

Directorate of Town & Country Planning, Haryana

Nagar Yojana Bhavan, Plot No. 3, Sector-18 A, Madhya Marg, Chandigarh
Web site: tcpharyana.gov.in - e-mail: tcpharyana7@gmail.com

Regd.

To

BCC Edutech Pvt. Ltd.,
In collaboration with Conscient Infrastructure Pvt. Ltd.,
Corp. Off: 10th Floor, Tower- D, Global Business Park,
MG Road, Gurugram - 122002
Email ID: info@conscient.in

Memo No. LC-3023 B-JE (SK)-2021/ 8526

Dated: 31/03/2021

Subject:

Approval of Service Plan / Estimate of Affordable Group Housing Colony for an additional area measuring 5.08125 acres bearing licence no. 63 of 2019 dated 05.06.2019 (In addition to licence no. 15 of 2016 dated 26.09.2016) in Sector-78, Faridabad being developed by BCC Edutech Pvt. Ltd. in collaboration with Conscient Infrastructure Pvt. Ltd.

The service plan/estimates of Licence no. 63 of 2019 dated 05.06.2019 (In addition to licence no. 15 of 2016 dated 26.09.2016) in Sector-78, Tehsil & District Faridabad has been checked and corrected, wherever necessary by the Chief Administrator, HSVP and are hereby approved by the DTCP Haryana subject to the following terms and conditions:-

1. You will have to pay the proportionate cost of external development charges for setting up of Affordable Group Housing Colony for the services like water supply, sewerage, storm water drainage, roads, bridges, street lighting, horticulture etc. on gross acreage basis as and when determined by HSVP/Director. These charges are modifiable and modified charges will be binding upon you.
2. The maintenance charges for various services like water supply, sewerage, storm water drainage, Horticulture, roads, street lighting and resurfacing of roads etc. have been included in the estimate as per detail given in it and the total cost of maintenance charges are works out to Rs. 267.11 lacs as you are liable to maintain the estate developed by yourself as per norms as determined by the Govt. /Govt. agency.
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. 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, alongwith recommendation of HSVP dated 29.10.2020 Annexure-B.
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.
6. The appropriate provision for firefighting arrangement as required in the NBC/ISI should also be provided by you and fire safety certificate should also be obtained.

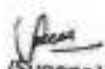


- by you from the Competent Authority before undertaking any construction. You will be responsible for fire safety arrangement.
7. You shall be fully responsible for making arrangement of disposal of sewerage and storm water drainage till such time these are made available by HSVP/State Govt. and all link connections with the external system shall be made by you at your own cost. The owner will have to ensure that sewer/storm water drainage to be laid by you will be connected by gravity with the master services to be laid/laid by HSVP/State Govt. in this area as per scheme.
 8. The correctness of the levels of the colony will be sole responsibility of the owner for integrating the internal sewer/storm water drainage of the colony by gravity with the maser services. In case pumping is required the same will be provided by you.
 9. Roof top rain harvesting system shall be provided by you as per norms and the same shall be kept operational/maintained all the time. Arrangement for seggration of first rain not to be entered into the system shall also be made by you.
 10. The estimates do not include the provision of electrification of the colony. However, it is clear that the supervision charges and O&M charges shall be paid by you directly to the HVPN.
 11. You shall be sole responsible for the construction of various structures such as RCC underground tank etc. according to the standard specification good quality and its workmanship. The structural responsibility will entirely rest upon you.
 12. In case some additional structures are required to be constructed and decided by HSVP at a later stage, the same will be binding upon you.
 13. You will not make the connection with the master services i.e. water supply, sewerage and storm water drainage without getting its approval from the competent authority.
 14. This estimate does not include the common services like water supply, storage tank on the top of the building blocks, lifts, ramps, fire fighting arrangements, plumbing etc. and will for part of the building works.
 15. In case some additional structures are required to be constructed and decided by the Competent Authority, at a later stage, the same will be binding upon you. Flow control valves will be installed preferably automatic type, on water supply connection with external water supply line.
 16. You shall get the electrical service plan estimates approved from the concerned authority regarding power utility within a period of 60 days and submit the same in this office for approval.
 17. You shall get the permission of competent Authority, before laying services through Panchayat/Government land, if any.



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

A copy of the approved service plan/estimates is enclosed herewith. You are requested to supply four additional copies of the approved service plan/estimates to the Chief Administrator, HSVP, Panchkula under intimation to this office. DA/as above.


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

Endst No LC-3023 B-JE (SK)-2021/

Dated:

A copy is forwarded to the Chief Engineer, HSVP, Panchkula with reference to his letter No. 172359 dated 29.10.2020 for information and necessary action.


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



SERVICE PLAN ESTIMATE OF ADDITIONAL AFFORDABLE GROUP
HOUSING COLONY FOR AN ADDITIONAL AREA MEASURING
5.08125ACRES (LICENSE NO. 63 OF 2019) IN ALREADY LICENSE
GRANTED AREA MEASURING 7.394ACRES TOTAL AREA
12.47525 ACRES IN SECTOR 78 FARIDABAD BEING DEVELOPED
BY URBAN BUILD MART PVT LTD, BCC EDUTECH PVT LTD IN
COLLABORATION WITH CONSCIENT INFRASTRUCTURE PVT LTD.

(LIC. NO. 63 OF 2019) (PHASE-II)



ESTIMATE FOR PROVIDING WATER SUPPLY, SEWERAGE, STORM WATER
DRAINAGE, ROADS, STREET LIGHTING AND HORTICULTURE IN RESPECT
OF 5.08125 ACRES (PART OF 12.47525 ACRES) AFFORDABLE GROUP HOUSING
COLONY IN SECTOR-78, FARIDABAD

CONSERVE WATER



UNDERTAKING

I, S.K. Kaushik S/o Shri M.L. Kaushik Authorized Signatory of M/s. Conscient Infrastructure Pvt. Ltd. Having our registered office at K-1, Green Park Main, New Delhi - 110016 do hereby solemnly affirm and state as under:

- A) That M/s Conscient Infrastructure Pvt. Ltd. is allowed to develop a Affordable housing colony vide License no. 63 of 2019 dated- 05.06.2019. Area measuring 5.08125 Acres in sector-78, Faridabad.
- B) That Conscient Infrastructure Pvt. Ltd. start internal and external development works on an area measuring 5.08125 acres as shown in the plans by providing roads, sewerage, water supply, storm water drainage network as well as street lighting and the required lawn/horticulture services as per proposed estimates.
- C) That Conscient Infrastructure Pvt. Ltd. provided C.I./D.I. pipe for laying water supply networks and it shall be responsible for its proper functioning.
- D) That Conscient Infrastructure Pvt. Ltd. Has provided S.W./R.C.C pipes for sewerage network and it shall be responsible for its proper functioning.
- E) That Conscient Infrastructure Pvt. Ltd. shall be responsible for the functioning of sewage/storm water drainage network and also as well as by pumping.
- F) That the drinking water will be supplied by S.W. or other means as per approved plan.

- G) That Conscient Infrastructure Pvt. Ltd. Shall be responsible for providing and functioning of street lighting within the area.
- H) That Conscient Infrastructure Pvt. Ltd. Has processed installation of 1 No. of 500 KLD STP in the affordable housing colony to meet immediate requirement for treatment of the sewage and as & when habitation grow, Conscient Infrastructure Pvt. Ltd. Shall install STP of required capacity till master sewerage line laid and STP installed by HSP.
- I) That Conscient Infrastructure Pvt. Ltd. Shall dispose of the sewerage of colony area as per guidelines and requirement of Haryana state Pollution Control Board and Environmental Department.
- J) That Conscient Infrastructure Pvt. Ltd. Shall be responsible for providing/maintenance of roads till these services handed over to any other Govt. Body/M.C.F. for maintenance as per conditions of license.
- K) That Conscient Infrastructure Pvt. Ltd. Shall be responsible for maintaining Pollution free Environment in and around area developed by us.
- L) That Conscient Infrastructure Pvt. Ltd. Shall be responsible for correctness of levels for storm water drainage as well as sewerage network laid by us.

For Conscient Infrastructure Pvt. Ltd.

Authorized Signatory

ATTESTED

DEEPA SINGH
D.O. & NOTARY
Gurgaon Haryana

1 AUG 2010



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PROJECT REPORT/ESTIMATE FOR PROVIDING WATER SUPPLY, SEWERAGE, STORM WATER DRAINAGE, ROADS, STREET LIGHTING AND HORTICULTURE IN RESPECT OF 5.08125 ACRES (PART OF 12.47525 ACRES) AFFORDABLE GROUP HOUSING COLONY, SECTOR 78, FARIDABAD.

REPORT

The Haryana Government has prepared a master plan for development of Residential/Industrial urban estate at FARIDABAD. M/S URBAN BUILD MART PVT. LTD. BCC EDUTECH PVT. LTD. IN COLLABORATION WITH CONSCIENT INFRASTRUCTURE PVT. LTD. has decided to develop affordable Group Housing Colony. This scheme is located in Sector 78 of FARIDABAD. License has already been granted under DTCP license No. 63 of 2019 Dated 05.06.2019 in addition of license No. 15 of 2016 (phase 1) Dated 26.09.2016. The brief details of the scheme are as under:-

WATER SUPPLY

1 Source

The source of water supply in this area is tubewells 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 36000 litre per hour. The recharging of underground water table in this belt is stated to be good. However still we shall resort to rain water harvesting system to keep up the recharging system. The number of tubewells required for the above area has been worked out and the tubewells will be bored in tune with growth of demand to avoid obsolescence of the tubewells. The ultimate requirement of tubewells includes provisions of 10% stand by.

2 Design

The scheme has been designed for approved population of 9265 persons. The rate of water supply per head per day has been taken as 172.50 litres (155+15%) as per ISI 128 norms. In addition to above necessary provisions of water for commercial, electric substation, parks etc. have been taken into account for calculating the maximum quantity of water requirement.

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3 Pump chambers and Pumping Machinery

It is proposed to equip each tubewell with an electrically driven set ejector type or submersible pump capable of delivering of 36000litre per hour. It is also proposed to equip fifty percent of pumping sets with stand by diesel engines /gen set for operation during failure of electricity.

4 Under Ground Storage

Provision has been made for 400 KL capacity U.G.S.T in two compartments, which cater 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 are being planned near underground storage tank catering to the above requirement.

6 Distribution System

The distribution system for this development has been designed to supply an 172 litre per head per day or 3 times the average rate of flow on Hazen William formula. Necessary provision for laying C/D 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 72.00 meters so that it can serve the G.F.+13 floors construction envisaged in the plan. Minimum pipe dia for distribution is kept as 100-mm dia.

7 Rising mains

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

8 Sewerage

The sewer lines have been designed for 3 times average DWI in relation to the water supply demand assuming that 75% of the domestic water supply shall find its way into proposed sewer. SWRCC pipe sewers have been proposed and designed to run half full.

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sewers have been designed on 0.77 M per second minimum velocity i.e. self cleansing velocity. Necessary provision for laying s.w. R.C.C. pipes manholes etc. has been made in this estimate along with S.T.P. of capacity 0.50 MLD. Treated Sewage will be used for flushing purpose and Horticulture purpose. This over flow will be discharged into HUDA Sewerage system.

9 Storm water Drainage

The storm water drainage is being designed to carry 6.25mm rainfall per hour for intramural and 3.125mm rainfall intensity for extramural sewers. Also suitable provision are contemplated in our scheme to ensure better recharging of underground water table in the area. R.C.C. Hume pipes drain with minimum 400mm dia is proposed in this area.

10 Roads

The roads in the colony have been planned as 6M wide. The following specifications have been adopted which are reproduced below

The specifications of 6M wide roads

- (i) 300 mm GSB
- (ii) 250 mm stone aggregate
- (iii) 50 mm thick Bit
- (iv) 95 mm Mass PC

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 HUDA specifications, which ever applicable.

11 Street lighting

The provision has been made on lump sum basis.

12 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.

13 Specifications

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



14 Rates

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

15 Cost

The total cost of development in this project including various P.H. and B & R services works out to Rs. ~~126.70~~^{167.69} Lac. including 3% contingencies & P.F. charges and 4% departmental administrative, unforeseen and escalation charges.

The cost per gross acre for the proposal works out to be Rs. ~~182.37~~^{167.69} Lac which covers the provision of services like water supply, sewerage, storm water drainage, roads, street lighting and plantation including maintenance thereof for ten years.

EXECUTIVE ENGINEER
HSR DIVISION No. 3
FARIDABAD

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5.08125ACRES AFFORDABLE GROUP HOUSING COLONY,
SECTOR 78, FARIDABAD
DESIGN CALCULATIONS

Daily Requirement of water supply

1. Total No. of Dwelling Units = 732
 Population per unit @ 5
 Total Population = 5×732 = 3660 Persons
 Water requirement for units
 @ 172.5 ltr / head / day = 3660×172.5 = 631350.00 litres
 = 631.35 KL

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

- (a) No. of commercials = 1 NO
 Daily Water requirement @ 32000
 litre/Acre
 Area of commercial = 888.28 Sq.m = 0.2203 acres
 Therefore daily water requirement = 7049.60 ltr
 $0.2203 \times 32,000$ = 7.05 KL

G_a
 F.A.R. of commercial = 1554.504 sq m
 Daily Water requirement = 6995.27 ltr
 = $1554.504 \times 1/10 \times 45$ = 7.00 KL

- (b) No. of community Buildings = 1 no.
 F.A.R. Area of community Buildings = 186.080 sq.m
 Daily Water requirement = 837.36 ltr
 = $186.08/10 \times 45$ = 0.84 KL

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(c) Anganwadi cum crèche
 Daily Water requirement @ 25000
 litre/Acre = $186.752 \text{ JD} \times 45$

= 186.752 Sq.m
 = 840.38 ltr
 = 0.84 KL

TOTAL
 SAY
 = 8.73 KL
 = 10.00 KL

3. Area under Parks/green space
 = 4363.458 Sq.m
 = 1.08 Acres

Therefore daily water requirement
 @ 25000 litre/Acre
 = 1.08×25000 = 27000.00 litres
 = 27.00 KL

4. Area under roads and parking out
 of 5.08125 Acres = 1.36
 = 2.72 Acres

Therefore daily water requirement
 For Sweeping of roads
 = 1.36×5000 = 6800
 = 12650.00 litres
 = 12.65 KL
 = 6.80

Total daily requirement

a. For domestic use (1+2) = $631.35 + 10.00$ = 641.35 KL

b. Under parks & roads (3+4) = $27.00 + 12.65$ = 39.65 KL

c. Assuming domestic
 requirement for flushing as
 33% of total domestic
 requirement, then daily water
 requirement for flushing
 = $641.35 \times 33\%$ = 211.64 KL

d. Balance requirement of
 Domestic water supply
 = $641.35 - 211.64$
 = 429.71
 = 429.71 KL

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**5.08125 ACRES AFFORDABLE GROUP HOUSING COLONY,
SECTOR 78, FARIDABAD**

TUBEWELLS

Assuming working hours of tube well	= 16
Assuming discharge/hour of each tube well	= 36000 lit/hour
Total domestic demand	$\frac{489.71}{41.04}$ KLD
No of tube wells Required for domestic demands(Drinking)	$= \frac{489.71}{16 \times 36.00} = 0.75$
Add 10% as stand by	$= 0.75 + 0.08 = 0.85$
Say	= 1 No.

So it is proposed to provide 1 Nos. of tubewell. The provision of 1 no. of tubewell has been made in the estimate because the water demand for horticulture and flushing purposes is to be met from re-circulated water after treatment at S.T.P. and ultimate water supply is to be provided by HSVP.

PUMPING MACHINERY FOR TUBE WELLS

Gross working load	= 50.00 m
Average fall in is S.L.	= 5.00 m
Depression head	= 5.00 m
Friction Loss	= 3.00 m
Total	= 67.00 m
Say	= 70.00 m
B.H.P. = $\frac{36000 \times 70}{60 \times 60 \times 75 \times 0.6}$	= 12.40
Say	= 15.55 D.H.P.
	= 17.50 B.H.P.

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UNDERGROUND STORAGE TANK (DOMESTIC WATER SUPPLY)

Daily requirement for domestic use including Institutional demand

~~434.84 KL~~
439.71

Capacity of under ground tank = $0.5 \times \frac{439.71}{\text{say}}$

214.85
~~= 214.85 KL~~
= 250.00 KL

FIRE FIGHTING

Take minimum demand

= 150.00 KL

Hence it is proposed to provide underground tank of capacity 400.00 KL which also includes 150.00 KL for firefighting as well

This tank will have two compartments, one for fire and 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

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BOOSTING MACHINERY (FOR DRINKING WATER SUPPLY)

Daily requirement for domestic use

$$= \frac{447.61}{24} \text{ KL}$$

Assuming 8 hours running 2 pump (with one standby)

Discharge/hour

$$= \frac{447.61}{8 \times 2}$$

$$= 27.98 \text{ KL/hr}$$

$$= 447.61 \text{ LPM}$$

$$\text{Say } 500 \text{ LPM}$$

$$450$$

Head of Pump

i) Suction lift 4.00M

ii) Friction Loss in main & specials 4.00 M

iii) Clear head 72.00 M

$$80.00 \text{ M}$$

$$\text{Say } 90.00 \text{ M}$$

B.H.P. of Motor

$$= \frac{450 \times 90}{60 \times 75 \times 0.60}$$

$$15.0$$

$$15.0$$

$$\text{SAY}$$

$$15.0$$

$$15.0$$

$$15.0$$

It is proposed to provide 3 Nos. of pumping sets capable of supplying 500 ltr per minute of a total head of 90.00 m connected with 15.00 B.H.P. electric motor.

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UNDERGROUND STORAGE TANK (flushing water)

Daily requirement for flushing at S.T.P.

$$\frac{211.64}{24 \times 2} \text{ KL}$$

Half day capacity = $\frac{211.64}{2}$

$$\begin{aligned} &= 105.82 \\ &= 106.15 \text{ KL} \\ \text{SAY} &= 125.00 \text{ KL} \end{aligned}$$

Boosting machinery (for flushing water supply)

Assuming 8 hour running 1 pump with

One stand by $\frac{105.82}{8}$

DISCHARGE = $\frac{106.15}{8}$

$$\begin{aligned} &= 13.28 \text{ KL/hr} \\ &= 220.45 \text{ lpm} \\ &225.0 \\ &= 350 \text{ lpm} \end{aligned}$$

Say

$$\text{B.H.P. of the pump} = \frac{\frac{235}{2} \times 90}{60 \times 75 \times 0.60}$$

$$\begin{aligned} &7.50 \\ &= 7.77 \\ &7.50 \\ \text{Say} &= 10.00 \end{aligned}$$

It is proposed to provide 2 Nos pumping sets each capable of delivering 225 lpm of water at a total head of 90m connected with 10 B.H.P motor

7.50

Boosting machinery for horticulture (water supply)

Daily requirement of water supply (horticulture)

Assuming 8 hours running 1 pump running with one stand by

$$\begin{aligned} \text{Discharge} &= \frac{34.85}{8} \\ &33.80 \end{aligned}$$

$$\frac{33.80}{24 \times 2}$$

$$= 4.24 \text{ KL/hr}$$

$$\begin{aligned} 70.42 &= 240 \text{ KL/minute} \\ &= 14400 \text{ lpm} \end{aligned}$$

Say

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$$\text{B.H.P of pump} = \frac{100 \times 15}{60 \times 75 \times 0.60}$$

$$= 0.55$$

Say

$$= 1.00$$

Hence provide 2 pumping sets capable of delivering 100 lpm of water at 15 m head connected to 1 B.H.P electric motor.

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**5.08125 ACRES AFFORDABLE GROUP HOUSING COLONY,
SECTOR 78, FARIDABAD
PUMPS FOR FIRE PROTECTION**

Sr.No.	PARAMETERS	LOCATION	PUMP SETS		
			Jockey	Main	Diesel
a.	Discharge in lpm	Pump Room	180 lpm	2280 lpm	2280 lpm
b.	Head in meters		120	120	120
c.	HP		7.5	125	125
d.	Quantity in nos.		1	1	1

Rating of Gen Set for Boosting of domestic and flushing water supply
Pumps 2no. + 1no. + 1 no = $2 \times 17.50 + 1 \times 10.00 + 1 \times 10.00$
Lighting etc $15.00 + 7.50 + 1.00$

38.50
= 46.50 H.P.
= 4.00 H.P.

Capacity of gen set
= $0.746 \times 50 \times 1.5$
48.50

= 50.00 H.P.
48.50

Add 10 % extra

47.35
= 55.00 KVA
4.75
= 5.60 KVA

61.55 KVA
52.30
SAY 65.00 KVA

Rating of genset for tubewell (stand by)

B.H.P.

Rating of genset = $0.746 \times 17.50 \times 1.5 = 19.58 \text{ KVA}$

Add 10 % extra

= 21.54 KVA

21.54 KVA

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Say

25.00 KVA

Capacity of S.T.P

The capacity of S.T.P

The capacity of S.T.P Required

$641.35 \times 0.75 = 481.01$

- 481.01 KLD

SAY

- 481.01 KLD

- 500.00 KLD

For the purpose of this drawing, the following assumptions have been made:

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**5.08125 ACRES AFFORDABLE GROUP HOUSING COLONY,
SECTOR 78, FARIDABAD (PH II)
FINAL ABSTRACT OF COST**

		Amount (Rs. in Lac)
Sub Work No. I	Water Supply	210.66 168.17
Sub Work No. II	Sewerage	126.78 118.32
Sub Work No. III	Storm Water Drainage	55.70 52.17
Sub Work No. IV	Road Work	228.80 228.36
Sub Work No. V	Street Lighting	19.50 ✓
Sub Work No. VI	Horticulture Work	5.00 4.48
Sub Work No. VII	Maintenance Charges for 10 years i.e. resurfacing of roads after 1 st 5 years and 2 nd 5 years.	204.30 267.11 ✓
Checked subject to comments TOTAL in forwarding letter No. 172359 Dt. 22/10/2020 and notes attached with the estimate		Rs 858.11 Lac ✓
		436.70 Say Rs 858.10 Lac
		5.08125 Acres = Rs 167.69 Lac
		Rs 690.41 Lac

Superintending Engineer (HQ)
for Engineer-in-Chief HSVP
Panchkula

Director
Town & Country Planning
Haryana, Chandigarh

EXECUTIVE ENGINEER
HSVP DIVISION No. 3
FARIDABAD

ANURAG GUPTA
ARCHITECT
CA/2014/63891

SUPERINTENDING ENGINEER
HSVP CIRCLE, Faridabad



5.08125 ACRES AFFORDABLE GROUP HOUSING COLONY,
SECTOR 78, FARIDABAD
ABSTRACT OF COST (WATER SUPPLY)

AMOUNT (RS. IN LAC)

Sub Work No. 1 Head Works	50.00 48.93
Sub Work No. 2 Pumping Machinery	42.00 67.52
Sub Work No. 3 Distribution System	19.50 17.53
Sub Work No. 4 Fire Ring Main	22.40 18.55
Sub Work No. 5 Irrigation cum flushing water supply.	12.90 10.10
Sub Work No. 6 Irrigation hydrant pipe	12.30 5.54
TOTAL	Rs. 168.17 lac 210.00

C o to final abstract of cost

EXECUTIVE ENGINEER
 HSVP DIVISION No.-3
 FARIDABAD

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**5.08125 ACRES AFFORDABLE GROUP HOUSING COLONY,
SECTOR 78, FARIDABAD**

Sub Work No 1

Sub work no.1

Water Supply

Head Works

**Amount (Rs. in
Lac)**

- | | |
|---|------------------------|
| 1. Boring and installing 200 i/d tubewell with reserve/direct rotary rig complete with pipe strainer to a depth of about 250m complete along with machinery
1 No. @ Rs. 10,00,000/-each | 10.00 |
| 2. Constructing pump chambers as per standar design of PWD PH 111 DA of size 1.5M x 1.55 M x 1.5M
1 No. L.S. (Housing 7.63) | (1.53) 1.00 |
| 3. Construction of boosting chambers of suitable size along with underground tank of capacity 600 KL pumping machinery and generating set etc. complete in all respect.
Details of boosting Station
i) Construction of boosting chamber
ii) U.G. tank 250KL capacity incl 150 KL for fire fighting in two compartments & 125 KL for flushing near S.T.P. 525KL @ Rs. 4000/KL
2500/- | 2.00
21.60
18.38 |
| 4. Provision for carriage for materials & other
Laid down items | 4.00 0.50 100 |
| Add 3% Contingencies & P.B. Charges | 33.00 31.88
0.96 |
| Add 49% departmental price escalation, unforeseen charges | 33.94 32.84
16.09 |

SAY

60.65 48.93 lac

50.60

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C.O. TO ABSTRACT OF COST OF SUB WORK NO. 1

Sub Head 1
Sub work No. 2

Water Supply
Pumping Machinery
Amount (Rs. In Lac)

1. Providing and installing electricity driven electro or submersible sets capable of delivering about 36.00 KL water per hour against a total head of 70 M complete with motor and other accessories.
1 No. @ 2,00,000/-each 2.00
2. Provision for diesel engine genset stand by arrangement for tube wells (25 KVA)
1 No. @ 2,00,000/- 2.00
3. Provision for cheap pressure type chlorination plant complete.
1 No. @ 1,00,000/- 1.00
4. Provision for making foundations and erection of pumping machinery
1 Nos. (L.S.) 1.00
5. Provision for pipes, valves, and specials inside the pump chamber (L.S.) 1.00
6. Provisions for electric services connection including transformer, electric fittings for tubewells chambers complete. (L.S.) 2.00
7. Providing and installing centrifugal boosting pumping sets, capable of delivering 500 LPM and 250 LPM water at 90 M head complete in all respects domestic & flushing
(1 X 17.50 H.P. + 2X 10.00 H.P.) = 37.50
6 sets L.S. 8.00
8. Providing and fixing pumping sets of following capacity for fire protection
a) 180 LPM at 120m Head 1 no. 7.5 H.P. electric driven 2.50
b) 2280 LPM at 120m Head 1 no. 125 H.P. electric driven 7.50

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iii) 2280 LPM at 120m Head 1 no. Diesel driven pump 125 H.P.
iv) 180 LPM at 120m Head 1 no. Diesel driven pump 7.5 H.P.

9.00

~~10.00~~

1.00

9. Provision of Gen Set of capacity 65 KVA (L.S.)

6.50

~~12.00~~

10. Provision for carriage for materials and other unforeseen items L.S.

1.00

Add 3% contingencies & P.E. charges

~~60.50~~

44.0

1.33

Add 49% departmental escalation & unforeseen charges

~~62.37~~

20.56

45.32

22.20

GRAND TOTAL

~~42.02~~

67.52

100

SAY

~~42.00~~

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5.08125 ACRES AFFORDABLE GROUP HOUSING COLONY,
SECTOR 78, FARIDABAD

Sub Work No. 1

Sub Head No. 3

Distribution System/Rising Main

Water Supply

Amount

(Rs in Lac)

1. Providing, laying, jointing and testing K and D pipes including cost of excavation complete as per specifications. 150 mm dia/d 300 mtrs @ Rs. 1575/- mtr	8.47 7.98
2. Providing and fixing sluice valve including cost brick masonry chambers complete in all respect. 150 mm dia/d 3Nos. @ Rs. 15000/- Each	0.45
3. Providing and fixing air valves and scour valves including cost of brick masonry chamber. 4 Nos. @ Rs. 10000/- Each	0.40
4. Providing and fixing indicator plates for sluice valve, air valve etc. 7 Nos. @ Rs. 1000/- Each	0.07
5. Providing for carriage of material I.S.	1.00
6. Provision for rising main from overhead to U.G. tank i) 100 mm dia/d 30 mtrs @ Rs. 1250/- mtr	0.37
7. Provision for rising main from main HUDA water line to U.G. tank. 100 mm dia/d 101 Mtrs @ Rs. 1250/- Mtr.	1.26
	11.63
Add 3% Contingencies and P.F. charges	13.24 0.34
Add 49% Escalation, departmental, unforeseen charges	43.42 11.77 43.47 5.76
C.O. to abstract of cost of Sub Work No. 1	17.53 lac
GRAND TOTAL	49.55
SAY	49.50

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**5.08125 ACRES AFFORDABLE GROUP HOUSING COLONY,
SECTOR 78, FARIDABAD**

Sub Work No. 1

Sub Head No. 4

**Fire Ring Main
Amount (Rs. in Lac)**

1	Providing, laying, jointing and testing M.S. D.I. pipe for fire rising main including cost of fittings, valves, connection etc. complete in all respect	
	i) 150mm M.S. Pipe line 600 ¹⁵⁷⁵ m @ Rs. 1600/- M	9.45
	ii) 80mm M.S. Pipe line 60 m @ Rs. 1000/- M	0.60
2	Providing and fixing fire hydrant with accessories 14 Nos. @ Rs. 10000/-	1.40
3	Providing and fixing indicating plates 14 Nos. @ Rs. 1000/- Each	0.14
4	Providing for carriage of material (L.S.)	0.50
		12.09 lac
	Add 3% contingencies & P.E. charges	0.36
		12.45
	Add 49% departmental, escalation, adm. and unforeseen charges.	6.10
		18.55 lac
	GRAND TOTAL SAY	18.55 lac

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5.08125 ACRES AFFORDABLE GROUP HOUSING COLONY,
SECTOR 78, FARIDABAD

Sub Work No. 1

Sub Head No. 5

Water Supply (flushing)

Amount (Rs. in Lac)

1	Providing, laying, jointing and testing GI class B pipe / DI K pipe line conforming to IS-4985 specification including cost of excavation etc. complete in all respect.	
	a) 100 mm dia 435 M @ Rs. 1250/- M	5.44
2	Providing & fixing sluice valve scour valves and air valves including cost of surface boxes and masonry chambers etc. complete in all respect	
	a) 100 mm dia 3 Nos. @ Rs. 12000/- each	0.36
3	Providing and fixing indicating plates	
	3 Nos. @ Rs. 1000/- Each	3
4	Provision for carriage of material and other unforeseen items (LS)	0.25
5	Provision for for cutting of roads and making good to its original condition (LS)	0.50
	Add 3% contingencies & P.E. charges	6.58
		0.20
	Add 49% departmental, escalation, adm. and unforeseen charges.	6.78
		3.12
	grand total	10.10
	say	10.10

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**5.08125 ACRES AFFORDABLE GROUP HOUSING COLONY,
SECTOR 78, FARIDABAD**

Sub Work No. 1

Sub Head No. 6

Water Supply Irrigation

Amount (Rs. in Lac)

- | | | |
|---|---|-------------------------|
| 1 | Providing, laying, joining and testing UPVC pipe line conforming to IS:4985 specification including cost of excavation etc. complete in all respect.

63 mm dia 10 M @ Rs. ⁶⁷⁵ 600/- M | 2.83
4.08 |
| 2 | Providing & fixing sluice valve including cost of surface boxes and masonry chambers etc. complete in all respect.
63 mm dia 3 Nos. @ Rs. 500/- each | 4.44
0.15 |
| 3 | Providing & fixing air valve and scour valves including cost of brick masonry chambers etc. complete in all respect.
3 Nos. @ Rs. 500/- each | 4.44
0.15 |
| 4 | Providing & fixing 25 mm dia irrigation Hydrant valve complete in all respect.
15 Nos. @ Rs. 3500/- each | 0.51 |
| 5 | Providing and fixing indicating plates.

6 Nos. @ Rs. 1000/- Each. | 0.06 |
| 6 | Provision for carriage of material and other unforeseen items. (LS) | 0.50 |

Add 3% contingencies & P.E. charges

3.69 2.00
0.10 0.24

Add 49% departmental, escalation, adm. and unforeseen charges.

3.78 4.23
1.82 4.44

5.54 10.5

grand total

12.29

12.40

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5.08125 ACRES AFFORDABLE GROUP HOUSING COLONY.

SECTOR 78, FARIDABAD

SUB HEAD II

SEWERAGE SCHEME

	Amount (Rs. in Lacs)
1. Providing, lowering, cutting, salt glazed stoneware pipes and specially into trenches including cost of excavation, bed concrete, cost of manholes complete in all respect.	
200 mm i.d.	
(i) Av. Depth upto 3.00 M-5.00 M @ Rs. 1250/- Per M.	6.88
250 mm i.d.	2.12
(i) Av. Depth upto 1.00 M-2.00 M @ Rs. 1800/- Per M.	1.62
	4.94
2. Provision for providing oblique function (L.S.)	1.0
3. Provision for providing and fixing vent shafts as per P.H. requirement at suitable places (L.S.)	5.0
4. Provision for making connection with HUDA main sewer line (L.S.) On master road	1.0
5. Provision of temporary timbering etc. (L.S.)	0.60
6. Provision of S.T.P. of 500 KLD capacity storage for treated sewage And other arrangement Till HUDA SEWER is laid	0.0
7. Provision for carriage of material etc. and other unforeseen charges. L.S.	1.0
8. Provision for cutting of road and making good to its original condition (L.S.)	
9. <i>Provision for over flow line from S.T.P. to drain line</i>	0.0
TOTAL <i>150 mm d = 165 m @ Rs. 1575/-</i>	2.60
Add 1% contingency & P.E. Charges.	2.31
TOTAL	77.91
<i>Pro</i> Add 4% departmental escalation and reserve charges.	38.91
GRAND TOTAL	118.32 lacs
SAY	

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FARIDABAD

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**5.08125 ACRES AFFORDABLE GROUP HOUSING COLONY,
SECTOR 78, FARIDABAD**

SUB HEAD III

STORM WATER DRAINAGE

	Amount (Rs. in lac)
1. Providing laying RCC pipes drain class NP-3 with cement joints, manholes, excavation etc. complete in all respect. 400 mm i/d Av. Depth upto 2.0 M - 2.50M @ Rs. 2500/- Per M 500 mm i/d	18.80
2. Provision for road gullies with 400 mm dia & pipe connection L.S. (L.S.)	2.80
3. Provision for lighting, watching and temporary diversions of traffic. (L.S.)	1.00
4. Provision for cutting of roads and carriage of materials etc. and other unforeseen items L.S. (L.S.)	1.00
5. Provision for rain water harvesting arrangement - recharge pit (L.S.)	0.00
6. Provision for connection with HUDA on master S.W.D. line (L.S.)	1.00
7. Provision for timbering & shoring	1.00
8. Provision for temporary disposal arrangement till HUDA services are provided (L.S.)	4.00
TOTAL	34.60
Add 3% contingencies & P.F. charges.	1.02
TOTAL	35.62
Add 49% departmental, escalation and unforeseen charges.	17.15
GRAND TOTAL	52.77
SAY	52.77

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5.08125 ACRES AFFORDABLE GROUP HOUSING COLONY.

SECTOR 78, FARIDABAD

SUB WORK NO. IV

ROAD WORK

Item No.	Description of Item	Unit	Qty.	Rate (Rs.)	Amount (Rs. In Lac)
1	Site Clearance				
1.1	Clearing and grubbing road land including uprooting rank, vegetation, grass, bushes, shrubs, saplings and trees girth upto 300 mm. removal of stumps of trees cut earlier and disposal of unserviceable materials and stacking of serviceable materials to be used or auctioned, upto a lead of 1000mm including removal and disposal of top soil not exceeding 150 mm thickness by manual means in areas of light jungle as per drawings and Clause 201 of North Specifications	Hectare	1.03	50000	0.51
2	Earth Works				
2.1	Provision for leveling + earth filling as per site condition approximate	Acre	5.08125	150000	7.62
3	Provision for				
i.	300 mm GSB				
ii.	250 mm thick stone aggregate				
iii.	50mm thick B.M.				
iv.	10mm thick SSS BC				
		Sqm	10000	1200	12000
4	Miscellaneous Items				
4.1	Construction of cement concrete Kerb and Channels as per specifications	Meter	4440	600/-	2.66
4.2	Construction of Footpath as per Specifications for approach to each block (L.S)		(L.S)		2.00



4.3	Provision for metalling of commercial = $888.23 \times 2 = 1776.46$ sq.m say 1800 sqm	Sq.m	50m 450	1200	6.00 5.40
4.4	Providing and fixing guide maps at selected locations (L.S.)				+00 0.50
4.5	Provision for plot indicators (L.S.)				+00 0.50
4.6	Provision for demarcating buoys (L.S.)				+00 1.00
4.7	Provision for traffic arrangement				1.00
4.8	Provision for carriage of material (L.S.)				1.00
	TOTAL				155.57 144.89
	Add 3% contingencies & P.F. charges				+07 4.35
	TOTAL				160.24 149.24
	Add 49% departmental, escalation/ unforeseen & Administrative charges				73.12
	GRAND TOTAL				233.76 222.36
	SAY				233.80

c o to final abstract of cost

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SUB WORK-V

5.08125 ACRES AFFORDABLE GROUP HOUSING COLONY,

SECTOR 78, FARIDABAD

COST ESTIMATE

STREET LIGHTING

	Amount (Rs. in Lac)
Providing street lighting on internal roads as per standard specification of HVPN with C.F.L. @ Rs. 250,000/- Per Acre 5.08125x 250,000	12.70
Add 3% contingency charge & P.E charges.	0.38
TOTAL	13.08
Add 4% departmental charges, escalation, unforeseen, admin. Charges.	0.41
GRAND TOTAL	19.49
SAY	Rs 19.50 lacs

C.O. to final abstract of cost

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C/O TO FINAL ABSTRACT OF COST

SUB WORK - VI

5.08125 ACRES AFFORDABLE GROUP HOUSING COLONY,

SECTOR 78, FARIDABAD

COST ESTIMATE

HORTICULTURE

1 Development of Lawn Area

Amount
(Rs. In Lacs)

- a) Trenching the ordinary soil up to depth of 60cm, including removal and packing of serviceable material and disposing at a lead of 50m/ and making up the trenched area to proper level by filling with earth mixed with manure including cost of improved 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 mowing rows 7.50cm in either direction including for hedges and grill and barbed wire fencing around park and green belts (as per H/DA norms) Area 1.08 Acres @ Rs.1,50,000/Per Acre

- 2 Planting of trees with tree guards on roads at 6 M intervals
Length of roads = 920.00M
No. of Trees @ 6m c/c = $920 \div 12 = 76.66$ Nos.
Say = 100 nos.

76.66

COST OF THE TREE

Excavation Rs. 60/-

Manure Rs. 90/-

Tree Plants Rs. 150/-

Tree Guards Rs. 1000/-

Total Rs. 1300 x 100

TOTAL cost = 1300 x 100

Add 3% contingencies and P.E. charges

TOTAL

Add 40% departmental, escalation, admn. and unforeseen charges

GRAND TOTAL

SAY

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8.98

0.07

3.01

1.47

4.45

1.30

1.30

1.30

1.30

1.30

1.30

1.30

1.30

1.30

1.30

5.08125 ACRES AFFORDABLE GROUP HOUSING COLONY,

SECTOR 78, FARIDABAD

MAINTENANCE CHARGES AND RESURFACING OF ROADS

SUB WORK NO. VII

2ND PHASE AFTER 5 YEARS OF 1ST PHA

AMOUNT (RS. IN LAC)

1. Provision for maintenance charges for water supply, sewerage, storm water drainage, roads, streetlights, horticulture etc. complete including operation and establishment charges as per HUDA norm after completion and resurfacing of roads after 10 years.

5.08125 Acres @ Rs. 7.50 Lacs per acre

38.11

2. Provision for resurfacing of roads after 1st 5 years of maintenance i.e. 100 mm thick B.M. & 25 mm thick premix carpet with seal coat with mechanical paver

10070

60.42

10200sqm @ Rs. 600/- P. Sqm

61.30

3. Resurfacing of road after 10 years of maintenance by providing 25mm thick premix carpet with seal coat with mechanical paver.

10070

75.52

10200Sqm @ Rs. 750/- per sqm total

76.40

TOTAL

175.81

Add 3% P.T. and contingency charges

174.05

TOTAL

5.11

Add 49% departmental charges, price escalation unforeseen and administrator charges.

181.09

179.27

88.73

87.84

GRAND TOTAL

267.11

SAY

260.81

260.81

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HYDRAULIC STATEMENT WATER SUPPLY (Calculation of water load)									
Providing Water Supply Scheme 5.08125 Acres Affordable Group Housing Colony Sector-78, Faridabad									
Sl No.	Name of Line	No. of Dwelling Units			Population @5 OR 2 persons per unit	Water requirement @ 115 Lts per head per day in KLPD	Water requirement for non residential unit in KLPD	Gross water requirement in KLPD	Water requirement in gallons/day
		General	E.W.S.	Service Personnel					
1	RA								
2	AB	239			1195	137.42		137.42	30230
3	BA	191			955	109.82		109.82	24160
4	AD						8.00	8.00	1760
5	DE	143			715	82.22		82.22	18090
6	EE	159			795	91.42		91.42	20110

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DESIGN STATEMENT FOR WATER SUPPLY

Providing Water Supply Scheme 5.08125 Acres Affordable Group Housing Colony Sector-78, Faridabad

Sr No.	Name of Line	Water load in gallons per day			3 Times Water Load in Gallons per day	Designed Water load in gallons per day	Size in MM	Length in M	Head loss per 1000 Mtr in M	Head Loss in pipe in Mtr	Hydraulic Level in M		Formation Level at L/E in Mtr	Terminal Head at L/E in Mtr
		Self	Branch	Total							U/E	L/E		
1	RA	-	94350	94350	283050	300000	150	30.00	9.20	0.28	286.00	285.72	201.05	84.67
2	AB	30230	24160	54390	163170	200000	150	155.00	4.35	0.67	285.72	285.07	201.14	83.93
3	BC	24160	-	24160	72480	92000	150	70.00	1.03	0.07	285.07	285.00	201.16	83.84
4	AD	1700	38200	39900	119880	167000	150	90.00	3.12	0.27	285.72	285.45	201.10	84.35
5	DE	18090	20110	38200	114600	133000	150	75.00	2.06	0.16	285.45	285.29	201.17	84.12
6	EC	20110	-	20110	60330	75000	150	78.00	0.71	0.06	285.29	285.23	201.16	84.07

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Schedule Quantities of D.I. Pipes & S.V.S.

Providing Water Supply Scheme 5.08125 Acres Affordable Group Housing Colony Sector-78,
Faridabad

S.NO.	Name of Line	Diameter of Pipe in MM / Length in M			Diameter of S.V. in MM / Quantity in No.			
		100	150	200	100	150	200	
1	RA		36.00			1		
2	AB		155.00			1		
3	BC		70.00					
4	AD		90.00			1		
5	DE		75.00					
6	EC		78.00					
	total		498.00			3		
	say		500.00			3		



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Schedule Quantities of D.I. Pipes & S.V.S.

Providing Flushing Water Supply Scheme 5.08125 Acres Affordable Group Housing Colony

Sector-78, Faridabad

S.NO.	Name of Line	Diameter of Pipe in MM / Length in M			Diameter of S.V. in MM / Quantity in No.		
		80	100	150	80	100	150
1	R'A'		15.00			1	
2	A'B'		90.00			1	
3	B'C'		130.00				
4	A'D'		50.00				
5	D'E'		105.00			1	
6	E'F'		45.00				
	total		435.00			3	
	say		450.00			3	

435.00

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Statement for Calculation of Sewage Load						
Providing Sewerage Scheme 5.08125 Acres Affordable Group Housing Colony Sector-78, Faridabad						
S. NO	Name of Line	No. of Dwelling Units		Population @ 5 persons or 2 persons per Unit	Water Requirement @ 172.5 LPCD in KLPD community etc.	Quantity of Sewage @ 75% of Water requirement in cusecs
		General	EWS			
1	AB	135	-	675	116.43+12.00	0.039
2	BC	-	-	-	-	-
3	C1C	120	-	600	163.50	0.031
4	CD	39	-	195	33.64	0.01
5	D1D	119	-	595	102.63	0.031
6	EF	40	-	200	34.50	0.01
7	FG	-	-	-	-	-
8	GH	40	-	200	34.50	0.01
9	DH	95	-	480	82.80	0.027
10	HI	-	-	-	-	-



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Statement for Calculation of Sewage Load

Providing Sewerage Scheme 5.06125 Acres Affordable Group Housing Colony Sector-78, Faridabad

S. NO	Name of Line	No. of Dwelling Units			Population @ 5 persons or 2 persons per Unit	Water Requirement @ 172.5 LPCD in KLPD	Quantity of Sewage @ 75% of Water requirement in cusecs
		General	EWS	Service Personnel			
11	III	143	-	-	715	123.34	-
12	I-STP	-	-	-	-	-	0.037
13	STP- HUDA SEWER	-	-	-	-	-	-

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DESIGN STATEMENT

Providing Sewerage Scheme 5.08125 Acres Affordable Group Housing Colony Sector-78, Faridabad

Sr. No	Name of User	Sewage Load in Cusecs			3 Times Sewage Load in Cusecs	Design Discharge in Cusecs	Size in MM	Length in M	Slope 1 in	Velocity in M/Sec	Full in M	Formation Level in M			Invert Levels in M			Depth in M		Avg. Depth
		Self	Branch	Total								U/E	L/E	U/E	U/F	L/E	U/F	U/E	L/E	
1	AB	0.036		0.036	0.117	0.47	200	70.00	194	0.83	0.37	201.12	201.16	200.18	199.81	1.00	1.35	1.35	1.18	1.18
2	BC		0.038	0.038	0.117	0.47	200	32.00	190	0.83	0.17	201.16	201.14	199.81	199.64	1.35	1.70	1.70	1.53	1.53
3	CDE	0.021		0.031	0.093	0.47	200	126.00	190	0.83	0.63	201.07	201.14	200.07	199.44	1.00	1.70	1.70	1.35	1.35
4	DE	0.01	0.070	0.080	0.240	0.47	200	38.00	190	0.83	0.26	201.14	201.15	199.44	199.24	1.70	1.91	1.91	1.81	1.81
5	DAD	0.021		0.031	0.093	0.47	200	93.00	190	0.83	0.49	201.16	201.15	200.18	199.69	1.00	1.46	1.46	1.23	1.23
6	EF	0.01		0.010	0.030	0.47	200	56.00	190	0.83	0.29	201.19	201.18	200.19	199.90	1.00	1.28	1.28	1.14	1.14
7	FG		0.010	0.010	0.030	0.47	200	35.00	190	0.83	0.18	201.16	201.17	199.90	199.72	1.45	1.65	1.65	1.37	1.37
8	GHI	0.01	0.010	0.020	0.060	0.47	200	40.00	190	0.83	0.21	201.17	201.15	199.72	199.51	1.45	1.65	1.65	1.36	1.36
9	DE	0.022	0.133	0.155	0.474	0.86	250	60.00	190	0.96	0.32	201.15	201.16	199.19	198.87	1.96	2.29	2.29	2.13	2.13
10	HI		0.150	0.150	0.474	0.86	250	15.00	190	0.96	0.08	201.16	201.16	198.87	198.79	2.29	2.37	2.37	2.33	2.33



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Providing Sewerage Scheme 5.00125 Acres Affordable Green Homes

Providing Sewerage Scheme T.08125 Acres Affordable Group Housing Colony Sector-7B, Faridabad																		
Sl. No	Sanitary Unit	Sewage Load in CuSec			3 Times Sewage Load in CuSec	Designed Discharge in CuSec	Size in mm	Length in M	Slope 1 in	Velocity in M/Sec	Fall in M	Formation Level in M		Invert Levels in M		Depth in M		Avg. Depth
		Self	Branch	Total								U/E	L/E	U/E	L/E	U/E	L/E	
1.1	PH	0.037		0.037	0.111	0.47	200	33.00	190	0.83	0.33	201.10	201.15	200.138	199.815	1.60	1.31	1.46
1.2	1-8TP		0.195	0.195	0.585	0.66	250	15.00	190	0.96	0.00	201.16	201.16	198.79	198.71	2.37	2.40	2.04
1.3	STP-0823A RECEPT		0.195	0.195	0.595	0.86	270	165.00	190	0.96	0.87	201.16	200.00	199.16	199.29	1.00	1.51	1.27

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Schedule Quantities of S.W. Pipes				
Providing Sewerage Scheme S.08125 Acres Affordable Group Housing Colony Sector-78, Faridabad				
Sr.No.	Name of Line	Length in M		
		200 (Feet)	250 (Feet)	300 (Feet)
1	AB	70.00		
2	BC	32.00		
3	CD	120.00		
4	DE	38.00		
5	EF	93.00		
6	FG	56.00		
7	GH	35.00		
8	HI	40.00		
9			60.00	
10			15.00	

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Schedule Quantities of S.W. Pipes

Providing Sewerage Scheme 5.08125 Acres Affordable Group
Housing Colony Sector-78, Faridabad

S.NO.	Name of Line	Length in M		
		200 mm	250 mm	300 mm
11	RI	63.00		
12	I-STP		15.00	
13	STP- HUDA SEWER System of D2 total		165.00	
		547.00	165.00	
	SAY	590.00	250.00	

90.00

165.00

165.00

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DESIGN STATEMENT

Providing Storm Water Drainage Scheme 5.08125 Acres Affordable Group Housing Colony Sector-78, Faridabad																			
Sl. No	Name of Lane	Area in Acres			Discharge @1/4" in Rain Fall in causes	Designed Discharge in Cusecs	Size in MM	Length in M	Slope 1 in	Velocity in M/Sec.	Fall in M	M		Invert Levels in M		Depth in M		Avg. Depth	
		Self	Branch	Total								U/E	L/E	U/E	L/E	U/E	L/E		
1	AB	0.37		0.37	0.08	3.72	400	66.00	500	0.81	0.13	201.18	201.16	200.00	199.87	1.18	1.29	1.24	
2	BC	0.14	0.37	0.51	0.13	3.72	400	35.00	500	0.81	0.07	201.16	201.14	199.87	199.80	1.29	1.34	1.31	
3	CD	0.29		0.29	0.07	3.72	400	57.00	500	0.81	0.11	201.19	201.18	200.00	199.89	1.19	1.29	1.24	
4	DE	0.19	0.26	0.36	0.10	3.72	400	40.00	500	0.81	0.08	201.18	201.17	199.88	199.81	1.29	1.36	1.31	
5	FG	0.67		0.67	0.17	3.72	400	85.00	500	0.81	0.17	201.20	201.17	200.00	199.83	1.20	1.34	1.27	
6	GH	0.12	1.05	1.17	0.29	3.72	400	66.00	500	0.81	0.1	201.17	201.16	199.81	199.71	1.36	1.45	1.40	
7	HI	0.56		0.56	0.14	3.72	400	70.00	500	0.81	0.14	201.18	201.16	200.00	199.86	1.18	1.30	1.24	
8	JK	1.72	3.6	5.32	0.88	3.72	400	98.00	500	0.81	0.2	201.16	201.14	199.71	199.51	1.45	1.63	1.54	
9	LM	0.77	4.01	4.78	1.20	3.72	400	125.00	500	0.81	0.25	201.14	201.07	199.51	199.26	1.63	1.81	1.72	
10	NO	0.36		0.36	0.68	3.72	400	75.00	500	0.81	0.19	201.07	201.05	199.26	199.11	1.81	1.94	1.86	
11	OP	0.04	1.72	1.76	1.79	3.72	400	70	500	0.81	0.04	201.05	200.99	199.11	199.07	1.79	1.835		

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Schedule of Quantities of R.C.C Pipes

Providing Storm Water Drainage Scheme 5.08125 Acres Affordable Group Housing
Colony Sector-78, Faridabad

S.NO.	Name of Line	Length in M	
		300	400
1	AB		66.00
2	BC		35.00
3	CD		57.00
4	DE		40.00
5	EF		85.00
6	FG		50.00
7	GH		70.00
8	HI		98.00
9	IJ		125.00
10	JK		75.00
11	LM		20
Total			720.00
SAY			720.00

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Panchkula

EIC No. 192759
Dated: 27/10/2020
Annexure-A

SUB:- Approval of Service Plan Estimates of Affordable Group Housing Colony for an additional area measuring 5.06125 acres (Licence No. 63 of 2019 dated 05.06.2019) in already licence granted Affordable Group Housing Colony area 7.394 acres (Licence no. 15 of 2016 dated 26.09.2016) Total area 12.47525 acres in Sector-78, Faridabad being developed by Urban Buildmart Pvt. Ltd., BCC Edutech Pvt. Ltd. in collaboration with Conscient Infrastructure Pvt. Ltd. (Ph-II)

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 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.





हरियाणा शहरी विकास प्राधिकरण

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Panchkula

EIC No: 172359

Dated: 29/10/2020

7. Potability of water will be checked and confirmed and the tube-wells will be put into operation after getting chemical analysis of water tested.
8. Only C.I/D.I pipes will be used in water supply and flushing system, UPVC/HDPE pipe for irrigation purposes.
9. A minimum 100 i/d C.I/D.I, 200mm i/d SW and 400mm id RCC NP-3 pipes will be used for water supply, sewerage and storm water drainage respectively.
10. Standard X-section for S.W. pipes sewer, RCC pipes sewer etc. will be followed as are being adopted in Haryana. Public Health Engineering Deptt. or HSVP.
11. The X-section, width of roads, will be followed as approved by the Chief Town Planner, Haryana, Chandigarh. The kerbs and channels will also be provided as per approved X-section and specifications.
12. The specifications for various roads will be followed as per IRC/MORTH specifications.
13. The wiring system of street lighting and specifications of street lighting fixture will be as per relevant standards.
14. This shall confirm to such other conditions as are incorporated in the approved estimate and the letter of approval.


For Superintending Engineer (HQ),
Engineer in Chief, HSVP,
Panchkula.

DESIGN DATA OF ROADS

5.08125 Acres Affordable Group Housing Colony Sector-78, Faridabad

6.00 M Wide Road			
S. No.	Name of	Length in M	
1	R31	170.00	
2	R32	145.00	
3	R33	70.00	
4	R34	25.00	
5	R35	25.00	
6	R36	100.00	
7	R37	65.00	
8	R38	126.00	
9	R39	70.00	
10	R40	30.00	
Total		826.00	
Add 10 % for curves		83.00	
Total		909.00	
SAY		920.00	
metalled area of roads			
920x6			
add extra at at entry exit and R40		5520.00	sq.m.
add for surface parking = 364x2.5x5		4600	sq.m.
Total		4550	sq.m.
SAY		10070	sq.m.
Total length of roads		10070	sq.m.
total length of kerbs		920	mtr
		4840	mtr
		9.20	

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