear at the time of booking of plots/commercial space that specified rates include or do not include EDC. In case of not inclusion of EDC in the booking rates, then it may be specified that same are to be charged separately as per rate fixed by the Govt. You shall also provide detail of calculation of EDC per Sqm/per Sft to the allottees while raising such demand from the plot owners.
- s) That the licensee shall keep pace of development at-least in accordance with sale agreement executed with the buyers of the plots as and when scheme is launched.

- t) That the licensee shall arrange power connection from UHBVNL/DHBVNL for electrification of the colony and shall install the electricity distribution infrastructure as per the peak load requirement of the colony for which licensee shall get the electrical (distribution) service plan/estimates approved from the agency responsible for installation of external electric services i.e. UHBVNL/DHBVNL and complete the same before obtaining completion certificate for the colony.
- u) That the licensee shall complete the project within seven years (5+2 years) from date of grant of license.
- v) That the licensee will pay the labour cess as per policy instructions issued by Haryana Government.
- w) That the licensee shall submit compliance of Rule 24, 26, 27 & 28 of Rules 1976 & Section 5 of Haryana Development and Regulation of Urban Areas Act, 1975, and shall inform account number and full particulars of the scheduled bank wherein licensee have to deposit thirty percentum of the amount received from the plot holders for meeting the cost of Internal Development Works in the colony.
- x) That the licensee shall permit the Director or any other officer authorized by him to inspect the execution of the layout and the development in the works in the colony and to carry out all directions issued by him for ensuring due compliance of the execution of the layout and development works in accordance with the license granted.
- y) That the licensee shall follow the provisions of the Real Estate (Regulations and Development) Act, 2016 and Rules framed there under shall be followed by the applicant in letter and spirit.
- z) That you shall execute the development works as per Environmental Clearance and comply with the provisions of Environment Protection Act, 1986, Air (Prevention and Control of Pollution of Act, 1981) and Water (Prevention and Control of Pollution of 1974). In case of any violation of the provisions of said statutes, you shall be liable for penal action by Haryana State Pollution Control Board or any other Authority Administering the said Acts.
- aa) That you shall obey all the directions/restrictions imposed by the Department from time to time in public interest.
- bb) That no clubbing of residential plots for approval of integrated zoning plan of two adjoining plots under same ownership shall be permitted.
3. The licence is valid up to 16/04/2028

Dated: 17/04/2023
Place: Chandigarh


(T.L. Satyaprakash, IAS)
Director General,
Town & Country Planning
Haryana, Chandigarh

Endst. No. LC-4834-JE (DS)-2023/ 10727

Dated: 17-04-2023

A copy along with a copy of schedule of land is forwarded to the following for information and necessary action: -

1. JMS Infra Build Pvt. Ltd., Plot No. 2380- SP, Sector- 46, Gurugram and LC-IV, Bilateral agreement.
2. Chairman, Pollution Control Board, Haryana, Sector-6, Panchkula.
3. Chief Administrator, HSVP, Panchkula.
4. Chief Executive Officer, GMDA, Gurugram.
5. Chief Administrator, Housing Board, Panchkula alongwith copy of agreement.
6. Managing Director, HVPN, Planning Directorate, Shakti Bhawan, Sector-6, Panchkula.
7. Joint Director, Environment Haryana - Cum-Secretary, SEAC, Paryavaran Bhawan, Sector -2, Panchkula.
8. Director Urban Estates, Haryana, Panchkula.
9. Administrator, HSVP, Gurugram.
10. Chief Engineer, HSVP, Gurugram.
11. Superintending Engineer, HSVP, Gurugram along with a copy of agreement.
12. Land Acquisition Officer, Gurugram.
13. Senior Town Planner, Gurugram.
14. Senior Town Planner (Enforcement), Haryana, Chandigarh.
15. District Town Planner, Gurugram along with a copy of agreement & Layout Plan.
16. Chief Accounts Officer (Monitoring) O/o DTCP, Haryana.
17. Accounts Officer, O/o Director, Town & Country Planning, Haryana, Chandigarh along with a copy of agreement.
18. PM (IT) for updation on the website.


(SUNENA)

District Town Planner (HQ)
For Director General, Town & Country Planning,
Haryana, Chandigarh

To be read with License no.....81.....Dated 17/04 of 2023

Detail of land owned by JMS Infra Build Pvt.ltd.

Village	Rect. No	Killa No	Area (K-M)
Sohna	137	7min south	2-4
		8min south	6-18
		9min south	5-13
		10/2	2-0
		11	8-0
		12	8-0
		13	8-0
		14	3-16
		17	4-2
		18	8-0
		19	8-0
		20	8-0
		21	8-0
		22	8-0
		23	8-0
		24	4-2
	138	2	8-0
		3	8-0
		4	3-16
		Total	120-11

Or 15.06875 acres


Director General
Town & Country Planning
Haryana, Chandigarh
JMS Infra Build Pvt. Ltd.