
PROJECT: PROPOSED LAYOUT PLAN FOR ADDITIONAL AREA MEASURING 6.06875 ACRES ADJOINING ALREADY LICENSED AREA OF 129.65625 ACRES VIDE LIC NO. LICENSE NO. 104 OF 2024 DATED-01.08.2024 , TOTAL AREA OF 135.7250 ACRES IN VILLAGE SHIDRAWALI, TEHSIL MANESAR, DISTRICT GURUGRAM. BEING DEVELOPED BY SIGNATUREGLOBAL (INDIA) LTD.

REPORT

Gurgaon town of Haryana State is situated on Delhi - Jaipur national Highway No.8 at a distance of 30 kms for Delhi. Haryana Government has established various residential sectors along with infrastructure facilities in Gurugram. It is now the proposed development Industrial Plotted Colony is 135.725 ACRES, site at Village Shidrawali, Gurugram.

WATER SUPPLY

At present the source of water supply in this area is GMDA/HSVP water supply. As the underground water is potable, provision. 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 GMDA/HSVP water supply mains passing along sector dividing master road, from there water will be pumped to Overhead water storage tank (OHT) on the roof of the each plot.

DESIGN

The scheme has been designed for population as given in attached sheets. The rate of water supply per head/day has been taken as 172.50 liters per head per day as per HUDA Norms.

PUMPING EQUIPMENTS

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

SEWERAGE SCHEME

Sewerage scheme of colony is designed for Sewer connecting to the Proposed Sewage Treatment Plant (STP) of (950 KLD for Industrial Plotted) & (STP-1- 890 KLD & STP-2- 1810 KLD for Residential Plotted & Residential Plotted, Community Building-1, Community Building-2 & Commercial Building) capacity which cater the requirement of residential colony. The required STP capacity for (950 KLD for Industrial Plotted) & (STP-1- 890 KLD & STP-2- 1810 KLD for Residential Plotted) (Total Waste Water Generation shall be STP for Industrial Plotted 896 KLD & for Residential Plotted STP-1- 844 KLD & STP-2- 1720 KLD). The calculation of the same is attached. The Sewerage System has been marked on respective plans.

The 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 & 80% of flushing water supply shall find its way into the proposed sewer. Sewer lines shall be laid to a gradient maintaining minimum 0.75 m/sec self-cleaning velocity. Necessary provision for laying Solid Wall pipe sewer line, construction of required number of manholes etc., have been made in the estimate. Design statement for entire sewerage system has been prepared and attached with the estimate.



STORM WATER DRAINAGE

Rainwater precipitation of the proposed development will be collected through a series of catch basin /channels and piping and will be connected to the proposed Rainwater Harvesting System. Surplus water will be disposed off to the GMDA Storm Drain. Intensity of rainfall has been taken as ¼" (6.25 mm)per hour.

SPECIFICATIONS

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

Roads:

Cost of road has been taken in the estimate.

Street Lighting:

Provision for external lighting has been made.

Horticulture:

Estimates and details of plantation, landscaping, signage, etc., has been included.

Rates:

The estimate has been based on the present market rates.

Cost:

Total cost of the internal development scheme, including cost of all services, works out to be Rs. 13910.88 lacs (Rs.102.50 lacs per acre) including 3% contingencies @ 49% departmental charges.

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WATER REQUIREMENT / CONSUMPTION

S.No.	Description	Population	Total Water Requirement	Domestic Water Requirement	Flushing Water Requirement
	Daily Water Requirement	Person.	LPD	LPD	LPD
[A]	RESIDENTIAL PLOTS, COMMUNITY BUILDING-1, COMMUNITY BUILDING-2 & COMMERCIAL BUILDING				
1.1	Total Residential Population @ 172.5 LPD (Domestic 115.0 LPD & Flushing 57.5 LPD)	16524	2850390.0	1900260.0	950130.0
1.2	Visitors Population @ 15 LPD (Domestic 5 LPD & Flushing 10 LPD)	1653	24795.0	8265.0	16530.0
1.3	Operation & Maintenance Population @ 45 LPD (Domestic 25 LPD & Flushing 20 LPD)	400	18000.0	10000.0	8000.0
	TOTAL DAILY WATER REQUIREMENT FOR RESIDENTIAL TOWER		2893185.0	1918525.0	974660.0
	SAY (KLD)		2894.0	1919.0	975.0
[B]	COMMUNITY BUILDING - 1:				
1.0	Fixed / Staff Population @ 45 LPD (Domestic 25 LPD & Flushing 20 LPD)	668	30060.0	16700.0	13360.0
1.1	Visitors Population @ 15 LPD (Domestic 5 LPD & Flushing 10 LPD)	6012	90180.0	30060.0	60120.0
	TOTAL WATER REQUIREMENT FOR CLUB AREA		120240.00	46760.00	73480.00
	SAY (KLD)		121.0	47.0	74.0
[C]	COMMUNITY BUILDING - 2:				
1.0	Fixed / Staff Population @ 45 LPD (Domestic 25 LPD & Flushing 20 LPD)	736	33120.0	18400.0	14720.0
1.1	Visitors Population @ 15 LPD (Domestic 5 LPD & Flushing 10 LPD)	6615	99225.0	33075.0	66150.0
	TOTAL WATER REQUIREMENT FOR CLUB AREA		132345.00	51475.00	80870.00
	SAY (KLD)		133.0	52.0	81.0
[D]	COMMERCIAL BUILDING :				
1.0	Fixed / Staff Population @ 45 LPD (Domestic 25 LPD & Flushing 20 LPD)	180	8100.0	4500.0	3600.0
1.1	Visitors Population @ 15 LPD (Domestic 5 LPD & Flushing 10 LPD)	1618	24270.0	8090.0	16180.0
	TOTAL WATER REQUIREMENT FOR CLUB AREA (Community -02)		32370.00	12590.00	19780.00
	SAY (KLD)		33.0	13.0	20.0
	GRAND TOTAL WATER DEMAND (KLD)		3181.0	2032.0	1152.0
[E]	INDUSTRIAL PLOT				
1.0	Fixed / Staff Population @ 45 LPD (Domestic 25 LPD & Flushing 20 LPD)	23941	1077345.0	598525.0	478820.0
1.1	Visitors Population @ 15 LPD (Domestic 5 LPD & Flushing 10 LPD)	2395	35925.0	11975.0	23950.0
	TOTAL WATER REQUIREMENT FOR INDUSTRIAL PLOT		1113270.00	610500.00	502770.00
	SAY (KLD)		1115.0	611.0	504.0



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PUMPING MACHINERY REQUIREMENT				
1.0	HSVP/GMDA Main Water supply calculation for Industrial Plotted Area			
a)	Required fresh water per day		628.00	m3/day
b)	Supply Duration		8	Hrs.
c)	Line flow rate		1310.00	LPM
d)	Proposed line dia		150	mm
e)	Flow velocity		1.24	m/sec
f)	Length of line		550	Mtr.
g)	Friction head loss (By Hazzan & William Formula)		10.46	Mtr.
2.0	HSVP/GMDA Main Water supply calculation for Residential Plotted Area			
a)	Required fresh water per day		2087.00	m3/day
b)	Supply Duration		8.00	Hrs.
c)	Line flow rate		4350.00	LPM
d)	Proposed line dia		150	mm
e)	Flow velocity		4.10	m/sec
f)	Length of line		450	Mtr.
g)	Friction head loss (By Hazzan & William Formula)		33.79	Mtr.
3.0	PUMPING MACHINERY REQUIREMENT FOR RESIDENTIAL PLOTS			
3.1	Underground and overhead Tank			
a)	Proposed underground tank for domestic use (1.0 day storage)		2087.00	m3
3.2	Fire Water Tank Capacity (Residential Population 18.58 Thousand + Industrial Population 26.33 Thousand)			
			$(100 \times \sqrt{P})/3$	m3
3.3	Total Fire water demand (315 KL) Say = 350 KL			
			350	m3
b)	Total Domestic and Fire Underground water requirement		2450.00	m3
3.3	Total Flushing water demand			
c)	Proposed underground tank for flushing use (one day storage)		1160.00	m3



4.0	PUMPING MACHINERY REQUIREMENT FOR INDUSTRIAL AREA			
4.1	Underground and overhead Tank			
a)	Proposed underground tank for domestic use (1.0 day storage)		628.00	m3/day
			630.00	m3
4.2	Total Domestic Underground water requirement		630.00	m3
4.3	Total Flushing water demand			
b)	Proposed underground tank for flushing use (one day storage)		505.00	m3/day
			510.00	m3
5.0	Pumps For Domestic water Supply for RESIDENTIAL PLOTS, COMMUNITY BUILDING-1, COMMUNITY BUILDING-2 & COMMERCIAL BUILDING			
a)	Domestic water requirement per day (excluding filter back wash)		2045.00	m3/day
b)	Pumping Duration per day		8	hrs.
c)	Depth of Pump Room		6	Mtr.
d)	Clear head required (Ground to Tank Inlet Level)		15	Mtr.
e)	Residual Pressure		5	Mtr.
f)	Friction head loss		33.79	Mtr.
g)	Total head		59.79	Mtr.
		Say	60.00	Mtr.
	Discharge of pump		4260.42	LPM
		No. of Working Pumps	2.00	Nos.
		Say	2200.00	LPM
	Power Required (Flow x Head) / 4500 x 0.65		45.13	HP
	Say		50.00	HP
	It is proposed to provide domestic water transfer pumps (2W+1S) of capacity 2200.0 LPM Each Pump at 60 mtr. Head of 50.0 HP.			
6.0	Pumps For Domestic water Supply for INDUSTRIAL PLOT			
a)	Domestic water requirement per day (excluding filter back wash)		615	m3/day
b)	Pumping Duration per day		8	hrs.
c)	Depth of Pump Room		6	Mtr.
d)	Clear head required (Ground to Tank Inlet Level)		15	Mtr.
e)	Residual Pressure		5	Mtr.
f)	Friction head loss		44.31	Mtr.
g)	Total head		70.31	Mtr.
		Say	80.00	Mtr.
	Discharge of pump		1281.25	LPM
		No. of Working Pumps	2.00	Nos.
		Say	700.00	LPM
	Power Required (Flow x Head) / 4500 x 0.65		19.15	HP
	Say		20.00	HP
	It is proposed to provide domestic water transfer pumps (2W+1S) of capacity 700.0 LPM Each Pump at 80 mtr. Head of 20.0 HP.			



7.0	Pumps For Flushing water Supply for RESIDENTIAL PLOTS (STP-1)			
a)	Flushing water requirement per day		355.00	m3/day
b)	Pumping Duration per day		8	hrs.
c)	Depth of Pump Room		6	Mtr.
d)	Clear head required		15	Mtr.
e)	Residual Pressure		5	Mtr.
f)	Friction head loss		5	Mtr.
g)	Total head		31.00	Mtr.
		Say	40.00	Mtr.
	Discharge of pump		739.58	LPM
		No. of Working Pumps	1.00	No.
		Say	740.00	LPM
	Power Required (Flow x Head) / 4500 x 0.65		10.1	HP
	Say		15.00	HP
	It is proposed to provide Flushing water transfer pumps (1W+1S) of capacity 740 LPM Each pump at 40 mtr. Head of 15 HP.			
8.0	Pumps For Flushing water Supply for RESIDENTIAL PLOTS, COMMUNITY BUILDING-1, COMMUNITY BUILDING-2 & COMMERCIAL BUILDING (STP-2)			
a)	Flushing water requirement per day		805.00	m3/day
b)	Pumping Duration per day		8	hrs.
c)	Depth of Pump Room		6	Mtr.
d)	Clear head required		15	Mtr.
e)	Residual Pressure		5	Mtr.
f)	Friction head loss		10	Mtr.
g)	Total head		36.00	Mtr.
		Say	40.00	Mtr.
	Discharge of pump		1677.08	LPM
		No. of Working Pumps	1.00	No.
		Say	1680.00	LPM
	Power Required (Flow x Head) / 4500 x 0.65		23.0	HP
	Say		25.00	HP
	It is proposed to provide Flushing water transfer pumps (1W+1S) of capacity 1680 LPM Each pump at 40 mtr. Head of 25 HP.			
9.0	Pumps For Flushing water Supply for INDUSTRIAL PLOT (STP-3)			
a)	Flushing water requirement per day		505.00	m3/day
b)	Pumping Duration per day		8	hrs.
c)	Depth of Pump Room		6	Mtr.
d)	Clear head required		15	Mtr.
e)	Residual Pressure		5	Mtr.
f)	Friction head loss		22.13	Mtr.
g)	Total head		48.13	Mtr.
		Say	50.00	Mtr.
	Discharge of pump		1052.08	LPM
		No. of Working Pumps	1.00	No.
		Say	1050.00	LPM
	Power Required (Flow x Head) / 4500 x 0.65		17.9	HP
	Say		20.00	HP
	It is proposed to provide Flushing water transfer pumps (1W+1S) of capacity 1050 LPM Each pump at 50 mtr. Head of 20 HP.			



10.0	Pumps For Irrigation water Supply for RESIDENTIAL PLOTS & INDUSTRIAL PLOT				
1	Irrigation water requirement per day			86.00	m ³ /day
2	Pumping Duration per day			4	hrs.
3	Proposed Pumping Head			50.00	Mtr.
4				358.33	LPM
5	Discharge of pump	No. of Working Pumps		1.00	No.
6		Say		360.00	LPM
7	Power Required (Flow x Head) / 4500 x 0.65			6.2	HP
	Say			10.00	HP
	It is proposed to provide Irrigation water transfer pumps (1W+1S) of capacity 360 LPM Each pump at 50 mtr. Head of 10 HP.				
11.0	Capacity of Generator Set for RESIDENTIAL PLOTS & INDUSTRIAL PLOT	Nos.	HP		
1	Domestic Water Transfer Pump for Residential Plots	2	50.0	100	HP
2	Domestic Water Transfer Pump For Industrial Plots	2	20.0	40	HP
3	Flushing Water Transfer Pump (STP-1)	1	15.0	15	HP
4	Flushing Water Transfer Pump (STP-2)	1	25.0	25	HP
5	Flushing Water Transfer Pump (STP-3)	1	20.0	20	HP
6	Irrigation Water Transfer Pump	1	10.0	10	HP
7	Lighting (LS)			5	HP
				215	HP
	or	215	x 0.746 x 0.8	200.49	KVA
			Say	220.00	KVA
	Requirement of 220 KVA capacity will be added in to the main D.G. set to provide standby supply.				



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Estimate for Providing in Internal Development works-Group Housing Colony including 49% department charge					
				Amount (Lacs.)	
Sub Work - I Water Supply (Domestic + Recycled Water(Flushing & Irrigation) + Fire Fighting)				1547.50	
Sub Work - II Sewerage System				1535.38	
Sub Work - III Storm Water Drainage				1132.70	
Sub Work - IV Roads & Footpath				3861.00	
Sub Work - V Street Lighting				521.00	
Sub Work - VI Horticulture				87.17	
Sub Work - VII - Maintenance of Services for 10 years including resurfacing of roads after 1st 5 years & II phase i.e. 10 years of maintenance (as per HUDA norms)				5226.13	
Total				13910.88	
Cost per acre = Rs.13910.88/ 135.725 = 102.49 Lacs					
Say = 102.50 Lacs per acre					
Authorized Signatory					



FINAL ABSTRACT OF COST OF SUBHEAD 1 - WATER SUPPLY			
Description	Amount (Lacs.)		
Sub Head - (I A) Pumping Machinery	422.15		
Sub Head - (I B) Domestic Water Distribution System	280.43		
Sub Head - (I C) Recycled Water Distribution System (Flushing Supply)	284.23		
Sub Head - (I D) Recycled Water Distribution System (Irrigation Supply)	21.51		
Total	1008.32		
Add 3% Contingencies	30.25		
Total	1038.57		
Add 49% Departmental Charges	508.90		
Grand Total	1547.47		
(CO to final abstract of cost)	Say	1547.50	



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Sub Work I				Water Supply (Domestic + Recycled Water + Fire Fighting)		
Sub Head No. (I A)				Pumping Machinery		
S. No.	Description	Unit	Qty	Rate (Rs.)	Amount (Rs. in Lacs)	
[A] FOR RESIDENTIAL PLOTS & INDUSTRIAL PLOTS						
1	Providing & installing electricity driven pumping set capable of delivering 2200 LPM of water against a total head of 60 m complete with motor and other accessories (For Domestic - 50.0 HP). For Residential Plots.	Nos.	3	850000	25.50	
2	Providing & installing electricity driven pumping set capable of delivering 700 LPM of water against a total head of 80 m complete with motor and other accessories (For Domestic - 20.0 HP). For Industrial Plots.	Nos.	3	550000	16.50	
3	Providing & installing electricity driven pumping set capable of delivering 740 LPM of water against a total head of 40 m complete with motor and other accessories (For Flushing - 15.0 HP). For Residential Plots (STP-1).	Nos.	2	450000	9.00	
4	Providing & installing electricity driven pumping set capable of delivering 1680 LPM of water against a total head of 40 m complete with motor and other accessories (For Flushing - 25.0 HP). For Residential Plots (STP-2).	Nos.	2	650000	13.00	
5	Providing & installing electricity driven pumping set capable of delivering 1050 LPM of water against a total head of 50 m complete with motor and other accessories (For Flushing - 20.0 HP). For Industrial Plots (STP-3).	Nos.	2	675000	13.50	
6	Provision for diesel engine generator set each for standby Arrangements for booster pump complete with gear haed arrangements of following capacities. 1 No. - 220 KVA @12000/KVA	No.	1	2640000	26.40	
7	Provision for making foundations & erection of pumping machinery.	LS	-	-	1.50	
8	Provision for pipes, valves & specials inside the pump chamber.	LS	-	-	1.50	
9	Provision for carriage for materials and other unforeseen items.	LS	-	-	1.50	
10	Construction of UG Tank For Residential Plots	KL	3610.00	6500	234.65	
11	Construction of UG Tank For Industrial Plots	KL	1140.00	6500	74.10	
12	Provision of Chlorination Plant complete	No.	2	100000	2.00	
13	Provision for electrical service connection including electrical fittings & boosting chamber (LS) including cost of Transformer	LS		150000	3.00	
(C.O. to abstract of cost of Sub-work No.I)					422.15	Lacs



	Sub Work I				Water Supply (Domestic + Recycled Water + Fire Fighting)	
	Sub Head No. (I B)				Domestic Water Distribution System	
S.No.	Description	Unit	Qty	Rate (Rs.)	Amount (Rs.)	
1	Providing, laying, jointing and testing DI pipe lines for domestic water supply including cost of excavation complete in all respects as per specification. (Domestic Water Supply)					
i)	100 mm dia	M	8825	2600	229.45	
ii)	150 mm dia	M	960	3200	30.72	
iii)	200 mm dia	M	300	3800	11.40	
2	Providing, fixing & Testing Sluice valves including cost of complete in all respects.					
i)	100 mm i/d	Nos.	31	12000	3.72	
ii)	150 mm i/d	Nos.	8	18000	1.44	
iii)	200 mm i/d	Nos.	4	30000	1.20	
3	Provision for carriage of material and other unforeseen items (LS)	LS			0.50	
4	Providing for road cutting & making good to its in original conditions.	LS			0.50	
5	Provision for connection to GMDA Master Water Supply line on 24m wide road including all fitting & accessories.	LS	1	150000	1.50	
	(C.O. to abstract of cost of Sub-work No.I)				286.43	
				Say	286.43	Lacs
	For Domestic Water Supply material refer Annexure-I					



	Sub -Work No. 1		Water Supply (Domestic + Recycled Water + Fire Fighting)			
	Sub Head No. (I C)		Recycled Water Distribution(Flushing)			
S.No.	Description	Unit	Qty	Rate (Rs.)	Amount (Rs.)	
1	Providing, laying, jointing and testing DI pipe lines for flushing including cost of excavation complete in all respects as per specification (for Flushing water supply).					
i)	100 mm dia	M	10415	2600	270.79	
ii)	150 mm dia	M	250	3200	8.00	
2	Cost Sluice Valve, for Flushing water supply					
i)	100 mm i/d	Nos.	31	12000	3.72	
ii)	150 mm i/d	Nos.	4	18000	0.72	
3	Provision for carriage of material and other unforeseen items .	LS			0.50	
4	Providing for road cutting & making good to its in original conditions.	LS			0.50	
	(C.O. to abstract of cost of Sub-work No.I)				284.23	
				Say	284.23	Lacs
	For Flushing water Supply material refer Annexure-I					



Sub Work II					Sewerage Scheme
S.No.	Description	Unit	Qty	Rate (Rs.)	Amount (Rs.)
1	Providing, lowering, jointing, cutting uPVC Pipe (Solid wall Pipe SN8 as per IS 15328) pipe and specials into trenches including cost of excavation, bed concrete, cost of manholes complete.				
i)	200 mm dia	M	8250	2300	189.75
ii)	250 mm dia	M	2350	2500	58.75
iii)	300 mm dia	M	750	2800	21.00
iv)	350 mm dia	M	20	3200	0.64
2	Provision for lighting, watching and temporary diversion of traffic	LS	1	-	1.50
3	Provision for cutting of roads and carriage of materials etc. and other unforeseen charges	LS	1	-	2.50
4	Provision for vent shafts	LS	3	200000	6.00
5	Provision for centering & shuttering, shoring & barricading.	LS	1		1.50
6	Provision for watch & ward & lighting etc.	LS	1		0.80
7	Provision for temporary disposal arrangements	LS	1		5.00
8	Cost of 950 KLD Sewerage Treatment Plant (MBBR + UF SYSTEM) FOR INDUSTRIAL PLOTS BOD : < 10 mg/l COD : < 50 mg/l TSS : < 10 mg/l.	KLD	950 KLD	18000	171.00
1	Cost of 890 KLD Sewerage Treatment Plant (MBBR + UF SYSTEM) FOR RESIDENTIAL PLOTS (STP-1) BOD : < 10 mg/l COD : < 50 mg/l TSS : < 10 mg/l.	KLD	890 KLD	18000	160.20
9	Cost of 1810 KLD Sewerage Treatment Plant (MBBR + UF SYSTEM) FOR RESIDENTIAL PLOTS, COMMUNITY BUILDING-1, COMMUNITY BUILDING-2 & COMMERCIAL BUILDING (STP-2) BOD : < 10 mg/l COD : < 50 mg/l TSS : < 10 mg/l.	KLD	1810 KLD	18000	325.80
10	Provision for connection to External sewage line for STP-1. (100 mm dia HDPE pipe). (For Residential Plots)	M	750	2500	18.75
11	Provision for connection to External sewage line for STP-2 & STP for Industrial Plots. (150 mm dia HDPE pipe). (For Residential Plots, Community Building-1, Community Building-2 & Commercial Building & Industrial Plots)	M	1250	2500	31.25
12	Provision for connection to GMDA External Master Sewerage line on 24m wide road.	LS	2	300000	6.00
Total					1000.44
Add 3% contingencies & P.E. changes					30.01
					1030.45
Add 49% Depl. Charges, Price escalation Unforeseen, Admin.					504.92
Total					1535.38
(C.O. to abstract of cost of Sub-work No. 1)				Say	1535.38 Lacs
For Sewage material refer Annexure-V					



Sub Work - III					Storm Water Drain	
S.No.	Description	Unit	Qty	Rate (Rs.)	Amount (Rs.)	
1	Providing, lowering, jointing, cutting DWC SN8 Pipes (as per IS : 16098) and specials into trenches including cost of excavation cost of manholes, ventilating chambers etc. complete in all respects.					
i)	150 mm i/d	M	3050	2000	61.00	
ii)	400 mm i/d	M	5960	3600	208.60	
iii)	500 mm i/d	M	1135	4000	45.40	
iv)	600 mm i/d	M	650	4500	29.25	
v)	700 mm i/d	M	750	5000	37.50	
vi)	800 mm i/d	M	450	6000	27.00	
vii)	900 mm i/d	M	550	6500	35.75	
viii)	1000 mm i/d	M	180	7000	12.60	
ix)	1100 mm i/d	M	50	7500	3.75	
x)	1200 mm i/d	M	650	8000	52.00	
xi)	1300 mm i/d	M	120	8500	10.20	
xii)	1400 mm i/d	M	270	9000	24.30	
2	Provision for Road Gully with pipe connection complete (LS).	LS	1	-	7.50	
3	Provision for cutting of roads and carriage of materials etc. and other unforeseen items.	LS	1	-	2.00	
4	Provision for Rain harvesting arrangements Recharge Pit including Injection Bore, perforated pipe.	Nos	39	450000	175.50	
5	Provision for lighting, watching and temporary diversion of traffic.	LS	1	-	0.20	
6	Following items to be added :					
a)	Provision of timbering & shoring (LS)				1.00	
b)	Provision for Lighting, watching and other unforeseen items (LS)				1.00	
c)	Provision for Temporary disposal arrangement (LS)				0.50	
7	Provision for connection to GMDA External Master Storm line on 24m wide road.	No.	2	150000.00	3.00	
Total					738.05	
Add 3% contingencies and P.E. charges					22.14	
					760.19	
Add 49% Deptt. Charges, Price escalation					372.49	
					1132.69	
(C.O. to abstract of cost of Sub-work No.1)					SAY	1132.70 Lacs
For Storm Water Drainage material refer Annexure-IV						



Sub Work - IV				Road Work	
S.No.	Width in Meter	Length in Meter		Area in Sq.m.	
i)	9	6311.00		56799.000	
ii)	18	3400.00		61200.000	
iii)	24	1060.00		25440.000	
Total		10771.00		143439.000	
Add 10% for curves		1077.10		14343.90	
TOTAL AREA		11848.10		157782.90	
TOTAL		11848.10		157782.90	
SAY		11850.00		157790.00	
S.No.	Description	Unit	Qty	Rate (Rs.)	Amount (Rs.)
1	Provision for levelling & earth filling as per site conditions 135.725 acres @ Rs. 1,70,000/-	Acres	135.725	170000.00	230.73
2	Providing Laying 250 mm G.S.B. 250 mm W.M.M. 50 mm D.B.M. 30 mm B.C.	sq.m.	157790.00	1300.00	2051.27
3	Provision for kerbs & channels of CC 1:2:4, 22960 (11480 x 2) @ Rs.750/m	m	23700.00	750.00	177.75
4	Provision for making approach and pavement to building including leveling & surveying	LS			55.00
5	Provision for cartage of material				1.00
TOTAL					2515.75
Add 3% contingency & P.E. charges					75.47
					2591.23
Add 49% deplt. Charges					1269.70
					3860.93
(Total C/F to Summary of Sub Work IV)					
Say					3861.00 Lacs
For Road Works material refer Annexure-VI					
Sub Work V				Street Lighting	
S.No.	Description	Unit	Qty	Rate (Rs.)	Amount (Rs.)
1	Providing street lighting on roads as per standard specifications of HVPN approx. 135.725 acres @ 2,50,000 per acres	per acre	135.725	250000.00	339.31
Add 3% contingencies					10.18
Total					349.49
Add 48% Deplt. Charges					171.25
			Total		521.00
			SAY		521.00 Lacs



	Sub Work VI				Horticulture	
S.No.	Description	Unit	Qty	Rate (Rs.)	Amount (Rs.)	
1	Development of lawn area					
	a) Trenching the ordinary soil upto depth of 60 cm. Including removal & packing of serviceable material & disposing at a lead of 50 M and making up the trenched area to proper level by filling with earth mixed with manure before & after flooding trench with water including cost of imported earth & manure.					
	b) Rough dressing of trenched area.					
	c) Grassing including watering & maintenance of lawns free from weeds & fit for mowing in rows including hedges, shrubs & green belts.					
	5.5107 acres @ Rs. 1.5 lacs/acre.	per acre	4,500	165000.00	7.43	
	Provision of trees along road at 12 M intervals. (23700m / 12 = 1975 Nos.) @ Rs. 2500/- each		1975	2500.00	49.38	
				Total	56.80	
	Add 3% contingency charges				1.70	
				Total	58.50	
	Add 49% Deplt. Charges				28.67	
				Total	87.17	
				SAY	87.17	Lacs
	Sub Work VII			Maintenance Charges & Resurfacing of Roads		
S.No.	Description	Unit	Qty	Rate (Rs.)	Amount (Rs.)	
1	Provision for maintenance charges for water supply, sewerage, storm water drainage, roads, street light, horticulture etc. complete including operation & establishments charges as per HUDA norms after completion & resurfacing of roads after 10 years or 1st phase.					
i)	135.725 acres @ 8.0 lacs per acre	per acre	135.725	800000.00	1085.8	
2	Provision for resurfacing & strengthening of road after five years of 1st phase	Sq. mtr.	157790.00	650.00	1025.64	
3	Provision for resurfacing & strengthening of road after ten years of 2nd phase	Sq. mtr.	157790.00	820.00	1293.88	
				Total	3405.31	
	Add 3% contingency & PE charges				102.159	
				Total	3507.47	
	Add 49% Departmental charges				1718.66	
				Total	5226.13	
			Say		5226.13	Lacs



PROJECT : PROPOSED LAYOUT PLAN FOR ADDITIONAL AREA MEASURING 6.06875 ACRES ADJOINING ALREADY LICENSED AREA OF 129.65625 ACRES VIDE LIC NO. LICENSE NO. 104 OF 2024 DATED-01.08.2024, TOTAL AREA OF 135.7250 ACRES IN VILLAGE SHIDRAWALI TEHSIL MANESAR, DISTRICT GURUGRAM, BEING DEVELOPED BY SIGNATUREGLOBAL (INDIA) LTD.

ANNEXURE - I

MATERIAL STATEMENT FOR WATER SUPPLY SYSTEM

S.No.	Description	40 mm dia Pipe (M)	50 mm dia Pipe (M)	65 mm dia Pipe (M)	80 mm dia Pipe (M)	100 mm dia Pipe (M)	150 mm dia Pipe (M)	200 mm dia Pipe (M)	VALVE CHAMBER (100 dia)	VALVE CHAMBER (150 dia)	VALVE CHAMBER (200 dia)
[A]	HSVP / GMDA Domestic Water Supply Line to W (Water Meter) FOR UGT-1 RESIDENTIAL BUILDING						210			1 Nos.	
[B]	Domestic Water Supply Line from Tanker to W (Water Meter) FOR UGT-1 RESIDENTIAL BUILDING						0			1 Nos.	
[C]	HSVP / GMDA Domestic Water Supply Line to W (Water Meter) FOR UGT-1 INDUSTRIAL BUILDING						280			1 Nos.	
[D]	HSVP / GMDA Domestic Water Supply Line from Tanker to W (Water Meter) FOR UGT-1 INDUSTRIAL BUILDING						0			1 Nos.	
	Total Length	0 Mtr	0 Mtr	0 Mtr	0 Mtr	0 Mtr	490 Mtr	0 Nos.	0 Nos.	4 Nos.	0 Nos.
[E]	DOMESTIC WATER SUPPLY PIPE :										
	FOR INDUSTRIAL PLOTS										
1	W2 (WTP Pump Room) to W3						140			1	
2	W3 to W4					260			2		
3	W4 to W5					250			3		
4	W5 to W6					1060			5		
5	W5 TO W7					840			3		
6	W3 TO W8					500			7		
7	W8 TO W9					320			2		
	FOR RESIDENTIAL PLOTS										
9	WS1 TO WS2							150			2
10	WS2 TO WS3					360	170		4	2	
11	WS3 TO WS4					330			4		
12	WS3 TO WS5					715			4		
13	WS3 TO WS6					210			3		
14	WS6 TO WS7					350			1		
15	WS6 TO WS8					745			1		
16	WS3 TO WS9					300			1		
17	WS9a TO WS9b					325			1		
18	WS1 TO WS10					320		150	1		2
19	WS10 TO WS11					50	100			1	
20	WS11 TO WS12					300			5		
21	WS11 TO WS13					340			5		
22	WS10 TO WS14					660			8		
23	WS14 TO WS15					210			5		
24	WS14 TO WS16					200			1		
		0 Mtr	0 Mtr	0 Mtr	0 Mtr	6525 Mtr	450 Mtr	300 Mtr	30 Nos.	4 Nos.	4 Nos.
[D]	FLUSHING WATER SUPPLY LINE :										
	FOR COMMERCIAL PLOTS										
1	(STP Area) to F1						15			1	
1.1	F1 TO F2					290			2		
1.2	F2 TO F3					475			6		
1.3	F3 TO F4					1060			5		
1.4	F3 TO F5					820			4		
1.5	F1 TO F6					750			6		
1.6	F6 TO F7					200			2		



S.No.	Description	40 mm dia Pipe (M)	50 mm dia Pipe (M)	65 mm dia Pipe (M)	80 mm dia Pipe (M)	100 mm dia Pipe (M)	150 mm dia Pipe (M)	200 mm dia Pipe (M)	VALVE CHAMBER (100 dia)	VALVE CHAMBER (150 dia)	VALVE CHAMBER (200 dia)
2	FOR RESIDENTIAL PLOTS										
2.1	(STP1 Area) to F1						15			1	
2.2	F1 TO F2					330			4		
2.3	F1 TO F3					245			3		
2.4	F3 TO F4					80			1		
2.5	F4 TO F5					280			3		
2.6	F5 TO F5a					315			1		
2.7	F4 TO F6					410			5		
2.8	F4 TO F7					150			1		
2.9	F7 TO F8					485			6		
3											
2.12	(STP2 Area) to F1						15			1	
2.13	F1 TO F2					110				1	
2.14	F2 TO F3					968			5		
2.15	F2 TO F4					1752			10		
2.16	F1 TO F5						200			1	
2.17	F5 TO F6					940			12		
2.18	F5 TO F7					640			7		
	Total Length	0 Mtr	0 Mtr	0 Mtr	0 Mtr	10415 Mtr	250 Mtr	0 Mtr	30 Nos.	5 Nos.	0 Nos.
[E]	STP (Industrial Building) 150 mm dia Overflow Discharge to External GMDAHSVP Sewage line.						810.0				
[F]	STP (Residential Plots) 100 mm dia Overflow Discharge to External GMDAHSVP Sewage line.					700					
[G]	STP (Residential Plots, Community-1, Community-2 & Commercial) 150 mm dia Overflow Discharge to External GMDAHSVP Sewage line.						400				
	Total Length	0 Mtr	0 Mtr	0 Mtr	0 Mtr	750 Mtr	1250 Mtr	0 Mtr	0 Nos.	0 Nos.	0 Nos.



PROJECT : PROPOSED LAYOUT PLAN FOR ADDITIONAL AREA MEASURING 6.06875 ACRES ADJOINING ALREADY LICENSED AREA OF 129.65625 ACRES VIDE LIC NO. LICENSE NO. 104 OF 2024 DATED-01.08.2024 , TOTAL AREA OF 135.7250 ACRES IN VILLAGE SHIDRAWALI, TEHSIL MANESAR, DISTRICT GURUGRAM. BEING DEVELOPED BY SIGNATUREGLOBAL (INDIA) LTD.

ANNEXURE - IV

STORM WATER DRAINAGE MATERIAL STATEMENT - EXTERNAL

S. No.	Drainage Line	150 Dia Pipe Length (M)	400 Dia Pipe Length (M)	500 Dia Pipe Length (M)	600 Dia Pipe Length (M)	700 Dia Pipe Length (M)	900 Dia Pipe Length (M)	1000 Dia Pipe Length (M)	1100 Dia Pipe Length (M)	1200 Dia Pipe Length (M)	1300 Dia Pipe Length (M)	1400 Dia Pipe Length (M)
FOR COMMERCIAL PLOTS												
1	M.H. 1		18									
2	M.H. 2		18									
3	M.H. 3		18									
4	M.H. 4		18									
5	M.H. 5		18									
6	M.H. 6		18									
7	M.H. 7		18									
8	M.H. 8		18	18								
9	M.H. 9			18								
10	M.H. 10				26							
11	M.H. 11				22							
12	M.H. 12				37							
13	M.H. 13				33							
14	M.H. 14				33							
15	M.H. 15				30							
16	M.H. 16				30							
17	M.H. 17					30						
18	M.H. 18					30						
19	M.H. 19					26						
20	M.H. 20					25						
21	M.H. 21					23						
22	M.H. 22					23						
23	M.H. 23					23						
24	M.H. 24					25						
25	M.H. 25							40				
26	M.H. 26							34				
27	M.H. 27							40				
28	M.H. 28							34				
29	M.H. 29							21				
30	M.H. 30									30		
31	M.H. 31									10		
	M.H. 31A											



S.No.	Drainage Line		150 Dia Pipe Length (M)	400 Dia Pipe Length (M)	500 Dia Pipe Length (M)	600 Dia Pipe Length (M)	700 Dia Pipe Length (M)	800 Dia Pipe Length (M)	900 Dia Pipe Length (M)	1000 Dia Pipe Length (M)	1100 Dia Pipe Length (M)	1200 Dia Pipe Length (M)	1300 Dia Pipe Length (M)	1400 Dia Pipe Length (M)
32	M.H. 31A	M.H. 32										15		
33	M.H. 32	M.H. 33										28		
34	M.H. 33	M.H. 34										24		
35	M.H. 34	M.H. 35										24		
36	M.H. 35	M.H. 36										22		
37	M.H. 36	M.H. 37										26		
38	M.H. 37	M.H. 38										26		
39	M.H. 38	M.H. 39										26		
40	M.H. 39	M.H. 40										26		
41	M.H. 40	M.H. 41										26		
42	M.H. 41	M.H. 42										37		
43	M.H. 42	M.H. 43										37		
44	M.H. 43	M.H. 44										30		
45	M.H. 44	M.H. 45										30		
46	M.H. 45	M.H. 46										30		
47	M.H. 46	M.H. 47										30		
48	M.H. 47	M.H. 48										30		
49	M.H. 48	M.H. 49										30		
50	M.H. 49	M.H. 50										15		
51	M.H. 50	M.H. 51										22		
52	M.H. 51	M.H. 52										27		
53	M.H. 52	M.H. 53											26	
54	M.H. 53	M.H. 54											26	
55	M.H. 54	M.H. 55											36	
56	M.H. 55	M.H. 56											24	
57	M.H. 56	M.H. 57												21
58	M.H. 57	M.H. 58												21
59	M.H. 58	M.H. 59												16
60	M.H. 59	M.H. 60												40
61	M.H. 60	M.H. 61												40
62	M.H. 61	M.H. 62												15
63	M.H. 62	M.H. 63												25
64	M.H. 63	M.H. 64												31
65	M.H. 64	M.H. 65												30
66	M.H. 65	TO RWH												10
67	TO RWH	EXTENSION DRAIN												10
68	M.H. 66	M.H. 67		18										
69	M.H. 67	M.H. 68		18										
70	M.H. 68	M.H. 69		18										
71	M.H. 69	M.H. 70		18										



S.No.	Drainage Line		150 Dia Pipe Length (M)	400 Dia Pipe Length (M)	500 Dia Pipe Length (M)	600 Dia Pipe Length (M)	700 Dia Pipe Length (M)	800 Dia Pipe Length (M)	900 Dia Pipe Length (M)	1000 Dia Pipe Length (M)	1100 Dia Pipe Length (M)	1200 Dia Pipe Length (M)	1300 Dia Pipe Length (M)	1400 Dia Pipe Length (M)
72	M.H. 70	M.H. 71		18										
73	M.H. 71	M.H. 72		18										
74	M.H. 72	M.H. 73		18										
75	M.H. 73	M.H. 74		18										
76	M.H. 74	M.H. 12		18										
77	M.H. 75	M.H. 76		18										
78	M.H. 76	M.H. 77		18										
79	M.H. 77	M.H. 78		27										
80	M.H. 78	M.H. 79		22										
81	M.H. 79	M.H. 80		18										
82	M.H. 80	M.H. 81		16										
83	M.H. 81	M.H. 82		31										
84	M.H. 82	M.H. 13		20										
85	M.H. 83	M.H. 84		33										
86	M.H. 84	M.H. 85		33										
87	M.H. 85	M.H. 86		33										
88	M.H. 83	M.H. 87		33										
89	M.H. 87	M.H. 16		16										
90	M.H. 88	M.H. 89		19										
91	M.H. 89	M.H. 90		19										
92	M.H. 90	M.H. 91		20										
93	M.H. 91	M.H. 92		12										
94	M.H. 92	M.H. 93		34										
95	M.H. 93	M.H. 94		34										
96	M.H. 94	M.H. 95		34										
97	M.H. 95	M.H. 96			15									
98	M.H. 96	M.H. 97			27									
99	M.H. 97	M.H. 98			30									
100	M.H. 98	M.H. 99				26								
101	M.H. 99	M.H. 100				24								
102	M.H. 100	M.H. 101					27							
103	M.H. 101	M.H. 102					33							
104	M.H. 102	M.H. 103					19							
105	M.H. 103	M.H. 104						37						
106	M.H. 104	M.H. 105						37						
107	M.H. 105	M.H. 106						42						
108	M.H. 106	M.H. 107						42						
109	M.H. 107	M.H. 25						20						



S.No.	Drainage Line		150 Dia Pipe Length (M)	400 Dia Pipe Length (M)	500 Dia Pipe Length (M)	600 Dia Pipe Length (M)	700 Dia Pipe Length (M)	800 Dia Pipe Length (M)	900 Dia Pipe Length (M)	1000 Dia Pipe Length (M)	1100 Dia Pipe Length (M)	1200 Dia Pipe Length (M)	1300 Dia Pipe Length (M)	1400 Dia Pipe Length (M)
110	M.H. 108	M.H. 109		25										
111	M.H. 109	M.H. 110		30										
112	M.H. 110	M.H. 111		30										
113	M.H. 111	M.H. 112		30										
114	M.H. 112	M.H. 113		30										
115	M.H. 113	M.H. 114		30										
116	M.H. 114	M.H. 115		30										
117	M.H. 115	M.H. 116		30										
118	M.H. 116	M.H. 117		30										
119	M.H. 117	M.H. 118		15										
120	M.H. 118	M.H. 119			15									
121	M.H. 119	M.H. 120			29									
122	M.H. 120	M.H. 121		38										
123	M.H. 121	M.H. 122		36										
124	M.H. 122	M.H. 28		22										
125	M.H. 123	M.H. 124		22										
126	M.H. 124	M.H. 125		36										
127	M.H. 125	M.H. 126		38										
128	M.H. 126	M.H. 31A		22										
129	M.H. 127	M.H. 128		30										
130	M.H. 128	M.H. 129		25										
131	M.H. 129	M.H. 28		25										
132	M.H. 130	M.H. 131		10										
133	M.H. 131	M.H. 132		20										
134	M.H. 132	M.H. 133		12										
135	M.H. 133	M.H. 134		12										
136	M.H. 134	M.H. 31		25										
137	M.H. 135	M.H. 136		30										
138	M.H. 136	M.H. 137		25										
139	M.H. 137	M.H. 43		25										
140	M.H. 138	M.H. 139		33										
141	M.H. 139	M.H. 140		13										
142	M.H. 140	M.H. 46		20										



S.No.	Drainage Line		150 Dia Pipe Length (M)	400 Dia Pipe Length (M)	500 Dia Pipe Length (M)	600 Dia Pipe Length (M)	700 Dia Pipe Length (M)	800 Dia Pipe Length (M)	900 Dia Pipe Length (M)	1000 Dia Pipe Length (M)	1100 Dia Pipe Length (M)	1200 Dia Pipe Length (M)	1300 Dia Pipe Length (M)	1400 Dia Pipe Length (M)
143	M.H. 141	M.H. 142		33										
144	M.H. 142	M.H. 143		12										
145	M.H. 143	M.H. 49		25										
146	M.H. 144	M.H. 145		25										
147	M.H. 145	M.H. 146		25										
148	M.H. 146	M.H. 147		26										
149	M.H. 147	M.H. 148		20										
150	M.H. 148	M.H. 149		28										
151	M.H. 149	M.H. 150		12										
152	M.H. 150	M.H. 151		40										
153	M.H. 151	M.H. 152			32									
154	M.H. 152	M.H. 153			17									
155	M.H. 153	M.H. 154			33									
156	M.H. 154	M.H. 155			14									
157	M.H. 155	M.H. 55			16									
158	M.H. 156	M.H. 157		19										
159	M.H. 157	M.H. 158		15										
160	M.H. 158	M.H. 159		18										
161	M.H. 159	M.H. 160		18										
162	M.H. 160	M.H. 161		18										
163	M.H. 161	M.H. 56		13										
164	M.H. 162	M.H. 163		18										
165	M.H. 163	M.H. 164		18										
166	M.H. 164	M.H. 165		18										
167	M.H. 165	M.H. 157		7										
168	M.H. 166	M.H. 167		16										
169	M.H. 167	M.H. 168		18										
170	M.H. 168	M.H. 169		18										
171	M.H. 169	M.H. 58		13										
172	CATCH BASIN TO MH		1284											
FOR RESIDENTIAL PLOTS														
1	M.H. 1	M.H. 2		18										
2	M.H. 2	M.H. 3		18										



S.No.	Drainage Line		150 Dia Pipe Length (M)	400 Dia Pipe Length (M)	500 Dia Pipe Length (M)	600 Dia Pipe Length (M)	700 Dia Pipe Length (M)	800 Dia Pipe Length (M)	900 Dia Pipe Length (M)	1000 Dia Pipe Length (M)	1100 Dia Pipe Length (M)	1200 Dia Pipe Length (M)	1300 Dia Pipe Length (M)	1400 Dia Pipe Length (M)
3	M.H. 3	M.H. 4		26										
4	M.H. 4	M.H. 5		17										
5	M.H. 5	M.H. 6		21										
6	M.H. 6	M.H. 7		18										
7	M.H. 7	M.H. 8		18										
8	M.H. 8	M.H. 9		16										
9	M.H. 9	M.H. 10		18										
10	M.H. 10	M.H. 11		13										
11	M.H. 11	M.H. 12		16										
12	M.H. 12	M.H. 13			18									
13	M.H. 13	M.H. 14			18									
14	M.H. 14	M.H. 15			18									
15	M.H. 15	M.H. 16			18									
16	M.H. 16	M.H. 17			18									
17	M.H. 17	M.H. 18			18									
18	M.H. 18	M.H. 19			35									
19	M.H. 19	M.H. 20			44									
20	M.H. 20	M.H. 21					27							
21	M.H. 21	M.H. 22					27							
22	M.H. 22	M.H. 23					18							
23	M.H. 23	M.H. 24					18							
24	M.H. 24	M.H. 25					18							
25	M.H. 25	M.H. 26					18							
26	M.H. 26	M.H. 27					22							
27	M.H. 27	M.H. 28					22							
28	M.H. 28	M.H. 29					24							
29	M.H. 29	M.H. 29a					17							
30	M.H. 29a	M.H. 30					17							
31	M.H. 30	M.H. 31					21							
32	M.H. 31	M.H. 32					22							
33	M.H. 32	M.H. 33					21							
34	M.H. 33	M.H. 34						19						
35	M.H. 34	M.H. 35						16						
36	M.H. 35	M.H. 36						20						
37	M.H. 36	M.H. 37						22						
38	M.H. 37	M.H. 38						24						
39	M.H. 38	M.H. 39						26						
40	M.H. 39	M.H. 40						23						
41	M.H. 40	M.H. 41						26						
42	M.H. 41	M.H. 42						29						
43	M.H. 42	M.H. 42a												



S.No.	Drainage Line		150 Dia Pipe Length (M)	400 Dia Pipe Length (M)	500 Dia Pipe Length (M)	600 Dia Pipe Length (M)	700 Dia Pipe Length (M)	800 Dia Pipe Length (M)	900 Dia Pipe Length (M)	1000 Dia Pipe Length (M)	1100 Dia Pipe Length (M)	1200 Dia Pipe Length (M)	1300 Dia Pipe Length (M)	1400 Dia Pipe Length (M)
76	M.H. 74	M.H. 75			9									
77	M.H. 75	M.H. 76			17									
78	M.H. 76	M.H. 77			17									
79	M.H. 77	M.H. 78			17									
	M.H. 77A	M.H. 78		18										
	M.H. 78	M.H. 79		18										
	M.H. 79	M.H. 80		18										
	M.H. 80	M.H. 81		18										
	M.H. 81	M.H. 82		18										
	M.H. 82	M.H. 74		18										
	M.H. 83	M.H. 84		18										
	M.H. 84	M.H. 85		20										
	M.H. 85	M.H. 76		5										
	M.H. 86	M.H. 87		18										
	M.H. 87	M.H. 88		20										
	M.H. 88	M.H. 19		5										
	M.H. 89	M.H. 90		18										
	M.H. 90	M.H. 91		18										
	M.H. 91	M.H. 20		16										
	M.H. 92	M.H. 93		18										
	M.H. 93	M.H. 94		18										
	M.H. 94	M.H. 95		18										
	M.H. 95	M.H. 96		18										
	M.H. 96	M.H. 97		7										
	M.H. 97	M.H. 98			36									
	M.H. 98	M.H. 99			42									
	M.H. 99	M.H. 100			20									
	M.H. 100	M.H. 101			20									
	M.H. 101	M.H. 102			22									
	M.H. 102	M.H. 25			17									
	M.H. 103	M.H. 104		12										
	M.H. 104	M.H. 105		18										
	M.H. 105	M.H. 106		18										
	M.H. 106	M.H. 107		13										
	M.H. 107	M.H. 98		6										



S.No.	Drainage Line	150 Dia Pipe Length (M)	400 Dia Pipe Length (M)	500 Dia Pipe Length (M)	600 Dia Pipe Length (M)	700 Dia Pipe Length (M)	800 Dia Pipe Length (M)	900 Dia Pipe Length (M)	1000 Dia Pipe Length (M)	1100 Dia Pipe Length (M)	1200 Dia Pipe Length (M)	1300 Dia Pipe Length (M)	1400 Dia Pipe Length (M)
	M.H. 108		13										
	M.H. 109		13										
	M.H. 110		11										
	M.H. 111		5										
	M.H. 112		13										
	M.H. 113		10										
	M.H. 114		13										
	M.H. 115		13										
	M.H. 116		13										
	M.H. 117		14										
	M.H. 118		18										
	M.H. 119		8										
	M.H. 120		18										
	M.H. 121		18										
	M.H. 122		18										
	M.H. 123		18										
	M.H. 124		13										
	M.H. 125		12										
	M.H. 126		16										
	M.H. 127		18										
	M.H. 128		18										
	M.H. 129		22										
	M.H. 130		18										
	M.H. 131		18										
	M.H. 132		18										
	M.H. 133		18										
	M.H. 134		6										
	M.H. 135		20										
	M.H. 136		16	16									
	M.H. 137			21									
	M.H. 138			10									
	M.H. 139				14								
	M.H. 140				16								
	M.H. 141												



S.No.	Drainage Line	150 Dia Pipe Length (M)	400 Dia Pipe Length (M)	500 Dia Pipe Length (M)	600 Dia Pipe Length (M)	700 Dia Pipe Length (M)	800 Dia Pipe Length (M)	900 Dia Pipe Length (M)	1000 Dia Pipe Length (M)	1100 Dia Pipe Length (M)	1200 Dia Pipe Length (M)	1300 Dia Pipe Length (M)	1400 Dia Pipe Length (M)
	M.H. 141				18								
	M.H. 142				18								
	M.H. 143				5								
	M.H. 144		13										
	M.H. 145		18										
	M.H. 146		18										
	M.H. 147		13										
	M.H. 148		6										
	M.H. 149		13										
	M.H. 150		18										
	M.H. 151		18										
	M.H. 152		18										
	M.H. 153		18										
	M.H. 154		25										
	M.H. 155		10										
	M.H. 156		25										
	M.H. 157		18										
	M.H. 158		10										
	M.H. 159		25										
	M.H. 160		15										
	M.H. 161		18										
	M.H. 162		18										
	M.H. 163		18										
	M.H. 164		18										
	M.H. 165		10										
	M.H. 166		11										
	M.H. 167		15										
	M.H. 168		18										
	M.H. 169		18										
	M.H. 170		18										
	M.H. 171		18										
	M.H. 172		18										
	M.H. 173		18										
	M.H. 174		18										



S.No.	Drainage Line	150 Dia Pipe Length (M)	400 Dia Pipe Length (M)	500 Dia Pipe Length (M)	600 Dia Pipe Length (M)	700 Dia Pipe Length (M)	800 Dia Pipe Length (M)	900 Dia Pipe Length (M)	1000 Dia Pipe Length (M)	1100 Dia Pipe Length (M)	1200 Dia Pipe Length (M)	1300 Dia Pipe Length (M)	1400 Dia Pipe Length (M)
	M.H. 174	M.H. 175	18										
	M.H. 175	M.H. 176	8										
	M.H. 176	M.H. 177	8										
	M.H. 177	M.H. 178	9										
	M.H. 178	M.H. 44	10										
	M.H. 179	M.H. 180	18										
	M.H. 180	M.H. 181	18										
	M.H. 181	M.H. 46	10										
	M.H. 182	M.H. 183	18										
	M.H. 183	M.H. 184	18										
	M.H. 184	M.H. 185	19										
	M.H. 185	M.H. 186	34										
	M.H. 186	M.H. 187	23										
	M.H. 187	M.H. 188	25										
	M.H. 188	M.H. 189											
	M.H. 189	M.H. 190		22									
	M.H. 190	M.H. 191		23									
	M.H. 191	M.H. 192		31									
	M.H. 192	M.H. 192a		22									
	M.H. 192a	M.H. 192b		28									
	M.H. 192b	M.H. 193		13									
	M.H. 193	M.H. 194				19							
	M.H. 194	M.H. 195				24							
	M.H. 195	M.H. 196				18							
	M.H. 196	M.H. 197				25							
	M.H. 197	M.H. 198				16							
	M.H. 198	M.H. 199				32							
	M.H. 199	M.H. 200				32							
	M.H. 200	M.H. 201						30					
	M.H. 201	M.H. 202						28					
	M.H. 202	M.H. 203						27					
	M.H. 203	M.H. 204						30					
	M.H. 204	M.H. 205						23					
	M.H. 205	M.H. 206						30					
	M.H. 206	M.H. 207						30					
	M.H. 207	M.H. 208						30					
	M.H. 208	M.H. 209						23					
	M.H. 209	M.H. 210						21					
	M.H. 210	M.H. 211											



S.No.	Drainage Line		150 Dia Pipe Length (M)	400 Dia Pipe Length (M)	500 Dia Pipe Length (M)	600 Dia Pipe Length (M)	700 Dia Pipe Length (M)	800 Dia Pipe Length (M)	900 Dia Pipe Length (M)	1000 Dia Pipe Length (M)	1100 Dia Pipe Length (M)	1200 Dia Pipe Length (M)	1300 Dia Pipe Length (M)	1400 Dia Pipe Length (M)
	M.H. 211 TO RWH	TO RWH TO EXTERNAL DRAIN												
									10			10		
	M.H. 212	M.H. 213		18										
	M.H. 213	M.H. 214		18										
	M.H. 214	M.H. 215		18										
	M.H. 215	M.H. 216		18										
	M.H. 216	M.H. 217		15										
	M.H. 217	M.H. 218		18										
	M.H. 218	M.H. 219		18										
	M.H. 219	M.H. 220		18										
	M.H. 220	M.H. 221		18										
	M.H. 221	M.H. 222		18										
	M.H. 222	M.H. 223		18										
	M.H. 223	M.H. 224		18										
	M.H. 224	M.H. 225		18										
	M.H. 225	M.H. 226		22										
	M.H. 226	M.H. 227			19									
	M.H. 227	M.H. 228			8									
	M.H. 228	M.H. 188			12									
	M.H. 218a	M.H. 218		248	75									
	M.H. 229	M.H. 230		18										
	M.H. 230	M.H. 231		18										
	M.H. 231	M.H. 232		18										
	M.H. 232	M.H. 233		21										
	M.H. 233	M.H. 234		18										
	M.H. 234	M.H. 235		10										
	M.H. 235	M.H. 226		25										
	M.H. 236	M.H. 237		18										
	M.H. 237	M.H. 238		18										
	M.H. 238	M.H. 239		18										
	M.H. 239	M.H. 235		18										
	M.H. 240	M.H. 241		18										
	M.H. 241	M.H. 242		18										
	M.H. 242	M.H. 227		18										
	M.H. 243	M.H. 244		18										



S.No.	Drainage Line		150 Dia Pipe Length (M)	400 Dia Pipe Length (M)	500 Dia Pipe Length (M)	600 Dia Pipe Length (M)	700 Dia Pipe Length (M)	800 Dia Pipe Length (M)	900 Dia Pipe Length (M)	1000 Dia Pipe Length (M)	1100 Dia Pipe Length (M)	1200 Dia Pipe Length (M)	1300 Dia Pipe Length (M)	1400 Dia Pipe Length (M)
	M.H. 244	M.H. 245		18										
	M.H. 245	M.H. 246		18										
	M.H. 246	M.H. 247		18										
	M.H. 247	M.H. 248		18										
	M.H. 248	M.H. 249		25										
	M.H. 249	M.H. 250		16										
	M.H. 250	M.H. 251				16								
	M.H. 251	M.H. 192				39								
	M.H. 252	M.H. 253		18										
	M.H. 253	M.H. 254		10										
	M.H. 254	M.H. 255		13										
	M.H. 255	M.H. 256		18										
	M.H. 256	M.H. 257		18										
	M.H. 257	M.H. 258		18										
	M.H. 258	M.H. 259		18										
	M.H. 259	M.H. 260		18										
	M.H. 260	M.H. 261		18										
	M.H. 261	M.H. 262		18										
	M.H. 262	M.H. 263		18										
	M.H. 263	M.H. 251		18										
	M.H. 263A	M.H. 264		18										
	M.H. 264	M.H. 265		18										
	M.H. 265	M.H. 266		18										
	M.H. 266	M.H. 267		18										
	M.H. 267	M.H. 268		18										
	M.H. 268	M.H. 269		18										
	M.H. 269	M.H. 270		10										
	M.H. 270	M.H. 271		15										
	M.H. 271	M.H. 272			18									
	M.H. 272	M.H. 273			18									
	M.H. 273	M.H. 274			18									
	M.H. 274	M.H. 197			12									
	M.H. 275	M.H. 276		18										
	M.H. 276	M.H. 277		12										
	M.H. 277	M.H. 278		23										
	M.H. 278	M.H. 279		15										
	M.H. 279	M.H. 280		20										



S.No.	Drainage Line	150 Dia Pipe Length (M)	400 Dia Pipe Length (M)	500 Dia Pipe Length (M)	600 Dia Pipe Length (M)	700 Dia Pipe Length (M)	800 Dia Pipe Length (M)	900 Dia Pipe Length (M)	1000 Dia Pipe Length (M)	1100 Dia Pipe Length (M)	1200 Dia Pipe Length (M)	1300 Dia Pipe Length (M)	1400 Dia Pipe Length (M)
	M.H. 280	M.H. 281		15									
	M.H. 281	M.H. 282		20									
	M.H. 282	M.H. 283		15									
	M.H. 283	M.H. 284		20									
	M.H. 284	M.H. 285			8								
	M.H. 285	M.H. 286			12								
	M.H. 286	M.H. 287			10								
	M.H. 287	M.H. 288			20								
	M.H. 288	M.H. 289			18								
	M.H. 289	M.H. 290			18								
	M.H. 290	M.H. 291			12								
	M.H. 291	M.H. 292			20								
	M.H. 292	M.H. 293			18								
	M.H. 293	M.H. 294			16								
	M.H. 294	M.H. 295			8								
	M.H. 295	M.H. 296			20								
	M.H. 296	M.H. 297			19								
	M.H. 287	M.H. 288		18									
	M.H. 288	M.H. 289		18									
	M.H. 289	M.H. 290		18									
	M.H. 290	M.H. 291		10									
	M.H. 291	M.H. 292		10									
	M.H. 292	M.H. 293											
	M.H. 293	M.H. 294											
	M.H. 294	M.H. 295											
	M.H. 295	M.H. 296											
	M.H. 296	M.H. 297											
	M.H. 303	M.H. 304		15									
	M.H. 304	M.H. 305		15									
	M.H. 305	M.H. 306		15									
	M.H. 306	M.H. 307		15									
	M.H. 307	M.H. 308		15									
	M.H. 308	M.H. 309		8									
	M.H. 309	M.H. 279		10									
	M.H. 310	M.H. 311		12									
	M.H. 311	M.H. 312		15									
	M.H. 312	M.H. 313		15									
	M.H. 313	M.H. 314		15									
	M.H. 314	M.H. 315		15									
	M.H. 315	M.H. 316		15									
	M.H. 316	M.H. 317		8									
	M.H. 317	M.H. 281		10									



S.No.	Drainage Line	150 Dia Pipe Length (M)	400 Dia Pipe Length (M)	500 Dia Pipe Length (M)	600 Dia Pipe Length (M)	700 Dia Pipe Length (M)	800 Dia Pipe Length (M)	900 Dia Pipe Length (M)	1000 Dia Pipe Length (M)	1100 Dia Pipe Length (M)	1200 Dia Pipe Length (M)	1300 Dia Pipe Length (M)	1400 Dia Pipe Length (M)
	M.H. 318		18										
	M.H. 319		20										
	M.H. 320		15										
	M.H. 321		15										
	M.H. 322		15										
	M.H. 323		15										
	M.H. 324		15										
	M.H. 325		8										
	M.H. 326		10										
	M.H. 283	1715											
	CATCH BASIN TO CMH												
	TOTAL	2999	5951	1127	590	742	437	501	169	0	611	112	259
	SAY	3050	5960	1135	650	750	450	550	180	50	650	120	270



PROJECT : PROPOSED LAYOUT PLAN FOR ADDITIONAL AREA MEASURING 6.06875 ACRES ADJOINING ALREADY LICENSED AREA OF 129.95625 ACRES VIDE LIC NO. LICENSE NO. 104 OF 2024 DATED-01.08.2024 , TOTAL AREA OF 135.7250 ACRES IN VILLAGE SHIDRAWALI, TEHSIL MANESAR, DISTRICT GURUGRAM. BEING DEVELOPED BY SIGNATUREGLOBAL (INDIA) LTD.

ANNEXURE - III
MATERIAL STATEMENT FOR IRRIGATION SYSTEM

S. No.	GARDEN HYDRANT	GARDEN HYDRANT	25 Pipe Dia Length (M)	32 Pipe Dia Length (M)	40 Pipe Dia Length (M)	50 Pipe Dia Length (M)	63 Pipe Dia Length (M)	VALVE CHAMBER (25 dia)	VALVE CHAMBER (32 dia)	VALVE CHAMBER (40 dia)	VALVE CHAMBER (50 dia)	VALVE CHAMBER (63 dia)
FOR INDUSTRIAL PLOTS												
1	FOR INDUSTRIAL PLOTS											
2	A TO B	4	415						1			
1	FOR RESIDENTIAL PLOTS											
	GARDEN IRRIGATION FROM STP TO A					20			1			
6	A TO B	1	55					1				
7	A TO C	2	80			285					2	
8	C TO D			120		285				1		
9	D TO E	2	50							1		
10	D TO F	6	80	100						1		
11	FOR RESIDENTIAL PLOTS, COMMUNITY BUILDING-1, COMMUNITY BUILDING-2 & COMMERCIAL BUILDING											
12	GARDEN IRRIGATION FROM STP TO I						10					1
13	A TO B	9	205	75	142					1		
14	A TO C	2	255	45	60	75					1	
15	LINE FOR ADDITIONAL PLOTS	5	10			100					1	
	Total Length	31 Nos.	1170 Mtr	240 Mtr	345 Mtr	750 Mtr	20 Mtr	1 Nos.	2 Nos.	4 Nos.	5 Nos.	1 Nos.



S.No.	Name of Sewerage Line	MANHOLE	200 MM DIA	250 MM DIA	300 MM DIA	350 MM DIA	100 MM DIA	150 MM DIA
M.H. 41	STP					5		
M.H. 900X800	M.H. 900X800		66					
M.H. 42	M.H. 43		15					
M.H. 43	M.H. 44		17					
M.H. 44	M.H. 45		17					
M.H. 45	M.H. 46		17					
M.H. 46	M.H. 47		17					
M.H. 47	M.H. 48		17					
M.H. 48	M.H. 49		17					
M.H. 49	M.H. 50		18					
M.H. 50	M.H. 11		8					
M.H. 51	M.H. 52		15					
M.H. 52	M.H. 53		17					
M.H. 53	M.H. 54		17					
M.H. 54	M.H. 55		17					
M.H. 55	M.H. 56		17					
M.H. 56	M.H. 57		17					
M.H. 57	M.H. 58		17					
M.H. 58	M.H. 13		18					
M.H. 900X800	M.H. 900X800		75					
M.H. 59	M.H. 60		33					
M.H. 60	M.H. 61		33					
M.H. 61	M.H. 62		33					
M.H. 62	M.H. 17		34					
M.H. 900X800	M.H. 900X800		70					
M.H. 63	M.H. 64		33					
M.H. 64	M.H. 65		33					
M.H. 65	M.H. 66		33					
M.H. 66	M.H. 67		33					
M.H. 67	M.H. 68		33					
M.H. 68	M.H. 69		32					
M.H. 69	M.H. 70		25					
M.H. 70	M.H. 71		21					
M.H. 71	M.H. 72			38				
M.H. 72	M.H. 73			24				
M.H. 73	M.H. 74			14				
M.H. 74	M.H. 75			27				
M.H. 75	M.H. 76			24				
M.H. 76	M.H. 77			31				
M.H. 77	M.H. 78			26				
M.H. 78	M.H. 79			43				
M.H. 79	M.H. 80			17				
M.H. 80	M.H. 81			25				
M.H. 81	M.H. 82			15				
M.H. 82	M.H. 26			21				



S.No.	Name of Sewerage Line	MANHOLE	200 MM DIA	250 MM DIA	300 MM DIA	350 MM DIA	100 MM DIA	150 MM DIA
M.H. 900X800	M.H. 900X800		260					
M.H. 83	M.H. 84		17					
M.H. 84	M.H. 85		33					
M.H. 85	M.H. 86		33					
M.H. 83	M.H. 87		33					
M.H. 87	M.H. 88		33					
M.H. 88	M.H. 89		33					
M.H. 89	M.H. 73		32					
M.H. 900X800	M.H. 900X800		105					
M.H. 90	M.H. 91		43					
M.H. 91	M.H. 92		24					
M.H. 92	M.H. 29		34					
M.H. 900X800	M.H. 900X800		48					
M.H. 93	M.H. 94		29					
M.H. 94	M.H. 31		31					
M.H. 900X800	M.H. 900X800		30					
M.H. 95	M.H. 96		32					
M.H. 96	M.H. 34		17					
M.H. 900X800	M.H. 900X800		60					
M.H. 97	M.H. 98		34					
M.H. 98	M.H. 99		34					
M.H. 99	M.H. 100		34					
M.H. 100	M.H. 35		33					
M.H. 900X800	M.H. 900X800		64					
M.H. 101	M.H. 102		34					
M.H. 102	M.H. 103		34					
M.H. 103	M.H. 104		34					
M.H. 104	M.H. 39		33					
M.H. 900X800	M.H. 900X800		102					
M.H. 105	M.H. 106		9					
M.H. 106	M.H. 107		25					
M.H. 107	M.H. 108		25					
M.H. 108	M.H. 109		27					
M.H. 109	M.H. 110		26					
M.H. 110	M.H. 111		22					
M.H. 111	M.H. 112			31				
M.H. 112	M.H. 113			16				
M.H. 113	M.H. 114			19				
M.H. 114	M.H. 115			30				
M.H. 115	M.H. 116			27				
M.H. 116	M.H. 117			27				
M.H. 117	M.H. 118			24				



S.No.	Name of Sewerage Line	MANHOLE	200 MM DIA	250 MM DIA	300 MM DIA	350 MM DIA	100 MM DIA	150 MM DIA
M.H. 118	M.H. 119			24				
M.H. 119	M.H. 120			8				
M.H. 120	M.H. 121			28				
M.H. 121	M.H. 122			38				
M.H. 122	M.H. 123			35				
M.H. 123	M.H. 124			35				
M.H. 124	M.H. 125			21				
M.H. 125	M.H. 126			28				
M.H. 126	M.H. 127			35				
M.H. 127	M.H. 128			14				
M.H. 128	M.H. 129			30				
M.H. 129	M.H. 130			30				
M.H. 130	M.H. 131			23				
M.H. 131	M.H. 132				23			
M.H. 132	M.H. 133				23			
M.H. 133	M.H. 41				25			
M.H. 900X800	M.H. 900X800		90					
M.H. 134	M.H. 135		39					
M.H. 135	M.H. 136		39					
M.H. 136	M.H. 137		39					
M.H. 137	M.H. 138		39					
M.H. 138	M.H. 115		27					
M.H. 139	M.H. 140		32					
M.H. 140	M.H. 122		17					
M.H. 900X800	M.H. 900X800		26					
M.H. 141	M.H. 142		29					
M.H. 142	M.H. 143		31					
M.H. 900X800	M.H. 900X800		96					
M.H. 143	M.H. 144		29					
M.H. 144	M.H. 143		31					
M.H. 900X800	M.H. 900X800		45					
FOR RESIDENTIAL PLOTS								
M.H. 1	M.H. 2		17					
M.H. 2	M.H. 3		15					
M.H. 3	M.H. 4		31					
M.H. 4	M.H. 5		17					
M.H. 5	M.H. 6			18				
M.H. 6	M.H. 7			17				
M.H. 7	M.H. 8			17				
M.H. 8	M.H. 9			17				
M.H. 9	M.H. 10			17				
M.H. 10	M.H. 11			20				
M.H. 11	M.H. 12			15				
M.H. 12	M.H. 13			17				



S.No.	Name of Sewerage Line	MANHOLE	200 MM DIA	250 MM DIA	300 MM DIA	350 MM DIA	100 MM DIA	150 MM DIA
M.H. 13	M.H. 14			17				
M.H. 14	M.H. 15			17				
M.H. 15	M.H. 16			17				
M.H. 16	M.H. 17			16				
M.H. 17	M.H. 18			19				
M.H. 18	M.H. 19			18				
M.H. 19	M.H. 20			16				
M.H. 20	M.H. 21			17				
M.H. 21	M.H. 22			17				
M.H. 22	M.H. 23			20				
M.H. 23	M.H. 24			14				
M.H. 24	M.H. 25				17			
M.H. 25	M.H. 26				18			
M.H. 26	M.H. 27				14			
M.H. 27	STP-1				6			
M.H. 900X800	M.H. 900X800		90					
M.H. 28	M.H. 29		17					
M.H. 29	M.H. 30		17					
M.H. 30	M.H. 31		10					
M.H. 31	M.H. 32		32					
M.H. 32	M.H. 33		29					
M.H. 33	M.H. 34		17					
M.H. 34	M.H. 35		17					
M.H. 35	M.H. 05		10					
M.H. 900X800	M.H. 900X800		45					
M.H. 36	M.H. 37		17					
M.H. 37	M.H. 38		17					
M.H. 38	M.H. 39		17					
M.H. 39	M.H. 40		17					
M.H. 40	M.H. 41		20					
M.H. 41	M.H. 11		24					
M.H. 42	M.H. 43		17					
M.H.43	M.H. 44		17					
M.H. 44	M.H. 45		17					
M.H. 45	M.H. 46		17					
M.H. 46	M.H. 47		17					
M.H. 47	M.H. 48		18					
M.H. 48	M.H. 18		24					
M.H. 48a	M.H. 48		318					
M.H. 49	M.H. 50		15					
M.H. 50	M.H. 51		15					
M.H. 51	M.H. 52		15					
M.H. 52	M.H. 23		15					
M.H. 53	M.H. 54		15					
M.H. 54	M.H. 55		14					
M.H. 55	M.H. 56		4					



S.No.	Name of Sewerage Line	MANHOLE	200 MM DIA	250 MM DIA	300 MM DIA	350 MM DIA	100 MM DIA	150 MM DIA
M.H. 56	M.H. 57		28					
M.H. 57	M.H. 58		11					
M.H. 58	M.H. 59			17				
M.H. 59	M.H. 60			10				
M.H. 60	M.H. 61			7				
M.H. 61	M.H. 62			24				
M.H. 62	M.H. 19			18				
M.H. 63	M.H. 63A		15					
M.H. 63A	M.H. 64		19					
M.H. 64	M.H. 65		17					
M.H. 65	M.H. 66		17					
M.H. 66	M.H. 67		17					
M.H. 67	M.H. 68		16					
M.H. 68	M.H. 57		10					
M.H. 69	M.H. 70		17					
M.H. 70	M.H. 71		16					
M.H. 71	M.H. 60		10					
M.H. 72	M.H. 73		17					
M.H. 73	M.H. 74		16					
M.H. 74	M.H. 62		10					
M.H. 900X800	M.H. 900X800		179					
M.H. 75	M.H. 76		17					
M.H. 76	M.H. 64		17					
M.H. 77	M.H. 78		12					
M.H. 78	M.H. 79		41					
M.H. 79	M.H. 23		28					
M.H. 80	M.H. 81		17					
M.H. 81	M.H. 82		17					
M.H. 82	M.H. 83		17					
M.H. 83	M.H. 79		12					
M.H. 900X800	M.H. 900X800		21					
M.H. 84	M.H. 85		17					
M.H. 85	M.H. 86		17					
M.H. 86	M.H. 87		17					
M.H. 87	M.H. 84		17					
M.H. 88	M.H. 89		17					
M.H. 89	M.H. 90		17					
M.H. 90	M.H. 91			20				
M.H. 91	M.H. 92			17				
M.H. 92	M.H. 93			17				
M.H. 92	M.H. 27			31				
M.H. 94	M.H. 95		16					



S.No.	Name of Sewerage Line	MANHOLE	200 MM DIA	250 MM DIA	300 MM DIA	350 MM DIA	100 MM DIA	150 MM DIA
M.H. 95	M.H. 96		17					
M.H. 96	M.H. 97		16					
M.H. 97	M.H. 98		6					
M.H. 98	M.H. 99		11					
M.H. 99	M.H. 100		17					
M.H. 100	M.H. 101		5					
M.H. 101	M.H. 91			24				
M.H. 102	M.H. 103		17					
M.H. 103	M.H. 104		18					
M.H. 104	M.H. 105		16					
M.H. 105	M.H. 101		7					
M.H. 106	M.H. 107		17					
M.H. 107	M.H. 108		17					
M.H. 108	M.H. 109		17					
M.H. 109	M.H. 92		7					
M.H. 900X800	M.H. 900X800		140					
FOR RESIDENTIAL PLOTS, COMMUNITY BUILDING-1, COMMUNITY BUILDING-2 & COMMERCIAL BUILDING								
M.H. 1	M.H. 2		17					
M.H. 2	M.H. 3		16					
M.H. 3	M.H. 4		12					
M.H. 4	M.H. 5		38					
M.H. 5	M.H. 6			35				
M.H. 6	M.H. 7			30				
M.H. 7	M.H. 8			36				
M.H. 8	M.H. 9			37				
M.H. 9	M.H. 10			9				
M.H. 10	M.H. 11			17				
M.H. 11	M.H. 12			17				
M.H. 12	M.H. 13			17				
M.H. 13	M.H. 14			17				
M.H. 14	M.H. 15			15				
M.H. 15	M.H. 16				18			
M.H. 16	M.H. 17				18			
M.H. 17	STP-2				15			
M.H. 900X800	M.H. 900X800		18					
M.H. 18	M.H. 19		17					
M.H. 19	M.H. 20		29					
M.H. 20	M.H. 21		35					
M.H. 21	M.H. 22		13					
M.H. 22	M.H. 23		35					
M.H. 23	M.H. 24		25					
M.H. 24	M.H. 25		10					
M.H. 25	M.H. 26		25					
M.H. 26	M.H. 27			18				
M.H. 27	M.H. 28			17				



S.No.	Name of Sewerage Line	MANHOLE	200 MM DIA	250 MM DIA	300 MM DIA	350 MM DIA	100 MM DIA	150 MM DIA
M.H. 28	M.H. 29			17				
M.H. 29	M.H. 30			17				
M.H. 30	M.H. 31				28			
M.H. 31	M.H. 32				33			
M.H. 32	M.H. 15				21			
M.H. 900X800	M.H. 900X800		5					
M.H. 33	M.H. 34		17					
M.H. 34	M.H. 35		17					
M.H. 35	M.H. 36		15					
M.H. 36	M.H. 26		8					
M.H. 900X800	M.H. 900X800		20					
M.H. 37	M.H. 38		8					
M.H. 38	M.H. 39		17					
M.H. 39	M.H. 40		17					
M.H. 40	M.H. 40		17					
M.H. 40	M.H. 34		9					
M.H. 900X800	M.H. 900X800		24					
M.H. 42	M.H. 43		17					
M.H. 43	M.H. 44		17					
M.H. 44	M.H. 45		17					
M.H. 45	M.H. 26		12					
M.H. 46	M.H. 47		16					
M.H. 47	M.H. 48		17					
M.H. 48	M.H. 49		18					
M.H. 49	M.H. 50		18					
M.H. 48	M.H. 51		17					
M.H. 51	M.H. 52		17					
M.H. 52	M.H. 53		17					
M.H. 53	M.H. 25		12					
M.H. 54	M.H. 55		15					
M.H. 55	M.H. 49		15					
M.H. 900X800	M.H. 900X800		24					
M.H. 56	M.H. 56a		7					
M.H. 56a	M.H. 57		17					
M.H. 57	M.H. 58		17					
M.H. 58	M.H. 59		17					
M.H. 59	M.H. 23		12					
M.H. 900X800	M.H. 900X800		12					
M.H. 60	M.H. 61		17					
M.H. 61	M.H. 62		17					
M.H. 62	M.H. 63		17					
M.H. 63	M.H. 64		8					
M.H. 64	M.H. 22		11					



S.No.	Name of Sewerage Line	MANHOLE	200 MM DIA	250 MM DIA	300 MM DIA	350 MM DIA	100 MM DIA	150 MM DIA
M.H. 900X800	M.H. 900X800		15					
M.H. 65	M.H. 66		16					
M.H. 66	M.H. 67		16					
M.H. 67	M.H. 20		12					
M.H. 68	M.H. 69		16					
M.H. 69	M.H. 24		18					
M.H. 900X800	M.H. 900X800		30					
M.H. 70	M.H. 71		17					
M.H. 71	M.H. 5		18					
M.H. 72	M.H. 73		17					
M.H. 67	M.H. 74		17					
M.H. 74	M.H. 75		17					
M.H. 75	M.H. 6		9					
M.H. 900X800	M.H. 900X800		10					
M.H. 76	M.H. 77		9					
M.H. 72	M.H. 78		17					
M.H. 72	M.H. 79		17					
M.H. 72	M.H. 80		17					
M.H. 72	M.H. 7		9					
M.H. 900X800	M.H. 900X800		12					
M.H. 81	M.H. 82		17					
M.H. 82	M.H. 83		17					
M.H. 83	M.H. 84		17					
M.H. 84	M.H. 85		17					
M.H. 85	M.H. 8		9					
M.H. 900X800	M.H. 900X800		6					
M.H. 86	M.H. 87		17					
M.H. 87	M.H. 88		17					
M.H. 88	M.H. 5		12					
M.H. 900X800	M.H. 900X800		18					
M.H. 89	M.H. 90		8					
M.H. 90	M.H. 91		8					
M.H. 91	M.H. 92		8					
M.H. 92	M.H. 93		8					
M.H. 93	M.H. 6		12					
M.H. 900X800	M.H. 900X800		30					
M.H. 94	M.H. 95		8					
M.H. 95	M.H. 96		10					
M.H. 96	M.H. 97		18					
M.H. 97	M.H. 98		17					
M.H. 98	M.H. 99		8					
M.H. 99	M.H. 7		12					



S.No.	Name of Sewerage Line	MANHOLE	200 MM DIA	250 MM DIA	300 MM DIA	350 MM DIA	100 MM DIA	150 MM DIA
M.H. 99a	M.H. 96		6					
M.H. 900X800	M.H. 900X800		30					
M.H. 100	M.H. 101		9					
M.H. 101	M.H. 102		18					
M.H. 102	M.H. 103		17					
M.H. 103	M.H. 104		21					
M.H. 104	M.H. 105		20					
M.H. 105	M.H. 106		12					
M.H. 106	M.H. 107		17					
M.H. 107	M.H. 108		17					
M.H. 108	M.H. 109		22					
M.H. 109	M.H. 110		22					
M.H. 110	M.H. 111		7					
M.H. 111	M.H. 112		17					
M.H. 112	M.H. 113		17					
M.H. 113	M.H. 114			17				
M.H. 114	M.H. 115			17				
M.H. 115	M.H. 116			17				
M.H. 116	M.H. 117			17				
M.H. 117	M.H. 118				12			
M.H. 118	M.H. 119				16			
M.H. 119	M.H. 120				10			
M.H. 120	M.H. 121				17			
M.H. 121	M.H. 122				17			
M.H. 122	M.H. 17				17			
M.H. 123	M.H. 124		17					
M.H. 124	M.H. 125		7					
M.H. 125	M.H. 126		8					
M.H. 126	M.H. 127		17					
M.H. 127	M.H. 128		9					
M.H. 128	M.H. 129		17					
M.H. 129	M.H. 130		17					
M.H. 130	M.H. 131		17					
M.H. 131	M.H. 103		12					
M.H. 900X800	M.H. 900X800		66					
M.H. 132	M.H. 133		7					
M.H. 133	M.H. 134		16					
M.H. 134	M.H. 135		17					
M.H. 135	M.H. 136		17					
M.H. 136	M.H. 137		10					
M.H. 137	M.H. 138		17					
M.H. 138	M.H. 139		17					
M.H. 139	M.H. 140		17					
M.H. 140	M.H. 141			17				
M.H. 141	M.H. 142			13				
M.H. 142	M.H. 143			4				
M.H. 143	M.H. 144			17				



S.No.	Name of Sewerage Line	MANHOLE	200 MM DIA	250 MM DIA	300 MM DIA	350 MM DIA	100 MM DIA	150 MM DIA
M.H. 144	M.H. 145			13				
M.H. 145	M.H. 146			3				
M.H. 146	M.H. 147			17				
M.H. 147	M.H. 148				12			
M.H. 148	M.H. 149				4			
M.H. 149	M.H. 150				17			
M.H. 150	M.H. 151				15			
M.H. 151	M.H. 152				18			
M.H. 152	M.H. 153				17			
M.H. 153	M.H. 118				5			
M.H. 900X800	M.H. 900X800		60					
M.H. 154	M.H. 155		17					
M.H. 155	M.H. 156		17					
M.H. 156	M.H. 157		17					
M.H. 157	M.H. 158		17					
M.H. 158	M.H. 159		8					
M.H. 159	M.H. 160		17					
M.H. 160	M.H. 137		16					
M.H. 161	M.H. 162		17					
M.H. 162	M.H. 158		10					
M.H. 900X800	M.H. 900X800		32					
M.H. 163	M.H. 164		17					
M.H. 164	M.H. 165		15					
M.H. 165	M.H. 166		8					
M.H. 166	M.H. 167		17					
M.H. 167	M.H. 168		17					
M.H. 168	M.H. 169		17					
M.H. 169	M.H. 170		17					
M.H. 170	M.H. 171		17					
M.H. 171	M.H. 172		17					
M.H. 172	M.H. 173		10					
M.H. 173	M.H. 140		16					
M.H. 900X800	M.H. 900X800		64					
M.H. 174	M.H. 175		17					
M.H. 175	M.H. 176		17					
M.H. 176	M.H. 177		17					
M.H. 177	M.H. 178		17					
M.H. 178	M.H. 179		17					
M.H. 179	M.H. 180		17					
M.H. 180	M.H. 181		8					
M.H. 181	M.H. 182		10					
M.H. 182	M.H. 142		16					
M.H. 900X800	M.H. 900X800		25					
M.H. 183	M.H. 184		14					
M.H. 184	M.H. 185		7					
M.H. 185	M.H. 186		15					
M.H. 186	M.H. 188		15					



S.No.	Name of Sewerage Line	MANHOLE	200 MM DIA	250 MM DIA	300 MM DIA	350 MM DIA	100 MM DIA	150 MM DIA
M.H. 188	M.H. 189		15					
M.H. 189	M.H. 190		15					
M.H. 190	M.H. 191		15					
M.H. 191	M.H. 145		15					
M.H. 900X800	M.H. 900X800		30					
M.H. 192	M.H. 193		15					
M.H. 193	M.H. 194		15					
M.H. 194	M.H. 195		15					
M.H. 195	M.H. 196		15					
M.H. 196	M.H. 197		15					
M.H. 197	M.H. 198		10					
M.H. 198	M.H. 148		16					
M.H. 900X800	M.H. 900X800		42					
M.H. 199	M.H. 200		8					
M.H. 200	M.H. 201		17					
M.H. 201	M.H. 202		17					
M.H. 202	M.H. 203		17					
M.H. 203	M.H. 204		10					
M.H. 204	M.H. 151		16					
M.H. 900X800	M.H. 900X800		48					
STP (Industrial Building) 150 mm dia Overflow Discharge to External GMDA/HSVP Sewage line.								810
STP (Residential Plots) 100 mm dia Overflow Discharge to External GMDA/HSVP Sewage line.							700	
STP (Residential Plots, Community-1, Community-2 & Commercial) 150 mm dia Overflow Discharge to External GMDA/HSVP Sewage line.								400
TOTAL		0 Mtr	8249 Mtr	2259 Mtr	708 Mtr	5 Mtr	700 Mtr	1210 Mtr
SAY			8250 Mtr	2350 Mtr	750 Mtr	20 Mtr	750 Mtr	1250 Mtr



PROJECT : PROPOSED LAYOUT PLAN FOR ADDITIONAL AREA MEASURING 6.06875 ACRES ADJOINING ALREADY LICENSED AREA OF 129.65625 ACRES VIDE LIC NO. LICENSE NO. 104 OF 2024 DATED-01.08.2024 , TOTAL AREA OF 135.7250 ACRES IN VILLAGE SHIDRAWALI, TEHSIL MANESAR, DISTRICT GURUGRAM, BEING DEVELOPED BY SIGNATUREGLOBAL (INDIA) LTD.

ANNEXURE - VI

MATERIAL STATEMENT FOR ROAD WORKS

TAG	LENGTH (M)	WIDTH (M)	AREA (6 MTR)	AREA (9 MTR)	AREA (12 MTR)	AREA (18 MTR)	AREA (24 MTR)	UNIT
[A]								
FOR INDUSTRIAL PLOT								
A	475.00	9.00		4275.00				SQM.
B	3400.00	18.00				61200.00		SQM.
C	280.00	24.00					6720.00	SQM.
TOTAL	4155 Mtr	51 Mtr	0 Mtr	4275 Mtr	0 Mtr	61200 Mtr	6720 Mtr	
FOR RESIDENTIAL PLOT								
A1	5836.00	9.00		52524.00				SQM.
A2	775.00	24.00					18600.00	SQM.
TOTAL	6611 Mtr	33 Mtr	0 Mtr	52524 Mtr	0 Mtr	0 Mtr	18600 Mtr	
								SQM.
GRAND TOTAL	10766 Mtr	84 Mtr	0 Mtr	56800 Mtr	0 Mtr	61200 Mtr	25320 Mtr	SQM.



Sr. No.	DESCRIPTION	DOMESTIC WATER DEMAND IN M3/DAY		PEAK 3 times of Average Flow (m3/hr.)	DIA IN mm	PIPE LENGTH			VELOCITY IN m/sec.	HEAD LOSS (IN m)
		SELF	TOTAL			IN meter	Equivalent Pipe & Fittings 10%	TOTAL LENGTH		
	FOR RESIDENTIAL PLOTS									
12	WS2 TO WS1 (WTP Pump Room)	51.25	1331.00	166.375	150.00	150	15	165	2.62	8.41
13	WS3 TO WS2	83.20	1134.15	141.769	100.00	530	53	583	5.02	159.14
14	WS4 TO WS3	119.60	119.60	14.950	150.00	330	33	363	0.24	0.21
15	WS5 TO WS3	116.50	116.50	14.563	150.00	715	71.5	787	0.23	0.44
16	WS6 TO WS3	116.50	377.40	47.175	100.00	210	21	231	1.67	8.24
17	WS7 TO WS8	110.30	110.30	13.788	100.00	350	35	385	0.49	1.41
18	WS8 TO WS8	150.60	150.60	18.825	150.00	745	74.5	820	0.30	0.74
19	WS9 TO WS3	238.60	238.60	29.825	100.00	625	62.5	688	1.06	10.50
20	WS10 TO WS1	51.25	235.30	29.413	200.00	470	47	517	0.26	0.26
21	WS11 TO WS10	16.80	184.05	23.006	100.00	150	15	165	0.81	1.56
22	WS12 TO WS11	107.10	107.10	13.388	100.00	300	30	330	0.47	1.14
23	WS13 TO WS11	61.35	61.35	7.669	150.00	340	34	374	0.12	0.06
24	WS14 TO WS10	12.60	308.65	38.581	150.00	680	68	726	0.61	2.48
25	WS15 TO WS14	61.35	61.35	7.669	100.00	210	21	231	0.27	0.29
26	WS16 TO WS14	234.70	234.70	29.338	100.00	200	20	220	1.04	3.26



PROJECT : PROPOSED LAYOUT PLAN FOR ADDITIONAL AREA MEASURING 6.06875 ACRES ADJOINING ALREADY LICENSED AREA OF 129.65625 ACRES VIDE LIC NO. LICENSE NO. 104 OF 2024 DATED-01.08.2024 , TOTAL AREA OF 135.7250 ACRES IN VILLAGE SHIDRAWALI, TEHSIL MANESAR, DISTRICT GURUGRAM. BEING DEVELOPED BY SIGNATUREGLOBAL (INDIA) LTD.

FLUSHING WATER SUPPLY DESIGN STATEMENT MASTER SCHEME FOR FOR INDUSTRIAL PLOTS & FOR RESIDENTIAL PLOTS.

Sr. No.	NODE No.	FLUSHING WATER DEMAND IN M3/DAY		PEAK 3 times of Average Flow (m3/hr.)	DIA IN mm	PIPE LENGTH			VELOCITY IN m/sec.	HEAD LOSS (IN m)	
		SELF	TOTAL			IN meter	Equivalent Pipe & Fittings 10%	Total Pipe Length			
A]	FLUSHING WATER SUPPLY LINE FOR INDUSTRIAL PLOTS & FOR RESIDENTIAL PLOTS.										
	FOR INDUSTRIAL PLOTS										
1	F1 TO (STP Area)	602.00	602.00	75.250	150.00	15 Mtr	1.5	17	1.18	0.13	
2	F2 TO F1	72.70	438.00	54.750	100.00	290 Mtr	29	319	1.94	9.91	
3	F3 to F2	32.70	365.30	45.663	100.00	470 Mtr	47	517	1.62	11.48	
4	F4 TO F3	119.20	119.20	14.900	100.00	1000 Mtr	100	1100	0.53	3.08	
5	F5 to F3	213.40	213.40	26.675	100.00	820 Mtr	82	902	0.94	7.41	
6	F6 to F1	65.50	164.00	20.500	100.00	750 Mtr	75	825	0.73	4.16	
7	F7 TO F6	98.50	98.50	12.313	100.00	260 Mtr	26	286	0.44	0.56	
	FOR RESIDENTIAL PLOTS										
8	F1 TO (STP1 Area)	849.90	849.90	106.238	150.00	15 Mtr	1.5	17	1.67	0.25	
9	F2 TO F1	59.80	841.70	105.213	100.00	330 Mtr	33	363	3.72	37.77	
10	F3 TO F1	9.75	194.00	24.250	150.00	245 Mtr	24.5	270	0.38	0.26	
11	F4 TO F3	9.75	184.25	23.031	100.00	80 Mtr	8	88	0.81	0.55	
12	F5 TO F4	69.10	174.50	21.813	100.00	595 Mtr	59.5	655	0.77	3.71	
13	F6 TO F4	55.20	55.20	6.900	100.00	410 Mtr	41	451	0.24	0.30	
14	F7 TO F4	25.10	50.20	6.275	100.00	150 Mtr	15	165	0.22	0.09	
15	F8 TO F7	25.10	25.10	3.138	100.00	485 Mtr	48.5	534	0.11	0.08	
21	F1 TO STP2 Area) to F	19.80	566.10	70.763	150.00	15 Mtr	1.5	17	1.11	0.12	
22	F2 TO F1	21.80	21.80	2.725	100.00	110 Mtr	11	121	0.10	0.01	
23	F3 TO F2	171.40	171.40	21.425	100.00	968 Mtr	96.8	1065	0.76	5.83	
24	F4 TO F2	172.50	172.50	21.563	100.00	1752 Mtr	175.2	1928	0.76	10.69	
25	F5 TO F1	7.80	160.60	22.575	150.00	200 Mtr	20	220	0.36	0.18	
26	F6 TO F5	111.40	111.40	13.925	100.00	940 Mtr	94	1034	0.49	2.55	
27	F7 TO F5	61.40	61.40	7.675	100.00	640 Mtr	64	704	0.27	0.58	



Sr. No.	Node No.	Length (Meter)	Total Sewage Generated Per day Domestic 80 % & Flushing 100 % Goes to STP (KLD)			Peak = Av x 3 in KLD	Flow per second for area (LPS)	Pipe Dia / Size of SW Pipes	Gradient [1 : 200] (S)	Velocity created in (V) m/s	Capacity of Pipe with 1/2 full pipe (LPS)	Fall in (Meter)	Check for Carrying Capacity	Ground Level (Meter)	Invert at Start in (-) (Meter)	Invert at End in (-) (Meter)	Depth of M.H.
			Self (KLD)	Previous (KLD)	Total (KLD)												
FOR RESIDENTIAL PLOTS, COMMUNITY BUILDING-1, COMMUNITY BUILDING-2 & COMMERCIAL BUILDING																	
1	S1 TO S2 (MH-1 TO MH-3)	654.0	146.0	-	146.0	438	5.07	200	196	0.97	15.20	3.30	OK	0.00	-0.950	-4.254	4.254
2	S2 TO S3 (MH-3 TO MH-14)	354.0	113.0	146.0	259.0	777	8.99	250	300	0.91	22.31	1.18	OK	0.00	-4.254	-5.434	5.434
3	S3 TO S4 (MH-14 TO MH-19)	113.0	20.0	259.0	432.0	1296	16.00	300	300	1.03	36.27	0.38	OK	0.00	-5.434	-5.811	5.811
4	S4 TO STP	5.0	6.0	432.0	1206.0	3618	41.88	350	350	1.05	60.65	0.01	OK	0.00	-5.811	-5.825	5.825
5	S5 TO S3 (MH-20 TO MH-27)	611.0	153.0	-	153.0	469	5.31	200	196	0.97	15.20	3.13	OK	0.00	-0.950	-4.033	4.033
6	S6 TO S7 (MH-100 TO MH-118) & COMMUNITY BUILDING - 1	448.0	221.0	-	221.0	663	7.67	200	196	0.97	15.20	2.50	OK	0.00	-0.950	-3.197	3.197
7	S7 TO S8 (MH-118 TO MH-127)	400.0	128.0	221.0	349.0	1047	12.12	250	300	0.91	22.31	1.33	OK	0.00	-3.197	-4.531	4.531
8	S8 TO S4 (MH-127 TO MH-135)	130.0	54.0	349.0	774.0	2322	26.86	300	350	0.95	33.58	0.37	OK	0.00	-4.531	-4.902	4.902
9	S9 TO S8 (MH-149 TO MH-201), COMMUNITY BUILDING - 2 & COMMERCIAL BUILDING	851.0	371.0	-	371.0	1113	12.88	200	196	0.97	15.20	3.34	OK	0.00	-0.950	-4.238	4.238
A	STP (Industrial Building) 150 mm dia Overflow Discharge to External GMDA/HSVP Sewage line.	810.0															
B	STP (Residential Plots near Commercial Building) 150 mm dia Overflow Discharge to External GMDA/HSVP Sewage line.	430.0															
C	STP (Residential Plots, Community-1, Community-2 & Commercial) 150 mm dia Overflow Discharge to External GMDA/HSVP Sewage line.	250.0															

