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Directorate of Town & Country Planning, Haryana

Nagar Yojana Bhawan, Plot No. 3, Sector 18 A, Madhya Marg, Chandigarh
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To

Sh. Rajbir Singh, Sh. Satbir Singh Ss/o Sh. Rajinder Singh,
In collaboration with Satiup Builders,
R/o 93-R, Model Town, Rewari-123401.

Memo No. LC-4381/PA(VA)/2023/ 13523 Dated: 09/05/2023

Subject: **Approval of Service Plan/Estimates for an Affordable Residential Plotted Colony under DDJAY over an area measuring 11.44375 acres (Licence no. 58 of 2021 dated 27.08.2021) in the revenue estate of village Bariyawas in Sector-29A, District Rewari.**

The service plan estimates for aforesaid colony have been checked and corrected wherever necessary by Chief Engineer-I, HSVP, Panchkula and are hereby approved subject to the following terms & conditions:

1. That you will abide by all the conditions and notes mentioned in the Service Plan Estimates of the subject cited colony contained in the Chief Engineer-I, HSVP, Panchkula office memo dated 06.05.2022.
2. That you will have to pay the proportionate cost to the External Development Charges for setting up of an Affordable Residential Plotted colony (DDJAY) for the services like water supply, sewerage, storm water drainage, roads, bridges, community building, street lighting, horticulture and maintenance thereof etc. on gross acreage basis as and when determined by HSVP. These charges will be modifiable as and when approved by the authority/State Govt. and will be binding upon the colonizer.
3. The category wise area shown on the plans and proposed density of population thereof has been treated to be correct for the purpose of services only.
4. That you shall be responsible for maintenance and upkeep of all roads, open spaces, public parks and public health services for a period of five years from the date of issue of the completion certificate under rule 16 unless earlier relieved of this responsibility and there upon to transfer all such roads, open spaces, public parks and public health services free of cost to the Government or the local authority, as the case may be.
5. The wiring system of street lighting will be under ground and the specifications of the street lighting fixture etc. will be as per relevant standard of HVPNL. LED lamps shall be provided to meet the requirement of HVPNL and as well environment.
6. It is made clear that appropriate provision for fire-fighting arrangement as required in the NBC/ISI should also be provided by you and fire safety certificate should also be obtained from the competent authority before undertaking any construction. You shall be sole responsible for fire safety arrangement.
7. All technical notes and comments incorporated in the estimates in two sheets will also apply. A copy of these is also appended as Annexure-A.

Authorised Signatory

8. That you shall execute the development works as per Environmental Clearance and comply with the provisions of Environment Protection Act, 1986, Air (Prevention and Control of Pollution of Act 1981) and Water (Prevention and Control of Pollution of 1974). In case of any violation of the provisions of said statutes, you shall be liable for penal action by Haryana State Pollution Controlled Board or any other Authority Administering the said Acts.

A copy of the approved service plan/estimates is enclosed herewith. You are requested to supply three additional copies of the approved service plan/ estimates to the Chief Engineer-I, HSVP, Panchkula under intimation to this office.

DA/As Above.

(S.K. Sehrawat)
District Town Planner (HQ)
For Director General, Town & Country Planning,
Haryana, Chandigarh

Endst. No. LC-4381/PA(VA)-2023/ Dated:

A copy is forwarded to the Chief Engineer-1, HSVP, Panchkula with reference to his memo No. CE-I/SE(HQ)/SDE(Vig.)/HDM(G)/2022/73204 dated 06.05..2022 for information and necessary action please.

(S.K. Sehrawat)
District Town Planner (HQ)
For Director General, Town & Country Planning,
Haryana, Chandigarh

21-4381

11.44375 ACRES AFFORDABLE RESIDENTIAL PLOTTED COLONY IN SECTOR 29A (VILLAGE BARIYAWAS), REWARI

(UNDER DEEN DAYAL JAN AWAS YOJNA -2016)

M/S SATIUP BUILDER

93-R, MODEL TOWN, REWARI

SERVICE ESTIMATE FOR PROVIDING WATER SUPPLY, SEWERAGE, STORM WATER DRAINGAGE, ROADS, STREET LIGHTING AND HORTICULTURE IN RESPECT OF 11.44375 ACRES AFFORDABLE RESIDENTIAL PLOTTED COLONY IN SECTOR 29A(Village Bariyawas), REWARI

INDEX

PROJECT REPORT/ESTIMATE FOR PROVIDING WATER SUPPLY, SEWERAGE, STORM WATER DRAINAGE, ROADS, STREET LIGHTING AND HORTICULTURE IN RESPECT OF 11.44375 ACRES RESIDENTIAL PLOTTED COLONY IN SECTOR 29A, REWARI, HARYANA

REPORT

The Haryana Government has prepared a master plan for development of Residential/Industrial/Commercial urban estate REWARI. M/S SATIUP BUILDER has decided to develop a part of the area in this master plan and has named this part as 11.44375 Acres Affordable Residential plotted colony. This colony is located in sector — 29A(Village Bariyawas) of **Haryana Shehri Vikas Pradhikaran, REWARI**. License has already been granted for by D.G.T.C.P bearing No. 7871 of 2021 to be read with License No.58 of 2021. The brief details of the colony are as under:

WATER SUPPLY

1 Source

The source of water supply in this area is tube wells at present as the underground water is potable and fit for human consumption. Moreover, water is available at reasonable depth. The average yield of tubewell with 40-45 ft strainers will be about 22500 litre per hour. The recharging of underground water table in this belt is stated to be good. However still we shall resort to rain water harvesting system to keep up the recharging system. The number of tube wells required for the above area has been worked out and the tube wells will be bored in tune with growth of demand to avoid insolence of the tube wells. The ultimate requirement of tube wells includes provisions of 10% stand by. Ultimately, water shall be supplied to the Project by **Haryana Shehri Vikas Pradhikaran**, REWARI.

2 Design

The scheme has been designed for approved population of 3037.50 persons. The rate of water supply per head per day has been taken as ~~172.5~~ 155.25 litres (~~150 + 15~~ (135+15%) %) as per HSVP norms. In addition to above necessary provision of water for community area, shopping centres, parks etc. have been taken into account for calculating the maximum quantity of water requirement.

3 Pump chambers and Pumping Machinery

It is proposed to equip each tube well with an electrically driven set ejector type or submersible pump capable of delivering of 22500 litre per hour. It is also proposed to equip required 1

Nos pumping set with stand by diesel engines/gen set engines for operation during failure of electricity.

4 Under Ground Storage

Underground storage tank provision has been made for ~~310~~ 290 KL capacity.

(a) In two compartments, which caters for the domestic as well as for firefighting requirement. The water for domestic water compartment shall overflow the fire compartment so that the water in the fire compartment also remains fresh.

5 Boosting Station

The boosting station is being planned for catering to the above requirement

6 Distribution System

The distribution system for this development has been designed to supply @ ~~115.00~~ 105.00 litre per head her day for drinking water and ~~60~~ 50 litre per head per day for flushing @ 3 times the average rate of flow on Hazen William formula. Necessary provision for laying100 and 150 mmi/d DI K-7 pipes conforming to relevant IS standards along with valves and specials has been made in the project. The minimum terminal head at any point will be more than 27.00 meters so that it can serve the 5 stories construction envisaged in the plan. Minimum pipe dia for distribution is kept as 100 mm dia.

Rising mains

Rising mains from HSVP water main or sector road to water works have also been proposed and provision has been made in this estimate.

7 Sewerage

The sewer lines have been designed for 3 times average DWF in relation to the water supply demand assuming that ~~75%~~ 80% of the domestic water supply shall find its way into the proposed sewer. 200 & 250 mm i/d SWP pipe sewers have been proposed and designed to run half full. The sewers have been designed on 0.77 M per second minimum velocity i.e. self cleansing velocity. Necessary provision for laying S.W. pipes manholes etc. has been made in this estimate.

8 Storm water Drainage

The storm water drainage is being designed to carry 6.25mm rainfall per hour. Also suitable provisions are contemplated in our scheme to ensure better recharging of underground water table in the area R.C.C. NP-3 pipes drain with minimum 400mm dia is proposed in this area.

9 Roads

The roads in the colony have been planned in such a way that feeder roads are 24M wide. Internal service roads providing approach to the plots are 9M wide. The following specifications have been adopted which are reproduced below.

(i) 200 mm GSB

(ii) 250mm stone aggregate with brimer coat @ 60kg/100 sq.m & Tack Coat @ 25kg/100 sq.m

(iii) 50 mm thick DBM

(iv) 25 mm Thick B.C

The above construction shall be done on well compacted sub grade as per specifications. Complete work will be carried out as per MORTH specifications, IRC guide lines or HSVP specifications, which ever applicable.

10 Street lighting

The provision has been made on lump sum basis.

11 Horticulture

The usual provision of road side plantation of tree guards has been made for all roads. The parks shall be developed by providing lawns etc.

12 Specifications

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

13 Rates

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

14 Cost

The total cost of development in this project including various PH. and B & R services works out to 985.85
Rs ~~924.20~~ Lac. Including 3% contingencies & P.E. charges and 49% departmental administrative, unforeseen and escalation charges.

86.15
The cost per gross acre for the phase works out to be **~~80.80~~ lac** which covers the provision of services like water supply, sewerage, storm water drainage, roads, street lighting, and plantation including maintenance thereof.

Ar. SAHIL PRUTHI
CA/2018/95260

11.44375 ACRES RESIDENTIAL PLOTTED COLONY

SECTOR -29A (Village Bariyawas), REWARI

DESIGN CALCULATIONS

Daily Requirement

1. Total No. of Plots = 225

   Population per plot (@13.5) = 3,037.50persons (3038)

   Therefore population = 13.5 x 225 (135+15%)

   Water requirement for plots @ 172.5 litres/head/day = 5,23,968.75litres (471650)

   ~~3037.50 x 172.5~~ 3038 X 155.25

   471.65 or ~~523.968~~ **KL**

2. **Add Requirement for Institutions etc.**

a. No of commercials = 1 No

   Daily water requirement @ 32000 litre/Acre

   Area of commercial = 0.4529 Acres

   Therefore daily water requirement = 0.4529 x 32000 =14,492.8litres

   = ~~14.493~~ **KL** (14.49)

b. No of Community area = I no. =1.14439 acres

   Daily water requirement

   ~~28750~~ 25000 litre/acre

   =1.14439X28750 =~~32,901~~.2liters (28610)

   =**32.90 KL** (28.61)

c. Misc. = 5,000 litres = **5.00 KL**

   Total =~~576.361~~**KL** (519.75)

3. **Area under Parks**

   = 0.8586 acres

   Therefore daily water requirement

   25000 litre/Acre =21,465Litres

   0.8586 x 25000 **=21.465 KL**

4. Area under roads out of 11.44375 =2.46 acres

Therefore, daily water requirement = 2.46 x5000 = 12,300.00 litres

For sweeping of roads =12.30 KL

Total daily requirement

a. For domestic use (1+2) = ~~523.968 +52.393~~ 471.65+48.10 = 519.75 ~~=576.361~~**KL** Say 520 KL

b. Under parks & roads (3+4) =21.465 +12.30 **=33.765KL** Say 34 KL

Ar. SAHIL PRUTHI
CA/2018/96260

11.44375 ACRES RESIDENTIAL PLOTTED COLONY

SECTOR -29A (Village Bariyawas), REWARI

TUBEWELL

Assuming working hours of tube well		=16
Assuming discharge/hour of each tube well		=22500 lit/hour
Total domestic demand	(520+34)	=610.126KL
No. of tube wells Required for Total demand	= (576.361+ 33.765) / 22.50X 16	=1.69 NO
Add 10% stand by		=0.17
	Total	**=1.86**
	Say	**2 nos.**

So, it is proposed to provide 2 Nos of tube wells at present has been made in the estimate. More tube wells will be installed when required. Moreover, the water supply is to be provided by HSVP to the colony ultimately and demand of flushing water supply is to be met from effluent of S.T.P.

Pumping machinery for tube wells

Gross working load	= 90.00 m
Average fall in is S.L.	= 5.00 m
Depression head	= 5.00 m
Friction Loss	= 5.00m
Total	= 105.00m

B.H.P. = 22500 x 105 / 60x60x75x0.6 =14.58

Say **=15.00H.P.**

Daily requirement for domestic use =527.26KL

Flushing Demands-

Assuming demand of water supply for flushing as 35 % of total demand,

Daily requirement for flushing use 0.35 X ~~576.361~~ 520 =~~201.73~~ 182 KL Say 185 KL

There fore Daily requirement for supply for drinking purposes ~~527.26 – 201.73~~ (520 – 182) (Dom.) =**~~374.641~~ 338 KL** Say 340 KL

Boosting Machinery
(portable/drinking water)

Assuming 8 hours running I pumps (with one stand by)

$\frac{\text{~~374.641~~ } 340}{8}$ =~~46.83~~ 42.50 KL

Discharge/hour

=~~780.5~~liter/m 708.33

Say ~~800~~ 750 liter/m

Head of Pump

i) Suction Lift	4m
ii) Friction Loss in main & specials	4m
iii) Clear Head	25m
	33m
say	35m

B.H.P. of Motor

~~800x35~~ 750 / ~~60x75x0.6~~ 60x75x0.60 =10.37 9.72

~~60x75x0.6~~

Say ~~12.50 H.P.~~ 10.00 HP

Boosting Machinery (flushing)

Daily requirement of water supply for flushing =~~201.73~~ 182.00 KL Say 185 KL

Add requirement for

Irrigation + Roads

34.00
=~~21.465~~KL

219.00
= ~~223.195~~ KL say 220 KL

Total

Assuming 8 hours running 1 = 220 / ~~223.195~~

Pump (with one stand by) 8

discharge/hour. 27.50
=~~27.899~~KL/HR

458.33
= ~~464.98~~ltr/m

Discharge per minute = 500 ltr/m

say

Head of Pump

i)	Suction Lift	4m
ii)	Friction Loss in main & specials	4m
iii)	Clear Head	25m
		33m
Say		35 m
B.H.P. of Motor	500.00 x 35 / 60x75x0.6	=6.48
	Say	7.50 HP.

RATING OF GEN SET (BOOSTING)

Hoasting-(~~12.50+7.50~~) (10.00+7.50)

Pump 2 no

17.50
=~~20.00~~ H.P.

Tubewell = 2x15

30.00
= ~~40.00~~ H.P

Lighting etc.

10.00
=~~5.00~~ H.P.

=~~45.00~~ H.P.

57.50

Rating of genset

57.50 ~~45~~x .746 x 1.50

64.34
=~~50.355~~KVA

Add 10% extra

6.43
=~~5.03~~KVA

Total

= ~~55.38~~ KVA

Say

70.77
=~~70.00~~ KVA

Say 100 KVA

UNDER STORAGE TANK (drinking water supply)

Daily requirement of domestic use =374.641KL

including institutional demand

Capacity of under ground tank taking storage

(25+33=58%) say 60 % of daily demand =224.79KL

=0.60x374.641

SAY =230.00KL

Fire fighting 100 √2.75 100x 1.66 =166KL

Take 1/3 for Storage = =55.33

SAY =80.00KL

Total = 230+80=310

Hence it is proposed to provide underground tank of capacity 310 KL which also includes 80 KL capacity for firefighting.

This tank will have two compartments, one for fire and the other for domestic use. The water first enters the fire compartment then over flows to the domestic use compartment so that the water in the fire compartment shall remain fresh

UNDERGROUND STORAGE TANK (FLUSHING)

Daily requirement for domestic use including demand for irrigation & sweeping of roads Under Parks and Roads =235.495 KL

Capacity of under ground tank taking storage (25+33=58%) say 60 % of daily demand = 235.495x 0.6 =141.297KL

140, 00

SAY = **150.00 KL**

OVER HEAD SERVICE RESERVOIR

There is no necessity of O.H.S.R. for drinking water supply and flushing water supply as the capacity of U.G.S.T.'S has been increased by 25% each which is required capacity of O.H.S.R.'S

CAPACITY OF S.T.P

525.00 = 420 KL

CAPACITY OF S.T.P. = 0.80 X 576.361=461.08KLD

Add 5 % marginal factor = 21 KL

441 KL

~~SAY~~ =~~470 KLD~~

Say 450KL

Ar. SAHIL PRUTHI
CA/2018/96260

11.44375 ACRES RESIDENTIAL PLOTTED COLONY

SECTOR -29A (Village Bariyawas), REWARI

FINAL ABSTRACT OF COST

		Amount (Rs. In Lacs)
SUB WORK NO. I	Water Supply	190.46 ~~196.40~~
SUB WORK NO. II	Sewerage	142.28 ~~153.40~~
SUB WORK NO. III	Storm Water Drainage	108.81 ~~85.80~~
SUB WORK NO. IV	Road and Footpath	230.55 ~~173.50~~
SUB WORK NO. V	Street Lighting	43.91 ~~44.00~~
SUB WORK NO. VI	Horticulture Work	5.77 ~~7.00~~
SUB WORK NO. VII	Maintenance Charges	264.07 ~~264.10~~
	TOTAL	985.85 ~~924.20~~

985.85 86.15

Development cost per acre (11.44375) is coming out to be 924.20/11.44375 = 80.76 lakhs

~~Say = 80.80 lakhs~~

Ar. SAHIL PRUTHI
CA/2018/96260

Checked & recommended for Amounting Rs. 985.85 ~~924.20~~ lacs.

Executive Engineer
HSVP Division Rewari

AUTHORISED SIGNATORY

Superintending Engineer,
HSVP Circle, Gurugram

Director General
Town & Country Planning
Haryana, Chandigarh

Checked subject to comments in forwarding letter No. 73204 Dt. 06/05/2022 .....and notes attached with the estimate

Superintending Engineer (HQ)
for Chief Engineer-I
HSVP, Panchkula
5.5.2022

ABSTRACT OF COST (WATER SUPPLY)

	Amount (Rs. In Lacs)
Sub Head No. 1 Head Works	81.41 ~~104.30~~
Sub Head No. 2 Pumping Machinery	42.97 ~~30.70~~
Sub Head No. 3 Distribution System (Drinking)	44.40 ~~42.80~~
Sub Head No. 4 Distribution System (Flushing and irrigation)	22.08 ~~18.60~~
TOTAL	190.46 ~~196.40~~

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CA/2018/96260

Sub Work-I

Sub Head No.I **Water Supply**

Head Works (Rs. In Lacs)

Name of Project: Service Plan Estimate of Residential Plotted colony measuring 11.44375 acres in Sector 29A, Rewari developed by M/S SATIUP BUILDER.

1. Boring and installing 300 i/d tubewells with reserve/direct rotary rig complete with pipe strainer to a depth of about 150 m complete along with machinery. 2 Nos. @ 10Lacs each	20.00
2. Constructing pump chambers as per standard design of PWD PH/HSVP ~~of size 4.90x4.25 m .@ 4.00 Lacs each~~ 2 Nos @ Rs 1.00 lakh each	2.00 ~~4.00~~
3. Construction of boundary wall around the Tube-well site Water Works. @ Rs 3.00 lac	3.00
4. Provision of footpath hedges and lawns at tube-well. (L.S.)	1.00
5. Construction of boosting chambers of suitable size along with under ground tank of capacity ~~310 KL~~ 290 KL pumping machinery and generating set etc. complete in all respects.	
Details of boosting station	
i) Construction of boosting chamber	5.00 ~~4.00~~
ii) U.G. tank ~~310~~ 290 KL capacity incl. 80 KL For firefighting in two compartments @ Rs 4500/- KLD	13.05 ~~13.95~~
6. Provision fbr staff quarters for maintenance of the Scheme = ~~2 NO.350 SQ.FT. @ 8.00 LAC (L.S.)~~	5.00 ~~16.00~~
7. Construction of Concrete Paving & TubeWell & UGT & Pump (L.S)	3.00 ~~5.00~~
8. Prov. for carriage of material (L.S.)	1.00

P.E & contingency charges @3%	53.05 ~~67.95~~
	1.59 ~~2.04~~
	54.64 ~~69.99~~
Department Charges escalation unforeseen and Administrator charges @ 49%	26.77 ~~34.29~~
	81.41
Total	~~104.28~~
Say	**~~104.30~~**

Ar. SAHIL PRUTHI
CA/2018/95260

Sub Work-I

Sub Head No.II **Water Supply**

Pumping Machinery

Name of Project: Service Plan Estimate of Residential Plotted colony measuring 11.44375 acres in Sector 29A, Rewari developed by M/S SATIUP BUILDER.

	Amount (Rs.) In Lacs)
1. Providing and installing electricity driven electro or Sub miscible pumping sets capable of delivering about 22.50 KL water per hour against a total head of 105 M complete with motor and other accessories (15 B.H.P.) 1 Nos. @ Rs 2.50 lac each	2.50
2. Provision for diesel engine genset stand by arrangement ~~(70 KVA)~~ 100 KVA (L.S.)	10.00 ~~7.00~~
3. Provision for cheap pressure type chlorination plant complete 1 Nos. @ Rs 1,50,000/-	1.50
4. Provision for making foundations and erection of pumping machinery (L.S.)	1.00
5. Provision for pipes, valves, and specials inside the pump Chamber	1.00 ~~1.50~~
6. Provision for electric services connection including Electric fittings for tube wells chambers complete Including transformers L.S.	2.00 ~~2.50~~
7. Providing and installing centrifugal boosting pumping sets, capable of delivering water at 40 M head complete in all respects (2X~~12.5~~10+2X7.5=~~40~~35H.P.) domestic & flushing	9.00 ~~3.00~~
9. Provision for carriage for materials and other unforeseen items L.S.	1.00

Total	28.00 ~~20.00~~
PE. & contingency charges @ 3%	0.84 ~~0.60~~
	~~20.60~~ 28.84
Department escalation unforeseen and administrator charges @49%	14.13 ~~10.09~~
Total	~~30.69~~ 42.97
~~Say~~	~~30.70~~

Ar. SAHIL PRUTHI
CA/2018/96260

11.44375 ACRES RESIDENTIAL PLOTTED COLONY

SECTOR -29A(Village Bariyawas), REWARI

SUB WORK-I
SUB HEAD NO. III

WATER SUPPLY
DISTRIBUTION SYSTEM/RISING MAIN

Name of Project: Service Plan Estimate of Residential Plotted colony measuring 11.44375 acres in Sector 29A, Rewari developed by M/S SATIUP BUILDER.

	Amount (Rs. In Lacs)
1. Providing, laying, jointing and testing D.I. K7 Pipes including cost of excavation complete as per specifications.	
100mm dia i/d 663 mtrs @ Rs. 1250/-	8.29 ~~8.28~~
150mm dia i/d 454 mtrs @ Rs. 1575-	7.15
2. Providing and fixing of DI/CI sluice valve including cost brick masonry chambers complete in all respect.	
100mm dia i/d 15 Nos. @ Rs. ~~32000~~ 12000/- each	1.80 ~~1.28~~
150 mm dia i/d 10 Nos. @ R.s. ~~45000~~ 15000/- each	~~1.35~~ 1.50
3. Providing and fixing air valves and scour valves or scour taps including cost of brick masonry chamber	
7 Nos. @ Rs. ~~25,000~~ 10,000/- each	0.70 ~~1.75~~
4. Providing and fixing fire hydrants complete with masonry chambers	
~~5~~ 10 Nos. @ Rs. ~~10,000~~ 15000/- each	1.50 ~~0.50~~
5. Providing and fixing indicating plates for sluice valve, air value etc.	
~~18~~ 32 Nos. @ Rs. 1,000/ each	0.32 ~~0.18~~
6. Provision for rising main from tube wells to U.G.S.T. 100mmdia DI-K7 pipes i/d75 mtrs @ Rs. 1250/- mtr	0.94 ~~0.93~~
7. Provision for rising main from main HSVP water line to U.G. tank 150 mm dia DI-K7 pipes i/d 220 mtrs @ Rs. 1575/- mtr	3.47 ~~3.46~~

8. Providing for carriage of material L.S.	1.50
(9) Provision for making connection with HSUP line.	1.00
~~9~~. Provision for cutting the roads and making good to its original conditions (10)	1.00
	1.50
	28.67 27.88
Add RE. & Contingency charges @3%	0.86 0.84
	29.53 28.72
Department charges escalation unforeseen and administrator charges @49%	14.47 14.07
Total Rs	44.00 Lakh
~~Total~~	~~42.79~~
~~Say~~	~~42.80~~

Ar. SAHIL PRUTHI
CA/2018/96260

Sub Work No. 1
Sub Head No. IV

Water Supply
Flushing and Irrigation

Name of Project: Service Plan Estimate of Residential Plotted colony measuring 11.44375 acres in Sector 29A, Rewari developed by M/S SATIUP BUILDER.

		Amount (Rs. in Lacs)
1.	Providing, laying, jointing and testing of HDPE Pipes pipes including cost of excavation etc. complete in all respect.	
	a) 100mm dia./HDPE. 224 m @ Rs. 900/- M	~~2.01~~ 2.02
	b) 80mm dia./HDPE. 509 m @ Rs. 750/- M	3.82
	c) 65 mm dia./HDPE. 362 m @ Rs. 600/- M	2.17
2.	Providing and fixing HDPE sluice valves including cost of derrick masonry chambers complete in all respect.	
	a) 80mm dia 3nos. @ Rs. 10000/- each	~~0.30~~ 1.80
	b) 65mm dia ~~4~~ 18 nos. @ Rs. 8500/- each 9000/-	~~0.34~~ 0.72
3.	Providing and fixing air valves and scour valves or scour taps including cost of brick masonry chamber 8 Nos. @ Rs. 10,000/- each (L.S.)	0.80
4.	Providing and fixing indicating plates for sluice Valves, air v&ves etc. ~~16~~ 26 nos. @ Rs. 1000/- each	~~0.16~~ 0.26
5.	Provision for Carriage of material and other unforeseen items.	~~1.50~~ 1.00
6.	Prov. & fix 20mm dia irrigation hydrants valves 20 Nos @ Rs 3500/- each	0.70
~~6.~~ (7)	Provision for cutting of roads and carriage of materials etc. and other unforeseen charges (L.S.)	1.00
(8)	Provision of 25 mm dia UPVC pipe line 300 M @ Rs 300/- Mtr	0.90
	Total	~~12.10~~ Total 14.39
	Add P.E. & Contingency charges @ 3%	~~0.36~~ 0.43
		~~12.46~~ 14.82

Department escalation unforeseen and Administrator charges @ 49%	7.26 ~~=6.10~~ ~~18.56~~ 22.08
~~Say~~	~~18.60~~

Ar. SAHIL PRUTHI
CA/2018/96260

11.44375 ACRES RESIDENTIAL PLOTTED COLONY

SECTOR -29A(Village Bariyawas), REWARI

SUB HEAD II **SEWERAGE SCHEME**

Name of Project: Service Plan Estimate of Residential Plotted colony measuring 11.44375 acres in Sector 29A, Rewari developed by M/S SATIUP BUILDER.

	(Rs. in lacs)
1. Providing, lowering, cutting, salt glazed stoneware pipes and specials into trenches including cost of excavation, bed concrete, cost of manholes complete in all respect.	
i) 250 mm i/d Av. Depth upto 2.5M — 363M @ Rs. 1500/- per M	5.45 ~~5.44~~
iii) 200 mm i/d Av. Depth upto 2.5 M —741M @ Rs. 1250/- per M	9.26
2. Provision for providing oblique junctions (L.S.)	1.00
3. Providing STP @ 16,000 per KLD -~~470~~ 450 KLDx16000 Including Machinery complete in all respect & flushing tank of 140KL	72.00 ~~75.20~~
4. Provision of temporary timbering etc.	1.00 ~~2.00~~
5. Provision for cutting of roads,Trenchless Excavation and carriage of materials etc. and unforeseen charges (L.S.)	3.00 ~~5.00~~
(6) Provision for overflow pipe from STP to HSVP line.	1.00
(7) 6. Provision for connection with HSVP main Sewer (LS.)	~~2.00~~
Total	~~99.90~~ 92.71
P.E. & Contingency charges @ 3%	~~3.00~~ 2.78
	~~102.90~~ 95.49
Department escalation unforeseen and administrator charges @ 49%	~~50.42~~ 46.79
Total	~~153.32~~ 142.28
~~Say:~~	~~153.40~~

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11.44375 ACRES RESIDENTIAL PLOTTED COLONY

SECTOR -29A(Village Bariyawas), REWARI

SUB HEAD III **STORM WATER DRAINAGE**

Name of Project: Service Plan Estimate of Residential Plotted colony measuring 11.44375 acres in Sector 29A, Rewari developed by M/S SATIUP BUILDER.

	Rs. in lacs
1. Providing, laying RCC pipes drain class NP —3 with cement joint, manholes, excavation etc. complete in all respect 400 mm i/d	
Av. Depth up to 2m— 1176 M @ Rs. 2500/- per M 400 mm i/d	29.40
2. Provision for road gullies with 300 mm dia pipe connection L.S.	5.00 ~~3.00~~
3. Provision for providing Rain Water Harvesting Pits 11 No. & Rain Water Harvesting Arrangements @2.5L Each	27.50 ~~7.50~~
4. Provision for lighting, watching and temporary diversion of Traffic	1.00 ~~2.50~~
5. Provision for cutting of roads and carriage of materials etc. and other unforeseen items L.S.	1.00 ~~1.50~~
6. Provision for Temp. Disposal arrangements till HSVP Sectors are Provided & Over Flow arrangement To HSVP Line (L.S)	5.00 ~~10.00~~
7.. Provision for connection with HSVP on master line	1.00
8.. Provision for timbering haring and shoring	1.00

	70.90
Total	~~55.90~~
	2.13
P.E. & contingency charges @ 3%	~~1.67~~
Total	~~57.57~~ 73.03
Department escalation unforeseen and administrator charges @ 49%	~~28.21~~ 35.78
Total	~~85.78~~ 108.81 Lakh
Say	**~~85.80~~**

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11.44375 ACRES RESIDENTIAL PLOTTED COLONY

SECTOR -29A (Village Bariyawas), REWARI

SUB WORK NO. IV **ROAD WORK**

Name of Project: Service Plan Estimate of Residential Plotted colony measuring 11.44375 acres in Sector 29A, Rewari developed by M/S SATIUP BUILDER.

Width in meter	Length in meter	Metalled Portion	Area in Sqm.
9.00	1,106.00	5.50	6,083
Total	**1,106**		**6,083.00**

Add 5% for curves 5% X 6,083= 304.15
Total Area 6083+304.15= 6,387.15
Say **6388.00 Sq.m**

Item No.	Description of Item	Unit	Qty.	Rate (Rs)	Amount (Rs. In Lacs)
1	**Earth Works**				
1	Provision for levelling + earth filling as per site condition approximate ~~(Area under Roads)~~	Acre	~~2.46~~ 11.44375	1,75,000	~~4.30~~ 20.03
2	Provision For Construction of roads by providing granular sub base 200 mm as per MORT & H specifications conforming to claus 401 grading-II 400.1				
i.	200 mm GSB				
ii.	250 mm thick stone aggregate				
iii.	50 mm thick DBM with brimer coat @60kg/100 sq.m & tack coats @25kg/100sq.m				
iv.	25 mm thick B.C				
	Total	Sqm	6388	1200	~~76.65~~ 76.66
3	**Miscellaneous Items**				
3.1	Construction of cement concrete Kerband Channels as per specifications	Meter	2,212	600	13.27
3.2	Providing and fixing guide maps at selected locations (L.S.)				~~1.50~~ 1.00
3.3	Provision for plot indicators (L.S.)				~~1.50~~ 1.00

3.4	Provision for demarcating burgies (L.S.)				1.00 ~~1.50~~
3.5	Provision for traffic arrangement (L.S)				~~2.00~~ 1.00
3..6	Provision for carriage of material (L.S.)				~~2.00~~ 1.00
3.7	Construction of pavement & parking in commercial area Construction of Concrete Parking with 80mm thick interlocking Paver 0.4529 acres = 1832.75/2 — 917 sq.m. say	Pavement Parking	140 777	~~700~~ 750 1200	~~98~~ 1.05 9.32 24.89
4	Provision for const. of footpath on both side of roads (2x1106x1.5)	Sqm	3318	750/-	~~113.02~~ 150.22
	Add 3% contingency & P.E. charges				~~3.39~~ 4.51
	Total				~~116.41~~ 154.73
	Department escalation unforeseen and administrator charges @ 49%				~~57.04~~ 75.82
	Total				~~173.45~~ 230.55
	~~Say~~				~~173.50~~

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Length of 9M wide Roads

R1 = 195.50 Mtr
R2 = 175.50 Mtr
R3 = 185.90 Mtr
R4 = 152.80 Mtr
R5 = 132.00 Mtr
R6 = 132.00 Mtr
R7 = 132.00 Mtr
1105.70 Mtr

Say 1106 Mtr

SUB WORK-V

11.44375 ACRES RESIDENTIAL PLOTTED COLONY

SECTOR -29A (Village Bariyawas), REWARI

STREET LIGHTING

Name of Project: Service Plan Estimate of Residential Plotted colony measuring 11.44375 acres in Sector 29A, Rewari developed by M/S SATIUP BUILDER.

	Amount (Rs. In Lacs)
Providing street lighting on internal Roads as per standard specification in 11.44375 acre area Rs. 2,50,000/- per acre 11.44375 x 2,50,000/- = 28.61	**= 28.61**
Add 3% contingencies & P.E. Charges	= 0.86
	29.47
Add Department Charges escalation unforeseen and administrator charges @ 49%	= 14.44
Total	= 43.91
Say	=44.00

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11.44375 ACRES RESIDENTIAL PLOTTED COLONY

SECTOR -29A (Village Bariyawas), REWARI

SUB WORK NO. VI

COST ESTIMATE
HORTICULTURE

Name of Project: Service Plan Estimate of Residential Plotted colony measuring 11.44375 acres in Sector 29A, Rewari developed by M/S SATIUP BUILDER.

AMOUNT (RS. IN LACS)

1 **Development of Lawn area**

a) Trenching the ordinary soil up to depth of 60 cm. Including removal and packing of serviceable material and disposing at a lead of 50 m/ and making up the trenched area to proper level by filling with earth mixed with manure including cost of imported earth and manure.

b) Rough dressing of trenched area.

c) Grassing with "doob grass" including watering and maintenance of lawns free from weeds and fit for moving rows 7.50 cm in either direction including for hedges and grill and barbed wire fencing around park and green belts (as per HSVP Norms) Area 0.8586 Acres Rs, 1,50,000/- per acre **1.29**

2 **Planting or trees with tree guards on Roads at 30 intervals on**
9 m wide Road = 1,106.00 M

Total length =1,106.00 M

No. of trees @9 m c/c 1106 x 2 / 9 = ~~245.77Nos.~~ 184.33 Nos (12)
Say 190 Nos

~~SAY =250 Nos.~~

Cost of the tree
Excavation Rs. 60/-
Manure Rs. 90/-
Tree plants Rs. 150/-
Tree guards Rs. 1000/-
Total = 1300x ~~250~~ 190 Nos @ Rs 1300/- each 2.47
TOTAL ~~3.25~~ ~~4.54~~ 3.76

Add 3% contingencies and P.E charges 0.11
~~0.14~~ 3.87

Add 49% departmental charges, price escalation ,unforeseen and Adm charges 1.90
TOTAL ~~2.29~~ 5.77

~~6.97~~

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SAY 7.00

11.44375 ACRES RESIDENTIAL PLOTTED COLONY

SECTOR -29A(Village Bariyawas), REWARI

SUB WORK NO. VII

MAINTENANCE CHARGES AND RESRURFACING OF ROADS

Name of Project: Service Plan Estimate of Residential Plotted colony measuring 11.44375 acres in Sector 29A, Rewari developed by M/S SATIUP BUILDER.

2ND Phase after 5 yrs of 1st phase	**AMOUNT (RS. IN LACS)**
1. Provision for maintenance charges for water supply, sewerage, storm water drainage, roads, streetlights, horticulture etc. complete including operation and establishment charges as per HSVP norms after completion and resurfacing of roads after 10 years.	
11.44375 acres @ Rs. 7.50 lacs per acre	85.83 =~~85.82~~
2. Provision for resurfacing of roads after 1st 5 years of maintenance i.e. 50mm thick B.M. and 25mm premix carpet with mechanical paver with seal coat	
6388 sqm @ Rs 600/- Per Sqm	38.33 = ~~38.32~~
3. Resurfacing of road after 10 years of maintenance by Providing 50mm thick BM with 25 mm thick premix carpet with seal coat with mechanical paver	
6388 sqm @ Rs 750/- Per Sqm	=47.91
TOTAL	172.07 =~~172.05~~
Add 3% PE and contingency charges	=5.16
	=~~177.21~~ 177.23
Add 49% Departmental charges, price escalation unforeseen and administrator charges.	=~~86.84~~ 86.84
Total	264.07 =~~264.05~~
~~Say~~	=~~264.10~~

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HYDRAULIC DESIGN STATEMET OF WATER SUPPLY (LOAD CALCULATION)

Providing Water Supply Scheme 11.44375 ACRES RESIDENTIAL PLOTTED COLONY SECTOR-29A, REWARI

Sr.No.	Name of Pipe Line	No of Plots	Population @13.5 persons per plot	Water requirement @115 l/head /day in KLD	Water requirement for non-residential plots				Total requirement in KLPD	Gross water requirement in gallons per day (Total)
					Plot's area in acres	Type of building	Basis of water requirement	Gross water requirement		
1	2	3	4	5	6	7	8	9	10	11
1	R-A	-	-	-	-	-	-	-	-	-
2	A-B	-	-	-	-	-	-	-	-	-
3	B-B1	29	391.5	45.02	-	-	-	-	45.02	11893
4	B-C	6	81	9.32	-	-	-	-	9.32	2462
5	C-C1	40	540	62.1	-	-	-	-	62.1	16405
6	C-D	6	81	9.32	-	-	-	-	9.32	2462
7	D-D1	2	26	2.99	-	-	-	-	2.99	789
8	D-E	42	567	65.21	-	-	-	-	65.21	17226
9	E-E1	15	202.5	23.29	-	-	-	-	23.29	6152
10	E-F	16	216	24.84	Community 1.14439 Acre	28.5KL/Acre	32.62 KL	32.62	57.46	15179
11	A-G	3	40.5	4.66	-	-	-	-	4.66	1231
12	G-G1	26	351	40.37	-	-	-	-	40.37	10664
13	G-H	5	67.5	7.76	-	-	-	-	7.76	2049
14	H-H1	3	40.5	4.66	Commercial 0.4529 Acre	32 KL/ Acre	14.50 KL	14.50	19.16	5061
15	H-I	32	432	49.68	-	-	-	-	49.68	13124

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DESIGN STATEMENT

Providing Water Supply Scheme 11.44375 ACRES RESIDENTIAL PLOTTED COLONY SECTOR-29A, REWARI

S. No.	Name of line	Water load in gallons per day			3 times water load in gallon per day	Designed water load in gallons per day	Size in mm	Length in m	Head loss per 1000m	Head loss in per line in m	Hydraulic levels in mtr		R.L. at L/E in mtr	Terminal head at L/E in m
		Self	Branch	Total							U/E	L/E		
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1	R-A	-	-	-	-	3,33,000.00	150	5.00	-	-	235.00	234.77	199.80	36.17
2.	A-B	-	-	-	-	3,33,000.00	150	21.00	0.94	0.02	234.77	233.24	199.80	34.64
3	B-B1	11893	-	11893	35,679	3,33,000.00	100	139.50	9.20	1.15	233.24	232.09	199.80	33.49
4	B-C	2462	11893	14,355	43,065	3,33,000.00	150	39.00	9.20	0.50	232.09	231.59	199.80	32.99
5	C-C1	16405	-	16405	49,215	3,33,000.00	100	139.50	3.13	0.39	231.59	231.20	199.80	32.60
6	C-D	2462	16405	18,867	56,601	3,33,000.00	150	39.00	4.35	0.22	231.59	231.37	199.80	32.77
7	D-D1	789	18,867	19,666	58,998	3,33,000.00	100	12.90	3.32	0.50	231.37	230.87	199.80	32.27
8	D-E	17226	2462	19,688	59,064	3,33,000.00	150	147.00	2.06	0.08	231.37	231.29	199.80	32.69
9	E-E1	6152	-	6152	18,456	3,33,000.00	100	43.90	3.32	0.50	231.29	230.79	199.80	32.19
10	E-F	15179	19,688	34,867	1,04,601	3,33,000.00	100	161.80	0.94	0.02	231.29	231.27	199.80	32.67
11	A-G	1231	-	1231	3,693	3,33,000.00	150	20.80	11.30	0.04	231.27	231.23	199.80	32.63
12	G-G1	10664	1231	11,895	35,685	3,33,000.00	100	139.50	062	0.05	231.23	231.18	199.80	32.58
13	G-H	2049	11,895	13,944	41,832	3,33,000.00	150	42.30	9.20	1.53	231.18	231.08	199.80	32.48
14	H-H1	5061	13,944	19,005	57,015	3,33,000.00	100	25.20	9.20	1.15	231.59	231.37	199.80	32.77
15	H-I	13124	19,005	32,129	96,387	3,33,000.00	150	139.50	11.30	0.50	231.37	230.87	199.80	32.27

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SCHEDULE OF QUANTITIES

Providing Water Supply Scheme 11.4437 ACRES RESIDENTIAL PLOTTED COLONY SECTOR-29A, REWARI

Sr. No.	Name of Pipe Line	Pipe (length in M size in mm)					S.V. Qty. in Nos. Size in mm				
		100	150	200	250	300	100	150	200	250	300
1	2	3	4	5	6	7	8	9	10	11	12
1	R-A	-	5.00	-	-	-	-	-	-	-	-
2	A-B	-	21.00	-	-	-	-	1	-	-	-
3	B-B1	139.50	-	-	-	-	-	-	-	-	-
4	B-C	-	39.00	-	-	-	-	1	-	-	-
5	C-C1	139.50	-	-	-	-	1	-	-	-	-
6	C-D	-	39.00	-	-	-	1	-	-	-	-
7	D-D1	12.90	-	-	-	-	1	-	-	-	-
8	D-E	-	147.00	-	-	-	-	-	-	-	-
9	E-E1	43.90	-	-	-	-	-	-	-	-	-
10	E-F	161.80	-	-	-	-	-	-	-	-	-
11	A-G	-	20.80	-	-	-	-	1	-	-	-
12	G-G1	139.50	-	-	-	-	-	-	-	-	-
13	G-H	-	42.30	-	-	-	-	-	-	-	-
14	H-H1	25.20	-	-	-	-	-	-	-	-	-
15	H-I	-	139.50	-	-	-	1	-	-	-	-
	TOTAL	**663.00**	**454.00**	-	-	-	**4**	**3**	-	-	-

STATEMENT FOR CALCULATION OF SEWERAGE LOAD

PROVIDING SEWERAGE SCHEME 11.44375 ACRES RESIDENTIAL PLOTTED COLONY SECTOR-29A, REWARI

S. No.	Name of Line	Water Requirement of plots			Demand of non-residential areas			Total requirement in KLPD	Quantity of Sewage@75% of Water Requirement in cusecs.
		No. of Plots	Population @13.5 persons /plot	Water Requirment @155 LPCD in KLPD	Nature of building	Basis of water Requirement	Gross Requirement in KLPD		
1	A-B	3	40.5	6.28	Commercial 0.4529 Acre	32 KL/ Acre	14.50 KL	20.78	0.008493
2	C-B	32	432	66.96	-	-	-	66.96	0.027368
3	B-D	6	81	12.55	-	-	-	12.55	0.005129
4	D1-D	26	351	54.40	-	-	-	54.40	0.022235
5	D-E	13	175.5	27.20	-	-	-	27.20	0.011117
6	E1-E	3	40.5	6.28	-	-	-	6.28	0.002566
7	E-F	41	553.5	85.79	-	-	-	85.79	0.035065
8	F1-F	16	216	33.48	-	-	-	33.48	0.013684
9	F-G	-	-	-	Community 1.14439 Acre	28.5KL/Acre	32.62 KL	32.62	0.013684
10	G1-G	40	540	83.7	-	-	-	83.7	0.034211
11	G-H	5	67.5	10.46	-	-	-	10.46	0.004275
12	H1-H	11	148.5	23.02	-	-	-	23.02	0.009409
13	H-J	3	40.5	6.28	-	-	-	6.28	0.002566
14	I-J	26	351	54.40	-	-	-	54.40	0.022235
15	J-R (STP)	-	-	-	-	-	-	-	-

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DESIGN STATEMENT

PROVIDING SEWERAGE SCHEME 11.44375 ACRES RESIDENTIAL PLOTTED COLONY SECTOR-29A, REWARI

S. No.	Name of Line	Sewage Load in cusecs			3 times Sewage Load in cusecs	Designed Discharge In cusecs	Size in mm	Length in m	Slope 1 in	Velocity in m/sec	Fall in m	Formation level in m		Invert level in m		Depth in m		Avg depth In m
		Self	Branch	Total								U/E	L/E	U/E	L/E	U/E	L/E	
1	A-B	0.008493	-	0.008493	0.0254	0.47	200	29.10	200	082	0.15	199.75	199.75	198.75	198.60	1.00	1.15	1.08
2	C-B	0.027368	-	0.027368	0.0821	0.47	200	137.70	200	082	0.69	199.66	199.75	198.66	197.97	1.00	1.69	1.34
3	B-D	0.005129	0.035861	0.04099	0.12297	0.47	200	42.30	200	082	0.21	199.75	199.73	197.97	197.76	1.69	1.90	1.80
4	D1-D	0.022235	-	0.022235	0.0667	0.47	200	137.50	200	082	0.69	199.69	199.73	198.69	198.00	1.00	1.69	1.34
5	D-E	0.011117	0.022235	0.0333	0.1000	0.47	200	119.50	200	082	0.60	199.73	199.82	197.76	197.16	1.90	2.50	2.20
6	E1-E	0.008493	-	0.008493	0.0254	0.47	200	12.30	200	082	0.06	199.85	198.82	198.85	198.79	1.00	1.06	1.03
7	E-F	0.035065	0.008493	0.043558	0.1306	0.47	250	140.90	200	082	0.70	199.82	199.79	197.16	196.46	2.50	3.20	2.85
8	F1-F	0.013684	-	0.013684	0.0410	0.47	200	48.50	200	082	0.24	199.76	199.79	198.76	198.52	1.00	1.24	1.12
9	F-G	0.013684	0.013684	0.027368	0.0821	0.47	250	39.00	200	082	0.20	199.79	199.73	196.46	196.26	3.20	3.40	3.30
10	G1-G	0.034211	-	0.034211	0.1026	0.47	200	133.50	200	082	0.67	199.80	199.73	198.80	198.13	1.00	1.67	1.34
11	G-H	0.004275	0.034211	0.038486	0.1154	0.47	250	39.00	200	082	0.20	199.73	199.70	196.26	196.06	3.40	3.60	3.50
12	H1-H	0.009409	--	0.009409	0.028	0.47	200	80.20	200	082	0.40	199.66	199.70	198.66	198.26	1.00	1.40	1.20
13	H-J	0.002566	0.038486	0.041052	0.123	0.47	250	23.00	200	082	0.12	199.70	199.72	196.06	195.94	3.60	3.72	3.66
14	I-J	0.022235	-	0.022235	0.0667	0.47	250	110.40	200	082	0.56	199.76	199.72	198.76	198.20	1.00	1.56	1.28
15	J-R (STP)	0.041052	-	0.041052	0.123	0.47	250	10.00	200	082	0.005	199.72	199.72	195.94	195.89	3.72	3.77	3.75

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Schedule of Quantities of S.W. Pipes								
PROVIDING SEWERAGE SCHEME 11.44375 ACRES RESIDENTIAL PLOTTED COLONY SECTOR-29A, REWARI								
S.No	Name of Line	Dia of pipe in mm and Length in meters						
		200mm	250mm	300mm	350mm	400mm	540mm	500mm
1	A-B	29.10	-	-	-	-	-	-
2	C-B	137.70	-	-	-	-	-	-
3	B-D	42.30	-	-	-	-	-	-
4	D1-D	137.50	-	-	-	-	-	-
5	D-E	119.50	-	-	-	-	-	-
6	E1-E	12.30	-	-	-	-	-	-
7	E-F	-	140.90	-	-	-	-	-
8	F1-F	48.50	-	-	-	-	-	-
9	F-G	-	39.00	-	-	-	-	-
10	G1-G	133.50	-	-	-	-	-	-
11	G-H	-	39.00	-	-	-	-	-
12	H1-H	80.20	-	-	-	-	-	-
13	H-J	-	23.00	-	-	-	-	-
14	I-J	-	110.40					
15	J-R (STP)	-	10.00					
		740.60	**362.30**					
	TOTAL	**741.00**	**363.00**					
	SAY	**1,104.00**						

DESIGN STATEMENT

PROVIDING STORM WATER DRAINAGE SCHEME 11.44375 ACRES RESIDENTIAL PLOTTED COLONY SECTOR-29A, REWARI

S. No.	Name of Line	Area in Acres			Discharges in cusecs@ ¼ rainfall intensity	Designed Discharge In cusecs	Size in mm	Length in mtr	Slope 1 in	Velocity in m/sec	Fall in m	Ground Levels in mtr		Invert level in m		Depth in mtr		Avg depth In mtr
		Self	Branch	Total								U/E	L/E	U/E	L/E	U/E	L/E	
1	A-B	1.82	-	1.82	0.45	3.52	400	133.60	560	0.77	0.24	199.79	199.82	198.79	198.55	1.00	1.24	1.12
2	B1-B	1.63	1.82	3.45	0.86	3.52	400	18.00	560	0.77	0.03	199.85	199.82	198.85	198.82	1.00	1.03	1.02
3	B-C	0.12	3.45	3.57	0.89	3.52	400	77.80	560	0.77	0.14	199.82	199.76	198.55	198.41	1.24	1.38	1.19
4	D-E	2.51	-	2.51	0.63	3.52	400	31.60	560	0.77	0.06	199.75	199.75	198.75	198.69	1.00	1.06	1.03
5	E-C	0.12	6.08	6.20	1.55	3.52	400	84.00	560	0.77	0.15	199.75	199.76	198.69	198.54	1.06	1.21	1.14
6	C-F (RWH)	1.71	-	1.71	0.43	3.52	400	59.70	560	0.77	0.10	199.76	199.76	198.41	198.31	1.38	1.48	1.43
7	G-I	0.97	7.91	8.88	2.22	3.52	400	77.80	560	0.77	0.14	199.76	199.73	198.76	198.62	1.00	1.14	1.07
8	H-I	1.49	-	1.49	0.37	3.52	400	137.50	560	0.77	0.25	199.80	199.73	198.80	198.55	1.00	1.25	1.13
9	I-I1 (RWH)	0.09	10.37	10.46	2.62	3.52	400	5.00	560	0.77	0.01	199.73	199.73	198.55	198.54	1.25	1.26	1.25
10	I1-J	1.44	10..46	11.90	2.98	3.52	400	40.00	560	0.77	0.08	199.73	199.70	198.54	198.46	1.26	1.34	1.30
11	K-J	0.45	11.9	12.45	3.11	3.52	400	137.50	560	0.77	0.25	199.76	199.70	198.76	198.51	1.00	1.25	1.13
12	J-L	-	12.45	-	3.11	3.52	400	42.00	560	0.77	0.08	199.70	199.69	198.46	198.38	1.34	1.42	1.38
13	M-N	1.63	1.82	3.45	0.86	3.52	400	137.50	560	0.77	0.25	199.75	199.66	198.75	198.50	1.00	1.25	1.13
14	N-L	0.12	3.45	3.57	0.89	3.52	400	42.00	560	0.77	0.08	199.66	199.69	198.50	198.42	1.25	1.33	1.29
15	L-P	2.51	-	2.51	0.63	3.52	400	11.00	560	0.77	0.02	199.69	199.70	198.38	198.36	1.42	1.44	1.43
16	O-P	0.12	6.08	6.20	1.55	3.52	400	125.40	560	0.77	0.22	199.73	199.70	198.73	198.51	1.00	1.22	1.11
17	P-Q (RWH)	1.71	-	1.71	0.43	3.52	400	15.00	560	0.77	0.03	199.70	199.72	198.36	198.33	1.44	1.41	1.50

Ar. SAHIL PRUTHI
CA/2018/96260

Schedule of Quantities of R.C.C. Pipes							
PROVIDING STORM WATER DRAINAGE SCHEME 11.44375 ACRES RESIDENTIAL PLOTTED COLONY SECTOR-29A, REWARI							
S.No	Name of Line	Dia of pipe in mm and Length in meters					
		400mm	500mm	550mm	600mm	800mm	900mm
1	A-B	133.60	-	-	-	-	-
2	B1-B	18.00	-	-	-	-	-
3	B-C	77.80	-	-	-	-	-
4	D-E	31.60	-	-	-	-	-
5	E-C	84.00	-	-	-	-	-
6	C-F (R.W.H)	59.70	-	-	-	-	-
7	G-I	77.80	-	-	-	-	-
8	H-I	137.50	-	-	-	-	-
9	I-I1 (R.W.H)	5.00	-	-	-	-	-
10	I-J	40.00	-	-	-	-	-
11	K-J	137.50	-	-	-	-	-
12	J-L	42.00	-	-	-	-	-
13	M-N	137.50	-	-	-	-	-
14	N-L	42.00	-	-	-	-	-
15	L-P	11.00	-	-	-	-	-
16	O-P	125.40	-	-	-	-	-
17	P-Q (R.W.H)	15.00	-	-	-	-	-
	TOTAL	**1,175.40**	-	-	-	-	-
	SAY	**1,176.00**					