

**M/s TULA REALTOR PVT. LTD. DDJAY PLOTTING IN
SECTOR -1, PATAUDI, GURUGRAM, HARYANA.**

EXTERNAL SERVICE ESTIMATE

ARCHITECT

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ESTIMATE FOR PROVIDING EXTERNAL DEVELOPMENT WORKS FOR PROPOSED DEEN DAAL JAN AWAS YOJNA PLOTTED COLONY (DDJAY) PLAN OF AREA MEASURING 19.1750 ACRES FALLING WITHIN SECTOR-1, TEHSIL-PATAUDI, DISTT-GURUGRAM. BEING DEVELOPED BY TULA REALTORS PVT. LTD.

REPORT

Pataudi is a town, a tehsil and one of the 4 sub-divisions of Gurugram district, in the Indian state of Haryana, within the boundaries of the National Capital Region of India. It is located 28 km (17.4 mi) southwest of Gurugram city.

The small princely state Pataudi State was formed in 1804 by East India Company with 40 villages including Pataudi village (as it was then) as reward to Faiz Talab Khan a Pashtun of the Barech tribe for aiding the Company against the Maratha Empire during the Second Anglo-Maratha War and the English made Faiz Talab Khan Nawab of Pataudi. It was subsumed into Union of India in 1947.

As of 2001 India census, Pataudi had a population of 16,064. Males constitute 53% of the population and females 47%. Pataudi has an average literacy rate of 57%, lower than the national average of 59.5%: male literacy is 65%, and female literacy is 48%. In Pataudi, 17% of the population is under 6 years of age Their main occupation is farming. Rao Kanwar Singh Yadav (father of Krishan Lal Yadav and Ram Avtar Yadav) the famous freedom fighter of Quni Daultabad village is also from Pataudi.

WATER SUPPLY

HSVP water supply is expected to be provided on main sector roads in future. At present Tube wells are proposed to cater the potable water demand. It has been purpose to construct underground tanks of capacity as per attached details and at location for domestic purpose and for fire protection. Flushing and Horticulture water tank will be constructed as part of STP. The underground domestic tanks will be fed from HSVP supply, from there water pump out to each plot. Flushing water and Irrigation water demand will be met from treated effluent Sewerage Treatment Plant. The water supply system has been designed as per the Hazen William formula.

DESIGN

The scheme has been designed for population considering 13.5 person for each plot. The rate of water head/day has been taken as 172.5 liters per head per day HSVP norms.

155.25

PUMPING EQUIPMENTS

It has been proposed to install pumping set as described with standby of equal capacity shall be provided electric power requirement is added to the main DG Sets or independently in case of electricity failure.

SEWERAGE SCHEME

Sewer line from proposed development will be connecting to a centralized Sewage treatment plant located the site with a bye-pass line to HSVP sewer to dispose off the surplus water from STP. The sewerage system been marked on the respective plans.

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Sewer lines have been designed for three times average D.W.F in relation to water supply demand. It has assumed that about 80% of the domestic & flushing water supply shall find its way into the proposed sewer lines shall be laid to a gradient maintaining minimum 2.46 ft./see self-cleaning velocity. Sewer line up to 40 Dia has been designed to run half full at peak Necessary provision for laying S.W./RCC pipe sewer line, construction of required number of manholes etc. been made in the estimate.

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

STORM WATER DRAINAGE

We proposed to lay underground R.C.C pipe drains with required number of catch basins, manholes and rainwater recharge pits with over flow to the proposed HSVP storm drain on Sector Road. The intensity of rain fall has been taken as 1/4" per hour. R.C.C storm water line will be designed as per Manning's formula.

SPECIFICATIONS

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

ROADS

Estimate of Road is prepared as per revised specifications adopted by HSVP.

STREET LIGHTING

Provision for street lighting also has been made

PLANTATION

Estimates of plantation, landscaping, signage, etc., have been include

RATES

The estimate has been prepared based on the present market rates

COST

The total cost of the scheme, including cost of all services works out be Rs. ~~1929.14~~ **1989.06**
Lacs only Including 3% Contingencies and 49% Departmental Charges, price escalation, unforeseen, Admin. Charges.

For: M/S TULA REALTORS PVT.LTP.

Authorized Signatory

For TULA REALTOR PVT. LTD.


Authorised Signatory





हरियाणा शहरी विकास प्राधिकरण

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

CE-I No. 86711

Dated: 05.04.2024

Annexure-A

SUB:- Approval of service plan estimate to set up affordable plotted colony under Deen Dayal Jan Awas Yojna-2016 over an area measuring 19.1750 acres (License no. 32 of 2024 dated 28.02.2024) Sector-1, Pataudi, Distt. Gurugram being developed by M/s Tula Realtor Pvt. Ltd. in collaboration with Dagar Hospitality and Infrastructure Pvt. Ltd. and others.

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.

PROJECT: PLOTTED COLONY UNDER DDJAY LAND MEASURING 19.17500 ACRES IN SECTOR-1, TEHSIL-PATAUDI, DISTT- GURUGRAM, HARYANA

SUBJECT: FINAL ABSTRACT OF COST

		Amount in Rs. Lacs
SUB WORK NO. I	WATER SUPPLY SCHEME	341.56 399.90
SUB WORK NO. II	SEWERAGE SCHEME	288.76 285.34
SUB WORK NO. III	STORM WATER DRAINAGE	223.41 ✓
SUB WORK NO. IV	ROADS & FOOT PATHS	187.61 483.45
SUB WORK NO. V	STREET LIGHTING	73.57
SUB WORK NO. VI	HORTICULTURE (PLANTATION & ROAD SIDE TREES)	15.13 15.73
SUB WORK NO. VII	MTC CHARGES RESURFACING OF ROADS	499.14 507.66
	TOTAL	1929.14 1989.06

TOTAL : (Rupees ~~Nineteen Crores Twenty Nine Lacs Fourteen Thousand Only~~)/-

1989.06 lacs

Cost Per Acre = ~~1029.14~~ / 19.17500 = 100.607 Lakh / Acre.

act ₹ 103.73

AUTHORISED SIGNATORY

Executive Engineer
HSVP Division No. IV
Gurugram



Superintending Engineer
HSVP, Circle-II, Gurugram

For TULA REALTOR PVT. LTD.

Authorised Signatory

Director
Town & Country Planning
Haryana, Chandigarh

Checked subject to Comments
In forwarding letter No. 867.11
Dt. 05.04.2024 and notes
Attached with the estimate

Executive Engineer (M)
for Chief Engineer-I
HSVP, Panchkula

SUB WORK No. 1 (Abstract of Cost)		Water Supply & Fire Fighting	
1	Sub Head No. 01	Head Works	Rs. 79,65,610 94.90 / 65
2	Sub Head No. 02	Pumping Machinery	Rs. 72,77,500 90.40
3	Sub Head No. 03	Domestic Water Supply Distribution	Rs. 33,61,800 35.67
4	Sub Head No. 04	Flushing & Irrigation System	Rs. 36,50,600 39.60
		TOTAL	Rs. 2,22,55,540 260.57
		Add 3% contingencies & PH Charges	Rs. 6,67,666.20 7.82
		TOTAL	Rs. 2,29,23,206 268.39
		Add 49% Departmental charges + Price escalation	Rs. 1,12,32,371.04 131.51
		TOTAL	Rs. 3,41,55,577 399.90
		Say in laes	341.56 105



For TULA REALTOR PVT. LTD.


Authorised Signatory

Sub Work No. 1
Sub Head No. 01

Water Supply
Head Works (Rising Main from HSVP & Bore Well) Amount in Rs.

1. Providing laying jointing and testing pipe lines including cost of excavation etc complete in all respects		
a) 100 mm dia D.I. Pipe ¹⁵³ 465 m @ Rs. 1460/- for plotted from HSVP main		Rs. 6,78,900.00
b) 100 mm dia D.I. Pipe ¹⁵³ 269 m @ Rs. 1460/- for Tubewell		Rs. 3,92,740.00
^{150 mm} ^{20 mm}	^{116m} ^{53m} ^{2040L} ^{2700L}	2.23 2.33 lcs 1.43 lcs
2. Boring and installing tube well with reverse Rotary Rig Complete with pipe and strainer to a depth of about 120 meter in all respect		
3 Nos. for For overall 19.32500 Acre Site Area		
Total -3 No. @ Rs. 15,00,000/- each.		Rs. 45,00,000.00
3. Provision for borewell chamber of size 1.5x 1.5x 1.5 m for Housing borewell 3 Nos. @ Rs 100000/- each		Rs. 3,00,000.00
4. Construction of boundary wall around Tube Well		Rs. 2,00,000.00
5. Providing and fixing sluice valve/butter fly valve and air release valve including cost of surface boxes and masonry chambers etc complete in all respects		
(a) 100 mm 3 Nos. @ Rs. 12000	(L.S.)	0.50 Rs. 36,000.00
^{150 mm} ^{200 mm}		
6. Providing and fixing indicating plates for sluice valve. Butterfly valve and air valves etc.		
(a) 100 mm 4 Nos. @ Rs 2000		Rs. 8,000.00
7. Provision for Carriage of material & other unforeseen items		Rs. 1,00,000.00
8. Provision for cutting of roads and making good to its original conditions.		Rs. 1,50,000.00
9. Provision for making connection with HSVP on master road.		Rs. 2,00,000.00
10. Providing and Installing electricity driven or sumersible pumping sets capable of delivering about 20KL per hour against a total head of 65 meter. (L.S.)	3 Nos @ Rs 1.50 lcs each (7.50 HP)	Rs. 4,50,000.00
11. Provide for staff Quarters for maintenance staff (L.S.)	3 Nos	22.50 lcs Rs. 10,00,000.00
TOTAL		94.90 lcs
(C/O To Abstract of Cost for Sub work No.1)		Rs. 79,65,640.00



For TULA REALTOR PVT. LTD.


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Sub Work No. 1
Sub Head No. 02

Water Supply
Pumping Machinery

Amount in Rs.

1. Providing & installing booster pumping set of following capacity for Water Supply Booster pumps for Domestic purpose complete with motor and other accessories. <i>Dom- water</i>		
<i>875</i> 600 LPM of <i>45</i> 45 M head of 1 set (2 Working 1 standby) of <i>15.0</i> 7.5 HP Each @ Rs <i>3.6 la</i> 1.75,000		Rs. <i>9.0 la</i> 5,25,000.00
2. Providing & installing booster pumping set of following capacity for Water Supply Booster pumps for Domestic purpose complete with motor and other accessories.		
<i>520</i> 400 LPM of <i>45</i> 45 M head of 1 set (2 Working 1 stand by) of <i>10.0</i> 5.0 HP Each @ Rs 2,00,000/- <i>(Flushing water pump)</i>		Rs. 6,00,000.00
3. Provision for chlorination plant complete 1 No @ Rs 2,00,000/- Each		Rs. 2,00,000.00
4. Provision for making foundations and erection of pumping machinery - Lump Sum		Rs. 3,00,000.00
5. Provision for pipes, valves and special inside boosting chamber - Lump Sum		Rs. 3,00,000.00
6. Provision for electric service connection including electrical fitting for booster pumps etc. - Lump Sum		Rs. 5,00,000.00
7. Provision for carriage of material and other unforeseen items etc - Lump Sum		Rs. 2,00,000.00
8. Providing and construction of Under Ground Water Storage Tank <i>455</i> 405 KL Including <i>225</i> 225 KL for fire + <i>230</i> 175 KL for <i>2.25 KL Comp for Flushing water tank</i> Domestic @ 5500/- KL		Rs. <i>31.40 la</i> 31,27,500.00
9. Construction of boosting chamber of suitable size - Lump Sum		Rs. 5,00,000.00
10. Provision for gate, boundary wall, footpath and lawn as water works - Lump Sum		Rs. 3,00,000.00
11. Provision for Generator set of <i>100</i> 45 KVA - Lump Sum		Rs. <i>15.00 la</i> 5,25,000.00
TOTAL		Rs. <i>90.40 la</i> 72,77,500.00
(C/O To Abstract of Cost for Sub work No.1)		



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Sub-Work No. 1
Sub Head No. 03

Water Supply
Domestic Water Supply Distribution

Amount in Rs.

1. Providing , Laying , jointing and testing D.I pipe line including Fittings, valves, cost of excavation etc. complete in all respect. D.I Pipe 100 mm, 1880 ¹⁴³⁵ M @ Rs. 1460/- per meter D.I Pipe 150 mm, 25 ⁴³⁰ M @ Rs. 2040/- per meter	Rs. 27,14,800.00 ^{21.24} Rs. 51,000.00 ^{8.77}
2. Providing and fixing sluice valve including cost of surface boxes and masonry chambers etc. complete in all respects. (a) 100mm, 5 Nos. Each @ Rs 12000/- (b) 150 mm, 3 Nos. Each @ Rs 15000/-	Rs.60,000.00 Rs.45,000.00
3. Providing and fixing External Fire-I Hydrants including chamber complete in all respects. (a) 7 Nos. Each @ Rs 15,000/-	Rs.1,05,000.00
4. Providing and fixing air release valve and scour valve (a) 3 Nos. Each @ Rs 10,000/-	Rs.30,000.00
5. Indication plate for valves,hydrant AV etc. (a) 13 Nos. Each @ Rs 2000/-	Rs.26,000.00
6. Provision for carriage of materials and other unforeseen items - Lump Sum	Rs.1,50,000.00
7. Provision for cutting of roads and making goods to its original conditions - Lump Sum	Rs.1,50,000.00
	<u>Rs.35.67 lacs</u> TOTAL Rs.33,61,800.00



For TULA REALTOR PVT. LTD.


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Sub Work No. 1
Sub-Head No. 04

Water Supply
Flushing & Irrigation System

	Amount in Rs.
1. Providing , Laying , jointing and testing D.I pipe line including fittings, valves, cost of excavation etc. complete in all respect. D.I Pipe 100 mm , ¹⁷⁵⁰ 2100 M @ Rs.1460/- per meter DI PIPE 150 mm 1100m 2040/-	25.55 lacs Rs.31,73,000.00 8.36 lacs
2. Providing and fixing sluice/butter fly valve including cost of surface boxes and masonry chambers etc. complete in all respects. ¹⁰⁰⁰ (a) 10 Nos. Each @ Rs 12,000/- 1000 = 5 4 Nos each 15000/-	Rs.1,20,000 0.60 lacs
3. Providing and fixing air release valve and scour valve (a) 3 Nos. Each @ Rs 10,000/-	Rs.30,000
4. Indication plate for valves, hydrant AV etc. (a) 17 Nos. Each @ Rs 2000/-	0.34 Rs.22,000
5. Provision for carriage of materials and other unforeseen items - Lump Sum	Rs.1,00,000.00
6. Provision for upvc pipe line suitable for 6 kg pressure including cost of fitting, valve etc. complete 25mm dia. - Lump Sum	Rs.50,000.00
7. Provision for cutting of roads and making goods to its original conditions. - Lump Sum	Rs.1,00,000.00
8. Providing & Fixing 25 mm dia Irrigation Hydrant valve complete in all respect	Rs.75,000
Total	Rs.36,50,000.00
(C/O To Abstract of Cost for Sub work No.1)	39.60 lacs



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Sub-Work No. II

SEWERAGE SCHEME

Amount in Rs.

1. Providing Laying jointing and testing sewer pipe line including fitting valves, Manholes & cost of excavation etc complete in all respect (Upto 2 mtr Depth)

S.W. PIPE

a) 200mm i/d 1605 M @ Rs.1700 / M	Rs.27,28,500
b) 250mm i/d 316 M @ Rs.2000 M	Rs.6,32,000
c) 100 mm i/d 433 M @ Rs 1460/M (Sewer Bye Pass Riser Line D.I pipe)	Rs.6,32,180

2. Providing Laying jointing and testing sewer pipe line including fitting valves, Manholes & cost of excavation etc complete in all respect (Above 2 mtr Depth)

a) 200mm i/d 338 M @ Rs. 1700/M	Rs.5,74,600
a) 250mm i/d 284 M @ Rs.2000/M	Rs.5,68,000

- 2 Provision for carriage of materials & other unforeseen items, - Lump Sum

Rs.2,00,000

3. Provision for making connection with H.SVP sewer on master roads. (2 Nos.)

Rs.2,00,000

4. Provision for providing & fixing vent shaft at suitable places as per P.H. requirement, - Lump Sum

Rs.5,00,000

5. Providing & installation **850** 780 KLD compact sewerage plant complete in all respects. (Including Tertiary Treatment) @ Rs.16000/KLD

Rs.1,24,80,000

- 6 Provision for cutting of roads and making good condition

Rs.1,00,000

Total

185.93 Lakhs

Add 3% contingencies & PH charges

Rs.1,88,15,280

5.57 Lakhs

Total

Add 49% Price Escalation, Departmental charges

Rs.1,93,74,738

191.50 Lakhs

TOTAL

Rs.2,88,75,819

285.34 Lakhs

SAY IN LACS

288.76

(Cost to Final abstract of cost)



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Sub-Work No. III

STORM WATER SCHEME

Amount in Rs.

1. Providing and laying R.C.C. pipe drain class NP-3 With cement joint, Catch Basins & Road Gullies, manholes excavation etc complete in all respect.	
a) 400 mm dia. 1590 M @ Rs. 2500/m (upto 2 mtr. Depth)	Rs.39,75,000
b) 400 mm dia. 475 M @ Rs. 2700/m (above 2 mtr. Depth)	Rs.12,82,500
2. Provision for lighting and watcing - Lump Sum	Rs.2,50,000
3. Provision for roads gullies & connecting pipe 300 mm dia - Lump Sum	Rs.7,50,000
4. Providing for rainwater harvesting arrangements at selected places 16 Nos for Plotted @ Rs 350,000/Each	Rs.56,00,000
5. Provision for Shoring & Timbering - Lump Sum	Rs.3,50,000
7. Providing for lighting, watering and timebring drains & other unforeseen charges - Lump Sum	Rs.1,50,000
8. Provision for making connection with HSVP Mains on master road - Lump Sum	Rs.2,00,000
9. Provision for temporary disposal arrangements till HSVP services are provided.	Rs.20,00,000
Total	Rs.1,45,57,500
Add 3% for contingencies and PFI charges	Rs.4,36,725
Total	Rs.1,49,94,225
Add 49% Departmental charges	Rs.73,47,170
TOTAL (Cost to Final abstract of cost)	Rs.2,23,41,395
SAY IN LACS	223.41



For TULA REALTOR PVT. LTD.


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SUBJECT: POPULATION & WATER DEMAND CALCULATIONS

S. No.	Unit Type	Category as per latest NBC	Total No. of Plots	Total Area (in Sqm)	Persons considered per plot as per HSNVP norms	Total Population	LPCD Factor for Potable Water Req.	LPCD Factor for Flushing Water Req.	Potable Water Requirement (LPD)	Flushing Water Requirement (LPD)	Total Water Requirement (LPD)
I.	DOMESTIC WATER DEMAND										
1	Plots	Residential	377		135	5090			588193.5	289745.2	8,77,939
2	Commercial Block	Business		1824.55 or 0.43086 ac		32000 Ltr./Acre			9666.4	4761.1	14,428
3	Common Facilities			7760.00 or 1.91754 ac		25000 Ltr./Acre			32118.8	15819.7	47,939
				Total					629978.7	310326.0	940305
	Say in Cum/day			Grand Total					6,29,979	310326	9,40,305
									630	310	940
II.	HORTICULTURAL WATER DEMAND										
	For approx. 20% of Total site area approx. 0.47560 Acre @ 25000 litre/Acre(say)										
	Total, Say (in Cum. per day)										
III.	TUBE WELLS										
(a)	Yield										
(b)	Working Hours per Day										
(c)	Discharge per Tube well										
(d)	Total Fresh water demand										
(e)	Number of Tube wells required,										
(f)	(Water Demand Discharge/Hours working per day)										
(g)	Add 5% as standby										
				Total						15	KL/Hr
				Sav						20	Hours per Day
										300	m ³ /day
										630	m ³ /day
										2.10	
										0.21	Nos.
										2.31	Nos.
										3.00	Nos.

(Water to the proposed development is to be supplied by HSNVP and it is proposed to install the tube-wells for augmentation/standby purposes)

(Water to the proposed development is to be supplied by HSVP and it is proposed to install the tube-wells for augmentation/standby purposes).

For TULA REALTOR PVT. LTD.

MB

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$$\begin{array}{r} 5678 \text{ or} \\ 36 \mu \\ 23.50 \mu \\ \hline 59.50 \mu \\ 59.60 \mu \end{array}$$

IV. PUMPING MACHINERY FOR TUBEWELLS			
(a)	Gross Working Head	60	Meters
(b)	Average fall in S.I	2	Meters
(c)	Depression Head	6	Meters
(d)	Friction loss in main	10	Meters
	Total	78	Meters
(e)	Discharge	15000	LPH
(f)	Horse Power	7.22	HP
	HP = $(15000 \times 78 \times 1) / (60 \times 60 \times 75 \times 0.6)$		
	Say	4.00	HP
		7.50	
V. UNDER GROUND TANK			
(a)	Total water demand (Daily for Domestic purposes)	630	m ³ /day
(b)	Capacity of U.G. tank @60% 630		
(b)	Proposed capacity of underground tanks (Raw + Domestic) for domestic use. $(25+33\%) = 58\%$ (SAY 60%) storage (One day Storage) = $0.6 \times 630 = 378$	378.0	m ³
(c)	Proposed capacity of underground static tank for fire = $100 \times \text{sqroot of } 5090 / 1000 = 225.6 \text{ KL (SAY 225 KL)}$ x113	75	m ³
	TOTAL	453	m ³ /day
	Say	453	m ³ /day
		655 KL	
F. Water Tank = $310 \text{ KL} + 60 \text{ KL} = 370 \text{ KL} @ 60\% = 222 \text{ KL say } 225 \text{ KL}$			
VI (A) BOOSTING MACHINERY (Water Supply Pumps)			
(a)	Daily Domestic Water Demand	630	m ³ /day
(b)	Discharge per hour @ 6 hr. pumping / day	105.00	m ³ /Hour
	Say	175.00	1 PM
(c)	No. of Working pump (2 working + one standby)	3	
(d)	Proposed Pump discharge (Working)	38.33	LPM
	Say	875	1 PM
	Gross Working Head		
(a)	Suction lift - positive suction	6	Meters
(b)	Frictional Loss in Mains & Specials	9	Meters
(c)	Max Clear Head required	30	Meters
	Total	45	Meters
(g)	H.P. of each pump required	14.56 HP	
	Pump H.P.	975×4.5	
	Say	6075×0.66	
		4010.25	

say 380 KL
75 KL
455 KL



For TULAREALTOR PVT. LTD.
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VI (B) BOOSTING MACHINERY (Flushing & Garden Supply Pumps from STP)			
(a)	Daily Flushing & Horticultural Water Demand.		m ³ /day
(b)	Discharge per hour @ 6 hr. pumping / day	30.83	m ³ /Hour
(c)	No. of Working pump	2	LPM
(d)	Proposed Pump discharge (Working)	513.8	LPM
	Gross Working Head	520	LPM
(e)	Suction lift – positive suction		Meters
(f)	Frictional Loss in Mains & Specials		Meters
(g)	Max Clear Head required		Meters
	Total		Meters
(h)	H.P. of each pump required (Pump H.P.)	8.66	HP
	Say	10.0	HP
VIL GENERATING SETS			
1	HP of Tube well pump	22.80	HP
2	HP of Domestic water supply pump	30.4	HP
3	HP of Flushing water supply Pump	20.6	HP
4	Add for lighting	10.1	HP
	Total	82.90	HP
	in KVA	92.31 KVA	KVA
	SAY	say 100 KVA	KVA
VIII. STP CAPACITY			
1	Total water required Domestic + Flushing		KL
2	Water go to STP @ 80%	752.0	KL
3	Add for 10% for margin	75.20	KL
	TOTAL	827.20	KL
	SAY	say 850 KL	KL

For TULA REALTOR PVT. LTD.

[Signature]

Authorised Signatory



PROJECT: PLOTTED COLONY UNDER DDJAY LAND MEASURING 19.17500 ACRES IN SECTOR-1, TEHSIL-PATAUDI, DISTT- GURUGRAM, HARYANA

SUBJECT : ROAD WORKS

S. No.	Description	Unit	Qty	Rate (in Rs.)	Amount (in Rs.)
1	Provision for leveling & earth filling as per site conditions	Acre.	19.17500	1,75,000.00	33,55,625.00
2	Provision for 200 mm GSB, 250 mm Stone Aggregate, 50 mm DBM, 30 mm BC. (11570 sqm. @ 1500/sqm.	SQM.	11570 11945	1,500	1,73,55,000 179.18 lacs
3	Providing of Paver block on both side of road (5061 sqm. @ Rs. 1000/-) 2087x2x1.20	Sqm	5010	1000	50,61,000 50.10 lacs
4	Providing of kerbs stone & channels of CC 1: 2.5: 5 (kerb stone on both side of road as per specification 90 m wide roads) @ 600/Meter. 4175 m	mtr	2476 4175	600	23,85,000 25.05 lacs
5	Provision for guide map and other unforeseen item - Lump Sum				2,00,000
6	Provision for plot indicators - Lump Sum				2,00,000
7	Provision for demarcating burgies - Lump Sum				2,00,000
8	Provision for traffic aggrangement - Lump Sum				2,00,000
9	Provision for carriage of material & unforeseen items - Lump Sum				10,00,000
10	Provision for Pavement in commercial area and pavements. (50% OF AREA)	Sqm	912.28	1,000.00	9,12,275.00
	Sub Total				315.01 lacs
	Add 3% contingencies & PH charges				9.45
	Sub Total				324.46
	Add 49% Departmental Charges , Price escalation, unforeseen & Admin. Charges				158.99
	Total				483.45 lacs
	Say Rs in Lakhs (C/O to Final abstract of cost)				487.61

For TULA REALTOR PVT. LTD.
DB
Authorised Signatory



PROJECT: PLOTTED COLONY UNDER DDJAY LAND MEASURING
19.17500 ACRES IN SECTOR-1, TEHSIL-PATAUDI, DISTT-
GURUGRAM, HARYANA

SUBJECT: ROAD AREA

S. NO	ROAD NO	ROAD LENGTH IN M	ROAD WIDTH (CARPETED) IN M	AREA N SQM
1	1-2	24.00	5.5	132.0
2	2-3	106.00	5.5	583.0
3	3-4	21.00	5.5	115.5
4	4-5	30.00	5.5	165.0
5	5-6	27.00	5.5	148.5
6	6-7	94.00	5.5	517.0
7	7-8	18.00	5.5	99.0
8	7-2	45.00	5.5	247.5
9	6-9	43.00	5.5	236.5
10	9-10	45.00	5.5	247.5
11	9-11	42.00	5.5	231.0
12	11-12	45.00	5.5	247.5
13	11-13	42.00	5.5	231.0
14	13-14	45.00	5.5	247.5
15	13-15	41.00	5.5	225.5
16	15-17	20.00	5.5	110.0
17	15-16	45.00	5.5	247.5
18	5-18	17.00	5.5	93.5
19	18-22	43.00	5.5	236.5
20	22-21	10.00	5.5	55.0
21	21-20	39.00	5.5	214.5
22	20-19	5.00	5.5	27.5
23	22-23	147.00	7.0	1029.0
24	23-24	10.00	5.5	55.0
25	24-25	18.00	7.0	126.0
26	21-25	129.00	7.0	903.0
27	25-26	39.00	5.5	214.5
28	20-26	129.00	5.5	709.5
29	26-27	42.00	5.5	231.0
30	27-29	21.00	5.5	115.5
31	27-28	43.00	5.5	236.5
32	23-30	30.00	5.5	165.0
33	30-31	14.00	5.5	77.0
34	31-32	48.00	5.5	264.0
35	31-33	35.00	5.5	192.5
36	33-34	17.00	5.5	93.5
37	34-35	99.00	5.5	544.5
38	35-36	101.00	5.5	555.5
39	35-37	45.00	5.5	247.5
40	37-40	9.00	5.5	49.5
41	37-38	154.00	5.5	847.0
42	38-39	11.00	5.5	60.5
43	TOTAL	1988.00		11570.0

LENGTH OF KERB STONE	3976.00	RM
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For TULA REALTOR PVT. LTD.

Authorised Signatory



PROJECT: PLOTTED COLONY UNDER DDJAY LAND MEASURING 19.17500 ACRES IN SECTOR-1,
TEHSIL-PATAUDI, DISTT- GURUGRAM, HARYANA

SUBJECT: EXTERNAL LIGHTING

S.No.	Discription	UM	Qty.	Rate	Amount
1	Providing and installing street light on roads as for standard specification of DHVPN with LED	Acres	19.17500	250000	4793750
2	Contingency and Frieght Charges @ 3%				143812.5
	TOTAL				4937562.5
3	ADD 49% Depitt charges, price escalation unforeseen & dmin charges				2419405.6
4	TOTAL				7356968.1
	Say Rs in Lakhs (C/O to Final abstract of cost)				Rs 73.57 Lacs



For TULA REALTOR PVT. LTD.


Authorised Signatory

PROJECT: PLOTTED COLONY UNDER DDJAY LAND MEASURING 19.17500 ACRES IN SECTOR-1, TEHSIL-PATAUDI, DISTT- GURUGRAM, HARYANA

SUBJECT: PLANTATION & ROAD SIDE TRESS

S.No.	Description	Unit	Qty	Rate (in Rs.)	Amount (in Rs.)
1	Development of organised lawn green area.	Acre	1.4315	1,50,000.00	2,16,472.50
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.				
b	Rough dressing of turfed area.				
c	Grassing with "DOOB GRASS" i/c watering and maintenance of lawns for 30 days till the grass forms a thick lawn, free from weeds and fit for mowing in row 7.5 cm part in either direction.				
2	Providing and planting trees along boundary @ 12 m interval = $(1985/12) \times 2 = 347.83$ <i>2097</i> <i>Say 350 No</i>	Nos.	<i>350</i>	<i>2310</i>	<i>8.09</i>
	Cost Detail				
	Excavation		<i>60.00</i>		
	Manure		100.00		
	Tree Plant		<i>5</i>	150.00	
	Tree Guard		<i>2000.00</i>		
	Total		<i>2310</i>	<i>1450.00</i>	
	Sub Total				<i>9.05,105.83</i>
	Add 3% contingencies & PH charges				<i>27.853.18</i>
	Sub Total				<i>10,24,959.01</i>
	Add 49% Departmental charges				<i>1,87,601.16</i>
	Total				<i>12,12,560.17</i>
	Say Rs in Lakhs				<i>12.13</i>
	(C/O to Final abstract of cost)				

10.25 lacs
0.31 lacs
10.56 lacs
5.17 lacs
15.73 lacs

For TULA REALTOR PVT. LTD.

Authorised Signatory



PROJECT: PLOTTED COLONY UNDER DDJAY LAND MEASURING 19.17500 ACRES IN SECTOR-1, TEHSIL-PATAUDI, DISTT-GURUGRAM, HARYANA

SUBJECT : MTC CHARGES & RESURFACING OF ROADS

S.No.	Description	Unit	Qty	Rate (in Rs.)	Amount (in Rs.)
1	Providing of M/C charges for Water Supply, Sewerage, Storm water drainage, Roads, Street lighting, Plantation etc. complete in all aspect, including operational and establishment charges as per HUDA norms for 10 years completion.				153.40
	Area 19.175 acres @ 8.00 lacs per acre	ACRE	19.175	8.00 lacs	153.40 lacs
2	Providing of resurfacing of roads after 5 years 100mm thick layer 100mm thick BUSG compete to 25mm thick premix carpet with seal coat				78.84
	Total Road Area 11570 sqm @ 660 per sqm	Sqm	11945	660	78.84 lacs
3	Providing of resurfacing of roads after 10 years with 25mm thick premix carpet with seal coat with mech paver.				98.55
	Total Road Area 11570 sqm @ 825 per sqm	Sqm	11945	825	98.55 lacs
	Sub Total				325,21,450.00
	Add 3% contingencies & PH charges				9,75,643.50
	Sub Total				3,34,97,093.50
	Add 49% Departmental charges				1,64,13,575.82
	Total				4,99,10,669.32
	Say Rs in Lakhs (C/O to Final abstract of cost)				499.11

330.79 lacs

9.92 lacs

340.71 lacs

166.95 lacs

507.66 lacs

For TULA REALTOR PVT. LTD.

MB
Authorised Signatory



PROJECT: PLOTTED COLONY UNDER DDJAY LAND MEASURING 1917500 ACRES IN SECTOR-4, TEHSIL-JAIPALDI, DISTT-GURUGRAM, HARYANA
SUBJECT: SEWERAGE SYSTEM DESIGN SHEET

S.No.	Sewer Line		No. of Plots	Population / PLOT	Total Population	Water Supply	Total Water Requirement	Sewage Discharge (LPD)			Average Sewage Discharge	Peak Sewage Discharge			Size of Pipe	Velocity		Design Discharge	Length of Line	Slope	Fall in Meters		Ground level		Invert Level		Depth of MH		Average depth of pipe
	From	To						Self	Branch	Total		LPS	Cum sec	LPS		mm	ft/sec				M/S	Cu sec	Meters	As per slope	As per Gradient	Start	End	Start	
1	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	
1	1	1	2	12, Common Factory & Commercial	13.5	547	172.5	97808	73356	0.834	0.09	240	2.42	0.74	0.41	136	200	0.000	0.000	251.00	251.00	249.50	249.12	1.20	1.88	1.54			
2	2	2	4		13.5	67.5	123.4	11641	8733	73356	82088	0.050	2.85	0.10	200	2.42	0.71	0.41	38	200	0.000	0.000	251.00	251.00	249.12	248.93	1.88	2.07	1.07
3	3	3	4		13.5	34	122.5	60548	45411				1.58	0.06	200	2.42	0.71	0.41	84	200	0.000	0.000	251.00	251.00	249.50	249.38	1.30	1.62	1.41
4	4	4	5		13.5	41.5	122.5	72191	34145	127490	181643		6.15	0.22	200	2.42	0.74	0.41	103	200	0.000	0.000	251.00	251.00	248.00	248.12	2.07	2.58	2.33
5	5	5	6		13.5	40.5	122.5	60886	32401	181643	186882		5.40	0.23	200	2.42	0.74	0.41	177	200	0.000	0.000	251.00	251.00	247.42	248.33	2.58	2.67	2.63
6	6	6	7		13.5	34	122.5	9515	6886	186882	203668		2.24	0.24	200	2.42	0.74	0.41	37	200	0.000	0.000	251.00	251.00	247.33	248.20	2.67	2.51	2.71
7	7	7	8		13.5	0	122.5	0		143668	194668	2343	6.73	0.24	200	2.42	0.74	0.41	6	200	0.000	0.000	251.00	251.00	247.33	248.20	2.67	2.51	2.71
8	8	8	9		13.5	135	122.5	23288	17400	17400	17400		0.81	0.02	200	2.42	0.74	0.41	45	200	0.000	0.000	251.00	251.00	247.33	248.20	2.67	2.51	2.71
9	9	9	10		13.5	54	122.5	9315	6886	17400	23288		0.81	0.01	200	2.42	0.74	0.41	11	200	0.000	0.000	251.00	251.00	247.33	248.20	2.67	2.51	2.71
10	10	10	11		13.5	81	122.5	13973	10129	21132	31051		0.44	0.04	200	2.42	0.74	0.41	10	200	0.000	0.000	251.00	251.00	247.33	248.20	2.67	2.51	2.71
11	11	11	12		13.5	162	122.5	27915	20169	21132	23039		0.75	0.03	200	2.42	0.74	0.41	15	200	0.000	0.000	251.00	251.00	247.33	248.20	2.67	2.51	2.71
12	12	12	13		13.5	92.5	122.5	16301	12226	31051	23039		0.75	0.03	200	2.42	0.74	0.41	15	200	0.000	0.000	251.00	251.00	247.33	248.20	2.67	2.51	2.71
13	13	13	14	13.5	162	122.5	27915	20169	31051	23039		0.75	0.03	200	2.42	0.74	0.41	15	200	0.000	0.000	251.00	251.00	247.33	248.20	2.67	2.51	2.71	
14	14	14	15	13.5	162	122.5	27915	20169	31051	23039		0.75	0.03	200	2.42	0.74	0.41	15	200	0.000	0.000	251.00	251.00	247.33	248.20	2.67	2.51	2.71	
15	15	15	16	13.5	162	122.5	27915	20169	31051	23039		0.75	0.03	200	2.42	0.74	0.41	15	200	0.000	0.000	251.00	251.00	247.33	248.20	2.67	2.51	2.71	
16	16	16	17	13.5	162	122.5	27915	20169	31051	23039		0.75	0.03	200	2.42	0.74	0.41	15	200	0.000	0.000	251.00	251.00	247.33	248.20	2.67	2.51	2.71	
17	17	17	18	13.5	162	122.5	27915	20169	31051	23039		0.75	0.03	200	2.42	0.74	0.41	15	200	0.000	0.000	251.00	251.00	247.33	248.20	2.67	2.51	2.71	
18	18	18	19	13.5	162	122.5	27915	20169	31051	23039		0.75	0.03	200	2.42	0.74	0.41	15	200	0.000	0.000	251.00	251.00	247.33	248.20	2.67	2.51	2.71	
19	19	19	20	13.5	162	122.5	27915	20169	31051	23039		0.75	0.03	200	2.42	0.74	0.41	15	200	0.000	0.000	251.00	251.00	247.33	248.20	2.67	2.51	2.71	
20	20	20	21	13.5	162	122.5	27915	20169	31051	23039		0.75	0.03	200	2.42	0.74	0.41	15	200	0.000	0.000	251.00	251.00	247.33	248.20	2.67	2.51	2.71	
21	21	21	22	13.5	162	122.5	27915	20169	31051	23039		0.75	0.03	200	2.42	0.74	0.41	15	200	0.000	0.000	251.00	251.00	247.33	248.20	2.67	2.51	2.71	
22	22	22	23	13.5	162	122.5	27915	20169	31051	23039		0.75	0.03	200	2.42	0.74	0.41	15	200	0.000	0.000	251.00	251.00	247.33	248.20	2.67	2.51	2.71	
23	23	23	24	13.5	162	122.5	27915	20169	31051	23039		0.75	0.03	200	2.42	0.74	0.41	15	200	0.000	0.000	251.00	251.00	247.33	248.20	2.67	2.51	2.71	
24	24	24	25	13.5	162	122.5	27915	20169	31051	23039		0.75	0.03	200	2.42	0.74	0.41	15	200	0.000	0.000	251.00	251.00	247.33	248.20	2.67	2.51	2.71	
25	25	25	26	13.5	162	122.5	27915	20169	31051	23039		0.75	0.03	200	2.42	0.74	0.41	15	200	0.000	0.000	251.00	251.00	247.33	248.20	2.67	2.51	2.71	
26	26	26	27	13.5	162	122.5	27915	20169	31051	23039		0.75	0.03	200	2.42	0.74	0.41	15	200	0.000	0.000	251.00	251.00	247.33	248.20	2.67	2.51	2.71	
27	27	27	28	13.5	162	122.5	27915	20169	31051	23039		0.75	0.03	200	2.42	0.74	0.41	15	200	0.000	0.000	251.00	251.00	247.33	248.20	2.67	2.51	2.71	
28	28	28	29	13.5	162	122.5	27915	20169	31051	23039		0.75	0.03	200	2.42	0.74	0.41	15	200	0.000	0.000	251.00	251.00	247.33	248.20	2.67	2.51	2.71	
29	29	29	30	13.5	162	122.5	27915	20169	31051	23039		0.75	0.03	200	2.42	0.74	0.41	15	200	0.000	0.000	251.00	251.00	247.33	248.20	2.67	2.51	2.71	
30	30	30	31	13.5	162	122.5	27915	20169	31051	23039		0.75	0.03	200	2.42	0.74	0.41	15	200	0.000	0.000	251.00	251.00	247.33	248.20	2.67	2.51	2.71	
31	31	31	32	13.5	162	122.5	27915	20169	31051	23039		0.75	0.03	200	2.42	0.74	0.41	15	200	0.000	0.000	251.00	251.00	247.33	248.20	2.67	2.51	2.71	
32	32	32	33	13.5	162	122.5	27915	20169	31051	23039		0.75	0.03	200	2.42	0.74	0.41	15	200	0.000	0.000	251.00	251.00	247.33	248.20	2.67	2.51	2.71	
33	33	33	34	13.5	162	122.5	27915	20169	31051	23039		0.75	0.03	200	2.42	0.74	0.41	15	200	0.000	0.000	251.00	251.00	247.33	248.20	2.67	2.51	2.71	
34	34	34	35	13.5	162	122.5	27915	20169	31051	23039		0.75	0.03	200	2.42	0.74	0.41	15	200	0.000	0.000	251.00	251.00	247.33	248.20	2.67	2.51	2.71	
35	35	35	36	13.5	162	122.5	27915	20169	31051	23039		0.75	0.03	200	2.42	0.74	0.41	15	200	0.000	0.000	251.00	251.00	247.33	248.20	2.67	2.51	2.71	
36	36	36	37	13.5	162	122.5	27915	20169	31051	23039		0.75	0.03	200	2.42	0.74	0.41	15	200	0.000	0.000	251.00	251.00	247.33	248.20	2.67	2.51	2.71	
37	37	37	38	13.5	162	122.5	27915	20169	31051	23039		0.75	0.03	200	2.42	0.74	0.41	15	200	0.000	0.000	251.00	251.00	247.33	248.20	2.67	2.51	2.71	
38	38	38	39	13.5	162	122.5	27915	20169	31051	23039		0.75	0.03	200	2.42	0.74	0.41	15	200	0.000	0.000	251.00	251.00	247.33	248.20	2.67	2.51	2.71	
39	39	39	40	13.5	162	122.5	27915	20169	31051	23039		0.75	0.03	200	2.42	0.74	0.41	15	200	0.000	0.000	251.00	251.00	247.33	248.20	2.67	2.51	2.71	
40	40	40	41	13.5	162	122.5																							

PROJECT: PLOTTED COLONY UNDER DDJAY LAND
MEASURING 19.17500 ACRES IN SECTOR-1, TEHSIL-
PATAUDI, DISTT-GURUGRAM, HARYANA

SUBJECT : SEWERAGE SYSTEM SHEET

S.No.	Sewer Line		Size of Pipe MM	Length of Line Meters
	From	To		
1	1	2	200	136
2	2	4	200	38
3	3	4	200	84
4	4	5	200	103
5	5	6	200	17
6	6	7	200	27
7	7	8	200	6
8	35	36	200	45
9	37	36	200	11
10	36	34	200	40
11	33	34	200	45
12	34	32	200	42
13	31	32	200	45
14	32	30	200	43
15	29	30	200	45
16	30	28	200	44
17	25	27	200	35
18	26	27	200	13
19	27	28	200	100
20	28	22	200	23
21	24	23	200	128
22	23	22	200	45
23	22	21	250	25
24	21	13	250	189
25	20	14	200	141
26	19	15	200	129
27	17	16	200	33
28	18	16	200	16
29	16	15	200	48
30	15	14	200	30
31	14	13	200	25
32	13	11	250	48
33	12	11	200	62
34	11	10	250	2
35	10	8	250	12
36	8	9	250	15
37	9	STP	250	25
Total 200 Dia Pipe (Avg depth 1.20 - 2.70 M)				1605
Total 250 Dia Pipe (Avg depth 1.20 - 2.70 M)				316
Total				1921

For TULA REALTOR PVT. LTD.

MB

Authorised Signatory



PROJECT: PLOTTED COLONY UNDER DDJAY LAND MEASURING 19.17500 ACRES IN SECTOR-I, TEHSIL-PATAUDI, DISTT- GURUGRAM, HARYANA

SUBJECT : DRAINAGE SYSTEM DESIGN SHEET

S. No.	LINE NO.		Self Area (sqm)	Branch Area (Acre)	Total Area (Acre)	Total Area (Hectare)	Rain fall mm/hr	Discharge @ 17.26 LPS/Hectare	Length in m	Pipe dia in mm	Slope 1 in	Velocity m/sec	Cap of pipe in Ips	Fall in line m	Ground Level		Invert Level		Depth	
	FROM	TO													Start	End	Start	End	Start	Average
1	32	31	993.42	0.15	0.15	0.06	6.25	1.03	20.00	400	500	0.64	80.75	0.04	251.00	251.00	249.80	249.76	1.20	1.24
2	31	30	237.37	0.06	0.15	0.08	6.25	1.44	6.00	400	500	0.64	80.75	0.02	251.00	251.00	249.76	249.74	1.24	1.26
3	30	29	594.13	0.22	0.22	0.09	6.25	1.55	30.00	400	500	0.64	80.75	0.06	251.00	251.00	249.74	249.68	1.26	1.29
4	29	28	3590.20	0.89	0.43	0.53	6.25	9.22	121.00	400	500	0.64	80.75	0.21	251.00	251.00	249.74	249.50	1.26	1.30
5	28	27	1335.20	0.53	1.31	1.04	6.25	11.34	45.00	400	500	0.64	80.75	0.09	251.00	251.00	249.50	249.41	1.30	1.34
6	27	26	320.38	0.08	0.08	0.03	6.25	0.57	11.00	400	500	0.64	80.75	0.02	251.00	251.00	249.50	249.48	1.34	1.36
7	26	25	1038.49	0.26	0.26	0.10	6.25	1.89	35.00	400	500	0.64	80.75	0.07	251.00	251.00	249.48	249.37	1.36	1.40
8	25	24	1240.19	0.31	0.54	0.65	6.25	4.53	42.00	400	500	0.64	80.75	0.08	251.00	251.00	249.37	249.65	1.40	1.43
9	24	23	1038.49	0.26	0.26	0.10	6.25	1.89	35.00	400	500	0.64	80.75	0.07	251.00	251.00	249.65	249.50	1.43	1.47
10	23	22	1240.19	0.31	0.40	0.49	6.25	8.50	42.00	400	500	0.64	80.75	0.08	251.00	251.00	249.50	249.73	1.47	1.51
11	22	21	1038.49	0.26	0.26	0.10	6.25	1.89	35.00	400	500	0.64	80.75	0.07	251.00	251.00	249.73	249.80	1.51	1.55
12	21	20	1336.19	0.53	1.77	0.72	6.25	12.47	42.00	400	500	0.64	80.75	0.08	251.00	251.00	249.80	249.56	1.55	1.58
13	20	19	1038.49	0.26	0.26	0.10	6.25	1.89	35.00	400	500	0.64	80.75	0.07	251.00	251.00	249.56	249.80	1.58	1.62
14	19	18	1240.19	0.31	0.23	0.34	6.25	10.43	42.00	400	500	0.64	80.75	0.07	251.00	251.00	249.80	249.73	1.62	1.66
15	18	17	1038.49	0.26	0.26	0.10	6.25	1.89	35.00	400	500	0.64	80.75	0.07	251.00	251.00	249.73	249.80	1.66	1.70
16	17	16	1038.49	0.26	0.26	0.10	6.25	1.89	35.00	400	500	0.64	80.75	0.07	251.00	251.00	249.80	249.80	1.70	1.74
17	16	15	1240.19	0.31	0.31	0.34	6.25	23.44	42.00	400	500	0.64	80.75	0.07	251.00	251.00	249.80	249.80	1.74	1.78
18	15	14	1038.49	0.26	0.26	0.10	6.25	1.89	35.00	400	500	0.64	80.75	0.07	251.00	251.00	249.80	249.80	1.78	1.82
19	14	13	1038.49	0.26	0.26	0.10	6.25	1.89	35.00	400	500	0.64	80.75	0.07	251.00	251.00	249.80	249.80	1.82	1.86
20	13	12	1038.49	0.26	0.26	0.10	6.25	1.89	35.00	400	500	0.64	80.75	0.07	251.00	251.00	249.80	249.80	1.86	1.90
21	12	11	1038.49	0.26	0.26	0.10	6.25	1.89	35.00	400	500	0.64	80.75	0.07	251.00	251.00	249.80	249.80	1.90	1.94
22	11	10	1038.49	0.26	0.26	0.10	6.25	1.89	35.00	400	500	0.64	80.75	0.07	251.00	251.00	249.80	249.80	1.94	1.98
23	10	9	1038.49	0.26	0.26	0.10	6.25	1.89	35.00	400	500	0.64	80.75	0.07	251.00	251.00	249.80	249.80	1.98	2.02
24	9	8	1038.49	0.26	0.26	0.10	6.25	1.89	35.00	400	500	0.64	80.75	0.07	251.00	251.00	249.80	249.80	2.02	2.06
25	8	7	1038.49	0.26	0.26	0.10	6.25	1.89	35.00	400	500	0.64	80.75	0.07	251.00	251.00	249.80	249.80	2.06	2.10
26	7	6	1038.49	0.26	0.26	0.10	6.25	1.89	35.00	400	500	0.64	80.75	0.07	251.00	251.00	249.80	249.80	2.10	2.14
27	6	5	1038.49	0.26	0.26	0.10	6.25	1.89	35.00	400	500	0.64	80.75	0.07	251.00	251.00	249.80	249.80	2.14	2.18
28	5	4	1038.49	0.26	0.26	0.10	6.25	1.89	35.00	400	500	0.64	80.75	0.07	251.00	251.00	249.80	249.80	2.18	2.22
29	4	3	1038.49	0.26	0.26	0.10	6.25	1.89	35.00	400	500	0.64	80.75	0.07	251.00	251.00	249.80	249.80	2.22	2.26
30	3	2	1038.49	0.26	0.26	0.10	6.25	1.89	35.00	400	500	0.64	80.75	0.07	251.00	251.00	249.80	249.80	2.26	2.30
31	2	1	1038.49	0.26	0.26	0.10	6.25	1.89	35.00	400	500	0.64	80.75	0.07	251.00	251.00	249.80	249.80	2.30	2.34
32	1	0	1038.49	0.26	0.26	0.10	6.25	1.89	35.00	400	500	0.64	80.75	0.07	251.00	251.00	249.80	249.80	2.34	2.38
33	0	0	1038.49	0.26	0.26	0.10	6.25	1.89	35.00	400	500	0.64	80.75	0.07	251.00	251.00	249.80	249.80	2.38	2.42
34	0	0	1038.49	0.26	0.26	0.10	6.25	1.89	35.00	400	500	0.64	80.75	0.07	251.00	251.00	249.80	249.80	2.42	2.46
35	0	0	1038.49	0.26	0.26	0.10	6.25	1.89	35.00	400	500	0.64	80.75	0.07	251.00	251.00	249.80	249.80	2.46	2.50
36	0	0	1038.49	0.26	0.26	0.10	6.25	1.89	35.00	400	500	0.64	80.75	0.07	251.00	251.00	249.80	249.80	2.50	2.54
37	0	0	1038.49	0.26	0.26	0.10	6.25	1.89	35.00	400	500	0.64	80.75	0.07	251.00	251.00	249.80	249.80	2.54	2.58
38	0	0	1038.49	0.26	0.26	0.10	6.25	1.89	35.00	400	500	0.64	80.75	0.07	251.00	251.00	249.80	249.80	2.58	2.62
39	0	0	1038.49	0.26	0.26	0.10	6.25	1.89	35.00	400	500	0.64	80.75	0.07	251.00	251.00	249.80	249.80	2.62	2.66
40	0	0	1038.49	0.26	0.26	0.10	6.25	1.89	35.00	400	500	0.64	80.75	0.07	251.00	251.00	249.80	249.80	2.66	2.70
41	0	0	1038.49	0.26	0.26	0.10	6.25	1.89	35.00	400	500	0.64	80.75	0.07	251.00	251.00	249.80	249.80	2.70	2.74
42	0	0	1038.49	0.26	0.26	0.10	6.25	1.89	35.00	400	500	0.64	80.75	0.07	251.00	251.00	249.80	249.80	2.74	2.78
43	0	0	1038.49	0.26	0.26	0.10	6.25	1.89	35.00	400	500	0.64	80.75	0.07	251.00	251.00	249.80	249.80	2.78	2.82
44	0	0	1038.49	0.26	0.26	0.10	6.25	1.89	35.00	400	500	0.64	80.75	0.07	251.00	251.00	249.80	249.80	2.82	2.86
45	0	0	1038.49	0.26	0.26	0.10	6.25	1.89	35.00	400	500	0.64	80.75	0.07	251.00	251.00	249.80	249.80	2.86	2.90
46	0	0	1038.49	0.26	0.26	0.10	6.25	1.89	35.00	400	500	0.64	80.75	0.07	251.00	251.00	249.80	249.80	2.90	2.94
47	0	0	1038.49	0.26	0.26	0.10	6.25	1.89	35.00	400	500	0.64	80.75	0.07	251.00	251.00	249.80	249.80	2.94	2.98
48	0	0	1038.49	0.26	0.26	0.10	6.25	1.89	35.00	400	500	0.64	80.75	0.07	251.00	251.00	249.80	249.80	2.98	3.02

For TULA REALTOR PVT. LTD.

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PROJECT: PLOTTED COLONY UNDER DDJAY LAND
MEASURING 19.17500 ACRES IN SECTOR-1, TEHSIL-
PATAUDI, DISTT- GURUGRAM, HARYANA

SUBJECT: DRAINAGE SYSTEM SHEET

S. No.	Line No.		Pipe dia.	Length
	From	To	mm	Meters
1	32	31	400	20.00
2	31	30	400	8.00
3	36	30	400	30.00
4	30	29	400	121.00
5	29	28	400	45.00
6	46	44	400	11.00
7	45	44	400	35.00
8	44	42	400	42.00
9	43	42	400	35.00
10	42	40	400	42.00
11	41	40	400	35.00
12	40	38	400	17.00
13	39	38	400	35.00
14	38	37	400	42.00
15	35	37	400	102.00
16	37	28	400	34.00
17	28	27	400	58.00
18	25	26	400	39.00
19	26	27	400	15.00
20	27	17	400	126.00
21	23	22	400	33.00
22	24	22	400	18.00
23	22	21	400	36.00
24	20	21	400	107.00
25	21	18	400	37.00
26	19	18	400	107.00
27	18	17	400	22.00
28	17	15	400	18.00
29	1	2	400	14.00
30	2	3	400	167.00
31	3	4	400	44.00
32	5	4	400	109.00
33	4	6	400	100.00
34	6	7	400	17.00
35	7	8	400	35.00
36	9	8	400	53.00
37	8	10	400	16.00
38	10	11	400	7.00
39	14	13	400	109.00
40	13	12	400	5.00
41	12	11	400	32.00
42	11	15	400	23.00
43	15	16	400	10.00
44	16	Disposal	400	25.00
Total 400 Dia Pipe				2061
SAY				2065

For TULA REALTOR PVT. LTD.


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PROJECT: PLOTTED COLONY UNDER DDJAY LAND MEASURING 19.17500 ACRES IN SECTOR-I, TEHSIL-PATAUDI, DISTT- GURUGRAM, HARYANA
 SUBJECT : DOMESTIC WATER SUPPLY DESIGN SHEET

S. No.	Line Designation		No. of Plot	Water Requirements (in KLD)	Self Water requirement (in KLD)	Branch Water requirement (in KLD)	Total Water Requirements (in KLD)	Discharge per Hour considering 8 Hours Pumping	Size of Pipe Provided	Velocity in ft/sec.	Velocity in m/sec.	Head Loss per 100m	Loss of head as per pipe length	Length of pipe (in meters)	Ground Level		Hydraulic Level		Terminal Head
	FROM	TO													Start	End	Start	End	
1	WTP	1		0.03	0	6.24	6.24	77.984	150	4.03	1.23	18	0.442	25	251.00	251.00	250.000	250.558	34.588
2	1	2	3	4.68	5		5	0.585	100	0.07	0.02	0	0.000	14	251.00	251.00	250.000	250.000	35.000
3	1	3	4	0.24	6	6.19	6.19	27.401	100	9.00	2.74	126	3.516	28	251.00	251.00	250.000	252.484	31.484
4	3	4	4	0.24	6	3.96	4.03	50.329	100	5.85	1.78	57	3.568	63	251.00	251.00	250.000	252.432	31.432
5	4	5		0.00	0	1.05	1.05	13.020	100	1.52	0.46	5	0.103	22	251.00	251.00	250.000	250.897	34.897
6	5	6	6	0.46	9	6.9	7.8	9.754	100	1.13	0.35	3	0.103	37	251.00	251.00	250.000	250.899	34.899
7	6	7	5	7.80	8	25	33	4.907	100	0.48	0.15	1	0.020	36	251.00	251.00	250.000	250.980	34.980
8	7	8	4	0.24	6		6	0.280	100	0.09	0.03	0	0.000	18	251.00	251.00	250.000	250.000	35.000
9	7	9	12	18.73	19		19	2.311	100	0.27	0.08	0	0.000	33	251.00	251.00	250.000	250.904	34.904
10	6	10	23	35.89	36		36	4.487	100	0.52	0.16	1	0.060	106	251.00	251.00	250.000	250.931	34.931
11	5	11	17	26.53	27	26.5	29.2	36.479	100	0.39	0.12	0	0.034	106	251.00	251.00	250.000	250.961	34.961
12	4	12	8	12.48	12		12	1.561	100	4.24	1.29	31	4.028	129	251.00	251.00	250.000	251.972	30.972
13	12	13	7	10.92	11	24.2	25.5	31.602	100	0.18	0.06	0	0.005	83	251.00	251.00	250.000	250.905	34.905
14	13	14	39	10.80	61	12	73	9.160	100	3.68	1.12	24	1.293	34	251.00	251.00	250.000	251.707	33.707
15	14	15	5	7.80	8		8	0.973	100	1.07	0.33	2	0.400	165	251.00	251.00	250.000	251.600	34.600
16	15	16	3	4.68	5		5	0.585	100	0.41	0.13	0	0.001	35	251.00	251.00	250.000	250.908	34.908
17	16	17	4	6.24	6	16.2	19.9	21.968	100	0.07	0.02	0	0.000	36	251.00	251.00	250.000	250.000	35.000
18	17	18	20	48.36	45		45	5.637	100	2.45	0.75	11	0.285	34	251.00	251.00	250.000	250.043	34.043
19	18	19	7	10.92	11	10.6	11.7	14.631	100	0.06	0.02	1	0.149	102	251.00	251.00	250.000	250.043	34.043
20	19	20	12	18.73	19		19	2.441	100	1.70	0.52	0	0.248	13	251.00	251.00	250.000	250.890	34.890
21	20	21	6	4.56	9	7.8	8.7	10.524	100	0.27	0.08	0	0.007	35	251.00	251.00	250.000	250.732	34.732
22	21	22	12	18.73	19	4.8	19	5.341	100	4.27	1.30	3	0.141	42	251.00	251.00	250.000	250.903	34.903
23	22	23	12	18.73	19		19	2.415	100	0.26	0.08	0	0.007	35	251.00	251.00	250.000	250.899	34.899
24	23	24	7	10.92	11		11	3.541	100	0.80	0.26	2	0.050	43	251.00	251.00	250.000	250.903	34.903
25	24	25	6	0.46	9	20	30	3.706	100	0.43	0.13	0	0.018	35	251.00	251.00	250.000	250.903	34.903
26	25	26	10	15.01	16		16	1.931	100	0.23	0.07	0	0.005	35	251.00	251.00	250.000	250.982	34.982
27	26	27	3	1.68	5		5	0.366	100	0.07	0.02	0	0.000	10	251.00	251.00	250.000	250.005	34.005
28	27	28	38	59.31	59	15.7	21.7	25.072	100	5.15	1.56	18	2.716	151	251.00	251.00	250.000	250.000	35.000
29	28	29	26 Common Facilities	22.00	75		75	0.967	100	1.06	0.32	2	0.290	109	251.00	251.00	250.000	250.284	32.284
30	29	30	48 Commercial	94.58	85		85	10.322	100	1.23	0.37	3	0.682	216	251.00	251.00	250.000	250.318	32.318

For TULA REALTOR PVT. LTD.

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PROJECT: PLOTTED COLONY UNDER DDJAY LAND MEASURING 19.17500
ACRES IN SECTOR-1, TEHSIL-PATAUDI, DISTT- GURUGRAM, HARYANA

SUBJECT: DOMESTIC WATER SUPPLY SHEET

S. No.	Line Designation		Size of Pipe Provided	Length of pipe
			mm	metres
				<u>100mm</u>
1	WTP	1	150	15
2	1	2	100	14
3	1	3	150	1
4	3	4	150	1
5	4	5	150	1
6	5	6	100	37
7	6	7	100	36
8	7	8	100	18
9	7	9	100	33
10	6	10	150	1
11	5	11	100	106
12	4	12	50	1
13	12	13	100	53
14	12	14	50	1
15	14	15	100	165
16	15	16	100	35
17	15	17	100	26
18	14	18	100	34
19	18	19	100	102
20	18	20	100	43
21	20	21	100	35
22	20	22	100	42
23	22	23	100	35
24	22	24	100	43
25	24	25	100	35
26	24	26	100	40
27	26	28	100	35
28	26	27	100	10
29	3	29	100	151
30	29	30	100	109
31	29	31	100	216
TOTAL FOR 100 DIA				1453 1880
TOTAL FOR 150 DIA				25
TOTAL PIPING				1478 1905
SAY				1910
MUNICIPAL LINE				
1	1a -- UGT	100		462
		TOTAL PIPE 100 DIA (SAY)		465
TUBEWELL LINE				
1		TW1-1	100 150	116
2		TW1-2	A 100 100	109 ✓
3		TW1-3	A 100	41 ✓
		TOTAL PIPE 100 DIA (SAY)		269

A to UGT

153m

150mm
25

28
63
22

106

129

54

427mL
say 430mL

150mm 240mm

116
—
—

15m
15m

For TULA REALTOR PVT. LTD.

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PROJECT: PLOTTED COLONY UNDER DDIAJ LAND MEASURING 19.17500 ACRES IN SECTOR-1, TEHSIL-JATAULI, DISTT- GURUGRAM, HARYANA
 SUBJECT: FLUSHING & GARDEN WATER SUPPLY DESIGN SHEET

S. No.	Node No.		No. of Plot	Flushing Water Requirement In KLD	Branch Water	Total KLD	Discharge per Hour considering 8 Hours Pumping	Size of Pipe Provided	Velocity		Head Loss per 1000 m	Loss of head as per pipe length	Length of pipe (in meters)	Ground level		Hydraulic Level		Terminal Head
	From	To							in ft/sec.	in m/s				Start in m	End in m	Start in m	End in m	
1	STP	1		0	311	311	38.868	100	4.52	1.38	39	0.968	25	245.00	251.00	280.00	279.03	28.03
2	1	2	38	29	77	107	13.327	100	1.55	0.47	5	0.688	151	252.30	252.30	287.30	286.63	34.31
3	2	3	36 Common Facilities	36		36	4.474	100	0.52	0.16	1	0.149	95	252.30	252.30	287.30	287.25	34.95
4	2	4	5	4	38	42	5.204	100	0.64	0.18	1	0.026	38	252.30	252.30	287.30	287.27	34.97
5	4	5	43 Commercial	38		38	4.724	100	0.55	0.17	1	0.091	159	252.30	252.30	287.30	287.21	34.91
6	5	6		0		0	0.000	100	0.00	0.00	0	0.000	10	252.30	252.30	287.30	287.30	35.00
7	1	7		0	204	204	25.811	100	2.67	0.81	17	0.201	12	252.30	252.30	287.30	287.10	34.80
8	7	8	9	7		7	0.864	100	0.10	0.03	0	0.002	106	252.30	252.30	287.30	287.40	35.00
9	7	9		0		0	0.000	100	0.00	0.00	0	0.000	183	252.30	252.30	287.30	287.30	35.00
10	7	10		0	197	197	24.677	100	2.57	0.88	16	0.343	22	252.30	252.30	287.30	286.96	34.66
11	10	11		0	31	31	6.113	100	0.73	0.23	1	0.027	25	252.30	252.30	287.30	287.27	34.97
12	11	12	17	13		13	1.632	100	0.19	0.06	0	0.008	114	252.30	252.30	287.30	287.29	34.99
13	11	13	5	4	35	38	4.801	100	0.50	0.17	1	0.018	30	252.30	252.30	287.30	287.28	34.98
14	13	14	24	18		18	2.208	100	0.26	0.08	0	0.011	114	252.30	252.30	287.30	287.29	34.99
15	13	15	6	5	12	17	2.112	100	0.25	0.07	0	0.006	49	252.30	252.30	287.30	287.29	34.99
16	15	16	13	10		10	1.248	100	0.15	0.04	0	0.002	40	252.30	252.30	287.30	287.30	35.00
17	15	17	5	5		5	0.288	100	0.05	0.01	0	0.000	15	252.30	252.30	287.30	287.30	35.00
18	10	18	30	15	131	146	18.214	100	2.72	0.85	9	1.354	147	252.30	252.30	287.30	286.05	34.75
19	18	19	8	6		6	0.768	100	0.09	0.03	0	0.001	57	252.30	252.30	287.30	287.30	35.00
20	18	20	8	6	118	124	15.555	100	1.81	0.55	6	0.103	65	252.30	252.30	287.30	287.30	35.00
21	20	21	31	31		31	3.917	100	0.46	0.14	0	0.062	168	252.30	252.30	287.30	287.23	34.93
22	20	22	5	5	81	87	10.850	100	1.26	0.38	3	0.069	53	252.30	252.30	287.30	287.23	34.93
23	21	23	27	21	9	27	3.361	100	0.33	0.12	0	0.029	100	252.30	252.30	287.30	287.27	34.97
24	22	24	3	3		3	0.588	100	0.03	0.01	0	0.000	12	252.30	252.30	287.30	287.30	35.00
25	22	25	5	4		4	0.480	100	0.06	0.02	0	0.000	35	252.30	252.30	287.30	287.30	35.00
26	21	26	6	5	53	58	7.201	100	0.84	0.26	1	0.054	41	252.30	252.30	287.30	287.24	34.94
27	27	28	12	9		9	1.153	100	0.11	0.04	0	0.002	45	252.30	252.30	287.30	287.30	35.00
28	27	29	6	5	39	44	5.413	100	0.64	0.19	1	0.032	42	252.30	252.30	287.30	287.25	34.97
29	30	29	12	9		9	1.153	100	0.11	0.04	0	0.001	43	252.30	252.30	287.30	287.30	35.00
30	30	30	7	5	35	30	4.245	100	0.43	0.13	0	0.015	42	252.30	252.30	287.30	287.26	34.98
31	32	31	12	9		9	1.152	100	0.11	0.04	0	0.001	43	252.30	252.30	287.30	287.30	35.00
32	32	33	9	8	11	15	1.923	100	0.22	0.07	0	0.004	40	252.30	252.30	287.30	287.30	35.00
33	34	33	4	3		3	0.384	100	0.04	0.01	0	0.000	43	252.30	252.30	287.30	287.30	35.00
34	34	35	10	8		8	0.960	100	0.11	0.03	0	0.000	19	252.30	252.30	287.30	287.30	35.00



For TULA REALTOR PVT. LTD.

(Signature)

Authorised Signatory

PROJECT: PLOTTED COLONY UNDER DDJAY LAND MEASURING
19.17500 ACRES IN SECTOR-1, TEHSIL-PATAUDI, DISTT-
GURUGRAM, HARYANA

SUBJECT : FLUSHING & GARDEN WATER SUPPLY SHEET

S. No.	Line Designation		Size of Pipe Provided mm Dia	Length of pipe
				100 mm 150 mm
1	STP	1	100	25
2	1	2	100	151
3	2	3	100	95
4	2	4	100	38
5	4	6	100	159
6	4	5	100	10
7	1	7	150	42
8	7	8	100	106
9	7	9	100	183
10	7	10	150	22
11	10	11	150	25
12	11	12	150	114
13	11	13	100	30
14	13	14	100	114
15	13	15	100	49
16	15	16	100	40
17	15	17	100	15
18	10	18	150	17
19	18	19	100	57
20	18	20	150	65
21	20	25	100	168
22	20	21	100	23
23	21	22	100	100
24	22	23	100	12
25	22	24	100	35
26	21	27	100	44
27	27	28	100	45
28	27	30	100	42
29	30	29	100	43
30	30	32	100	42
31	32	31	100	43
32	32	34	100	40
33	34	33	100	43
34	34	35	100	19
TOTAL PIPE OF 100 DIA				2156 1746
TOTAL PIPE				2156 1750m
Say				2160

150 mm

25 m

12 m

22

25

114

147

65

415 mm

For TULA REALTOR PVT. LTD.

Authorised Signatory

