UTTIRNA INFRAPROJECTS PRIVATE LIMITED

CIN: U70109HR2021PTC097704
Regd. Office: 6th Floor, M3M Tee Point, North Block, Sector-65, Gurugram- 122101, Haryana
, E-mail: uttirnainfraprojects@gmail.com

Ref : UIPL/PG/Site/2023/16

Dated: - 05.12.2023

To,

Executive Engineer (HSVP),
HSVP Complex, Sector - 18, Near Toll Plaza,
Panipat, Haryana – 132103.

D.S. [illegible]

E.E.

5844
6/12/23

Subject: - Approval of Service Plan Estimate for Residential Integrated Township (Under NILP 2022) over an area measuring 251.90 acres (after migrated from Licence No. 06 of 2010 dated 14.10.2010 of 314.8 acres) vide Licence no. 257 of 2023 issued vide Endst. No. LC-5003-JE(MK)-2023/40764 dated 30.11.2023 in the revenue estate of village Kabri & Taraf Insaar in Sector – 36,37,38 & 39 Panipat (HR.) being developed by Uttirna Infraprojects Pvt. Ltd.

Sir,

We wish to submit, that we have received Licence no. 257 of 2023 issued vide Endst. No. LC-5003-JE(MK)-2023/40764 dated 30.11.2023 by Director Town and Country Planning Haryana for Residential Integrated Township (Under NILP 2022) over an area measuring 251.90625 acres (after migrated from Licence No. 06 of 2010 dated 14.10.2010 of 314.8 acres) in the revenue estate of village Kabri & Taraf Insaar in Sector – 36,37,38 & 39 Panipat (HR.) being developed by Uttirna Infraprojects Pvt. Ltd.

Now, we are hereby submitting the five set of Service Plan Estimate for the Residential Integrated Township as mentioned above. The zoning plan for Residential Integrated Township (Under NILP 2022) over an area measuring 251.90625 acres has been approved vide DRG No.- D.TCP 9837 Dated 29.11.2023.

It is requested to process our above mentioned Service Plan Estimate for Residential Integrated Township of above said project.

Thanking you,
Yours sincerely,
M/S Uttirna Infraprojects Pvt. Ltd.

Uttirna Infra Projects Pvt.Ltd.
Authorised Signatory

Authorized Signatory
Encl: As above.

Discussed estimate in Detail.
Received Back with observations estimate
To be Revised Parvesh Kumar
14/12/23
Mob. No. - 9911144211

Recd back after attending to the observation on 18/12/23 in HSVP Office Panipat

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RESIDENTIAL INTEGRATED TOWNSHIP (UNDER NILP-2022) OVER AN AREA MEASURING 251.90625 ACRES (MIGRATED FROM LICENCE NO.06 OF 2010 DATED 14.10.2010 OF 314.8 ACRES) AT SECTOR 36,37,38,39 PANIPAT BEING DEVELOPED BY M/S UTTRINA INFRA PROJECTS PRIVATE LIMITED.

Report

Panipat town of Haryana State is situated in appro 90 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 many residential sectors. Further to the increasing demand HSVP has planned to develop new sectors in panipat. This report and estimate is for approximately 251.90625 Acres, Sector - 37, Panipat, proposed to be developed by **M/s UTTIRNA INFRAPROJECTS PRIVATE LIMITED**

DOMESTIC WATER SUPPLY

At present the source of water supply in this area is by tubewells till the HSVP supply is available water supply connection as the underground water is potable and fit for human use . The water supply system has been designed as per the Hazen William formula. The under ground tank will be filled from the tube well riser and after treatment ,the water will be pumped directly to each plot. Entire domestic to the proposed devlopment is to be supplied by the tube well and therfore ,it is proposed to install 7 nos. of deep tube wells.The rate of water supply per head/day has been taken as 100 liters per head per day @ (65 %of total demand 155 liters per head per day) .

FLUSHING WATER SUPPLY

Requirement of flushing water will met from STP recycled water supply. The water supply system has been designed as per the Hazen William formula.

DESIGN

The scheme has been designed for population as given in attached sheets.

SEWERAGE SCHEME

Sewer line from proposed development will be connecting to the proposed sewage treatment plant(STP). Surplus sewage / treated effluent shall be disposing to HSVP sewer line on Sector Road ,to be provided in future.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 & flushing water supply shall find its way into the proposed sewer. Sewer lines shall be laid to a gradient maintaining minimum 2.46 ft./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/DWC 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

We are proposing to lay underground R.C.C. pipe drains with required number of catch basins, manholes and rainwater recharge pits with over flow to the Proposed HSVP storm drain on sector Road ,to be provided in future. The intensity of rain fall has been taken as ¼" per hour. R.C.C storm water line will be designed as per Manning's formula.

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

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

STREET LIGHITING
Provision for streets lights has also been made.

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

DECLARATION
We will make our own arrangement for water supply, sewerage, drainage till the external infrastructure be available by Haryana Shehari Vikas Pradhikaran ,at a later stage in future.

RATES
The estimate has been prepared based on the present market rates

COST

14517.86 lacs

The total cost of the scheme, including cost of all services works out to be **Rs. ~~1,37,27,69,728.76~~**

Includin 3% Contigencies and 49% Departmental Charges

Land area under township to be migrated from licence no.06 of 2010	251	Acre
Net planned area	228.53	Acre
Area under future development	20.06	Acre

Area of development as per License **208.5 Acre**

Net Cost Per Acre **Rs. ~~65,84,888.09~~**
69.64 lacs

For: **M/S UTTIRNA INFRAPROJECTS PRIVATE LIMITED**

Uttirna Infra Projects Pvt.Ltd.

Authorized Signatory Authorised Signatory

CP VIDYA AND ASSOCIATES

RESIDENTIAL INTEGRATED TOWNSHIP (UNDER NILP-2022) OVER AN AREA MEASURING 251.90625 ACRES (MIGRATED FROM LICENCE NO.06 OF 2010 DATED 14.10.2010 OF 314.8 ACRES) AT SECTOR 36,37,38,39 PANIPAT BEING DEVELOPED BY M/S UTTRINA INFRA PROJECTS PRIVATE LIMITED.

DAILY WATER DEMAND & PUMPING SYSTEM NILP LEFT SIDE OF THE SECTOR ROAD

Sl. No.	Description	Area in Acres	Nos. of Plot	Population /Plot	Total Population	Water Demand /Persons in LPCD	Total Water Demand @ 155 LPCD (in LPD)	Domestic Water Demand @100LPCD (in LPD)	Flushing Water Demand @ 55LPCD (in	Sewage Flow 80% of total Flow in LPD
	NILP LEFT SIDE OF THE SECTOR ROAD									
1	Plots		427	13.5	5765	155	893575	~~576500~~ 580826	~~317075~~ 312751	714860
								35%	65%	
2	Nursing home -4 nos @ 10 KL/nursing home		4			10000	40000	14000	26000	
3	Commercial -1&3 @ ~~25~~ KL/Acre	1.97					~~62410~~ 63210	~~22614~~ 22814	~~34876~~ 40376	~~50422~~
4	Club/community center @ 25 KL/Acre	2					~~89250~~	~~17250~~	~~32012~~	~~39400~~
5	UD area @ 25 KL/Acre	4.05					50000	17500	32500	40000
6	Dispensery 1.25 Acre : 50 KL/Day	1.25					101~~35~~0	65~~85~~	35~~68~~	81~~08~~
7	High school 2.0 Acre 150 KL/Day	2					50000	17500	32500	40000
8	Primary school 0.5 Acre	0.5					150000	52500	97500	120000
9	Nursery school 0.2 Acre -2 nos	0.4					50000	17500	32500	40000
10	Taxi stand 2.0 Acre -4nos @ 5 KL/taxi stand	2					20000	20000		16000
11	Irrigation 6.24 Acre @25 KL/ Acre	6.722					20000	7000	13000	16000
						25000	168050		168050	
	Total				5765		~~1592206~~	~~805603~~	~~786603~~	~~1107325~~
	Total Water Demand					~~1592206~~ 1605915	1605915	814761	791245	1118292
	Total Domestic Water Demand					~~805603~~ 814761	LPD		~~1692~~	KLD 1606
	Total Flushing Water Demand					~~786603~~ 791245	LPD		~~806~~	KLD 815
	Total Irrigation Water Demand					~~618553~~	LPD		~~619~~	KLD 623
	Flow To Sewer					~~168050~~ 168050	LPD		168	KLD
						~~1107325~~ 1118292	LPD		1107	KLD
	Fire Water Tank Cap.									
	Fire demand =2/3 *(100 * (P in thousand)^1/2)/ = 100 x (16.92)^1/2 =0.33 * 190 = 62.7 KL only for Undrground static Reservior)								160	KLD
	Raw water tank capacity									
	Domestic waer tank capacity 25+33 = 58%. say 60%.				815 x 0.60 =	489 KL	say 500KL		~~410~~	KLD 250
	Total Underground Water Tank Capacity Proposed								~~410~~	KLD 250
									~~980~~	KLD 160 / 660 KL

Flushing water tank = 623 + 168 = 791 KL @ 60% = 474.6 KL
say 475 KL

1	**Water Transfer Pumpset (Domestic)**						
	a)	**Water Pump Capacity**					
	i	Total Domestic Demand per/day				~~806~~ 815	KL/day
	ii	Pumping working hours/day				6	hours/day
	iii	Required Pumping Capacity Lpm			135.83	~~2,238~~ 2265	Lpm
	iv	**Proposed pump 3 nos with (2W + 1SB)**		@		~~1,119~~ 1132	Lpm of each
				Say		1,150	Lpm of each pump
	b)	**Water Pump Head**					
	i	Suction lift				0	
	ii	Pump room from ground level				7	
	iii	Residual Head provided at farthest ferrule				22	
	iv	Friction Head Loss				15	
	v	**Total pump head required**				44	
	vi	**Total pump head required including Factor of saftey @ 10 %**				48	
	vii	**Proposed Pump head**		**Say**		50	
	c)	**Pump HP**					
	i	**Power Required each pump (Lpm*head (m)/75*60*~~.70~~(effi)**				~~18~~ 21.29	
				Say		~~20~~ 25.0	HP of each pump
2	**Flushing / Irr. Water Transfer Pump**						
	a)	**Flush. water Pump Capacity**					
	i	Total Flu. / Irr. Demand (i) per/day				~~787~~ 791	KL/day
	ii	Pumping working hours/day				6	hours/day
	iii	Required Pumping Capacity			2197.22	~~2,185~~	Lpm
	iv	**Proposed pump 3 nos with (2W + 1SB)**		@		~~1,093~~ 1098.6	Lpm of each pump
				Say		1,100	Lpm of each
	b)	**Flushing water Pump Head**					
	i	Suction lift				0	
	ii	Pump room from ground level				7	
	iii	Residual Head provided at farthest ferrule				22	
	iv	Friction Head Loss				20	
	v	**Total pump head required**				49	
	vi	**Total pump head required including Factor of saftey @ 10 %**				54	
	vii	**Proposed Pump head**		**Say**		55	
	c)	**Pump HP**					
	i	**Power Required each pump (Lpm*head (m)/75*60*~~.70~~(effi)**				~~19.2~~ 22.40	
				Say		~~20~~ 25	HP of each pump

SOLUTIONS • CP VIDYA AND ASSOCIATES

3	**Tube well**	Note : Tube well considered since the HSVP water supply is not available as of now..							
	i)	Approx. discharge of tube well						25	KL/hour
	ii)	Working hour of the tube well						~~18~~ 16 Hrs/day	~~hr~~/day
	iii)	Total domestic water demand						~~806~~ 815	KL/day
	iv)	Number of tube well required (875/(25X18)						~~1.8~~ 2.03	Nos
	v)	~~Add 10% as stand by~~						~~0.2~~	Nos
	vi)	Total number of tube well required						2.03	Nos
	vii)	Number of tube well proposed				Say		3	Nos
4	**Pumping Machiner for tube well**								
	i)	Gross working head						95	mtr.
	ii)	Average fall in S.L.						5	mtr.
	iii)	Dipression head						5	mtr.
	iv)	Friction loss in main						10	mtr.
		Total Head						115	mtr.
5	**Tube well pump HP**	**Pump HP**							
	i	**Power Required each pump (Lpm*head (m)/75*60*~~.55~~(effi)**					~~15~~	~~19.6~~ 17.75	
						Say		20.0	HP each
6		**CAPACITY OF DG SET**							
					No of Pump				
		Equipment Description			**Working**	**Standby**	**Each**	**Total Power Consumption**	
	i	Domestic Water Transfer Pumps			2	1	20.0	50.4 ~~40.0~~	
	ii	Flu. / Irr. Water Transfer Pumps			2	1	20.0	40.0	
	iii	Pumping Machiner for tube well			~~2~~		20.0	40 ~~60.0~~	
	iv	Street lighting			Lumsum			30.0	
		Total HP Required						160 ~~170.0~~	
		DG KVA Required (HP*.746)/0.8				119.36 X 1.50 =	178.04	~~159~~	
		DG Capacity- Say						180 KVA ~~160~~	
7		**HSVP Water Suply Line**							
		Total Daily Water Demand	**Line**	**Flow**	**Proposed Dia**	**Length of Line**	**Frictionl Head Loss**	**Velocity**	**Total Head Loss**
		LPD		**LPM**	**mm**	**Mtr.**	**Mtr./ Mtr.**	**Mtr./Sec.**	**Mtr.**
		~~805603~~ 814761	HSVP to UGT	~~559~~ 566	150	480	0.003774877	0.6328	1.812

RESIDENTIAL INTEGRATED TOWNSHIP (UNDER NILP-2022) OVER AN AREA MEASURING 251.90625 ACRES (MIGRATED FROM LICENCE NO.06 OF 2010 DATED 14.10.2010 OF 314.8 ACRES) AT SECTOR 36,37,38,39 PANIPAT BEING DEVELOPED BY M/S UTTRINA INFRA PROJECTS PRIVATE LIMITED.

DAILY WATER DEMAND & PUMPING SYSTEM NILP RIGHT SIDE OF THE SECTOR ROAD

Sl. No.	Description	Area in Acres	Nos. of Plot	Population /Plot	Total Population	Water Demand /Persons in LPCD	Total Water Demand @ 155 LPCD (in LPD)	Domestic Water Demand @100LPCD (in LPD)	Flushing Water Demand @ 55LPCD (in	Sewage Flow 80% of total Flow in LPD
	Right									
	NILP LEFT SIDE OF THE SECTOR ROAD									
1	Plots		769	13.5	10382	155	1609210	~~1038200~~ 1045986	~~571010~~ 563224	1287368
2	Commercial-2 2.016@ 35 KL/Acre	2.02					~~50500~~ 64644	~~17675~~ 21624	~~32825~~ 42016	~~40400~~ 51712
3	UD area @ 25 KL/Acre	4.65					116180	75518	40657	~~92935~~ 93000
4	Primary school 0.5 Acre	0.5					50000	17500	32500	40000
5	Creche school 0.2 Acre -1 nos	0.2					10000	10000		8000
6	Religious building 0.2 @ 25 KL/Acre	0.20					5000	1750	3250	4000
7	Nursery school 0.2 Acre -1 nos	0.2					10000	10000		
8	Irrigation 6.24 Acre @25 KL/ Acre	3.608				25000	90200		90200	
	Total				10382		~~1941079~~ 1955300	~~1170635~~ 1183423	~~770444~~ 771877	~~1472703~~ 1484080
	Total Water Demand				1955300	~~1941079~~	LPD		~~1941~~	KLD 1955
	Total Domestic Water Demand				1183423	~~1170635~~	LPD		~~1171~~	KLD 1183
	Total Flushing Water Demand				681677	~~680244~~	LPD		~~680~~	KLD 682
	Total Irrigation Water Demand					90200	LPD		90	KLD
	Flow To Sewer from right side				1484080	~~1472703~~	LPD		~~1473~~	KLD 1484
	Flow To Sewer from left side				1118292	~~1188035~~	LPD		~~1188~~	KLD 1118
	Required Centralized STP cpacity					~~2660738~~	LPD		~~2661~~	KLD 2602
	Proposed Centralized STP capacity					2602372			2700	KLD
	Fire Water Tank Cap.								215	KLD
	Fire demand =2/3 *(100 * (P in thousand)^1/2)/ = 100 x (16.92)^1/2 =0.33 * 190 = 62.7 KL only for Undrground static Reservior)									
	Raw water tank capacity								355 ~~590~~	KLD
	Domestic waer tank capacity	@ 60% =	1183.42	X0.60 =	710.05	50%	710KL		355 590	KLD
	Total Underground Water Tank Capacity Proposed					Fire	215KL 925KL		~~1395~~ 925KL	KLD

1	Water Transfer Pumpset (Domestic)						
	a)	Water Pump Capacity					
	i	Total Domestic Demand per/day				1183 ~~1,171~~	KL/day
	ii	Pumping working hours/day			65.92	6	hours/day
	iii	Required Pumping Capacity Lpm			1695.38	~~3,252~~	Lpm
	iv	Proposed pump 4 nos with (3W + 1SB)		@		~~1,626~~	Lpm of each
				Say		~~1,650~~ 1100	Lpm of each pump
	b)	Water Pump Head					
	i	Suction lift				0	
	ii	Pump room from ground level				7	
	iii	Residual Head provided at farthest ferrule				22	
	iv	Friction Head Loss				15	
	v	Total pump head required				44	
	vi	Total pump head required including Factor of saftey @ 10 %				48	
	vii	Proposed Pump head		Say		50	
	c)	Pump HP					
	i	Power Required each pump (Lpm*head (m)/75*60*.10(effi)				~~26~~ 20.37	
				Say		~~30~~ 25.0	HP of each pump
2	Flushing / Irr. Water Transfer Pump						
	a)	Flush. water Pump Capacity					
	i	Total Flu. / Irr. Demand (i) per/day				772	KL/day
	ii	Pumping working hours/day				6	hours/day
	iii	Required Pumping Capacity				2,144	Lpm
	iv	Proposed pump 3 nos with (2W + 1SB)		@		1,072	Lpm of each pump
				Say		1,100	Lpm of each
	b)	Flushing water Pump Head					
	i	Suction lift				0	
	ii	Pump room from ground level				7	
	iii	Residual Head provided at farthest ferrule				22	
	iv	Friction Head Loss				25	
	v	Total pump head required				54	
	vi	Total pump head required including Factor of saftey @ 10 %				59	
	vii	Proposed Pump head		Say		60	
	c)	Pump HP					
	i	Power Required each pump (Lpm*head (m)/75*60*.10(effi)			24.44	~~21.0~~	
				Say		~~21~~ 25.0	HP of each pump

C.P. VIDYA AND ASSOCIATES

3	Tube well	Note : Tube well considered since the HSVP water supply is not available as of now..							
	i)	Approx. discharge of tube well						25	KL/hour
	ii)	Working hour of the tube well						~~18~~	KL/day 1650./day
	iii)	Total domestic water demand					1183	~~1,171~~	KL/day
	iv)	Number of tube well required (1295/(25X18)						~~2.6~~ 2.95	Nos
	v)	~~Add 10% as stand by~~						0.3	Nos
	vi)	Total number of tube well required						2.95	Nos
	vii)	Number of tube well proposed				Say		3	Nos
4	Pumping Machiner for tube well								
	i)	Gross working head						95	mtr.
	ii)	Average fall in S.L.						5	mtr.
	iii)	Dipression head						5	mtr.
	iv)	Firiction loss in main						10	mtr.
		Total Head						115	mtr.
5	Tube well pump HP	Pump HP						17.74	
	i	Power Required each pump (Lpm*head (m)/75*60*.~~55~~(effi)						~~19.4~~	
						Say		20.0	HP each
6		CAPACITY OF DG SET							
						No of Pump			
		Equipment Description				Working	Standby	Each	Total Power Consumption
	i	Domestic Water Transfer Pumps				3	1	25 ~~30.0~~	75.0 ~~90.0~~
	ii	Flu. / Irr. Water Transfer Pumps				2	1	25.0	50.0 ~~42.0~~
	iii	Pumping Machiner for tube well				2		20.0	40.0 ~~80.0~~
	iv	Street lighting				Lumsum			30.0
		Total HP Required							195 ~~242.0~~
		DG KVA Required (HP*.746)/0.8				195 x 0.746 x 1.5			218.24 ~~226~~
		DG Capacity- Say							230
7		HSVP Water Suply Line							
		Total Daily Water Demand	Line	Flow	Proposed Dia	Length of Line	Frictionl Head Loss	Velocity	Total Head Loss
		LPD		LPM	mm	Mtr.	Mtr./ Mtr.	Mtr./Sec.	Mtr.
		~~1170635~~ 1184623	HSVP to UGT	~~813~~ 823	150	570	0.007541514	0.9196	4.299

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C P VIDYA AND ASSOCIATES

RESIDENTIAL INTEGRATED TOWNSHIP (UNDER NILP-2022) OVER AN AREA MEASURING 251.90625 ACRES (MIGRATED FROM LICENCE NO.06 OF 2010 DATED 14.10.2010 OF 314.8 ACRES) AT SECTOR 36,37,38,39 PANIPAT BEING DEVELOPED BY M/S UTTRINA INFRA PROJECTS PRIVATE LIMITED.

(Amount Rs in lacs)

FINAL ABSTRACT OF COST

Description	Total of sub work	3% Contigencies	TOTAL	49% departmental	Grand Total
Sub Work-1 Water Supply	9704040 / 9,70,98,400 1024.77	291212 / 29,10,252 30.74	9995612 / 9,99,18,652 1055.51	4897620 / 4,89,88,139 517.20	14892702 / 14,88,76,791 1572.31
Sub Work-2 Sewerage	809.72 / 17,30,79,880	24.29 / 51,92,396	834.01 / 17,82,72,194	408.66 / 8,73,53,375	1242.67 / 26,56,25,569
Sub Work-3 Drainage	1694.17 / 10,71,50,799	50.82 / 32,14,524	1744.99 / 11,03,65,323	855.05 / 5,40,79,008	2600.04 / 16,44,44,331
Sub Work-4 Road Works	2209.78 / 17,59,80,709	66.29 / 52,79,421	2276.07 / 18,12,60,130	1115.27 / 8,88,17,464	3391.34 / 27,00,77,594
Sub Work-5 Street Lighiting	521.18 / 5,21,18,189	15.64 / 15,63,546	536.82 / 5,36,81,735	263.04 / 2,63,04,049	799.86 / 7,99,85,782
Sub Work-6 Plantation & Road side Trees/Horticulture	65.17 / 6169500 / 61,49,800	1.96 / 185085 / 1,54,484	67.13 / 6354585 / 63,04,284	32.89 / 2113247 / 25,00,184	100.02 / 9468332 / 79,03,385
Sub Work-7 MTC Charge and Resurfacing of Road	3134.96 / 29442328750 / 28,39,99,858	94.05 / 8832699 / 85,10,990	3229.01 / 303255986 / 28,25,10,840	1582.21 / 14859583 / 14,33,34,021	4811.22 / 45185419 / 43,58,54,263
TOTALS	Rs. 9059625 / 90596268 3 / 9459.75 / 94,44,87,345.25	Rs. 283.79 / 2,68,34,620.36 / 2778.881	Rs. 9743.54 / 92,43,21,965.01 / 93314563	Rs. 4774.32 / 45,14,47,763.15 / 45723936	Rs. 14517.86 lac / 1,37,27,69,728.76 / 139038092 9
Amount	Rs. 1,37,27,60,728.76 / 139038092 9 & 14517.86 lacs				

Area of development as per License 208.4728 Acre 251.90625 Acre

Net Cost Per Acre & 14517.86 lacs / 208.47 Acs = 5449526 Rs. 65,84,888.09 69.64 lacs

For: M/S UTTIRNA INFRAPROJECTS PRIVATE LIMITED

Uttirna Infra Projects Pvt.Ltd.
Authorized Signatory
Authorised Signatory

Checked subject to Comments
In forwarding letter No. 52280
Dt. 23/02/2024.....and notes
Attached with the estimate

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

Dy Director
Town & Country Planning
Haryana, Chandigarh

Superintending Engineer
HSVP Circle, KARNAL

EXECUTIVE ENGINEER
H.S.V.P. DIVISION, PANIPAT

C.P. VIDYA & ASSOCIATES

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हरियाणा शहरी विकास प्राधिकरण
HARYANA SHEHARI VIKAS PRADHIKARAN
Address: C-3, HSVP , HQ Sector-6
Panchkula

C.E.II-No. 52880
Dated: 29/02/2024
Annexure-A

SUB:- **Approval of Service Plan Estimate for providing water supply, sewerage, storm water drainage, construction of roads, street lightning and Hort. Works etc. in the Residential Integrated Township (under NILP-2022) measuring area 251.90 acres (migrated from licence no. 6 of 2010 dated 14.10.2010 of 314.08 acres) in Village Kabri and Panipat Taraf Insar, Sector-36,37,38 & 39 Distt. Panipat being developed by M/s Uttirna Infraprojects Pvt. Ltd. (Licence no. 257 of 2023 dated 29.11.2023).**

Technical note and comments:-

1. All detailed working drawings would have to be prepared by the colonizer for Integrating the internal services proposals with the master proposals of town.
2. The correctness of the levels will be the sole, responsibility of the colonizer for the integration of internal proposals, with the master proposals, of town and will be got confirmed before execution.
3. The material to be used shall the same specifications as are being adopted by HSVP and further shall also confirm to such directions, as issued by Chief Engineer, HSVP from time to time.
4. The work shall be carried out according to Haryana PWD specification or such specifications as are being followed by HSVP. Further it shall also confirm to such other directions, as are issued by Chief Engineer, HSVP from time to time.
5. The colonizer will be fully responsible to meet the demand of water supply and allied services till such time these are made available by State Government/ HSVP. All link connections with the State Government/ HSVP system and services will be done by the colonizer. If necessary extra tube-wells shall also be installed to meet extra demand of water beyond the provision according to EDC deposited.
6. Structural design & drawings of all the structures, such as pump chamber, boosting chamber, RCC OHSR underground tanks quarters, manholes chamber, sections of RCC pipes sewer and SW pipes, sewer, ventilating shafts for sewerage and Masonry Ventilation Chamber for Chamber for storm water drainage, temporary disposal/ arrangement etc. will be as per relevant I.S codes and PWD specifications; colonizer himself will be responsible for structural stability of all structures.
7. Potability of water will be checked and confirmed and the tube-wells will be put into operation after getting chemical analysis of water tested.
8. Only C.I/D.I pipes will be used in water supply and flushing system, UPVC/HDPE pipe for irrigation purposes.

P.T.O.

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9. A minimum 100 i/d C.I/D.I, 200mm i/d SW and 400mm id RCC NP-3 pipes will be used for water supply, sewerage and storm water drainage respectively.

10. Standard X-section for S.W. pipes sewer, RCC pipes sewer etc. will be followed as are being adopted in Haryana Public Health Engineering Deptt. or HSVP. If needed, the same may be sought by the colonizer from concerned Executive Engineer of HSVP.

11. The X-section, width of roads, will be followed as approved by the Chief Town Planner, Haryana, Chandigarh. The kerbs and channels will also be provided as per approved X-section and specifications. If needed, the same may be sought by the colonizer from concerned Executive Engineer of HSVP

12. The specifications for various roads will be followed as per IRC/MORTH specifications.

13. The wiring system of street lighting and specifications of street lighting fixture will be as per relevant standards.

14. This shall confirm to such other conditions as are incorporated in the approved estimate and the letter of approval.

Executive Engineer (M),
For Chief Engineer-II, HSVP,
Panchkula.

SUB WORK No. 1 **WATER SUPPLY**

RESIDENTIAL INTEGRATED TOWNSHIP (UNDER NILP-2022) OVER AN AREA MEASURING 251.90625 ACRES (MIGRATED FROM LICENCE NO.06 OF 2010 DATED 14.10.2010 OF 314.8 ACRES) AT SECTOR 36,37,38,39 PANIPAT BEING DEVELOPED BY M/S UTTRINA INFRA PROJECTS PRIVATE LIMITED.

S No.	Heads	Description	Amount
1	Sub Head 1	~~Tube well works~~ Head works	252.06 lacs Rs. ~~2,04,66,560.00~~
2	Sub Head 2	HSVP ~~Water Connection~~ Rising main	27.76 lacs Rs. ~~26,86,500~~.00 ~~2693500~~
3	Sub Head 3	Pumping and machinery	118.50 lacs Rs. 2,52,62,500.00
4	Sub Head 4	Domestic Water supply Distribution	331.79 lacs Rs. ~~2,61,72,600~~.00
5	Sub Head 5	Flushing/Irrigation System	294.66 lacs Rs. ~~2,24,21,340~~.00 ~~2244524~~
		TOTAL	1024.77 lacs Rs. ~~9,79,08,400~~.00 ~~9704040~~

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SUB WORK No. 1 — WATER SUPPLY

Sub Head 1 — Head Works ~~Tubewell head works~~

RESIDENTIAL INTEGRATED TOWNSHIP (UNDER NILP-2022) OVER AN AREA MEASURING 251.90625 ACRES (MIGRATED FROM LICENCE NO.06 OF 2010 DATED 14.10.2010 OF 314.8 ACRES) AT SECTOR 36,37,38,39 PANIPAT BEING DEVELOPED BY M/S UTTRINA INFRA PROJECTS PRIVATE LIMITED.

S No.	Description	Amount
A	**Tube well works**	
1	Boring and installing of deep tube wells 300x200 upto 300 mtr. Depth Complete all respect.	45.00 las
a)	3 Nos. @ Rs. ~~23,00,000~~ 15.00 las	Rs. ~~1,61,00,000.00~~
2	Provision for rising mains, connection borewells with water main and Bye-pass arrangements.	
a)	~~90 OD~~ ~~493 M~~ @ ~~Rs. 1,000~~	~~Rs. 4,93,000.00~~
b)	~~110 OD~~ ~~351 M~~ @ ~~Rs. 1,460~~	~~Rs. 5,12,400.00~~
c)	150 OD 367 ~~272~~ M @ Rs. ~~1,800~~ 2040/-	Rs. ~~4,89,600.00~~ 7.49
d)	200 OD 5 M @ Rs. 2,300	Rs. ~~11,500.00~~ 13500
3	Providing Tubewell submersible Pumps Capacity 25000 lph @115M head	12.00
a)	3 Nos. @ Rs. 4,00,000 each	Rs. ~~21,00,000.00~~
4	Provision for construction of Tube well chambers of Size 1.5x1.5x1.5 m for tubewell	3.00
a)	3 Nos. @ Rs. 1,00,000 each	Rs. ~~5,60,000.00~~
5	Prov. for staff qtrs for mtc. staff (L.S) 3 Nos.	25.00 las
6	Provision for carriage for materials and other unforeseen items (L/S)	Rs. 2,00,000.00
7	tube Pl. see below	157.43 las
	Total of Sub Head 1 — Carried over to summary of Sub work - 1	Rs. ~~2,04,66,560.00~~

252.06 las

Material statement For TUBE WELL Line

S.No.	Node	Dia(mm)	Length (M)
~~1~~	~~TW1-TW2~~	~~90~~	~~130~~
~~2~~	~~TW2-TW3~~	~~110~~	~~184~~
3	TW3-T1	150	147
4	TW4-T1	90	95
5	T1-TANK	200	5
~~6~~	~~TW5-TW6~~	~~90~~	~~266~~
~~7~~	~~TW6-TW7~~	~~110~~	~~176~~
8	TW7-TANK	150	125

150 mm Ø T.W line = 147 + 95 + 125 = 367 mtr
200 mm Ø T.W line = 5 mtr

7) Prov for boundary wall around the T.W site
   i) Water works 2 Nos (L.S) — 4.00 las
   T.W. 3 No (L.S) — 3.00 las
8) Prov. for footpath Headges and lawn at T.W. (L.S) — 3.00 las
9) i) Const of boosting chamber of suitable size along with 2 Nos U.G.T. of capacity 500 + 160 KL (left side) and 710 + 215 KL (in right side) = 1585 KL @ 5500/KL — 87.18 las
   ii) Const. of boosting chamber 2 No (L.S) — 8.00 las
10) Flushing water tank 950 KLD @ 5500/KL — 52.25 las

Rs 157.43 las

SUB WORK No. 1 — WATER SUPPLY

Sub Head 2	HSVP Water Supply Distribution System

(Rising main)

RESIDENTIAL INTEGRATED TOWNSHIP (UNDER NILP-2022) OVER AN AREA MEASURING 251.90625 ACRES (MIGRATED FROM LICENCE NO.06 OF 2010 DATED 14.10.2010 OF 314.8 ACRES) AT SECTOR 36,37,38,39 PANIPAT BEING DEVELOPED BY M/S UTTRINA INFRA PROJECTS PRIVATE LIMITED.

S No.	Description	Amount
A	**HSVP Rising Main**	
1	Providing, laying, jointing and testing DI pipe lines Including cost of excavation etc. complete in all respects.	
a)	150 mm dia pipe 1050 Mtr. @ Rs. 2,040	Rs. 21,42,000.00
2	Providing and fixing sluice valve and air release valve including cost of surface boxes and masonary chambers etc. complete in all respects	
a)	150 mm dia 2 Nos. @ Rs. ~~15,750~~ 15000/-	Rs. ~~31,500.00~~ 0.30
3	Providing and fixing indicating plates for sluice valve and air valves	
a)	2 Nos. @ Rs. ~~6,000~~ 20000 each	Rs. ~~12,000.00~~ 20000
		0.04 lac
4	Provision for carriage for materials and other unforeseen items (L/S)	Rs. 1,00,000.00
5	Provision for cutting of roads and making good to its original conditions (L/S)	Rs. 1,00,000.00
6	Provision for making connection with HSVP water main (L/S)	
	2 Nos. @ Rs. 1,00,000	Rs. 1,00,000.00
Total of Sub Head 2	Carried over to summary of Sub work - 1	Rs. ~~26,85,500.00~~ ~~2693500~~ 27.76 lac

Material statement For HSVP Line

S.No.	Node	Dia(mm)	Length (M)
1	HSVP-Tank 1	150	480
1	HSVP-Tank 2	150	570

1050 mtr

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SUB WORK No. 1 — WATER SUPPLY

Sub Head 3 — Pumping and machinery

LICENCE NO.06 OF 2010 DATED 14.10.2010 OF 314.8 ACRES) AT SECTOR 36,37,38,39 PANIPAT BEING DEVELOPED BY M/S UTTRINA INFRA PROJECTS PRIVATE LIMITED.

S No.	Description	Amount
1	Providing & installing pumping set of following capacity for Domestic Supply	
a)	Capacity 1150LPM each pumps @ 50 mtr. (2+1) 3 Nos. @ Rs. 5,00,000.00 each.	Rs. 15,00,000.00
a)	Capacity 1650 LPM each pumps @ 50 mtr. (3+1) 4 Nos. @ Rs. 5,00,000.00 each.	Rs. ~~28,00,000.00~~ 20.00
2	Providing & installing pumping set of following capacity for Flushing/Irrigation Pumps	
a)	Capacity 1100 LPM each pumps @ 55 mtr. (2+1) 3 Nos. @ Rs. 5,00,000.00 each.	Rs. 15,00,000.00
b)	Capacity 1100 LPM each pumps @ 60 mtr. (2+1) 3 Nos. @ Rs. 5,50,000.00 each.	Rs. ~~16,50,000.00~~ 15.00
	cheap pressure type	
3	Provisions for chlorination plant complete 5 Nos @ Rs 50,000.0 each	Rs. 2,50,000.00
4	Provision for making foundations and erection of pumping machinery 4 Set @ ~~Rs. 50,000.00~~ (L.S)	Rs. 4,00,000.00
5	Provision for pipes, valves and specials inside the boosting chamber 4 Set @ Rs. 25,000.00	Rs. 1,00,000.00
6	Provision for Gen Set. 230 ~~390~~ KVA @ Rs. 15,000.00 per KVA	~~50,70,000~~ Rs. ~~39,00,000.00~~ 34.50
7	Provision for Plumbing Plant Room and underground water Tank complete in all respect 2375 KL @ Rs. 5,800.00 per KL	~~Rs. 1,30,62,500.00~~
~~8~~	Provision for carriage of material and other unforeseen items etc. L/S	Rs. 3,00,000.00
	Sub Head 3 TOTAL COST TO SUB WORK - 1	~~Rs. 2,52,62,500.00~~

25 HP

25 HP

B Pwr for electric service connection incl. electric fitting for T.W.S chamber complete including cost of transformer 2 Nos (L.S) — 5.00 lacs

118.50 lacs

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SUB WORK No. 1 — **WATER SUPPLY**

Sub Head 4 — **Domestic Water supply**

RESIDENTIAL INTEGRATED TOWNSHIP (UNDER NILP-2022) OVER AN AREA MEASURING 251.90625 ACRES (MIGRATED FROM LICENCE NO.06 OF 2010 DATED 14.10.2010 OF 314.8 ACRES) AT SECTOR 36,37,38,39 PANIPAT BEING DEVELOPED BY M/S UTTRINA INFRA PROJECTS PRIVATE LIMITED.

S No	Description				Amount
1	Providing, laying, jointing and testing ~~HDPE/uPVC~~ DI pipe lines including fittings, valves, cost of excavation etc. complete in all respects.				2.20.80
a)	100 mm Pipe	15124 Mtr @	Rs. 1,460	per Mtr	Rs. ~~1,59,50,500~~
b)	150 mm Pipe	2747 Mtr @	Rs. ~~1,800~~	per Mtr 2040	Rs. ~~49,44,600~~ 56.04
c)	200 mm Pipe	1427 Mtr @	Rs. 2,500	per Mtr	Rs. ~~35,67,500~~ 38.53
d)	250 mm Pipe	24 Mtr @	Rs. 3,000	per Mtr	Rs. 72,000
2	Providing and fixing sluice valve including cost of surface boxes and masonry chambers etc. complete in all respects.				1.80 Lacs
a)	100 mm	15 Each @	Rs. 15,000		Rs. ~~2,25,000~~
b)	150 mm	3 Each @	Rs. ~~20,000~~ 15000		0.45 Rs. ~~60,000~~
c)	200 mm	7 Each @	Rs. 25,000		1.40 Rs. ~~1,75,000~~
d)	250 mm	1 Each @	Rs. ~~30~~,000		0.25 Rs. ~~30,000~~
3	Providing and fixing External Fire Hydrants including chamber				
	20 Nos @ Rs. 15,000				Rs. 3,00,000
4	Providing and fixing air release valve and scour valve				0.80
	8 Nos @ Rs. 10,000				Rs. ~~48,000~~
5	Indication plate for valves, hydrant AV etc. (4.1)				3 Rs. 3,00,000
6	Provision for carriage of materials and other unforeseen items (4.2)				Rs. 5,00,000
					331.79 Lacs
	TOTAL CO to SUB WORK - 1				**Rs. ~~2,61,72,600.00~~**

DOMESTIC MATERIAL SHEET								
Sl. No.	Node		Length	Proposed pipe dia in MM.	100 mm	150 mm	200 mm	250 mm
NILP LEFT SIDE								
1	W1	W2	208	200	0	0	208	0
2	W2	W8	64	200	0	0	64	0
3	W2	W5	118	100	118	0	0	0
4	W5	W6	53	100	53	0	0	0
5	W5	W7	113	100	113	0	0	0
6	W8	W9	31	150	0	31	0	0
7	W8	W21	169	150	0	169	0	0
8	W9	W11	73	150	0	73	0	0
9	W9	W20	169	100	169	0	0	0
10	W11	W12	63	150	0	63	0	0
11	W11	W18	169	100	169	0	0	0
12	W12	W13	32	150	0	32	0	0
13	W12	W17	169	100	169	0	0	0
14	W13	W14	64	150	0	64	0	0
15	W13	W16	169	100	169	0	0	0
16	W14	W15	169	150	0	169	0	0
17	W14	W39	19	150	0	19	0	0
18	W15	W16	66	100	66	0	0	0
19	W15	W28	74	150	0	74	0	0
20	W16	W17	33	100	33	0	0	0
21	W17	W18	63	100	63	0	0	0
22	W18	W20	73	100	73	0	0	0
23	W20	W21	31	100	31	0	0	0
24	W21	W22	74	150	0	74	0	0
25	W22	W25	200	150	0	200	0	0
26	W25	W26	181	100	181	0	0	0
27	W25	W28	64	150	0	64	0	0
28	W28	W29	406	150	0	406	0	0
29	W29	W30	66	100	66	0	0	0
30	W29	W35	172	150	0	172	0	0
31	W30	W31	21	110	21	0	0	0
32	W30	W36	172	100	172	0	0	0
33	W31	W32	26	100	26	0	0	0
34	W31	W33	394	100	394	0	0	0
35	W32	W33	6	100	6	0	0	0
36	W32	W38	162	100	162	0	0	0
37	W33	W34	90	100	90	0	0	0
38	W35	W36	67	100	67	0	0	0
39	W35	W39	104	150	0	104	0	0
40	W36	W37	20	100	20	0	0	0
41	W37	W38	28	100	28	0	0	0
42	W37	W41	442	100	442	0	0	0
43	W38	W43	447	100	447	0	0	0
44	W39	W40	338	100	338	0	0	0
45	W40	W41	86	100	86	0	0	0
46	W40	W47	263	100	263	0	0	0
47	W41	W42	88	100	88	0	0	0
48	W41	W43	33	100	33	0	0	0
49	W42	W43	55	100	55	0	0	0
50	W43	W45	294	100	294	0	0	0
51	W45	W46	148	100	148	0	0	0
52	W47	W48	121	100	121	0	0	0
53	W47	W49	33	100	33	0	0	0
54	W48	W49	75	100	75	0	0	0
TOTAL LENGTH in mtr			6868		4882	1734	272	0

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				NILP RIGHT SIDE	(60mm	150mm	240mm	300mm
1	W1	W2	6	300	0	0	0	6
2	W2	W3	22	100	22	0	0	0
3	W2	W10	11	300	0	0	0	11
4	W3	W5	75	100	75	0	0	0
5	W3	W4	140	100	140	0	0	0
6	W4	W11	32	100	32	0	0	0
7	W5	W6	162	100	162	0	0	0
8	W5	W7	32	100	32	0	0	0
9	W6	W8	32	100	32	0	0	0
10	W7	W8	173	100	173	0	0	0
11	W7	W9	21	100	21	0	0	0
12	W10	W11	140	100	140	0	0	0
13	W10	W12	7	300	0	0	0	7
14	W12	W13	149	200	0	0	149	0
15	W12	W27	64	200	0	0	64	0
16	W13	W14	20	200	0	0	20	0
17	W14	W15	68	100	68	0	0	0
18	W14	W70	385	200	0	0	385	0
19	W15	W16	157	100	157	0	0	0
20	W15	W21	64	100	64	0	0	0
21	W21	W22	70	100	70	0	0	0
22	W21	W26	155	100	155	0	0	0
23	W22	W24	186	100	186	0	0	0
24	W22	W25	103	100	103	0	0	0
25	W25	W26	322	100	322	0	0	0
26	W27	W28	297	100	297	0	0	0
27	W27	W29	10	200	0	0	10	0
28	W28	W29	277	100	277	0	0	0
29	W29	W30	63	200	0	0	63	0
30	W30	W32	82	150	0	82	0	0
31	W30	W56	220	200	0	0	220	0
32	W32	W33	74	150	0	74	0	0
33	W32	W44	220	100	220	0	0	0
34	W33	W34	33	150	0	33	0	0
35	W33	W43	220	100	220	0	0	0
36	W34	W35	78	150	0	78	0	0
37	W34	W42	220	100	220	0	0	0
38	W35	W36	62	150	0	62	0	0
39	W35	W41	220	100	220	0	0	0
40	W36	W37	87	150	0	87	0	0
41	W36	W40	190	100	190	0	0	0
42	W37	W38	190	150	0	190	0	0
43	W38	W54	127	100	127	0	0	0
44	W38	W40	87	150	0	87	0	0
45	W40	W41	28	150	0	28	0	0
46	W40	W52	127	100	127	0	0	0
47	W41	W42	78	150	0	78	0	0
48	W41	W51	127	100	127	0	0	0
49	W42	W43	33	150	0	33	0	0
50	W42	W50	127	100	127	0	0	0
51	W43	W44	74	150	0	74	0	0
52	W43	W49	127	100	127	0	0	0
53	W44	W48	127	150	0	127	0	0
54	W44	W56	82	100	82	0	0	0
55	W47	W48	20	100	20	0	0	0
56	W48	W49	74	100	74	0	0	0
57	W49	W50	33	100	33	0	0	0
58	W50	W51	78	100	78	0	0	0
59	W51	W52	32	100	32	0	0	0
60	W52	W54	86	100	86	0	0	0

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					100 mm	150 mm	200 mm	300 mm
61	W54	W55	40	100	40	0	0	0
62	W56	W57	148	200	0	0	148	0
63	W57	W58	44	100	44	0	0	0
64	W57	W67	44	200	0	0	44	0
65	W58	W59	78	100	78	0	0	0
66	W58	W62	52	100	52	0	0	0
67	W62	W66	187	100	187	0	0	0
68	W62	W63	202	100	202	0	0	0
69	W66	W67	238	100	238	0	0	0
70	W66	W87	52	100	52	0	0	0
71	W67	W70	52	200	0	0	52	0
72	W70	W71	39	100	39	0	0	0
73	W71	W72	69	100	69	0	0	0
74	W71	W75	49	100	49	0	0	0
75	W75	W76	69	100	69	0	0	0
76	W75	W79	48	100	48	0	0	0
77	W79	W80	85	100	85	0	0	0
78	W79	W83	48	100	48	0	0	0
79	W83	W84	52	100	52	0	0	0
80	W83	W87	53	100	53	0	0	0
TOTAL LENGTH in mtr.			8255		6043	1033	1155	24

Grand total 50123 m

10925 m 2743 m 1427 m 24 m

C P VIDYA AND ASSOCIATES GURUGRAM

RESIDENTIAL INTEGRATED TOWNSHIP (UNDER MLP-2022) OVER AN AREA MEASURING 251.2062 ACRES (MIGRATED FROM LICENCE NO.96 OF 2010 DATED 14.10.2010 OF 214.3 ACRES) AT SECTOR 36,37,38,39 PANIPAT BEING DEVELOPED BY M/S UTTRINA INFRA PROJECTS PRIVATE LIMITED.

Domestic Water supply hydraulic calculation for MLP Left side

Sl. No.	Node		Plots	Total Population= Plots Population @Average 3.5 Person/Plot	Water Demand @150 LPCD in KLD	Others building Total demand in KLD	Others building demand @35% of total water demand in KLD	Self Total water demand in KLD	Branch in KLD	Total water demand in KLD	Peak based on 6Hrs. in KLH	Peak Demand in LPM.	Length	Proposed pipe dia in MM.	Velocity in m/sec.	Frictional head loss in Mtr./ Mtr.	Frictional head loss in total pipe in Mtr.	Cumulative Frictional Loss	Min. Residual Head at end	Remarks: pump head is 50 mtr. Pump room below = 7 mtr. Head available at ground = 43
1	W1	W2	31	419	42			42	710	751	125	2087	208	200	1.107	0.005	1.113	1.113	41.887	
2	W2	W8	0	0	0			0	435	435	73	1209	66	200	0.641	0.002	0.125	1.238	41.762	
3	W2	W5	2	27	3			3	43	46	8	127	118	100	0.269	0.001	0.103	1.341	41.659	
4	W5	W6	2	27	3	60	21	24	0	24	4	66	53	100	0.140	0.000	0.014	1.355	41.645	
5	W5	W7	0	0	0	55	19	19	0	19	3	53	113	100	0.113	0.000	0.020	1.375	41.625	
6	W8	W9	0	0	0			0	390	390	65	1083	33	150	1.020	0.006	0.200	1.574	41.426	
7	W8	W21	16	216	22			22	0	22	4	60	169	150	0.057	0.000	0.005	1.580	41.420	
8	W9	W11	0	0	0			0	368	368	61	1023	73	150	0.964	0.006	0.429	2.009	40.991	
9	W9	W10	15	203	20			20	0	20	3	56	169	100	0.319	0.003	0.033	2.042	40.958	
10	W11	W12	0	0	0			0	348	348	58	966	53	150	0.911	0.005	0.329	2.364	40.636	
11	W11	W18	15	203	20			20	0	20	3	56	169	100	0.119	0.000	0.033	2.397	40.603	
12	W12	W13	0	0	0			0	328	328	55	910	52	150	0.858	0.005	0.149	2.546	40.454	
13	W12	W17	15	203	20			20	0	20	3	56	169	100	0.119	0.000	0.033	2.579	40.421	
14	W13	W14	0	0	0			0	307	307	51	854	64	150	0.805	0.004	0.266	2.845	40.155	
15	W13	W16	15	203	20			20	0	20	3	56	169	100	0.119	0.000	0.033	2.878	40.122	
16	W14	W15	15	203	20			20	253	274	46	760	169	150	0.716	0.003	0.565	3.443	39.557	
17	W14	W39	0	0	0			0	34	34	6	94	23	150	0.080	0.000	0.001	3.444	39.556	
18	W15	W16	6	81	8			8	245	253	42	704	66	100	1.495	0.021	1.380	4.824	38.176	
19	W15	W38	0	0	0			0	72	72	12	199	74	150	0.187	0.000	0.021	4.845	38.155	
20	W16	W17	3	41	4			4	241	245	41	681	33	100	1.445	0.020	0.650	5.494	37.506	
21	W17	W18	6	81	8			8	233	241	40	670	65	100	1.421	0.019	1.202	6.697	36.303	
22	W38	W20	7	95	9			0	224	233	39	648	73	100	1.373	0.018	1.308	8.005	34.995	
23	W20	W21	2	27	3			3	221	224	37	621	31	100	1.318	0.017	0.514	8.519	34.481	
24	W21	W22	7	95	9			9	212	221	37	614	74	150	0.579	0.002	0.167	8.686	34.314	
25	W22	W35	32	431	43			43	168	212	35	588	200	150	0.554	0.002	0.415	9.101	33.899	
26	W35	W26	25	338	34	180	63	97	0	97	16	269	181	100	0.570	0.004	0.636	9.738	33.262	
27	W25	W28	0	0	0			0	72	72	12	199	64	150	0.187	0.000	0.018	9.756	33.244	
28	W28	W29	32	432	43			43	28	72	12	199	406	150	0.187	0.000	0.113	9.868	33.131	
29	W29	W30	0	0	0			0	28	28	5	74	66	100	0.167	0.000	0.024	9.893	33.107	
30	W29	W35	12	162	16			16	28	45	7	124	172	150	0.117	0.000	0.020	9.913	33.087	
31	W30	W31	0	0	0			0	28	28	5	79	21	100	0.167	0.000	0.008	9.920	33.080	
32	W30	W36	12	162	16	3	1	17	0	17	3	88	172	100	0.302	0.000	0.035	9.955	33.045	
33	W31	W32	0	0	0			0	28	28	5	79	26	100	0.167	0.000	0.009	9.965	33.035	
34	W31	W33	21	284	28			28	0	28	5	79	394	100	0.167	0.000	0.143	10.097	32.903	
35	W32	W33	0	0	0			0	28	28	5	79	6	100	0.167	0.000	0.002	10.099	32.901	
36	W32	W38	9	122	12			12	0	12	2	34	162	100	0.072	0.000	0.012	10.112	32.888	
37	W33	W34	0	0	0	46	16	16	0	16	3	45	90	100	0.095	0.000	0.012	10.123	32.877	
38	W35	W36	0	0	0			0	68	68	11	188	67	100	0.398	0.002	0.121	10.244	32.756	
39	W35	W39	6	81	8			8	68	76	13	210	104	150	0.158	0.000	0.032	10.276	32.724	
40	W38	W37	0	0	0			0	68	68	11	188	30	100	0.398	0.002	0.036	10.312	32.688	
41	W37	W38	0	0	0			0	34	34	6	94	28	100	0.199	0.001	0.014	10.326	32.674	
42	W37	W41	25	338	34			34	0	34	6	94	443	100	0.199	0.001	0.221	10.547	32.453	
43	W38	W33	25	338	34			34	0	34	6	94	443	100	0.199	0.001	0.224	10.771	32.229	
44	W39	W40	20	270	27			27	62	89	15	247	338	100	0.525	0.003	1.019	11.790	31.210	
45	W40	W41	0	0	0			0	65	65	7	124	36	100	0.261	0.001	0.072	11.862	31.138	
46	W40	W47	7	95	9			9	8	18	3	49	263	100	0.103	0.000	0.039	11.901	31.099	
47	W41	W42	0	0	0			0	4	4	1	11	88	100	0.024	0.000	0.001	11.902	31.098	
48	W41	W43	0	0	0			0	45	45	7	124	33	100	0.262	0.001	0.038	11.940	31.070	
49	W42	W43	3	41	4			4	0	4	1	11	55	100	0.024	0.000	0.001	11.940	31.070	
50	W43	W45	0	0	0	50	17.5	18	23	40	7	112	296	100	0.238	0.001	0.206	12.146	30.864	
51	W45	W48	17	230	23			23	0	23	4	64	148	100	0.135	0.000	0.036	12.171	30.829	
52	W47	W48	6	81	8			8	0	8	1	23	121	100	0.048	0.000	0.004	12.176	30.824	
53	W47	W49	0	0	0			0	8	8	1	23	33	100	0.048	0.000	0.001	12.177	30.823	
54	W48	W49	0	0	0			0	8	8	1	23	75	100	0.048	0.000	0.003	12.180	30.820	

C P VIDYA AND ASSOCIATES GURGAON

Sl. No.	Node		Plots	Total Population= Plots Population @Average 13.5 Person/Plot	Water Demand @100 LPCD in KLD	Others building Total demand in KLD	Others building demand @35% of total water demand in KLD	Self Total water demand in KLD	Branch in KLD	Total water demand in KLD	Peak based on 6Hrs. in KLH	Peak Demand in LPM.	Length	Proposed pipe dia in MM.	Velocity in m/sec	Frictional head loss in Mtr./ Mtr.	Friction al head loss in total pipe in Mtr.	Cumulati ve Frictional Loss	Min. Residual Head at end	pump head is 50 mtr. Pump room below = 7 mtr. Head available at ground = 43 mtr.
Domestic Water supply hydraulic calculation for MLP 88HIT side																				
Sl. No.	Node		Plots self	Total Population= Plots Population @Average 13.5 Person/Plot	Water Demand @100 LPCD in KLD	Others building Total demand in KLD	Others building demand @35% of total water	Self Total water demand in KLD	Branch in KLD	Total water demand in KLD	Peak based on 6Hrs. in KLH	Peak Demand in LPM.	Length	Proposed pipe dia in MM.	Velocity in m/sec	Frictional head loss in Mtr./ Mtr.	Friction al head loss in total pipe in	Cumulati ve Frictional Loss	Min. Residual Head at end	Remarks: pump head is 55 mtr. Pump room below = 7 mtr. Head available at ground = 43 mtr.
1	W1	W2	0	0	0			0	1179	1179	197	2276	6	250	1.112	0.004	0.025	0.025	42.975	
2	W2	W3	2	27	3			3	38	41	7	113	22	100	0.239	0.001	0.015	0.040	42.960	
3	W2	W10	1	13.5	1			1	14	15	3	43	11	250	0.044	0.000	0.000	0.040	42.960	
4	W3	W5	8	108	11			11	38	49	8	135	75	100	0.286	0.001	0.074	0.114	42.886	
5	W3	W4	10	135	14			14	0	14	2	38	140	100	0.080	0.000	0.018	0.127	42.873	
6	W4	W11	0	0	0			0	14	14	2	38	32	100	0.080	0.000	0.003	0.130	42.870	
7	W5	W6	10	135	14			14	0	14	2	38	162	100	0.080	0.000	0.015	0.145	42.855	
8	W5	W7	1	13.5	1			1	23	24	4	68	32	100	0.143	0.000	0.009	0.155	42.845	
9	W6	W8	0	0	0			0	23	23	4	64	32	100	0.135	0.000	0.008	0.161	42.839	
10	W7	W8	13	175.5	18			18	0	18	3	49	173	100	0.103	0.000	0.026	0.187	42.813	
11	W7	W9	4	54	5			5	0	5	1	15	71	100	0.032	0.000	0.000	0.187	42.813	
12	W10	W11	10	135	14			14	0	14	2	38	140	100	0.080	0.000	0.013	0.200	42.800	
13	W10	W12	7	94.5	9			9	1000	1010	168	2804	7	250	0.952	0.003	0.022	0.222	42.778	
14	W12	W13	9	121.5	12			12	447	459	77	1275	149	200	0.676	0.002	0.320	0.542	42.458	
15	W12	W27	0	0	0			0	1000	1000	167	2778	64	200	1.473	0.009	0.582	1.124	41.876	
16	W13	W14	0	0	0			0	447	447	74	1241	27	200	0.658	0.003	0.041	1.165	41.835	
17	W14	W15	10	135	14			14	151	165	27	457	68	100	0.969	0.009	0.699	1.864	41.136	
18	W14	W70	30	406	41			41	242	282	47	784	386	100	0.416	0.001	0.336	2.140	40.860	
19	W15	W16	15	202.5	20	60	21	43	0	43	7	119	157	100	0.253	0.001	0.123	2.263	40.737	
20	W15	W21	4	54	5			5	103	108	18	300	64	100	0.636	0.004	0.276	2.539	40.461	
21	W21	W22	8	108	11			11	92	103	17	285	70	100	0.604	0.004	0.274	2.813	40.187	
22	W21	W26	18	243	24			24	42	66	11	184	155	100	0.390	0.002	0.270	3.083	39.917	
23	W22	W24	25	337.5	34			34	0	34	6	94	186	100	0.199	0.001	0.093	3.176	39.824	
24	W22	W25	12	162	16			16	42	58	10	161	103	100	0.342	0.001	0.141	3.316	39.684	
25	W25	W26	31	418.5	42			42	0	42	7	116	112	100	0.247	0.001	0.240	3.556	39.444	
26	W27	W28	25	337.5	34			34	0	34	6	94	257	100	0.199	0.001	0.149	3.705	39.295	
27	W27	W29	0	0	0			0	966	966	161	2684	10	200	1.423	0.009	0.085	3.790	39.210	
28	W28	W29	24	324	32			32	0	32	5	90	277	100	0.191	0.000	0.128	3.918	39.082	
29	W29	W30	0	0	0			0	966	966	161	2684	63	200	1.423	0.009	0.557	4.476	38.544	
30	W30	W32	8	108	11			11	305	316	53	878	80	150	0.827	0.004	0.358	4.834	38.166	
31	W30	W50	14	189	19			19	631	650	108	1805	220	200	0.958	0.004	0.903	5.737	37.285	
32	W32	W33	7	94.5	9			9	296	305	51	848	74	150	0.799	0.004	0.303	6.040	36.982	
33	W32	W44	27	364.5	36			36	0	36	6	101	220	100	0.215	0.001	0.127	6.167	36.855	
34	W33	W34	0	0	0			0	259	259	43	720	33	150	0.679	0.003	0.180	6.348	36.755	
35	W33	W35	13	175.5	18			18	0	18	3	49	220	100	0.103	0.000	0.033	6.276	36.723	
36	W34	W35	8	108	11			11	231	242	40	672	78	150	0.633	0.003	0.208	6.485	36.515	
37	W34	W42	13	175.5	18			18	0	18	3	49	220	100	0.103	0.000	0.033	6.518	36.482	
38	W35	W36	2	27	3			3	211	213	36	593	62	150	0.559	0.002	0.131	6.649	36.351	
39	W35	W41	13	175.5	18			18	0	18	3	49	220	100	0.103	0.000	0.033	6.682	36.318	
40	W36	W37	0	0	0			0	193	193	32	537	87	150	0.506	0.002	0.153	6.834	36.166	
41	W38	W40	12	162	16			16	0	16	3	45	190	100	0.095	0.000	0.024	6.859	36.141	
42	W37	W48	29	391.5	39			39	138	177	29	492	190	150	0.463	0.001	0.284	7.142	35.858	
43	W38	W54	20	270	27			27	0	27	5	75	127	100	0.159	0.000	0.042	7.184	35.816	
44	W38	W40	0	0	0	60.5	18	18	93	111	18	308	87	150	0.290	0.001	0.055	7.239	35.761	
45	W40	W41	0	0	0			0	93	93	16	259	28	150	0.244	0.000	0.013	7.252	35.748	
46	W40	W52	8	108	11			11	0	11	2	30	127	100	0.064	0.000	0.008	7.259	35.741	
47	W41	W42	0	0	0			0	82	82	14	229	78	150	0.218	0.000	0.028	7.288	35.712	
48	W41	W51	8	108	11			11	0	11	2	30	127	100	0.064	0.000	0.006	7.295	35.705	
49	W42	W43	0	0	0			0	72	72	12	199	33	150	0.187	0.000	0.009	7.305	35.695	
50	W42	W50	8	108	11			11	0	11	2	30	127	100	0.064	0.000	0.008	7.312	35.688	
51	W43	W44	1	13.5	1			1	59	61	10	169	74	150	0.339	0.000	0.015	7.328	35.672	
52	W43	W49	8	108	11			11	49	59	10	165	127	100	0.350	0.001	0.181	7.509	35.491	
53	W44	W48	17	229.5	23			23	26	49	8	135	127	150	0.127	0.000	0.017	7.526	35.474	

Sl. No.	Node		Plots	Total Population Plots Population @Average 13.5 Person/Plot	Water Demand @100 LPCD in KLD	Others building Total demand in KLD	Others building demand @15% of total water demand in KLD	Self Total water demand in KLD	Branch in KLD	Total water demand in KLD	Peak based on qtrs. in KLH	Peak Demand in LPM.	Length	Proposed pipe dia in MM.	Velocity in m/sec	Frictional head loss in Mtr./ Mtr.	Friction al head loss in total pipe in Mtr.	Cumulati ve Frictional Loss	Min. Residual Head at end	pump head is till	pump head is till 7 mtr. below = 7 mtr. Stable at ground = 45
54	W48	W50	0	0	0			0	26	26	4	71	81	100	0.151	0.000	0.025	7.591	35.449		
55	W47	W48	3	40.5	4			4	22	26	4	71	20	100	0.151	0.000	0.006	7.557	35.443		
56	W48	W49	4	54	5			5	16	22	4	60	74	100	0.127	0.000	0.019	7.573	35.427		
57	W49	W50	2	27	3			3	16	19	3	45	35	100	0.095	0.000	0.004	7.577	35.423		
58	W50	W51	0	0	0			0	14	14	2	38	78	100	0.080	0.000	0.007	7.584	35.416		
59	W51	W52	2	27	3			3	11	14	2	38	32	100	0.080	0.000	0.003	7.587	35.413		
60	W52	W54	4	54	5			5	5	11	2	30	80	100	0.064	0.000	0.005	7.592	35.408		
61	W54	W55	4	54	5			5	0	5	1	15	40	100	0.032	0.000	0.001	7.593	35.407		
62	W56	W57	11	148.5	15			15	301	315	53	895	148	200	0.464	0.001	0.159	7.752	35.248		
63	W57	W58	6	81	8			8	90	99	16	274	44	100	0.581	0.004	0.160	7.912	35.088		
64	W57	W57	0	0	0			0	207	207	34	581	44	200	0.297	0.000	0.021	7.933	35.068		
65	W58	W59	8	108	11			11	0	11	2	30	78	100	0.064	0.000	0.005	7.937	35.063		
66	W58	W62	7	94.5	9			9	81	90	15	251	52	100	0.533	0.005	0.161	8.098	34.902		
67	W62	W66	17	229.5	23			23	0	23	4	64	187	100	0.136	0.000	0.046	8.144	34.856		
68	W62	W63	43	580.5	58			58	0	58	10	161	202	100	0.342	0.001	0.276	8.420	34.580		
69	W66	W67	60	810	81			81	0	81	14	225	238	100	0.477	0.003	0.802	9.022	33.978		
70	W66	W67	0	0	0			0	81	81	14	225	52	100	0.477	0.003	0.132	9.154	33.846		
71	W67	W70	0	0	0			0	121	121	20	336	52	100	0.178	0.000	0.009	9.163	33.837		
72	W70	W71	5	67.5	7			7	114	121	20	336	38	100	0.713	0.005	0.207	9.371	33.629		
73	W71	W72	15	202.5	20			20	0	20	3	56	69	100	0.119	0.000	0.013	9.384	33.616		
74	W71	W75	6	81	8			8	86	94	16	265	49	100	0.564	0.003	0.163	9.547	33.453		
75	W75	W76	16	216	22			22	0	22	4	60	69	100	0.127	0.000	0.015	9.562	33.438		
76	W75	W79	7	94.5	9			9	55	64	11	178	48	100	0.379	0.002	0.079	9.641	33.359		
77	W79	W80	16	216	22			22	0	22	4	60	85	100	0.127	0.000	0.019	9.660	33.340		
78	W79	W83	6	81	8			8	25	33	6	92	48	100	0.196	0.000	0.023	9.683	33.317		
79	W83	W84	10	135	14	10	4	17	0	17	3	47	52	100	0.100	0.000	0.007	9.690	33.309		
80	W83	W87	0	81	8			8	0	8	1	23	53	200	0.048	0.000	0.002	9.692	33.308		

C.P. VIDYA AND ASSOCIATES GURGAON

SUB WORK No. 1 — WATER SUPPLY

Sub Head 5 — Flushing/Irrigation System

RESIDENTIAL INTEGRATED TOWNSHIP (UNDER NILP-2022) OVER AN AREA MEASURING 251.90625 ACRES (MIGRATED FROM LICENCE NO.06 OF 2010 DATED 14.10.2010 OF 314.8 ACRES) AT SECTOR 36,37,38,39 PANIPAT BEING DEVELOPED BY M/S UTTRINA INFRA PROJECTS PRIVATE LIMITED.

S No.	Description			Amount	
1	Providing, laying, jointing and testing pipes lines conforming uPVC/HDPE pipe 10 Kg/Sq.cm Class-IV (IS: 4985) including cost of excavation etc. complete in all respects.				
1.1	25 mm Pipe	1452 Mtr @	Rs. ~~450~~ 340	Rs. ~~6,53,400.00~~	4.36
1.2	32 mm Pipe	142 Mtr @	Rs. ~~500~~ 450	Rs. ~~71,000.00~~	0.64
1.3	40 mm Pipe	12 Mtr @	Rs. ~~600~~ 500	Rs. ~~7,200.00~~	0.06
~~1.4~~	~~75 mm Pipe~~	~~5557 Mtr @~~	~~Rs. 900~~	~~Rs. 50,01,300.00~~	
~~1.5~~	~~90 mm Pipe~~	~~6189 Mtr @~~	~~Rs. 1,100~~	~~Rs. 57,07,900.00~~	
1.6	~~100~~ mm Pipe	12615 ~~1889~~ Mtr @	Rs. 1,460	Rs. ~~27,28,740.00~~	184.16
1.7	~~160~~ mm Pipe	2200 Mtr @	Rs. ~~1,800~~ 2040	Rs. ~~39,60,000.00~~	44.88
1.8	~~285~~ mm Pipe	27 Mtr @	Rs. ~~2,500~~ 2700	Rs. ~~67,500.00~~	0.73
1.9	250 mm Pipe	689 Mtr @	Rs. ~~2,800~~ 3000	Rs. ~~19,29,200.00~~	20.67
2	Providing and fixing sluice valve including cost of surface boxes and masonry chambers etc. complete in all respects.				2.50
2.1	~~250~~ mm	10 ~~2~~ Each @	Rs. ~~10,000~~ 2500	Rs. ~~20,000.00~~	
2.2	~~300~~ mm	~~10~~ Each @	Rs. ~~42,000~~ 2000	Rs. ~~1,20,000.00~~	0.20
3.1	100 mm	52 Each @	Rs. 16,000	Rs. ~~32,000.00~~	6.24
3.2	150 mm	22 Each @	Rs. ~~20,000~~ 1500	Rs. ~~40,000.00~~	3.30
3	Providing and fixing Garden Hydrant 362 Nos. @ Rs. ~~3,500~~ 3000 each			Rs. ~~12,67,000.00~~	18.10 Lm
4	Providing and fixing air release valve and scour valve				0.80
	8 Nos. @ Rs. ~~2,000~~ 1000 each			Rs. ~~16,000.00~~	40000
5	Indication plate for valves, hydrant AV etc.			Rs. 3,00,000.00	
6	Provision for carriage of materials and other unforeseen items			Rs. 5,00,000.00	
	TOTAL CO to SUB WORK - 1			~~Rs. 2,24,21,240.00~~	22445240

@ 294.66 Lm

C P VIDYA AND ASSOCIATES

FLUSHING MATERIAL SHEET

Sl. No.	Node		Length	Proposed pipe dia in OD.	PIPE LENGTH DIA WISE					
					75	90	110	160	225	250
NILP LEFT SIDE										
1	F1	F2	27	250	0	0	0	0	27	0
2	F2	F13	186	160	0	0	0	186	0	0
3	F2	F4	81	160	0	0	0	81	0	0
2	F4	F5	170	160	0	0	0	170	0	0
3	F4	F23	33	180	0	33	0	0	0	0
4	F5	F6	63	190	0	63	0	0	0	0
5	F5	F24	33	160	0	0	0	33	0	0
6	F6	F7	182	175	182	0	0	0	0	0
7	F6	F10	118	190	0	118	0	0	0	0
8	F10	F11	53	180	0	53	0	0	0	0
9	F10	F12	118	190	0	118	0	0	0	0
10	F13	F14	180	180	0	0	180	0	0	0
11	F13	F16	73	160	0	0	0	73	0	0
12	F16	F18	74	160	0	0	0	74	0	0
13	F16	F30	41	180	0	0	41	0	0	0
14	F18	F19	64	190	0	64	0	0	0	0
15	F18	F29	170	160	0	0	0	170	0	0
16	F19	F20	34	180	0	34	0	0	0	0
17	F19	F28	170	165	170	0	0	0	0	0
18	F20	F21	63	195	0	63	0	0	0	0
19	F20	F27	170	175	170	0	0	0	0	0
20	F21	F23	72	180	0	72	0	0	0	0
21	F21	F26	170	175	170	0	0	0	0	0
22	F23	F24	170	195	170	0	0	0	0	0
23	F24	F26	72	160	0	0	0	72	0	0
24	F26	F27	63	160	0	0	0	63	0	0
25	F27	F28	34	160	0	0	0	34	0	0
26	F28	F29	64	160	0	0	0	64	0	0
27	F29	F42	19	180	0	0	19	0	0	0
28	F30	F31	67	190	0	67	0	0	0	0
29	F30	F41	174	180	0	0	174	0	0	0
30	F31	F40	174	165	174	0	0	0	0	0
31	F31	F32	20	190	0	20	0	0	0	0
32	F32	F33	178	175	178	0	0	0	0	0
33	F32	F37	30	190	0	30	0	0	0	0
34	F33	F34	33	195	33	0	0	0	0	0
35	F34	F35	176	175	176	0	0	0	0	0
36	F35	F37	5	175	5	0	0	0	0	0
37	F35	F36	87	195	87	0	0	0	0	0
38	F37	F38	174	190	0	174	0	0	0	0
39	F38	F39	33	190	0	33	0	0	0	0
40	F38	F47	446	180	0	446	0	0	0	0
41	F39	F40	19	175	19	0	0	0	0	0
42	F39	F44	442	190	0	442	0	0	0	0
43	F40	F41	67	180	0	0	67	0	0	0
44	F41	F42	104	180	0	0	104	0	0	0
45	F42	F43	339	180	0	0	339	0	0	0
46	F43	F44	86	190	0	86	0	0	0	0
47	F43	F52	266	195	266	0	0	0	0	0
48	F44	F45	54	195	54	0	0	0	0	0
49	F44	F47	33	160	0	33	0	0	0	0
50	F45	F46	33	195	33	0	0	0	0	0
51	F46	F47	54	195	54	0	0	0	0	0
52	F47	F49	292	190	0	292	0	0	0	0
53	F49	F51	147	185	147	0	0	0	0	0
54	F52	F53	87	195	87	0	0	0	0	0
55	F52	F55	32	175	32	0	0	0	0	0
56	F53	F54	32	195	32	0	0	0	0	0
57	F54	F55	86	185	86	0	0	0	0	0
TOTAL LENGTH in mtr.			6537		2325	2241	924	1020	27	0

CHADHA AND ASSOCIATES GURUGRAM

NILP RIGHT SIDE										
1	F1	F2	689	250	0	0	0	0	0	689
2	F2	F3	127	150	0	127	0	0	0	0
3	F2	F14	88	150	0	0	0	88	0	0
4	F2	F60	190	150	0	0	0	190	0	0
5	F3	F4	39	150	39	0	0	0	0	0
6	F3	F6	88	150	0	88	0	0	0	0
7	F6	F7	31	150	0	31	0	0	0	0
8	F6	F14	127	150	127	0	0	0	0	0
9	F7	F8	79	150	0	79	0	0	0	0
10	F7	F15	127	150	127	0	0	0	0	0
11	F8	F9	32	150	0	32	0	0	0	0
12	F8	F16	127	150	127	0	0	0	0	0
13	F9	F11	83	150	0	83	0	0	0	0
14	F9	F17	127	150	127	0	0	0	0	0
15	F11	F12	18	150	18	0	0	0	0	0
16	F11	F19	127	150	0	127	0	0	0	0
17	F14	F15	31	150	0	0	0	31	0	0
18	F14	F58	190	150	190	0	0	0	0	0
19	F15	F16	79	150	0	0	0	79	0	0
20	F15	F57	218	150	218	0	0	0	0	0
21	F16	F17	32	150	0	0	0	32	0	0
22	F16	F56	218	150	218	0	0	0	0	0
23	F17	F19	83	150	0	0	0	83	0	0
24	F17	F55	218	150	218	0	0	0	0	0
25	F19	F20	73	150	0	0	0	73	0	0
26	F19	F53	218	150	218	0	0	0	0	0
27	F20	F21	145	150	0	0	145	0	0	0
28	F20	F52	218	150	0	0	0	218	0	0
29	F21	F24	53	150	0	53	0	0	0	0
30	F21	F31	44	150	0	0	44	0	0	0
31	F24	F25	74	150	74	0	0	0	0	0
32	F24	F28	52	150	0	52	0	0	0	0
33	F28	F29	195	150	195	0	0	0	0	0
34	F28	F30	175	150	0	175	0	0	0	0
35	F30	F31	235	150	0	235	0	0	0	0
36	F30	F51	52	150	0	52	0	0	0	0
37	F31	F34	52	150	0	0	52	0	0	0
38	F34	F74	386	150	0	0	386	0	0	0
39	F34	F37	48	150	0	48	0	0	0	0
40	F37	F38	68	150	68	0	0	0	0	0
41	F37	F41	48	150	0	48	0	0	0	0
42	F41	F42	84	150	84	0	0	0	0	0
43	F41	F45	48	150	0	48	0	0	0	0
44	F45	F46	68	150	68	0	0	0	0	0
45	F45	F48	48	150	0	48	0	0	0	0
46	F48	F50	54	150	54	0	0	0	0	0
47	F48	F51	42	150	0	42	0	0	0	0
48	F52	F53	73	150	0	0	0	73	0	0
49	F52	F61	64	150	0	0	64	0	0	0
50	F53	F55	83	150	0	0	0	83	0	0
51	F55	F56	32	150	0	0	0	32	0	0
52	F56	F57	79	150	0	0	0	79	0	0
53	F57	F58	31	150	0	0	0	31	0	0
54	F58	F60	88	150	0	0	0	88	0	0
55	F61	F62	300	150	0	300	0	0	0	0
56	F61	F63	21	150	0	0	21	0	0	0
57	F62	F63	279	150	0	279	0	0	0	0
58	F63	F64	64	150	0	0	64	0	0	0
59	F64	F65	70	150	0	70	0	0	0	0
60	F64	F74	169	150	0	0	169	0	0	0
61	F65	F66	140	150	140	0	0	0	0	0
62	F65	F67	33	150	0	33	0	0	0	0
63	F66	F68	33	150	33	0	0	0	0	0
64	F67	F68	140	150	140	0	0	0	0	0

VIDYA AND ASSOCIATES GURUGRAM

65	F67	F69	74	100	0	74	0	0	0	0
66	F69	F70	164	100	164	0	0	0	0	0
67	F69	F71	32	80	0	32	0	0	0	0
68	F70	F72	32	100	32	0	0	0	0	0
69	F71	F72	172	100	172	0	0	0	0	0
70	F71	F73	24	100	24	0	0	0	0	0
71	F74	F75	68	80	0	68	0	0	0	0
72	F75	F76	164	100	164	0	0	0	0	0
73	F75	F81	65	80	0	65	0	0	0	0
74	F81	F82	70	80	0	70	0	0	0	0
75	F81	F86	208	80	0	208	0	0	0	0
76	F82	F84	193	100	193	0	0	0	0	0
77	F82	F85	102	80	0	102	0	0	0	0
78	F85	F86	279	60	0	279	0	0	0	0
TOTAL LENGTH in mtr.			8994		3232	2948	945	1180	0	689

IRRIGATION MATERIAL SHEET

Sl. No.	Node		Length	Proposed pipe dia in OD.	PIPE LENGTH DIA WISE		
					25	32	40
1	Main line	1	10	25	10	0	0
2	1	2	18	25	18	0	0
2	1	3	13	25	13	0	0
3	Main line	4	10	32	0	10	0
3	4	5	6	25	6	0	0
4	5	6	30	25	30	0	0
4	4	7	24	25	24	0	0
5	Main line	8	12	25	12	0	0
5	8	9	15	25	15	0	0
6	8	10	15	25	15	0	0
6	Main line	9	18	25	18	0	0
7	9	10	35	25	35	0	0
7	Main line	11	12	32	0	12	0
8	11	12	15	25	15	0	0
8	12	13	30	25	30	0	0
9	11	14	16	25	16	0	0
9	Main line	15	12	32	0	12	0
10	15	16	6	25	6	0	0
10	16	17	30	25	30	0	0
11	15	18	24	25	24	0	0
11	Main line	19	12	25	12	0	0
12	19	20	19	25	19	0	0
12	20	21	30	25	30	0	0
13	19	22	12	25	12	0	0
13	Main line	23	12	40	0	0	12
14	23	24	23	25	23	0	0
14	24	25	30	25	30	0	0
15	23	26	8	25	8	0	0
15	26	27	30	25	30	0	0
16	Main line	28	12	32	0	12	0
16	28	29	22	25	22	0	0
17	28	30	8	25	8	0	0
17	30	31	30	25	30	0	0
18	Main line	32	12	32	0	12	0
18	32	33	22	25	22	0	0
19	32	34	8	25	8	0	0
19	34	35	30	25	30	0	0
20	Main line	36	12	32	0	12	0
20	36	37	22	25	22	0	0
21	36	38	8	25	8	0	0
21	38	39	30	25	30	0	0
22	Main line	40	12	32	0	12	0
22	40	41	22	25	22	0	0
23	40	42	8	25	8	0	0
23	42	43	30	25	30	0	0
24	Main line	44	12	32	0	12	0

Ground total = 250mm = 689mL
200mm = 2700mL
150mm = 2200mL
100mm = 1265mL

CHADHA AND ASSOCIATES GURUGRAM

24	44	45	27	25	22	0	0
25	44	46	8	25	8	0	0
25	Main line	47	12	32	0	12	0
26	47	48	12	25	12	0	0
26	47	49	19	25	19	0	0
27	49	50	28	25	28	0	0
27	Main line	51	12	32	0	12	0
28	51	52	8	25	8	0	0
28	52	53	30	25	30	0	0
29	51	54	22	25	22	0	0
29	Main line	55	12	25	12	0	0
30	55	56	21	25	21	0	0
30	55	57	9	25	9	0	0
31	Main line	58	12	25	12	0	0
31	58	59	16	25	16	0	0
32	58	60	14	25	14	0	0
32	Main line	61	12	25	12	0	0
33	61	62	16	25	16	0	0
34	61	63	14	25	14	0	0
35	Main line	64	12	25	12	0	0
36	64	65	16	25	16	0	0
37	64	66	14	25	14	0	0
38	Main line	67	12	25	12	0	0
39	67	68	16	25	16	0	0
40	67	69	14	25	14	0	0
41	Main line	70	12	25	12	0	0
42	70	71	21	25	21	0	0
43	70	72	9	25	9	0	0
44	Main line	73	12	25	12	0	0
45	73	74	21	25	21	0	0
46	73	75	9	25	9	0	0
47	Main line	76	12	25	12	0	0
48	76	77	21	25	21	0	0
49	76	78	9	25	9	0	0
50	Main line	79	12	25	12	0	0
51	79	80	15	25	15	0	0
52	79	81	15	25	15	0	0
53	Main line	82	12	25	12	0	0
54	82	83	15	25	15	0	0
55	82	84	15	25	15	0	0
56	Main line	85	12	25	12	0	0
57	85	86	11	25	11	0	0
58	85	87	19	25	19	0	0
59	Main line	88	12	32	0	12	0
60	88	89	11	25	11	0	0
61	89	90	30	25	30	0	0
62	88	91	19	25	19	0	0
63	Main line	92	12	32	0	12	0
64	92	93	11	25	11	0	0
65	93	94	30	25	30	0	0
66	92	95	19	25	19	0	0
TOTAL LENGTH in mtr.			1606		1452	142	12

C VIDYA AND ASSOCIATES GURUGRAM

RESIDENTIAL INTEGRATED TOWNSHIP (UNDER NILP-2022) OVER AN AREA MEASURING 381.88625 ACRES (MIGRATED FROM LICENCE NO.66 OF 2010 DATED 14.10.2010 OF 314.8 ACRES) AT SECTOR 36,37,38,39 PANIPAT BEING DEVELOPED BY M/S UTTRIMA INFRA PROJECTS PRIVATE LIMITED.

Flush Water supply hydraulic calculation (NILP LIGHT 2022)

Sl. No.	Node		Plots nos	Total Population= Plots Population @ Average	Water Demand @55 LPCD in KLD	Others building Total demand in KLD	Others building demand @66% of total water	Self Total water demand in KLD	Branch in KLD	Total water demand in KLD	Peak based on 6 Hrs. in KLH	Peak Demand in LPM.	Length	Proposed pipe dia in MM.	Velocity in m/sec	Frictional head loss in Mtr./ Mtr.	Frictional head loss in total pipe in Mtr.	Cumulative Frictional Loss	Min. Residual Head at end	
1	F1	F2	0	0	0			0	891	891	148	2475	37	200	1.182	0.007	0.198	0.099	47.901	
2	F2	F16	10	275.5	20			20	30	79	5	54	186	150	0.051	0.000	0.005	0.104	47.896	
3	F2	F4	7	94.5	5			5	109	214	19	316	83	150	0.198	0.001	0.093	0.157	47.843	
4	F4	F5	18	216	12			12	21	33	5	91	170	150	0.080	0.000	0.015	0.168	47.832	
5	F4	F24	3	27	1			1	21	22	4	62	39	80	0.391	0.001	0.023	0.181	47.819	
6	F5	F6	18	216	12			12	66	78	13	218	63	80	0.710	0.007	0.459	0.629	47.371	
7	F5	F26	0	0	0			0	11	11	2	31	52	150	0.029	0.000	0.000	0.630	47.370	
8	F6	F7	31	418.5	23			23	36	59	10	165	182	65	0.815	0.011	2.068	2.698	45.302	
9	F6	F10	2	27	1			1	96	96	16	268	118	80	0.857	0.010	1.221	3.918	44.082	
10	F10	F11	2	27	1	60	39	40	0	40	7	113	53	80	0.373	0.003	0.120	4.039	43.961	
11	F10	F12	9	0	0	55	36	36	0	36	6	98	118	80	0.339	0.002	0.180	4.219	43.781	
12	F12	F24	25	337.5	19	100	117	136	76	353	61	586	180	100	1.344	0.016	2.695	6.908	41.092	
13	F13	F16	0	0	0			0	17	17	3	47	73	150	0.045	0.000	0.001	6.909	41.091	
14	F16	F18	0	0	0			0	82	18	2	17	74	150	0.035	0.000	0.001	6.910	41.090	
15	F18	F20	32	432	24			24	85	109	18	302	41	200	0.642	0.004	0.179	7.088	40.912	
16	F18	F19	4	81	4			4	35	39	5	56	64	80	0.181	0.001	0.039	7.127	40.873	
17	F18	F29	15	202.5	11			11	30	41	7	68	130	150	0.094	0.000	0.005	7.132	40.868	
18	F19	F20	3	40.5	2			2	84	86	13	183	24	80	0.607	0.005	0.178	7.306	40.694	
19	F19	F28	15	202.5	11			11	0	11	2	31	170	65	0.155	0.001	0.089	7.395	40.605	
20	F28	F22	6	81	4			4	31	35	6	89	64	80	0.329	0.002	0.104	7.499	40.501	
21	F20	F27	19	282.5	11			11	86	95	16	264	170	65	1.323	0.028	4.698	12.198	35.802	
22	F21	F23	7	94.5	5			5	92	97	16	270	72	80	0.894	0.010	0.755	12.954	35.046	
23	F21	F25	30	405	22			22	75	102	17	282	170	65	1.416	0.031	5.320	18.274	29.726	
24	F24	F26	25	202.5	11			11	66	76	13	210	170	65	1.054	0.018	3.083	21.357	26.643	
25	F24	F26	0	0	0			0	17	17	3	47	72	150	0.045	0.000	0.001	21.358	26.642	
26	F26	F27	0	0	0			0	10	10	1	27	63	150	0.025	0.000	0.000	21.358	26.642	
27	F27	F28	0	0	0			0	86	86	14	238	66	150	0.222	0.000	0.013	21.371	26.629	
28	F28	F29	0	0	0			0	18	18	3	45	64	150	0.043	0.000	0.000	21.371	26.629	
29	F29	F42	0	0	0			0	10	10	2	27	79	100	0.057	0.000	0.001	21.372	26.628	
30	F30	F31	0	0	0			0	64	64	11	177	67	80	0.586	0.009	0.572	21.944	26.056	
31	F30	F41	11	160	8			8	88	88	15	257	174	100	0.545	0.003	0.565	22.509	25.491	
33	F31	F40	13	160	8	5	3	13	18	31	5	87	178	65	0.496	0.004	0.515	23.024	24.976	
35	F31	F32	0	0	0			0	84	84	14	233	20	80	0.371	0.006	0.180	23.204	24.796	
36	F32	F33	11	148.5	8			8	85	92	15	255	178	65	1.281	0.026	4.638	27.842	20.158	
35	F32	F37	8	0	0			0	79	79	14	220	60	80	0.780	0.007	0.216	28.057	19.943	
38	F35	F34	0	0	0			0	84	84	12	179	33	65	0.898	0.013	0.445	28.502	19.498	
37	F34	F35	12	135	7			7	30	37	5	47	176	65	0.236	0.001	0.253	28.755	19.245	
38	F35	F37	3	0	0			0	30	30	2	23	5	65	0.165	0.000	0.002	28.757	19.243	
39	F36	F38	3	0	0	60	60	93	93	85	14	236	87	65	1.169	0.022	1.955	30.712	17.288	
40	F37	F38	9	121.5	7			7	10	16	3	45	178	80	0.150	0.000	0.067	30.780	17.220	
41	F38	F39	0	0	0			0	10	10	2	27	33	80	0.069	0.000	0.005	30.785	17.215	
42	F38	F47	25	337.5	19			19	66	84	13	177	438	80	0.588	0.005	2.345	33.130	14.870	
43	F39	F40	0	0	0			0	84	84	14	233	19	65	1.168	0.022	0.417	33.547	14.453	
44	F39	F44	28	351	19			19	0	19	3	54	442	80	0.179	0.001	0.233	33.780	14.220	
45	F40	F41	0	0	0			0	84	84	14	233	67	100	0.449	0.003	0.180	33.960	14.040	
46	F41	F42	6	81	4			4	79	84	14	233	164	100	0.463	0.003	0.268	34.228	13.772	
47	F42	F43	20	270	15			15	64	79	13	219	339	100	0.487	0.003	0.814	35.042	12.958	
48	F43	F44	0	0	0			0	64	64	11	178	86	80	0.581	0.005	0.412	35.454	12.546	
49	F44	F53	7	94.5	5			5	4	10	2	27	280	65	0.135	0.000	0.167	35.621	12.379	
50	F44	F45	0	0	0			0	10	10	2	27	64	80	0.185	0.000	0.023	35.644	12.356	
51	F44	F47	0	0	0			0	55	55	9	152	30	80	0.504	0.004	0.130	35.774	12.226	
52	F45	F46	0	0	0			0	10	10	2	27	83	65	0.185	0.000	0.015	35.789	12.211	
53	F46	F47	0	0	0			0	10	10	2	27	54	65	0.185	0.000	0.027	35.816	12.184	
50	F47	F48	0	0	0	88	91	88	35	45	8	125	292	80	0.415	0.003	0.741	36.625	11.375	
55	F48	F51	17	229.5	13			13	0	13	2	45	147	65	0.178	0.001	0.097	36.722	11.278	
56	F52	F53	1	81	4			4	0	4	1	12	67	65	0.062	0.000	0.008	36.730	11.270	
57	F52	F55	0	0	0			0	4	4	1	12	12	65	0.062	0.000	0.001	36.731	11.269	
58	F55	F54	0	0	0			0	4	4	1	12	12	65	0.062	0.000	0.001	36.732	11.268	
59	F54	F56	0	0	0			0	4	4	1	12	86	65	0.062	0.000	0.008	36.740	11.260	

Remarks: pump head is ok etc.
Pump room below = 7 mtr.
Head available at ground = 44 mtr.

C P VIDYA AND ASSOCIATES GURUGRAM

Sl. No	Node		Plots self	Total Population= Plots Population@4/unit	Water Demand @55 LPCD in KLD	Others building Total demand in KLD	Others building demand @45% of total water	Self Total water demand in KLD	Branch in KLD	Total water demand in KLD	Peak based on 6 hrs. in KLH	Peak Demand in LPM	Length	Proposed pipe dia in MM.	Velocity in m/sec	Frictional head loss in Mtr./ Mtr.	Frictional head loss in total pipe in Mtr.	Cumulative Frictional Loss	Min. Residual Head at end	
Peak Water supply hydraulic calculations (SLP-1,SLP-2&3)																				
Sl. No	Node		Plots self	Total Population	Water Demand	Others building Total demand	Others building	Self Total water demand in KLD	Branch in KLD	Total water	Peak based on 6 hrs. in KLH	Peak Demand	Length	Proposed pipe	Velocity in m/sec	Frictional head loss	Frictional head loss	Cumulative	Min. Residual Head at end	
1	F1	F2	0	0	0	60.5	44	10	1153	1185	197	3291	669	225	1.379	0.007	4.829	4.829	48.171	Remarks: pump head is 60 mtr. Pump rises time = 7 min. Head available at ground = 55 mtr.
2	F2	F3	12	182	9			9	25	34	6	98	117	80	0.312	0.001	0.130	4.831	48.169	
3	F2	F14	0	0	0			0	350	350	58	973	88	150	0.916	0.005	0.485	4.834	48.164	
4	F2	F60	18	256.5	14			14	350	364	61	1011	180	150			0.000	4.834	48.164	
5	F3	F4	4	54	3			3	0	3	0	9	30	65	0.041	0.000	0.002	4.836	48.164	
6	F3	F9	6	84	5			5	25	30	5	78	86	80	0.257	0.001	0.092	4.927	48.164	
7	F4	F7	2	27	1			1	25	26	4	70	61	80	0.264	0.001	0.029	4.836	48.163	
8	F5	F14	6	108	6			6	0	6	1	17	127	65	0.085	0.000	0.021	4.836	48.163	
9	F7	F8	5	67.5	4			4	25	29	5	80	79	80	0.264	0.001	0.080	4.916	48.162	
10	F7	F15	6	108	6			6	0	6	1	17	127	65	0.083	0.000	0.021	4.840	48.160	
11	F8	F9	1	17	1			1	25	26	4	74	52	80	0.264	0.001	0.053	4.969	48.160	
12	F8	F16	6	108	6			6	0	6	1	17	127	65	0.083	0.000	0.021	4.841	48.159	
13	F9	F11	5	67.5	4			4	25	29	5	80	82	80	0.264	0.001	0.055	4.842	48.158	
14	F9	F17	6	108	6			6	0	6	1	17	127	65	0.083	0.000	0.021	4.842	48.158	
15	F11	F12	1	17	1			1	0	1	0	4	18	65	0.021	0.000	0.000	4.841	48.158	
16	F11	F19	37	229.5	13			13	100	113	19	313	127	80	1.037	0.014	1.754	6.596	48.146	
17	F14	F15	0	0	0			0	550	550	90	863	61	150	0.706	0.004	0.123	4.960	48.140	
18	F14	F58	11	162	9			9	0	9	1	25	180	65	0.124	0.000	0.060	4.960	48.140	
19	F15	F16	0	0	0			0	300	300	50	833	79	150	0.298	0.004	0.318	6.864	48.136	
20	F16	F17	19	175.5	10			10	0	10	2	27	218	65	0.135	0.000	0.087	4.864	48.136	
21	F16	F17	0	0	0			0	300	300	50	833	52	150	0.298	0.004	0.127	6.868	48.132	
22	F16	F66	18	175.5	10			10	0	10	2	27	218	65	0.135	0.000	0.087	6.869	48.131	
23	F17	F19	6	0	0			0	300	300	50	833	83	150	0.298	0.004	0.329	4.873	48.127	
24	F17	355	18	175.5	10			10	0	10	2	27	218	65	0.135	0.000	0.087	4.875	48.127	
25	F19	F20	0	0	0			0	300	300	50	833	70	150	0.298	0.004	0.280	5.162	47.838	
26	F19	451	27	364.5	20			20	0	20	3	58	218	65	0.280	0.002	0.338	5.503	47.498	
27	F20	431	11	148.5	8			8	212	220	37	613	143	100	1.098	0.016	1.346	7.041	45.118	
28	F20	452	14	189	10			10	344	355	58	986	218	150	0.503	0.005	1.178	5.039	43.980	
29	F21	F26	7	94.5	5			5	100	105	18	292	53	80	0.966	0.012	0.643	4.802	48.198	
30	F21	431	0	0	0			0	212	212	35	589	44	100	1.250	0.015	0.662	5.484	47.508	
31	F24	F25	8	108	6			6	0	6	1	17	74	65	0.085	0.000	0.012	5.506	47.494	
32	F24	F26	7	94.5	5			5	100	105	18	292	52	80	0.966	0.012	0.633	6.139	46.861	
33	F28	F29	41	580.5	32			32	0	32	5	89	180	65	0.445	0.004	0.717	6.856	48.144	
34	F28	F30	19	256	12			12	100	112	19	311	175	80	1.030	0.014	2.380	9.244	43.756	
35	F30	431	28	405	22			22	100	122	20	340	195	80	1.126	0.016	3.779	6.512	46.488	

CP VIDYA AND ASSOCIATES GURUGRAM

Sl. No.	Node		Plots self	Total Populati on= Plots Populati on @Nos*4	Water Demand @ 135 LPCD in KLD	Others building Total demand in KLD	Others building demand @10% of total water	Self Total water demand in KLD	Branch in KLD	Total water demand in KLD	Peak based on 6 Hrs. in KLH	Peak Demand in LPM.	Length	Proposed pipe dia in MM.	Velocity in m/sec	Frictional head loss in Mtr./ Mtr.	Trittional head loss in total pipe in Mtr.	Corrected Frictional Loss	Min. Residual Head at end	
36	F30	F31	9	0	0			0	110	110	18	306	52	80	1.013	0.015	0.687	7.199	45.801	
37	F31	F34	8	0	0			0	132	132	22	367	52	100	0.778	0.006	0.320	7.524	45.476	
38	F34	F74	30	409	23			22	125	148	25	410	606	100	0.870	0.008	2.980	3.246	47.754	
39	F34	F37	6	81	4			4	20	24	4	68	48	80	0.215	0.001	0.099	3.269	47.731	
40	F37	F38	15	202.5	11			11	8	11	1	31	68	65	0.155	0.001	0.036	3.305	47.695	
41	F37	F41	6	81	4			4	20	24	4	68	48	80	0.215	0.001	0.099	3.368	47.640	
42	F41	F42	16	216	12			12	8	12	2	33	86	65	0.168	0.001	0.060	3.428	47.580	
43	F41	F45	7	94.5	5			5	20	25	4	72	68	80	0.232	0.001	0.041	3.451	47.549	
44	F45	F46	16	216	12			12	8	12	2	33	86	65	0.168	0.001	0.060	3.495	47.505	
45	F45	F48	8	81	4			4	20	24	4	68	48	80	0.215	0.001	0.099	3.530	47.470	
46	F48	F50	10	135	7	10	7	10	0	10	1	29	54	65	0.134	0.001	0.043	3.573	47.427	
47	F48	F51	5	67.5	4			4	122	126	19	322	47	80	1.086	0.015	0.611	6.184	46.816	
48	F52	F53	7	94.5	5			5	107	112	19	311	71	150	0.394	0.001	0.047	6.231	46.769	
49	F52	F61	0	0	0			0	107	107	18	297	64	100	0.630	0.004	0.271	6.502	46.498	
50	F53	F55	8	108	6			6	101	107	18	297	83	150	0.280	0.001	0.049	6.551	46.449	
51	F55	F56	0	0	0			0	101	101	17	281	30	150	0.264	0.001	0.017	6.567	46.433	
52	F56	F57	8	108	6			6	95	101	17	281	79	150	0.264	0.001	0.042	6.609	46.391	
53	F57	F58	0	0	0			0	95	95	16	264	31	150	0.249	0.000	0.015	6.624	46.376	
54	F58	F60	0	0	0			0	95	95	16	264	68	150	0.249	0.000	0.042	6.665	46.335	
55	F61	F62	24	324	18			18	0	18	3	50	680	80	0.564	0.000	0.136	6.802	46.198	
56	F61	F65	0	0	0			0	99	99	16	264	25	100	0.560	0.003	0.071	6.873	46.127	
57	F62	F63	24	324	18			18	0	18	3	50	279	80	0.564	0.000	0.127	7.000	46.000	
58	F63	F64	8	0	0			0	77	77	13	216	64	100	0.455	0.002	0.148	7.148	45.852	
59	F64	F65	7	94.5	5			5	49	54	6	95	70	80	0.314	0.002	0.126	7.274	45.726	
60	F64	F74	9	121.5	7			7	36	43	7	120	149	100	0.254	0.001	0.110	7.387	45.613	
61	F65	F66	10	135	7			7	0	7	1	21	140	65	0.304	0.000	0.035	7.422	45.578	
62	F65	F67	3	40.5	2			2	27	29	5	85	33	80	0.267	0.001	0.037	7.458	45.542	
63	F66	F68	0	0	0			0	0	0	0	0	66	65	0.000	0.000	0.000	7.458	45.542	
64	F67	F68	10	135	7			7	0	7	1	21	140	65	0.304	0.000	0.035	7.493	45.507	
65	F67	F69	8	108	6			6	21	27	4	74	74	80	0.246	0.001	0.071	7.564	45.436	
66	F69	F70	10	135	7			7	0	7	1	21	164	65	0.304	0.000	0.040	7.605	45.395	
67	F69	F71	2	27	1			1	12	13	2	37	32	80	0.123	0.000	0.009	7.613	45.387	
68	F70	F72	0	0	0			0	0	0	0	0	82	65	0.000	0.000	0.000	7.613	45.387	
69	F71	F73	13	175.5	10			10	0	10	2	27	172	65	0.155	0.000	0.069	7.682	45.318	
70	F71	F33	3	40.5	2			2	0	2	0	5	18	65	0.031	0.000	0.000	7.683	45.317	
71	F74	F75	30	135	7			7	98	105	17	280	68	80	0.909	0.012	0.798	8.489	44.951	
72	F75	F76	25	202.5	11	86	42	53	0	53	9	148	264	65	0.748	0.030	1.563	10.052	42.888	
73	F75	F81	3	40.5	2			2	58	60	7	111	65	80	0.369	0.002	0.133	10.185	42.855	
74	F81	F82	8	108	6			6	52	58	6	106	70	80	0.349	0.002	0.128	10.273	42.727	
75	F81	F86	18	243	13			13	23	36	6	101	208	80	0.535	0.002	0.354	10.627	42.373	
76	F81	F84	30	405	23			23	0	23	4	62	198	65	0.311	0.002	0.364	10.992	42.008	
77	F82	F83	12	162	9			9	23	32	5	89	102	80	0.396	0.001	0.146	11.138	41.872	
78	F86	F86	31	418.5	23			23	0	23	4	64	279	80	0.232	0.001	0.266	11.332	41.668	

C P VIDYA AND ASSOCIATES GURGAON

SUB WORK No. 2

SEWERAGE SCHEME

RESIDENTIAL INTEGRATED TOWNSHIP (UNDER NILP-2022) OVER AN AREA MEASURING 251.90625 ACRES (MIGRATED FROM LICENCE NO.06 OF 2010 DATED 14.10.2010 OF 314.8 ACRES) AT SECTOR 36,37,38,39 PANIPAT BEING DEVELOPED BY M/S UTTRINA INFRA PROJECTS PRIVATE LIMITED.

S No.	Description						Amount (RS)
1	Providing, laying, jointing and testing Sewer pipe lines (stoneware pipes class SP-1/DWC/NP3 pipe) including fittings, valves,Manholes & cost of excavation and connect to STP .						
a)	200 mm dia Average Depth upto 3 Mtr.	11473	Mtr.	@	Rs. 1,700		Rs. 1,95,04,100.00
b)	250 mm dia Average Depth upto 3 Mtr.	805	Mtr.	@	Rs. 2,400		Rs. ~~19,32,000.00~~ 16.10
c)	300 mm dia Average Depth upto 3 Mtr.	168	Mtr.	@	Rs. 2,800		Rs. ~~4,70,400.00~~ 4.84
d)	400 mm dia Average Depth upto 3.5 Mtr.	423	Mtr.	@	Rs. 3,500		Rs. 14,80,500.00
e)	500 mm dia Average Depth upto 3.5 Mtr.	997	Mtr.	@	Rs. 4,500		Rs. 44,86,500.00
f)	600 mm dia Average Depth upto 3.5 Mtr.	5	Mtr.	@	Rs. 5,500		Rs. 27,500.00
2	Sewage Treatment Plant of (Including civil & Mechniacl equipment)	2700	KL	@	Rs ~~50,000~~ 16000	/KL	~~Rs. 13,50,00,000.00~~ 432 cr
3	Providing & installing submersible pumping set of following capacity for sewage lifting including valve & electrical panel etc. **(Including sump civil cost)**						
a)	Capacity 800 LPM each pumps @ 9 mtr. For sewage **sump-1**	3 Nos. @		Rs. 5,50,000.00		each.	Rs. 16,50,000.00
b)	Capacity 1350 LPM each pumps @ 9 mtr. For sewage **sump-2**	4 Nos. @		Rs. 6,50,000.00		each.	Rs. 26,00,000.00
c)	Capacity 200 LPM each pumps @ 9 mtr. For sewage **sump-3**	2 Nos. @		Rs. 2,50,000.00		each.	Rs. 5,00,000.00
d)	Capacity 450 LPM each pumps @ 9 mtr. For sewage **sump-3**	3 Nos. @		Rs. 4,00,000.00		each.	Rs. 12,00,000.00
4	Providing, laying, jointing and testing Sump riser & STP overflow pipe lines (HDPE pipe) including fittings & cost of excavation .						
a)	90 OD. From sewer sump-3 to MH	91	Mtr.	@	Rs. 1,300		Rs. 1,18,300.00
b)	125OD. From sewer sump-4 to MH	15	Mtr.	@	Rs. 1,500		Rs. 22,500.00
c)	160OD. From sewer sump-1 to MH	67	Mtr.	@	Rs. 2,000		Rs. 1,34,000.00
d)	250OD. From sewer sump-2 to MH & STP overflow	668	Mtr.	@	Rs. 3,000		Rs. 20,04,000.00
5	Provision for providing oblique junctions (L.S)						Rs. 4,00,000.00
6	Provision for temporary timbering etc. (L.S)						Rs. 5,50,000.00
7	Provision for carriage of material (L.S)						Rs. 6,00,000.00
8	Provision for making connection with HSVP sewer						Rs. 4,00,000.00
	TOTAL CO to FINAL ABSTRACT OF QUANTITY						~~Rs. 17,30,79,800.00~~ 809.72 cr

C P VIDYA AND ASSOCIATES

MATERIAL STATEMENT FOR SEWER

Sl NO.	LINE		Length of line	Dia of Pipe	DIA OF PIPE IN (MM)					
			Mtr	MM	200	250	300	400	500	600
1	S1	S3	376	200	376	-	-	-	-	-
2	S2	S3	178	200	178	-	-	-	-	-
3	S3	S5	62	200	62	-	-	-	-	-
4	S4	S5	164	200	164	-	-	-	-	-
5	S5	S23	66	200	66	-	-	-	-	-
6	S6	S8	349	200	349	-	-	-	-	-
7	S7	S8	287	200	287	-	-	-	-	-
8	S8	S10	27	200	27	-	-	-	-	-
9	S9	S10	298	200	298	-	-	-	-	-
10	S10	S22	57	200	57	-	-	-	-	-
11	S11	S13	21	200	21	-	-	-	-	-
12	S12	S13	173	200	173	-	-	-	-	-
13	S13	S15	33	200	33	-	-	-	-	-
14	S14	S15	163	200	163	-	-	-	-	-
15	S15	S17	73	200	73	-	-	-	-	-
16	S16	S17	136	200	136	-	-	-	-	-
17	S17	S19	33	200	33	-	-	-	-	-
18	S18	S19	126	200	126	-	-	-	-	-
19	S19	S21	69	200	69	-	-	-	-	-
20	S20	S21	127	200	127	-	-	-	-	-
21	S21	S22	21	200	21	-	-	-	-	-
22	S22	S23	201	250	-	201	-	-	-	-
23	S23	SUMP-1	167	400	-	-	-	167	-	-
24	S1	S3	60	200	60	-	-	-	-	-
25	S2	S3	30	200	30	-	-	-	-	-
26	S3	S5	48	200	48	-	-	-	-	-
27	S4	S6	86	200	86	-	-	-	-	-
28	S5	S7	48	200	48	-	-	-	-	-
29	S6	S7	86	200	86	-	-	-	-	-
30	S7	S9	48	200	48	-	-	-	-	-
31	S8	S9	77	200	77	-	-	-	-	-
32	S9	S11	47	200	47	-	-	-	-	-
33	S10	S11	87	400	-	-	-	87	-	-
34	S11	S13	52	400	-	-	-	52	-	-
35	S12	S13	231	200	231	-	-	-	-	-
36	S13	S20	43	400	-	-	-	43	-	-
37	S14	S16	128	200	128	-	-	-	-	-
38	S15	S16	195	200	195	-	-	-	-	-
39	S16	S18	52	200	52	-	-	-	-	-
40	S17	S18	81	200	81	-	-	-	-	-
41	S19	S20	52	200	52	-	-	-	-	-
42	S19	S20	78	200	78	-	-	-	-	-
43	S20	S22	21	500	-	-	-	-	21	-
44	S21	S22	160	200	160	-	-	-	-	-
45	S22	S24	36	500	-	-	-	-	36	-
46	S23	S24	42	200	42	-	-	-	-	-
47	S24	S27	73	500	-	-	-	-	73	-
48	S25	S27	105	200	105	-	-	-	-	-
49	S26	S27	196	200	196	-	-	-	-	-
50	S27	S30	82	500	-	-	-	-	82	-
51	S28	S30	100	200	100	-	-	-	-	-
52	S29	S30	208	200	208	-	-	-	-	-
53	S30	S33	33	500	-	-	-	-	33	-
54	S31	S33	104	200	104	-	-	-	-	-
55	S32	S33	208	200	208	-	-	-	-	-
56	S33	S36	77	500	-	-	-	-	77	-
57	S34	S36	104	200	104	-	-	-	-	-
58	S35	S36	208	200	208	-	-	-	-	-
59	S36	S39	33	500	-	-	-	-	33	-

VIDYA AND ASSOCIATES SURVEYORS

60	S37	S39	104	200	104	-	-	-	-	-
61	S38	S39	175	200	175	-	-	-	-	-
62	S39	S44	77	500	-	-	-	-	77	-
63	S40	S42	313	200	313	-	-	-	-	-
64	S41	S42	31	200	31	-	-	-	-	-
65	S42	S44	126	200	126	-	-	-	-	-
66	S43	S44	192	200	192	-	-	-	-	-
67	S44	S45	28	500	-	-	-	-	28	-
68	S45	Sump-2	5	500	-	-	-	-	5	-
69	S1	S2	245	200	245	-	-	-	-	-
70	S2	Sump-3	5	200	5	-	-	-	-	-
71	S1	S3	172	200	172	-	-	-	-	-
72	S2	S3	190	200	190	-	-	-	-	-
73	S3	S6	33	200	33	-	-	-	-	-
74	S4	S6	173	200	173	-	-	-	-	-
75	S5	S6	204	200	204	-	-	-	-	-
76	S6	S8	85	200	85	-	-	-	-	-
77	S7	S8	173	200	173	-	-	-	-	-
78	S8	S18	318	250	-	318	-	-	-	-
79	S9	S11	150	200	150	-	-	-	-	-
80	S10	S11	197	200	197	-	-	-	-	-
81	S11	S13	28	200	28	-	-	-	-	-
82	S12	S13	186	200	186	-	-	-	-	-
83	S13	S15	20	200	20	-	-	-	-	-
84	S14	S16	140	200	140	-	-	-	-	-
85	S15	S17	65	200	65	-	-	-	-	-
86	S16	S17	139	200	139	-	-	-	-	-
87	S17	S18	105	200	105	-	-	-	-	-
88	S18	S24	105	250	-	105	-	-	-	-
89	S19	S21	87	200	87	-	-	-	-	-
90	S20	S21	56	200	56	-	-	-	-	-
91	S21	S23	117	200	117	-	-	-	-	-
92	S22	S23	204	200	204	-	-	-	-	-
93	S23	S24	244	200	244	-	-	-	-	-
94	S24	SUMP-4	2	250	-	2	-	-	-	-
95	S1	S2	172	200	172	-	-	-	-	-
96	S2	S4	90	500	-	-	-	-	90	-
97	S3	S4	165	200	165	-	-	-	-	-
98	S4	S6	33	500	-	-	-	-	33	-
99	S5	S6	177	200	177	-	-	-	-	-
100	S6	S8	85	500	-	-	-	-	85	-
101	S7	S8	177	200	177	-	-	-	-	-
102	S8	S10	22	500	-	-	-	-	22	-
103	S9	S10	174	200	174	-	-	-	-	-
104	S10	S12	101	500	-	-	-	-	101	-
105	S11	S12	182	200	182	-	-	-	-	-
106	S12	S24	201	500	-	-	-	-	201	-
107	S13	S15	218	200	218	-	-	-	-	-
108	S14	S15	143	250	-	143	-	-	-	-
109	S15	S17	36	250	-	36	-	-	-	-
110	S16	S17	157	200	157	-	-	-	-	-
111	S17	S19	63	300	-	-	63	-	-	-
112	S18	S19	157	200	157	-	-	-	-	-
113	S19	S21	72	300	-	-	72	-	-	-
114	S20	S21	157	200	157	-	-	-	-	-
115	S21	S23	33	300	-	-	33	-	-	-
116	S22	S23	157	200	157	-	-	-	-	-
117	S23	S24	74	400	-	-	-	74	-	-
118	S24	STP SUMP	5	600	-	-	-	-	-	5
TOATL			13871		11473	805	168	423	997	5

CP VIDYA AND ASSOCIATES GURUGRAM

RESIDENTIAL INTEGRATED TOWNSHIP (UNDER MLP-2022) OVER AN AREA MEASURING 201.80625 ACRES (MIGRATED FROM LICENCE NO.86 OF 2010 DATED 14.10.2010 OF 314.0 ACRES) AT SECTOR 36,37,38,39 PANIPAT BEING DEVELOPED BY M/S UTTRIDA INFRA PROJECTS PRIVATE LIMITED

DESIGN STATEMENT OF SEWERAGE LINE

S No	Line No		Length	Plot			Total Population @13.5 PER PLOT	Daily water @155 ltr/Person	Water requirment		Total water requirement for other buildings (LPD)	Total water consumption	Daily waste water (80%) of water consumption	Total Waste water (peak/hour ago^3)	Total Waste water (peak/hour ago^3)	Dia Proposed	Gradient	Velocity	Design discharge	Check for carrying capacity	Fall in (m)	G Level Upper	G Level Lower	Invert Level Upper	Invert Level Lower	Depth Start	Depth End
	From	To	Mtr	Self	Branch	Total	Nos.	LPD	Self	Branch		LPD	LPD	LPD	LPS	mm	V	m/Sec	LPS		Mtr.	Mtr	Mtr	Mtr	Mtr	Mtr	Mtr
MLP RIGHT SIDE SEWER SUMP-1																											
1	S1	S3	376	30	0	30	527	81585		0	0	81585	65348	196044	2.27	200	250	0.68	10.37	OK	1.52	233.863	233.789	233.863	232.289	0.00	1.48
2	S2	S3	170	31	0	31	429	66945		0	0	54945	53956	159868	1.85	200	250	0.68	10.37	OK	0.71	233.863	233.789	233.863	233.091	0.00	0.78
3	S3	S5	62	8	78	78	1058	163215		0	0	163215	130572	391718	4.53	300	250	0.88	10.37	OK	0.25	233.789	233.686	232.289	232.951	1.49	1.65
4	S4	S5	194	40	0	40	540	83700		0	0	83700	66960	200880	2.33	300	250	0.85	10.37	OK	0.06	233.803	233.686	233.663	233.147	0.00	0.75
5	S5	S20	68	0	116	116	1566	242515		0	0	348815	197532	990599	6.88	300	250	0.85	10.37	OK	0.26	233.686	233.516	232.951	231.787	1.85	2.13
6	S6	S8	348	22	0	22	297	46035		0	0	46035	36828	110484	1.28	200	250	0.88	10.37	OK	1.40	234.570	234.222	234.570	233.183	0.00	1.04
7	S7	S8	257	40	0	40	540	83700		0	0	83700	66960	200880	2.33	300	250	0.85	10.37	OK	1.15	234.510	234.222	234.510	233.362	0.00	0.86
8	S8	S10	37	3	62	64	864	133920		0	0	133920	107136	321408	3.72	200	250	0.68	10.37	OK	0.11	234.222	234.222	233.183	233.075	1.04	1.15
9	S9	S10	266	43	0	42	567	87885		0	0	87885	70308	210924	2.44	200	250	0.68	10.37	OK	1.19	234.519	234.222	234.519	233.376	0.00	0.80
10	S10	S22	97	4	108	112	1512	234360		0	0	234360	187488	562464	6.51	200	250	0.68	10.37	OK	0.23	234.222	234.144	233.076	232.847	1.15	1.30
11	S11	S12	21	3	0	3	41	6355		0	0	6355	5084	15252	0.18	200	250	0.68	10.37	OK	0.08	234.409	234.387	234.409	234.325	0.00	0.03
12	S12	S13	173	14	0	14	189	29295		0	0	29295	23436	70308	0.81	200	250	0.68	10.37	OK	0.69	234.527	234.387	234.527	233.836	0.00	0.52
13	S13	S15	33	3	17	20	270	41850		0	0	41850	33480	100440	1.16	200	250	0.68	10.37	OK	0.13	234.357	234.334	233.835	233.703	0.52	0.63
14	S14	S15	183	11	0	11	149	23095		0	0	23095	18476	55428	0.64	200	250	0.68	10.37	OK	0.65	234.493	234.334	234.493	233.841	0.00	0.49
15	S15	S17	73	8	31	37	500	77500		0	0	77500	62000	186000	2.15	300	250	0.88	10.37	OK	0.29	234.334	234.252	233.703	233.411	0.63	0.84
16	S16	S17	136	10	0	10	135	20925		0	0	20925	16740	50220	0.58	200	250	0.68	10.37	OK	0.54	234.402	234.252	234.402	233.865	0.00	0.39
17	S17	S19	33	2	47	49	662	102610		0	0	102610	82088	246264	2.85	200	250	0.68	10.37	OK	0.13	234.252	234.228	233.411	233.279	0.84	0.95
18	S18	S19	126	11	0	11	149	23095		0	0	23095	18476	55428	0.64	200	250	0.68	10.37	OK	0.50	234.384	234.228	234.384	233.860	0.00	0.37
19	S19	S21	69	8	80	88	893	138105		0	0	138105	110484	331452	3.84	200	250	0.68	10.37	OK	0.28	234.228	234.144	233.279	233.003	0.85	1.14
20	S20	S21	127	10	0	10	135	20925		0	0	20925	16740	50220	0.58	200	250	0.68	10.37	OK	0.51	234.052	234.144	234.052	233.494	0.00	0.66
21	S21	S22	21	0	79	79	1026	159030		0	0	159030	127224	381672	4.42	200	250	0.68	10.37	OK	0.08	234.144	234.144	233.003	232.919	1.14	1.23
22	S22	S23	201	20	168	208	2808	435240		0	0	435240	348192	1044576	12.09	250	340	0.85	16.12	OK	0.59	234.144	233.916	232.797	232.206	1.06	1.71
23	S23	SUMP-1	167	36	328	364	4914	761670	65000	0	65000	826670	661336	1984008	22.96	400	630	0.80	41.46	OK	0.27	233.916	234.006	231.587	231.322	2.33	2.74
MLP RIGHT SIDE SEWER SUMP-2																											
1	S1	S3	80	13	0	13	175	30625	19000	0	19000	30625	24740	74220	0.86	200	250	0.68	10.37	OK	0.24	234.096	234.096	234.096	233.856	0.00	0.24
2	S2	S3	30	4	0	4	54	8370		0	0	8370	6696	20088	0.23	200	250	0.68	10.37	OK	0.12	234.096	234.096	234.096	233.976	0.00	0.12
3	S3	S5	68	6	14	20	270	41850		10800	10800	51850	41480	124440	1.44	200	250	0.68	10.37	OK	0.19	234.096	234.096	233.856	233.664	0.24	0.43
4	S4	S5	80	16	0	16	216	33480		0	0	33480	26784	80352	0.93	200	250	0.68	10.37	OK	0.24	234.096	234.096	234.096	233.752	0.00	0.34
5	S5	S7	46	7	36	43	581	90055		10800	10800	190855	86044	340133	2.76	200	250	0.68	10.37	OK	0.13	234.096	234.096	233.664	233.472	0.43	0.63
6	S6	S7	86	16	0	16	216	33480		0	0	33480	26784	80352	0.93	200	250	0.68	10.37	OK	0.24	234.197	234.096	234.197	233.953	0.00	0.24
7	S7	S9	48	6	58	63	878	136080		10800	10800	146880	116872	350616	4.06	200	250	0.68	10.37	OK	0.13	234.096	234.096	233.472	233.280	0.63	0.82
8	S8	S9	77	15	0	15	203	31465		0	0	31465	25172	75516	0.87	200	250	0.68	10.37	OK	0.31	234.197	234.096	234.197	233.884	0.00	0.31
9	S9	S11	67	7	65	67	1175	182125		10000	10000	182125	153700	461100	5.34	200	250	0.68	10.37	OK	0.19	234.096	234.183	233.280	233.082	0.82	1.09
10	S10	S11	97	55	394	423	5711	885205		65000	65000	885205	708164	2280492	26.38	400	630	0.88	41.46	OK	0.14	234.380	234.183	234.380	234.152	0.00	0.02
11	S11	S13	52	6	510	510	6885	1067175		75000	75000	1142175	913740	2741220	31.73	400	630	0.88	41.46	OK	0.08	234.183	234.183	233.082	233.009	1.09	1.17
12	S12	S13	231	60	0	60	810	125550		0	0	125550	100440	301320	3.49	200	250	0.68	10.37	OK	0.02	233.999	234.183	233.899	233.878	0.00	1.11
13	S13	S20	43	6	570	570	7695	1192725		75000	75000	1267725	1014180	3042540	35.21	400	630	0.88	41.46	OK	0.07	234.183	234.014	233.009	232.941	1.17	1.13
14	S14	S16	126	66	0	66	891	138105		0	0	138105	110484	331452	3.84	200	250	0.68	10.37	OK	0.51	233.823	233.864	233.823	233.311	0.00	0.49
15	S15	S16	196	43	0	43	581	90055		0	0	90055	72044	216132	2.50	200	250	0.68	10.37	OK	0.78	234.197	233.864	234.197	233.377	0.00	0.59
16	S16	S20	52	7	109	116	1566	242730		0	0	242730	194184	582552	6.74	300	250	0.85	10.37	OK	0.21	233.864	234.028	233.311	233.183	0.65	0.93

C.P. VIDYA AND ASSOCIATES

S.No	Line No		Length	Plot			Total Population @(13.5 PER PLOT	Daily water @155 lpt/Person	Water requirment		Total water requirement (for other buildings (LPD)	Total water consumption	Daily waste water (80%) of water consumption	Total Waste water (peakfactor age*3)	Total Waste water (peakfactor age*3)	Dia Proposed	Gradient	Velocity	Design discharge	Check for carrying capacity	Fall in (m)	G Level Upper	G Level Lower	Invert Level Upper	Invert Level Lower	Depth Start	Depth End
	From	To	Mtr	Self	Branch	Total	Nos.	LPD	Self	Branch		LPD	LPD	LPD	LPS	mm	%	m/Sec	LPS		Mtr.	Mtr	Mtr	Mtr	Mtr	Mtr	Mtr
17	S17	S18	61	18	0	18	216	33480		0	0	33480	26784	68352	0.95	200	250	0.68	10.37	OK	0.32	234.101	234.029	234.101	233.777	0.00	0.25
18	S18	S35	62	7	132	139	1877	290835		0	0	290835	232748	696264	8.08	300	280	0.69	16.37	OK	0.21	234.029	234.016	233.163	233.866	0.00	1.18
19	S19	S20	78	28	0	28	378	58590		0	0	58590	46872	140616	1.63	200	250	0.68	10.37	OK	0.31	234.149	234.074	234.149	233.854	0.00	0.24
20	S20	S22	21	0	737	737	9950	1542250		75000	75000	1617250	1293800	3881400	44.92	300	850	0.65	65.44	OK	0.02	234.074	234.074	232.985	232.973	1.46	1.59
21	S21	S23	100	13	0	13	162	25110		0	0	25110	20088	60264	0.70	200	250	0.89	10.37	OK	0.04	234.300	234.074	234.300	233.680	0.00	0.41
22	S22	S24	39	2	749	751	10139	1571545		75000	75000	1646545	1317236	3951708	45.74	300	850	0.65	65.44	OK	0.04	234.074	234.052	232.570	232.529	1.50	1.59
23	S23	S24	42	23	0	23	311	48205		0	0	48205	38564	115692	1.34	200	250	0.68	10.37	OK	0.17	234.148	234.052	234.148	233.970	0.00	0.11
24	S24	S27	73	0	774	774	10449	1619595		75000	75000	1694595	1355676	4067028	47.07	300	850	0.68	65.44	OK	0.09	234.052	234.100	232.928	232.442	1.66	1.69
25	S25	S27	106	17	0	17	230	35650		0	0	35650	28520	85560	0.99	200	250	0.68	10.37	OK	0.42	234.309	234.100	234.309	233.889	0.00	0.21
26	S26	S27	166	27	0	27	365	56575		0	0	56575	45260	135780	1.57	200	250	0.68	10.37	OK	0.76	234.388	234.100	234.388	233.804	0.00	0.50
27	S27	S36	62	0	818	818	11043	1711665		75000	75000	1786665	1429332	4287996	49.63	300	850	0.68	65.44	OK	0.10	234.100	234.062	232.442	232.346	1.66	1.92
28	S28	S30	100	8	0	8	108	16740		0	0	16740	13392	40176	0.47	200	250	0.68	10.37	OK	0.40	234.391	234.262	234.391	233.991	0.00	0.27
29	S29	S30	208	13	0	13	176	27280		0	0	27280	21824	65472	0.76	200	250	0.68	10.37	OK	0.80	234.470	234.262	234.470	233.808	0.00	0.62
30	S30	S33	33	0	838	838	11327	1755685		75000	75000	1830685	1464548	4393644	50.86	300	850	0.65	65.44	OK	0.04	234.262	234.288	232.346	232.307	1.92	1.98
31	S31	S33	104	8	0	8	108	16740		0	0	16740	13392	40176	0.47	200	250	0.68	10.37	OK	0.42	234.415	234.288	234.415	233.989	0.00	0.29
32	S32	S33	208	13	0	13	176	27280		0	0	27280	21824	65472	0.76	200	250	0.68	10.37	OK	0.83	234.494	234.288	234.494	233.652	0.00	0.62
33	S33	S36	77	0	860	860	11610	1798550		75000	75000	1873550	1498840	4496520	52.07	300	850	0.66	65.44	OK	0.09	234.288	234.372	232.307	232.216	1.98	2.16
34	S34	S36	104	8	0	8	108	16740		0	0	16740	13392	40176	0.47	200	250	0.68	10.37	OK	0.43	234.801	234.372	234.801	234.080	0.00	0.29
35	S35	S36	208	13	0	13	176	27280		0	0	27280	21824	65472	0.76	200	250	0.68	10.37	OK	0.83	234.961	234.372	234.961	233.729	0.00	0.64
36	S36	S38	33	0	881	881	11894	1843570		75000	75000	1918570	1534856	4604568	53.29	300	850	0.65	65.44	OK	0.04	234.372	234.396	232.216	232.177	2.16	2.22
37	S37	S38	104	8	0	8	108	16740		0	0	16740	13392	40176	0.47	200	250	0.68	10.37	OK	0.43	234.525	234.396	234.525	234.105	0.00	0.29
38	S38	S38	179	12	0	12	162	25110		0	0	25110	20088	60264	0.70	200	250	0.68	10.37	OK	0.70	234.585	234.396	234.585	233.885	0.00	0.51
39	S39	S44	77	0	961	961	12964	1866420		75000	75000	1966420	1568336	4705008	54.48	300	850	0.68	65.44	OK	0.09	234.396	234.482	232.177	232.087	2.22	2.40
40	S40	S42	313	20	8	28	270	41850		0	0	41850	33480	100440	1.16	200	250	0.68	10.37	OK	1.25	234.344	234.611	234.344	233.092	0.00	1.52
41	S41	S42	31	3	0	3	43	6355		0	0	6355	5084	15252	0.18	200	250	0.68	10.37	OK	0.12	234.657	234.611	234.657	234.533	0.00	0.08
42	S42	S44	186	21	23	44	594	92070		0	0	92070	73656	220968	2.56	200	250	0.68	10.37	OK	0.50	234.611	234.482	233.092	232.588	1.52	1.89
43	S43	S44	192	29	0	29	391	60760		0	0	60760	48608	145824	1.69	200	250	0.68	10.37	OK	0.77	234.671	234.482	234.671	233.983	0.00	0.58
44	S44	S45	26	6	974	974	13149	2038090		75000	75000	2113090	1690472	5071416	58.70	300	850	0.68	65.44	OK	0.03	234.482	234.482	232.087	232.054	2.40	2.43
45	S45	Sump-2	5	0	974	974	13149	2038090	47000	75000	122000	2160090	1728070	5184228	60.00	300	850	0.65	65.44	OK	0.01	234.482	234.480	232.054	232.049	2.43	2.43
NILP RIGHT SIDE SEWER SUMP-3 To NILP Left side MH																											
1	S1	S2	245	20	8	28	378	41850		0	0	41850	33480	100440	1.16	200	250	0.68	10.37	OK	3.95	234.124	233.806	234.124	233.144	0.00	0.66
2	S2	Sump-3	5	8	20	28	378	41850	60000	0	90000	91850	73480	220440	2.55	200	250	0.68	10.37	OK	0.02	233.903	233.806	233.144	233.124	0.66	0.68
NILP LEFT SIDE SEWER SUMP-4																											
1	S1	S3	172	7	38	37	365	56575		50000	50000	106575	85260	255780	2.96	200	250	0.68	10.37	OK	0.69	233.859	233.861	233.689	233.121	0.00	0.63
2	S2	S3	190	12	0	12	302	25110		0	0	25110	20088	60264	0.70	200	250	0.68	10.37	OK	0.76	234.250	233.961	234.250	233.668	0.00	0.61
3	S3	S6	33	0	39	39	527	81585		50000	50000	131585	105348	316044	3.66	200	250	0.68	10.37	OK	0.13	233.961	233.927	233.121	232.969	0.83	0.94
4	S4	S6	172	8	0	9	122	18910		0	0	18910	15128	45384	0.53	200	250	0.68	10.37	OK	0.69	233.785	233.927	233.785	233.063	0.00	0.83
5	S5	S6	234	14	0	14	189	29295		0	0	29295	23436	70308	0.81	200	250	0.68	10.37	OK	0.82	234.200	233.927	234.200	233.384	0.00	0.54
6	S6	S8	60	0	60	64	864	133920		50000	50000	183920	147136	441408	5.11	200	350	0.68	10.37	OK	0.34	233.631	233.627	232.969	232.649	0.94	1.18
7	S7	S8	173	10	0	10	135	20925		0	0	20925	16740	50220	0.66	200	250	0.68	10.37	OK	0.69	233.869	233.627	233.869	232.977	0.00	0.65
8	S8	S10	310	20	74	94	1269	196898		50000	50000	246898	197356	592068	6.85	250	340	0.85	16.12	OK	0.94	233.627	234.144	232.649	231.714	1.18	2.43
9	S9	S11	150	8	0	8	122	18910	3000	0	3000	21910	17528	52584	0.61	200	250	0.68	10.37	OK	0.60	234.541	234.373	234.541	233.941	0.00	0.43
10	S10	S11	197	12	0	12	162	25110		0	0	25110	20088	60264	0.70	200	250	0.68	10.37	OK	0.79	234.209	234.373	234.209	233.412	0.00	0.96

S No	Line No		Length	Plot			Total Population @13.5 PER PLOT	Daily water @155 ltr/Person	Water requirement		Total water requirement for other buildings (LPD)	Total water consumption	Daily waste water (80%) of water consumption	Total Waste water (peak*average*3)	Total Waste water (peak*average*3)	Dia Proposed	Gradient	Velocity	Design discharge	Check for carrying capacity	Fall in (m)	G Level Upper	G Level Lower	Invert Level Upper	Invert Level Lower	Depth Start	Depth End
	From	To	Mtr	Self	Branch	Total	Nos.	LPD	Self	Branch		LPD	LPD	LPD	LPS	mm	1/	m/Sec.	LPS		Mtr.	Mtr	Mtr	Mtr	Mtr	Mtr	Mtr
11	S11	S14	28	0	21	21	284	44020		3000	3000	47020	37616	112848	1.31	200	250	0.66	10.37	OK	0.11	234.373	234.354	233.412	233.300	0.90	1.05
12	S12	S13	156	12	0	12	162	25110		0	0	25110	20088	60264	0.70	200	250	0.66	10.37	OK	0.74	234.283	234.384	234.209	233.456	0.00	0.96
13	S13	S15	20	0	33	33	446	69130		3000	3000	72130	57704	173112	2.00	200	250	0.66	10.37	OK	0.08	234.384	234.334	233.309	233.229	1.05	1.11
14	S14	S15	146	12	0	12	162	25110		0	0	25110	20088	60264	0.70	200	250	0.66	10.37	OK	0.66	234.502	234.334	234.502	233.842	0.00	0.39
15	S15	S17	65	0	45	45	608	94240		3000	3000	97240	77792	233376	2.70	200	250	0.66	10.37	OK	0.26	234.334	234.284	233.220	232.960	1.11	1.29
16	S16	S17	138	10	0	10	135	20925		0	0	20925	16740	50220	0.58	200	250	0.66	10.37	OK	0.56	234.393	234.284	234.393	233.827	0.00	0.42
17	S17	S18	105	5	55	60	810	125550		3000	3000	128550	102840	308520	3.57	200	250	0.66	10.37	OK	0.42	234.264	234.144	232.880	232.540	1.26	1.80
18	S18	S24	105	1	154	155	2093	324415		53000	53000	377415	301932	905796	10.48	250	340	0.66	16.12	OK	0.31	234.144	234.032	231.714	231.405	2.43	2.60
19	S19	S21	87	0	0	0	0	0	55000	0	55000	55000	44000	132000	1.53	200	250	0.66	10.37	OK	0.35	233.561	233.898	233.561	233.213	0.00	0.49
20	S20	S21	56	0	0	0	0	0	60000	0	60000	60000	48000	144000	1.67	200	250	0.66	10.37	OK	0.22	233.657	233.898	233.657	233.433	0.00	0.27
21	S21	S23	117	0	0	0	0	0		115000	115000	115000	92000	276000	3.19	200	250	0.66	10.37	OK	0.47	233.699	233.762	233.213	232.745	0.49	1.02
22	S22	S23	204	0	0	0	0	0		0	0	0	0	0	0.00	200	250	0.66	10.37	OK	0.82	234.021	233.762	234.021	233.205	0.00	0.56
23	S23	S24	244	0	0	0	0	0		115000	115000	115000	92000	276000	3.19	200	250	0.66	10.37	OK	0.98	233.762	234.082	232.745	231.769	1.02	2.23
24	S24	SUMP-4	2	0	155	155	2093	324415		168000	168000	492415	393932	1181796	13.68	250	340	0.66	16.12	OK	0.01	234.082	234.082	231.408	231.399	2.60	2.60
RLP LEFT SIDE TO STP SUMP																											
1	S1	S2	172	0	0	0	0	0	46250	0	46250	46250	37000	111000	1.28	200	250	0.66	10.37	OK	0.69	234.736	234.632	234.736	234.048	0.00	0.50
2	S2	S4	90	0	974	974	13149	2038095		244000	244000	2282095	1825676	5477028	63.39	500	850	0.66	65.44	OK	0.11	234.639	234.546	233.746	233.642	0.89	0.90
3	S3	S4	165	10	0	10	135	20925		0	0	20925	16740	50220	0.58	200	250	0.66	10.37	OK	0.66	234.736	234.546	234.736	234.076	0.00	0.47
4	S4	S6	33	0	984	984	13284	2059020		244000	244000	2303020	1842416	5527248	63.97	500	850	0.66	65.44	OK	0.04	234.546	234.522	233.642	233.603	0.90	0.90
5	S5	S6	177	11	0	11	149	23095		0	0	23095	18476	55428	0.64	200	250	0.66	10.37	OK	0.71	234.712	234.522	234.712	234.004	0.00	0.52
6	S6	S8	93	0	995	995	13433	2082115		244000	244000	2326115	1860892	5582676	64.61	500	850	0.66	65.44	OK	0.10	234.522	234.422	233.603	233.503	0.92	0.92
7	S7	S8	177	11	0	11	149	23095		0	0	23095	18476	55428	0.64	200	850	0.36	7.42	OK	0.21	234.612	234.422	234.612	234.404	0.00	0.02
8	S8	S10	22	0	1006	1006	13581	2105055		244000	244000	2349055	1879244	5637732	65.25	500	850	0.66	65.44	OK	0.03	234.422	234.422	233.503	233.477	0.92	0.94
9	S9	S10	174	13	0	13	176	27280		0	0	27280	21824	65472	0.76	200	250	0.66	13.68	OK	0.70	234.612	234.422	234.612	233.910	0.00	0.51
10	S10	S12	101	4	1018	1022	13811	2140705		244000	244000	2384705	1907764	5723292	66.24	500	850	0.66	65.44	OK	0.12	234.422	234.315	233.477	233.359	0.94	0.96
11	S11	S12	182	22	0	22	297	46035	180000	0	180000	226035	180828	542484	6.28	200	250	0.66	10.37	OK	0.73	234.521	234.315	234.521	233.795	0.00	0.52
12	S12	S24	201	30	1045	1075	14513	2249515		424000	424000	2673515	2138812	6416436	74.26	500	850	0.66	65.44	OK	0.24	234.315	234.147	233.359	233.122	0.86	1.02
13	S13	S15	239	18	0	18	243	37665		0	0	37665	30132	90396	1.05	200	250	0.66	10.37	OK	0.87	234.144	234.315	234.144	233.272	0.00	1.04
14	S14	S15	143	13	155	168	2268	351540		168000	168000	519540	415632	1246896	14.43	250	340	0.66	16.12	OK	0.42	234.134	234.315	234.134	233.713	0.00	0.60
15	S15	S17	36	4	168	172	2322	359910		168000	168000	527910	422328	1266984	14.66	250	340	0.66	16.12	OK	0.11	234.315	234.281	233.222	233.116	1.09	1.17
16	S16	S17	157	13	0	13	176	27280		0	0	27280	21824	65472	0.76	200	250	0.66	10.37	OK	0.63	234.110	234.281	234.110	233.482	0.00	0.81
17	S17	S18	63	4	185	189	2552	395560		168000	168000	563560	450848	1352544	15.65	300	430	0.66	23.30	OK	0.15	234.291	234.219	233.086	232.933	1.22	1.30
18	S18	S19	157	27	0	27	365	56575		0	0	56575	45260	135780	1.57	200	250	0.66	10.37	OK	0.63	234.038	234.219	234.038	233.410	0.00	0.81
19	S19	S21	72	6	216	222	2997	464535		168000	168000	632535	506028	1518084	17.57	300	430	0.66	23.30	OK	0.17	234.219	234.147	232.920	232.752	1.30	1.39
20	S20	S21	157	13	0	13	176	27280	55000	0	55000	82280	65824	197472	2.29	200	250	0.66	10.37	OK	0.63	233.865	234.147	233.865	233.235	0.00	0.81
21	S21	S23	33	4	235	239	3227	500185	60000	223000	283000	783185	626548	1879644	21.76	300	430	0.66	23.30	OK	0.08	234.147	234.147	232.752	232.675	1.38	1.47
22	S22	S23	157	29	0	29	392	60760		0	0	60760	48608	145824	1.69	200	250	0.66	10.37	OK	0.63	233.898	234.147	233.898	233.268	0.00	0.86
23	S23	S24	74	6	268	274	3699	573345		283000	283000	856345	685076	2055228	23.79	400	836	0.66	41.66	OK	0.12	234.147	234.147	232.575	232.455	1.57	1.69
24	S24	STP SUMP	9	0	1349	1349	18212	2822860		707000	707000	3529860	2823888	8471664	98.05	600	1075	0.66	123.54	OK	0.00	234.147	234.147	232.258	232.253	1.89	1.90

SUB WORK No. 3 STORM WATER DRAINAGE

RESIDENTIAL INTEGRATED TOWNSHIP (UNDER NILP-2022) OVER AN AREA MEASURING 251.90625 ACRES (MIGRATED FROM LICENCE NO.06 OF 2010 DATED 14.10.2010 OF 314.8 ACRES) AT SECTOR 36,37,38,39 PANIPAT BEING DEVELOPED BY M/S UTTRINA INFRA PROJECTS PRIVATE LIMITED.

S No.	Description				Amount	
1	Providing, laying, RCC pipe class NP-3/~~NP2~~ excavation, manholes etc. complete in all respects					
a)	400 mm dia Average Depth upto 2 Mtr.	11099 Mtr.	@	Rs. ~~3,776~~ 2500	Rs. ~~4,19,00,824.00~~ 277.48	las
b)	500 mm dia Average Depth upto 2 Mtr.	681 Mtr.	@	Rs. ~~4,500~~ 2700	Rs. ~~30,64,500.00~~	18.39 las
c)	600 mm dia Average Depth upto 2 Mtr.	558 Mtr.	@	Rs. ~~5~~ 3,000	Rs. ~~33,48,000.00~~	16.74 la
d)	700 mm dia Average Depth upto 2 Mtr.	656 Mtr.	@	Rs. ~~6,400~~ 3500	Rs. ~~41,98,400.00~~	22.96 las
e)	800 mm dia Average Depth upto 2 Mtr.	214 Mtr.	@	Rs. ~~7~~ 5,000	Rs. ~~14,98,000.00~~ 10.70	
f)	900 mm dia Average Depth upto 2.5 Mtr.	135 Mtr.	@	Rs. ~~9,000~~ 8200	Rs. ~~12,15,000.00~~ 11.07	
g)	1000 mm dia Average Depth upto 2.5 Mtr.	359 Mtr.	@	Rs. 10,000	Rs. 35,90,000.00	
h)	1100 mm dia Average Depth upto 2.5 Mtr.	161 Mtr.	@	Rs. 13,000	Rs. 20,93,000.00	
2	Provision for lighting and watching and temporary diversion of traffic				Rs. ~~8,00,000.00~~ 20.00	
3	Provision for road gullies & connecting pipe L.S.				Rs. 40,00,000.00	
4	Provision for rainwater harvesting arrangements for road & green area (excluding plot & amminity area) at suitable places (L.S.)				700.00 las	
	~~Rs. 4,50,000.00 per acre~~ - ~~89.8536 Acre~~ (41)				Rs. ~~4,04,34,075.00~~	
5	Provision for timbering & shoring (L.S.) cutting of road & making good (L.S.)				Rs. 10,00,000.00	
6	Provision for making connection 5 nos with HSVP (L/S)				Rs. 10,00,000.00	
7	Prov. for temporary disposal arrangement arrangement till HSVP service on Branch (L.S.)				500-00	
	TOTAL CO to FINAL ABSTRACT OF QUANTITY				Rs. ~~10,71,50,799.00~~ 1694.17 las	

C P VIDYA AND ASSOCIATES GURUGRAM

MATERIAL STATEMENT FOR DRAINAGE

Sl NO.	LINE		Length of line	Dia of Pipe	DIA OF PIPE IN (MM)							
			Mtr	MM	400	500	600	700	800	900	1000	1100
1	D1	D3	154	400	154	-	-	-	-	-	-	-
2	D2	D3	186	400	186	-	-	-	-	-	-	-
3	D3	D6	85	500	-	95	-	-	-	-	-	-
4	D4	D6	103	400	103	-	-	-	-	-	-	-
5	D5	D6	176	400	176	-	-	-	-	-	-	-
6	D6	D9	15	500	-	15	-	-	-	-	-	-
7	D7	D9	180	400	180	-	-	-	-	-	-	-
8	D8	D9	103	400	103	-	-	-	-	-	-	-
9	D9	D12	95	600	-	-	95	-	-	-	-	-
10	D10	D12	103	400	103	-	-	-	-	-	-	-
11	D11	D12	180	400	180	-	-	-	-	-	-	-
12	D12	D15	15	700	-	-	-	15	-	-	-	-
13	D13	D15	100	400	100	-	-	-	-	-	-	-
14	D14	D15	176	400	176	-	-	-	-	-	-	-
15	D15	D20	82	700	-	-	-	82	-	-	-	-
16	D16	D18	270	400	270	-	-	-	-	-	-	-
17	D17	D18	23	400	23	-	-	-	-	-	-	-
18	D18	D20	118	400	118	-	-	-	-	-	-	-
19	D19	D20	208	400	208	-	-	-	-	-	-	-
20	D20	D26	83	800	-	-	-	-	83	-	-	-
21	D21	D23	172	400	172	-	-	-	-	-	-	-
22	D22	D23	62	400	62	-	-	-	-	-	-	-
23	D23	D24	174	400	174	-	-	-	-	-	-	-
24	D24	D26	210	400	210	-	-	-	-	-	-	-
25	D25	D26	42	400	42	-	-	-	-	-	-	-
26	D26	D28	20	900	-	-	-	-	-	20	-	-
27	D27	D28	42	400	42	-	-	-	-	-	-	-
28	D28	D42	34	900	-	-	-	-	-	34	-	-
29	D29	D31	51	400	51	-	-	-	-	-	-	-
30	D30	D31	37	400	37	-	-	-	-	-	-	-
31	D31	D33	48	400	48	-	-	-	-	-	-	-
32	D32	D33	77	400	77	-	-	-	-	-	-	-
33	D33	D35	48	400	48	-	-	-	-	-	-	-
34	D34	D35	77	400	77	-	-	-	-	-	-	-
35	D35	D37	48	400	48	-	-	-	-	-	-	-
36	D36	D37	68	400	68	-	-	-	-	-	-	-
37	D37	D39	40	400	40	-	-	-	-	-	-	-
38	D38	D39	77	400	77	-	-	-	-	-	-	-
39	D39	D41	52	400	52	-	-	-	-	-	-	-
40	D40	D41	234	400	234	-	-	-	-	-	-	-
41	D41	D42	53	400	53	-	-	-	-	-	-	-
42	D42	D44	44	1000	-	-	-	-	-	-	44	-
43	D43	D44	80	400	80	-	-	-	-	-	-	-
44	D44	D46	56	1000	-	-	-	-	-	-	56	-
45	D45	D46	192	400	192	-	-	-	-	-	-	-
46	D46	D47	114	1100	-	-	-	-	-	-	-	114
47	D47	Outfall -1	47	1100	-	-	-	-	-	-	-	47
48	D51	D52	47	400	47	-	-	-	-	-	-	-
49	D52	D54	240	400	240	-	-	-	-	-	-	-
50	D53	D54	17	400	17	-	-	-	-	-	-	-
51	D54	D69	207	400	207	-	-	-	-	-	-	-
52	D55	D57	153	400	153	-	-	-	-	-	-	-
53	D56	D57	37	400	37	-	-	-	-	-	-	-
54	D57	D59	15	400	15	-	-	-	-	-	-	-
55	D58	D59	143	400	143	-	-	-	-	-	-	-
56	D59	D61	91	400	91	-	-	-	-	-	-	-
57	D60	D61	146	400	146	-	-	-	-	-	-	-
58	D61	D63	15	400	15	-	-	-	-	-	-	-
59	D62	D63	120	400	120	-	-	-	-	-	-	-
60	D63	D66	79	500	-	79	-	-	-	-	-	-
61	D64	D66	58	400	58	-	-	-	-	-	-	-
62	D65	D66	95	400	95	-	-	-	-	-	-	-
63	D66	D67	184	400	184	-	-	-	-	-	-	-
64	D67	D68	74	400	74	-	-	-	-	-	-	-
65	D68	D69	127	600	-	-	127	-	-	-	-	-
66	D69	D71	55	600	-	-	55	-	-	-	-	-
67	D70	D71	195	400	195	-	-	-	-	-	-	-
68	D71	D73	77	700	-	-	-	77	-	-	-	-
69	D72	D73	147	400	147	-	-	-	-	-	-	-

C.P. VIDYA AND ASSOCIATES GURUGRAM

70	D73	D75	54	700	-	-	-	54	-	-	-	-
71	D74	D75	109	400	109	-	-	-	-	-	-	-
72	D75	D77	106	800	-	-	-	-	106	-	-	-
73	D76	D77	255	400	255	-	-	-	-	-	-	-
74	D77	Outfall -2	10	800	-	-	-	-	10	-	-	-
75	D48	D49	148	400	148	-	-	-	-	-	-	-
76	D49	D50	87	400	87	-	-	-	-	-	-	-
77	D50	Outfall -3	10	400	10	-	-	-	-	-	-	-
78	D65	D67	22	400	22	-	-	-	-	-	-	-
79	D66	D67	183	400	183	-	-	-	-	-	-	-
80	D67	D69	105	400	105	-	-	-	-	-	-	-
81	D68	D69	184	400	184	-	-	-	-	-	-	-
82	D69	D71	186	400	186	-	-	-	-	-	-	-
83	D70	D71	352	400	352	-	-	-	-	-	-	-
84	D71	D75	75	500	-	75	-	-	-	-	-	-
85	D72	D73	347	400	347	-	-	-	-	-	-	-
86	D73	D75	113	600	-	-	113	-	-	-	-	-
87	D74	D75	154	400	154	-	-	-	-	-	-	-
88	D75	D77	73	600	-	-	73	-	-	-	-	-
89	D76	D77	154	400	154	-	-	-	-	-	-	-
90	D77	D79	15	700	-	-	-	15	-	-	-	-
91	D78	D79	153	400	153	-	-	-	-	-	-	-
92	D79	D81	81	700	-	-	-	81	-	-	-	-
93	D80	D81	154	400	154	-	-	-	-	-	-	-
94	D81	D84	72	700	-	-	-	72	-	-	-	-
95	D82	D83	241	400	241	-	-	-	-	-	-	-
96	D83	D84	160	400	160	-	-	-	-	-	-	-
97	D84	D90	15	800	-	-	-	-	15	-	-	-
98	D85	D86	208	400	208	-	-	-	-	-	-	-
99	D86	D88	73	400	73	-	-	-	-	-	-	-
100	D87	D88	173	400	173	-	-	-	-	-	-	-
101	D88	D89	183	500	-	183	-	-	-	-	-	-
102	D89	D90	234	500	-	234	-	-	-	-	-	-
103	D90	D92	81	900	-	-	-	-	-	81	-	-
104	D91	D92	170	400	170	-	-	-	-	-	-	-
105	D92	D94	109	1000	-	-	-	-	-	-	109	-
106	D93	D94	53	400	53	-	-	-	-	-	-	-
107	D94	D95	124	1000	-	-	-	-	-	-	124	-
108	D95	Outfall -1	26	1000	-	-	-	-	-	-	26	-
109	D51	D53	405	400	405	-	-	-	-	-	-	-
110	D52	D53	55	400	55	-	-	-	-	-	-	-
111	D53	D56	15	400	15	-	-	-	-	-	-	-
112	D54	D56	402	400	402	-	-	-	-	-	-	-
113	D55	D56	55	400	55	-	-	-	-	-	-	-
114	D56	D58	95	600	-	-	95	-	-	-	-	-
115	D57	D58	286	400	286	-	-	-	-	-	-	-
116	D58	D60	190	700	-	-	-	190	-	-	-	-
117	D59	D60	72	400	72	-	-	-	-	-	-	-
118	D60	D62	15	400	15	-	-	-	-	-	-	-
119	D61	D62	72	400	72	-	-	-	-	-	-	-
120	D62	D63	95	400	95	-	-	-	-	-	-	-
121	D63	D64	60	700	-	-	-	60	-	-	-	-
122	D64	Outfall -2	10	700	-	-	-	10	-	-	-	-
TOATL			13863		11099	581	558	856	214	135	369	161

C P VIDYA AND ASSOCIATES GURUGRAM

RESIDENTIAL INTEGRATED TOWNSHIP (UNDER MLP-2023) OVER AN AREA MEASURING 291.80625 ACRES (MIGRATED FROM LICENCE NO.89 OF 2010 DATED 14.10.2010 OF 314.6 ACRES) AT SECTOR 36,37,38,39 PANIPAT BEING DEVELOPED BY M/S UTTRIMA SETIA PROJECTS PRIVATE LIMITED

DESIGN OF STORM WATER DRAINAGE SYSTEM

SL NO	LINK NO.		LENGTH	SELF AREA TO BE DRAINED IN	AREA IN HECTARES			DISCHARGE IN CUMESC RAIN INTENSITY =6.23 /sq.m/hr	DISCHA RGE	Pipe Dia	SLOPE	VELOCITY	DISCHARGE CAPACITY	Check	GROUND LEVEL AT START	GROUND LEVEL AT END	FALL	INVERT LEVEL AT START	INVERT LEVEL AT END	DEPTH AT START	DEPTH AT END
	FROM	TO	MTR	SQM	SELF	BRANCH	TOTAL	M3/HR	IN LPS	MM	1 IN	M/SEC	IN LPS		MTR	MTR	MTR	MTR.	MTR	MTR.	MTR
MLP RIGHT SIDE OUTFALL-I																					
1	D1	D5	154	20185	2.017	0.000	2.017	126.03	35.01	400	500	0.64	72.61	OK	234.657	234.482	0.31	233.26	232.95	1.40	1.53
2	D2	D3	106	23633	2.363	0.000	2.363	147.56	39.99	400	500	0.64	72.61	OK	234.671	234.482	0.37	233.27	232.90	1.40	1.58
3	D3	D6	95	0	0.000	4.320	4.320	269.66	75.00	500	675	0.64	113.30	OK	234.482	234.396	0.14	232.80	232.66	1.68	1.74
4	D4	D6	103	7534	0.753	0.000	0.753	47.00	13.06	400	500	0.64	72.61	OK	234.525	234.396	0.21	233.13	232.92	1.40	1.48
5	D5	D6	178	1027	0.924	0.000	0.924	57.73	16.04	400	500	0.64	72.61	OK	234.585	234.396	0.38	233.13	232.83	1.40	1.56
6	D6	D9	15	0	0.000	5.667	5.667	374.61	104.11	500	675	0.64	113.30	OK	234.368	234.372	0.02	232.66	232.64	1.74	1.74
7	D7	D8	160	9945	0.995	0.000	0.995	62.16	17.27	400	500	0.64	72.61	OK	234.581	234.372	0.38	233.16	232.80	1.40	1.57
8	D8	D9	103	7534	0.753	0.000	0.753	47.00	13.06	400	500	0.64	72.61	OK	234.581	234.372	0.21	233.10	232.90	1.40	1.48
9	D9	D12	99	0	0.000	7.745	7.745	484.05	134.46	600	875	0.84	161.63	OK	234.372	234.286	0.11	232.94	232.43	1.04	1.86
10	D10	D12	103	7522	0.752	0.000	0.752	47.01	13.06	400	500	0.64	72.61	OK	234.415	234.286	0.21	233.02	232.81	1.40	1.48
11	D11	D12	185	10274	1.027	0.000	1.027	64.51	17.84	400	500	0.64	72.61	OK	234.494	234.286	0.30	233.09	232.73	1.40	1.55
12	D12	D15	15	0	0.000	9.524	9.524	595.28	165.35	700	1050	0.84	222.93	OK	234.286	234.262	0.01	232.33	232.31	1.96	1.95
13	D13	D15	130	7274	0.727	0.000	0.727	45.46	12.63	400	500	0.64	72.61	OK	234.391	234.262	0.20	232.99	232.79	1.40	1.47
14	D14	D15	178	9937	0.994	0.000	0.994	62.11	17.25	400	500	0.64	72.61	OK	234.470	234.262	0.35	233.07	232.72	1.40	1.54
15	D15	D20	82	0	0.000	11.048	11.048	702.94	195.23	700	1050	0.84	222.93	OK	234.262	234.162	0.08	232.31	232.24	1.95	1.93
16	D16	D18	270	16024	1.602	0.000	1.602	100.15	27.82	400	500	0.64	72.61	OK	234.611	234.309	0.54	233.21	232.67	1.40	1.64
17	D17	D18	23	0	0.000	0.000	0.000	0.00	0.00	400	500	0.64	72.61	OK	234.344	234.309	0.05	232.94	232.90	1.40	1.41
18	D18	D20	158	10153	1.015	1.602	2.617	163.59	45.44	400	500	0.64	72.61	OK	234.309	234.162	0.24	232.67	232.44	1.64	1.73
19	D19	D20	208	15827	1.583	0.000	1.583	99.54	27.65	400	500	0.64	72.61	OK	234.388	234.162	0.42	232.99	232.57	1.40	1.59
20	D20	D26	83	0	0.000	15.456	15.456	985.68	268.33	800	1250	0.64	291.59	OK	234.162	234.062	0.07	232.16	232.07	2.00	2.00
21	D21	D23	172	8882	0.888	0.000	0.888	55.51	15.42	400	500	0.64	72.61	OK	234.571	234.494	0.34	233.27	232.93	1.40	1.57
22	D22	D23	62	0	0.000	0.000	0.000	0.00	0.00	400	500	0.64	72.61	OK	234.410	234.494	0.13	233.02	232.90	1.40	1.60
23	D23	D24	174	3443	0.344	0.888	1.233	77.03	21.40	400	500	0.64	72.61	OK	234.494	234.3	0.39	232.90	232.55	1.60	1.75
24	D24	D25	210	12516	1.252	1.233	2.484	159.88	43.30	400	500	0.64	72.61	OK	234.300	234.092	0.42	232.55	232.13	1.75	1.97
25	D25	D26	42	7939	0.794	0.000	0.794	49.62	13.78	400	500	0.64	72.61	OK	234.148	234.092	0.06	232.75	232.69	1.40	1.40
26	D26	D28	30	0	0.000	18.744	18.744	1171.48	325.41	900	1500	0.84	364.40	OK	234.092	234.092	0.01	231.97	231.96	2.12	2.14
27	D27	D28	42	10250	1.025	0.000	1.025	64.06	17.80	400	500	0.64	72.61	OK	234.148	234.092	0.06	232.75	232.69	1.40	1.40
28	D28	D42	34	866	0.097	18.788	18.885	1241.54	344.89	900	1500	0.84	364.40	OK	234.092	234.074	0.02	231.96	231.93	2.14	2.14
29	D29	D31	51	1731	0.173	0.000	0.173	10.78	2.99	400	500	0.64	72.61	OK	234.096	234.096	0.10	232.70	232.59	1.40	1.50
30	D30	D31	37	1148	0.115	0.000	0.115	7.16	1.99	400	500	0.64	72.61	OK	234.098	234.096	0.07	232.70	232.62	1.40	1.47
31	D31	D33	46	2703	0.270	0.297	0.567	34.83	9.67	400	500	0.64	72.61	OK	234.096	234.086	0.10	232.59	232.50	1.50	1.60
32	D32	D33	77	2644	0.264	0.000	0.264	16.53	4.59	400	500	0.64	72.61	OK	234.096	234.086	0.15	232.70	232.54	1.40	1.55
33	D33	D35	46	2736	0.274	0.822	1.095	68.45	19.01	400	500	0.64	72.61	OK	234.086	234.197	0.10	232.60	232.40	1.60	1.80
34	D34	D35	77	2694	0.269	0.000	0.269	16.84	4.68	400	500	0.64	72.61	OK	234.197	234.197	0.15	232.60	232.64	1.40	1.55
35	D35	D37	48	2737	0.274	1.365	1.638	102.39	28.44	400	500	0.64	72.61	OK	234.197	234.197	0.10	232.40	232.31	1.80	1.89
36	D36	D37	68	2126	0.213	0.000	0.213	13.30	3.69	400	500	0.64	72.61	OK	234.197	234.197	0.14	232.60	232.66	1.40	1.54
37	D37	D39	40	2736	0.274	1.851	2.125	132.79	36.89	400	500	0.64	72.61	OK	234.197	234.2	0.00	232.31	232.23	1.89	1.97
38	D38	D39	77	1722	0.172	0.000	0.172	10.76	2.98	400	500	0.64	72.61	OK	234.300	234.2	0.15	232.90	232.75	1.40	1.45
39	D39	D41	52	1713	0.171	2.297	2.468	154.26	42.85	400	500	0.64	72.61	OK	234.200	234.193	0.10	232.23	232.12	1.97	2.08
40	D40	D41	238	12999	1.270	0.000	1.270	79.37	22.05	400	500	0.64	72.61	OK	233.969	234.193	0.47	232.83	232.13	1.40	2.06
41	D41	D42	53	1524	0.152	3.738	3.891	243.16	67.54	400	500	0.64	72.61	OK	234.193	234.074	0.11	232.12	232.02	2.06	2.06
42	D42	D44	44	1968	0.200	23.756	23.956	1497.22	415.89	1000	1700	0.64	463.34	OK	234.074	234.029	0.03	231.83	231.81	2.24	2.22
43	D43	D44	80	3140	0.314	0.000	0.314	19.63	5.45	400	500	0.64	72.61	OK	234.101	234.029	0.16	232.70	232.54	1.40	1.49
44	D44	D46	86	3681	0.368	24.270	24.638	1541.73	428.26	1000	1700	0.64	463.34	OK	234.029	233.964	0.03	231.81	231.77	2.22	2.15
45	D45	D46	150	9894	0.989	0.000	0.989	62.48	17.35	400	500	0.64	72.61	OK	234.157	233.964	0.38	232.76	232.37	1.40	1.59
46	D46	D47	114	25753	2.575	25.667	28.242	1765.14	490.32	1100	1950	0.64	545.77	OK	233.964	233.823	0.09	231.67	231.62	2.29	2.21
47	D47	Outfall -I	47	0	0.000	28.242	28.242	1765.14	490.32	1100	1950	0.64	545.77	OK	233.823	233.62	0.02	231.62	231.58	2.21	2.23

C.P. VIDYA AND ASSOCIATES GURUGRAM

SL NO.	LINE NO.		LENGTH	SELF AREA TO BE DRAINED IN	AREA IN HECTARES			DISCHARGE IN CUMSEC RAIN INTENSITY =6.25 mm/hr	DISCHARGE	Pipe Dia	SLOPE	VELOCITY	DISCHARGE CAPACITY	Check	GROUND LEVEL AT START	GROUND LEVEL AT END	FALL	INVERT LEVEL AT START	INVERT LEVEL AT END	DEPTH AT START	DEPTH AT END
	FROM	TO	MTR	SQM	SELF	BRANCH	TOTAL	IN/HR	IN LPS	MM	1 IN	M/SEC	IN LPS		MTR	MTR	MTR	MTR	MTR	MTR	MTR
NILP RIGHT SIDE OUTFALL-2																					
1	D61	D62	47	3381	0.338	0.000	0.338	21.01	5.84	400	500	0.64	72.61	OK	234.510	234.419	0.09	233.11	233.02	1.40	1.40
2	D62	D64	240	8784	0.878	0.336	1.215	75.91	21.09	400	500	0.64	72.61	OK	234.419	234.222	0.48	233.02	232.54	1.40	1.69
3	D63	D64	17	731	0.073	0.000	0.073	4.57	1.27	400	500	0.64	72.61	OK	234.222	234.222	0.00	232.82	232.79	1.40	1.43
4	D64	D69	207	3715	0.372	1.286	1.659	103.68	28.80	400	500	0.64	72.61	OK	234.222	234.032	0.41	232.54	232.12	1.69	1.86
5	D66	D67	153	6148	0.615	0.000	0.615	38.43	10.67	400	500	0.64	72.61	OK	234.527	234.357	0.31	233.13	232.82	1.40	1.54
6	D68	D67	37	3325	0.333	0.000	0.333	20.76	5.77	400	500	0.64	72.61	OK	234.408	234.357	0.07	233.01	232.94	1.40	1.42
7	D67	D69	15	0	0.000	0.047	0.047	59.21	16.45	400	500	0.64	72.61	OK	234.357	234.341	0.02	232.82	232.79	1.54	1.55
8	D68	D69	143	8987	0.897	0.000	0.897	56.04	15.57	400	500	0.64	72.61	OK	234.483	234.341	0.28	233.09	232.81	1.40	1.53
9	D69	D91	91	4457	0.446	1.944	2.390	143.11	39.75	400	500	0.64	72.61	OK	234.341	234.252	0.18	232.79	232.61	1.55	1.64
10	D60	D61	146	9884	0.855	0.000	0.855	53.48	14.86	400	500	0.64	72.61	OK	234.432	234.252	0.20	233.09	232.71	1.40	1.54
11	D61	D63	15	2000	0.200	3.145	3.345	209.07	58.07	400	500	0.64	72.61	OK	234.252	234.228	0.03	232.61	232.58	1.64	1.65
12	D62	D63	120	7788	0.780	0.000	0.780	48.72	13.53	400	500	0.64	72.61	OK	234.384	234.228	0.26	232.68	232.72	1.40	1.50
13	D63	D68	79	4291	0.429	4.126	4.556	284.61	79.06	500	675	0.64	113.30	OK	234.228	234.143	0.12	232.48	232.36	1.75	1.78
14	D64	D66	66	0	0.000	0.000	0.000	0.00	0.00	400	500	0.64	72.61	OK	234.334	234.419	0.12	232.93	232.82	1.40	1.60
15	D65	D66	99	6756	0.676	0.000	0.676	42.23	11.73	400	500	0.64	72.61	OK	234.510	234.419	0.19	233.11	232.92	1.40	1.50
16	D66	D67	184	6401	0.543	0.676	1.219	76.17	21.16	400	500	0.64	72.61	OK	234.419	234.222	0.37	232.92	232.45	1.60	1.77
17	D67	D68	74	0	0.000	1.219	1.219	76.17	21.16	400	500	0.64	72.61	OK	234.222	234.144	0.15	232.45	232.30	1.77	1.84
18	D68	D69	127	8293	0.829	5.172	5.557	413.34	114.54	600	875	0.64	181.83	OK	234.144	234.002	0.15	232.20	232.06	1.94	1.95
19	D69	D71	55	3731	0.273	8.257	8.530	533.10	148.06	600	875	0.64	181.83	OK	234.002	233.916	0.09	232.06	231.99	1.95	1.92
20	D70	D71	199	19807	1.583	0.000	1.583	117.67	32.69	400	500	0.64	72.61	OK	234.066	233.916	0.30	232.67	232.26	1.40	1.64
21	D71	D73	77	0	0.000	10.412	10.412	650.77	180.77	700	1050	0.64	222.63	OK	233.916	233.898	0.01	231.89	231.82	2.02	2.08
22	D72	D73	167	15878	1.588	0.000	1.588	99.24	27.57	400	500	0.64	72.61	OK	233.803	233.898	0.09	232.40	232.11	1.40	1.79
23	D73	D75	54	0	0.000	12.000	12.000	750.01	208.34	700	1050	0.64	222.63	OK	233.898	233.768	0.05	231.82	231.77	2.08	2.00
24	D74	D75	109	11929	1.193	0.000	1.193	74.55	20.71	400	500	0.64	72.61	OK	233.805	233.768	0.22	232.40	232.19	1.40	1.58
25	D75	D77	106	4062	0.406	13.183	13.589	849.95	236.10	800	1250	0.64	261.58	OK	233.768	233.683	0.09	231.87	231.58	2.12	2.10
26	D76	D77	256	4019	0.402	0.000	0.402	25.12	6.98	400	500	0.64	72.61	OK	233.800	233.683	0.01	232.40	231.89	1.40	1.79
27	D77	Outfall -2	10	9231	0.923	14.001	14.824	926.51	257.36	800	1250	0.64	261.58	OK	233.683	233.683	0.01	231.58	231.58	2.10	2.11
NILP RIGHT SIDE OUTFALL-3																					
1	D48	D49	146	23434	2.343	0.000	2.343	146.46	40.68	400	500	0.64	72.61	OK	234.134	233.888	0.25	232.72	232.43	1.40	1.46
2	D49	D50	67	8798	0.879	2.343	3.222	201.38	55.94	400	500	0.64	72.61	OK	233.888	233.800	0.17	232.43	232.26	1.46	1.54
3	D50	Outfall -3	10	0	0.000	3.222	3.222	201.38	55.94	400	500	0.64	72.61	OK	233.800	233.800	0.02	232.26	232.24	1.54	1.56

C.P. VIDYA AND ASSOCIATES GURGAON

SL NO	LINE NO.		LENGTH	SELF AREA TO BE DRAINED IN	AREA IN HECTARES			DISCHARGE IN CUMSEC RAIN INTENSITY =6.35 cusec/hr	TERCHA NOS	Pipe Dia	SLOPE	VELOCITY	DISCHARGE CAPACITY	Check	GROUND LEVEL AT START	GROUND LEVEL AT END	FALL	INVERT LEVEL AT START	INVERT LEVEL AT END	DEPTH AT START	DEPTH AT END
	FROM	TO	MTR	SQM	SELF	BRANCH	TOTAL	M3/HR	IN LPS	MM	1 IN	M/SEC	IN LPS		MTR	MTR	MTR	MTR	MTR	MTR	MTR
WLP LEFT SIDE OUTFALL-1																					
1	D66	D67	22	0	0.000	0.000	0.000	0.00	0.00	400	500	0.64	72.61	OK	234.833	234.839	0.04	233.24	233.20	1.40	1.44
2	D66	D67	193	11637	1.164	0.000	1.164	72.73	20.20	400	500	0.64	72.61	OK	234.739	234.839	0.37	233.34	232.97	1.40	1.87
3	D67	D68	193	0	0.000	1.164	1.164	72.73	20.20	400	500	0.64	72.61	OK	234.039	234.941	0.21	232.97	232.76	1.07	1.78
4	D68	D69	194	8111	0.817	0.000	0.817	51.87	14.19	400	500	0.64	72.61	OK	234.736	234.541	0.37	233.34	232.97	1.40	1.57
5	D69	D71	186	14009	1.400	1.981	3.381	211.33	58.70	400	500	0.64	72.61	OK	234.541	234.334	0.37	232.75	232.39	1.76	1.95
6	D70	D71	352	21453	2.143	0.000	2.143	133.98	37.21	400	500	0.64	72.61	OK	234.712	234.334	0.70	233.31	232.61	1.40	1.73
7	D71	D73	75	0	0.000	5.525	5.525	345.28	95.91	500	675	0.64	113.30	OK	234.334	234.284	0.11	232.29	232.18	2.05	2.06
8	D72	D73	347	18022	1.822	0.000	1.822	120.14	33.37	400	500	0.64	72.61	OK	234.613	234.354	0.68	233.21	232.52	1.40	1.74
9	D73	D75	113	5990	0.892	7.447	8.339	502.42	139.56	600	675	0.64	161.83	OK	234.254	234.144	0.13	232.05	231.95	2.10	2.20
10	D74	D75	154	7599	0.734	0.000	0.734	46.87	12.74	400	500	0.64	72.61	OK	234.254	234.144	0.31	232.85	232.55	1.40	1.60
11	D75	D77	73	0	0.000	6.773	6.773	548.28	152.30	600	675	0.64	161.83	OK	234.144	234.002	0.08	231.95	231.88	2.20	2.14
12	D76	D77	154	8434	0.840	0.000	0.840	52.50	14.58	400	500	0.64	72.61	OK	234.134	234.002	0.31	232.73	232.43	1.40	1.58
13	D77	D79	15	0	0.000	9.613	9.613	600.81	166.89	700	1050	0.64	222.83	OK	234.002	234.002	0.01	231.76	231.75	2.24	2.25
14	D78	D79	153	8371	0.837	0.000	0.837	52.32	14.53	400	500	0.64	72.61	OK	234.134	234.002	0.31	232.73	232.43	1.40	1.57
15	D79	D81	81	0	0.000	10.450	10.450	653.13	181.43	700	1050	0.64	222.83	OK	234.002	233.956	0.05	231.75	231.67	2.25	2.28
16	D80	D81	154	12582	1.258	0.000	1.258	78.64	21.84	400	500	0.64	72.61	OK	234.030	233.956	0.31	232.64	232.33	1.40	1.63
17	D81	D84	72	0	0.000	11.708	11.708	731.77	203.27	700	1050	0.64	222.83	OK	233.956	233.880	0.07	231.67	231.60	2.28	2.28
18	D82	D83	241	8743	0.874	0.000	0.874	60.88	16.91	400	500	0.64	72.61	OK	234.254	233.965	0.48	232.85	232.37	1.40	1.59
19	D83	D84	160	13870	1.387	0.974	2.361	146.33	40.65	400	500	0.64	72.61	OK	233.868	233.880	0.32	232.57	232.25	1.40	1.63
20	D84	D90	15	0	0.000	14.050	14.050	878.10	243.92	800	1250	0.64	391.59	OK	233.896	233.896	0.01	231.40	231.39	2.49	2.50
21	D85	D86	200	10724	1.072	0.000	1.072	67.03	18.62	400	500	0.64	72.61	OK	234.612	234.393	0.42	233.21	232.80	1.40	1.60
22	D86	D88	72	0	0.000	1.072	1.072	67.03	18.62	400	500	0.64	72.61	OK	234.393	234.316	0.15	232.796	232.65	1.60	1.66
23	D87	D88	173	22304	2.230	0.000	2.230	139.40	38.72	400	500	0.64	72.61	OK	234.521	234.316	0.39	233.12	232.78	1.40	1.54
24	D88	D89	183	16819	1.088	3.303	4.391	274.43	76.23	500	675	0.64	113.30	OK	234.315	234.123	0.27	232.55	232.28	1.76	1.84
25	D89	D90	234	11910	1.193	4.391	5.584	348.99	96.94	500	675	0.64	113.30	OK	234.123	233.896	0.35	232.28	231.93	1.84	1.96
26	D90	D92	81	3781	0.378	19.634	20.012	1250.73	347.42	900	1500	0.64	364.40	OK	233.896	233.762	0.05	231.29	231.24	2.60	2.52
27	D91	D92	170	16306	1.631	0.000	1.631	101.91	28.31	400	500	0.64	72.61	OK	234.021	233.762	0.39	232.62	232.26	1.40	1.49
28	D93	D94	109	12219	1.222	21.642	22.864	1429.00	396.94	1000	1700	0.64	453.34	OK	233.762	233.699	0.06	231.14	231.07	2.62	2.62
29	D93	D94	53	13797	1.380	0.000	1.380	86.23	23.95	400	500	0.64	72.61	OK	233.699	233.699	0.11	232.30	232.19	1.40	1.51
30	D94	D95	124	3816	0.382	24.244	24.626	1539.10	427.53	1000	1700	0.64	453.34	OK	233.699	233.561	0.07	231.07	231.00	2.62	2.56
31	D95	Outfall -1	26	0	0.000	24.626	24.626	1539.10	427.53	1000	1700	0.64	453.34	OK	233.561	233.561	0.02	231.00	230.99	2.56	2.56
WLP LEFT SIDE OUTFALL-2																					
1	D51	D53	405	27470	2.748	0.000	2.748	171.74	47.71	400	500	0.64	72.61	OK	234.378	233.951	0.81	232.66	232.17	1.40	1.78
2	D52	D53	66	6127	0.613	0.000	0.613	38.29	10.64	400	500	0.64	72.61	OK	234.015	233.951	0.11	232.62	232.51	1.40	1.45
3	D53	D56	15	0	0.000	3.361	3.361	210.04	58.34	400	500	0.64	72.61	OK	233.951	233.927	0.03	232.17	232.14	1.78	1.78
4	D54	D56	402	24715	2.473	0.000	2.473	154.47	42.91	400	500	0.64	72.61	OK	234.354	233.927	0.80	232.56	232.15	1.40	1.78
5	D55	D56	66	6846	0.810	0.000	0.810	50.60	14.06	400	500	0.64	72.61	OK	233.999	233.927	0.11	232.62	232.49	1.40	1.44
6	D56	D58	56	0	0.000	6.642	6.642	415.11	115.31	600	675	0.64	161.83	OK	233.927	233.827	0.11	231.94	231.83	1.99	2.00
7	D57	D58	286	18797	1.880	0.000	1.880	117.48	32.63	400	500	0.64	72.61	OK	234.092	233.827	0.57	232.69	232.12	1.40	1.71
8	D58	D60	160	15426	1.543	8.521	10.064	629.03	174.73	700	1350	0.64	222.83	OK	233.827	233.65	0.16	231.73	231.55	2.10	2.10
9	D59	D60	72	11472	1.142	0.000	1.142	71.39	19.83	400	500	0.64	72.61	OK	233.842	233.773	0.14	232.44	232.30	1.40	1.47
10	D60	D62	15	0	0.000	1.142	1.142	71.39	19.83	400	500	0.64	72.61	OK	233.773	233.773	0.03	232.268	232.27	1.47	1.51
11	D61	D62	72	8987	0.687	0.000	0.687	42.92	11.92	400	500	0.64	72.61	OK	233.841	233.773	0.14	232.44	232.30	1.40	1.48
12	D62	D63	95	0	0.000	1.829	1.829	114.31	31.75	400	500	0.64	72.61	OK	233.773	233.65	0.18	232.27	232.08	1.51	1.57
13	D63	D64	69	0	0.000	11.893	11.893	743.33	206.48	700	1050	0.64	222.83	OK	233.650	233.65	0.00	231.55	231.49	2.10	2.16
14	D64	Outfall -2	10	0	0.000	11.893	11.893	743.33	206.48	700	1050	0.64	222.83	OK	233.650	233.650	0.01	231.49	231.48	2.16	2.17

C. P. VIDYA AND ASSOCIATES GURUGRAM

SUB WORK No. 4 ROAD WORK

RESIDENTIAL INTEGRATED TOWNSHIP (UNDER NILP-2022) OVER AN AREA MEASURING 251.90625 ACRES (MIGRATED FROM LICENCE NO.06 OF 2010 DATED 14.10.2010 OF 314.8 ACRES) AT SECTOR 36,37,38,39 PANIPAT BEING DEVELOPED BY M/S UTTRINA INFRA PROJECTS PRIVATE LIMITED.

Width in meter	length in meter	Metalled Portion	Area in Sqm.
12	~~9658~~ 9911	5.5	~~53075~~ 54510
18	404	~~7.5~~ 10.0	~~3939~~ 4040
24	~~1947~~ 2538	~~15~~ 14 (2x7)	~~29206~~ 35532
Total	12001		~~85310~~ 94082
		Add 5% for curves	~~4265.6~~ 4704
		Total Area	~~89576~~ 98786 Sqm

say 98800 Sqm

S No.	Description	Amount
1	Provision for leveling & earth filling as per site condition	
	Approx 208.4728 Acre @ Rs. 1,75,000 per acre	Rs. 3,64,82,731.25
2a	Providing and laying Granular Sub Base (GSB) (~~160 mm thick for for 12 mtr and 200 mm thick for 18 & 24 mtr. Road~~) 200 mm GSB 250 mm stone aggregate	
2b	~~Providing and laying Wat Mix Macadam (WMM) (200mm thick for for 12 mtr and 225 mm thick for 18 & 24 mtr. Road)~~ 50 mm thick DBM	
2c	~~Providing and laying 80 mm thick interlocking~~ tiles. 30 mm BC	1482.00 la
	98800 ~~89576~~ Sqm @ Rs. 1,500 per sqm	Rs. ~~13,43,63,250.00~~
3	Provision for guide map and other unforeseen item L.S	Rs. 5,00,000.00
4	Provision for plot indicators L.S	Rs. 10,00,000.00
5	Provision for demarcating burgies L.S	Rs. 4,00,000.00
6	Provision for traffic ~~arrangement~~ Lights L.S Kerb & channel on both side of road within as	Rs. 8,50,000.00
7	Provision for ~~making approach to each plot~~. Per specification 32325 Rmt @ 6600/m	193.95 la
	~~Approx 208.4728 Acre @ Rs. 10,000 per acre~~	Rs. ~~20,84,727.50~~
8	Provision for carriage of material & unforeseen items L.S	Rs. 20,00,000.00
	~~TOTAL CO to FINAL ABSTRACT OF QUANTITY~~	Rs. ~~17,59,80,708.75~~

9) Provision for Const of Pavement in Comm. area i.e. 50% of the area = $\frac{3.995 \times 4047}{2}$ = 8083.88 Sqm @ or 8100 Sqm @ 1500/ Sqm

Rs 121.50 lac

2209.78 la

C P VIDYA AND ASSOCIATES GURUGRAM

RESIDENTIAL INTEGRATED TOWNSHIP (UNDER NILP-2022) OVER AN AREA MEASURING 251.90625 ACRES (MIGRATED FROM LICENCE NO.06 OF 2010 DATED 14.10.2010 OF 314.8 ACRES) AT SECTOR 36,37,38,39 PANIPAT BEING DEVELOPED BY M/S UTTRINA INFRA PROJECTS PRIVATE LIMITED.

Sl. No.	Node			
		12 Mtr. Wide	18 Mtr. Wide	24Mtr. Wide
1	R1	58	....	....
2	R2	~~203~~ 199	....	....
3	R3	~~244~~ 239	....	....
4	R4	155	....	....
5	R5	155	....	....
6	R6	155	....	....
7	R7	155	....	....
8	R8	180	....	....
9	R9	....	....	584
10	R10	253	....	....
11	R11	253	....	....
12	R12	178	....	....
13	R13	178	....	....
14	R14	202	....	....
15	R15	181	....	....
16	R16	150	....	....
17	R17	150	....	....
18	R18	118	....	....
19	R19	411	....	....
20	R20	423	....	....
21	R21	53	....	....
22	R22	68	....	....
23	R23	94	....	....
24	R24	83	....	....
25	R25	117	....	....
26	R26	160	....	....
27	R27	94	....	
28	R28		....	205
29	R29		....	456
30	R30		....	206
31	R31	165	....	....
32	R32	114	....	....
33	R33	114	....	....
34	R34	114	....	....
35	R35	114	....	....
36	R36	114	....	....
37	R37	329	....	....
38	R38	192	....	....
39	R39	192	....	....
40	R40	192	....	....
41	R41	192	....	....
42	R42	192	....	....
43	R43	298	....	....

44	R44	61	....	....
45	R45	61	....	....
46	R46	61	....	....
47	R47	242	....	....
48	R48	~~155~~ 161	....	....
49	R49	155	....	....
50	R50	132	....	....
51	R51	132	....	....
52	R52	60	....	....
53	R53	181	....	....
54	R54	238	....	....
55	R55	~~232~~ 228	....	....
56	R56	68	....	....
57	R57	7	....	....
58	R58	7	....	....
59	R59	58	....	....
60	R60	151	....	....
61	R61	105	....	....
62	R62	28	....	....
63	R63	155	....	....
64	R64	109	....	....
65	R65	261	....	....
66	R66	169	....	....
67	R67	180	....	....
68	R68	....	404	....
69	R69	....	....	234
70	R70	....	....	277
71	R71	....	....	589
	Total	~~**9650**~~ 9911	**404**	~~**1947**~~ 2538 mh

Length for Kerb & channel

2(9911 + 404 + 4(2538) = 30782 mh

Add 5% for curves 1539 mh

32321 mh

SAY = 32325 Rmt

SUB WORK No. 5 Street Lighting

RESIDENTIAL INTEGRATED TOWNSHIP (UNDER NILP-2022) OVER AN AREA MEASURING 251.90625 ACRES (MIGRATED FROM LICENCE NO.06 OF 2010 DATED 14.10.2010 OF 314.8 ACRES) AT SECTOR 36,37,38,39 PANIPAT BEING DEVELOPED BY M/S UTTRINA INFRA PROJECTS PRIVATE LIMITED.

S No.	Description	Amount
1	Providing street lightning on roads as per standard specifications of HVPN.	
	Approx 208.47 Acre @ Rs. 2,50,000 per acre	Rs. 5,21,18,187.50
	TOTAL CO to FINAL ABSTRACT OF QUANTITY	**Rs. 5,21,18,187.50**

say ₹ 521.18 lacs

SUB WORK No. 6 Plantation & Road side Trees/Horticulture

RESIDENTIAL INTEGRATED TOWNSHIP (UNDER NILP-2022) OVER AN AREA MEASURING 251.90625 ACRES (MIGRATED FROM LICENCE NO.06 OF 2010 DATED 14.10.2010 OF 314.8 ACRES) AT SECTOR 36,37,38,39 PANIPAT BEING DEVELOPED BY M/S UTTRINA INFRA PROJECTS PRIVATE LIMITED.

S No.	Description	Amount
1	**Development of Green areas**	
a	Trenching the ordinary soil up to dept of 60 cm including removal and stacking of serviceable material and disposing of by spreading and leveling within a lead to 50m and making up the trenches area of 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 park area	
	Grassing with "Doob Grass" including watering and maintenance of lawns for 30 days till the grass a thick lawn, free weeds and fit for moving in rows 7.5m apart in either direction including provision for hedges and barbed wire fencing around park.	
	Approx. 10.33000 Acres @ Rs. 1,50,000 per Acres	Rs. 15,49,500.00
2	**Planting Tree**	
a	Provision of trees, along 9.0 M wide(One Side) and both side on the 12mtr. & 24 mtr. Road at 12 Mtr intervals.	49.67 lacs
	((~~9650+404+1947~~/12)*2) = 2142 Nos ~~2000~~ @ Rs. ~~1,800~~ 2310 per tree	Rs. ~~36,00,000.00~~ 4620000
	9911+406+2537 SAY 2150 **TOTAL CO to FINAL ABSTRACT OF QUANTITY**	Rs. ~~51,49,500.00~~ 6169500
		Rs 65.17 lacs

C P VIDYA AND ASSOCIATES GURUGRAM

SUB WORK No. 7 MTC Charge and Resurfacing of Road

RESIDENTIAL INTEGRATED TOWNSHIP (UNDER NILP-2022) OVER AN AREA MEASURING 251.90625 ACRES (MIGRATED FROM LICENCE NO.06 OF 2010 DATED 14.10.2010 OF 314.8 ACRES) AT SECTOR 36,37,38,39 PANIPAT BEING DEVELOPED BY M/S UTTRINA INFRA PROJECTS PRIVATE LIMITED.

S No.	Description	Amount
1	Provision for maintenance charge for Water supply, sewerage, storm water, Drainage, roads, street light, Hort. Etc. Complete including operation & Establishment charges as per HUDA Norms after completion. 800000	166778200
	Area 208.47275 Acre @ Rs. ~~7,60,000~~ per acre	Rs. ~~15,69,54,562.50~~ 166778200
2	Provision for resurfacing of roads after First five year of maintenance.	652.08 lacs
	Total Road area 98800 ~~89576~~ Sqmt @ Rs. ~~600~~ 6601 per Sqmt	Rs. ~~6,37,45,300.00~~
3	Provision for resurfacing of roads after 10 Years of MTC.	815.10 lacs
	Total Road area 98800 ~~89576~~ Sqmt @ Rs. 825 per Sqmt	Rs. ~~7,38,99,787.50~~
	TOTAL CO to FINAL ABSTRACT OF QUANTITY	**Rs. 28,~~39,99,650.00~~** 294423287.50

Rs 3134.96 lacs

C P VIDYA AND ASSOCIATES

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

Licence No. 257 of 2023

This Licence has been granted under the Haryana Development and Regulation of Urban Areas Act 1975 & the Rules 1976 made thereunder to Ambi Estates Pvt. Ltd., Uttima Infra Projects Pvt. Ltd., Grand Valley Realtors Pvt. Ltd., Four Square Promoters Pvt. Ltd., Lagoon Club Pvt. Ltd., Lagoon Realtors Pvt. Ltd., Little Valley Promoters Pvt. Ltd., Star Valley Realtors Pvt. Ltd. in collaboration with Uttima Infra Projects Pvt. Ltd., Regd. Office 6th Floor, M3M Tee Point, North Block, Sector-65, Gurugram-122101 for setting up of Residential Plotted Colony under NILP Policy over an area measuring 25.180 acre (after migration from licence no. 6 of 2010 granted for setting up of RPT Colony) in the revenue estate of village Kabri and Taraf Insar, Sector-36 & 38, Distt. Panipat.

2. The particulars of the land, wherein the aforesaid Residential Plotted Colony under NILP – 2022 is to be set up, are given in the Schedule annexed hereto and duly signed by the Director, Town & Country Planning, Haryana.

3. The Licence is granted subject to the following conditions:

i) That you will pay the State Infrastructure Development charges amounting to Rs. 3,78,23,807/- @ Rs. 375/- per sq m for the plotted area and Rs.750/- for the commercial component in two equal installments. First installment will be due within 60 days of grant of licence and second installment within 6 months of grant of licence failing which 18% per annum interest will be liable for the delayed period.

ii) That the Residential Plotted Colony under NILP – 2022 will be laid out after confirmation to the approved layout/building plans and development works will be executed in accordance to the designs and specifications shown in the approved plans.

iii) That the conditions of the agreements already executed are duly fulfilled and the provisions of Haryana Development and Regulation of Urban Areas Act, 1975 and the Rules 1976 made thereunder are duly complied with.

iv) That area coming under the sector roads and restricted belt / green belt, if any, which forms part of licensed area and in lieu of which benefit to the extent permissible as per policy towards FAR is being granted, shall be transferred to the Government within a period of 30 days of approval of zoning plan.

v) That you shall maintain and upkeep of all roads, open spaces, public parks and public health services for a period of five years from the date of issue of the completion certificate unless earlier relieved of this responsibility and thereupon to transfer all such roads, open spaces, public parks and public health services 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.

Town & Country Planning
Haryana, Chandigarh

xiii. That you shall construct portion of service road, internal circulation roads, within the part of site area at your own cost and shall transfer the land falling within alignment of same to the Government in accordance with Section 3(3) (a) (iii) of the Haryana Development and Regulation of Urban Areas Act, 1975 within a period of 30 days of approval of zoning plan.

xiv. That you shall integrate the services with Haryana Shahari Vikas Pradhikaran services as and when made available.

xv. That you have not submitted any other application for grant of license for development of the said land or part thereof for any purpose under the provisions of the Haryana Development and Regulation of Urban Areas Act, 1975 or any application seeking permission for change of land use under the provision of the Punjab Scheduled Roads and Controlled Area Restriction of Unregulated Development Act, 1963.

xvi. That you have understand that the development/construction cost of 24 m/18 m wide internal roads is not included in the EDC rates and they shall pay the proportionate cost for acquisition of land, if any, alongwith the construction cost, in 24 m/18 m wide major internal roads as and when needed and demanded by the Department.

xvii. That you shall obtain NOC /Clearance as per provisions of notification dated 7/09/2006 issued by Ministry of Environment & Forest, Govt. of India, if applicable before execution of development works at site.

xviii. That you shall make your own arrangements for water supply, sewerage, drainage etc. to the satisfaction of Director till these services are made available and the same is made functional from external Infrastructure agency of Haryana Shahari Vikas Pradhikaran or any other executing agency.

xix. That you shall obtain clearance from competent authority, if required under Punjab Land Preservation Act, 1900 and any other clearance required under any other law.

xx. That the rain water harvesting system shall be provided as per Central Ground Water Authority Norms / Haryana Govt. notification as applicable.

xxi. That the provision of solar water photovoltaic system shall be as per guidelines of Haryana Renewable Energy Development Agency and shall be made operational where applicable before applying for an Occupation Certificate.

xxii. That you shall use only LED fitting for internal lighting as well as external lighting.

xxiii. That you shall convey the 'Ultimate Power Load Requirement' of the project to the concerned power utility with a copy to the Director, within two months from the date of grant of license to enable provision of sites (if required) and for Transformer/Switching stations/Electric Sub Stations etc. and the same proposed by the power utility in the zoning plan of the project.

xxiv. That you shall keep pace of development atleast in accordance with sale agreement executed with the buyers of the plots as and when scheme is launched.

xxv. That you shall arrange power connection from UHBVNL/DHBVNL for electrification of the colony and shall install the electricity distribution infrastructure as per the peak load requirement of the colony for which licensee shall get the electrical (distribution) service plan/estimates approved

from the agency responsible for installation of external electric services i.e. UHBVNL/DHBVNL and complete the same before obtaining completion certificate for the colony.

xix) That you will pay the labour cess as per policy instructions issued by Haryana Government vide Memo No. Misc. 2057-5/25/2008/21CP dated 25.02.2010 and as amended from time to time.

xx) That you 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 amount received from the plot holders for meeting the cost of Internal Development Works in the colony.

xxi) That no further sale has taken place after submitting application for grant of license.

xxii) That you shall not give any advertisement for sale of plots/commercial area before the approval of layout plan.

xxiii) That you shall follow the provisions of the Real Estate (Regulations and Development) Act, 2016 and Rules framed thereunder shall be followed by the applicant in letter and spirit.

xxiv) That no provision of the Haryana Ceiling on Land Holding Act, 1972 has been violated due to purchase of applied land.

xxv) That the owner/developer shall integrate the bank account in which 70 percent allottee receipts are credited as per Section-4(2)(l)(D) of the Real Estate Regulation and Development Act, 2016.

xxvi) That you shall abide by the terms and conditions of policy dated 14.05.2021 as amended from time to time and other direction given by the Director time to time to execute the project.

xxvii) That you shall provide the details of calculation per Sqm/per Sq. ft., to the allottee while raising demand from the flat owner/plot owner/ commercial space owners, in case at the time of booking of the plot/flat/commercial space, the SIDC/EDC rates were not included and are to be charged separately as per rates fixed by the Government.

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

xxix) That you shall abide by all the provisions of Act no. 8 of 1965 and Rules framed thereunder as amended time to time.

xxx) That you shall maintain the right of way along 132 KV HT & 33/11 KV HT line passing through the applied site.

xxxi) That you shall not encroach the revenue rasta passing through the applied site and keep them open for thoroughfare movement of the general public.

xxxii) That licenced land forming the part of Sector, Road, Service roads Green belt and 24/18 mtrs wide road as the case may be/ land pockets which are

earmarked for community sites shall be transferred within a period of 30 days in favour of Government from the date of approval of Zoning Plan, if applicable.

xxxiii) That you shall complete the project within seven years (5+2 years) from date of grant of license as per clause 9.2 of the policy dated 11.05.2022.

3. That you shall submit the revenue record of khasra no. 186/2 min (08-13[8-08]) after clearing the entry of mutuse from khana kasht until then the area under said khasra is kept frozen i.e. no third party rights shall be created upon said khasra nos.

4. The licence is valid up to 28/11/2028

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

Dated: 29/11/2023.
Place:

Endst. No. LC-3003-JE (MK)-2023/ 40764 Dated: 30-11-2023

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

1. Ambe Estates Pvt. Ltd., Uttama Infra Projects Pvt. Ltd., Grand Valley Realtors Pvt. Ltd., Tetra Square Promoters Pvt. Ltd., Lagoon Club Pvt. Ltd., Lagoon Realtors Pvt. Ltd., Little Valley Promoters Pvt. Ltd., Star Valley Realtors Pvt. Ltd. in collaboration with Uttama Infra Projects Pvt. Ltd., Regd. Office 6th Floor, MDM Eve Point, North Block, Sector-65, Gurugram-122101 alongwith a copy of agreement, LC-IV B, Bilateral agreement & layout plan.
2. Chairman, Pollution Control Board, Haryana, Sector-6, Panchkula.
3. Chief Administrator, HSVP, Panchkula.
4. Chief Administrator, Housing Board, Panchkula alongwith copy of agreement.
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, Rohtak.
9. Chief Engineer, HSVP, Panchkula.
10. Superintending Engineer, HSVP, Rohtak along with a copy of agreement.
11. Land Acquisition Officer, Rohtak.
12. Senior Town Planner, Rohtak alongwith layout plan.
13. District Town Planner, Panipat along with a copy of agreement and layout plan and with a request to give report in respect of requirement of community sites as per policy dated 25.08.2022.
14. Chief Accounts Officer O/o DGTCP, Haryana, Chandigarh along with a copy of agreement.
15. Nodal Officer (Website) to update the status on the website.

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

To be read with License No. 257 Dated 29/11/ of 2023

1. Green field colonizers Pvt. Ltd.

Village	Rect. No.	Killa No.	Area (K-M)
Kabri	56	18	6-12
		23	5-19
		15	8-0
		17	8-0
		24/1	5-17
	90	16min	0-4
		17min	7-6
		24	3-17
		25min	3-2
	94	1min	0-8
	95	5min	7-12
		Total	56-17

2. Downtown Apartments Developers Pvt. Ltd.

Village	Rect. No.	Killa No.	Area(K-M)
Kabri	71	1/1	4-17
	70	5	8-0
		6	8-0
		4	8-0
		7	7-0
		26	1-0
	73	4	7-8
		7	7-8
		14	6-8
		16	8-0
		17	8-0
		24	8-0
		25	8-0
	74	19/2	5-6
		20/1	6-4
		21	6-17
		22	3-0
	76	1	0-3
	77	4	7-7
		5	3-7
	56	16	8-0
		24/2	1-1
		25	6-18
		Total	138-4

3. Ultramagic Developers Pvt. Ltd.

Village	Rect. No.	Killa No.	Area(K-M)
Kabri	79	1/1	5-3
	56	3	2-1
		4	6-5
		5	8-0
		6	7-11
		7	7-11
		8	5-6
		13	6-10
		14	8-0
	70	21	8-0
		22	8-0
		27	1-5
	80	4	7-11
		5	7-11
		6	8-0
		3/2	6-12
		Total	103-6

D.T.C.P (HR)
Gurugram (Haryana)

4. Prudence Buildtech Pvt. Ltd.

Village	Rect. No.	Killa No.	Area(K-M)
Kabri	71	9	8-0
		14	8-0
		15	7-12
		2	7-11
		3	7-11
		4	7-11
		5	7-4
		6	7-12
		7	8-0
		8	8-0
		12	8-0
		13	8-0
	80	15	8-0
		1	7-4
		2/1	3-8
		9	8-0
		10	7-12
		Total	**127-5**

5. Four Square Promoters Pvt. Ltd.

Village	Rect. No.	Killa No.	Area(K-M)
Kabri	71	19	6-16
		20/1/1	2-14
		20/2/1	2-9
		11/1	5-3
		10/1	5-3
		21/1	5-3
		22	7-8
	70	19	8-0
		20	8-0
		23	8-0
		24	8-0
		25	6-15
		15	8-0
		17	8-0
		18/1	4-16
		18/2	3-4
		16/1	6-9
		16/2	1-11
	80	7/2	1-4
		8	8-0
		Total	**114-15**

6. Grandvalley Developers Pvt. Ltd.

Village	Rect. No.	Killa No.	Area(K-M)
Kabri	51	21	6-18
		22	6-11
		19/2	3-15
		20/1	3-16
	52	15	8-0
		16	8-0
		25	6-18
		Total	**43-18**

7. Grandvalley Realtors Pvt. Ltd.

Village	Rect. No.	Killa No.	Area(K-M)
Kabri	92	20/3	0-9

D.T.C.P (HR)

8. Lagoon Club Pvt. Ltd.

Village	Rect. No.	Killa No.	Area(K-M)
Kabri	78	11	0-16
	79	8	8-0
		16min	6-11.5
		17min	3-9
		19	8-0
		22	8-0
		13	8-0
		14min	3-9
		15min	7-2
		18	8-0
		23	8-0
		24min	3-9
		2	7-8
		7/2min	2-0
		12/2	6-4
	48	21	4-9
		22	1-9
	51	1	8-0
		10	8-0
		19/1	4-6
		2/1	7-14
		20/2	4-4
		9	8-18
	80	2/2	4-3
		7/1	6-16
		3/1	0-19
		13	8-0
		Total	**155-6.5**

9. Detail of land forming part of parent License no.6 of 2010 but acquired by HSVP vide Award no. 1 of 2011

Village	Rect. No.	Killa No.	Area(K-M)
Kabri	51	11	6-4
		12	8-8
		28	1-0
		29	0-16
		Total	**16-8**

10. Lagoon Realtors Pvt. Ltd.

Village	Rect. No.	Killa No.	Area(K-M)
Kabri	81	7	8-0
		8/1	5-10
		8/2	2-10
		9	4-16
		12	5-4
		13/1	1-2
		13/2	6-18
		6/1	4-16
		6/2/1	2-0
		6/2/2	1-4
		14	8-0
		15	8-0
		19	4-8
		18/1min	0-5
		18/2min	2-13
		22/2	2-4
		23min	5-4
	90	3min	7-6
		4min	0-15
		Total	**80-1.5**

D.T.C.P (HR)

11. Littlevalley Promoters Pvt. Ltd.

Village	Rect. No.	Killa No.	Area(K-M)
Kabri	92	2	8-0
		3	8-4
		8	1-11
		9	7-14
		12	4-4
		Total	**29-13**

12. Moonvalley Realtors Pvt. Ltd.

Village	Rect. No.	Killa No.	Area(K-M)
Kabri	73	11	8-0
		19	8-0
		20	8-0
		21	8-0
		22	8-0
		12	8-0
	77	10/2	5-7
		1	8-0
		2	8-0
		9	4-18
	73	10	6-0
		13	8-0
		18	8-0
		23	8-0
	77	3	8-0
		8	2-13
		Total	**114-18**

13. Starvalley Realtors Pvt. Ltd.

Village	Rect. No.	Killa No.	Area(K-M)
Kabri	90	7min	1-14.5
		8	5-10
		13/2	3-0
		14min	4-4.5
		Total	**14-9**

14. Uttirna Infraprojects Pvt. Ltd.

Village	Rect. No.	Killa No.	Area(K-M)
Kabri	72	1	7-8
		2	8-0
		3	8-0
		4/1	7-0
		9	8-0
		10	7-8
		11	7-8
		12	7-0
		8	8-0
		13	8-0
		18	8-0
		26	0-16
		4/2	1-0
		5	8-0
		6	8-0
		7	8-0
		14	8-0
		15	8-0
		16	8-0
		17	8-0
		24	7-11
		25	7-11
	73	1	8-0
		10/1	2-13
		4	8-0
	78	5	8-0

D.T.C.P (HR)

Village	Rect. No.	Killa No.	Area(K-M)
Kabri		6	6-4
		7/1	0-9
	79	11/2/1	5-0
	72	19	7-1
		22	7-11
		23	7-11
		27	0-19
	78	2	8-0
		3	8-0
		8/1	1-0
		7/2	5-5
	71	17min	5-5
		18	8-0
		23	8-0
		24mn	3-9
		16min	7-6.5
		25min	7-2
	72	20	8-0
		21	7-11
	78	8/2	3-9
		1	8-6
		9	2-9
		10	2-10
	79	5min	7-2
		3	7-19
		4min	3-9
		6/1	1-12
		6/2min	5-10
		7/1min	1-9
		9/1	0-8
		9/2	7-12
		10/1	5-3
		11/1/1	0-3
		12/1/1	1-5
		12/1/2	0-11
	80	11	7-12
		12	8-0
		14	8-0
		Total	377-17.5

15. Details of Land owned by Director cum special secretary department of Town and Country Haryana (part of 24.0 mtr road gift deed done vide vasika no. 11671 dated 06.03.2023)

Village	Rect. No.	Killa No.	Area(K-M)
Kabri	71	1/2	2-3
	79	1/2	2-17
	71	20/1/2	1-9
		20/2/2	1-7
		11/2	2-5
		10/2	2-5
		21/2	2-17
	92	20/2	2-2
		1/2	2-17
		10/2	2-17
		11/2	2-17
	79	20/2	2-17
		21/2	2-17
		11/2/2	2-16
		10/2	2-17
		11/1/2	0-1
		Total	37-4

D.T.C.P (HR)
Gurugram (Patauli)

16. Green field colonizers Pvt. Ltd.
Village
Panipat taraf insar

Khasra No.	Area(B-B)
152	6-15
153	7-13
155	2-8
156	3-6
157	0-15
166	3-3
158/1	0-3
Total	**24-3**

17. Bigway Colonizers Pvt. Ltd.
Village
Panipat taraf insar

Khasra No.	Area(B-B)
255	7-4
256	3-15
257	3-15
263	6-12
264min	3-9
268	12-12
277	1-1
258/1	0-9
266/1min	0-4
266/2min	0-14
275/2min	1-5
276/1	6-15
278/1min	2-8
5506/267min	7-8
5507/267	6-12
Total	**64-3**

18. Fineview Realtors Pvt. Ltd.
Village
Panipat taraf insar

Khasra No.	Area(B-B)
160	7-1
161	9-0
162	3-18
163	6-0
169	6-3
171	5-14
172	5-14
183	2-14
184	2-2
196	2-5
173/1	0-7
173/2	7-15
186/1	1-1
187min	1-0
188min	1-8
240/2/1	0-5
180min	0-16
186/2min	0-13
186/2min	0-13
164/2min	3-15
159/1	3-3
159/2	0-15
Total	**72-2**

19. Grandvalley Developers Pvt. Ltd.
Village
Panipat taraf insar

Khasra No.	Area(B-B)
170	4-10
174min	3-11
311/2	4-12
312/1	0-6
138	0-18
141	0-12
151	6-15

D.T.C.P (HR)

		154	4-1
		Total	**25-5**
20.	**Lagoon Club Pvt. Ltd.** **Village** Panipat taraf insar	**Khasra No.**	**Area(B-B)**
		125	4-7
		126	0-15
		127	4-10
		128	7-13
		130	1-16
		131	1-7
		132/2min	3-12
		Total	**24-0**
21.	**Lagoon Realtors Pvt. Ltd.** **Village** Panipat taraf insar	**Khasra No.**	**Area(B-B)**
		236min	7-9.5
		237min	7-7
		252min	1-9
		253min	0-11
		254min	7-3
		235/2min	14-16
		238/1	3-9
		251min	0-14
		Total	**42-18.5**
22.	**Moonvalley Realtors Pvt. Ltd.** **Village** Panipat taraf insar	**Khasra No.**	**Area(B-B)**
		578min Magrik	4-17
		578min	0-8
		579min Magrik	3-1
		579min	0-5
		580min Magrik	2-16
		580min	0-7
		Total	**11-14**
23.	**Starvalley Realtors Pvt. Ltd.** **Village** Panipat taraf insar	**Khasra No.**	**Area(B-B)**
		260min	6-11
		259min	5-1
		261/2	0-12
		Total	**12-4**
24.	**Uttirna Infraprojects Pvt. Ltd.** **Village** Panipat taraf insar	**Khasra No.**	**Area(B-B)**
		306min	0-9
		307	0-18
		308	4-7
		309	3-0
		314	2-14
		315	0-6
		316min	5-10
		317	0-18
		318	2-14
		320	2-11
		323	0-9
		324min	0-1
		325min	1-15
		326	4-19
		327	0-18
		310	1-10
		312/2	5-8
		322min	0-10
		328/1min	1-0
		328/2min	0-8

D.T.C.P (HR)

Village	Khasra No.	Area(B-B)
Panipat taraf insar	313min	2-15
	180min	1-4
	180	4-3
	181min	2-0
	181min	4-9
	182min	1-10
	182	3-15
	185min	2-4
	185min	5-9
	186/2min	0-9
	186/2min	6-11
	187min	2-6
	188min	3-11
	197/1	2-10
	197/2	3-5
	Total	86-6

Grand Total of Village Kabri= 1410K-11.5 or 176.321875 acres

Grand Total of Village Panipat taraf insar= 3628-15.58 or 75.578125 acres

Grand Total or 251.90 acres

Khasra no. 259 min (1-15-0), 260min (3-7-0), 261/2 min (0-11-10), 313 min (0-8-3), 311/2 min (2-0-6), 312/1 min (0-2-10), 312/2min (1-12-9), 363min (2-7-4), 237 min (0-6-11), 238/1 min (0-15-7), 236 min (0-19-18), 235/2 min (11-18-17), 266/2 min (0-0-19), 174/1 min (0-7-1), 173/1 min (0-3-0), 173/2 min (1-16-8), 180 min (2-17-13), 172 min (0-12-7), 264min (0-1-2), 171 min (1-3-16), 170 min (3-15-15), 160 min (4-3-12), 161 min (6-14-6), 183 min (1-6-11), 182 min (3-16-11), 181 min (4-6-0), 187 min (1-18-2), 188 min (2-3-6), 186/1 (0-3-0), 186/2 min (4-19-12), 185 min (4-16-0), 184 min (0-5-5), 196 min (1-19-17), 197/1 min (1-1-3), 163 min (4-13-15), 162 min (3-5-8), 159/1 min (1-16-0), 164 min (2-16-11), 197/2 min (0-5-7), 138 min (0-2-7), 153 min (4-6-6), 154 min (2-7-18), 155 min (1-8-10), 156 min (1-9-0), 157 min (0-16-11), 152 min (3-13-14), 578 min (3-1-10), 580 min (0-10-14), 579 min (0-0-4), 131 min (0-8-2), 132 min (1-4-12) Total 1078-2-8-108 OR 22.3177 acres in the revenue estate of Village Taraf Insar & Khasra no. 77//3 min (1-14), 4 min (4-0), 8 min (0-5) Total 5K-19M or 0.74375 acres in the revenue estate of Village Kabri- G.Total 23.06145 Acres are under mortgaged.

Director Town & Country
Planning Haryana
Chandigarh