SERVICE ESTIMATE, DESIGN REPORT AND CALCULATION OF

INTERNAL DEVELOPMENT WORKS

FOR

PROPOSED "COMMERCIAL COLONY MEASURING 2.893 ACRES (LICENSE NO. 34 OF 2012 DATED 15.04.2012) IN SECTOR - 70, GURUGRAM – MANESAR URBAN COMPLEX BEING DEVELOPED BY M/S SHINE BUILDCON PVT. LTD.

SERVICE ESTIMATE, DESIGN REPORT AND CALCULATIONS OF INTERNAL DEVELOPMENT WORKS FOR PROPOSED "COMMERCIAL COLONY MEASURING 2.893 ACRES (LICENSE NO. 34 OF 2012 DATED 15.04.2012) IN SECTOR – 70, GURUGRAM MANESAR URBAN COMPLEX BEING DEVELOPED BY M/S SHINE BUILDCON PVT. LTD.

REPORT :-

Gurugram town of Haryana State situated on N.H. -8 road at a distance of 35 Km from Delhi. Being in the national capital region the town has fast developing tendency and potential. Further, it has also started sharing the growing residential, commercial and Industrial load of Delhi. In order to review the growing pressure of population in National Capital of Delhi, It has been decided by the Haryana Government to develop various infrastructure facilities in Gurugram Manesar Urban Complex. This report is for a part of service estimate for proposed "commercial colony" measuring 2.893 acres (License No. 34 of 2012 dated 15.04.2012) in Sector – 70, Gurugram – Manesar urban complex being developed by M/s Shine Buildcon Pvt. Ltd. has been prepared with the following provisions which are as under:-

1. **WATER SUPPLY**

   The source of water supply in this area is by HUDA Mains. It has been proposed to construct underground tanks of capacity as per attached details and the location for domestic purpose and for fire protection. The underground tanks will be fed from the HUDA based supply, which will feed O.H. tanks on the roof of the Building and has been designed as per the Hazen Williams formula. Presently there is proposed / under execution HUDA W/S in this area. However the provision of tube well has been taken in this estimate due to non availability of water but after getting the approval from the competent authority through tube well / tankers / any other approved source till HUDA W/S will made available. The proposed tube well shall be 510mm bore drilled with reverse rotary rig and installed with 80mm i/d housing pipe and 50mm i/d slotted tube as strainer.

2. **DESIGN**

   The scheme has been designed for population of 3155 persons for considering 1 person per 3 sqm area for ground floor and 1 person per 6 sqm for first floor and second floor for commercial and considering @ 10% for shopkeeper @ 45 LPCD and @ 90% for visitors @ 15 LPCD and for 3rd floor for auditorium + food court + Kiosks considering occupancy @ 3 sqm per sheet and water requirement @ 70 Ltr per sheet and for service apartment with hall from 4th floor to 12th floor @172.50 LPCD and maintenance staff @ 45 LPCD which are the combine quantum of water supply i.e. Domestic and Flushing as per design calculation.

3. **PUMPING EQUIPMENTS**

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

4. **SEWERAGE**

The scheme is designed for sewer connecting to the STP and bypass connection to HUDA sewer scheme.

The sewer lines have designed for three times average D.W.F in relation to water supply demand. It has assumed that about 80% of the domestic and flushing water supply shall find its way into the proposed sewer. Sewer lines shall be running by gravity and discharge to STP proposed. Treated water will be used for Irrigation & Flushing purpose (through recycling) under the pipe line system.

5. **STORM WATER DRAINAGE**

It has been proposed to lay R.C.C pipes with required number of manholes for disposal of storm water, which will be connected to the HUDA drain. The intensity of rain fall has been taken as 6.00mm (1/4")per hour. A minimum size of 400mm i/d R.C.C pipe for storm water drain will be provided and designed as per manning's formula. Necessary provision of rainwater harvesting arrangement has also been taken in this estimate.

6. **ROADS**

Road have been provided to above areas and estimate is prepared as revised specifications adopted by HUDA.

7. **STREET LIGHTING**

Provision for external lighting of proposed area has been made.

8. **HORTICULTURE**

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

9. **FIRE**

As per N.B.C, fire tanks and required capacity pumps have been taken in the estimate and marked on the plan.

10. **SPECIFICATIONS**

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

11. **RATES**

The estimate has been based on the present market rates.

12. **COST**

The total cost of the scheme including cost of all services works out to Rs. 235.02 Lacs (Rupees Two Crores Thirty Five Lacs Two Thousand only) including 3% contingencies and 49% departmental charges and cost per acre comes out to Rs. 81.23 Lacs.

(Authorized Signatory)

SERVICE ESTIMATE, DESIGN REPORT AND CALCULATIONS OF INTERNAL DEVELOPMENT WORKS FOR PROPOSED "COMMERCIAL COLONY MEASURING 2.893 ACRES (LICENSE NO. 34 OF 2012 DATED 15.04.2012) IN SECTOR – 70, GURUGRAM MANESAR URBAN COMPLEX BEING DEVELOPED BY M/S SHINE BUILDCON PVT. LTD.

DESIGN CALCULATION

Total Area of Plot (Commercial)	=	2.893 Acres Or 11707.537 Sqm
Area as per site / to be considered	=	2.5753 Acres Or 10421.85 Sqm
Permissible Ground Coverage @ 40% (Site area)	=	4168.74 Sqm
Permissible FAR @ 175% (with mech. Stock parking)	=	18550.89 Sqm
Proposed Ground coverage	=	2892.50 Sqm
Proposed FAR	=	18520.19 Sqm

WATER REQUIREMENT

A. Ground + First + Second Floor :-

1	Area on Ground Floor (Shopping Area)	=	2892.50 Sqm
	Occupancy @ $3m^2$ / person	=	965 Persons
2	Shopping area on First floors (Shopping Area)	=	2424.28 Sqm
	Occupancy @ 6 m^2/person	=	404 Persons
3	Area on 2nd Floor (Shopping Area)	=	2401.17 Sqm
	Occupancy @ 6 m^2 person	=	400 Persons
	Occupancy	=	**1769 Person**
	Water Requirement @ 10% shopkeeper (1769 x 10%) 177 Persons @ 45 LPCD	=	7965 LPD
	Water Requirement @ 90% visitors (1769 x 90%) 1592 Persons @ 15 LPCD	=	23880 LPD
	Total	=	**31845 LPD**

B. 3rd Floor :-

i)	Area on 3rd Floor (3 Nos Auditorium + Food Court + Kiosks)	=	2468.99 Sqm
	Occupancy @ 3 m^2 / Sheet	=	823 Sheets
	Water Requirement @ 70 Ltr/Sheet	=	57610 LPD

C. Service Apartment (From 4th Floor to 12th Floor)

Total Nos of Service Apartments / Rooms / Studio	=	184 Nos
Occupancy @ 2 Person / each room	=	368 Persons
Total Nos of 1 BHK Service Apartments	=	29 Nos
Occupancy @ 5 Person / each	=	145 Persons
Total	=	513 Persons
Water Requirement @ 172.50 LPCD	=	88493 LPD
For 12th Floor Hall	=	262.84 Sqm
@ 10 Sqm/Sheet (262.84 x 10%)	=	27 Sheet
Water Requirement @ 15 Ltr/ Sheet	=	405 LPD
Total	=	88898 LPD

D. Maintenance Staff	=	**50 Persons**
@ 45 LPCD	=	**2250 LPD**
Total Water Requirement (A+B+C+D)	=	**180603 LPD Or 181.06 K.L.D Say 182 KLD**

Total Population = 3155 Persons

II. FIRE DEMAND = 3155 Persons

(i) For UGT i.e. Population = 178 KLD Say 180 KLD

(p) ½ x 100/1000 = (3.155) ½ x 100

III. Garden Irrigation Requirement (For Total Area) = 30.00 KLD

(For Total Area) = 182 KLD

IV. Total Water Requirement

(Excluding Fire Demand)

Hence Domestic Water Requirement (67%) = 182 x 67% = 121.94 KLD Say 122 KLD

Hence Flushing Water Requirement (33%) = 182 x 33% = 60.00 KLD Say 60 KLD

Under Ground Tank :-

Half day requirement = 61 KLD for Domestic

= 30 KLD for Flushing

But it is proposed to construct an underground tank capacity 61 K.L. in two compartment for domestic use, 30 K.L. for non potable water in two compartment (at STP) and 180 K.L. for fire fighting purposes for UGT in two compartment as shown location in the plan with UGT.

Total Capacity of UGT = 61 + 180 = 241.00 KLD Say 250 KLD

V. Tube Well For UGT

a) Yield = 15 K.L. / Hr.

b) Working Hour per day = 16 Hr. / Per Day

c) Total water demand = 120 M3/Day

d) Number of tube well required (Water Demand / Discharge / Hr. working Per day) = 0.50

e) Add 5% extra = 0.025

Total = 0.525 Nos

Say = 1 Nos

(Water to the proposed development is to be supplied by HUDA. However, it is proposed to install only one no. tube wells for augmentation / standby purposes and provision has also been taken in the estimates.

I) Pumping Machinery for Tube wells

a) Gross Working Head = 80 Mtr

b) Average fall in S.L = 2 Mtr

c) Depression Head = 6 Mtr

d) Friction loss in main = 10 Mtr

Total = 98 Mtr

e) Discharge = 15000 LPH (Or 4.17 LPS Say 4.50 LPS)

f) Horse Power = 9.80 H.P.

HP = (4.50 x 98) / (75 x 0.60)

Say = 10.00 H.P.

It is proposed to provide 1 No. pumping set of 4.50 LPS discharge at 98 Mtr head (1W)

II) **Boosting Machinery for domestic water For UGT**

Total Water Requirement = 122.00 KLD

Pumping per hour @ 8 hr. pumping / day = 122 /8 KL / hr.
= 15.25 KL / hr.
= 255.00 lpm = 4.24 lps
Say 5.00 lps

	For UGT –I
Gross working head	
Suction lift	= 5.00 mts.
- Frictional loss in mains & specials	= 5.00 mts.
- Clear Head required	= 70.00 mts.
Total	= 80.00 mts.
Say	= 80.00 mts.
Pump HP	= (5.00x80)/(75x0.60)
	= 8.88 H.P.
Say	= 10.00 HP

It is proposed to provide 2 No. of pumping set of 5.00 lps discharge at 80 mts Head each (1W + 1SB) for UGT

III) **Boosting Machinery for flushing water at STP**

Total Water Requirement = 60 K.L.D

Pumping per hour @ 8 hr. pumping / day = 60 /8 KL / hr.
= 7.50 KL / hr.
= 125.00 lpm = 2.08 lps,
Say 1 No. 2.50 lps each

Gross working head	
- Suction lift	= 5.00 mts.
- Frictional loss in mains & specials	= 5.00 mts.
- Clear Head required	= 70.00 mts.
Total	= 80.00 mts.
Say	= 80.00 mts.
Pump HP	= (2.50 x 80) / (75 x 0.60)
	= 4.44 HP
Say	= 5.00 HP

It is proposed to provide 2 No. of pumping set of 3.00 lps discharge at 80 mts Head each (1W + 1S)

IV) **Boosting Machinery for Fire water**

Total Water Requirement

Hydrant pump & spring as per CFO Directive	= 2280 LPM, 110M Head and 100 H.P= 2 Nos
Jockey pump (Hydrant) as per NBC table No. 23	= 180 LPM, 110M Head and 7.50 H.P = 2 Nos
Diesel pump as per CFO Directive	= 2280 LPM, 110M Head and 100H.P = 1 Nos

Gross working head	
- Suction lift	= 2.00 mts.
- Frictional loss in mains & specials	= 5.00 mts.
- Clear Head required	= 103.00 mts.
Total	= 110.00 mts.
Jockey Pump HP (Fire)	= (3 x 110) / (75 x 0.60)
	= 7.33 HP
Say	= 7.50 HP (1W + 1SB)

V) **DG Set for plumbing**

DG Set Requirement

Submersible Pump	(1 x 10)	= 10.00 HP
Domestic Pump	(1 x 7.50)	= 7.50 HP
Flushing Pump	(1 x 5.00)	= 5.00 HP
Rainwater drainage sump pumps (For basement)		= 15.00 HP (2 x 7.50 H.P.)
Fire Jockey pump		= 7.5 HP
Total pump load		**= 45.00 HP**
		= 45.00 x 0.746 x 1.50
		= 50.355 K.W
Total DG capacity		**= 1 No. 50 KVA**

Hence it is proposed to provide 1 No. D.G. Set of 50 KVA capacity

VI) **Submersible pumps for Power Basement drainage**

Total Water Flow rate from Sprinkler System = 2000 LPM = 33.33 LPS

2 No. Sumps considered for the basement to Curtail long routes of drainage and filling at Basement floor	= 33.33 LPS / 2 = 16.67 LPS
Say	= 17 LPS
Gross working head	
- Suction lift	= 1.50 mts.
- Frictional loss in mains & specials	= 1.50 mts.
- Clear Head required	= 15.00 mts.
Total	= 18.00 mts.
Pump HP	= (17 x 18) / (75 x 0.60)
	= 6.80 HP
Say	= 7.50 HP

It is proposed to provide 2 No. of pumping set of 17 lps discharge at 18 mts Head each (2W + 2SB)

VII) **FLOW TO SEWAGE TREATMENT PLANT**

Total Water Requirement = 170 KLD i.e. 120 KLD for domestic & 60 KLD for flushing

i)	75% of total Domestic Water Demand = 80% of 122 KLD	= 97.60 KLD
ii)	75% of total Flushing Water Demand = 90% of 60 KLD	= 54.00 KLD
	Total	**=151.60 KLD**
Considering 5% marginal factor		= 7.58 KLD
	G. Total	**= 159.18 KLD**
	Say 160 KLD	159.18

Proposed STP Capacity = 160 KLD Or 0.16 MLD

FINAL ABSTRACT OF COST

SR. NO.	SUB WORK	DESCRIPTION	AMOUNT (Rs. In Lacs)
1	SUB WORK NO.I	WATER SUPPLY SCHEME	85.76
2	SUB WORK NO. II	SEWERAGE SCHEME	22.92
3	SUB WORK NO. III	STORM WATER DRAINAGE	16.45
4	SUB WORK NO. IV	ROAD NETWORK	46.13
5	SUB WORK NO. V	STREET LIGHTING	5.33
6	SUB WORK NO. VI	HORTICULTURE (PLANTATION & ROAD SIDE TREES)	2.27
7	SUB WORK NO. VII	MTC. OF SERVICES & RESURFACING OF ROADS	56.16
		TOTAL	235.02
TOTAL : (Rupees Two Crore Thirty Five Lacs Two Thousand only)			

Cost Per Acre = Rs.235.02 Lacs / 2.893 = Rs. 81.23 Lacs Per Acre

AUTHORISED SIGNATORY

SUB WORK NO. 1 (Abstract of cost) **WATER SUPPLY**

SR. NO.	SUB WORK	DESCRIPTION	AMOUNT (Rs. In Lacs)
1	Sub Head No. 01	Head Works	17.30
2	Sub Head No. 02	Pumping Machinery	23.50
3	Sub Head No. 03	Rising Main from Plant Room	8.94
4	Sub Head No. 04	External Fire Hydrants	4.34
5	Sub Head No. 05	Irrigation	1.80
		TOTAL	55.88
		Add 3% contigencies & P.H. Services	1.68
		TOTAL	57.56
		Add 49% Departmental Charges + Price escalation	28.20
		TOTAL	85.76
		Say in Lacs	85.76

SUB WORK NO. 1
Sub Head No. 01

WATER SUPPLY
Underground Tank Works

Sr. NO.	Description	Amount in Rs.
1	Construction of U.G. tanks and Fire TanK Including pipes, valve & Specials. i) UGT 260 KLD @ Rs. 3000/- per K.L.D	780000.00
2	Provision for construction of Boosting Station 1 Nos @ Rs. 200000/- each	200000.00
3	Boring and installing tube well reverse rotary rig complete with pipes and strainer to a depth of about 120 Mtr complete in all respect. 1 Nos @ Rs. 600000/- each	600000.00
4	Provision for construction of tube well chamber size 1.50m x 1.50m complete in all respect. 1 Nos @ Rs. 100000/- each	100000.00
5	Provision for carriage of material and unforeseen items L.S.	20000.00
6	Provision of specials for tube well & rising line to UGT L.S.	30000.00
	TOTAL	1730000.00
	Say in Lacs	17.30

(C/O To Abstract of cost for Sub Work No.1)

SUB WORK NO. 1 **WATER SUPPLY**
Sub Head No. 02 **Pumping Machinery**

Sr. NO.	Description	Amount in Rs.
1	Providing and installing Hydro pneumatic pumping set of following capacities for domestic water Supply with specials	
	3.00 lps at 80 mts head - 2 No. (1W+1SB) - @ Rs. 1,00,000/- each Set (10.00HP)	**200000.00**
2	Providing and installing Hydro Pneumatic pumping set of following capacities for Flushing water supply	
	2.00 lps at 80 mts head - 2 No. (1W+1SB) @ Rs. 80,000/- 1 Set (5.00 HP each)	**160000.00**
3	Providing and installing Submersible pump for tube wells with specials	
	5.00 lps at 98 mts head - 1 Nos (1W) @ Rs. 2,00,000/- 1 Set (10HP each)	**200000.00**
5	Providing and installing submersible pumping set of following capacities for basement drainage	
	- 17 lps at 18 mts head 4 Nos (2W + 2SB) @ Rs. 20,000/- (7.5 HP)	**80000.00**
6	Providing and installing pumping set of following capacities for fire prtoections	
	- 180 lpm at 110 M head 2 No. @ Rs. 1,00,000/- (7.50 HP each)	**200000.00**
	- 2280 lpm at 110 M head 2 No. @ Rs. 2,50,000/- (100 HP each) (Hydrant)	**500000.00**
	- 2280 lpm at 110 M head 1 No. @ Rs. 5,00,000/- (100 HP) (Diesel Engine)	**500000.00**
7	Provision for D.G. Set for stand by arrangement for all machinery = 1 No. 50 KVA @ Rs. 3,00,000/- each	**300000.00**
8	Provision for water treatment plant complete 1 No. @ Rs. 1,00,000/-	**100000.00**
9	Provision for making foundations & erection of pumping machinery	**20000.00**
10	Provision for pipes, valve & specials inside boosting chamber	**20000.00**
11	Provision for electric services connection including electric fittings for boosting chambers and pump chamber etc.	**50000.00**
12	Provision for carriage of materials and other unforeseen items L.S.	**20000.00**
	TOTAL	**2350000.00**
	Say in Lacs	**23.50**

(C/O To Abstract of cost for Sub Work No.1)

WATER SUPPLY

SUB WORK NO. 1
Sub Head No. 03 **Rising main upto Plant Room, Domestic & Flushing Water Supply**

Sr. NO.	Description	Amount in Rs.
1	Providing, laying, jointing & testing pipe lines including cost of excavation etc. complete in all respects	
	80mm dia D.I. Pipe 288 Mtr @ Rs. 800/- Per Mtr	230400.00
2	Providing, laying, jointing & testing pipe lines etc. complete in all respect	
	100mm i/d D.I. Pipes - 424 Mtr @ Rs. 1000/- Per Mtr	424000.00
	150mm i/d D.I. Pipes - 3 Mtr @ Rs. 1500/- Per Mtr	4500.00
3	Providing and fixing sluice valve including cost of surface box and masonry chamber etc. complete in all respect	
	a) 80mm i/d 6 No. @ Rs. 7500/- each	45000.00
	b) 100mm i/d 8 No. @ Rs. 10000/- each	80000.00
	c) 150mm i/d 1 No. @ Rs. 15000/- each	15000.00
4	Providing and fixing indicating plates for sluice valve 15 No. @ Rs. 1000/-	15000.00
5	Provision for carriage of materials and other unforeseen items	20000.00
6	Provision for making connection with HUDA Pipe etc.	30000.00
7	Provision for cutting the road and making good the same	30000.00
	TOTAL	893900.00
	Say in Lacs	8.94

(C/O To Abstract of cost for Sub Work No.1)

SUB WORK NO. 1 **WATER SUPPLY**
Sub Head No. 04 **Fire Rising Main**

Sr. NO.	Description	Amount in Rs.
1	Providing, Laying, jointing and testing Heavy Class M.S. Pipes for fire rising main including cost of fittings, valves, connection etc. complete in all respect	
a)	100mm dia - 80M @ Rs. 600/- Per Mtr	48000.00
b)	150mm dia -319 M @ Rs. 800/- Per Mtr	255200.00
2	Providing and fixing fire Hydrant with accessories 10 No. @ Rs. 10000/- each	100000.00
3	Provision for carriage of materials (Lump sum)	10000.00
4	Providing and fixing indicating plate -10 No. @ Rs. 1000/- each	10000.00
5	Provision of road cutting and making its condition as original - L.S.	10000.00
	TOTAL	**433200.00**
	Say in Lacs	**4.34**

(C/O To Abstract of cost for Sub Work No.1)

SUB WORK NO. 1 **WATER SUPPLY**
Sub Head No. 05 **Irrigation**

Sr. NO.	Description	Amount in Rs.
1	Providing, Laying, jointing and testing UPVC pipe lines suitable for 6 kg pressure including cost of fittings, valves, connection etc. complete in all respect	
	i) 2Smm i/d 300 M @ Rs. 200/- Per Mtr	60000.00
2	Providing and fixing 20mm dia, Irrigation hydrant valve complete in all respect 30 No. @ Rs. 3000/- each	90000.00
3	Provision for carriage of materials and other unforeseen items (Lump sum)	5000.00
4	Provision for indicating plate with safety box etc. complete in all respect	20000.00
4	Provision for road cutting and making it condition as original - L.S.	5000.00
	TOTAL	**180000.00**
	Say in Lacs	**1.80**

(C/O To Abstract of cost for Sub Work No.1)

SUB WORK NO. II **SEWERAGE SCHEME**

Sr. NO.	Description		Amount in Rs.
1	Providing, jointing, cutting and testing stoneware pipe grade A and lowering into trenches including cost of excavation, bed concrete, cost of manholes etc. complete		
	a) SW Pipe 200mm i/d avg. depths 0 - 2.00M 125 M @ Rs. 1000/- per Mtr		125000.00
	b) SW Pipe 250mm i/d avg depth 2.00 M 60 M @ Rs. 1200/- per Mtr		72000.00
	c) SW Pipe 300mm i/d avg depth 2.75 M 5 M @ Rs. 1300/- per Mtr		6500.00
2	Providing, laying, jointing & testing pipe lines including cost of excavation etc. complete in all respect - 150mm dia Heavy Class DI pipes (overfow for STP)		
	a) 150MM i/d D.I. Pipe - 90 M @ Rs. 1000/- Per Mtr		90000.00
3	Provision of lighting and watching etc.		10000.00
4	Provision for cartage of material & cutting of roads etc.		20000.00
5	Provision for making connection with HUDA		50000.00
6	Provision for STP 0.16 MLD (Tertiary Treatment Level with recycling storage). @ Rs. 70,00,000/- per MLD		1120000.00
		TOTAL	**1493500.00**
		Add 3% contigencies & P.H. Services	44805
		TOTAL	**1538305**
		Add 49% Departmental Charges + Price escalation	753769
		TOTAL	**2292074**
		Say in Lacs	**22.92**

(C/O to Final Abstract of cost)

SUB WORK NO. III STORM WATER SCHEME

Sr. NO.	Description	Amount in Rs.
1	Providing, lowering, laying, jointing RCC pipe class Np3 with cement joint, manholes, specials into trenches including manholes, chambers etc. excavation, backfilling and disposal of surplus earth complete in all respect	
	a) RCC Np3 pipe 400mm i/d = 249M @ Rs. 1050/- Per Mtr	261450.00
2	Provision for road gulley & pipe with connection 300mm i/d pipe L.S.	100000.00
3	Provision for lighting and watching	20000.00
4	Provision for timbering and shoring	20000.00
5	Provision for cartage of material	20000.00
6	Provision for making connection with HUDA storm water drain	50000.00
7	Providing rain water harvesting arrangement for 03 No. pits @ Rs. 200000/- each	600000.00
	TOTAL	**1071450.00**
	Add 3% contigencies & P.H. Services	32143.50
	TOTAL	**1103593.50**
	Add 49% Departmental Charges + Price escalation	540760.82
	TOTAL	**1644354.32**
	Say in Lacs	**16.45**

(C/O to Final Abstract of cost)

Sub Work No. 4 ROAD WORKS

S. No.	Description	Unit	Qty	Rate (In Rs.)	Amount (In Rs.)
1	Provision for leveling & earth filling as per site conditions	Per Acre	2.893	120000	347160
2	i) Providing and laying 100mm thick PCC under pavement, cement concrete of specified grade 1:4:8 and 150mm thick RMC grade M-40 ii) Providing and laying Bituminous road (250mm GSB, 300mm WMM, 50mm DBM, 40mm BC).	Sqm	2780	700	1946000
3	Provision for kerbs & channels of C.C. 1.2:4	Metre	580	400	232000
4	Provision for making approach and pavement to building, provision for C.C pavement	Sqm	L.S.		30000
5	Interlocking tile 80mm thick for surface of pavement etc.	Sqm	800	500	400000
6	Provision for parking arrangement, guide map and indicating board	LS			30000
7	Provision for carriage of material	LS			20000
	Sub Total				**3005160**
	Add 3% contingencies & PH Services				90155
	Sub Total				**3095315**
	Add 49% Departmental Charges				1516704
	Total				**4612019**
	Say Rs. In Lacs				**46.13**

(C.O. to Final abstract of cost)

Sub Work No. 5 **STREET LIGHTING**

S. No.	Description	Unit	Qty	Rate (In Rs.)	Amount (In Rs.)
1	Providing lighting at surrounding area s per standard specifications of HVPN	Acre	2.893	120000	347160
	Add 3% contingencies & PH Services				10415
	Total				**357575**
	Add 49% Departmental Charges				175212
	Total				**532786**
	Say Rs. In Lacs				**5.33**

(C.O. to Final abstract of cost)

Sub Work No. 6 **HORTICULTURE**

S. No.	Description	Unit	Qty	Rate (In Rs.)	Amount (In Rs.)
1	Development of Lawn Areas				
a.	Trenching of ordinary soil upto depth of 60 cm i/c removal & stacking of serviceable material & disposing by spreading and levelling within a lead of 50 M and making up the trench area for proper levels by filling with earth or earth mixed with manure before and after flooding trench with water i/c cost of imported earth and manure				
b.	Rough dressing of turfed area				
c	Grassing with "Cynadon dactylon" i/c watering and maintenance of lawns for 30 days till the grass forms a thick lawn, free from weeds and fit for moving in row 7.5 cm part in eighter direction				
d	organized green considering i.e. 2200 Sqm Or 0.55 Acres	Acre	0.55	150000	82500
2	Providing and planting trees along boundary @ 12 m interval (Length appx 541M) = 541/12 = 46 Nos Say No. of trees = 50 Nos Cost details : Excavation = Rs. 60 Manure = Rs. 90 Tree Plant = Rs. 150 Tree Guard = Rs. 1000 Total = Rs. 1300				
		Each	50	1300	65000
	Sub Total				**147500**
	Add 3% contingencies & PH Services				4425
	Sub Total				**151925**
	Add 49% Departmental Charges				74443
	Total				**226368**
	Say Rs. In Lacs				**2.27**

(C.O. to Final abstract of cost)

Sub Work No. 7 Mtc. Of services & Resurfacing of Road

S. No.	Description	Unit	Qty	Rate (In Rs.)	Amount (In Rs.)
1	Mtc. Of water supply, sewer, storm water drain, roads, street light, hort. Etc. for period of 10 years including operation charges full establishment etc. complete in all respects 19.4255 acres @ Rs. 3.00 lacs per acre	Acre	2.893	400000	1157200
2	Provision for resurfacing of roads after 5 years of 1st phase with provision of 50mm thiCK BM including leveling coarse and 25mm BC as per crust design whichever is safer	Sqm	2780	400	1112000
3	2nd phase after next five years of 1st phase (50mm DBM & 25mm BC or as per crust design whichever is safer	Sqm	2780	500	1390000
	Sub Total				**3659200**
	Add 3% contingencies & PH Services				109776
	Sub Total				**3768976**
	Add 49% Departmental Charges				1846798
	Total				**5615774**
	Say Rs. In Lacs				**56.16**

(C.O. to Final abstract of cost)

SUMMARY OF DESIGN REQUIREMENT

S. No.	Description	Qty	Unit
1	Total Population	3076	Persons
2	Total Water Requirement (Domestic)	114	KLD
3	Total Water Requirement (Flushing)	56	KLD
4	Total Water Requirement (Horticulture)	30	KLD
5	U. G Tank (Domestic 260 KLD)	1	No.
6	No. of Domestic WS pumps UGT	1 + 1	Set
7	No. of Flushing pumps	1 + 1	No.
8	No. of submersible pumps	1	No.
9	Main Fire Hydrant electrical pumps	2	No.
10	Diesel fire pumps	1	No.
11	Jockey fire pumps	2	No.
12	Generating sets (50 KVA)	1	50 KVA

Material Statement of Road Works

Sr. No.	Road No.	Length	Width	Area	
6.00, 12.00 & 24.00 Mtr wide Road					
1	1 (24M)	70.00	14.00	980.00	Sqm
2	2 (12M)	101.00	6.00	606.00	Sqm
3	3 (6M)	84.00	6.00	504.00	Sqm
4	4 (6M)	65.00	6.00	390.00	Sqm
5	5 (6M)	50.00	6.00	300.00	Sqm
	Total	**370.00**	**6.00**	**2780.00**	**Sqm**

i) Kerbs & Channels

6 Mtr wide Road	199 Mtr
12 Mtr wide Road (1 x 101Mtr)	101 Mtr
24 Mtr wide Road (2 x 2 x 70)	280 Mtr
Total	**580 Mtr**

ii) Surface Car Parking = 64 Nos

Area = 64 Nos x 2.50 x 5.00 Mtr = 800 Sqm

iii) Total Length of Roads 370 Mtr

iv) For Plantation of Trees (1 x 199 + 2 x 101 + 2 x 70) 541 Mtr

Total Area of Road **2780 Sqm**

MATERIAL STATEMENT OF WATER SUPPLY DISTRIBUTION SYSTEM (DOMESTIC)

Line		Dia	Length (Mtr)	Pipe Length (Mtr)		
From	To			150MM	100MM	80MM
UGT	A	150	3	3	-	-
A	B	100	10	-	10	-
B	C	100	45	-	45	-
C	D	80	88	-	-	88
A	E	100	78	-	78	-
E	D	100	46	-	46	-
Total			**270**	**3**	**179**	**88**

MATERIAL STATEMENT OF WATER SUPPLY DISTRIBUTION SYSTEM (FLUSHING)

Line		Dia	Length (Mtr)	Pipe Length (Mtr)		
From	To			150MM	100MM	80MM
STP	A	100	8	-	8	-
A	B	80	44	-	-	44
B	C	80	96	-	-	96
A	D	100	16	-	16	-
D	E	100	96	-	96	-
E	C	80	60	-	-	60
Total			**320**	**0**	**120**	**200**

TOTAL MATERIAL STATEMENT FOR WATER SUPPLY i.e. DOMESTIC, FLUSHING & RISING MAIN ETC.

S. No.	Description	Size of pipe upto valve in 80mm	Size of pipe upto valve in 100mm	Size of pipe upto valve in 150mm
1	Domestic	88M	179M	3M
2	Flushing	200M	120M	-
3	Rising Main	-	125M	-
	Total	**288M**	**424M**	**3M**

MATERIAL STATEMENT FOR BOREWELL RAISING MAINS AND HUDA MAIN

S.	Name of Line		Dia	Length (Mtr)	
No.	From	TO	mm	100mm	80mm
1	TW	U.G.T	100	65	-
2	HUDA Line	U.G.T.	100	60	
	TOTAL			**125**	

MATERIAL STATEMENT OF FIRE FIGHTING SYSTEM

Line		Dia	Length (Mtr)	Pipe Length (Mtr)	
From	To			150MM	100MM
PUMP / UGT	A	150	3	3	-
A	B	150	16	16	-
B	C	150	60	60	-
C	D	150	38	38	-
D	E	150	62	62	-
A	F	150	80	80	-
F	E	150	60	60	-
Total			**319**	**319**	**80 (As below)**

Total No. of Hydrant = 10 Nos (Connections required from main fire ring which 100mm i/d size = 10 x 8 = 80 Mtr

SUBHEAD : IRRIGATION WATER SUPPLY SCHEME - DESIGN CALCULATION (HORTICULTURE)

HYDRAULIC STATEMENT OF IRRIGATION WATER SUPPLY

S. No.	Line Reference	Total water requirement in LPD	Peak Flow in LPH	Velocity (m/s)	Size of the pipe required (In mm)	Size of the Pipe Recommend (In mm)	Hydraulic Radius	Total Friction Loss in M/M	Length along boundary only (M)	Loss of Head in Line (M)	Formation Level At Lower End	Available head (M)
1	From Flushing water Supply Line	30000	-	-	25.000	25.000	-	-	300	-	-	-

Note :- 30 Nos connections are to be done from flushing water supply line i.e. 30 Nos x 10 Mtr / each = 300 Mtr for 25mm i/d

SEWERAGE SYSTEM MATERIAL STATEMENT

S. NO.	Line of sewer	Length in Mtr	Size of pipe (In mm)					150mm i/d D.I. Pipe	Remarks
			200	250	300	400	450		
1	A - B	45	45	-	-	-	-	-	-
2	B-C	42	42	-	-	-	-	-	-
3	C-D	45	-	45	-	-	-	-	-
4	D-E	15	-	15	-	-	-	-	-
5	E1-E	38	38	-	-	-	-	-	-
6	E-STP	5	-	-	5				
	Total	**190.00**	**125**	**60**	**5**	**0**	**0**	**0**	**0**
	OUT FALL (S.T.P TO GOVT. / HUDA SEWER THROUGH BOOSTING								
	STP -HUDA Sewer	90						90	
	Total	**90**						**90**	

MATERIAL STATEMENT OF STORM WATER DRAINAGE

			PIPE DIA IN MM
Sr. No.	Line	Length in Mtr	400
1	A -B / RWH -I	40	400
2	B/RWH-I -C	22	400
3	C - D / RWH -2	40	400
4	D/RWH-2 - E / RWH -3	52	400
5	E1 - E/RWH-3	45	
6	E/RWH -3 - Master SWD (Prop.)	50	400
	Total Length	**249**	

Total Length = 249Mtr for 400mm i/d RCC Np3 pipe

SUBHEAD : DOMESTIC WATER SUPPLY SCHEME - DESIGN CALCULATION

HYDRAULIC STATEMENT OF WATER SUPPLY SCHEME (DOMESTIC)

S. No.	Line Reference	Population	Total Water Requirement in LPD (As per 38.65 LPCD)	Peak Flow in LPH	Velocity (m/s)	Size of the pipe required (m)	Size of the Pipe Recommend (mm)	Total Friction Loss in M/M	Length (M)	Loss of Head in Line (M)	Formation Level	Available head (M)	Remarks
1	UGT -A	3155	121941	22863	0.24	0.10	150	0.001	3	0.01	227.40	307.39	Finish Ground level of UGT i.e. at water works F.S.L. = 227.40 Boosting Head = 80.00M Haudraulic head = 307.40 Mtr at water works
2	A - B	1200	46380	8696	0.16	0.08	100	0.001	10	0.01	227.40	307.38	
3	B - C	1000	38650	7246	0.16	0.08	100	0.001	45	0.05	227.45	307.33	
4	C - D	251	9701	1811	0.21	0.05	80	0.002	88	0.18	227.50	307.15	
5	A - E	1876	72507	14167	0.20	0.10	100	0.001	78	0.08	227.45	307.31	
6	E - D	1000	38650	7246	0.16	0.10	100	0.001	46	0.05	227.50	307.26	

SUB HEAD : FLUSHING WATER SUPPLY SCHEME - DESIGN CALCULATION

HYDRAULIC STATEMENT OF WATER SUPPLY (FLUSHING)

S. No.	Line Reference	Population	Total water requirement in LPD (as per [illegible] LPCD) 19.04	Peak flow in LPH	Velocity (m/sec)	Size of pipe required (in M)	Size of pipe recommended (in mm)	Total friction loss in (m/m)	Length in Mtr	Loss of head in line (M)	Formation level	Available head (M)	Remarks
1	2	3	4	5	6	7	8	9	10	11	12	13	14
1	STP -A	3155	60071	11263	0.27	0.10	100	0.002	8	0.02	227.40	307.38	Finishing G.L. at STP = 227.40 Boosting Head = 80.00 Flushing Hydraulic head at STP = 307.40 M
2	A - B	1000	19040	3570	0.21	0.05	80	0.002	44	0.09	227.45	307.29	
3	B - C	250	4760	892	0.21	0.05	80	0.002	96	0.19	227.50	307.10	
4	A - D	[illegible] 2155	[illegible] 41031	7693	0.16	0.10	100	0.001	16	0.02	227.35	307.36	
5	D - E	[illegible] 2155	[illegible] 41031	7693	0.16	0.10	100	0.001	96	0.1	226.45	307.26	
6	E- C	1000	19040	3570	0.21	0.05	80	0.002	60	0.12	227.50	307.14	

SEWERAGE SCHEME - DESIGN CALCULATION

DESIGN STATEMENT OF SEWERAGE SCHEME

S. No.	Name of Node	Population	Total discharge as per 57.69 LPCD (IN LPD)	Sew. Quantity after evaporation losses (20%	Sewerage Discharge peak at 3 times	Size of pipe	Gradient	Velocity m/sec	Carrying Cap. Of pipe (In LPS)	Length in Mtr	Fall + Extra Fall	Ground level		Formation level		Invert Level		Depth of M.H		
			LPD	LPD	m3/sec	mm	cusec	m/sec	m3/sec		M	Start	End	Start	End	Start	End	Start	End	Average
1	2	3	4	5	6			13	14		15	16	17			18	19	20	21	22
1	A - B	1000	57690	46152	0.0015	200	225	0.76	0.012	45	0.20	226.35	226.45	227.50	227.45	2263.00	226.10	1.20	1.35	1.28
2	B - C	1500	86535	69228	0.0022	200	225	0.76	0.012	42	0.19	226.45	227.04	227.45	227.40	226.10	225.91 225.88	1.35	1.44	1.40
3	C - D	2000	115380	92304	0.0031	250	305	0.76	0.019	45	0.15	227.04	227.15	227.40	227.35	225.08	225.73	1.42	1.62	1.52
4	D - E	2000	115380	92304	0.0031	250	305	0.76	0.019	15	0.05	227.15	226.25	227.35	227.40	225.73	225.68 225.65	1.62	1.72	1.67
5	E1-E	1176	67843	54275	0.0016	200	225	0.76	0.012	38	0.17	226.33	226.25	227.45	227.40	226.25	226.08	1.20	1.32	1.26
6	E - STP	3155	182012	145610	0.0047	300	385	0.76	0.027	5	0.02	226.25	226.25	227.40	227.40	225.65	225.63 225.00	1.75	1.77	1.76
7	STP - HUDA Sew (By pumping)		D.I. Pipe			150				90		226.25	226.95	227.40	227.38	225.90	225.30	1.50	2.08	1.79

DESIGN CALCULATION OF STORM WATER DRAINAGE SCHEME

INTENCITY OF RAIN FALL = 0.006 MTR /HR

IMPERMEABILITY FACTOR = 0.6

S. No.	Name of Node	Area (Self)	Area (Self)	Branch Area	Total Area	Total Area	Rain fall	Discharge @ 17.36 LPS/ Hector	Length	Pipe dia	Slope	Velocity	Cap. Of drain	Fall + Extra Fall	Ground Level		Formation Level		Invert Level		Depth of M.H's		Average Depth
		IN SQM	In Acre	In Acre	In Acre	In Hector	mm / hr.	IN LPS	In Mtr	In mm	In Mtr	IN m/sec	IN LPS	IN Mtr	Start	End	Start	End	Start	End	Start	End	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	
1	A -B / RWH -I	4000	0.99	0	0.99	0.40	6.00	6.94	40	400	570	0.76	98.57	0.07	226.33	226.25	227.45	227.40	226.25	226.18 226.20	1.20	1.22	1.21
2	B/RWH-I -C	1000	0.25	0.99	1.24	0.50	6.00	8.68	22	400	570	0.76	98.57	0.04	226.25	227.15	227.40	227.35	226.20	226.16	1.20	1.19	1.20
3	C - D / RWH -2	500	0.12	1.24	1.36	0.55	6.00	9.55	40	400	570	0.76	98.57	0.07	227.15	227.04	227.35	227.40	226.16	226.09 226.20	1.19	1.31	1.25
4	D/RWH-2 - E / RWH -3	1000	0.25	1.36	1.61	0.65	6.00	11.31	52	400	570	0.76	98.57	0.09	227.04	226.45	227.40	227.45	226.20	226.11 225.45	1.20	1.34	1.27
5	E1 - E/RWH-3	3500	0.86	0	0.86	0.35	6.00	6.08	45	400	570	0.76	98.57	0.08	226.35	226.45	227.50	227.45	226.30	226.22	1.20	1.23	1.22
6	E/RWH -3 - Master SWD (Prop.)	422	0.11	2.47	2.58	1.05	6.00	18.23	50	400	570	0.76	98.57	0.09	226.45	226.95	227.45	227.40	225.45	225.36	2.00	2.04	2.02

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

From

Chief Town Planner, Haryana-cum- Chairman,
Building Plan Approval Committee,
O/o Director General, Town & Country Planning Department,
Haryana, SCO-71-75, Sector-17-C, Chandigarh.
Tele-Fax: 0172-2548475; Tel.: 0172-2549851,
E-mail: tcpharyana7@gmail.com
Website www.tcpharyana.gov.in

To

Shine Buildcon Pvt. Ltd.
S-518, Greater Kailash,
New Delhi.

Memo No. ZP-819/AD(RA)/2018/ 21295 Dated: 14-03-18

Subject: Approval of revised building plans of Commercial Colony on the area measuring 2.893 acres (Licence No. 34 of 2012 dated 15.04.2012) in Sector-70, Gurugram Manesar Urban Complex being developed by Shine Buildcon Pvt. Ltd.

Reference your letter dated 23.11.2017 for permission to re-erect the revised building plans for Commercial Colony on the area measuring 2.893 acres (Licence No. 34 of 2012 dated 15.04.2012) in Sector-70, Gurugram Manesar urban Complex in accordance with the plans submitted with it alongwith the demand draft amounting to ₹ 3,15,000/- towards Infrastructure Development Charges on additional FAR being considered for an incentive under Code 6.5 (3) (ii) of Haryana Building Code, 2017.

The building plans were approved provisionally vide this office memo no. 31620 dated 11.12.2017 for the purpose of inviting objections/suggestions. The STP, Gurugram vide memo no. 1339 dated 26.02.2018 has informed that 7 no's representation have been received in his office in respect of the amendments made in the building plans and all the seven representations has been examined and found that they given their consent for approval of revised building plans. Hence, permission is hereby granted for the aforesaid construction subject to the provisions of the Punjab Scheduled Roads & Controlled Areas Restriction of Unregulated Development Act, 1963 and Haryana Building Code-2017 subject to the following amendments, terms and conditions:-

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

Further that: -

a) The building shall be constructed in accordance to the Structure Design by Structure Engineer and certified by Proof Consultant on prescribed FORM BR-V(A2).

b) All material to be used for erection of building shall conform to I.S.I. and N.B.C. standards.

c) No walls/ceiling shall be constructed of easily inflammable material and staircases shall be built of the fire resisting material as per standard specification.

d) The roof slab of the basement external to the buildings if any shall be designed/ constructed to take the load of fire tender up to 45 tones.

3. FIRE SAFETY:

(i) The colonizer and the Supervising Architect of the project shall be entirely responsible for making provisions of fire safety and fire fighting measures and shall abide by all fire safety bye laws.

(ii) That you shall get approved the fire fighting scheme in accordance with the section 15 of The Haryana Fire Safety Act 2009 and directions issued by the Director, Haryana Fire Services, Haryana, before starting the construction work at site.

4. No addition and alteration in the building plans/ layout plan shall be made without the prior approval of DG,TCP. Further only figured dimensions shall be followed and in case of any variation in the plans, prior approval of DG,TCP shall be pre-requisite.

5. That you shall furnish the service plan/ estimate of this scheme in accordance with approved building plans.

6. Based on the actual estimated cost of internal development of the commercial colony you shall furnish additional bank guarantee, if required.

7. The revenue Rasta if any passing through the site shall be kept unobstructed.

8. If any infringement of byelaws remains unnoticed, the Department reserves the right to amend the plan as and when any such infringement comes to its notice after giving an opportunity of being heard and the Department shall stand indemnified against any claim on this account.

9. The layout showing the electric installation shall have to be got approved from the competent authority before execution of work at site.

10. No person shall occupy or allow any other person to occupy any new building and before grant of occupation certificate, you shall apply for occupation certificate as per the provisions of Code 4.10 of the Haryana Building Code-2017 which shall be accompanied by certificates regarding completion of works described in the plans and it shall be accompanied by:

(i) Structural stability certificate duly signed by the recognized Architect & Structural Engineer.

(ii) A clearance from Fire Safety point of view from the competent authority.

11. Use basement shall be used for parking and services as prescribed in the approved zoning plan and building plans. Not more than 25% of the parking space within the shopping/commercial complex shall be allotted and this allotment shall be made only to the persons to whom shops/commercial space have been allotted. No parking space shall be allotted, leased out, sold or transferred in any manner to any third party. The parking lots shall form part of common areas along with other common uses, in the declaration to be filed under Apartment Ownership Act, 1983.

12. You shall comply with the conditions laid down in the Memo No. 118560 dated 28.06.2017 of Superintending Engineer (HQ), HUDA, Panchkula & Fire Officer, (HQ), DULB, Panchkula vide memo no. 75678 dated 03.10.2017 (copy enclosed).

13. GENERAL:-

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

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

(iii) That the coloniser/owner shall use only Light-Emitting Diode lamps (LED) fitting for internal lighting as well as Campus lighting.

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

(v) That coloniser/owner shall ensure the installation of Solar Power Plant as per provisions of Haryana Solar Power Policy, 2016 issued by Haryana Government Renewable Energy Department vide Notification No. 19/4/2016-5 Power dated 14.03.2016.

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

(vii) That you shall submit the scanned copy of the approved building plans of this scheme to this office from the issuance of this letter.

(viii) That you shall deposit the labour cess in future, time to time as per construction of work done at site.

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

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

(xi) That you shall follow provisions of section 46 of 'The Persons with Disabilities (Equal Opportunities, protection of Rights and full Participation) Act, 1995' which includes construction of Ramps in public buildings, adaption of toilets for wheel chair users, Braille symbols and auditory signals in elevators or lifts and other relevant measures for Hospitals, Primary Health Centre and other medical care And rehabilitation units.

14. Environment: That you shall strictly comply with the directions of MOEF Guidelines, 2010 while raising construction. In addition, you shall comply with the instructions of Director General, Town & Country Planning, Haryana, Chandigarh issued vide order dated 14.05.2015, available on the Departmental Website www.tcpharyana.gov.in at URL: https://tcpharyana.gov.in/Policy/Misc392%20OA%20No.%2021%20of%202014%20Vardhaman%20Kaushik%20Vs.%20UOI_ors.pdfin compliance of the orders dated 10.04.2015 passed by Hon'ble national Green Tribunal in OA No. 21 of 2014, which are as under:

(i) You shall put tarpaulin on scaffolding around the area of construction and the building. You are also directed that you shall not store any construction material particularly sand on any part of the street/roads.

(ii) The construction material of any kind that is stored in the site will be fully covered in all respects so that it does not disperse in the Air in any form.

(iii) All the construction material and debris shall be carried in the trucks or other vehicles which are fully covered and protected so as to ensure that the construction debris or the construction material does not get dispersed into the air or atmosphere, in any form whatsoever.

(iv) The dust emissions from the construction site should be completely controlled and all precautions taken in that behalf.

(v) The vehicles carrying construction material and construction debris of any kind should be cleaned before it is permitted to ply on the road after unloading of such material.

(vi) Every worker working on the construction site and involved in loading, unloading and carriage of construction material and construction debris shall be provided with mask to prevent inhalation of dust particles.

(vii) Every owner and or builder shall be under obligation to provide all medical help, investigation and treatment to the workers involved in

the construction of building and carry of construction material and debris relatable to dust emission.

(viii) It shall be the responsibility of every owner/builder to transport construction material and debris waste to construction site, dumping site or any other place in accordance with rules and in terms of Hon'ble NGT order dated 10.04.2015 referred above.

(ix) All to take appropriate measures and to ensure that the terms and conditions of the Hon'ble NGT order dated 10.04.2015 referred above in OA No. 21 of 2014 and the earlier orders passed in said case should strictly comply with by fixing sprinklers, creations of green air barriers.

(x) Compulsory use of wet jet in grinding and stone cutting.

(xi) Wind breaking walls around construction site.

(xii) That you shall ensure that least dust has emitted into air/atmosphere and all steps are taken to prevent the same.

(xiii) That all the builders, who are building commercial, residential complexes which are covered under the EIA Notification of 2006, shall provide green belt around the building that they construct and compliance of the same shall be ensured prior to issuance of occupancy certificate.

(xiv) If any person, owner and or builder is found to be violating any of the conditions stated in this order and or for their non-compliance such person, owner, builder shall be liable to pay compensation of ₹ 50,000/- per default in relation to construction activity at its site and ₹ 5,000/- for each violation during carriage and transportation of construction material, debris through trucks or other vehicles, in terms of Section 15 of the NGT Act on the principle of Polluter Pay. Such action would be in addition not in derogation to the other action that the Authority made take against such builder, owner, person and transporter under the laws in force.

(xv) All the owners/builders shall ensure that C&D waste is transported in terms of this order to the site in question only and due record in that behalf shall be maintained by the builders, transporters and NCR of Delhi.

(xvi) It is made clear that even if constructions have been started after seeking Environmental Clearance under the EIA notification 2006 and after taking other travel but is being carried out without taking the preventive and protective environmental steps as stated in abovesaid order dated 10.04.2015 passed by NGT and MOEF guidelines, 2010, the State Government, SPCB and any officer of any Department as aforestated shall be entitled to direct stoppage of work.

15. That the Service Plans/Estimates for electrical infrastructure shall be submitted to the concerned authority and submit the approval of the same to the Department before applying the completion certificate of the colony under Rule-16 of the Haryana Development and Regulation of Urban Areas Rules, 1976.

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

DA/As above

14.3.19

(Hitender Singh)
Architect (HQ)
For: Chief Town Planner, Haryana-cum-Chairman,
Building Plan Approval Committee.

Endst. No. ZP-819/AD(RA)/2018/ ..... Dated:- .....

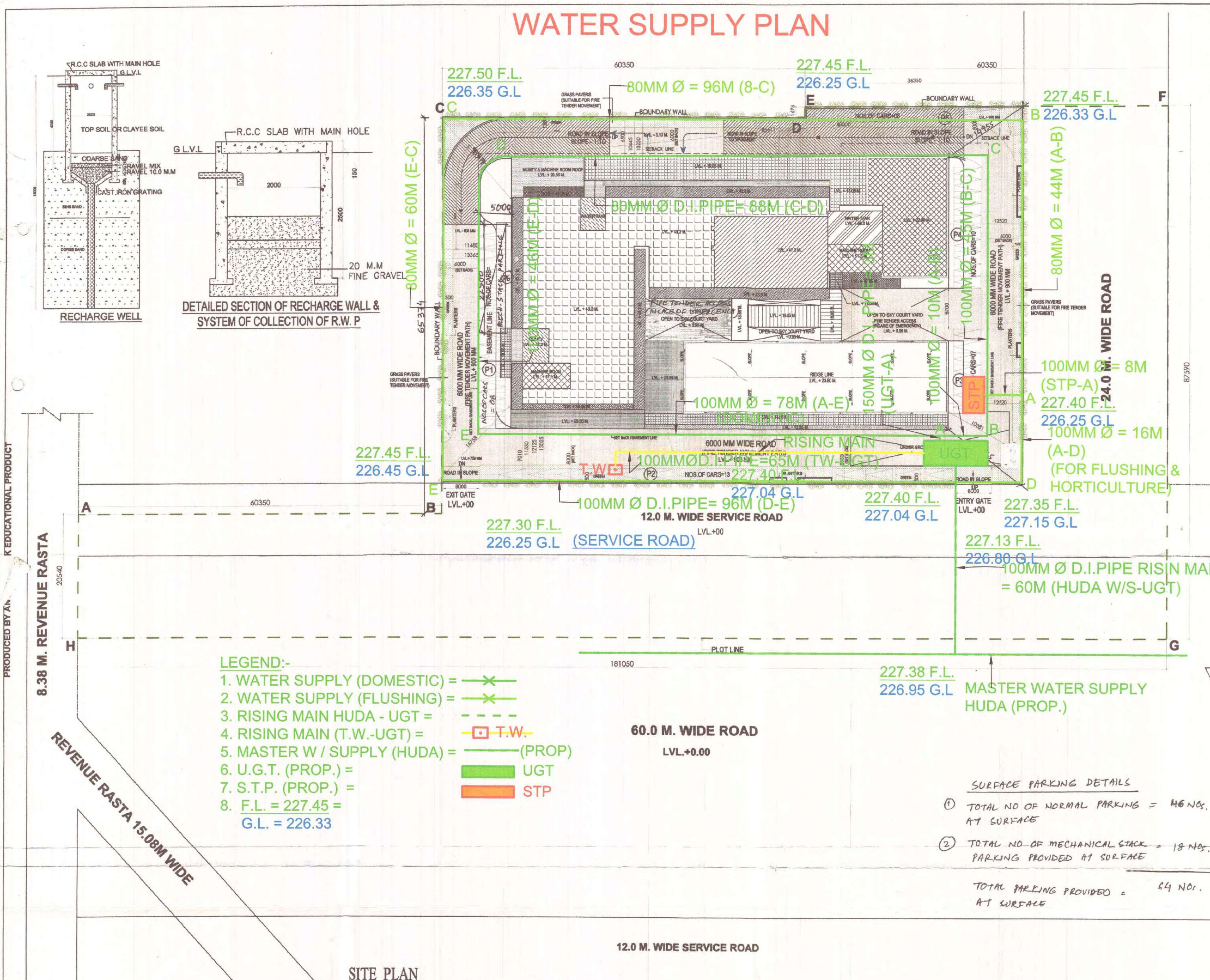
A copy is forwarded to the following for information: -

1. Haryana State Pollution Control Board, Panchkula with the request that the compliance of the instructions issued by NGT shall be monitored and strict compliance to be ensured.
2. Administrator, HUDA, Gurugram.
3. Senior Town Planner, Gurugram.
4. Superintending Engineer (HQ) HUDA, Panchkula.
5. District Town Planner, Gurugram.
6. District Town Planner (Enf.), Gurugram.
7. Nodal Officer, Website Updation.

(Hitender Singh)
Architect (HQ)
For: Chief Town Planner, Haryana-cum-Chairman,
Building Plan Approval Committee.

PRODUCED BY AN AUTODESK EDUCATIONAL PRODUCT

WATER SUPPLY PLAN



NOTES

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(4). ENTIRE BLDG. IS EQUIPED WITH SPRINKLER SYSTEM AS PER NBC
(5). ALL BASEMENT SHALL BE MECHANICALLY VENTILATED.
(6). ALL TOILETs & PANTRIES SHALL BE MECHANICALLY VENTILATED.

ARCHITECT(H.Q.) · C.T.P. Member Secretary B.P.C · S.T.P. (G) Member B.P.C · C.T.P. (T.M) Chairman B.P.C · JD · ATP · F.O. (HQ) DFS PKL. Member B.P.C.

NOTE:-

STRUCTURAL STABILTY CERTIFICATE

THIS IS TO CERTIFY THAT THE STRUCTURAL DESIGN AND CONSTRUCTION OF THIS BUILDING SHALL BE CARRIED OUT AND PROVISIONS INCORPORATED IN ACCORDANCE WITH NATIONAL BUILDING CODES OF INDIA WITH RESPECT TO COSTRUCTIONAL PRACTICES AND SAFETY NORMS FROM NATURAL HAZARDS INCLUDING EARTHQUAKES BASED ON PLOTS SOIL CONDITIONS,

Checked and found ok for Public Health (Internal) Service only subject to comments in forwarding letter No. SE(HQ)/........ Dt. ...28/6/17 118580
Superintending Engineer (HQ) HUDA, Panchkula
(BALWANT SINGH) S.D.

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AREA CALCULATION				
TOTAL PLOT AREA	2.893 ACRES	OR	11707.537 SQM.	
NET PLOT AREA TO BE CONSIDERED FOR AREA CALCULATION	2.5753	ACRE	=	10421.85
PERMISSIBLE GROUND COVERAGE @ 40% OF 2.5753 ACRES OR 10421.85 SQM.				4168.74
PROPOSED GROUND COVERAGE AREA OF BUILDING				2892.500
PROPOSED GROUND COVERAGE OF MECH. STACK PARKING AT SURFACE (22.5 X 5.0 m) =				112.50
TOTAL PROPOSED GROUND COVERAGE				3005.00
PERMISSIBLE FAR @175 OF 2.5753 ACRES OR 10421.88 SQM.		(A)		18238.24
ADDITIONAL 3% FAR FOR SOLID WASTE MANAGEMENT		(B)		312.66
TOTAL PERMISSIBLE FAR		(A+B)		18550.89
PROPOSED FAR				18520.19

COVERED AREA DETAILS			
FLOOR	PROPOSED COVERED AREA INCLUDED IN FAR		BUILTUP AREA
	SQM.		SQM.
BASEMENT-1	0		3510.000
BASEMENT-2	0		3920.030
BASEMENT-3	0		3723.130
GROUND FLOOR	2892.500		2892.500
FIRST FLOOR	2424.280		2424.280
SECOND FLOOR	2401.170		2401.170
THIRD FLOOR	2468.990		2468.990
FOURTH (SERVICE) FLOOR	74.81		2029.330
FIFTH FLOOR	1173.390		1173.390
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TENTH FLOOR	1132.140		1132.140
ELEVENTH FLOOR	1079.010		1079.010
TWELFTH FLOOR	262.840		262.840
MUMTY MACHINE ROOM	0		244.68
TOTAL (P)	18520.190		31872.550
TOTAL FAR PROPOSED (P)	18520.19	SQM.	
TOTAL BUILT UP AREA PROPOSED	31872.55	SQM.	

SURFACE PARKING DETAILS

1. TOTAL NO OF NORMAL PARKING AT SURFACE = 46 NOs.
2. TOTAL NO OF MECHANICAL STACK PARKING PROVIDED AT SURFACE = 18 NOs.

TOTAL PARKING PROVIDED AT SURFACE = 64 NOs.

PARKING AREA CALCULATION		
REQUIRED PARKING @ 1ECS FOR 50 SQ.M.OF ACHIEVED FAR =	(18520.19/50)	370.40
	=	SAY 370 NOS.
TOTAL NO.OF SURFACE PARKING @ 15 % OF TOTAL PARKING	55.50	SAY 56 NOS.
TOTAL NOS. OF CAR REQUIRED AT STREET LVL. =	56	NOS.

BASEMENT PARKING CALCULATION			
	BASEMENT - 1	112	Nos.
	BASEMENT - 2	116	Nos.
	BASEMENT - 3	120	Nos.
	TOTAL PARKING PROVIDED=	348	Nos.
TOTAL PROVIDED PARKINGS			
PARKING PROVIDED AT STREET LVL.		64	Nos.
PARKING PROVIDED IN BASEMENT		348	Nos.
TOTAL NO. OF CAR PARKING PROVIDED		412	Nos.

REVISED BUILDING PLAN OF COMMERCIAL COLONY MEASURING 2.893 ACRES (LICENSE NO. 34 OF 2012 DATED 15-4-2012) IN SECTOR 70, GURGAON MANESAR URBAN COMPLEX BEING DEVELOPED BY SHINE BUILDCON PVT. LTD.

DRAWING TITLE	SITE PLAN
DRAWING NO.	1051/60/SUB/A-01
NORTH:-	REVISION R0
SCALE:- 1:300	DATE 29-05-2017

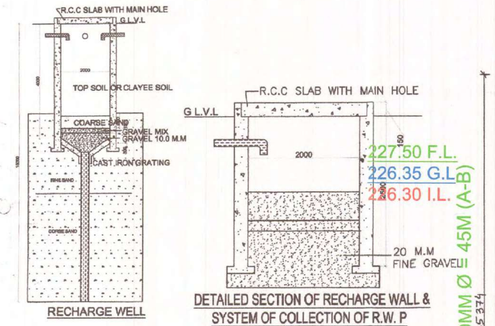
OWNER'S SIGN:- For SHINE BUILDCON PVT. LTD.

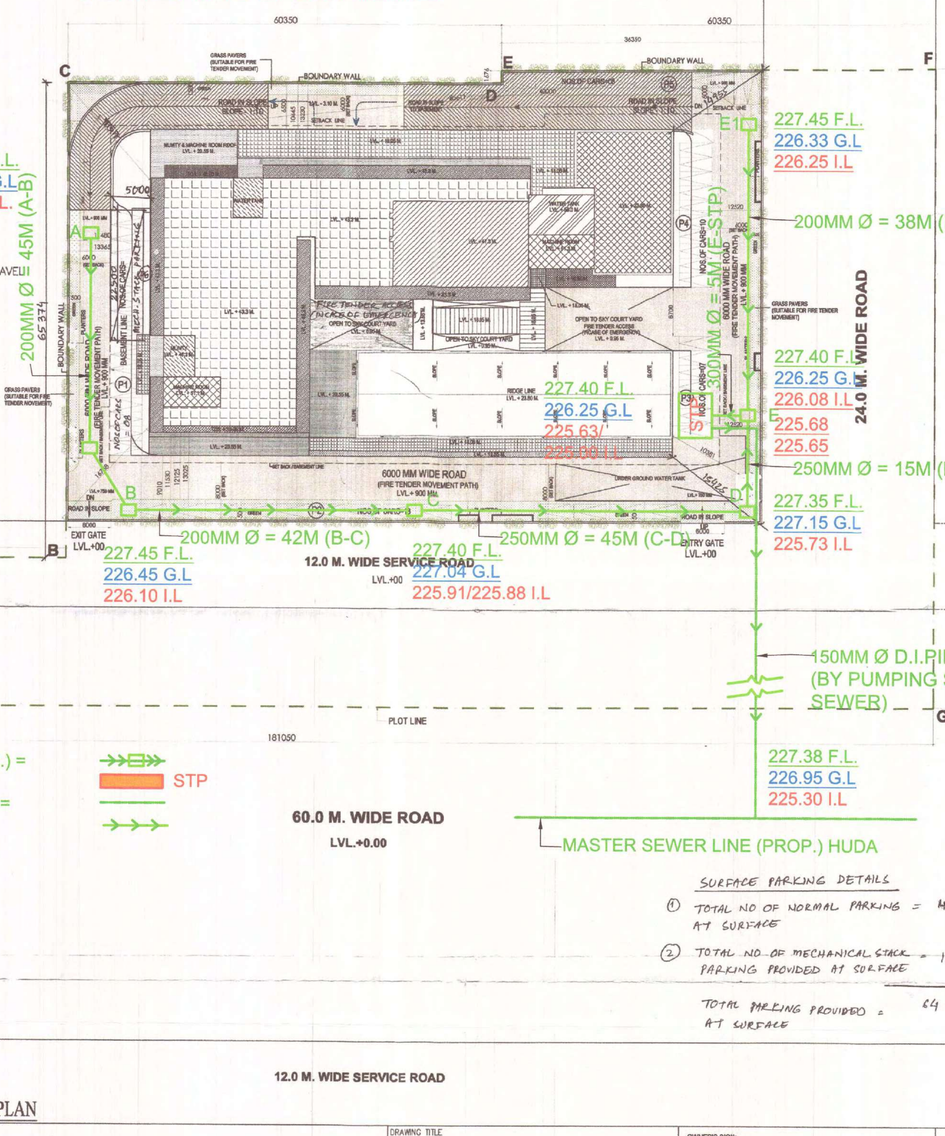
ARCHITECT'S SIGN:- ASHOK NARAYAN PANDIT

ACPL — ISO 9001:2008 — Architecture Management Planning

ACPL Design Ltd

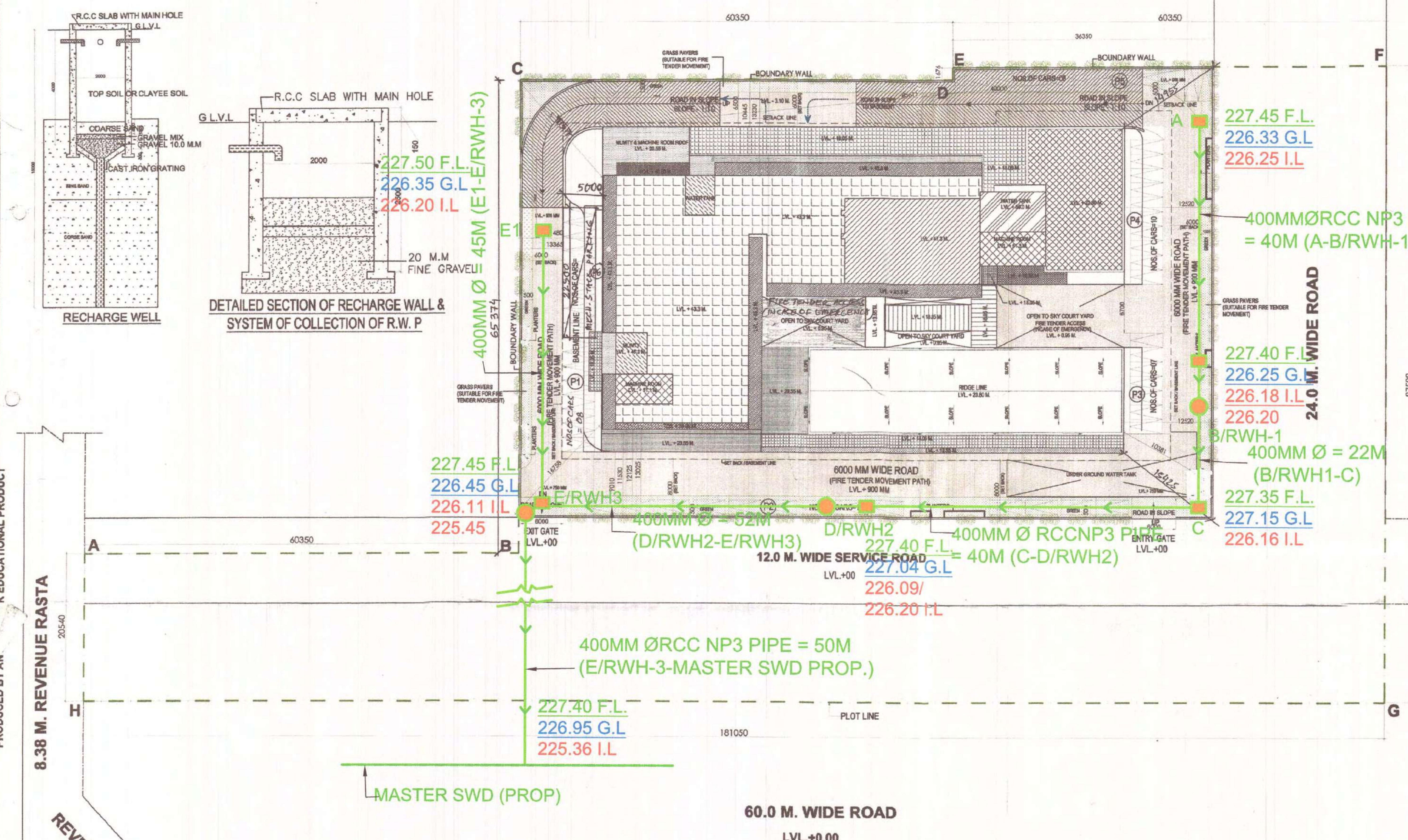
SEWERAGE SCHEME




60350
BOUNDARY WALL
GRASS PAVERS (SUITABLE FOR FIRE TENDER MOVEMENT)
ROAD IN SLOPE
SETBACK LINE
MUMTY & MACHINE ROOM RWH LVL.+ 35.00 M.
WATER TANK LVL.+34.80 M.
RECHARGE WELL
RECHARGE WELL
RECHARGE WELL

PRODUCED BY AN AUTODESK EDUCATIONAL PRODUCT

STORM WATER DRAINAGE SCHEME



LEGEND:-

1. STORM WATER =
2. RAIN WATER HARVESTING SYSTEM
3. MASTER SWD (PROP) =
4. F.L. = 227.45 =
   G.L. = 226.33
   I.L. = 226.25

SURFACE PARKING DETAILS

1. TOTAL NO OF NORMAL PARKING AT SURFACE = 46 NOS.
2. TOTAL NO OF MECHANICAL STACK PARKING PROVIDED AT SURFACE = 18 NOS.

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12.0 M. WIDE SERVICE ROAD

SITE PLAN

NOTES

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ARCHITECT(H.Q.) S.T.P. Member Secretary B.P.C S.T.P. (G) Member B.P.C C.T.P. (T.M) Chairman B.P.C JD PA ATP

F.O. (HQ) DFS PKL Member B.P.C.

NOTE:-

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Checked and found ok for Public Health (Internal) Service only subject to comments in forwarding letter No. ... Dt. 23/6/17 118560
Superintending Engineer (HQ) HUDA, Panchkula
(BALWANT SINGH) S.D.

The provision of solar water heating system shall be as per norms specified by HAREDA and shall be made operational in each building block before applying for an occupation certificate. The rain water harvesting system shall be provided as per Central Ground Water Authority norms/Haryana Govt. notification as applicable. The coloniser/owner shall use only Compact Fluorescent Lamps fittings for internal lighting as well as campus lighting.

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PROPOSED GROUND COVERAGE OF MECH. STACK PARKING AT SURFACE (22.5 X 5.0 M) =			112.50
TOTAL PROPOSED GROUND COVERAGE			3005.00
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TOTAL PERMISSIBLE FAR		(A+B)	18550.89
PROPOSED FAR			18520.19

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	SQM.		SQM.
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DRAWING TITLE: SITE PLAN	
DRAWING NO.: 1051/60/SUB/A-01	
NORTH:	REVISION: R0
SCALE: 1:300	DATE: 29-05-2017

OWNER'S SIGN:- For SHINE BUILDCON PVT. LTD.

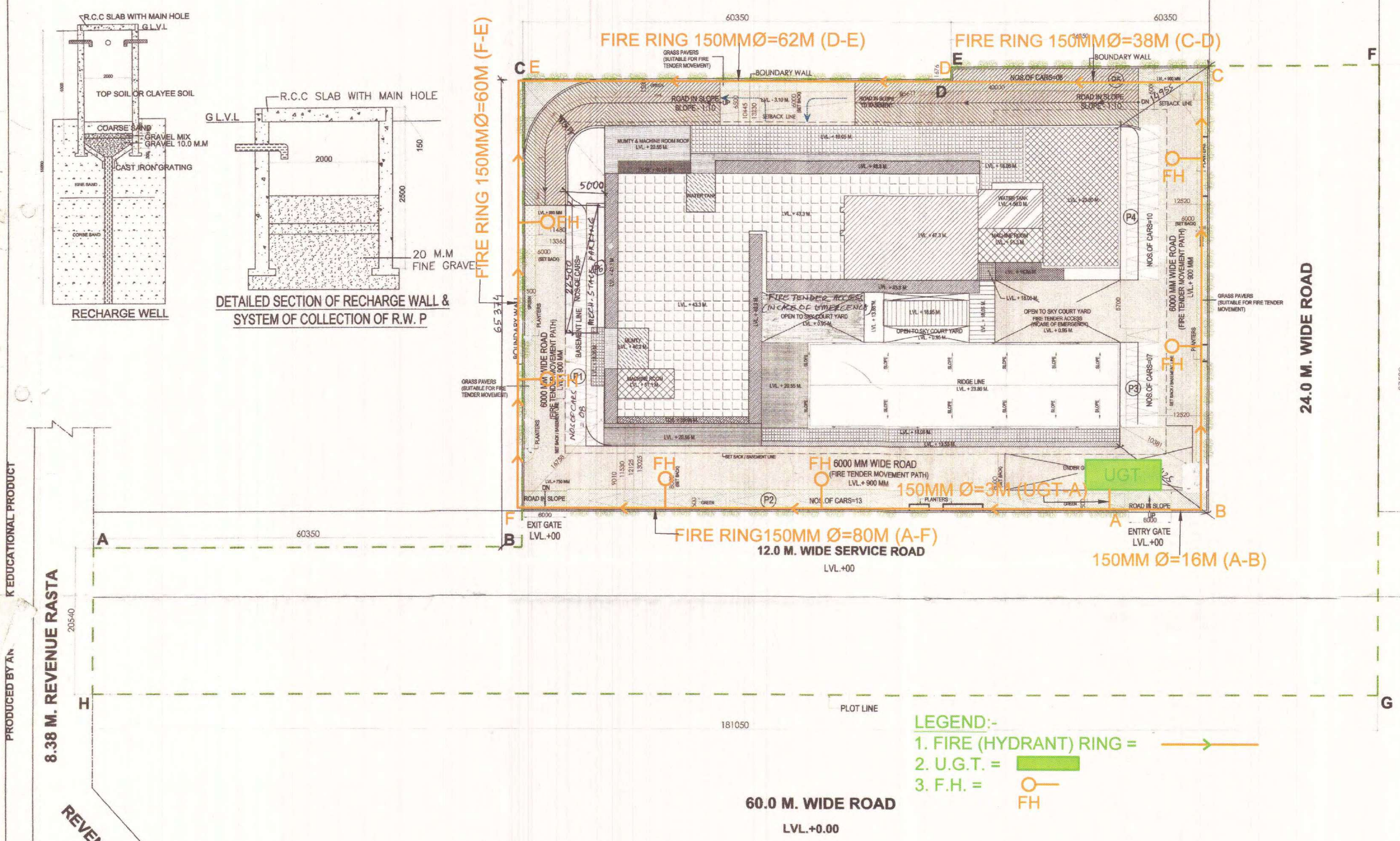
ARCHITECT'S SIGN:- ASHOK NARAYAN PANDIT

ACPL — ISO 9001: 2008 — Architecture Management Planning

ACPL Design Ltd

PRODUCED BY AN AUTODESK EDUCATIONAL PRODUCT

FIRE HYDRANT SCHEME PLAN



SITE PLAN

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DRAWING TITLE	SITE PLAN
DRAWING NO.	1051/60/SUB/A-01
NORTH:-	REVISION R0
SCALE:- 1:300	DATE 29-05-2017

OWNER'S SIGN:- For SHINE BUILDCON PVT. LTD.

ARCHITECT'S SIGN:-

ACPL ISO 9001:2008 Architecture Management Planning
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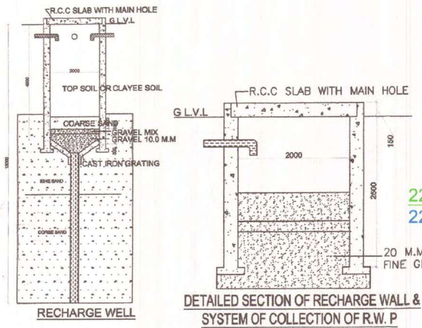
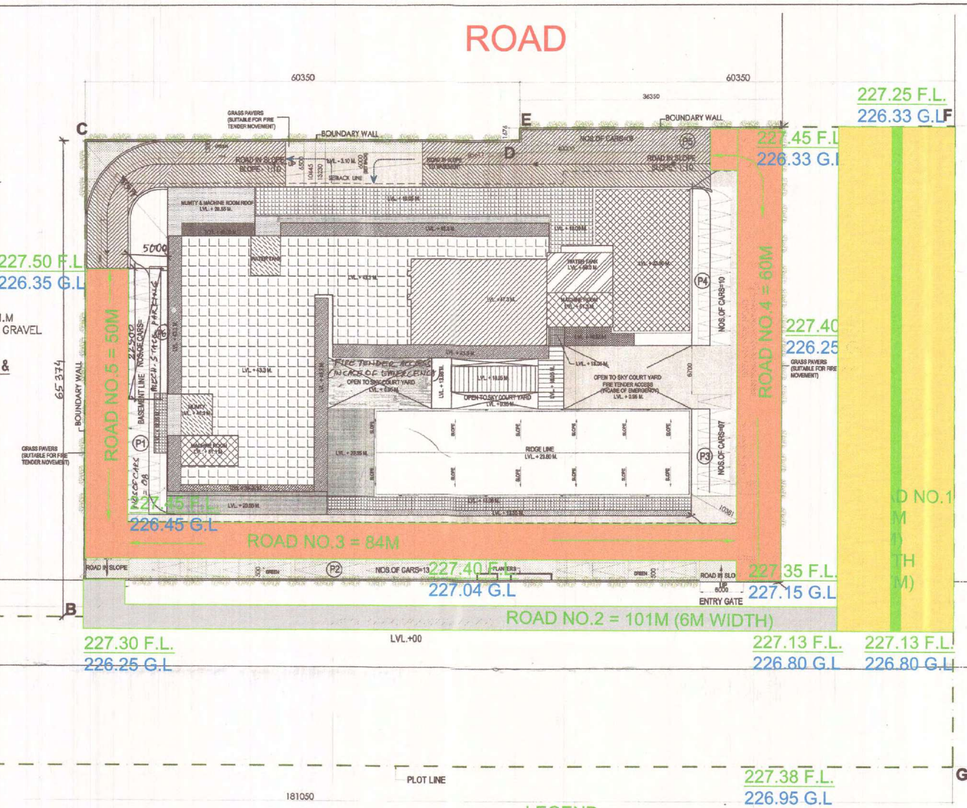


DETAILED SECTION OF RECHARGE WALL & SYSTEM OF COLLECTION OF R.W. P


ROAD
60350
60350
36310
BOUNDARY WALL
BOUNDARY WALL
GRASS PAVERS (SUITABLE FOR FIRE TENDER MOVEMENT)
ROAD IN SLOPE
NOS.OF CARS=19
NOS.OF CARS=10
NOS.OF CARS=13
NOS.OF CARS=47
MUMTY & MACHINE ROOM ROOF LVL.+ 39.20 M.
MUMTY & MACHINE ROOM LVL.+ 34.00 M.
LIFT MACHINE ROOM LVL.+ 34.00 M.
STAIRS COVE LVL.+ 33.20 M.
LIFT MACHINE ROOM LVL.+ 30.00 M.
RIDGE LINE LVL.+ 23.80 M.
RIDGE LINE LVL.+ 20.80 M.
LVL.+ 19.80 M.
LVL.+ 19.80 M.
LVL.+ 19