

FORM LC -V
(See Rule 12)
HARYANA GOVERNMENT
TOWN AND COUNTRY PLANNING DEPARTMENT

Licence No. 172 of 2024

This Licence is hereby granted under the Haryana Development and Regulation of Urban Areas Act, 1975 & the Rules 1976 made there under to Signatureglobal Homes Pvt. Ltd., 13th Floor, Gopal Das Bhawavn, 28, Barakhamba Road, New Delhi-110001 for development of Mix Land Use Colony (Under TOD policy-2016) (90% residential and 10% commercial) over an area measuring 13.5656 acres in the revenue estate of village Gadauli Kalan, Sector-37D, Gurugram:

1. The particulars of the land, wherein the aforesaid Mixed Land Use Colony (10% Commercial and 90% Residential) under TOD Policy dated 09.02.2016 is to be set up, are given in the Schedule annexed hereto and duly signed by the Director, Town & Country Planning, Haryana.
2. The Licence is granted subject to the following conditions: -
 - (i) That the licensee will pay the State Infrastructure Development Charges amounting to **Rs.11,88,32,517/-** in two equal installments. First Installment will be due within 60 days of grant of license and second Installment within six months of grant of license failing which 18% PA interest will be liable for the delayed period.
 - (ii) That the licensee shall pay proportionate EDC as per schedule prescribed by the Director.
 - (iii) That the licensee shall submit the additional bank guarantee, if any required at the time of approval of Service Plans/Estimate. With an increase in the cost of construction and increase in the number of facilities in Layout Plan, you will be required to furnish an additional bank guarantee within 30 days on demand. It is made clear that bank guarantee of Internal Development Works/EDC has been worked out on the interim rates.
 - (iv) That the licensee shall maintain and upkeep of all roads, open spaces, public park and public health services for a period of five years from the date of issue of the completion certificate unless earlier relieved of this responsibility and thereupon to transfer all such roads, open spaces, public parks and public health services free of cost to the Govt. or the local authority, as the case may be, in accordance with the provisions of Section 3(3)(a)(iii) of the Haryana Development and Regulation of Urban Areas Act, 1975.
 - (v) That the licensee shall construct at own cost, or get constructed by any other institution or individual at its cost, schools, hospitals, community centres and other community buildings on the lands set apart for this purpose, in a period as may be specified, and failing which action as per the Act/Rules shall be initiated. The land shall vest with the Government after such specified period, free of cost, in which case the Government shall be at liberty to transfer such-land to any person or institution including a local authority, for the said purposes, on such terms and conditions, as it may deem fit.

Director
Town & Country Planning
Haryana, Chandigarh

- (vi) That the licensee shall pay the proportionate cost of construction of such percentage of sites of such school, hospital, community centre and other community building and at such rates as specified by the Director.
- (vii) That the licensee shall arrange electric connection from HVPN/DHBVNL for electrification of your colony and shall install the electricity distribution infrastructure as per the peak load requirement of the colony for which you shall get the electrical (distribution) service plan / estimates approved from the agency responsible for installation of external electric services i.e. HVPN/DHBVNL Haryana and complete the same before obtaining completion certificate for the colony.
- (viii) That the licensee shall permit the Director or any other officer authorized by him to inspect the execution of the layout and the development works in the colony and to carry out all directions issued by him for ensuring due compliance of the execution of the layout and development works in accordance with the licence granted.
- (ix) That the licensee shall construct 24/30 m wide internal circulation road forming part of licenced area at your own costs and transfer the same free of cost to the Government.
- (x) That the licensee shall construct and allot EWS category flats as per departmental policy dated 08.07.2013 and as amended from time to time.
- (xi) That the licensee shall submit NOC from the Ministry of Environment & Forest, Govt. of India with respect to their notification dated 14.09.2006 and clearance regarding PLPA, 1900 from competent authority before executing development works.
- (xii) That the licensee shall make arrangement for water supply, sewerage, drainage etc. to the satisfaction of DTCP till these services are made available from external infrastructure to be laid by HSVP.
- (xiii) That the licensee shall convey the 'Ultimate Power Load Requirement' of the project to the concerned power utility, with a copy to the Director, within two months period from the date of grant of licence to enable provision of site in your land for Transformers/Switching Station/Electric Sub-Stations as per the norms prescribed by the power utility in the zoning plan of the project.
- (xiv) That the licensee shall provide the rain water harvesting system as per Central Ground Water Authority Norms/Haryana Govt. notification as applicable.
- (xv) That the licensee shall aware that the development/construction cost of 24/30 m wide road/major internal road is not included in the EDC rates and you shall pay the proportionate cost for acquisition of land if any, alongwith the construction cost of 24/30 m wide road/major internal road as and when finalized and demanded by the Director Town & Country Planning, Haryana.
- (xvi) That the licensee shall provide the solar water heating system as provisions of HAREDA and shall be made operational where applicable before applying for an occupation certificate.
- (xvii) That the instructions issued by Haryana Renewable Energy Development Agency in respect of making provision of Solar Energy Plant etc. in the licensed colony shall be followed.
- (xviii) That the licensee shall submit compliance of Rule 24, 26, 27 & 28 of Rules 1976 & Section 5 of Haryana Development and Regulation of Urban Areas Act, 1975, and

- shall inform account number and full particulars of the scheduled Bank wherein you have to deposit seventy percentum of the amount from the Flat/shop buyers for meeting the cost of Internal Development Works in the colony.
- (xix) That the licensee shall keep the pace of construction atleast in accordance with sale agreement executed with the buyers of the flats/shops as and when scheme is launched.
- (xx) That the licensee shall pay the labourcess as per policy instructions issued by Haryana Government vide Memo No. Misc. 2057-5/25/2008/2TCP dated 25.02.2010 as amended from time to time.
- (xxi) That the licensee shall not pre-launch/sale of flats or shops before approval of the building plans.
- (xxii) That the licensee shall not use the ground water for the purpose of construction of building. The building plans shall be approved only after the source of water for construction purpose is explained to the satisfaction of HSVP Authority in terms of orders of the Hon'ble High Court dated 16.07.2012 in CWP's no. 20032 of 2008, 13594 of 2009 and 807 of 2012.
- (xxiii) That the licensee shall obey all the directions/restrictions imposed by the Department from time to time in public interest.
- (xxiv) That the licensee shall specify the detail of calculations per Sqm/per Sqft., which is being demanded from the flat/shop owners on account of IDC/EDC, if being charged separately as per rates fixed by Govt.
- (xxv) That the licensee shall not give any marketing and selling rights to any other company other than the collaborator company.
- (xxvi) That at the time of booking of the plots/ flats/commercial space/shops in the licensed colony, if the specified rates of Plots/Flats/shops/commercial space do not include IDC/EDC and are to be charged separately as per rates fixed by the Government from the plots/ flats/commercial space owners, you shall also provide details of calculations per sq. mtrs. /per. sq. ft. to the allottee while raising such demand from the plots/flats owners.
- (xxvii) That all the terms & conditions as stipulated in the notification regarding TOD policy dated 09.02.2016 and its corrigendum dated 16.11.2016 and amendment of zoning regulations of the Development Plan of GMUC shall be complied with.
- (xxviii) That the license shall take necessary permission from the competent authority before laying the services through the revenue rasta passing through the licenced colony.
3. The licence is valid up to 02-12-2029.

Dated: 03-12-2024.
Place: Chandigarh.


(Amit Khatri, IAS)
Director, Town & Country Planning
Haryana, Chandigarh

Endst. No. LC-5404/JE(SK)/2024/ 38325

Dated: 05-12-2024

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

1. Signatureglobal Homes Pvt. Ltd., 13th Floor, Gopal Das Bhawavn, 28, Barakhamba Road, New Delhi-110001 alongwith a copy of agreement, LC-IV A, Bilateral Agreement & zoning Plan.
2. Chairman, Pollution Control Board, Haryana, Sector-6, Panchkula.
3. Chief Administrator, HSVP, Panchkula.
4. Chief Administrator, Housing Board, Panchkula.
5. Managing Director, HVPN, Planning Directorate, Shakti Bhawan, Sector-6, Panchkula.
6. Joint Director, Environment Haryana-Cum-Secretary, SEAC, Paryavaran Bhawan, Sector-2, Panchkula.
7. Addl. Director Urban Estates, Haryana, Panchkula.
8. Administrator, HSVP, Panchkula
9. Chief Engineer, HSVP, Panchkula.
10. Superintending Engineer, HSVP, Gurugram along with a copy of agreement.
11. Land Acquisition Officer, Gurugram.
12. Senior Town Planner, Gurugram alongwith zoning plan.
13. District Town Planner, Gurugram along with a copy of agreement and zoning plan.
14. Chief Accounts Officer O/o DTCP, Haryana, Chandigarh along with a copy of agreement.
15. PM(IT) to update the status on the website.

(Sunena)

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

To be read with License No. 172 Dated 03/12/2024 of 2024

| Village | Name of owner | Khasra No. | Area (B-B-B) |
|---------------|----------------------------------|--------------|--|
| Gadauli Kalan | Signature global Homes Pvt. Ltd. | 21 | 1-17-0 |
| | | 22 | 1-18-0 |
| | | 23 | 1-15-0 |
| | | 24 | 1-15-0 |
| | | 25 | 2-0-0 |
| | | 26 | 1-18-0 |
| | | 28/2 | 0-16-2 |
| | | 365/32 | 1-5-0 |
| | | 366/32 | 1-5-0 |
| | | 33/1 | 0-4-2 |
| | | 33/2 | 2-8-18 |
| | | 34 | 2-5-0 |
| | | 35 | 2-7-0 |
| | | Total | 21-14-2 Or 13.5656 Acres |

Director
Town & Country Planning
Haryana, Chandigarh

FORM BR-III
(See Code 4.2 (4))
Form of Sanction

From

Chief Town Planner, Haryana-cum-Chairman,
Building Plan Approval Committee,
O/o Director, Town & Country Planning Department,
Haryana, Nagar Yojna Bhavan,
Madhya Marg, Sector 18, Chandigarh.
Tele-Fax: 0172-2548475; Tel.: 0172-2549851,
E-mail: tcpharyana7@gmail.com
Website www.tcpharyana.gov.in.

To

Signatureglobal Homes Ltd.,
13th Floor, Dr. Gopal Das Bhawan,
28, Barakhamba Road, Connaught Place,
New Delhi -110001.

Memo No. ZP-2140/JD(G)/2025/ 39354 Dated 10-10-2025

Subject:

Approval of building plan of Mixed Land Use Colony under TOD Policy-2016 (98% Residential and 2% Commercial component) over an area measuring 13.5656 acres (Licence No. 172 of 2024 dated 03.12.2024) in Sector-37-D, Gurugram Manesar Urban Complex being developed by Signatureglobal Homes Ltd.

Reference your application dated 07.08.2025 for permission to erect the building plan of Mixed Land Use Colony under TOD Policy-2016 (98% Residential and 2% Commercial component) over an area measuring 13.5656 acres (Licence No. 172 of 2024 dated 03.12.2024) in Sector-37-D, Gurugram Manesar Urban Complex in accordance with the plans submitted with it after receipt of Rs. 50,49,633/- towards Infrastructure Development Charges for 15% additional FAR being considered as an incentive for providing green buildings as per Indian Green Building Council (IGBC) norms in view of provision of Code 6.5 of Haryana Building Code, 2017.

Permission is hereby granted for the aforesaid construction subject to the provisions of the Punjab Scheduled Roads & Controlled Areas Restriction of Unregulated Development Act, 1963 and Haryana Building Code-2017, subject to the following amendments, terms and conditions:-

1. The plans are valid for a period of 2 years of the buildings less than 15.00 meters in height and 5 years for the multistoried buildings from the date of issuance of sanction, subject to validity of licenses granted for this scheme.
2. The structural responsibility of the construction shall be entirely of the owner/ supervising architect/ Engineer of the scheme.

Further that: -

- a) The building shall be constructed in accordance to the Structure Design by Structure Engineer and certified by Proof Consultation prescribed FORM BR-V (A2).
- b) All material to be used for erection of building shall conform to I.S.I. and N.B.C. standards.

- c) No walls/ceiling shall be constructed of easily inflammable material and staircases shall be built of the fire resisting material as per standard specification.
 - d) The roof slab of the basement external to the buildings if any shall be designed/ constructed to take the load of fire tender up to 45 tones.
3. FIRE SAFETY:
- (i) The colonizer and the Supervising Architect of the project shall be entirely responsible for making provisions of fire safety and fire-fighting measures and shall abide by all fire safety bye laws.
 - (ii) That you shall get approved the fire-fighting scheme in accordance with the Section 15 of the Haryana Fire Safety Act-2009 and directions issued by the Director, Haryana Fire Services, Haryana, before starting the construction work at site.
4. No addition and alteration in the building plans/ layout plan shall be made without the prior approval of DTCP. Further only figured dimensions shall be followed and in case of any variation in the plans, prior approval of DTCP shall be pre-requisite.
5. That you shall furnish the service plan/ estimate of this scheme in accordance with approved building plans.
6. Based on the actual estimated cost of internal development of the colony you shall furnish additional bank guarantee, if required.
7. The revenue Rasta if any passing through the site shall be kept unobstructed.
8. If any infringement of byelaws remains unnoticed, the Department reserves the right to amend the plan as and when any such infringement comes to its notice after giving an opportunity of being heard and the Department shall stand indemnified against any claim on this account.
9. The layout showing the electric installation shall have to be got approved from the competent authority before execution of work at site.
10. No person shall occupy or allow any other person to occupy any new building and before grant of occupation certificate, you shall apply for occupation certificate as per the provisions of Code 4.10 of the Haryana Building Code-2017 which shall be accompanied by certificates regarding completion of works described in the plans and it shall be accompanied by:
- (i) Structural stability certificate duly signed by the recognized Architect & Structural Engineer.
 - (ii) A clearance from Fire Safety point of view from the competent authority.
11. The provision of letter boxes for each dwelling unit shall be made at the ground floor of each building.
12. The basements shall be used for parking and services as prescribed in the approved zoning plan and building plans. The parking lots proposed in the scheme shall be exclusively for the use of flat owners/residents of the group

housing scheme. The parking lot shall not be leased out /transferred to any person who is not a flat owners /residents of the group housing complex.

13. That you shall comply with the conditions laid down in the memo dated 10.11.2022 of Superintending Engineer, Infra-I, GMDA (Copy enclosed).

14. That you shall comply with the conditions laid down in the Memo No. 10128 dated 06.10.2025 of Deputy Director, Directorate Fire Service, Haryana, Panchkula (Copy enclosed).

15. GENERAL: -

(i) That you shall obtain the clearance/NOC as per the provisions of the Notification No. S.O. 1533 (E) Dated 14.9.2006 issued by Ministry of Environment and Forest, Government of India before starting the construction/execution of development works at site.

(ii) That you shall strictly comply with the directions of MoEF Guidelines, 2010 while raising construction and comply with the instructions of Director, Town and Country Planning, Haryana, Chandigarh issued vide orders dated 14.5.2015 which is also available on the departmental website www.tcpharyana.gov.in.

(iii) That you shall submit the fire-fighting scheme duly approved in accordance with the section 15 of the Haryana Fire Safety Act 2009 and directions issued by Director, Urban Local Bodies Haryana before starting the construction work at site.

(iv) That you shall submit the approved Electrical Service Plan from competent authority and certificate to this effect that adequate arrangement has been put in place before grant of occupation certificate.

(v) That the rain water harvesting system shall be provided as per Central Ground Water Authority norms/Haryana Govt. notification as applicable.

(vi) That you shall use only Light-Emitting Diode lamps (LED) fitting for internal lighting as well as Campus lighting.

(vii) That you shall ensure the installation of Solar Photovoltaic Power Plant as per the provisions of order No. 22/52/2005-5Power dated 21.03.2016 issued by Haryana Government Renewable Energy Department.

(viii) That you shall strictly comply with the directions issued vide Notification No. 19/6/2016-5P dated 31.03.2016 issued by Haryana Government Renewable Energy Department.

(ix) That if any, site for Electric Sub Station is required, same will be provided by you in the colony.

(x) That provision of parking shall be made within the area earmarked /designated for parking in the colony and no vehicle shall be allowed to park outside the premises.

(xi) That you shall follow provisions of section 46 of 'The Persons with Disabilities (Equal Opportunities, protection of Rights and full Participation) Act, 1995' which includes construction of Ramps in public

buildings, adaption of toilets for wheel chair users, Braille symbols and auditory signals in elevators or lifts and other relevant measures for Hospitals, Primary Health Centre and other medical care and rehabilitation units.

- (xii) That you shall abide the terms and conditions of the Undertaking/Affidavit submitted in the office of Administrator, HSVP, Gurugram in compliance of Order dated 16.07.2012 of the Hon'ble High Court and shall not extract groundwater for construction purposes.
 - (xiii) That you shall abide by the policies issued by the Department regarding allotment of EWS flats time to time.
 - (xiv) That you shall not construct the building beyond 30.0 mtrs. without getting the valid NOC from AAI.
 - (xv) That you shall submit the scanned copy of the approved building plans in CD format within one week to this office from the issuance of this letter.
16. Environment: That you shall raise construction as per guidelines of MoEF-2010 issued regarding Building, Construction, Township and Area Development Projects.
17. In addition, you shall comply with the instructions of Director, Town & Country Planning, Haryana, Chandigarh issued vide order dated 14.05.2015, available on the Departmental Website www.tcpharyana.gov.in URL :<https://tcpharyana.gov.in/Policy/Misc392%20OA%20No.%2021%20of%202014%20Vardhaman%20Kaushik%20Vs.%20UOI.ors.pdf> in compliance of the orders dated 10.04.2015 passed by Hon'ble National Green Tribunal in OA No. 21 of 2014, which are as under:
- (i) You shall put tarpaulin on scaffolding around the area of construction and the building. You are also directed that you shall not store any construction material particularly sand on any part of the street/roads.
 - (ii) The construction material of any kind that is stored in the site will be fully covered in all respects so that it does not disperse in the Air in any form.
 - (iii) All the construction material and debris shall be carried in the trucks or other vehicles which are fully covered and protected so as to ensure that the construction debris or the construction material does not get dispersed into the air or atmosphere, in any form whatsoever.
 - (iv) The dust emissions from the construction site should be completely controlled and all precautions taken in that behalf.
 - (v) The vehicles carrying construction material and construction debris of any kind should be cleaned before it is permitted to ply on the road after unloading of such material.
 - (vi) Every worker working on the construction site and involved in loading, unloading and carriage of construction material and construction debris shall be provided with mask to prevent inhalation of dust particles.

- (vii) Every owner and or builder shall be under obligation to provide all medical help, investigation and treatment to the workers involved in the construction of building and carry of construction material and debris relatable to dust emission.
- (viii) It shall be the responsibility of every owner/builder to transport construction material and debris waste to construction site, dumping site or any other place in accordance with rules and in terms of Hon'ble NGT order dated 10.04.2015 referred above.
- (ix) All to take appropriate measures and to ensure that the terms and conditions of the Hon'ble NGT order dated 10.04.2015 referred above in OA No. 21 of 2014 and the earlier orders passed in said case should strictly comply with by fixing sprinklers, creations of green air barriers.
- (x) Compulsory use of wet jet in grinding and stone cutting.
- (xi) Wind breaking walls around construction site.
- (xii) That you shall ensure that least dust has emitted into air/atmosphere and all steps are taken to prevent the same.
- (xiii) That all the builders, who are building commercial, residential complexes which are covered under the EIA Notification of 2006, shall provide green belt around the building that they construct and compliance of the same shall be ensured prior to issuance of occupancy certificate. The width of green belt will be kept 1.5 meter along boundary wall within site, along periphery.
- (xiv) If any person, owner and or builder is found to be violating any of the conditions stated in this order and or for their non-compliance such person, owner, builder shall be liable to pay compensation of ₹ 50,000/- per default in relation to construction activity at its site and ₹ 5,000/- for each violation during carriage and transportation of construction material, debris through trucks or other vehicles, in terms of Section 15 of the NGT Act on the principle of Polluter Pay. Such action would be in addition not in derogation to the other action that the Authority made take against such builder, owner, person and transporter under the laws in force.
- (xv) All the owners/builders shall ensure that C & D waste is transported in terms of this order to the site in question only and due record in that behalf shall be maintained by the builders, transporters and NCR of Delhi.
- (xvi) It is made clear that even if constructions have been started after seeking Environmental Clearance under the EIA notification 2006 and after taking other travel but is being carried out without taking the preventive and protective environmental steps as stated in above said order dated 10.04.2015 passed by NGT and MOEF guidelines, 2010, the State Government, SPCB and any officer of any Department as afore-stated shall be entitled to direct stoppage of work.

18. That you shall submit the approval and certification by Geo-technical Engineer before grant of occupation certificate.
19. That you shall deposit the balance amount of Labour Cess in future, time to time as per progress in construction at site.
20. That you shall transfer the land forming part of sector road, service roads, green belts and 24/18 mtr. wide road as the case may be, shall be transferred within a period of 30 days, in favour of the Govt from the date of approval of building plan.

This sanction will be void abinitio, if any of the conditions mentioned above are not complied with.

DA/As above & One set of Building Plans.

H. Sharma

(Hitesh Sharma)
Senior Town Planner (M)HQ
Member Secretary

For: Chief Town Planner, Haryana-cum-Chairman,
Building Plan Approval Committee,
Town & Country Planning Department,
Haryana, Chandigarh.

Endst. No. ZP-2140/JD(G)/2025/

Dated:-

A copy is forwarded to the following for information:-

1. Haryana State Pollution Control Board, Panchkula with the request that the compliance of the instructions issued by NGT be monitored and strict compliance to be ensured.
2. MD, HVPNL, Planning Directorate, Shakti Bhawan, Sector-6, Panchkula with request to assess the power utility site requirement as per ultimate power load requirement.
3. Administrator, HSVP, Gurugram.
4. Senior Town Planner, Gurugram.
5. Superintending Engineer, Infra-I, GMDA.
6. District Town Planner, Gurugram along with one set of approved building plans.
7. District Town Planner (E), Gurugram.
8. Nodal Officer, website updation.
9. Deputy Director, Directorate Fire Service, Haryana, Panchkula.

Encl: as above

(Hitesh Sharma)

Senior Town Planner (M)HQ
Member Secretary

For: Chief Town Planner, Haryana-cum-Chairman,
Building Plan Approval Committee,
Town & Country Planning Department,
Haryana, Chandigarh.

Group Housing Colony, SEC 37 D, GURUGRAM

Service Estimate for HUDA |Report|

**SERVICE ESTIMATE, DESIGN REPORT AND CALCULATION OF
INTERNAL DEVELOPMENT WORKS**

FOR RESIDENTIAL COLONY MEASURING 13.56 Acres AT SECTOR 37D, GURGAON.

DEVELOPED BY SIGNATUREGLOBAL HOMES PVT. LTD.

Report

Gurgaon town of Haryana State is situated on Delhi - Jaipur National Highway No.8 at a distance of 30 kms from Delhi. Being in the national capital Region, the town has fast developing tendency and potential. Further, it has also started sharing the growing Industrial load of Delhi. In order to relieve the growing pressure of population in National Capital of Delhi, Haryana Urban Development Authority has already developed residential sector which are fully inhabited to an extent. Further to the increasing demand HUDA has planned to develop new sectors at outskirts of Gurgaon town.

13.560 acres Group Housing Scheme at Sec 37 D Gurgaon.

This report and estimate is for approval of **13.56 Acres** Group Housing colony.

WATER SUPPLY

At present the source of water supply in this area is HUDA and optional bore well. As the underground water is potable, provision for one numbers of Bore wells have been made in this estimate. It has been proposed to construct underground tanks of capacity as per attached details and at location for domestic purpose and for fire protection. The underground tanks will be fed from the bore wells and HUDA supply, from there water will be supplied by set of variable frequency pump to each plot which is now a days universally adopted. The water supply system has been designed as per the Hazen William formula.

DESIGN

The scheme has been designed for population considering Population for residential area as per NBC 2016 also as indicated in water demand sheet. The rate of water supply per head/day has been taken as 172.5 liters per head per day for residential and for others as per NBC 2016 based on their occupancy.

PUMPING EQUIPMENTS

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

SEWERAGE SCHEME

Sewer line from proposed development will be connecting to a centralized Sewage treatment plant with a bypass to HUDA sewer to dispose excess sewage. The sewerage system has been marked on the respective plans.

Sewer lines have been designed for three times average D.W.F in relation to water supply demand. It has been assumed that about 80% of the domestic water supply shall find its way into the proposed sewer. Sewer lines shall be laid to a gradient maintaining minimum 2.46 ft./sec (0.75m/sec) self-cleaning velocity. Sewer line up to 400mm dia has been designed to run half full and above 400mm dia has been designed to run three fourth full at peak flow. Necessary provision for laying S.W/RCC pipe sewer line, construction of required number of manholes etc., has been made in the estimate.

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

STORM WATER DRAINAGE

SUNIL NAYYAR CONSULTING ENGINEERS LLP
GURGAON

Group Housing Colony, SEC 37 D, GURUGRAM

Service Estimate for HUDA | Report |

We proposed to lay underground R.C.C. pipe drains with required number of catch basins, manholes and rainwater recharge pits with over flow to the Proposed HUDA storm drain on sector Road. The intensity of rain fall has been taken as 1-2" per hour. R.C.C storm water line will be designed as per Manning's formula.

SPECIFICATIONS

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

ROADS

Roads have been provided to above zones and estimate is prepared as per revised specifications adopted by HUDA

STREET LIGHTING

Provision for streets has also been made

HORTICULTURE

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

RATES

The estimate has been prepared based on the present market rates

COST

The total cost of the scheme, including cost of all services works out to be **Rs. 1,655.11** Lacs
Including 3% Contigencies & PE @ 49% Departmental

Say apx. Seventeen crore sixty-eight lakh eighty-seven thousand nine hundred ten rupees only

Per Acre Cost Rs. 1,22,05,856.17

For: SIGNATUREGLOBAL HOMES PVT. LTD.

Authorized Signatory


SUNIL NAYYAR CONSULTING ENGINEERS LLP
GURGAON

**PROPOSED BUILDING PLAN OF RESIDENTIAL COLONY MEASURING 15.56 AKRES IN SECTOR 37/D, GURUGRAM
DAILY WATER DEMAND & PUMPING SYSTEM (Annexure - 1)**

| Sl. No. | Description | Total Units/Area | People per Unit/Area | Total Population | Domestic Water | | Flushing Water Requirement (D) | | Gross Water Req. (E)=(C+D) | %age flow to Sewer | | Flow to Sewer |
|---|---|------------------|----------------------|----------------------------|-------------------|-------------------------|--------------------------------|----------------------------|------------------------------|-------------------------|------------------------|-------------------------|
| | | | | | LPD | LPD | LPD | LPD | | Dom.80% | Flus.80% | |
| PART A | | | | | | | | | | | | |
| 1 | | | | | | | | | | | | |
| a | Tower-1 (Type-B) 3BHK (S+41) | 164 | 5 | 820.00 | 115 | 94300 | 57.5 | 47150 | 141450 | 75440 | 37720 | 113160 |
| b | Tower-2 (Type-B) 3BHK (S+41) | 164 | 5 | 820.00 | 115 | 94300 | 57.5 | 47150 | 141450 | 75440 | 37720 | 113160 |
| c | Tower-3 (Type-B) 3BHK (S+41) | 164 | 5 | 820.00 | 115 | 94300 | 57.5 | 47150 | 141450 | 75440 | 37720 | 113160 |
| d | Tower-4 (Type-B-1) 3BHK (S+41) | 164 | 5 | 820.00 | 115 | 94300 | 57.5 | 47150 | 141450 | 75440 | 37720 | 113160 |
| e | Tower-5 (Type-B) 3BHK (S+41) | 164 | 5 | 820.00 | 115 | 94300 | 57.5 | 47150 | 141450 | 75440 | 37720 | 113160 |
| f | Tower-6 (Type-A) 4BHK (S+41) 3BHK SU | 41 123 60 | 5 5 2 | 205.00 615.00 120.00 | 115 115 115 | 23575 70725 13800 | 57.5 57.5 57.5 | 11787.5 35362.5 6900 | 35362.5 106087.5 20700 | 18860 56580 11040 | 9430 28290 5520 | 28290 84870 16560 |
| g | Tower-7 (Type-A) 3BHK + SU (S+41) 3BHK SU | 80 82 60 | 5 5 2 | 400.00 410.00 120.00 | 115 115 115 | 46000 47150 13800 | 57.5 57.5 57.5 | 23000 23575 6900 | 69000 70725 20700 | 36800 37720 11040 | 18400 18860 5520 | 55200 56580 16560 |
| h | Tower-8 (Type-A) 4BHK (S+41) 3BHK SU | 40 122 60 | 5 5 2 | 200.00 610.00 120.00 | 115 115 115 | 23000 70150 13800 | 57.5 57.5 57.5 | 11500 35075 6900 | 34500 105225 20700 | 18400 56120 11040 | 9200 28060 5520 | 27600 84180 16560 |
| i | Tower-9 (Type-C) 3BHK (S+40) | 162 | 5 | 810.00 | 115 | 93150 | 57.5 | 46575 | 139725 | 74520 | 37260 | 111780 |
| j | Tower-10 (Type-C) 3BHK (S+40) | 164 | 5 | 820.00 | 115 | 94300 | 57.5 | 47150 | 141450 | 75440 | 37720 | 113160 |
| k | Tower-11 (Type-C) 3BHK (S+42) | 164 | 5 | 820.00 | 115 | 94300 | 57.5 | 47150 | 141450 | 75440 | 37720 | 113160 |
| l | Club House | 4822 | 3 | 1,607.00 | 25 | 40175 | 20 | 32140 | 72315 | 32140 | 25712 | 57852 |
| 2 | Pool & Water Bodies Make up | | | | | 25000 | | | | | | |
| 3 | Backwash water requirement | | | | | 27000 | | | | 27000 | | 27000 |
| Total Water Requirement – Part A | | | | 10957 | | 1167425 | | 569765 | 1685190 | | | 1375152 |
| Say Sub total | | | | | | 116743 | | 569.77 | 1685.19 | | | 1375.15 |

Group Housing Colony, SEC 37 D, GURUGRAM
Service Estimate for HUDA |Water Demand|

| Description | Total Units/Ar ea | People per Unit/Are | Total Population | Domestic Water Cold Water (A) | | Flushing Water Requirement (D) | | Gross Water Req. (E)=(C+D) | | %age flow to Sewer | | Flow to Sewer LPD |
|---|-------------------|---------------------|------------------|-------------------------------|-------------------|--------------------------------|------------------|----------------------------|-------|--------------------|----------|-------------------|
| | | | | LPCD | LPD | LPCD | LPD | LPD | LPD | Dom.80% | Flus.80% | |
| PART B | | | | | | | | | | | | |
| i EWS | 318 | 2 | 636 | 115 | 73140 | 57.5 | 36570 | 109710 | 58512 | 29256 | | 87768 |
| ii Commercial | | | | | | | | | | | | |
| Population (Sales Street floor & below) | 1957.11 | 3 | 652.00 | | | | | | | | | |
| Population (Upper floor) | 1106.275 | 6 | 184.00 | | | | | | | | | |
| Fixed population | | 10% | 84.00 | 25 | 2100 | 20 | 1680 | 3780 | 1680 | 1344 | | 3024 |
| Floating population | | 90% | 752.00 | 5 | 3760 | 10 | 7520 | 11280 | 3008 | 6016 | | 9024 |
| iii School | 2851 | 4 | 713.00 | 25 | 17825 | 20 | 14260 | 32085 | 14260 | 11408 | | 25668 |
| iv Backwash water requirement | | | | | 3500 | | | | 3500 | | | 3500 |
| Total Water Requirement — Part B | | | 3,021.00 | | 100325 | | 60030 | 156855 | | | | 128984 |
| | | | | | 100.33 | | 60.03 | 156.86 | | | | 128.98 |
| Total Water Requirement (in Ltrs.) | | | 13978.00 | | 1267750.00 | | 629795.00 | 1842045.00 | | | | 1504136.00 |
| Say (in KL) | | | | | 1267.75 | | 629.80 | 1842.05 | | | | 1504.14 |

Group Housing Colony, SEC 37 D, GURUGRAM
Service Estimate for HUDA |Water Demand|

| Description | Total Units/Ar ea | People per Unit/Ar e | Total Population | Domestic Water | | Flushing Water Requirement (D) | | Gross Water Req. (E)=(C+D) | | %age flow to Sewer | | Flow to Sewer LPD |
|-------------|-------------------|----------------------|------------------|----------------|-----|--------------------------------|-----|----------------------------|-----|--------------------|----------|-------------------|
| | | | | LPCD | LPD | LPCD | LPD | LPCD | LPD | Dom.80% | Plus.80% | |

Fire demand 100 * (P in thousand)^0.5 only for Underground static Reservoir)
 HortiCulture Total area of (15% of Site) @ 25000 / Acre from STP
 Soft water requirement
 Green Area
 STP capacity (with 5% safety margins)

2.03

Req Proposed
 373.87 830 KLD (As per NBC 2016 & 2 Nos. Pump room)
 50.85 51 KLD (At 3 Locations)
 50.00 50 KLD (At 1 Location)
 1579.34 1600 KLD (At 2 Locations) 1450+150

PART A

| Capacity of Tanks: | | Capacity of under ground tank is on the basis of 1 day requirement and overhead on 1/2 | |
|--------------------|-----------|--|----------------|
| U.G. Tank | O.H. Tank | Location | Nos of Tank |
| 1 | Proposed | | |
| 1 | 374 KLD | | |
| 2 | 830 KLD | U.G. Plant Room | |
| 2 | 634 KLD | U.G. Plant Room | |
| 3 | 634 KLD | U.G. Plant Room | |
| Total | | | 2130 KL |

PART B

| Capacity of Tanks: | | Capacity of under ground tank is on the basis of 1 day requirement and overhead on 1/2 | |
|--------------------|-----------|--|---------------|
| U.G. Tank | O.H. Tank | Location | Nos of Tank |
| 1 | Proposed | | |
| 1 | 0 KLD | | |
| 2 | 368 KLD | U.G. Plant Room | |
| 2 | 0 KLD | U.G. Plant Room | |
| 3 | 50 KLD | U.G. Plant Room | |
| Total | | | 468 KL |

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**Pump Calculation
for Part - A**

| 1 Domestic water transfer pump | | | 2 Flushing water transfer pump | | |
|---|-----------------|----------------|---|-----------------|----------------|
| 1.1 Pump Capacity | 500 LPM | (5w+1s) | 1.1 Pump Capacity | 300 LPM | (4w+1s) |
| a) Total Demand | 1167 KLD | | a) Total Demand | 570 KLD | |
| b) Daily working hours | 8.0 Hrs | | b) Daily working hours | 8.0 Hrs | |
| c) Required pump capacity | 486.4 LPM | | c) Required pump capacity | 296.8 LPM | |
| d) Nos. of working pumps | 5 Nos. | | d) Nos. of working pumps | 4 Nos. | |
| 1.2 Pump Head | 185 Mtr. | Say | 1.2 Pump Head | 175 Mtr. | Say |
| a) Suction lift | 0 | | a) Suction lift | 0 | |
| b) Elevation height (UGT+Tower+OHT) | 145 | | b) Elevation height (UGT+Tower+OHT) | 145 | |
| c) Residual head | 10 | | c) Residual head | 10 | |
| d) Frictional head loss (As per design sheet) | 25.22 | | d) Frictional head loss (As per design sheet) | 15.3297 | |
| 1.3 Pump HP | 35.0 HP | Say | 1.3 Pump HP | 20.0 HP | Say |
| a) $(Lpm*head (m)/4500*.65(effi))$ | 34.3 | | a) $(Lpm*head (m)/4500*.65(effi))$ | 19.4 | |

| 3 Irrigation water transfer pump | | | 4 Fire pumpsets | | |
|------------------------------------|----------------|----------------|--|-----------------|------------|
| 3.1 Pump Capacity | 200 LPM | (1w+1s) | | | Nos |
| a) Total Demand | 46 KLD | | a) Wet riser pump (Electric operated) | 2850 LPM | 1 |
| b) Daily working hours | 4.0 Hrs | | b) Jockey pump (WR) (Electric operated) | 180 LPM | 1 |
| c) Required pump capacity | 191.0 LPM | | c) Sprinkler pump (Electric operated) | 2850 LPM | 1 |
| d) Nos. of working pumps | 1 Nos. | | d) Jockey pump (Spr) (Electric operated) | 180 LPM | 1 |
| | | | e) Diesel Engine driven pump (SB-1) | 2850 LPM | 1 |
| | | | f) Curtain Nozzel pump (Electric operated) | 6000 LPM | 1 |
| | | | g) Diesel Engine driven pump (SB-2) | 2850 LPM | 1 |
| 3.2 Pump Head | 40 Mtr. | Say | 4.2 Pump Head (For Curtain Nozzels) | 50 Mtr. | Say |
| a) Suction lift | 0 | | a) Suction lift | 0 | |
| b) Elevation height | 10 | | b) Elevation height (B2-B1 (10)) | 4 | |
| c) Residual head | 20 | | c) Residual head | 15 | |
| d) Frictional head loss | 10 | | d) Frictional head loss | 30 | |
| 3.3 Pump HP | 3.0 HP | Say | 4.2 Pump Head (For Hydrant and Sprinkler) | 210 Mtr. | Say |
| a) $(Lpm*head (m)/4500*.65(effi))$ | 3.0 | | a) Suction lift | 0 | |
| | | | Elevation height (B3-B1) +GF to Terrace + | | |
| | | | b) 1M on Terrace | 150.35 | |
| | | | c) Residual head | 35 | |
| | | | d) Frictional head loss | 20 | |
| | | | 4.3 Pump HP for Main Electric pumps | 225.0 HP | Say |
| | | | a) $(Lpm*head (m)/4500*.65(effi))$ | 221.7 | HP |
| | | | 4.4 Pump HP for Jockey pumps | 15.0 HP | Say |
| | | | a) $(Lpm*head (m)/4500*.65(effi))$ | 14.0 | |
| | | | 4.4 Pump HP for Curtain pumps | 115.0 HP | Say |
| | | | a) $(Lpm*head (m)/4500*.65(effi))$ | 111.1 | |

| 5 Capacity of DG Set for Part A | | | |
|---|----------------|---------|---|
| a) Domestic water transfer pump | 5 Nos. | 35.0 HP | Total Power cons. 175.0 HP |
| b) Flushing water transfer pump | 4 Nos. | 20.0 HP | 80.0 HP |
| c) Irrigation water transfer pump | 1 Nos. | 3.0 HP | 3.0 HP |
| 6.2 Total HP required | | | 258.0 HP |
| a) DG Capacity 80% of total power | | | 206.4 KVA |
| 6.3 DG Capacity (Total power required) | 210 KVA | | To be fed from Main DG Set of the building |

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GURGAON

| for Part - B | | | | | |
|--|----------------|----------------|--|----------------|----------------|
| 1 Domestic water transfer pump | | | 2 Flushing water transfer pump | | |
| 1.1 Pump Capacity | 280 LPM | (1w+1s) | 1.1 Pump Capacity | 175 LPM | (1w+1s) |
| a) Total Demand | 100 KLD | | a) Total Demand | 60 KLD | |
| b) Daily working hours | 6.0 Hrs | | b) Daily working hours | 6.0 Hrs | |
| c) Required pump capacity | 278.7 LPM | | c) Required pump capacity | 166.8 LPM | |
| d) Nos. of working pumps | 1 Nos. | | d) Nos. of working pumps | 1 Nos. | |
| 1.2 Pump Head | 70 Mtr. | Say | 1.2 Pump Head | 70 Mtr. | Say |
| a) Suction lift | 0 | | a) Suction lift | 0 | |
| b) Elevation height (UGT+Tower+OHT) | 45 | | b) Elevation height (UGT+Tower+OHT) | 45 | |
| c) Residual head | 10 | | c) Residual head | 10 | |
| d) Frictional head loss (As per design sheet) | 10.78 | | d) Frictional head loss (As per design sheet) | 14.29 | |
| 1.3 Pump HP | 7.5 HP | Say | 1.3 Pump HP | 5.0 HP | Say |
| a) $(Lpm \times head (m) / 4500 \times .65(effi))$ | 7.3 | | a) $(Lpm \times head (m) / 4500 \times .65(effi))$ | 4.5 | |

| | | | | | | |
|--|----------------|----------------|--|-----------------|------------|------------|
| 3 Irrigation water transfer pump | | | 4 Fire pumpsets | | | Nos |
| 3.1 Pump Capacity | 50 LPM | (1w+1s) | a) Wet riser pump (Electric operated) | 2850 LPM | 1 | |
| a) Total Demand | 5 KLD | | b) Jockey pump (WR) (Electric operated) | 180 LPM | 1 | |
| b) Daily working hours | 2.0 Hrs | | c) Sprinkler pump (Electric operated) | 2850 LPM | | |
| c) Required pump capacity | 41.7 LPM | | d) Jockey pump (Spr) (Electric operated) | 180 LPM | | |
| d) Nos. of working pumps | 1 Nos. | | e) Diesel Engine driven pump | 2850 LPM | 1 | |
| 3.2 Pump Head | 45 Mtr. | Say | f) Curtain Nozzel pump (Electric operated) | 1800 LPM | 1 | |
| a) Suction lift | 0 | | 4.2 Pump Head (For Curtain Nozzels) | 35 Mtr. | Say | |
| b) Elevation height | 12.5 | | a) Suction lift | 0 | | |
| c) Residual head | 20 | | b) Elevation height (B2-B1) | 4 | | |
| d) Frictional head loss | 10 | | c) Residual head | 14 | | |
| 3.3 Pump HP | 1.0 HP | Say | d) Frictional head loss | 15 | | |
| a) $(Lpm \times head (m) / 4500 \times .65(effi))$ | 0.8 | | 4.2 Pump Head (For Hydrant and Sprinkler) | 120 Mtr. | Say | |
| | | | a) Suction lift | 0 | | |
| | | | Elevation height (B1+GF to Terrace + 1M on | | | |
| | | | b) Terrace | 68.2 | | |
| | | | c) Residual head | 35 | | |
| | | | d) Frictional head loss | 15 | | |
| | | | 4.3 Pump HP for Main Electric pumps | 105.0 HP | Say | |
| | | | a) $(Lpm \times head (m) / 4500 \times .65(effi))$ | 126.7 | HP | |
| | | | 4.4 Pump HP for Jockey pumps | 7.5 HP | Say | |
| | | | a) $(Lpm \times head (m) / 4500 \times .65(effi))$ | 8.0 | | |
| | | | 4.4 Pump HP for Curtain pumps | 15.0 HP | Say | |
| | | | a) $(Lpm \times head (m) / 4500 \times .65(effi))$ | 23.3 | | |

| 5 Capacity of DG Set for Part B | | | | Total Power cons. |
|---|---------------|--------|--|---|
| a) Domestic water transfer pump | 1 Nos. | 7.5 HP | | 7.5 HP |
| b) Flushing water transfer pump | 1 Nos. | 5.0 HP | | 5.0 HP |
| c) Irrigation water transfer pump | 1 Nos. | 1.0 HP | | 1.0 HP |
| 6.2 Total HP required | | | | 13.5 HP |
| a) DG Capacity 80% of total power | | | | 10.8 KVA |
| 6.3 DG Capacity (Total power required) | 12 KVA | | | To be fed from Main DG Set of the building |

| 7 HUDA water supply line calculation | Demand | Flow | Dia | Line length | F. Loss | Velocity | Total loss |
|--------------------------------------|---------|---------|-----|-------------|---------|----------|------------|
| | LPD | LPM | mm | Mtr | Mtr/Mtr | M/Sec | Mtr/Mtr |
| 7.1 From Municipal conn. To UGT | 1267750 | 1760.76 | 100 | 100 | 0.162 | 3.734 | 16.219 |

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FINAL ABSTRACT OF COST

| Description | Total of sub work | 3% Contingencies and PE charges | TOTAL | 49% departmental charges price circulation & unforseen admin charges | Grand Total |
|--------------------------------|----------------------------|---------------------------------|----------------------------|--|----------------------------|
| Sub Work-1 Water Supply | 4,23,18,450 | 12,69,554 | 4,35,88,004 | 2,13,58,122 | 6,49,46,125 |
| Sub Work-2 Sewerage | 2,97,61,050 | 8,92,832 | 3,06,53,882 | 1,50,20,402 | 4,56,74,283 |
| Sub Work-3 Drainage | 42,29,500 | 1,26,885 | 43,56,385 | 21,34,629 | 64,91,014 |
| Sub Work-4 Road Works | 1,21,14,800 | 3,63,444 | 1,24,78,244 | 61,14,340 | 1,85,92,584 |
| Sub Work-5 Street Lighting | 27,12,000 | 81,360 | 27,93,360 | 13,68,746 | 41,62,106 |
| Sub Work-6 Plantation | 3,81,900 | 11,457 | 3,93,357 | 1,92,745 | 5,86,102 |
| Services & Resurfacing of road | 1,63,28,400 | 4,89,852 | 1,68,18,252 | 82,40,943 | 2,50,59,195 |
| TOTALS | Rs. 10,78,46,100.00 | Rs. 32,35,383.00 | Rs. 11,10,81,483.00 | Rs. 5,44,29,926.67 | Rs. 16,55,11,409.67 |

Total Cost — Say apx. Seventeen crore sixty-eight lakh eighty-seven thousand nine hundred ten rupees only

Amount per acre Rs. 1,22,05,856.17

For: SIGNATUREGLOBAL HOMES PVT. LTD.

SUNIL NAYYAR CONSULTING ENGINEERS LLP
GURGAON

Authorized Signatory

| S No. | Heads | Description | Amount |
|--|------------|-------------------------------|---------------------------|
| 1 | Sub Head 1 | HUDA Rising Mains | Rs. 1,56,80,000.00 |
| 2 | Sub Head 2 | Pumping and machinery | Rs. 1,75,50,000.00 |
| 3 | Sub Head 3 | Water supply and distribution | Rs. 17,18,450.00 |
| 4 | Sub Head 4 | Irrigation System | Rs. 33,95,000.00 |
| 5 | Sub Head 5 | Fire Fighting | Rs. 39,75,000.00 |
| Total Carried over to grand summary | | | Rs. 4,23,18,450.00 |

SUNIL NAYYAR CONSULTING ENGINEERS LLP
GURGAON

Group Housing Colony, SEC 37 D, GURUGRAM

Service Estimate for HUDA |HUDA Rising|

| SUB WORK No. 1 | | WATER SUPPLY |
|--|--|---------------------------|
| Sub Head 1 | | HUDA Rising Mains |
| S No. | Description | Amount |
| 1 | Providing, laying, jointing and testing DI pipe lines Including cost of excavation etc. complete in all respects. | |
| a) | 100 mm dia pipe 100 Mtr. @ Rs. 1,850 | Rs. 1,85,000.00 |
| 2 | Providing and fixing sluice valve including cost of surface boxes and masonry chambers etc. complete in all respects | |
| a) | 100 mm dia pipe 1 Nos. @ Rs. 12,500 | Rs. 12,500.00 |
| 3 | Construction of UG Tank (In total) 2130 KL @ Rs. 7,000 /-KL | Rs. 1,49,10,000.00 |
| 4 | Providing and fixing indicating plates for sluice valve and air valves | |
| a) | 1 Nos. @ Rs. 1,500 each | Rs. 1,500.00 |
| 5 | Provision for carriage for materials and other unforeseen items (L/S) | Rs. 1,50,000.00 |
| 6 | Provision for cutting of roads and making good to its original conditions (L/S) | Rs. 3,00,000.00 |
| 7 | Provision for making connection with HUDA on Master Road (L/S) | Rs. 1,00,000.00 |
| 8 | Providing and fixing of Air realese valce and scour valve | |
| a) | 2 Nos. @ Rs. 10,500 each | Rs. 21,000.00 |
| Total carried over to summary of Sub work - 1 | | Rs. 1,56,80,000.00 |

MATERIAL STATEMENT OF HUDA MAINS REFERS TO ANNEXURE 5 & 1SUNIL NAYYAR CONSULTING ENGINEERS LLP
GURGAON

Group Housing Colony, SEC 37 D, GURUGRAM

Service Estimate for HUDA |Pumping & machinery|

SUB WORK No. 1**WATER SUPPLY****Sub Head 2****Pumping and machinery**

| S No. | Description | Amount |
|----------|--|---------------|
| 1 | Providing & installing pumping set of following capacity for Water supply transfer Pumps | |
| a) | Capacity 500 LPM @ 185 Head 6 Nos. @ Rs. 3,50,000.00 each. | Rs. 21,00,000 |
| b) | Capacity 280 LPM @ 70 Head 2 Nos. @ Rs. 3,00,000.00 each. | Rs. 6,00,000 |
| 2 | Providing & installing pumping set of following capacity for Flushing Pumps | |
| a) | Capacity 300 LPM @ 175 Head 5 Nos. @ Rs. 1,75,000 each. | Rs. 8,75,000 |
| a) | Capacity 175 LPM @ 70 Head 2 Nos. @ Rs. 1,75,000 each. | Rs. 3,50,000 |
| 3 | Providing & installing pumping set of following capacity for Fire Pumps | |
| a) | Capacity 2850 LPM @ 210 Head Main Pump 2 Nos. @ Rs. 5,50,000 each. | Rs. 11,00,000 |
| b) | Capacity 2850 LPM @ 210 Head SB Diesel Pump 2 Nos. @ Rs. 6,50,000 each. | Rs. 13,00,000 |
| c) | Capacity 180 LPM @ 210 Head WR Jockey Pump 1 Nos. @ Rs. 2,50,000 each. | Rs. 2,50,000 |
| d) | Capacity 180 LPM @ 210 Head Spr Jockey Pump 1 Nos. @ Rs. 2,50,000 each. | Rs. 2,50,000 |
| e) | Capacity 6000 LPM @ 50 Head Curtain Pump 1 Nos. @ Rs. 3,50,000 each. | Rs. 3,50,000 |
| a) | Capacity 2850 LPM @ 120 Head Main Pump 1 Nos. @ Rs. 5,50,000 each. | Rs. 5,50,000 |
| b) | Capacity 2850 LPM @ 120 Head Diesel Pump 1 Nos. @ Rs. 6,50,000 each. | Rs. 6,50,000 |
| c) | Capacity 180 LPM @ 120 Head WR Jockey Pump 1 Nos. @ Rs. 2,50,000 each. | Rs. 2,50,000 |
| d) | Capacity 180 LPM @ 120 Head Spr Jockey Pump 0 Nos. @ Rs. 2,50,000 each. | Rs. 0 |
| e) | Capacity 1800 LPM @ 35 Head Curtain Pump 1 Nos. @ Rs. 3,50,000 each. | Rs. 3,50,000 |
| 4 | Providing & installing pumping set of following capacity for Irrigation Pumps | |
| a) | Capacity 200 LPM @ 40 Head 2 Nos. @ Rs. 1,50,000 each. | Rs. 3,00,000 |
| a) | Capacity 50 LPM @ 45 Head 1 Nos. @ Rs. 1,50,000 each. | Rs. 1,50,000 |
| 5 | Provisions for chlorination plant complete 2 Nos @ Rs. 15,00,000 each | Rs. 30,00,000 |
| 6 | Provision for making foundations and erection of pumping machinery | Rs. 2,50,000 |
| | L.S. | |
| 7 | Provision for pipes, valves and specials inside the boosting chamber | Rs. 1,75,000 |

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Group Housing Colony, SEC 37 D, GURUGRAM

Service Estimate for HUDA | Pumping & machinery |

| L.S. | | |
|--|--|------------------------|
| 8 | Provision for carriage of material and other unforeseen items etc. L/S | Rs. 2,50,000 |
| 9 | Provision for diesel engine Gen set each for standby arrangements for T.W. & booster pump complete with gear head arrangements of 210 KVA capacities – 1 No. | Rs. 42,00,000 |
| 10 | Provision for electrical service connection including electrical supply for boosting chamber including cost of transformer. | Rs. 2,50,000 |
| Total carried over to summary of Sub work - 1 | | Rs. 1,75,50,000 |

SUNIL NAYYAR CONSULTING ENGINEERS LLP
GURUGRAM

Group Housing Colony, SEC 37 D, GURUGRAM

Service Estimate for HUDA | Water Supply Dist. |

SUB WORK No. 1**WATER SUPPLY****Sub Head 3****Water supply and distribution**

| S No. | Description | Amount |
|--------------------------------|---|-------------------------|
| 1 | Providing, laying, jointing and testing DI/GI pipe lines including fittings etc. complete in all respects. | |
| 1a | Domestic | |
| a) | 65 mm Pipe 28 Mtr @ Rs. 1,350 | Rs. 37,800 |
| b) | 80 mm Pipe 0 Mtr @ Rs. 1,500 | Rs. 0 |
| c) | 100 mm Pipe 20 Mtr @ Rs. 1,650 | Rs. 33,000 |
| d) | 150 mm Pipe 546 Mtr @ Rs. 2,000 | Rs. 10,92,000 |
| 1b | Flushing | |
| a) | 40 mm Pipe 45 Mtr @ Rs. 950 | Rs. 42,750 |
| b) | 50 mm Pipe 0 Mtr @ Rs. 1,350 | Rs. 0 |
| c) | 100 mm Pipe 45 Mtr @ Rs. 1,500 | Rs. 67,500 |
| d) | 150 mm Pipe 36 Mtr @ Rs. 1,650 | Rs. 59,400 |
| 2 | Providing and fixing sluice valve including cost of surface boxes and masonry chambers etc. complete in all respects. | |
| 2a | Domestic | |
| a) | 65 mm 4 Each @ Rs. 18,500 | Rs. 74,000 |
| 2b | Flushing | |
| a) | 40 mm 4 Each @ Rs. 15,500 | Rs. 62,000 |
| 3 | Provision for carriage of materials and other unforeseen items | Rs. 2,50,000 |
| summary of Sub work - 1 | | Rs. 17,18,450.00 |

AND FWS REFERS TO ANNEXURE 3 & 4SUNIL NAYYAR CONSULTING ENGINEERS LLP
GURGAON

PROPOSED BUILDING PLAN OF RESIDENTIAL COLONY MEASURING 13.56 ACRES IN SECTOR 37D, GURGAON

Water supply hydraulic calculation

| Domestic Water Supply | | | | | | | | | | | | | | | |
|-----------------------|---------|-----------------------------------|-------------------|----------------|---------------------------|--------------------|-------------------|------------------------|-------------|------------------|------------------------------|------------------------------------|---------------|-------------|---------|
| Part A | | | | | | | | | | | | | | | |
| S No. | Line No | Total water Dom. demand As/Design | Peak Water Demand | Length of Pipe | Effective Length (actual) | Proposed line dia. | Velocity in m/sec | Frictional head losses | Ele. Height | F. Loss in Riser | Total Frictional head losses | Commulative Frictional head losses | Head at Start | Head at End | Remarks |
| | | LPD | LPM | Mtr | Mtr | MM | Mtr/sec | Mtr/Mtr | Mtr | Mtr | Mtr | Mtr | Mtr | Mtr | |
| 1 | L | 94300 | 196.5 | 8.0 | 10.0 | 65 | 1.1834 | 0.0319 | | 0.000 | 0.319 | 0.319 | 159.8 | 160.10 | |
| 2 | K | 94300 | 196.5 | 16.0 | 20.0 | 150 | 0.2222 | 0.0005 | | 0.000 | 0.011 | 0.330 | 160.1 | 160.11 | |
| 3 | I | 346929 | 722.8 | 191.0 | 238.8 | 150 | 0.8176 | 0.0061 | | 0.000 | 1.448 | 1.778 | 160.1 | 161.56 | |
| 4 | J | 668929 | 1393.6 | 132.0 | 165.0 | 150 | 1.5764 | 0.0205 | | 0.000 | 3.376 | 5.155 | 161.6 | 164.94 | |
| 5 | G | 668929 | 1393.6 | 73.0 | 91.3 | 150 | 1.5764 | 0.0205 | | 0.000 | 1.867 | 7.022 | 164.9 | 166.80 | |
| 6 | F | 951829 | 1983.0 | 84.0 | 105.0 | 150 | 2.2430 | 0.0393 | | 0.000 | 4.129 | 11.150 | 166.8 | 170.93 | |
| 7 | B | 1140429 | 2375.9 | 30.0 | 37.5 | 150 | 2.6875 | 0.0550 | | 0.000 | 2.061 | 13.211 | 170.9 | 172.99 | |
| 8 | A | 1167429 | 2432.1 | 20.0 | 25.0 | 150 | 2.7511 | 0.0574 | 10 | 0.574 | 2.009 | 25.219 | 173.0 | 185.00 | |

| Domestic Water Supply | | | | | | | | | | | | | | | |
|-----------------------|---------|-----------------------------------|-------------------|----------------|---------------------------|--------------------|-------------------|------------------------|-------------|------------------|------------------------------|------------------------------------|---------------|-------------|---------|
| Part B | | | | | | | | | | | | | | | |
| S No. | Line No | Total water Dom. demand As/Design | Peak Water Demand | Length of Pipe | Effective Length (actual) | Proposed line dia. | Velocity in m/sec | Frictional head losses | Ele. Height | F. Loss in Riser | Total Frictional head losses | Commulative Frictional head losses | Head at Start | Head at End | Remarks |
| | | LPD | LPM | Mtr | Mtr | MM | Mtr/sec | Mtr/Mtr | Mtr | Mtr | Mtr | Mtr | Mtr | Mtr | |
| 1 | N | 82500 | 171.9 | 20.0 | 25.0 | 65 | 1.0353 | 0.0249 | | 0.000 | 0.623 | 0.623 | 59.2 | 59.85 | |
| 2 | M | 100325 | 209.0 | 20.0 | 25.0 | 100 | 0.5319 | 0.0044 | 10 | 0.044 | 0.154 | 10.777 | 59.8 | 70.00 | |

SUNIL NAYYAR CONSULTING ENGINEERS LLP
GURGAON

PROPOSED BUILDING PLAN OF RESIDENTIAL COLONY MEASURING 13.56 ACRES IN SECTOR 37D, GURGAON
Water supply hydraulic calculation

| Flushing Water Supply | | | | | | | | | | | | | | | |
|-----------------------|---------|-------------------------|-------------------|----------------|---------------------------------------|--------------------|-------------------|------------------------|-------------|------------------|------------------------------|------------------------------------|---------------|-------------|---------|
| Part A | | | | | | | | | | | | | | | |
| S No. | Line No | Total water Dom. demand | Peak Water Demand | Length of Pipe | Effective Length (actual length+ 25%) | Proposed line dia. | Velocity in m/sec | Frictional head losses | Ele. Height | F. Loss in Riser | Total Frictional head losses | Commulative Frictional head losses | Head at Start | Head at End | Remarks |
| | | As/Design | LPM | Mtr | Mtr | MM | Mtr/sec | Mtr/Mtr | Mtr | Mtr | Mtr | Mtr | Mtr | Mtr | |
| 1 | I | J | 47150 | 8.0 | 10.0 | 40 | 1.5625 | 0.0941 | | 0.000 | 0.941 | 0.941 | 174.7 | 175.61 | |
| 2 | J | F | 173019 | 144.0 | 180.0 | 100 | 0.9174 | 0.0121 | | 0.000 | 2.169 | 3.110 | 175.6 | 177.78 | |
| 3 | F | E | 334020 | 82.0 | 102.5 | 100 | 1.7711 | 0.0407 | | 0.000 | 4.176 | 7.286 | 177.8 | 181.96 | |
| 4 | E | D | 334020 | 73.0 | 91.3 | 100 | 1.7711 | 0.0407 | | 0.000 | 3.718 | 11.004 | 182.0 | 185.67 | |
| 5 | D | B | 381170 | 56.0 | 70.0 | 100 | 2.0211 | 0.0520 | | 0.000 | 3.642 | 14.646 | 185.7 | 189.32 | |
| 6 | B | A | 569769 | 6.0 | 7.5 | 150 | 1.3427 | 0.0152 | | 0.000 | 0.114 | 14.760 | 189.3 | 189.43 | |
| 7 | A | Pump Room | 569769 | 30.0 | 37.5 | 150 | 1.3427 | 0.0152 | | 0.000 | 0.570 | 15.330 | 189.4 | 190.00 | |

| Flushing Water Supply | | | | | | | | | | | | | | | |
|-----------------------|---------|-------------------------|-------------------|----------------|---------------------------|--------------------|-------------------|------------------------|-------------|------------------|------------------------------|------------------------------------|---------------|-------------|---------|
| Part B | | | | | | | | | | | | | | | |
| S No. | Line No | Total water Dom. demand | Peak Water Demand | Length of Pipe | Effective Length (actual) | Proposed line dia. | Velocity in m/sec | Frictional head losses | Ele. Height | F. Loss in Riser | Total Frictional head losses | Commulative Frictional head losses | Head at Start | Head at End | Remarks |
| | | As/Design | LPM | Mtr | Mtr | MM | Mtr/sec | Mtr/Mtr | Mtr | Mtr | Mtr | Mtr | Mtr | Mtr | |
| 1 | K | L | 45770 | 37.0 | 46.3 | 40 | 1.5168 | 0.0891 | | 0.000 | 4.119 | 4.119 | 55.7 | 59.82 | |
| 2 | L | Pump Room | 60030 | 20.0 | 25.0 | 80 | 0.4973 | 0.0050 | 10 | 0.050 | 0.176 | 14.295 | 59.8 | 70.00 | |

Group Housing Colony, SEC 37 D, GURUGRAM

Service Estimate for HUDA |Irrigation|

SUB WORK No. 1**WATER SUPPLY****Sub Head 4****Irrigation System**

| S No. | Description | Amount |
|--|--|-------------------------|
| 1 | Providing, laying, jointing and testing uPVC Class-III pipes conforming to IS:4985 including cost of excavation etc. complete in all respects. | |
| a) | 150 mm Pipe 1200 Mtr @ Rs. 1,650 | Rs. 19,80,000 |
| b) | 80 mm Pipe 300 Mtr @ Rs. 1,250 | Rs. 3,75,000 |
| c) | 50 mm Pipe 150 Mtr @ Rs. 650 | Rs. 97,500 |
| d) | 32 mm Pipe 150 Mtr @ Rs. 550 | Rs. 82,500 |
| e) | 25 mm Pipe 250 Mtr @ Rs. 400 | Rs. 1,00,000 |
| 2 | Providing and fixing sluice valve including cost of surface boxes and masonry chambers etc. complete in all respects. | |
| a) | 150 mm 6 Each @ Rs. 18,500 | Rs. 1,11,000 |
| b) | 80 mm 4 Each @ Rs. 18,500 | Rs. 74,000 |
| c) | 25 mm 50 Each @ Rs. 6,000 | Rs. 3,00,000 |
| 3 | Providing and fixing Garden Hydrant Chamber | |
| | 50 Nos. @ Rs. 3,500 each | Rs. 1,75,000.00 |
| 4 | Provision for carriage of materials and other unforeseen items | Rs. 1,00,000.00 |
| Total carried over to summary of Sub work - 1 | | Rs. 33,95,000.00 |

MATERIAL STATEMENT OF IRRIGATION SUPPLY REFERS TO ANNEXURE 6

SUNIL NAYYAR CONSULTING ENGINEERS LLP
GURUGAON

Group Housing Colony, SEC 37 D, GURUGRAM

Service Estimate for HUDA | Fire Hydrant|

SUB WORK No. 1**WATER SUPPLY****Sub Head 5****Fire Fighting**

| S No. | Description | Amount |
|--|--|-------------------------|
| 1 | Providing , Laying , jointing and testing M.S. pipes lines for fire rising main including cost of fittings, valves, connection etc. complete in all respect. | |
| a) | 150 mm MS Pipe 1500 Mtr @ Rs. 1,500 | Rs. 22,50,000 |
| b) | 100 mm MS Pipe 10 Mtr @ Rs. 1,200 | Rs. 12,000 |
| c) | 80 mm MS Pipe 380 Mtr @ Rs. 1,000 | Rs. 3,80,000 |
| 2 | Providing and fixing valves complete in all respects. | |
| a) | 150 mm MS Pipe 6 Each @ Rs. 15,000 | Rs. 90,000 |
| b) | 80 mm MS Pipe 38 Each @ Rs. 10,000 | Rs. 3,80,000 |
| 3 | Providing and fixing indicating plates for sluice valve and air Valves . | |
| a) | 38 Nos. @ Rs. 1,000 each | Rs. 38,000.00 |
| 4 | Providing and fixing Fire Hydrant. | |
| a) | 38 Nos. @ Rs. 10,000 each | Rs. 3,80,000.00 |
| 5 | Providing and fixing Fire Brigade connections, (4 way Inlet, 2 way to riser & Draw out) to UGT | |
| a) | 6 Nos. @ Rs. 7,500 each | Rs. 45,000.00 |
| 6 | Provision for cutting of roads and making good to its original condition | Rs. 1,50,000.00 |
| 7 | Provision for carriage of materials and other unforeseen items | Rs. 2,50,000.00 |
| Total carried over to summary of Sub work - 1 | | Rs. 39,75,000.00 |

MATERIAL STATEMENT OF FIRE HYDRANT REFERS TO ANNEXURE 7

SUNIL NAYYAR CONSULTING ENGINEERS LLP
GURGAON

| S No. | Description | Amount |
|---|---|------------------------|
| 1 | Providing , jointing , cutting and testing SW pipe and lowering into trenches including cost excavation, bed concrete, cost of manhole etc. | |
| a) | 100 mm dia 40 Mtr. @ Rs. 1,250 DI class (Bye Pass Line) | Rs. 50,000 |
| b) | 200 mm dia 223 Mtr. @ Rs. 1,800 DI class (Bye Pass Line) | Rs. 4,01,400 |
| c) | 200 mm dia 66 Mtr. @ Rs. 1,250 | Rs. 82,500 |
| d) | 250 mm dia 177 Mtr. @ Rs. 1,450 RCC Pipe | Rs. 2,56,650 |
| e) | 300 mm dia 368 Mtr. @ Rs. 1,850 RCC Pipe | Rs. 6,80,800 |
| f) | 400 mm dia 6 Mtr. @ Rs. 2,450 RCC Pipe | Rs. 14,700 |
| 2 | Provision for carriage of material (L.S) | Rs. 50,000 |
| 3 | Provision for making connection with HUDA sewer on Master Road | Rs. 1,50,000 |
| 4 | Provision for cutting of roads & making good to its original condition (L.S.) | Rs. 50,000 |
| 5 | Provision for lighting and watering (L.S.) | Rs. 25,000 |
| 6 | Providing STP of 1600 KLD Rs. 17,500 per KLD Including machinery | Rs. 2,80,00,000 |
| Total carried over to final abstract of cost | | Rs. 2,97,61,050 |

MATERIAL STATEMENT OF SEWERAGE SCHEME REFERS TO ANNEXURE 2

SUNIL NAYYAR CONSULTING ENGINEERS LLP
GURGAON

PROPOSED BUILDING PLAN OF RESIDENTIAL COLONY MEASURING 13.86 ACRES IN SECTOR 37D, GURGAON
SUBJECT: SEWER DESIGN SHEET

| S. No. | Line Reference | Tower No. | Unit / Flat | | Population @ 5 Person per flat and EWS @ 172.50 @ 2 person per unit | Water Requirement @ 172.50 LPCD for DU & 45 LPCD for Commercial etc. | Other Requirement i.e. comm./ community building & etc. | Total water requirement LPD | Sew. Quantity after evaporation loss @ 20% (In LPD) | Sewerage Discharge Peak Flow (m3/sec) | Size of pipe in (mm) | Gradient in (m) | Velocity (m/sec) | Carrying capacity of pipe (m3/sec) | Length in Mtr | Fall + Extra Fall in line due to slope (m) | Ground Level | | Invert Level | | Depth | |
|---------------|----------------|------------------|-------------|--------|---|--|---|-----------------------------|---|---------------------------------------|----------------------|-----------------|------------------|------------------------------------|---------------|--|--------------|-------|--------------|-------|-------|-------|
| | | | Self | Branch | | | | | | | | | | | | | Total | Start | End | Start | End | Start |
| PART A | | | | | | | | | | | | | | | | | | | | | | |
| 1 | A | B | 490 | 0 | 2450 | 422625 | 72330 | 494955 | 395964 | 0.0137 | 250 | 200 | 0.742 | 0.018 | 177 | 0.89 | 1.35 | 1.35 | 0.15 | -0.74 | 1.20 | 2.09 |
| 3 | B | C | 488 | 490 | 4890 | 843525 | 62100 | 977955 | 782364 | 0.0272 | 300 | 250 | 0.750 | 0.027 | 159 | 0.64 | 1.35 | 1.35 | -0.74 | -1.37 | 2.09 | 2.72 |
| 3 | C3 | C2 | 820 | 0 | 4100 | 707250 | | 707250 | 565800 | 0.0196 | 300 | 250 | 0.750 | 0.027 | 176 | 0.70 | 1.35 | 1.35 | 0.15 | -0.55 | 1.20 | 1.90 |
| 3 | C2 | C1 | 0 | 820 | 4100 | 707250 | | 707250 | 565800 | 0.0196 | 300 | 250 | 0.750 | 0.027 | 29 | 0.12 | 1.35 | 1.35 | -0.55 | -0.67 | 1.90 | 2.02 |
| 3 | C1 | C | 0 | 820 | 4100 | 707250 | | 707250 | 565800 | 0.0196 | 300 | 250 | 0.750 | 0.027 | 4 | 0.02 | 1.35 | 1.35 | -0.67 | -0.69 | 2.02 | 2.04 |
| 3 | C | D (STP) | 0 | 1798 | 8990 | 1550775 | | 1685205 | 1348164 | 0.0468 | 400 | 350 | 0.768 | 0.048 | 6 | 0.02 | 1.35 | 1.35 | -1.37 | -1.39 | 2.72 | 2.74 |
| 9 | STP | Govt. sewer line | | | | | | | | | | | | | 223 | 1.20 | 1.35 | 0.00 | 0.15 | -1.05 | 1.20 | 1.05 |
| PART B | | | | | | | | | | | | | | | | | | | | | | |
| 1 | A | B | 318 | | 636 | 109710 | 41216 | 150926 | 120741 | 0.0042 | 200 | 150 | 0.739 | 0.012 | 56 | 0.37 | 0.75 | 0.75 | -0.45 | -0.82 | 1.20 | 1.57 |
| 2 | B | (STP) | 0 | 318 | 636 | 150926 | | 150926 | 120741 | 0.0042 | 200 | 150 | 0.739 | 0.012 | 10 | 0.07 | 0.75 | 0.75 | -0.82 | -0.89 | 1.57 | 1.64 |
| 3 | STP | Govt. sewer line | | | | | | | | | | | | | 40 | 0.31 | 0.75 | 0.00 | -0.89 | -1.20 | 1.64 | 1.20 |

Group Housing Colony, SEC 37 D, GURUGRAM

Service Estimate for HUDA |Storm Water|

SUB WORK No. 3**STORM WATER DRAINAGE**

| S No. | Description | Amount |
|---|---|-------------------------|
| 1 | Providing, laying, RCC pipe class NP-2 manholes etc. complete in all respects | |
| a) | 400 mm dia 1036.00 Mtr. @ Rs. 1,750 | Rs. 18,13,000.00 |
| b) | 500 mm dia 47.00 Mtr. @ Rs. 2,000 | Rs. 94,000.00 |
| c) | 600 mm dia 29.00 Mtr. @ Rs. 2,500 | Rs. 72,500.00 |
| d) | 700 mm dia 0.00 Mtr. @ Rs. 3,000 | Rs. 0.00 |
| 2 | Provision for lighting and watering | Rs. 1,00,000.00 |
| 3 | Provision for road gullies & connecting pipe L.S. | Rs. 15,50,000.00 |
| 4 | Provision for rainwater harvesting arrangements | |
| | Rs. 2,50,000.00 per acre Recharge Pit 0 Nos. | Rs. 0.00 |
| 5 | Provision for timbering & shoring (L.S.) | Rs. 2,00,000.00 |
| 6 | Provision for watering and timbering drains & other unforeseen charges | Rs. 2,50,000.00 |
| 7 | Provision for making connection with HUDA Mains. (L.S.) 1 Nos. | Rs. 1,50,000.00 |
| TOTAL CO to FINAL ABSTRACT OF COST | | Rs. 42,29,500.00 |

MATERIAL STATEMENT OF STORM WATER DRAINAGE REFERS TO ANNEXURE 2a

SUNIL NAYYAR CONSULTING ENGINEERS LLP
GURUGRAM

PROPOSED BUILDING PLAN OF RESIDENTIAL COLONY MEASURING 13.56 ACRES IN SECTOR 37D, GURGAON
Material statement for Sewerage (Annexure 2)

| Towers Sewerage MB | | | | | | | | |
|--|--------------|---------------|---------------|---------------|------------|-------------|-----------|-----|
| SL NO | NAME OF LINE | | LENGTH | PIPE DIA | 200 | 250 | 300 | 400 |
| | | | MTR | MM | MTR | MTR | MTR | MTR |
| Sewerage MB (PART A) | | | | | | | | |
| 1 | A | B | 177 | 250 | | 177 | | |
| 2 | B | C | 159 | 300 | | | 159 | |
| 3 | C3 | C2 | 176 | 300 | | | 176 | |
| 4 | C2 | C1 | 29 | 300 | | | 29 | |
| 5 | C1 | C | 4 | 300 | | | 4 | |
| 6 | C | D (STP) | 6 | 400 | | | | 6 |
| Sewerage MB (PART B) | | | | | | | | |
| 7 | A | B | 56 | 200 | 56 | | | |
| 8 | B | (STP) | 10 | 200 | 10 | | | |
| | | | | Total | 66 | 177 | 368 | 6 |
| STP Bye pass TO GOVT SEWER (DI) | | 100 mm | 200 mm | 200 mm | STP | 1600 | KL | |
| | | 40 | 223 | | | | | |


SUNIL NAYYAR CONSULTING ENGINEERS LLP
GURGAON

Group Housing Colony, SEC 37 D, GURUGRAM

Service Estimate for HUDA |Anne. 2a|

PROPOSED BUILDING PLAN OF RESIDENTIAL COLONY MEASURING 13.56 ACRES IN SECTOR 37D, GURGAON

MATERIAL STATEMENT FOR STORM WATER DRAINAGE SYSTEM ANNEXURE-2a

| SL NO | NAME OF LINE | | LENGTH | PIPE DIA | 400MM | 500MM | 600MM | 700MM |
|-------------------------------|--------------|------|-----------------|---------------|----------------|--------------|--------------|-------------|
| | | | MTR | MM | MTR | MTR | MTR | MTR |
| Drainage MB for Towers | | | | | | | | |
| 1 | A | B | 177 | 400 | 177 | | | |
| 2 | B | C | 136 | 400 | 136 | | | |
| 3 | C3 | C2 | 105 | 400 | 105 | | | |
| 4 | C2 | C1 | 102 | 400 | 102 | | | |
| 5 | C4 | C1 | 109 | 400 | 109 | | | |
| 6 | C1 | C | 103 | 400 | 103 | | | |
| 7 | C | D | 47 | 500 | | 47 | | |
| 8 | D | E | 10 | 600 | | | 10 | |
| 9 | | | | | | | | |
| 10 | F | G | 14 | 600 | | | 14 | |
| 11 | G1 | G | 56 | 400 | 56 | | | |
| 12 | G | Ext. | 5 | 600 | | | 5 | |
| 1 | H | I | 30 | 400 | 30 | | | |
| 2 | I | J | 37 | 400 | 37 | | | |
| 3 | J | K | 56 | 400 | 56 | | | |
| 4 | K3 | K2 | 39 | 400 | 39 | | | |
| 5 | K2 | K1 | 43 | 400 | 43 | | | |
| 6 | K1 | K | 38 | 400 | 38 | | | |
| 7 | K | Ext. | 5 | 400 | 5 | | | |
| TOTAL | | | RWH Pits | 0 Nos. | 1036.00 | 47.00 | 29.00 | 0.00 |

SUNIL NAYYAR CONSULTING ENGINEERS LLP
GURGAON

**PROPOSED BUILDING PLAN OF RESIDENTIAL COLONY MEASURING 13.56 ACRES IN SECTOR 37D,
 GURGAON**

| Material statement for Domestic water supply (Annexure-3) | | | | | | | | |
|---|---------------|--------|--------|-----|-----------|------------|-----------|----------|
| PART A | | | | | | | | |
| S No. | Line No | Length | Valves | Dia | 100 MM | 150 MM | 65 MM | 80 MM |
| | L | 8 | 4 | 65 | | | 8 | |
| | K | 16 | | 150 | | 16 | | |
| | I | 191 | | 150 | | 191 | | |
| | J | 132 | | 150 | | 132 | | |
| | G | 73 | | 150 | | 73 | | |
| | F | 84 | | 150 | | 84 | | |
| | B | 30 | | 150 | | 30 | | |
| | A | 20 | | 150 | | 20 | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| PART B | | | | | | | | |
| | O | Mtr | | MM | | | | |
| | N | 20 | | 65 | | | 20 | |
| | M | 20 | | 100 | 20 | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | TOTAL | | | | 20 | 546 | 28 | 0 |
| | Valves | | | | 0 | 0 | 4 | 0 |

SUNIL NAYYAR CONSULTING ENGINEERS LLP
 GURGAON

Group Housing Colony, SEC 37 D, GURUGRAM

Service Estimate for HUDA |Anne-3, 4, 5, 6 & 7|

| Material statement for Flushing water supply (Annexure-4) | | | | | | | | |
|---|---------------|--------|--------|-----|-----------|-----------|----------|------------|
| PART A | | | | | | | | |
| S No. | Line No | Length | Valves | Dia | 150 MM | 40 MM | 50 MM | 100 MM |
| | I | 8 | 4 | 40 | | 8 | | |
| | J | 144 | | 100 | | | | 144 |
| | F | 82 | | 100 | | | | 82 |
| | E | 73 | | 100 | | | | 73 |
| | D | 56 | | 100 | | | | 56 |
| | B | 6 | | 150 | 6 | | | |
| | A | 30 | | 150 | 30 | | | |
| | | | | | | | | |
| PART B | | | | | | | | |
| | O | Mtr | | MM | | | | |
| | K | 37 | | 40 | | 37 | | |
| | L | 20 | | 80 | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | Total | | | | 36 | 45 | 0 | 355 |
| | Valves | | | | 0 | 4 | 0 | 0 |

| Annexure-5 Municipal supply line | | | | | | | |
|----------------------------------|-----------|--------|-----|-------|-------|--------|--------|
| S No | Line No | Length | Dia | 40 mm | 80 MM | 100 MM | 150 MM |
| 1 | Main-Pump | 100 | 100 | | | | |

| Annexure-6 Garden hydrant ring | | | | | | | | | |
|--------------------------------|--------------|--------|-----------|-----|------------|------------|-------------|------------|------------|
| S No. | Line No | Length | GH | Dia | 80 MM | 25 MM | 150 MM | 50 MM | 32 mm |
| 1 | Main Ring | 1200 | | 150 | 300 | | 1200 | 150 | 150 |
| 2 | GH | 250 | 50 | 25 | | 250 | | | |
| | Total | | 50 | | 300 | 250 | 1200 | 150 | 150 |

| Annexure-7 External Fire hydrant ring | | | | | | | |
|---------------------------------------|--------------|--------|-----------|-----|------------|-----------|-------------|
| S No. | Line No | Length | EFH | Dia | 80 mm | 100 mm | 150 mm |
| 1 | Main Ring | 1500 | | 150 | | 10 | 1500 |
| 2 | EFH | 380 | 38 | 80 | 380 | | |
| | Total | | 38 | | 380 | 10 | 1500 |

SUNIL NAYYAR CONSULTING ENGINEERS LLP
GURGAON

Group Housing Colony, SEC 37 D, GURUGRAM

Service Estimate for HUDA | Road Work|

SUB WORK No. 4**ROAD WORK**

| Width in meter | length in meter | Metalled Portion | Area in Sqm. |
|----------------|-----------------|-------------------|-----------------|
| 6 | 260.00 | 6 | 1560.00 |
| 7.5 | 1120.00 | 7.5 | 8400.00 |
| 12 | 50.00 | 12 | 600.00 |
| Total | 1430 | | 10560.00 |
| | | Add 5% for curves | 528.00 |
| | | Total Area | 11088.00 |

| S No. | Description | Amount |
|-----------|---|---------------------------|
| 1 | Provision for leveling & earth filling as per site condition | |
| | Approx 13.56 Acre @ Rs. 1,00,000 per acre | Rs. 13,56,000.00 |
| 2a | Construction of roads by providing granular sub base 300 mm as per MORT & H specification conforming to clause 401 grading B 400.1 | |
| 2b | Providing ,laying,spreading & compacting hand broken/ crushed stone aggregate to met mix macadam conforming to physical requirement laid in 400 of 300 mm GSB 250 mm stone aggregate MORT &H specification in two layers (compacted to 250 mm (125+125) by taking material 1.32 times of the (thickness of the layer) including per mixing of material with water in mechanical mixer . | |
| 2c | 50 mm thick BM | |
| 2d | 20 mm thick mix seal surfacing | |
| | 11088.00 Sqm @ Rs. 600 per sqm | Rs. 66,52,800.00 |
| 3a | Providing of kerbs and channel of CC (1:2.4) on both side of road | |
| | 1480 m @ Rs. 300 /M | Rs. 4,44,000.00 |
| 4 | Provision for guide map and other unforeseen item L.S | |
| | 13.56 Acre @ Rs. 1,00,000 per Acre | Rs. 13,56,000.00 |
| 5 | Provision for making approach to each block and pavement L.S | |
| | 13.56 Acre @ Rs. 1,00,000 per Acre | Rs. 13,56,000.00 |
| 6 | Provision for parking arrangement L.S | |
| | | Rs. 4,50,000.00 |
| 7 | Provision for carriage of material & unforeseen items L.S | |
| | | Rs. 5,00,000.00 |
| | TOTAL CO to FINAL ABSTRACT OF COST | Rs. 1,21,14,800.00 |

MATERIAL STATEMENT OF ROAD NODS REFERS TO ANNEXURE 8

SUNIL NAYYAR CONSULTING ENGINEERS LLP
GURGAON

Group Housing Colony, SEC 37 D, GURUGRAM

Service Estimate for HUDA | Anne. 8 |

SED BUILDING PLAN OF RESIDENTIAL COLONY MEASURING 13.56 ACRES IN SECTOR 37D, GUI

ANNEXURE-8

| SL NO | NAME OF LINE | Width | Road Length | 12 Mtr. | 6 Mtr. | 7.5 Mtr. |
|----------------|--------------|-------|-------------|--------------|---------------|----------------|
| | | MTR | MM | MTR | MTR | MTR |
| Road MB | | | | | | |
| 1 | A | 6.0 | 260.0 | | 260.0 | |
| 2 | B | 7.5 | 1120.0 | | | 1120.0 |
| 3 | C | 12.0 | 50.0 | 50.0 | | |
| TOTAL | | | | 50.00 | 260.00 | 1120.00 |

SUNIL NAYYAR CONSULTING ENGINEERS LLP
GURGAON

Group Housing Colony, SEC 37 D, GURUGRAM

Service Estimate for HUDA | Light, Plnt & Rsrfc. |

SUB WORK No. 5**Street Lighting**

| S No. | Description | Amount |
|-------|--|-------------------------|
| 1 | Providing street lightning on roads as per standard specifications of HVPN. | |
| | Approx 13.56 Acre @ Rs. 2,00,000 per acre | Rs. 27,12,000.00 |
| | TOTAL CO to FINAL ABSTRACT OF COST | Rs. 27,12,000.00 |

SUB WORK No. 6**Plantation & Road side Trees**

| S No. | Description | Amount |
|-------|---|------------------------|
| 1 | Development of Green areas (organised green of 2.03 Acres) | |
| a | Trenching the ordinary soil up to dept of 60cm including removal and stacking serviceable material and disposing of by spreading and leveling within a lead of 50m and making up the trenches area to proper leads by filling with earth mixed with manure before and after flooding trench with water including cost of imported earth and manure. | |
| b | Rough dressing of roof area | |
| | Grassing with "Doob Grass" including watering and IV. Maintenance of lawns for 30 days till the grass forms a thick lawn, free from weeds and fit for moving in rows 7.5 m Apart in either direction | |
| | Approx. 2.03 Acres @ Rs. 1,00,000 per Acres | Rs. 2,03,400.00 |
| 2 | Planting Tree | |
| a | Providing tress, guards and planting trees along road at 12 m interval Total road length = 1430 No of Tress = 119.2 Say = 119 Cost Analysis of Planting Trees Excavation = 150 each Manure = 175 each Tree plants = 175 each Tree guards = 1000 each = Rs.1500 per tree | |
| | 119 Trees @ Rs. 1,500 per tree | Rs. 1,78,500.00 |
| | TOTAL CO to FINAL ABSTRACT OF COST | Rs. 3,81,900.00 |

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GURGAON

Group Housing Colony, SEC 37 D, GURUGRAM

Service Estimate for HUDA | Light, Plnt & Rsrfc. |

SUB WORK No. 7**M/C Charges for Services & Resurfacing of road**

| S No. | Description | Amount |
|--------------|--|---------------------------|
| 1 | Providing of M/C charges for water supply , strom water drainage, sewerage, Road, Street lighting, Horticulture etc. complete in all aspect, including Operational and establishment charges as per HUDA norms for 10 years completion | |
| | Approx. 13.56 Acres @ Rs. 5,50,000 per Acres | Rs. 74,58,000.00 |
| 2 | Providing of resurfacing of roads after 5 years 100mm thick layer 100mm thick BUSG complete to 25mm thick premix carpet with seal cost | |
| | Approx. 11088.00 Sqm @ Rs. 300 per Sqm | Rs. 33,26,400.00 |
| 3 | Providing of resurfacing of roads after 10 years with 25mm thick premix carpet with seal coat with mech.paver | |
| | Approx. 11088.00 Sqm @ Rs. 500 per Sqm | Rs. 55,44,000.00 |
| | TOTAL CO to FINAL ABSTRACT OF COST | Rs. 1,63,28,400.00 |

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