SERVICE ESTIMATE, DESIGN REPORT AND CALCULATION OF INTERNAL DEVELOPMENT WORKS

FOR

PROPOSED "AFFORDABLE RESIDENTIAL PLOTTED COLONY" (UNDER DEEN DAYAL JAN AWAS YOJNA) AREA MEASURING 22.356 ACRES (LICENSE NO. 11 OF 2022 Dated 02/02/2022 & LICENSE NO. 4 OF 2023 Dated 06.01.2023) IN SECTOR – 95, GURUGRAM BEING DEVELOPED BY M/S : JMS INFRA REALTY PRIVATE LIMITED ----------

SERVICE ESTIMATE, DESIGN REPORT AND CALCULATIONS OF INTERNAL DEVELOPMENT WORKS FOR PROPOSED "AFFORDABLE RESIDENTIAL PLOTTED COLONY" (UNDER DEEN DAYAL JAN AWAS YOJNA) AREA MEASURING 22.356 ACRES (LICENSE NO. 11 OF 2022 Dated 02/02/2022 & LICENSE NO. 4 OF 2023 Dated 06.01.2023) IN SECTOR – 95, GURUGRAM BEING DEVELOPED BY SH. DHARAM SINGH AND OTHERS IN COLLABORATION WITH M/S JMS INFRA REALTY PVT. LTD.

Gurugram town of Haryana State situated on N.H. -248 road at a distance of 35 Km from Delhi. Being in the national capital region, the town has fast developing tendency and potential. Further, it has also started sharing the growing residential, commercial and Industrial load of Delhi. In order to review the growing pressure of population in National Capital of Delhi, It has been decided by the Haryana Government to develop various infrastructure facilities in Gurugram Urban Complex. This report is for a part of service estimate for proposed "Affordable Residential Plotted Colony" (Under Deen Dayal Jan Awas Yojna) measuring **22.356 ACRES (LICENSE NO. 11 OF 2022 Dated 02/02/2022 & LICENSE NO. 4 OF 2023 Dated 06.01.2023)** in Sector – 95, Gurugram being developed by Sh. Dharam Singh And Others in collaboration with M/s **JMS INFRA REALTY PVT. LTD.**. and others has been prepared with the following provisions which are as under :-

1. **WATER SUPPLY**

The source of water supply in this area is by HSVP Mains. It has been proposed to construct underground tanks of capacity as per attached details and to location for domestic purpose. The underground tanks will be fed from the HSVP based supply, which will feed O.H. tanks on the roof of the Building and has been designed as per the Hazen Williams formula. Presently there is proposed / under execution HSVP W/S in this area. However the provision of tube wells has been taken due to non availability of water but after getting the approval from the competent authority through tube wells / tankers / any other approved source till HSVP W/Swill made available. The proposed tube well shall be 510mm bore drilled with reverse rotary rig and installed with 80mm i/d housing pipe and 50mm i/d slotted tube as strainer, hence the provision of 1 Nos. Tube Wells has been taken in this estimate.

DESIGN

The scheme has been designed for population of 6791 persons and considering @ 18.00 persons / units (13.50+33%) for Affordable Residential Plotted Colony due to FAR increased by the Govt. and other provision etc. The combined quantum of water supply (domestic + flushing) per head / day has been taken as 172.50 Liters per head per day as per design calculation.

PUMPING EQUIPMENTS

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

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2. **SEWERAGE**

The scheme is designed for sewer connecting to the STP and bypass connection to HSVP sewer scheme. The sewer lines have designed for three times average D.W.F in relation to water supply demand. It has assumed that about 75% of the domestic and flushing water supply shall find its way into the proposed sewer. Sewer lines shall be running by gravity and discharge to STP proposed. Treated water will be used for Irrigation & Flushing purpose (through recycling) under the pipe line system.

3. **STORM WATER DRAINAGE**

It has been proposed to lay R.C.C pipes with required number of manholes for disposal of storm water, which will be connected to the HSVP drain. The intensity of rain fall has been taken as 6.00mm per hour. A minimum size of 400mm i/d R.C.C pipe for storm water drain will be provided and designed as per manning's formula. Necessary provision of rainwater harvesting arrangement has also been taken in this estimate.

4. **ROADS**

Road, Parking and Pavement have been provided to above areas and estimate is prepared as revised specifications adopted by HSVP.

5. **STREET LIGHTING AND ELECTRIFICATION :-**

Provision for external lighting, electrification and ESS of proposed area has been made.

6. **HORTICULTURE :-**

Estimate and details of plantation, landscaping, signage etc. have been included.

7. **FIRE FIGHING :-**

Provision of Fire Fighting system has not been made in affordable plotted colony.

8. **SPECIFICATIONS**

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

9. **RATES**

The estimate has been based on the present market rates.

10. **COST**

The total cost of the scheme including cost of all services works out to Rs. ~~1228.40 Lacs~~ 1649.23 (Rupees Twelve Crores Twenty Eight Lacs and Fourty thousand only) including 3% contingencies and 49% departmental charges + Price escalation and cost per acre comes out to Rs. ~~74.22~~ 73.80 Lacs.

(Authorized Signatory)

Plot No. 10 3rd Floor, Sector-44 GURGAON-122001

1. DESIGN CALCULATION :-

Total Area of plot	=	22.356 Acres
Proposed Area Under Plots (Saleable Area)	=	8.029 Acres
Permissible Commercial Area	=	0.89 Acres OR (3601.83 Sqm.)
Proposed Commercial Area	=	0.85 Acres OR (3439.95 Sqm.)
Proposed Community	=	2.24 Acres 9065.28 Sqm
Proposed Plots	=	396 Plots

I) Water Requirement :-

• Total Plots	= 321 Plots
Total Population @ 18.00 Persons/Plot(13.5 +33%)	= 5778 Persons
• Total Plots	= 75 Plots
Total Population @ 13.50 Persons/Plot(13.5)	= 1013 Persons
Total Population	= 6791 Persons
@172.50 LPCD	= 1171448.00 LPD
• Commercial area	= 3439 Sqm
@ 3 Sqm / person = 1146 Persons @ 45 LPCD	= 51570.00 LPD
• Community Center (Area 2.24 Acre)	= 26431.00 LPD
Total	**= 12,49,449.00 LPD Or 1249 KLD**
	Say 1250 KLD

II. FIRE DEMAND

As per NBC code there in no water requirement for fire protection in plotted colony.

III. Garden Irrigation Requirement (For Total Area) = 42.00 KLD

IV. Total Water Requirement for UGT

(Excluding Fire Demand)

Hence Domestic Water Requirement (67%) = 1249 x 67% = 840.00 KLD

Hence Flushing Water Requirement (33%) = 1249 x 33% = 410.00 KLD

16 Hrs. Storage Requirement = 560 K.L. for Domestic
= 275 K.L. for Flushing

But it is proposed to construct an UGT i.e. 590 K.L. in two compartment for domestic use and 295 K.L. for non potable water in two compartment (at STP) and no requirement for fire fighting purposes for UGT as shown location in the plan.

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Total Capacity of UGT	= 590 K.L.	= 590.00 KLD
Total Requirement for Flushing and irrigation at STP(275+42)		= 317.00 KLD

V. Tube Well For UGT

a) Yield		= 27 K.L. / Hr.
b) Working Hour per day		= 16 Hr. / Per Day
c) Total water demand		= 590 M3/Day
d) Number of tube well required (Water Demand / Discharge / Hr. working Per day)		= 1.37 Nos
e) Add 5% extra		= 0.07
	Total	= 1.44 Nos
	Say	= 2 Nos

Water to the proposed development is to be supplied by HSVP. However consider T.W.'s i.e. 2 Nos. T.W. to install for proposed requirement of water for augmentation / standby purposes and provision has also been taken in the estimates due to non availability of water but after getting the approval from the competent authority.

VI) Pumping Machinery for Tube wells

a) Gross Working Head		= 45 Mtr
b) Average fall in S.L		= 2 Mtr
c) Depression Head		= 6 Mtr
d) Friction loss in main		= 10 Mtr
Total		= 63 Mtr
e) Discharge		= 27000 LPH (or 7.5 LPS Say 7.50 LPS)
f) Horse Power HP = (7.50 x 63) / (75 x 0.60)		= 9.80 H.P.
	Say	= 10.00 H.P.

It is proposed to provide 2 No. pumping set of 7.50 LPS discharge at 65 Mtr head (2W)

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VII) Boosting Machinery for domestic water For UGT

Total Water Requirement	**= 590.00 KLD**
Pumping per hour @ 8 hr. pumping / day	= 590 /8 KL / hr.
	= 74 KL / hr.
	= 1233 lpm = 20.55 lps
	Say 2 No. 11.00 lps each
Gross working head	For UGT
- Suction lift	= 5.00 mts.
- Frictional loss in mains & specials	=10.00 mts.
- Clear Head required	= 30.00 mts.
Total	= 45.00 mts.
Say	= 45.00 mts
Pump HP	= (11x63)/(75x0.60)
	= 15.00 H.P.
	Say = 15.00 HP

It is proposed to provide 3 Nos. of pumping set of 11.00 lps discharge at 50mts Head each (2W + 1S) for UGT.

VIII) Boosting Machinery for flushing water at STP

Total Water Requirement	**= 317 K.L.D**
Pumping per hour @ 8 hr. pumping / day	= 317 /8 KL / hr.
	= 40 KL / hr.
	= 670 lpm = 11.17 lps,
	Say 2 No. 6.00 lps each
Gross working head	
- Suction lift	= 5.00 mts.
- Frictional loss in mains & specials	= 10.00 mts.
- Clear Head required	= 30.00 mts.
Total	= 45.00 mts.
Say	= 45.00 mts.
Pump HP	= (6.00 x 45) / (75 x 0.60)
	= 6.00 HP
	Say = 6.00 HP

It is proposed to provide 3 Nos of pumping set of 6.00 lps discharge at 50 mts Head each (2W + 1S)

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IX) Boosting Machinery for Irrigation water

Total Water Requirement		**= 42 KLD**
Pumping per hour @ 5 hr. pumping / day		= 42 /2.5 KL / hr.
		= 16.8 KL / hr.
		= 280 lpm = 4.67 lps
	Say	=5.00 LPS
Gross working head		
- Suction lift		= 5.00 mts.
- Frictional loss in mains & specials		= 5.00 mts.
- Clear Head required		= 25.00 mts.
Total		= 35.00 mts.
Say		= 35.00 mts.
Pump HP		= (5.00 x 35) / (75 x 0.60)
		= 3.88 HP
	Say	= 5.00 HP

It is proposed to provide 2 No. of pumping set of 5.00 lps discharge at 35 mts Head each (1W + 1S)

X) DG Set for plumbing

DG Set Requirement For UGT

Submersible Pump	(2 x 10)	= 20.00 HP
Domestic Pump	(2 x 15)	= 30.00 HP
Flushing Pump at STP	(2 x 6)	= 12.00 HP
Irrigation Pump at STP	(1 x 5)	= 5.00 HP
Street Light and other etc.		= 25.00 HP
Total pump load		**= 92.00 HP**
		= 92.00 x 0.746 x 1.50
		= 102 K.W

Total DG capacity **= 2 No. 62.5 KVA**

Hence it is proposed to provide 2 No. D.G. Set of 62.5 KVA capacity.

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FLOW TO SEWAGE TREATMENT PLANT

Total Water Requirement = (840 for domestic & 370 KLD for flushing)

i)	75% of total Domestic Water Demand = 75% of 840 KLD	= 630 KLD
ii)	75% of total Flushing Water Demand =75% of 370 KLD	= 277 KLD
	Total	**= 907 KLD**
	Say	**= 910 KLD**

Proposed STP Capacity = 910 KLD Or 0.91MLD

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(Authorized Signatory)

Plot No. 10 3rd Floor, Sector-44 GURGAON-122001

PROJECT - PROJECT UNDER DDJAY (22.356 ACRE), SECTOR - 95, VILLAGE WAZIRPUR, GURUGRAM, HARYANA			
SUMMARY OF DESIGN REQUIREMENT			
S. No.	Description	Qty	Unit
1	Total Population	6791	Persons
2	Total Water Requirement (Domestic)	880	KLD
3	Total Water Requirement (Flushing)	327	KLD
4	Total Water Requirement (Horticulture)	42	KLD
5	U. G Tank (Domestic - 640 KLD)	1	No.
6	No. of Domestic WS pumps UGT	2+1	Set
7	No. of Flushing pumps	2+1	No.
8	No. of submersible pumps	2	No.
9	Generating sets (62.5 KVA)	2	Set
10	STP (910 KLD)	1	No.

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FINAL ABSTRACT OF COST

SR. NO.	SUB WORK	DESCRIPTION	AMOUNT (Rs. In Lacs)
1	SUB WORK NO.I	WATER SUPPLY SCHEME	
	SUB HEAD-01	Head Works	41.50
	SUB HEAD-02	Pumping Machinery	41.35
	SUB HEAD-03	Water Supply Distribution & Rising Main Pipe	36.868
	SUB HEAD-04	Flushing Water Supply Distribution	28.8545
	SUB HEAD-05	IRRIGATION	1.65
2	SUB WORK NO. II	SEWERAGE SCHEME	446.00
3	SUB WORK NO. III	STORM WATER DRAINAGE	173.80
4	SUB WORK NO. IV	ROAD AND FOOTPATH	~~159.85~~ 290.10
5	SUB WORK NO. V	STREET LIGHTING	~~30.88~~ 57.47
6	SUB WORK NO. VI	HORTICULTURE (PLANTATION &ROAD SIDE TREES)	40.49
7	SUB WORK NO. VII	MTC. OF SERVICES & RESURFACING OF ROADS (After 1st 5 years of 1st Phase & Next 5 years in 2nd Phase)	~~227.16~~ 518.69
		TOTAL	~~1228.40~~ 1649.23
TOTAL : (Rupees Seven Crore Forty three Lacs Nine Thousand only)			

Cost Per Acre = Rs.~~1228.4~~ 1649.23 Lacs / 22.356 = ~~74.22~~ 73.80 Lacs Per Acre

Plot No. 10, 3rd Floor, GURGAON-122001

AUTHORISED SIGNATORY

Executive Engineer
HSVP Division No. V,
Gurugram

Superintending Engineer,
HSVP Circle, Gurugram

SUB WORK NO. 1 (Abstract of cost) **WATER SUPPLY SCHEME**

SR. NO.	SUB WORK	DESCRIPTION	AMOUNT (Rs. In Lacs)
1	Sub Head No. 01	Head Works	41.50
2	Sub Head No. 02	Pumping Machinery	41.35
3	Sub Head No. 03	Water Supply Distribution & Rising main pipe	36.87
4	Sub Head No. 04	Flushing	28.85
5	Sub Head No. 05	Irrigation	1.65
		TOTAL	150.22
		Add 3% contingency & P.H. Services	4.51
		Total	154.73
		Add 49% Department charges + Price Escalation	75.82
		G. Total	230.55
		Say in Lacs	128.68

(C.O. to Final Abstract Of Cost)

JMS BUILDWELL PVT. LTD. Plot No. 1 3rd Floor Sector-44 GURGAON-122001

SUB WORK NO. I
Sub Head No. 01

WATER SUPPLY
Head Works

Sr. NO.	Description	Amount in Rs.
1	Construction of U.G. tanks Including pipes, valve & Specials. 640 KLD @ Rs. 3500/- per K.L.D	2240000.00
2	Provision for construction of Boosting Station 1 Nos @ Rs. 250000/- each	250000.00
3	Boring and installing tube well reverse rotary rig complete with pipes and strainer to a depth of about 120 Mtr complete in all respect. 2 Nos @ Rs. 700000/- each	1400000.00
4	Provision for construction of tube well chamber size 1.50m x 1.50m complete in all respect. 2 Nos @ Rs. 80000/- each	160000.00
5	Provision for carriage of material and unforeseen items L.S.	50000.00
6	Provision of specials for tube well & rising main to UGT L.S.	50000.00
	Total	**4150000.00**
	Say in Lacs	**41.50**

(C.O. to Abstract of cost of Sub Work No. I)

Plot No. 10 3rd Floor, Sector-44 GURGAON-122001

SUB WORK NO. 1 **WATER SUPPLY**
Sub Head No. 02 **Pumping Machinery**

Sr. NO.	Description	Amount in Rs.
1	Providing and installing Hydro pneumatic pumping set of following capacities for domestic water Supply with specials	
	450 lpm at 45 m head - 3 No. (2W+1SB) - @ Rs. 4,75,000/- 1Set (15.00HP)	1425000.00
2	Providing and installing Hydro Pneumatic pumping set of following capacities for Flushing water supply & irrigation etc.	
I	340 lpm at 45 mts head - 3 No. (2W+1SB) @ Rs. 3,00,000/- 1 Set (6HP each)	900000.00
3	Providing and installing Submersible pump for tube wells with specials	
	7.50 lps at 65 mts head - 2 Nos (1W) @ Rs. 80,000/- 1 Set (10HP each)	160000.00
4	Provision for ESS (Electric Panel Foundation) L.S.	50000.00
5	Provision for D.G. Set for stand by arrangement for all machinery = 2 Nos. 62.5 KVA @ Rs. 6,00,000/- each	1200000.00
6	Provision for making foundations & erection of pumping machinery	50000.00
7	Provision for pipes, valve & specials inside boosting chamber	150000.00
8	Provision for electric services connection including electric fittings for boosting chambers and pump chamber etc.	150000.00
9	Provision for carriage of materials and other unforeseen items L.S.	50000.00
	Total	**4135000.00**
	Say in Lacs	**41.35**

(C.O. to Abstract of cost of Sub Work No. I)

Plot No. 10 3rd Floor, Sector-44 GURGAON-122001 LTD.

SUB WORK NO. 1
Sub Head No. 03

WATER SUPPLY
Water Supply Distribution & Rising Main Pipe

Sr.	Description	Amount in Rs.
1	Providing, laying, jointing & testing pipe lines including cost of excavation etc. complete in all respects	
i)	40mm dia G.I. Pipe 55 Mtr @ Rs. 400/- Per Mtr	22000.00
ii)	50mm dia G.I. Pipe 12 Mtr @ Rs. 550/- Per Mtr	6600.00
iii)	80mm dia D.I. Pipe 2569 Mtr @ Rs. 800/- Per Mtr	2055200.00
iv)	100mm dia D.I. Pipe 1066 Mtr @ Rs. 1000/- Per Mtr	1066000.00
v)	150mm i/d D.I. Pipes -20 Mtr @ Rs. 1200/- Per Mtr	24000.00
vi)	200mm i/d D.I. Pipes 29 Mtr @ Rs. 1500/- per mtr	43500.00
2	Providing and fixing sluice valve including cost of surface box and masonry chamber etc. complete in all respect	
	a) 100mm i/d 15 No. @ Rs. 7500/- each	112500.00
	b) 150mm i/d 10 No. @ Rs. 10000/- each	100000.00
	c) 200mm i/d 2No. @ Rs. 15000/- each	30000.00
3	Providing and fixing indicating plates for sluice valve 27 No. @ Rs. 1000/-	27000.00
4	Provision for carriage of materials and other unforeseen items	50000.00
5	Provision for making connection with HUDA Pipe & T.W's etc.	100000.00
6	Provision for cutting the road and making good the same	50000.00
	Total	**3686800.00**
	Say in Lacs	**36.868**

(C.O. to Abstract of cost of Sub Work No. I)

JMS INFRA REALTY PVT. LTD. Plot No. 10 3rd Floor, Sector-44 GURGAON-122001

SUB WORK NO. 1
Sub Head No. 04

WATER SUPPLY
Flushing Water Supply Distribution

Sr.	Description	Amount in Rs.
1	Providing, laying, jointing & testing pipe lines including cost of excavation etc. complete in all respects	
i)	25mm dia G.I. Pipe 154 Mtr @ Rs. 250/- Per Mtr	38500.00
ii)	40mm dia G.I. Pipe 60 Mtr @ Rs. 400/- Per Mtr	24000.00
iii)	50mm dia G.I. Pipe 2589 Mtr @ Rs. 550/- Per Mtr	1423950.00
iv)	80mm dia D.I. Pipe 490 Mtr @ Rs. 800/- Per Mtr	392000.00
v)	100mm dia D.I. Pipe 495 Mtr @ Rs. 1000/- Per Mtr	495000.00
2	Providing and fixing sluice valve including cost of surface box and masonry chamber etc. complete in all respect	
	a) 100mm i/d 20 No. @ Rs. 7500/- each	150000.00
	b) 150mm i/d 10 No. @ Rs. 10000/- each	100000.00
	c) 200mm i/d 2No. @ Rs. 15000/- each	30000.00
3	Providing and fixing indicating plates for sluice valve 32 No. @ Rs. 1000/-	32000.00
4	Provision for carriage of materials and other unforeseen items	50000.00
5	Provision for making connection with HUDA Pipe & T.W's etc.	100000.00
6	Provision for cutting the road and making good the same	50000.00
	Total	2885450.00
	Say in Lacs	28.855

(C.O. to Abstract of cost of Sub Work No. I)

M/S JMS BUILDWELL REALTY PVT. LTD. Plot No. 10 3rd Floor, Sector-44 GURGAON-122001

SUB WORK NO. 01 **WATER SUPPLY**

SUB HEAD NO. 05 **IRRIGATION**

Sr. NO.	Description	Amount in Rs.
1	Providing, Laying, jointing and testing UPVC pipe lines suitable for 6 kg pressure including cost of fittings, valves, connection etc. complete in all respect	
a)	25mm dia - 225 M @ Rs. 300/- Per Mtr	67500.00
2	Providing and fixing 25mm dia, Irrigation hydrant valve complete in all respect 23 Nos @ Rs. 2000/- each	46000.00
3	Provision for carriage of materials and other unforeseen items L.S.	10000.00
4	Provision for indicating plate with safety box etc. complet in all respect 23 Nos @ Rs. 1000/- each	23000.00
5	Provision for road cutting and making it condition as original L.S.	20000.00
	Total	**166500.00**
	Say in Lacs	**1.65**

(C.O. to Abstract of cost of Sub Work No. I)

SUB WORK NO. II **SEWERAGE SCHEME**

Sr.	Description	Amount in Rs.
1	Providing, jointing, cutting and testing stoneware pipe grade A and lowering into trenches including cost of excavation, bed concrete, cost of manholes etc. complete	
	a) SW Pipe 200mm i/d avg. depths 0 - 2.00M 1681 M @ Rs. 2270/- per Mtr	3815870.00
	b) SW Pipe 200mm i/d avg depth 2.50 M 150 M @ Rs. 2400/- per Mtr	360000.00
	c) SW Pipe 200mm i/d avg depth 3.00 M 349 M @ Rs. 2550/- per Mtr	889950.00
	d) SW Pipe 250mm i/d avg depth 3.00 M 235 M @ Rs. 2800/- per Mtr	658000.00
	e) SW Pipe 300mm i/d avg depth 3.00 M 10 M @ Rs. 3100/- per Mtr	31000.00
2	Providing, laying, jointing & testing pipe lines including cost of excavation etc. complete in all respect - 200mm dia Heavy Class DI pipes (overfow for STP)	
	a) 100MM i/d D.I. Pipe - 280 M @ Rs. 1200/- Per Mtr	336000.00
3	Provision of lighting and watching etc.	50000.00
4	Provision for cartage of material	20000.00
5	Provision for making connection with HSVP	150000.00
6	Provision for construction of Sewerage Treatment Plant (STP) including the cost of tertiary treatment level with recycling storage tank and machinery with all arrangement etc. complete in all respect. **910 KLD or (0.91 MLD) Capacity @ Rs.25000/- Per KLD**	22750000.00
		29060820.00
	Add 3% contingency & P.H. Services	871825
	Total	**29932645**
	Add 49% Department charges + Price Escalation	**14666996**
	G. Total	**44599640**
	Say in Lacs	**446.00**

(C.O. to Final Abstract of Cost)

JMS BUILDWELL REALTY PVT. LTD. Plot No. 10 3rd Floor, Sector-44 GURGAON-122001

SUB WORK NO. III **STORM WATER DRAINAGE SCHEME**

Sr.	Description	Amount in Rs.
1	Providing, lowering, laying, jointing RCC pipe class Np3 with cement joint,	
	a) RCC Np3 pipe 400mm i/d = 2302 M @ Rs. 2950/- Per Mtr	6790900.00
	b) RCC Np3 pipe 500mm i/d = 181 M @ Rs. 3500/- Per Mtr	633500.00
2	Provision for Rain Water Harvesting arrangement including the cost of screening chamber and pit with all type of pipes and other material etc. complete in all respect as per standard drawing and bore upto requirement of site etc. 10 Nos RWH @ Rs.3,00,000/- each	3000000.00
3	Provision for road gulley & pipe with connection	650000.00
4	Provision for lighting and watching	50000.00
5	Provision for timbering and shoring	20000.00
6	Provision for cartage of material	30000.00
7	Provision for making connection with HSVP storm water drain	150000.00
	Total	**11324400.00**
	Add 3% contingency & P.H. Services	339732.00
	Total	**11664132.00**
	Add 49% Department charges + Price Escalation	**5715424.68**
	G. Total	**17379556.68**
	Say in Lacs	**173.80**

(C.O. to Final Abstract of Cost)

M/S JMS BUILDWELL REALTY PVT. LTD. Plot No. 10, 3rd Floor, Sector-44, GURGAON-122001

Sub Work No. IV **ROAD AND FOOTPATH**

S. No.	Description	Unit	Qty	Rate (In Rs.)	Amount (In Rs.)
1	Provision for leveling & earth filling as per site conditions	Per Acre	22.356	120000	2682720
2	i) Providing and laying 100mm thick PCC under pavement, cement concrete of specified grade 1:4:8 and 150mm thick RMC grade M-40 ii) Providing and laying Bituminous road (250mm GSB, 300mm WMM, 50mm DBM, 40mm BC).	Sqm	9867	~~400~~ 1250	~~3946800~~ 12333750-00
3	Provision for kerbs & channels of C.C. 1.2:4	Metre	1862	500	930825
4	Provision for arrangement of guide map and indicating board etc.	LS			~~50000~~ 100000-00
5	Provision for footpath with 100mm thick PCC under pavement cement concrete of specified grade 1:4:8 and 150mm thick RMC Grade M-40 or Bituminous road with 250mm GSB, 300mm WMM, 50mm thick DBM & 40mm thick BC etc. as per requirement of site for surface car parking and approach to Tower / Blocke etc. complete in all respect	Sqm	6888	400	2755200
					1800000/-
5	Provision for carriage of material	LS			~~50000~~
					18902495-00
	Sub Total				~~10415545~~
	Add 3% contingencies & PH Services				~~312466~~ 56707500
	Sub Total				~~10728011~~ 94695100
	Add 49% Departmental Charges + Price Escalation				~~5256726~~ 95400890
	Total				~~15984737~~ 29009658
	Say Rs. In Lacs				~~159.85~~ 290.10 Lakh

(C.O. to Final Abstract of cost)

JMS INFRA REALTY PVT. LTD. Plot No. 11 3rd Floor Sector-44 GURGAON-122001

Sub Work No. V **STREET LIGHTING**

S. No.	Description	Unit	Qty	Rate (In Rs.)	Amount (In Rs.)
					3353400
1	Provision for Street Lighting at surrounding area as per standard specifications of HVPN etc. complete	Acre	22.356	~~90000~~ 150000	~~2012040~~ 1006020
	Add 3% contingencies & PH Services				~~60361~~ 3354002
	Total				~~2072401~~ 169246
	Add 49% Departmental Charges + Price Escalation				~~1015477~~ 574463
	Total				~~3087878~~ 57.47 lakh
	Say Rs. In Lacs				~~30.88~~

(C.O. to Final Abstract of cost)

Plot No. 10 Grd Floor, Sector-44 GURGAON-122001

Sub Work No. VI **HORTICULTURE**

S. No.	Description	Unit	Qty	Rate (In Rs.)	Amount (In Rs.)
1	Development of Lawn Areas				
a.	Trenching of ordinary soil upto depth of 60 cm i/c removal & stacking of serviceable material & disposing by spreading and levelling within a lead of 50 M and making 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 with all fitting and valve etc. complete				
b.	Rough dressing of turfed area				
c	Grassing with "Cynadon dactylon" i/c watering and maintenance of lawns for 30 days till the grass forms a thick lawn, free from weeds and fit for moving in row 7.5 cm part in eighter direction				
d	organized green 6786 Sqm Or 1.68 Acres (As per detail given in green park area calculation)	Acre	1.6768	250000	419199.407
2	Providing and planting trees @ 12m c/c of total road length. Total road length = 9867 m No. of trees @12m c/c = 822 nos. Total no. of trees on both sides = 822*2 Say No. of trees = 1644 Nos Cost details : Excavation = Rs. 73 Manure = Rs. 550 Tree Plant = Rs. 650 Total Rs. = Rs. 1350				
		Each	1644	1350	2219400
	Total				**2638599.407**
	Add 3% contingencies & PH Services				79158
	Total				**2717757**
	Add 49% Departmental Charges + Price Escalation				1331701
	Total				**4049459**
	Say Rs. In Lacs				**40.49**

(C.O. to Final abstract of cost)

JMS INFRATECH PVT. LTD. Plot No. 10 3rd Floor, Sector-44 GURGAON-122001

Sub Work No. VII **Mtc. Of services & Resurfacing of Road**

S. No.	Description	Unit	Qty	Rate (In Rs.)	Amount (In Rs.)
					11178000
1	Mtc. Of water supply, sewer, storm water drain, roads, street light, hort. Etc. for period of 10 years including operation charges full establishment etc. complete in all respects 5.0255 acres @ Rs. 1.50 lacs per acre	Acre	22.356	~~100000~~ 500000	~~2235600~~ 16053000
2	Provision for resurfacing of roads after 5 years of 1st phase with provision of 50mm thICK BM including leveling coarse and 25mm BC as per crust design whichever is safer	Sqm	16755 (9867 + 6888)	~~400~~ 600	~~6702000~~ 12566250
3	2nd phase after next five years of 1st phase (50mm DBM & 25mm BC or as per crust design whichever is safer	Sqm	16755	~~350~~ 750	5864250 3379750
	Sub Total				~~14801850~~
	Add 3% contingencies & PH Services				444056 1013917
	Sub Total				~~15245906~~
	Add 49% Departmental Charges				~~7470494~~ 3981167
	Total				~~22716399~~ 17057750
	Say Rs. In Lacs				~~227.16~~
					5786863

(C.O. to Final abstract of cost)

578.69 Lakh

Plot No. 10 3rd Floor, Sector-44 GURGAON-122001

PROJECT - PROJECT UNDER DDJAY (22.398 ACRE), SECTOR - 65, VILLAGE WAZIRPUR, GURUGRAM, HARYANA

HYDRAULIC STATEMENT OF WATER SUPPLY (DOMESTIC)

SUBHEAD : DOMESTIC WATER SUPPLY SCHEME - DESIGN CALCULATION

S. No	Line Reference		Type of Colony	Residential Plots			Population @ 10 Person per plot	Water Requirement @ 172.50 LPCD	Other Water Required i.e. Commercial / Community bldg / other services	Total Water Requirement in LPD	Water Requirement @ 67% of total water requirement	Peak Flow in LPH	Peak Flow in Cu.m/hr	Size of the pipe in (mm)	Velocity (m/s)	Length in m (M)	Total Friction Loss in MM	Loss of Head in Line (M)	Formation Level at Lower End	Available Head at Lower end (M)	Terminal Head (M)	Remarks
	From	To		Self	Branch	Total			in LPD													
1	2	3	4	5	6	7	8	9	10	11	12	13		15	14	17	16	18	19	20	21	22
1	UGT	W1	Project Resi	0	205	205	3690	636525	2500	639025	428147	165656	165.6	200	1.420	0	0.017	0.00	210.20	261.02	44.92	Formation Level at Water Works i.e. UGT = 210.20 M Boosting Head = 45.00 M Hydraulic Head = 261.2 M
2	W1	W2	-do-	0	4	4	72	12420	0	12420	8321	3121	3.1	80	0.172	88	0.001	0.07	210.20	261.05	44.85	
3	W1	W3	-do-	20	20	40	720	124250	0	124250	83214	31205	31.2	100	1.194	170	0.024	4.19	210.20	258.83	40.73	
4	W1	W4	-do-	0	205	205	3690	636525	2500	639025	428147	165656	165.6	200	1.420	24	0.017	0.41	210.20	260.71	44.51	
5	W4	W5	-do-	0	15	15	270	46575	0	46575	31205	11702	11.7	80	0.047	154	0.011	1.77	210.20	258.84	42.74	
6	W4	W6	-do-	0	169	169	3420	589050	2500	592450	396942	148853	148.9	150	2.340	15	0.080	0.60	210.20	259.82	43.62	
7	W6	W7	-do-	4	72	76	1368	235980	2500	238480	159782	59918	59.9	100	2.119	30	0.080	2.03	210.20	257.19	40.99	
8	W7	W8	-do-	2	61	63	1134	195615	0	195615	131062	49148	49.1	100	1.738	17	0.065	0.94	210.20	256.25	40.05	
9	W8	W9	-do-	12	0	12	216	37260	0	37260	24964	9362	9.4	80	0.517	94	0.066	0.71	210.20	255.54	39.34	
10	W9	W10	-do-	0	13	13	234	40365	0	40365	27045	10142	10.1	80	0.560	94	0.069	0.65	210.20	254.71	38.51	
11	W10	W9	-do-	0	40	40	810	139725	0	139725	93618	35106	35.1	100	1.242	8	0.030	0.24	210.20	254.47	38.27	
12	W10	W11	-do-	3	20	23	576	99360	0	99360	66571	24964	25.0	100	0.883	66	0.016	0.94	210.20	253.77	37.57	
13	W11	W12	-do-	7	11	18	324	55890	0	55890	37448	14042	14.0	80	0.778	58	0.016	0.88	210.20	252.88	36.68	
14	W12	W7	-do-	11	7	18	324	55890	0	55890	37448	14042	14.0	80	0.778	122	0.016	1.96	210.20	254.29	38.09	
15	W11	W13	-do-	5	20	25	450	77625	0	77625	52009	19503	19.5	80	1.078	33	0.030	0.97	210.20	252.78	36.58	
16	W13	W14	-do-	2	13	15	270	46575	0	46575	31205	11702	11.7	80	0.647	8	0.011	0.09	210.20	252.70	36.50	
17	W14	W15	-do-	2	0	2	36	6210	0	6210	4161	1560	1.6	50	0.221	12	0.003	0.03	210.20	252.67	36.47	
18	W14	W16	-do-	8	7	15	234	40365	0	40365	27045	10142	10.1	80	0.560	58	0.069	0.51	210.20	252.18	35.98	
19	W16	W13	-do-	7	6	13	234	40365	0	40365	27045	10142	10.1	80	0.560	60	0.069	0.53	210.20	251.65	35.45	
20	W8	W17	-do-	0	118	118	2088	360180	2500	362680	242996	91123	91.1	100	3.223	30	0.173	0.75	210.20	253.07	36.87	
21	W17	W18	-do-	14	20	34	612	105570	0	105570	70732	26524	26.5	80	1.488	120	0.062	0.20	210.20	246.68	30.00	
22	W18	W19	-do-	20	14	34	612	105570	0	105570	70732	26524	26.5	80	1.488	130	0.062	0.70	210.20	246.03	29.92	
23	W17	W18	-do-	0	102	102	1836	316710	2500	319210	213871	80252	80.3	100	2.837	5	0.137	1.09	210.20	251.07	35.17	
24	W18	W20	-do-	3	80	83	1494	257715	2500	260215	174344	65379	65.4	100	2.312	33	0.084	3.00	210.20	248.88	32.68	
25	W20	W21	-do-	22	10	40	720	124250	0	124250	83214	31205	31.2	80	1.724	150	0.071	10.58	210.20	238.31	22.11	
26	W21	W22	-do-	10	22	40	720	124250	0	124250	83214	31205	31.2	80	1.724	150	0.071	10.58	210.20	238.31	22.11	
27	W20	W23	-do-	0	39	39	684	117990	2500	120490	80728	30273	30.3	100	1.071	5	0.022	0.10	210.20	238.19	21.99	
28	W22	W23	-do-	0	39	39	684	117990	2500	120490	80728	30273	30.3	100	1.071	33	0.022	0.74	210.20	237.36	21.16	

M/s ARH DWELLED REALTY PVT. LTD.
Plot No. 10
3rd Floor,
Sector-44
GURGAON-122001

	From	To		Self	Branch	Total			In LPD													
1	2	3	4	5	6	7	8	9	10	11	12	13		15	14	17	16	18	19	20	21	22
29	W33	W34	--do--	10	12	30	540	93150	0	93150	62411	23484	23.4	80	1.293	123	0.941	4.97	218.20	232.42	18.22	
30	W34	W35	--do--	12	18	30	540	93150	0	93150	62411	23484	23.4	80	1.293	123	0.941	4.97	218.20	232.42	18.22	
31	W23	W35	--do--	1	2	3	54	9315	2580	11895	7898	2980	3.0	80	0.164	6	0.901	0.61	218.20	232.41	18.21	
32	W25	W26	--do--	2	1	3	30	6210	2580	8790	5830	2180	2.2	80	0.121	16	0.901	0.61	218.20	232.40	18.20	
33	UGT	W27	--do--	3	183	183	2934	566115	10750	576865	346006	120862	120.9	150	2.041	5	0.940	0.23	218.20	240.97	44.77	
34	W27	W28	--do--	3	83	86	1548	267058	10750	277808	168113	69792	69.8	100	2.488	30	0.900	4.12	218.20	255.08	40.80	
35	W28	W29	--do--	10	70	80	1440	248400	10750	259150	173831	85111	85.1	100	2.203	80	0.900	6.36	218.20	240.40	32.29	
36	W29	W30	--do--	8	20	28	522	90045	0	90045	60300	22024	22.0	80	1.250	50	0.930	2.14	218.20	240.36	30.10	
37	W30	W31	--do--	0	20	20	360	62100	0	62100	41587	15083	15.0	80	0.862	6	0.920	0.18	218.20	240.20	30.00	
38	W31	W32	--do--	3	4	7	126	21735	0	21735	14552	5481	5.5	40	1.207	52	0.960	4.60	218.20	241.70	25.50	
39	W31	W33	--do--	7	3	10	180	31050	0	31050	20694	7801	7.8	80	0.431	57	0.905	0.31	218.20	245.59	29.89	
40	W29	W30	--do--	0	81	81	1458	251505	10750	262255	175711	66082	66.0	100	2.530	44	0.906	4.18	218.20	244.31	28.11	
41	W30	W34	--do--	0	81	81	1458	251505	10750	262255	175711	66082	66.0	100	2.530	30	0.906	3.42	218.20	240.00	24.70	
42	W34	W35	--do--	3	20	23	414	71415	0	71415	47848	17943	17.9	80	0.992	39	0.925	0.66	218.20	239.91	23.71	
43	W35	W36	--do--	6	3	9	162	27945	0	27945	18723	7021	7.0	80	0.388	44	0.904	0.39	218.20	239.71	23.51	
44	W36	W37	--do--	0	9	9	162	27945	0	27945	18723	7021	7.0	80	0.388	6	0.904	0.04	218.20	239.00	23.45	
45	W37	W38	--do--	3	6	9	162	27945	0	27945	18723	7021	7.0	80	0.388	44	0.904	0.39	218.20	239.69	23.39	
46	W34	W38	--do--	0	36	36	684	117990	10750	128740	86258	32348	32.3	100	1.144	6	0.925	0.28	218.20	240.00	24.49	
47	W38	W39	--do--	5	9	14	252	43470	0	43470	29125	10922	10.9	80	0.604	30	0.910	0.96	218.20	240.31	24.11	
48	W39	W40	--do--	5	4	9	162	27945	0	27945	18723	7021	7.0	80	0.388	34	0.904	0.15	218.20	240.10	23.90	
49	W40	W41	--do--	0	9	9	162	27945	0	27945	18723	7021	7.0	80	0.388	6	0.904	0.04	218.20	240.10	23.90	
50	W41	W39	--do--	4	5	9	162	27945	0	27945	18723	7021	7.0	80	0.388	42	0.904	0.18	218.20	239.94	23.74	
51	W39	W42	--do--	0	36	36	684	117990	10750	128740	86258	32348	32.3	100	1.144	3	0.925	0.06	218.20	240.02	24.42	
52	W28	W43	--do--	8	8	8	144	24840	10750	35590	23845	8942	8.9	80	0.494	86	0.907	0.59	218.20	250.26	40.06	
53	W42	W43	--do--	0	36	36	684	117990	10750	128740	86258	32348	32.3	100	1.144	32	0.925	0.61	218.20	239.80	23.60	
54	W43	W44	--do--	10	0	10	180	31050	0	31050	20694	7801	7.8	80	0.431	60	0.905	0.32	218.20	239.43	23.23	
55	W43	W45	--do--	0	28	28	504	86940	10750	97690	65452	24545	24.5	100	0.889	6	0.915	0.12	218.20	239.31	23.11	
56	W45	W46	--do--	10	0	10	180	31050	0	31050	20694	7801	7.8	80	0.431	60	0.905	0.32	218.20	238.94	22.74	
57	W46	W47	--do--	0	28	28	504	86940	10750	97690	65452	24545	24.5	100	0.889	6	0.915	0.12	218.20	238.10	22.00	
58	W47	W48	--do--	8	24	32	576	99360	10750	110110	73774	27685	27.7	100	0.979	70	0.910	1.48	218.20	237.71	21.51	
59	W48	W48a	--do--	17	0	17	306	52785	0	52785	35380	13282	13.3	80	0.733	70	0.914	1.13	218.20	238.59	20.38	
60	W48a	W49	--do--	0	17	17	306	52785	0	52785	35380	13282	13.3	80	0.733	6	0.914	0.12	218.20	238.46	20.26	
61	W49	W50	--do--	0	18	18	270	46575	0	46575	31200	11792	11.7	100	0.414	6	0.904	0.03	218.20	238.43	20.23	
62	W27	W53	--do--	0	67	76	1368	217350	10750	228100	152827	57300	57.3	100	2.027	21	0.873	1.04	218.20	252.43	43.23	
63	W53	W55	--do--	14	20	34	612	105570	0	105570	70732	26524	26.5	80	1.466	112	0.902	5.65	218.20	253.56	37.36	
64	W53	W52	--do--	0	58	58	1044	173880	0	173880	116500	43687	43.7	100	1.545	6	0.944	0.30	218.20	239.07	42.87	
65	W52	W47	--do--	18	18	36	540	93150	0	93150	62411	23484	23.4	80	1.293	122	0.941	4.92	218.20	254.85	36.65	
66	W52	W51	--do--	0	36	36	630	108675	10750	119425	80015	30000	30.0	100	1.081	30	0.922	0.66	218.20	254.10	37.00	

Plot No. 10
3rd Floor,
Sector-44
GURGAON-122001

	From	To		Self	Branch	Total			In LPD													
1	2	3	4	5	6	7	8	9	10	11	12	13		15	16	17	18	19	20	21	22	
07	W61	W40	-do-	7	13	20	360	62100	10150	72600	49610	18304	18.3	100	0.847	48	0.009	0.43	218.20	263.76	37.56	
08	W40	W51	-do-	6	7	13	234	40000	10150	51110	34297	12843	12.8	68	0.715	54	0.014	0.74	218.20	263.48	37.28	

Plot No. 10
3rd Floor,
Sector-44
GURGAON-122001

PROJECT - PROJECT UNDER DDJAY (22.500 ACRE), SECTOR - 95, VILLAGE WAZIRPUR, GURUGRAM, HARYANA

HYDRAULIC STATEMENT OF WATER SUPPLY (FLUSHING)

SUBHEAD : FLUSHING WATER SUPPLY SCHEME - DESIGN CALCULATION

Sl. No	Line Reference		Type of Colony	Residential Plots			Population @ 10 Person per plot	Water Requirement @ 172.50 LPCD	Other Water Requirement i.e. Comm. / Community building / Milk booth/ other services	Total Water Requirement in LPD	Water Requirement @ 33% of total water requirement	Peak Flow in LPH	Peak Flow in Cu.m/hr	Size of the pipe in (mm)	Velocity (m/s)	Length in (M)	Total Friction Loss in M/M	Loss of Head in Line (M)	Forward Level at Lower End	Available Head at Lower end (M)	Terrain Head (M)	Remarks
	From	To		Self	Branch	Total			In LPD													
1	2	3	4	5	6	7	8	9	10	11	12	13		15	14	17	16	18	19	20	21	22
1	STP	R1	Plotted Resi.	0	200	200	3700	639000	5000	644000	212720	70773	70.0	100	2.021	6	0.973	0.39	218.20	260.84	44.64	Formation Level at Water Works i.e. OGT = 218.20 M Boosting Head = 45.00 M Hydraulic Head = 261.2 M
2	R1	R2	-do-	0	200	200	3700	639000	5000	644000	212720	70773	70.0	100	2.021	65	0.973	3.99	218.20	250.85	40.65	
3	R2	R3	-do-	20	80	100	1900	328100		328100	108213	40730	40.7	100	1.441	100	0.821	3.34	218.20	253.50	37.30	
4	R2	R4	-do-	0	150	150	2850	489900	5000	489900	164569	61714	61.7	100	2.183	15	0.945	0.85	218.20	250.17	39.97	
5	R4	R5	-do-	4	71	75	1350	232075		232075	76585	28818	28.8	80	1.533	38	0.833	1.34	218.20	254.53	36.13	
6	R5	R6	-do-	2	60	62	1110	192510		192510	63528	23823	23.8	80	1.017	15	0.623	0.34	218.20	254.09	35.90	C=140 (For PVC)
7	R6	R7	-do-	12	13	25	450	77625		77625	25616	9606	9.6	50	1.269	66	0.942	4.04	218.20	250.54	34.34	
8	R7	R8	-do-	13	12	25	450	77625		77625	25616	9606	9.6	50	1.269	66	0.942	4.04	218.20	250.54	34.34	
9	R8	R9	-do-	0	33	33	594	102465		102465	33813	12680	12.7	50	1.794	43	0.970	3.17	218.20	247.38	31.18	
10	R9	R10	-do-	12	21	33	594	102465		102465	33813	12680	12.7	50	1.794	78	0.970	5.49	218.20	241.89	26.69	
11	R10	R11	-do-	7	14	21	378	65205		65205	21518	8069	8.1	50	1.142	66	0.630	2.61	218.20	239.67	23.67	
12	R11	R12	-do-	7	7	14	252	43470		43470	14345	5379	5.4	50	0.761	94	0.314	0.79	218.20	239.10	22.90	
13	R12	R13	-do-	0	7	7	126	21735		21735	7173	2690	2.7	50	0.381	33	0.094	0.13	218.20	238.88	22.70	
14	R13	R14	-do-	7	0	7	126	21735		21735	7173	2690	2.7	50	0.381	48	0.094	0.19	218.20	238.77	22.57	
15	R5	R14	-do-	11	21	32	576	99360		99360	32788	12295	12.3	50	1.739	110	0.887	7.32	218.20	247.52	31.42	
16	R4	R15	-do-	0	110	110	2000	380100	5000	380100	125433	46991	46.9	100	1.608	38	0.826	0.31	218.20	255.38	36.88	
17	R15	R16	-do-	14	0	14	252	43470		43470	14345	5379	5.4	50	0.761	114	0.314	1.64	218.20	253.62	37.42	
18	R16	R17	-do-	20		20	360	62100		62100	20493	7685	7.7	50	1.087	132	0.538	3.68	218.20	251.88	35.68	
19	R15	R17	-do-	0	102	102	1836	316710	5000	321710	106164	39812	39.8	80	2.208	8	0.859	0.49	218.20	254.74	36.54	
20	R17	R18	-do-	4	82	86	1548	267030	5000	272030	89770	33664	33.7	80	1.880	34	0.644	1.48	218.20	253.39	37.19	
21	R18	R19	-do-	22	0	22	396	68310		68310	22542	8453	8.5	50	1.198	550	0.833	4.58	218.20	248.80	33.80	
22	R19	R20	-do-	20	0	20	360	62100		62100	20493	7685	7.7	50	1.087	145	0.538	4.04	218.20	249.27	33.07	
23	R20	R21	-do-	4	32	36	648	111780		111780	36887	13833	13.8	50	0.764	34	0.308	0.29	218.20	248.68	32.78	
24	R21	R22	-do-	18	0	18	324	55890		55890	18444	6916	6.9	50	0.078	100	0.033	0.75	218.20	248.33	30.93	
25	R22	R24	-do-	12	0	12	216	37260		37260	12298	4611	4.6	50	0.052	118	0.011	1.29	218.20	247.78	31.50	

M/S INFRATECH PVT. LTD.
Plot No. 10
3rd Floor
Sector-44
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	From	To		Self	Branch	Total			In LPD														
1	2	3	4	5	6	7	8	9	10	11	12	13		15	14	17	16	18	19	20	21	22
26	R24	R25	-do-	2	0	2	30	6210	5600	11210	3899	1367	1.4	50	0.190	21	0.001	0.02	210.20	247.06	31.48	
27	STP	R26	-do-	0	100	100	3420	669800	15000	684480	188700	74024	74.9	100	2.850	2	0.008	0.02	210.20	258.08	44.68	
28	R26	R27	-do-	20	80	100	1900	326100	15000	344600	113725	42848	42.8	100	1.596	166	0.023	4.23	210.20	258.65	40.45	
29	R27	R28	-do-	0	80	80	1540	267030	15000	282030	83235	34903	35.0	100	1.237	33	0.016	0.62	210.20	258.13	38.93	
30	R28	R29	-do-	0	10	10	188	31060		31060	10247	3842	3.8	50	0.544	0	0.008	0.08	210.20	256.06	38.88	
31	R29	R30	-do-	3	0	3	54	6315		6315	3074	1153	1.2	40	0.256	60	0.002	0.15	210.20	258.02	38.72	
32	R30	R31	-do-	0	70	70	1470	254810	15000	270110	89136	33426	33.4	80	1.847	58	0.043	2.49	210.20	253.63	37.43	
33	R31	R32	-do-	0	70	70	1386	239960	15000	254460	82986	31121	31.1	80	1.720	0	0.036	0.38	210.20	253.39	37.13	
34	R29	R32	-do-	7	3	10	188	31060		31060	10247	3842	3.8	50	0.544	60	0.008	0.46	210.20	255.60	38.48	
35	R32	R33	-do-	0	66	66	1188	204820	15000	220430	72742	27276	27.3	60	1.537	38	0.026	1.06	210.20	254.54	38.24	
36	R33	R34	-do-	10	3	13	234	40365		40365	13328	4996	5.0	50	0.707	81	0.013	1.02	210.20	253.52	37.38	
37	R34	R35	-do-	3	10	13	234	40365		40365	13328	4996	5.0	50	0.707	50	0.013	0.63	210.20	252.90	36.70	
38	R33	R36	-do-	0	53	53	954	164505	15000	180505	59421	22283	22.3	60	1.231	0	0.020	0.10	210.20	254.30	38.10	
39	R36	R37	-do-	10	4	14	252	43470		43470	14345	5379	5.4	50	0.761	72	0.014	1.04	210.20	253.34	37.14	
40	R37	R38	-do-	4	10	14	252	43470		43470	14345	5379	5.4	50	0.761	42	0.014	0.60	210.20	253.77	37.57	
41	R36	R39	-do-	0	39	39	702	121005	15000	136005	45078	16904	16.9	60	0.924	6	0.012	0.08	210.20	253.72	37.52	
42	R39	R40	-do-	8	14	22	396	68310		68310	22542	8453	8.5	50	1.196	126	0.033	4.19	210.20	249.54	33.34	
43	R40	R41	-do-	14	8	22	396	68310		68310	22542	8453	8.5	50	1.196	502	0.033	3.30	210.20	246.16	29.96	
44	R39	R41	-do-	0	25	25	450	77625	15000	92625	30731	11524	11.5	60	0.637	29	0.006	0.17	210.20	253.85	37.35	
45	R41	R42	-do-	10	10	20	360	62190		62190	20490	7685	7.7	50	1.087	78	0.026	2.01	210.20	251.39	35.19	
46	R42	R43	-do-	10	10	20	360	62190		62190	20490	7685	7.7	50	1.087	72	0.026	2.01	210.20	249.37	33.17	
47	R43	R44	-do-			0	0	0	2500	2500	825	309	0.3	25	0.175	80	0.002	0.19	210.20	249.18	32.98	
48	R43	R45	-do-			0	0	0	15000	15000	5115	1918	1.9	60	0.189	0	0.000	0.00	210.20	249.37	33.17	
49	R45	R46	-do-			0	0	0	15000	15000	5115	1918	1.9	50	0.221	18	0.002	0.04	210.20	249.23	33.13	
50	R46	R47	-do-			0	0	0	2500	2500	825	309	0.3	25	0.175	64	0.002	0.14	210.20	249.20	33.00	
51	R46	R48	-do-	8	22	30	540	93150	15000	108150	35888	13446	13.4	60	0.743	60	0.006	0.40	210.20	248.72	32.52	
52	R48	R49	-do-	7	15	22	396	68310		68310	22542	8453	8.5	50	1.196	98	0.033	3.19	210.20	245.53	29.33	
53	R48	R52	-do-	6	15	21	378	65205		65205	21518	8069	8.1	50	1.142	54	0.030	1.65	210.20	243.89	27.69	
54	R48	R51	-do-	15	15	30	540	93150	0	93150	30748	11527	11.5	50	1.631	108	0.059	6.37	210.20	237.51	21.31	
55	R51	R53	-do-	10	41	51	1002	183105	0	183105	60454	22670	22.7	60	1.253	150	0.021	3.14	210.20	230.19	33.99	
56	R53	R45	-do-	14	30	44	792	139620	0	139620	46082	16807	16.8	50	2.382	108	0.120	12.96	210.20	237.34	21.04	
57	R53	R52	-do-	5	30	35	630	109575	0	109575	36660	13449	13.4	50	1.933	32	0.079	2.51	210.20	247.69	31.49	
58	R52	R50	-do-	6	17	23	414	71415	0	71415	23567	8836	8.8	50	1.250	48	0.030	1.73	210.20	245.93	29.75	
59	R50	R51	-do-	6	17	17	306	52785	0	52785	17418	6532	6.5	50	0.924	0	0.021	0.10	210.20	245.79	29.59	

M/S INFIN. REALTY PVT. LTD.
Plot No. 10
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PROJECT - PROJECT UNDER DDJAY (22.356 ACRE), SECTOR - 95, VILLAGE WAZIRPUR, GURUGRAM, HARYANA											
MATERIAL STATEMENT (DOMESTIC WATER SUPPLY)											
S. No.	Line Designation		Size of Pipe Provided	Length of Pipe (Mtr)	Length in Mtr						
	From	To			200MM	150MM	100MM	80MM	65MM	50MM	40MM
1	UGT	W1	200	5	5	0	0	0	0	0	0
2	W1	W2	80	66	0	0	0	66	0	0	0
3	W1	W3	100	176	0	0	176	0	0	0	0
4	W1	W4	200	24	24	0	0	0	0	0	0
5	W4	W5	80	154	0	0	0	154	0	0	0
6	W4	W6	150	15	0	15	0	0	0	0	0
7	W6	W7	100	33	0	0	33	0	0	0	0
8	W7	W8	100	17	0	0	17	0	0	0	0
9	W8	W9	80	94	0	0	0	94	0	0	0
10	W9	W10	80	94	0	0	0	94	0	0	0
11	W10	W8	100	8	0	0	8	0	0	0	0
12	W10	W11	100	60	0	0	60	0	0	0	0
13	W11	W12	80	55	0	0	0	55	0	0	0
14	W12	W7	80	122	0	0	0	122	0	0	0
15	W11	W13	80	33	0	0	0	33	0	0	0
16	W13	W14	80	8	0	0	0	8	0	0	0
17	W14	W15	80	12	0	0	0	0	0	12	0
18	W14	W16	80	58	0	0	0	58	0	0	0
19	W16	W13	80	60	0	0	0	60	0	0	0
20	W6	W17	100	39	0	0	39	0	0	0	0
21	W17	W18	80	120	0	0	0	120	0	0	0
22	W18	W19	80	130	0	0	0	130	0	0	0
23	W17	W19	100	8	0	0	8	0	0	0	0
24	W19	W20	100	33	0	0	33	0	0	0	0
25	W20	W21	80	150	0	0	0	150	0	0	0
26	W21	W22	80	150	0	0	0	150	0	0	0
27	W20	W22	100	8	0	0	8	0	0	0	0
28	W22	W23	100	33	0	0	33	0	0	0	0
29	W23	W24	80	120	0	0	0	120	0	0	0
30	W24	W25	80	120	0	0	0	120	0	0	0
31	W23	W25	80	8	0	0	0	8	0	0	0
32	W25	W26	80	15	0	0	0	15	0	0	0
33	UGT	W27	150	5	0	5	0	0	0	0	0
34	W27	W28	100	39	0	0	39	0	0	0	0
35	W28	W29	100	90	0	0	90	0	0	0	0
36	W29	W30	80	55	0	0	0	55	0	0	0
37	W30	W31	80	8	0	0	0	8	0	0	0
38	W31	W32	40	55	0	0	0	0	0	0	55
39	W31	W33	80	57	0	0	0	57	0	0	0
40	W29	W33	100	44	0	0	44	0	0	0	0
41	W33	W34	100	36	0	0	36	0	0	0	0
42	W34	W35	80	39	0	0	0	39	0	0	0
43	W35	W36	80	44	0	0	0	44	0	0	0
44	W36	W37	80	8	0	0	0	8	0	0	0
45	W37	W35	80	44	0	0	0	44	0	0	0
46	W34	W38	100	8	0	0	8	0	0	0	0
47	W38	W39	80	38	0	0	0	38	0	0	0
48	W39	W40	80	34	0	0	0	34	0	0	0
49	W40	W41	80	8	0	0	0	8	0	0	0
50	W41	W39	80	42	0	0	0	42	0	0	0
51	W38	W42	100	3	0	0	3	0	0	0	0
52	W28	W42	80	85	0	0	0	85	0	0	0
53	W42	W43	100	32	0	0	32	0	0	0	0
54	W43	W44	80	68	0	0	0	68	0	0	0

JMS BUILDWELL REALTY PVT. LTD. Plot No. 10 3rd Floor Sector-44 GURGAON-122001

55	W43	W45	100	8	0	0	8	0	0	0	0
56	W45	W46	80	68	0	0	0	68	0	0	0
57	W45	W47	100	8	0	0	8	0	0	0	0
58	W47	W48	100	78	0	0	78	0	0	0	0
59	W48	W48a	80	78	0	0	0	78	0	0	0
60	W48a	W49	80	8	0	0	0	8	0	0	0
61	W49	W50	100	8	0	0	8	0	0	0	0
62	W27	W53	100	21	0	0	21	0	0	0	0
63	W53	W43	80	112	0	0	0	112	0	0	0
64	W53	W52	100	8	0	0	8	0	0	0	0
65	W52	W47	80	102	0	0	0	102	0	0	0
66	W52	W51	100	30	0	0	30	0	0	0	0
67	W51	W50	100	48	0	0	48	0	0	0	0
68	W49	W51	80	54	0	0	0	54	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
	Total			3501	29	20	876	2509	0	12	55
			200mm i/d Pipe Length	29	Mtr						
			150mm i/d Pipe Length	20	Mtr						
			100mm i/d Pipe Length	876	Mtr						
			80mm i/d Pipe Length	2509	Mtr						
			65mm i/d Pipe Length	0	Mtr						
			50mm i/d Pipe Length	12	Mtr						
			40mm i/d Pipe Length	55	Mtr						
			Total	3501	Mtr						

JMS INFRACON PVT. LTD. Plot No. 10 3rd Floor Sector-44 GURGAON-122001

PROJECT - PROJECT UNDER DDJAY (22.356 ACRE), SECTOR - 95, VILLAGE WAZIRPUR, GURUGRAM, HARYANA										
MATERIAL STATEMENT (FLUSHING WATER SUPPLY)										
S. No.	Line Designation		Size of Pipe Provided	Length of Pipe (Mtr)	Length in Mtr					
	From	To			150MM	100MM	80MM	50MM	40MM	25MM
1	STP	R1	100	5	0	5	0	0	0	0
2	R1	R2	100	55	0	55	0	0	0	0
3	R2	R3	100	160	0	160	0	0	0	0
4	R2	R4	100	15	0	15	0	0	0	0
5	R4	R5	80	38	0	0	38	0	0	0
6	R5	R6	80	15	0	0	15	0	0	0
7	R6	R7	50	96	0	0	0	96	0	0
8	R7	R8	50	96	0	0	0	96	0	0
9	R8	R9	50	45	0	0	0	45	0	0
10	R9	R10	50	78	0	0	0	78	0	0
11	R10	R11	50	66	0	0	0	66	0	0
12	R11	R12	50	54	0	0	0	54	0	0
13	R12	R13	50	33	0	0	0	33	0	0
14	R13	R14	50	48	0	0	0	48	0	0
15	R5	R14	50	110	0	0	0	110	0	0
16	R4	R15	100	36	0	36	0	0	0	0
17	R15	R16	50	114	0	0	0	114	0	0
18	R16	R17	50	132	0	0	0	132	0	0
19	R15	R17	80	8	0	0	8	0	0	0
20	R17	R18	80	34	0	0	34	0	0	0
21	R16	R19	50	160	0	0	0	160	0	0

JMS INFRA HOMES PVT. LTD. Plot No. 10 3rd Floor Sector-44 GURGAON-122001

S. No.	Line Designation		Size of Pipe Provided	Length of Pipe (Mtr)	Length in Mtr					
22	R19	R20	50	146	0	0	0	146	0	0
23	R20	R21	50	34	0	0	34	0	0	0
24	R21	R22	50	120	0	0	0	120	0	0
25	R22	R24	50	118	0	0	0	118	0	0
26	R24	R25	50	21	0	0	0	21	0	0
27	STP	R26	100	5	0	5	0	0	0	0
28	R26	R27	100	186	0	186	0	0	0	0
29	R27	R28	100	33	0	33	0	0	0	0
30	R28	R29	50	8	0	0	0	8	0	0
31	R29	R30	40	60	0	0	0	0	60	0
32	R28	R31	80	58	0	0	58	0	0	0
33	R31	R32	80	8	0	0	8	0	0	0
34	R29	R32	50	60	0	0	0	60	0	0
35	R32	R33	80	36	0	0	36	0	0	0
36	R33	R34	50	81	0	0	0	81	0	0
37	R34	R35	50	50	0	0	0	50	0	0
38	R33	R36	80	8	0	0	8	0	0	0
39	R36	R37	50	72	0	0	0	72	0	0
40	R37	R38	50	42	0	0	0	42	0	0
41	R36	R39	80	4	0	0	4	0	0	0
42	R39	R40	50	126	0	0	0	126	0	0
43	R40	R41	50	102	0	0	0	102	0	0
44	R39	R41	80	29	0	0	29	0	0	0
45	R41	R42	50	78	0	0	0	78	0	0
46	R42	R43	50	72	0	0	0	72	0	0
47	R43	R44	25	90	0	0	0	0	0	90

JMS BUILDWELL REALTY PVT. LTD. Plot No. 10 3rd Floor Sector-44 GURGAON-122001

S. No.	Line Designation		Size of Pipe Provided	Length of Pipe (Mtr)	Length in Mtr					
48	R43	R45	80	8	0	0	8	0	0	0
49	R45	R46	50	18	0	0	0	18	0	0
50	R46	R47	25	64	0	0	0	0	0	64
51	R46	R48	80	60	0	0	60	0	0	0
52	R48	R49	50	96	0	0	0	96	0	0
53	R49	R52	50	54	0	0	0	54	0	0
54	R48	R51	50	108	0	0	0	108	0	0
55	R31	R53	80	150	0	0	150	0	0	0
56	R53	R45	50	108	0	0	0	108	0	0
57	R53	R52	50	32	0	0	0	32	0	0
58	R52	R50	50	48	0	0	0	48	0	0
59	R50	R51	50	8	0	0	0	8	0	0
	Total			3788	0	495	490	2589	60	154
	150mm i/d Pipe Length			0	Mtr					
	100mm i/d Pipe Length			495	Mtr					
	80mm i/d Pipe Length			490	Mtr					
	50mm i/d Pipe Length			2589	Mtr					
	40mm i/d Pipe Length			60	Mtr					
	25mm i/d Pipe Length			154	Mtr					
			Total	3788	Mtr					

INFRA QUALITY PVT. LTD. Plot No. 10 3rd Floor Sector-44 GURGAON-122001

PROJECT - PROJECT UNDER DDJAY (22.356 ACRE), SECTOR - 95, VILLAGE WAZIRPUR, GURUGRAM, HARYANA						
MATERIAL STATEMENT (TUBEWELL RISING MAIN & MUNICIPAL WATER SUPPLY)						
S. No.	Line Designation		Size of Pipe Provided	Length of Pipe (Mtr)	Length in Mtr	
	From	To			100MM	80MM
	TUBEWELL RISING MAIN					
1	T1	T3	80	5	0	5
2	T2	T3	80	55	0	55
	MUNICIPAL LINE					
1	M1	M2	100	190	190	0
	Total			250	190	60
	100mm i/d Pipe Length			190	Mtr	
	80mm i/d Pipe Length			60	Mtr	
			Total	250	Mtr	

JMS INFRA REALTY PVT. LTD. Plot No. 10 3rd Floor Sector-44 GURGAON-122001

PROJECT - PROJECT UNDER ODJAY (22.350 ACRE), SECTOR - 95, VILLAGE WAZIRPUR, GURUGRAM, HARYANA									
TOTAL MATERIAL STATEMENT FOR WATER SUPPLY i.e. DOMESTIC, FLUSHING & RISING MAIN ETC.									
S. No.	Description	Size of pipe upto valve in 20mm (M)	Size of pipe upto valve in 40mm (M)	Size of pipe upto valve in 50mm (M)	Size of pipe upto valve in 65mm (M)	Size of pipe upto valve in 80mm (M)	Size of pipe upto valve in 100mm (M)	Size of pipe upto valve in 150mm (M)	Size of pipe upto valve in 200mm (M)
1	Domestic		85	12	8	2000	520	29	28
2	Flushing	154	85	2000		980	485	8	
3	Rising Main				0	60	180		
	Total	154 Mtr	115 M	2901 M	0 M	3040 M	1001 M	20 M	28 M

M/S JMS BUILDWELL PVT. LTD.
Plot No. 10
3rd Floor,
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PROJECT - PROJECT UNDER DDJAY (22.356 ACRE), SECTOR - 95, VILLAGE WAZIRPUR, GURUGRAM, HARYANA												
SUBHEAD : IRRIGATION WATER SUPPLY SCHEME - DESIGN CALCULATION (HORTICULTURE)												
HYDRAULIC STATEMENT OF IRRIGATION WATER SUPPLY												
S. No.	Line Reference	Population	Peak Flow in LPH	Velocity (m/s)	Size of the pipe required (in mm)	Size of the Pipe Recommend (mm)	Hydraulic Radius	Total Friction Loss in m/m	Length (M)	Loss of Head in Line (M)	Formation Level	Available head (M)
1	From Flushing Water Supply line	-	-	-	25.00	25	-	-	225	-	-	-
	Note :-	23 Nos connections are to be done from flushing water supply line i.e. 23 Nos x 1 Mtr/each =25 Mtr for 25mm i/d										

Plot No. 10 3rd Floor, Sector-44 GURGAON-122001

Rain Fall Intensity	35	
Run off Coeff.	0.8	
n	0.011	RCC

DESIGN OF DRAINAGE NETWORK

Catch Pit No. From	Catch Pit No. To	Ground Level at Upper CP	Ground Level at Lower CP	Length	Dia.	Slope	Minimum IL of Upper CP	Area Served Increment	Area Served Total	Actual Discharge Q_{actual}	Pipe Capacity Q_{full}	q/Q	Velocity	Total Fall	Invert Elevation upper end	Invert Elevation lower end	DEPTH OF 1st CP	DEPTH OF 2nd CP
		(m)	(m)	(m)	(mm)	1 in	(m)	acre	acre	(m^3/sec)	(m^3/sec)		(mps)	(m)	(m)	(m)		
D1	D2	216.20	216.20	81	400	660	1.5	0.450	0.450	0.01	0.10	0.06	0.80	0.10	214.90	214.85	1.30	1.40
D2	D3	216.20	216.20	81	400	660		0.450	0.900	0.01	0.10	0.08	0.80	0.10	214.80	214.75	1.40	1.50
D3	D8	216.20	216.20	41	400	660		0.200	1.100	0.01	0.10	0.11	0.80	0.07	214.70	214.63	1.50	1.57
D4	D5	216.20	216.20	24	400	660	1.6	0.100	0.100	0.00	0.10	0.01	0.80	0.04	214.70	214.66	1.60	1.64
D5	D6	216.20	216.20	17	400	660		0.450	0.550	0.01	0.10	0.06	0.80	0.03	214.80	214.63	1.64	1.67
D6	D8	216.20	216.20	81	400	660		0.650	2.200	0.02	0.10	0.22	0.80	0.10	214.60	214.00	1.67	1.77
D7	D8	216.20	216.20	89	400	660	1.3	0.900	0.900	0.01	0.10	0.08	0.80	0.12	215.90	214.88	1.30	1.42
D8	D10	216.20	216.20	30	400	660		0.250	3.600	0.03	0.10	0.36	0.80	0.05	214.53	214.48	1.77	1.87
D9	D11	216.20	216.20	81	400	460	1.5	0.600	0.500	0.01	0.12	0.04	0.08	0.18	214.85	214.76	1.50	1.65
D10	D11	216.20	216.20	65	400	460	1.6	0.950	0.950	0.01	0.12	0.06	0.08	0.14	214.80	214.71	1.60	1.69
D11	D12	216.20	216.20	15	400	460		0.320	1.870	0.01	0.12	0.09	0.08	0.04	214.70	214.66	1.85	1.89
D12	D13	216.20	216.20	64	400	460	1.40	0.600	0.600	0.01	0.12	0.05	0.08	0.18	214.80	214.74	1.40	1.51
D13	D16	216.20	216.40	49	400	660		0.250	4.820	0.05	0.10	0.03	0.00	0.08	214.48	214.40	1.87	2.01
D14	D15	216.20	216.20	20	400	460	1.60	0.250	0.250	0.00	0.12	0.02	0.08	0.07	214.70	214.64	1.60	1.66
D15	D16	216.20	216.40	25	400	660		0.250	0.500	0.01	0.11	0.05	0.08	0.08	214.64	214.59	1.60	1.62
D16	D17	216.40	216.40	61	400	660		0.450	5.800	0.01	0.11	0.09	0.08	0.18	214.59	214.48	1.82	1.93
D17	D18	216.40	216.40	52	400	660		0.550	1.800	0.02	0.11	0.14	0.08	0.18	214.48	214.36	1.92	2.02
D18	D19	216.40	216.40	66	400	660	1.50	0.750	0.750	0.01	0.11	0.07	0.08	0.14	214.66	214.76	1.50	1.64
D19	D20	216.40	216.40	29	400	660		0.150	7.320	0.07	0.10	0.74	0.00	0.06	214.38	214.33	2.02	2.07
D20	D22	216.40	216.50	56	400	660		0.550	7.870	0.08	0.10	0.79	0.00	0.09	214.33	214.24	2.07	2.26
D21	D23	216.20	216.20	72	400	660	1.50	0.400	0.400	0.00	0.10	0.04	0.00	0.13	214.70	214.55	1.50	1.62

JAIS INFRASTRUCTURE PVT. LTD. Plot No. 10 3rd Floor Sector-44 GURGAON-122001

DESIGN OF DRAINAGE NETWORK																		
Catch Pit. No.		Ground Level at Upper CP	Ground Level at Lower CP	Lenght	Dia.	Slope	Minimum IL of Upper CP	Area Served		Actual Discharge	Pipe Capacity	q/Q	Velocity	Total Fall	Invert Elevation		DEPTH OF 1st CP	DEPTH OF 2nd CP
From	To							Incremental	Total	Q_{actual}	Q_{full}				upper end	lower end		
		(m)	(m)	(m)	(mm)	1 in	(m)	acre	acre	(m^3/sec)	(m^3/sec)		(m/sec)	(m)	(m)	(m)		
D02	D03	216.25	216.25	71	400	600	1.50	0.400	0.400	0.00	0.10	0.04	0.80	0.12	214.70	214.58	1.55	1.42
D03	D30	216.48	216.48	14	400	600	1.50	2.500	2.900	0.04	0.10	0.35	0.80	0.02	214.56	214.53	1.53	1.52
D30	D31	216.48	216.48	73	400	600	1.50	0.800	3.700	0.01	0.10	0.07	0.80	0.12	214.58	214.79	1.53	1.52
D31	D32	216.48	216.48	49	400	600		0.400	4.100	0.00	0.10	0.40	0.80	0.00	214.58	214.63	1.52	1.68
D32	D33	216.48	216.68	99	400	600		0.400	5.500	0.00	0.10	0.51	0.80	0.00	214.68	214.79	1.68	1.80
D33	D34	216.68	216.68	20	400	300		0.100	10.020	0.10	0.14	0.69	1.10	0.17	214.24	214.17	2.28	2.33
D34	BUMP-1	216.68	216.68	5	400	300		0.000	10.020	0.10	0.14	0.69	1.10	0.02	214.17	214.15	2.33	2.36
D34	D35	216.68	216.68	81	400	600	1.00	2.500	2.500	0.02	0.10	0.20	0.80	0.11	214.70	214.59	1.58	1.51
D35	D35a	216.68	216.68	35	400	400		0.000	2.500	0.00	0.12	0.25	0.80	0.10	214.59	214.55	1.51	1.50
D35a	D37	216.68	216.68	10	400	400		0.000	2.500	0.00	0.12	0.25	0.80	0.03	214.20	214.17	1.68	1.63
D35	D37	216.68	216.68	19	400	400	1.00	2.200	2.200	0.02	0.12	0.19	0.80	0.04	214.20	214.16	1.68	1.64
D37	D38	216.68	216.75	44	400	600		0.250	5.450	0.06	0.10	0.55	0.80	0.07	214.16	214.09	1.64	1.66
D38	D39	216.68	216.68	85	400	400	1.00	0.750	6.750	0.01	0.12	0.56	0.80	0.16	214.70	214.54	1.30	1.21
D39	D39a	216.68	216.75	64	400	600		0.750	1.000	0.02	0.10	0.15	0.80	0.11	214.54	214.43	1.31	1.32
D39a	D40	216.75	216.75	10	400	600		0.000	1.500	0.02	0.10	0.15	0.80	0.02	214.13	214.11	1.62	1.64
D40	D41	216.75	216.79	36	400	600		0.150	7.100	0.07	0.10	0.71	0.80	0.05	214.09	214.03	1.66	1.67
D41	D42	216.68	216.85	71	400	400	1.30	0.600	0.600	0.01	0.12	0.05	0.80	0.16	214.70	214.52	1.30	1.33
D42	D42a	216.85	216.7	48	400	400		0.5	1.1	0.01	0.12	0.09	0.80	0.11	214.5225	214.41	1.33	1.29
D42a	D43	216.7	216.7	10	400	600		0	1.1	0.01	0.10	0.11	0.80	0.02	214.11	214.09	1.59	1.61
D43	D44	216.7	216.2	14	400.00	600		0	6.2	0.06	0.10	0.63	0.80	0.02	214.020667	214.00	1.67	2.20
D44	D45	216.2	216.2	48	400.00	600	1.0	0.35	6.35	0.06	0.10	0.64	0.80	0.08	214.0	214.00	1.30	1.35
D45	D46	216.2	216.2	48	400.00	600		0.05	6.4	0.01	0.10	0.64	0.80	0.09	214.020	214.79	1.36	1.45
D46	D50	216.2	216.2	68	400.00	600		0.2	6	0.06	0.10	0.61	0.80	0.05	214.000000	215.08	2.20	2.26
D47	D48	216.2	216.2	63	400.00	600	1.5	0.3	0.3	0.00	0.10	0.03	0.80	0.11	214.0	214.00	1.30	1.41

Plot No. 10 Sector-44 Gurgaon

DESIGN OF DRAINAGE NETWORK																		
Catch Pit No.		Ground Level at Upper CP	Ground Level at Lower CP	Length	Dia.	Slope	Minimum IL of Upper CP	Area Served		Actual Discharge	Pipe Capacity	q/Q	Velocity	Total Fall	Invert Elevation		DEPTH OF 1st CP	DEPTH OF 2nd CP
From	To							Incremental	Total	Q_{actual}	Q_{full}				upper end	lower end		
		(m)	(m)	(m)	(mm)	1 in	(m)	acre	acre	(m^3/sec)	(m^3/sec)		(m/s)	(m)	(m)	(m)		
D48	D49	216.2	216.2	51	400.00	600		0.3	0.6	0.01	0.10	0.08	0.80	0.08	214.705	214.71	1.41	1.49
D49	D50	216.2	216.2	69	400.00	600		0.2	0.6	0.01	0.10	0.08	0.80	0.18	214.71	214.81	1.49	1.59
D50	D56	216.2	215.7	45	500.00	600			0.6	0.10	0.16	0.64	0.93	0.08	213.803333	213.77	2.08	1.93
D51	D51a	216	215.9	30	400.00	450	1.3	0.30	0.30	0.00	0.12	0.03	0.96	0.18	214.7	214.89	1.38	1.30
D51a	D52	215.9	215.9	10	400.00	600		0	0.35	0.00	0.10	0.03	0.80	0.02	214.3025	214.29	1.68	1.61
D52	D53	215.9	215.9	13	400.00	450	1.3	0.1	0.1	0.00	0.12	0.01	0.96	0.03	214.6	214.57	1.38	1.33
D53	D55	215.9	215.8	30	400.00	450		0.20	0.7	0.01	0.12	0.06	0.96	0.18	214.285833	214.18	1.61	1.61
D54	D54a	215.9	215.8	30	400.00	450	1.3	0.30	0.30	0.00	0.12	0.03	0.96	0.18	214.6	214.51	1.38	1.30
D54a	D55	215.9	215.8	10	400.00	600			0.35	0.00	0.10	0.03	0.80	0.02	214.305	214.19	1.68	1.61
D55	D57	215.8	215.8	21	400.00	600		0.1	1.10	0.01	0.10	0.12	0.80	0.04	214.185833	214.15	1.61	1.65
D56	D57	215.8	215.8	26	400.00	600	1.8	0.1	0.1	0.00	0.10	0.01	0.80	0.05	214.2	214.15	1.60	1.65
D57	D58	215.8	215.7	60	400.00	600		0.29	1.8	0.02	0.10	0.16	0.80	0.08	214.153333	214.07	1.65	1.63
D58	D59	215.7	215.65	64	500.00	600		0.5	11.6	0.12	0.16	0.80	0.93	0.11	213.773333	213.67	1.93	1.98
D59	D60	215.65	215.6	35	500.00	600		0.48	12.08	0.12	0.16	0.80	0.93	0.06	213.606667	213.64	1.99	2.00
D60	D61	215.6	215.6	21	500.00	600		0.1	12.30	0.12	0.16	0.80	0.93	0.04	213.600333	213.57	2.00	2.03
D61	RUMP-2	215.6	215.6	15	500.00	600		0	12.30	0.12	0.16	0.80	0.93	0.02	213.566333	213.54	3.03	3.05

Plot No. 10 3rd Floor Sector 44 GURGAON-122001

DETAILS OF DRAIN LINES

Catch Pit No.		Length	Dia.	Slope	G.F. Top Level	Invert Level	Depth	G.F. Top Level	Invert Level	Depth	Length of RCC (NP-3) pipes		
From	To				Upper End			Lower End			300mm	400mm	500mm
		(m)	(mm)	1 in	(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m)
D1	D2	81	400	600	216.70	214.60	1.20	216.30	214.80	1.40	0	81	0
D2	D3	81	400	600	216.20	214.60	1.40	216.20	214.70	1.50	0	81	0
D3	D4	41	400	600	216.20	214.70	1.50	216.30	214.63	1.67	0	41	0
D4	D5	24	400	600	216.30	214.70	1.60	216.30	214.66	1.64	0	24	0
D5	D6	17	400	600	216.30	214.66	1.64	216.30	214.63	1.67	0	17	0
D6	D8	81	400	600	216.30	214.63	1.67	216.30	214.53	1.77	0	81	0
D7	D8	69	400	600	216.30	215.00	1.30	216.30	214.88	1.42	0	69	0
D8	D13	30	400	600	216.30	214.53	1.77	216.35	214.48	1.87	0	30	0
D9	D11	61	400	400	216.35	214.80	1.55	216.35	214.70	1.65	0	61	0
D10	D11	55	400	400	216.35	214.85	1.50	216.35	214.71	1.64	0	55	0
D11	D13	15	400	400	216.35	214.70	1.65	216.35	214.68	1.69	0	15	0
D12	D13	64	400	400	216.35	214.90	1.45	216.35	214.74	1.61	0	64	0
D13	D19	49	400	600	216.35	214.40	1.87	216.40	214.40	2.01	0	49	0
D14	D15	28	400	400	216.30	214.70	1.60	216.30	214.64	1.66	0	28	0
D15	D16	25	400	500	216.30	214.64	1.66	216.40	214.59	1.82	0	25	0
D16	D17	51	400	500	216.40	214.59	1.82	216.40	214.49	1.99	0	51	0
D17	D19	52	400	500	216.40	214.49	1.92	216.40	214.39	2.02	0	52	0
D18	D19	68	400	500	216.40	214.60	1.80	216.40	214.76	1.64	0	68	0
D19	D20	29	400	600	216.40	214.36	2.02	216.40	214.33	2.07	0	29	0
D20	D22	58	400	600	216.40	214.33	2.07	216.50	214.24	2.26	0	58	0
D21	D23	72	400	600	216.20	214.70	1.50	216.20	214.58	1.62	0	72	0
D22	D23	71	400	600	216.20	214.70	1.50	216.20	214.59	1.62	0	71	0
D28	D30	14	400	600	216.40	214.90	1.50	216.40	214.88	1.52	0	14	0
D29	D30	73	400	600	216.40	214.90	1.50	216.40	214.78	1.62	0	73	0
D30	D31	69	400	600	216.40	214.88	1.52	216.45	214.80	1.65	0	69	0
D31	D32	56	400	600	216.45	214.80	1.65	216.50	214.70	1.80	0	56	0
D32	D35	20	400	300	216.50	214.24	2.26	216.50	214.17	2.33	0	20	0
D33	SUMP-1	5	400	300	216.50	214.17	2.33	216.50	214.15	2.35	0	5	0
D34	D35	64	400	600	216.00	214.70	1.30	215.90	214.59	1.31	0	64	0
D35	D36a	38	400	400	215.90	214.59	1.31	215.80	214.50	1.30	0	38	0
D36a	D37	10	400	400	215.80	214.29	1.50	215.80	214.17	1.63	0	10	0
D36	D37	16	400	400	215.80	214.29	1.50	215.80	214.16	1.64	0	16	0
D37	SMP	44	400	600	215.80	214.18	1.64	215.75	214.69	1.06	0	44	0

SITE INFRA. PVT. LTD. Plot No. 19 3rd Floor, Sector-44 GURGAON-122001

DETAILS OF DRAIN LINES

Catch Pit No.		Length	Dia.	Slope	C.P. Top Level	Invert Level	Depth	C.P. Top Level	Invert Level	Depth	Length of RCC (NP-3) pipes			
From	To				Upper End			Lower End			300mm	450mm	500mm	
		(m)	(mm)	1 in	(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m)	
D38	D39	85	400	600	216.00	214.70	1.30	215.85	214.54	1.31	0	85	0	
D39	D39a	84	400	600	216.00	214.54	1.31	215.75	214.43	1.32	0	84	0	
D39a	D40	10	400	600	215.75	214.13	1.62	215.75	214.11	1.64	0	10	0	
D40	D41	30	400	600	215.75	214.09	1.68	215.70	214.03	1.67	0	30	0	
D41	D42	71	400	600	216.00	214.70	1.30	215.85	214.52	1.33	0	71	0	
D42	D42a	45	400	600	215.85	214.52	1.33	215.70	214.41	1.29	0	45	0	
D42a	D43	10	400	600	215.70	214.11	1.59	215.70	214.09	1.61	0	10	0	
D43	D44	14	400	600	215.70	214.03	1.67	218.20	216.00	2.20	0	14	0	
D44	D45	45	400	600	218.20	216.80	1.30	218.20	216.83	1.38	0	45	0	
D45	D46	45	400	600	218.20	216.83	1.38	218.20	216.75	1.45	0	45	0	
D46	D50	30	400	600	218.20	216.00	2.20	218.20	213.95	3.25	0	30	0	
D47	D48	63	400	600	218.20	216.90	1.30	218.20	216.80	1.41	0	63	0	
D48	D49	51	400	600	218.20	216.80	1.41	218.20	216.71	1.49	0	51	0	
D49	D50	36	400	600	218.20	216.71	1.49	218.20	216.41	1.79	0	33	0	
D50	D55	48	500	600	218.20	213.95	3.25	215.70	213.77	1.93	0	0	48	
D51	D51a	30	400	600	218.90	216.70	1.30	216.90	216.60	1.30	0	30	0	
D51a	D53	10	400	600	215.90	214.30	1.60	215.90	214.20	1.61	0	10	0	
D52	D53	13	400	600	215.90	214.60	1.30	215.90	214.57	1.33	0	13	0	
D53	D54	39	400	600	215.90	214.29	1.61	215.80	214.10	1.61	0	39	0	
D54	D54a	38	400	600	215.90	214.60	1.30	215.88	214.51	1.30	0	38	0	
D54a	D56	10	400	600	215.80	214.21	1.60	215.00	214.10	1.61	0	10	0	
D55	D57	21	400	600	215.80	214.19	1.61	215.88	214.15	1.65	0	21	0	
D56	D57	28	400	600	215.80	214.20	1.60	215.88	214.15	1.65	0	28	0	
D57	D58	50	400	600	215.80	214.15	1.65	215.78	214.07	1.63	0	50	0	
D58	D59	64	500	600	215.70	213.77	1.93	215.66	213.67	1.99	0	0	64	

Plot No. 10
3rd Floor
Sector-44
GURGAON-122001

DETAILS OF DRAIN LINES

Gatch Pit No.		Length	Dia.	Slope	G.P. Top Level	Invert Level	Depth	G.P. Top Level	Invert Level	Depth	Length of RCC (NP-3) pipes			
					Upper End			Lower End			300mm	400mm	500mm	
From	To													
		(m)	(mm)	1 in	(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m)	
D00	D01	36	500	600	215.68	213.67	1.80	215.60	213.60	2.00	0	0	36	
D01	D01	21	500	600	215.60	213.60	2.00	215.60	213.57	2.03	0	0	21	
D01	SUMP-2	10	500	600	215.60	213.57	2.03	215.60	213.55	2.05	0	0	10	
									TOTAL		0	2302	181	0

Total Length 300mm i/d RCC Np3 pipe = 0 Mtr

Total Length 400mm i/d RCC Np3 pipe = 2302 Mtr

Total Length 500mm i/d RCC Np3 pipe = 181 Mtr

Total Rain Water Harvesting (RWH) = 10 Nos

M/S JMS BUILDWELL REALTY PVT. LTD. Plot No. 10 3rd Floor Sector-44 GURGAON-122001

Rate of WS	102.5	lpcd																							
Interception	0.50			n	0.81	Fleetly																			
population	18	per unit																							
Gr. Water infiltration	0	lc/Hu																							

slopes					Pipe Condition			
150 dia	150	450 dia	0.5		300 DIA	2155	450 DIA	0
200 dia	250	450 dia	0.5		250 DIA	235	300 DIA	0
225 dia	350	525 dia	0.5		300 DIA	12	300 DIA	0
300 dia	450				450 DIA	0	700 DIA	0

DESIGN OF SEWERAGE NETWORK

Manhole No.		Ground Level at Upper MH	Ground Level at Lower MH	Length	Dia.	Slope	Minimum level depth at Upper MH	Area Served		Population	Sewage flow	Peak Flow		Pipe Capacity	Velocity		q/Q	v/V	Total Fall	Invert Elevation		DEPTH OF 1st MH	DEPTH OF 2nd MH
From	To					1 in		Incremental	Total											upper end	lower end		
		(m)	(m)	(m)	(mm)		(m)	Units	Units	persons	wsl	wsl	lps	(lps)	(mps)	(mps)			(m)	(m)	(m)		
01	02	216.30	216.30	63	200	150	1.7	3	3	54	0.0054	0.0252	0.20	44.81	1.11	0.37	0.0001	0.001	0.06	214.60	214.55	1.70	3.05
03	03	216.30	216.20	76	200	200		15	18	324	0.032	0.15	1.75	25.68	0.58	0.46	0.068	0.168	0.28	214.25	213.67	2.05	2.53
03	07	216.20	216.30	88	200	200		8	26	468	0.046	0.22	2.52	25.68	0.80	0.63	0.098	0.283	0.27	213.97	213.70	2.93	2.60
04	08	216.30	216.30	60	200	150	1.7	12	12	216	0.021	0.10	1.16	34.83	1.11	0.40	0.03	0.119	0.50	214.65	214.12	1.75	2.25
05	06	216.20	216.30	71	200	150	1.8	14	14	252	0.025	0.12	1.36	34.83	1.11	0.51	0.04	0.137	0.47	214.38	214.35	1.80	1.87
06	07	216.20	216.20	83	200	200		8	34	612	0.060	0.28	3.20	30.18	0.98	0.82	0.11	0.220	0.41	214.10	213.71	2.23	2.58
07	011	216.20	216.40	84	200	200		7	67	1206	0.121	0.56	6.30	30.18	0.98	0.701	0.24	0.333	0.28	213.79	213.44	2.80	2.96
08	09	216.40	216.40	79	200	200	1.1	23	29	522	0.052	0.17	1.94	30.18	0.98	0.516	0.06	0.165	0.38	216.38	214.99	1.10	1.40
09	010	216.40	216.40	63	200	200		18	36	648	0.101	0.33	3.49	30.18	0.98	0.630	0.12	0.220	0.52	214.86	214.64	1.40	1.76
010	011	216.40	216.40	48	200	200		12	48	864	0.134	0.43	4.66	30.18	0.98	0.855	0.15	0.282	0.29	214.84	214.60	1.76	2.00
011	012	216.40	216.40	61	200	200		18	133	2394	0.372	1.12	12.91	41.34	0.94	0.741	0.31	0.382	0.24	213.36	213.13	3.01	3.23
012	013	216.40	216.40	58	200	200	1.1	8	8	144	0.022	0.07	0.78	30.18	0.98	0.360	0.02	0.107	0.29	216.38	216.09	1.10	1.49
013	014	216.40	216.40	48	200	200		9	17	306	0.048	0.14	1.65	30.18	0.98	0.468	0.05	0.150	0.24	216.21	214.77	1.40	1.68
014	016	216.40	216.40	58	200	200		13	30	540	0.084	0.25	2.91	30.18	0.98	0.602	0.10	0.200	0.38	214.77	214.00	1.60	1.90
016	021	216.40	216.30	58	250	450		22	155	3930	0.517	1.55	17.90	41.34	0.84	0.91	0.43	0.480	0.38	213.16	212.67	3.20	3.40
021	029	216.20	216.20	38	250	450			155	3930	0.517	1.55	17.90	41.34	0.84	0.91	0.43	0.480	0.08	212.87	212.79	3.43	3.42
022	023	216.20	216.20	67	200	200	1.1	8	8	144	0.022	0.07	0.78	30.18	0.98	0.37	0.03	0.111	0.27	215.18	214.90	1.40	1.57
023	024	216.20	216.20	61	200	200		8	16	252	0.038	0.12	1.36	30.18	0.98	0.43	0.04	0.141	0.30	214.83	214.53	1.57	1.67
024	025	216.20	216.20	53	200	200		8	20	360	0.056	0.17	1.94	30.18	0.98	0.48	0.07	0.170	0.21	214.63	214.42	1.67	1.78
026	027	216.20	215.80	91	200	200	1.1	16	16	252	0.038	0.12	1.36	30.18	0.98	0.40	0.03	0.130	0.01	214.84	214.83	1.10	1.32
027	027a	215.80	215.80	93	200	200		16	50	540	0.084	0.25	2.91	30.18	0.98	0.60	0.10	0.200	0.28	214.55	214.55	1.30	1.45
027a	028	215.80	215.80	8	200	200		0	50	540	0.084	0.25	2.91	30.18	0.98	0.203	0.11	0.210	0.03	213.96	213.92	1.85	1.88
028	029	215.80	215.80	14	200	200	1.1	50	50	900	0.140	0.42	4.85	30.18	0.98	0.664	0.16	0.287	0.07	214.46	214.39	1.40	1.47
029	030	215.80	215.80	10	200	200		3	53	954	0.148	0.44	5.14	30.18	0.98	0.700	0.17	0.276	0.08	214.31	214.23	1.47	1.58
030	031	215.80	215.70	34	200	200		4	61	1080	0.210	0.73	8.44	30.18	0.98	0.790	0.21	0.383	0.14	213.93	213.79	1.88	1.97
031	032	215.70	215.80	10	200	200	1.1	33	33	594	0.001	-0.10	2.19	30.18	0.98	0.537	0.07	0.174	0.08	214.86	214.94	1.10	1.38

MAHA REALTY PVT. LTD.
Plot No. 10
3rd Floor
Sector-44
GURGAON-122001

DESIGN OF SEWERAGE NETWORK

Manhole No.		Ground Level at Upper MH	Ground Level at Lower MH	Length	Dia.	Slope	Minimum Invert depth at Upper MH	Area Served		Population	Sewage flow	Peak Flow		Flow Capacity	Velocity		q/Q	v/V	Total Fall	Invert Elevation		DEPTH Of 1st MH	DEPTH OF 2nd MH
From	To							Incremental	Total											upper end	lower end		
		(m)	(m)	(m)	(mm)	1 in	(m)	Bldg	Bldg	persons	mld	mld	lps	lps	(mps)	(mps)			(m)	(m)	(m)		
532	532a	216.00	215.79	60	200	300		20	42	756	0.117	6.30	4.88	30.16	0.08	0.058	0.14	0.244	0.03	214.54	214.51	1.38	1.63
532a	533	215.79	215.79	8	200	300			42	756	0.117	6.30	4.88	30.16	0.08	0.058	0.14	0.244	0.04	214.52	214.15	1.63	1.67
533	537	216.79	216.20	60	200	300			129	2322	0.360	1.08	12.62	30.16	0.08	0.04	0.46	0.419	0.25	215.79	215.38	1.67	2.62
534	535	216.00	216.60	74	200	300	1.1	21	21	378	0.060	0.18	2.04	30.16	0.08	0.027	0.07	0.158	0.37	214.90	214.53	1.18	1.32
535	537	216.00	216.20	56	200	300		15	36	612	0.099	0.28	3.30	30.16	0.08	0.021	0.11	0.228	0.28	214.82	214.54	1.32	1.66
536	537	216.00	216.20	80	200	300	1.1		12	6	0.000	0.00	0.00	30.16	0.08	0.000	0.00	0.000	0.49	215.18	214.67	1.18	1.53
537	551	216.20	216.20	45	200	350			903	2904	0.456	1.37	15.83	35.88	0.08	0.04	0.58	0.550	0.18	215.98	215.80	2.62	2.80
538	538a	218	215.8	30	200	300	1.1	6	6	162	0.033	0.076	0.973	30.161	0.080	0.408	0.03	0.112	0.170	216.8	214.53	1.1	1.17
538a	540	215.8	215.8	51	200	300		4	13	324	0.030	0.168	1.261	30.161	0.080	0.449	0.04	0.191	0.270	214.83	214.46	1.37	1.44
539	540	215.9	215.5	46	200	300	1.3	3	3	54	0.000	0.005	0.281	30.161	0.080	0.370	0.01	0.097	0.080	214.4	214.21	1.5	1.29
540	542	215.9	215.8	41	200	350		7	23	414	0.084	0.168	2.202	35.877	0.088	0.573	0.08	0.192	0.184	214.21	214.15	1.59	1.65
541	542	215.9	215.8	17	200	150	1.4	3	3	54	0.000	0.005	0.281	54.527	1.198	0.079	0.01	0.084	0.1133333	214.5	214.09	1.4	1.41
542	544	215.8	215.8	49	200	350		2	28	504	0.078	0.235	2.717	35.877	0.088	0.544	0.18	0.212	0.276	214.15	214.07	1.65	1.73
543	544	215.9	215.8	46	200	300	1.1	6	6	102	0.021	0.076	0.873	30.161	0.080	0.408	0.03	0.112	0.23	214.8	214.57	1.1	1.23
544	547	215.8	215.7	55	200	350		7	44	792	0.153	0.588	4.260	35.877	0.088	0.618	0.16	0.360	0.33	214.67	214.55	1.75	1.85
545	546	215.8	215.80	48	200	150	1.2	14	14	252	0.036	0.117	1.358	54.527	1.198	0.308	0.04	0.127	0.32	214.4	214.08	1.2	1.37
546	547	215.80	215.7	84	200	300		13	27	486	0.075	0.228	3.600	30.161	0.080	0.887	0.08	0.188	0.28	214.66	213.78	1.37	1.91
547	551	215.7	216.3	40	200	350		6	76	1368	0.212	0.637	7.374	35.877	0.088	0.725	0.27	0.550	0.46	213.78	213.53	1.91	2.37
548	549	216.2	216.2	30	200	300	1.2	4	4	72	0.011	0.034	0.388	30.161	0.080	0.384	0.01	0.108	0.075	215	214.82	1.2	1.37
549	550	216.2	216.2	51	200	300		8	16	180	0.028	0.084	0.970	30.161	0.080	0.418	0.03	0.117	0.255	214.82	214.58	1.37	1.62
550	551	216.2	216.2	60	200	300		6	15	270	0.042	0.126	1.455	30.161	0.080	0.468	0.05	0.141	0.3	214.88	214.28	1.62	1.92
551	555	216.2	216.2	23	200	300		9	294	5512	0.718	2.158	24.896	44.008	0.098	0.529	0.35	0.538	0.0700667	215.30	213.37	2.85	2.99
555	556	216.2	216.2	16	200	300		9	456	8552	1.253	3.048	44.337	73.598	1.027	1.079	0.61	0.988	0.0333333	213.73	213.7	2.47	2.5

Plot No. 10
3rd Floor
Sector-44
GURGAON-122001

S. No.	DETAILS OF SEWER LINES											Length in Mtr				
	Manhole No.		Length	Dia.	Slope	MH Top Level	Invert Level	Depth	MH Top Level	Invert Level	Depth	200mm I/d	200mm I/d	200mm I/d	250mm I/d	300mm I/d
						Upper End			Lower End							
	From	To	(m)	(mm)	1 in	(m)	(m)	(m)	(m)	(m)	(m)	0 to 2.00 Mtr	0 to 2.50 Mtr	0 to 3.0 Mtr	0 to 3.00 Mtr	0 to 3.00 Mtr
1	S1	S2	53	200	150	216.30	214.68	1.79	216.30	214.25	2.05	53				
2	S2	S3	70	200	250	216.30	214.28	2.05	216.30	213.97	2.33		70			
3	S3	S7	68	200	250	216.30	213.97	2.33	216.30	213.79	2.60			68		
4	S4	S6	80	200	150	216.35	214.65	1.79	216.35	214.12	2.23		80			
5	S5	S6	71	200	150	216.35	214.85	1.50	216.35	214.38	1.97	71				
6	S6	S7	82	200	300	216.35	214.12	2.23	216.30	213.71	2.59			82		
7	S7	S11	84	200	250	216.30	213.71	2.59	216.40	213.44	2.96			84		
8	S8	S9	70	200	200	216.40	215.30	1.10	216.40	214.95	1.45	70				
9	S9	S10	63	200	200	216.40	214.95	1.45	216.40	214.64	1.76	63				
10	S10	S11	49	200	200	216.40	214.64	1.76	216.40	214.40	2.00	49				
11	S11	S15	83	250	350	216.40	213.39	3.01	216.40	213.15	3.25				83	
12	S12	S13	58	200	200	216.40	215.30	1.10	216.40	215.01	1.49	58				
13	S13	S14	48	200	200	216.50	215.01	1.49	216.45	214.77	1.68	48				
14	S14	S15	55	200	200	216.45	214.77	1.68	216.40	214.50	1.90	55				
15	S15	S21	69	250	350	216.40	213.15	3.25	216.30	212.87	3.43				69	
16	S21	S25	30	250	350	216.30	212.87	3.43	216.20	212.78	3.42				30	
17	S22	S23	67	200	250	216.20	215.10	1.10	216.20	214.83	1.37	67				
18	S23	S24	51	200	250	216.20	214.83	1.37	216.20	214.63	1.57	51				
19	S24	S25	53	200	250	216.20	214.63	1.57	216.20	214.42	1.78	53				
20	S26	S27	61	200	200	216.90	214.90	1.10	216.90	214.60	1.30	61				
21	S27	S27a	50	200	200	215.90	214.60	1.30	215.90	214.30	1.45	50				
22	S27a	S30	8	200	250	215.80	213.95	1.85	215.80	213.92	1.88	8				
23	S28	S29	14	200	200	215.90	214.40	1.40	215.80	214.33	1.47	14				
24	S29	S30	18	200	200	215.80	214.33	1.47	215.80	214.25	1.55	18				
25	S30	S35	34	200	250	215.80	213.92	1.88	215.75	213.78	1.97	34				
26	S31	S32	72	200	200	216.00	214.90	1.10	215.90	214.54	1.36	72				
27	S32	S32a	65	200	200	215.90	214.54	1.36	215.75	214.22	1.53	65				
28	S32a	S33	8	200	200	215.75	213.82	1.93	215.75	213.78	1.97	8				
29	S33	S37	50	200	250	215.75	213.78	1.97	216.20	213.58	2.62			50		
30	S34	S36	74	200	200	216.00	214.90	1.10	215.88	214.53	1.32	74				
31	S36	S37	56	200	200	215.85	214.53	1.32	216.20	214.25	1.95	56				
32	S36	S37	88	200	200	216.20	215.10	1.10	216.20	214.67	1.53	88				
33	S37	S51	45	200	250	216.20	213.58	2.62	216.20	213.40	2.80			45		
34	S38	S38a	35	200	200	216.00	214.90	1.10	215.88	214.73	1.17	35				
35	S38a	S49	15	200	200	215.90	214.53	1.37	215.88	214.40	1.44	15				

Plot No. 10 3rd Floor Sector-44 GURGAON-122001

DETAILS OF SEWER LINES

S. No.	Manhole No.		Length	Dia	Slope	MH Top Level	Invert Level	Depth	MH Top Level	Invert Level	Depth	Length in Mtr				
						Upper End			Lower End			200mm i/d	200mm i/d	200mm i/d	250mm i/d	300mm i/d
	From	To	(m)	(mm)	1 in	(m)	(m)	(m)	(m)	(m)	(m)	0 to 2.00 Mtr	0 to 2.50 Mtr	0 to 3.0 Mtr	0 to 3.00 Mtr	0 to 3.00 Mtr
36	S38	S40	19	200	200	215.80	214.40	1.50	215.68	214.31	1.69	19				
37	S40	S42	41	200	250	215.90	214.31	1.59	215.68	214.15	1.65	41				
38	S41	S42	17	200	150	215.90	214.53	1.40	215.68	214.39	1.41	17				
39	S42	S44	19	200	250	215.80	214.15	1.65	215.68	214.07	1.73	19				
40	S43	S44	46	200	200	215.80	214.80	1.10	215.68	214.67	1.23	46				
41	S44	S47	55	200	200	215.80	214.07	1.73	215.78	213.85	1.85	55				
42	S45	S46	48	200	150	215.60	214.40	1.20	215.68	214.08	1.57	48				
43	S46	S47	58	200	200	215.68	214.08	1.57	215.78	213.79	1.91	58				
44	S47	S51	40	200	250	215.70	213.79	1.91	216.28	213.63	2.67			40		
45	S48	S49	38	200	200	216.20	215.00	1.20	216.28	214.83	1.37	38				
46	S49	S50	51	200	200	216.20	214.83	1.37	216.28	214.68	1.62	51				
47	S50	S51	60	200	200	216.20	214.58	1.62	216.28	214.28	1.92	60				
48	S51	S25	23	250	300	216.20	213.35	2.85	216.28	213.27	2.93				23	
49	S25	STP	10	300	300	216.20	212.73	3.47	216.28	212.70	3.60					10
										Total Length		1681	158	349	235	10

STP - HUDA / Sewer By Pumping 100mm i/d D.I. Pipe = 200 Mtr

200mm i/d Pipe Length upto 2.0m depth	1681 Mtr
200mm i/d Pipe Length upto 2.5m depth	158 Mtr
200mm i/d Pipe Length upto 3.0m depth	349 Mtr
250mm i/d Pipe Length upto 3.0m depth	235 Mtr
300mm i/d Pipe Length upto 3.0m depth	10 Mtr
100mm i/d D.I. Pipe (By Pumping) =	Mtr

Plot No. 10 3rd Floor Sector-44 GURGAON-122001

PROJECT - PROJECT UNDER DDJAY (22.356 ACRE), SECTOR - 95, VILLAGE WAZIRPUR, GURUGRAM, HARYANA

Material Statement of Road Works

Sr. No.	Road No.		Road Width	Length	Width	Area	
i	1	2	9.00	126	5.30	667.80	Sqm
ii	1	3	9.00	39	5.30	206.70	Sqm
iii	3	4	9.00	143	5.30	757.90	Sqm
iv	4	5	9.00	33	5.30	174.90	Sqm
v	5	7	9.00	115	5.30	609.50	Sqm
vi	5	6	9.00	22	5.30	116.60	Sqm
vii	8	9	9.00	44	5.30	233.20	Sqm
viii	9	10	9.00	105	5.30	556.50	Sqm
ix	9	11	9.00	44	5.30	233.20	Sqm
x	11	12	9.00	25	5.30	132.50	Sqm
xi	12	13	9.00	19	5.30	100.70	Sqm
xii	11	14	9.00	17	5.30	90.10	Sqm
xiii	12	14	9.00	28	5.30	148.40	Sqm
xiv	14	16	9.00	39	5.30	206.70	Sqm
xv	16	16A	9.00	17	5.30	90.10	Sqm
xvi	15	17	9.00	50	5.30	265.00	Sqm
xvii	18	19	9.00	60	5.30	318.00	Sqm
xviii	19	20	9.00	72	5.30	381.60	Sqm
xix	20	21	9.00	50	5.30	265.00	Sqm
xx	19	29	9.00	33	5.30	174.90	Sqm

xxi	29	30	9.00	66	5.30	349.80	Sqm
xxii	20	29	9.00	82	5.30	434.60	Sqm
xxiii	21	22	9.00	22	5.30	116.60	Sqm
xxiv	22	23	9.00	77	5.30	408.10	Sqm
xxv	22	27	9.00	90	5.30	477.00	Sqm
xxvi	27	28	9.00	80	5.30	424.00	Sqm
xxvii	29	27	9.00	35	5.30	185.50	Sqm
xxviii	27	25	9.00	75	5.30	397.50	Sqm
xxix	25	26	9.00	39	5.30	206.70	Sqm
xxx	24	25	9.00	126	5.30	667.80	Sqm
			Total Length	1773			Sqm
	G. Total					**9396.90**	Sqm
Add 5% extra for curves						469.85	Sqm
Total						**9866.75**	**Sqm**
				Say		**9867**	**Sqm**

i) Kerbs & Channels			
i)	9.00 Mtr wide road (1 x 1773)		1773 Mtr
		Total	**1773 Mtr**
	Add 5% for curves		89 Mtr
		G. Total	**1862 Mtr**
II) Footpath :-			
	(i) 9M wide road = 1773 M x 1.85 x 2M = 6560 Sqm		
	Total	= 6560 Sqm	
	Add 5% for curves	= 328 Sqm	
	Total	= 6888 Sqm	
		Say 6888 Sqm	

M/S INFRA REALTY PVT. LTD. Plot No. 10 3rd Floor Sector-44 GURGAON-122001