From: -

Commissioner ,
Municipal Corporation,
Faridabad.

To

M/S ARIHANT INFRRA REALTORS PVT.LTD
Corp. Office-E 62, SECTOR 63,NOIDA

Memo no - 278/FSO Dated:- 3/1/2014

Subject: APPROVAL OF FIRE FIGHTING SCHEME FIRE SAFETY POINT OF THE VIEW OF RESPECT M/S ARIHANT INFRRA REALTORS PVT.LTD VILLAGE SARAI KHAWAJA PLOT NO GH. 1, SECTOR 41 FARIDABAD BEING DEVELOPED BY M/S ARIHANT INFRRA REALTORS PVT.LTD Corp. Office-E 62, SECTOR 63,NOIDA MESRING AREA 1.6ACRES /6566.96 Sqm WIDE ALLOTMENT LATTRE GROUP HOUSING PLOT MEMO NO MCF/AEO/2013/506 DATED 12-4-2013

Reference your letter dated- 19-11-2013

The case for the approval of fire fighting scheme has been examined by the fire department. The fire fighting scheme has been found as per national building code of india part-IV 1983 revised 2005.So the approval of proposed is approved from by Ld cmc on Dated- 23-12-2013 fire safety point of view with following conditions.

1 That the proposed fire fighting scheme is approved in the building plan submitted by firm and as per rules ,regulations by laws under which the said building plan has been senctioned.

2 The over head water tank for fire fighting shall be constructed by the firm at the appropriate place in such away that domestic water tank shall be filled up from the over flow of fire water tank.

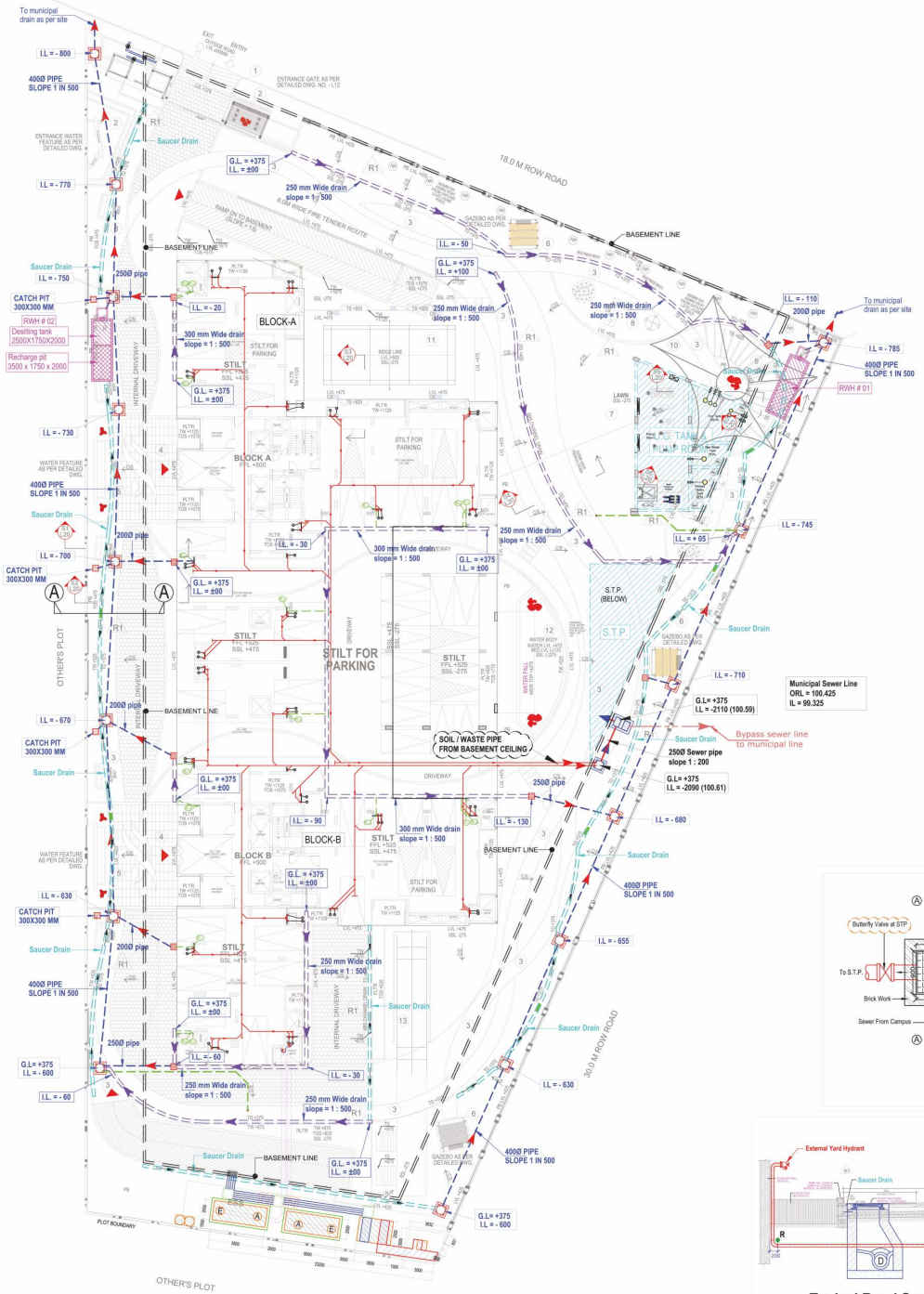
3 That as soon as the installation of the fire fighting arrangement are completed /installed,the same shall be got inspected /tested by the through the agency of this coroporation and if the same are found as per required norms ,necessary N O C would be issued to the firm with the approval of Commissioner of this Corporation .

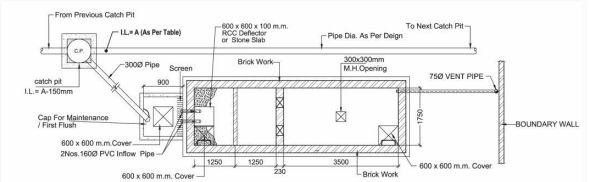
Encl.. One set of questionnaire and building plan.

Fire Station Officer

For Commissioner

MCF Faridabad

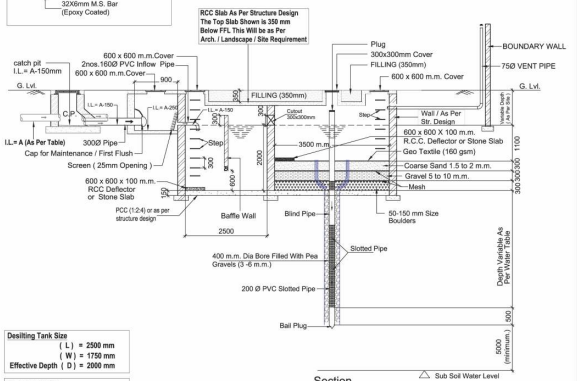




Plan

Desilting Chamber & Recharge Pit

M.S. Screen Detail :



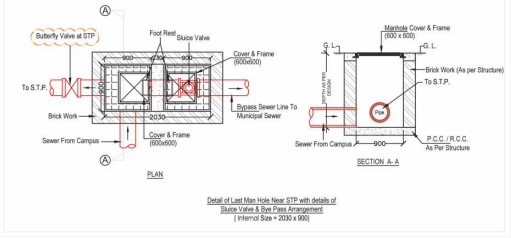
Section

RWH Detail

Total Number of RWH = 02

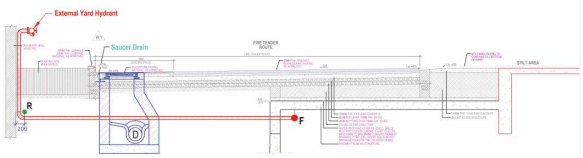
Desilting Tank Size
(L) = 2500 mm
(W) = 1750 mm
Effective Depth (D) = 2000 mm

Recharge Pit Size
(L) = 3500 mm
(W) = 1750 mm
Effective Depth (D) = 2000 mm



Detail of Last Man Hole Near STP with details of Sluice Valve & Bye Pass Arrangement

(Internal Size = 2030 x 900)



Typical Road Section - AA

LEGEND :

S. No.	SYMBOL	DESCRIPTION
1.	M.H.	MANHOLE
2.		SEWER LINE
3.	C.P.	CATCH PIT
4.		UNDER GROUND PIPE DRAIN
5.		300MM WIDE SURFACE DRAIN FOR TERRACE RAIN WATER & CENTRAL LANDSCAPE AREA
6.		SAUCER DRAIN
7.		BASEMENT RETAINING WALL
8.		CATCH PIT 450X450 MM
9.		RAIN WATER HARVESTING
10.	F.L.	FORMATION LEVEL
11.	I.L.	INVERT LEVEL
12.	C.L.	CONNECTION LEVEL

NOTES : SEWERAGE SYSTEM

1. THE SIZE OF MANHOLE SHALL BE AS UNDER (INNER SIZES)
   a) Upto 900 m.m. depth — 600 x 600 m.m.
   b) 900 to 1650 m.m. depth — 900 m.m. dia.
   c) 1650 to 2250 m.m. depth — 1200 m.m. dia.
2. the levels of sewer lines has been worked out on the basis of certain ground level and for certain pipe lengths between two manholes. the invert levels has to be strictly followed. however, the slope of line may be slightly changed.
3. For any descripency / ommission the matter should refer to the consultants before execution.
4. Manhole shall be provided at following places :-
   a) At the start of each sewer line.
   b) At every junction and position where there is change of size, gradient and alignment.
   c) At not more than 45 meter interval in straight length.
5. Where the diameter of pipe is increased the crown of the pipe shall be fixed at the same level and necessary slope shall be given in the invert of the manhole chamber.
6. The structural design of manholes / pipe bedding has to be done for local field conditions such as filled up soil / black cotton soil / high sub soil conditions.
7. This drawing shall be read along with the detailed landscape plan & ground floor plan of respective building for exact location of appurtenances / man holes etc.
8. Sewer line under the road shall be encased with 150 thick, pcc 1:2:4 allround.
9. Manhole cover should be finished with finished formation level as per landscape drawing, the cover of manhole shall be square as per appurtenances drawing & should be co-ordinated with landscape drawing.
10. This drawing shall be coordinated with other drawing i.e. architecture, structural, electrical, landscape & other relevant drawing.
11. Material of pipe :- S.W. Pipe
12. **In the areas subject to subsidence or filled up soil (due to exces excavation at site for construction of basements) the sewer lines & manhole should be laid on suitable support or concrete cradle supported on piles or suitable foundation as per structural design.**
13. **In case where sewers are laid in high subsoil conditions manholes should be constructed in r.c.c. garde m-25.**
14. The width of trench for sewer and drainage should be d+ 400mm. (d= o.d. of pipe).
15. Shoring / timbering should be adequate to prevent caving-in of the trench walls of subsidence of areas adjacent to the trench. an engineer-in-charge in consultation with a structural engineer should provide adequate arrangement to prevent caving-in.

NOTES : DRAINAGE SYSTEM

1. THE SIZE OF CATCHPIT SHALL BE AS UNDER (INNER SIZES)
   a) Upto 900 m.m. depth — 600 x 600 m.m.
   b) 900 to 1650 m.m. depth — 900 m.m. dia.
2. The levels of drainage lines has been worked out on the basis of certain ground level and for certain pipe lengths between two catchpits. the invert levels has to be strictly followed. however, the slope of line may be slightly changed.
3. For any descripency / commission the matter should refer to the consultants before execution.
4. Catchpit shall be provided at following places :-
   a) At the start of each drain line.
   b) At every junction and position where there is change of size, gradient and alignment.
   c) At not more than 15 meter interval in straight length.
5. The structural design of catchpit / pipe bedding has to be done for local field conditions such as filled up soil / black cotton soil / high sub soil conditions.
6. This drawing shall be read along with the detailed landscape plan & ground floor plan of respective building for exact location of appurtenances / catchpit etc.
7. Drainage line under the road shall be encased with 150 thick, pcc 1:2:4 allround.
8. Catchpit cover should be finished with finished formation level as per landscape drawing, the cover of catch pit shall be square as per appurtenances drawing & should be co-ordinated with landscape drawing.
9. This drawing shall be coordinated with other drawing i.e. architecture, structural, electrical, landscape & other relevant drawing.
10. Material of pipe :- RCC (NP 3) Pipe with rubber ring joint
11. **In the areas subject to subsidence or filled up soil (due to exces excavation at site for construction of basements) the drain lines & catchpit should be laid on suitable support or concrete cradle supported on piles or suitable foundation as per structural design.**
12. **In case where drain are laid in high subsoil conditions catchpits should be constructed in r.c.c. garde m-25.**
13. The width of trench for sewer and drainage should be d+ 400mm. (d= o.d. of pipe).
14. Shoring / timbering should be adequate to prevent caving-in of the trench walls of subsidence of areas adjacent to the trench. an engineer-in-charge in consultation with a structural engineer should provide adequate arrangement to prevent caving-in.
15. Before taking up the execution, the feasibility of connection of drain with the outside drainage may please be checked. any discrepancy may be reported to the consultant.

NOTES : SURFACE DRAINAGE SYSTEM

1. For any descripency / ommission the matter should refer to the consultants before execution.
2. Slab culvert shall be provided at road crossing for surface drains.
3. Top level of the drain shall flush with the proposed ground level of the respective area / as per landscape plan.
4. The drain bedding shall have to be structurally designed for local site conditions such as filled up soil / black cotton soil / high sub soil conditions.
5. This drawing shall be coordinated with other drawing i.e. architecture, structural, electrical, landscape & other relevant drawing.
6. Before taking up the execution, the feasibility of connection of drain with the outside drainage may please be checked. any discrepancy may be reported to the consultant.

Project :

PROPOSED ARIHANT SOUTH WINDS

AT PLOT NO.GH-1, SECTOR-41, FARIDABAD.

Title :

LAYOUT PLAN

Subtitle :

EXTERNAL SEWER & DRAINAGE SYSTEM

Drawing Released For :

☐ APPROVAL ☐ SUBMISSION

☐ ADVANCE COPY ■ RERA SUBMISSION

Drg. No : **SOUTH WINDS - ES - P / 02**

Scale : **1 : 250**

Drawn By : **Baldev**

Date : **April 2019**

Design By : **Sanjay Goel**

Ckd By : **Anand Havelia**

Architects :

DEEPAK MEHTA &ASSOCIATES

ARCHITECTS, PLANNERS, VALUERS, LANDSCAPE & INTERIORS

1st & 2nd FLOOR, PLOT NO. 16, ABHISHEK PLAZA, L.S.C., MAYUR VIHAR PH - II, DELHI - 110091, INDIA, Tel (O) : : +91-11-22770100, +91-9999219713,

E-mail : deepakmehta1962@gmail.com, Website : www.indianarchitect.co.in

Services Consultant :

Consummate Engineering Services (P) Ltd.

Noida Office : B - 67, Sector - 67, Noida - 201 301

Tel : (0120) 2303500 (24 Lines)

Lko. Office : R 006, Rohtas Plumeria, Gomti Nagar, Lucknow

e mail : mail@cespl.in, website : www.cespl.in

LEGEND :

S. No.	SYMBOL	DESCRIPTION
1.		RISING MAIN LINE (FROM T/W TO U.G.T.)
2.		MUNICIPAL WATER SUPPLY PIPE LINE.
3.		RECYCLED WATER SUPPLY LINE FOR FLUSHING & HORTICULTURE
4.		PROPOSED TUBE WELL
5.	GH	GARDEN HYDRANT
6.		BASEMENT RETAINING WALL
7.		FIRE PIPE
8.		BUTTERFLY VALVE
9.		YARD HYDRANT

LEGEND : FIRE SYSTEM

YARD HYDRANT PIPE DIA :-

a) 1 No of yard hydrants pipe dia to be = 80Ø
b) 2 To 3 no of yard hydrants pipe dia to be = 100Ø
c) 4 No of yard hydrants and above pipe dia to be = 150Ø

NOTES : WATER SUPPLY

1. The depth of recycle water supply main shall be - 900 mm
2. The depth of rising main shall be - 1000 mm
3. Pipe material for - Recycle Water shall be : UPVC (Sch 80)
4. Pipe material for external water supply - tube well / municipal line Shall be : D.I.

Project :
PROPOSED ARIHANT SOUTH WINDS
AT PLOT NO.GH-1, SECTOR-41, FARIDABAD.

Title :
LAYOUT PLAN

Subtitle :
EXTERNAL WATER SUPPLY SYSTEM

Drawing Released For :

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- ☐ ADVANCE COPY
- ■ RERA SUBMISSION

Drg. No : SOUTH WINDS - ES - P / 03

Scale : 1 : 250

Drawn By : Baldev

Date : April 2019

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Municipal Corporation, Faridabad
B.K. Chowk N.I.T Faridabad -121001, Haryana-India
Tel. : 0129-2411649, 2411664, 2415549
Fax : 0129-2416465

To

M/s Arihant Infra Realtors Pvt. Ltd.,
601, 6th floor, Sachdeva Tower,
DDA Community Centre,
Karkardooma, Delhi-110092.

Memo No.MCF/EE-II/2018/ 205
Dated:- 2/4/19

Sub:- **Request for permission of Rainwater Harvesting System at Group Housing Plot No. GH-01, Sector-41, allotted by Municipal Corporation, Faridabad.**

With reference to your letter dated 30-03-2019 on the subject cited above.

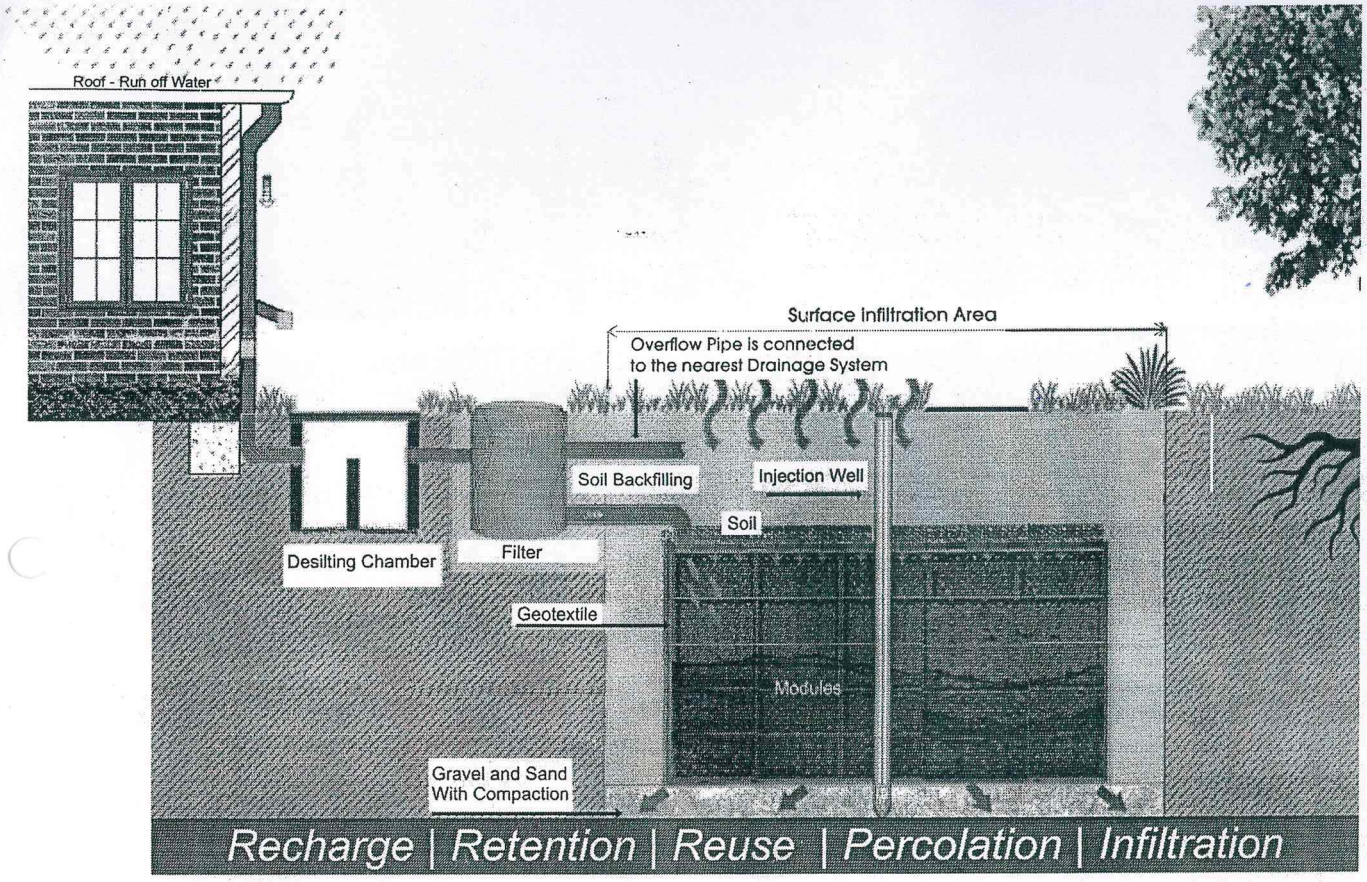
In this connection, permission for Rain Water Harvesting System is granted as per following terms & conditions:-

1- Permission is accorded as per design attached.
2- Permission is only for two No. Rain Water Harvesting in Group Housing, Plot No. GH-01, situated at Sec.-41, Faridabad.
3- You have to take the Completion Certificate of Rain Water Harvesting System from MCF (Engineering Branch)
4- You have to take all other permission, if required, from other department also.

DA:- Drawing of design of rain water harvesting is enclosed.

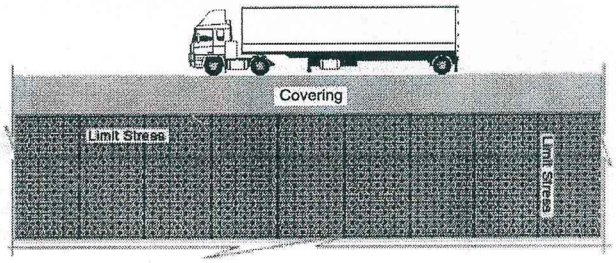
Executive Engineer-II
For: Superintending Engineer

Modular Rain water Harvesting system



Specifications

- Void ratio upto 96.5%
- Crush load capacity in 20 tons per sqm.*
- Traffic bearing capacity upto 40 tons per sqm.*
- Material is recycled polypropylene
- Vertical dimensions ensure maximum strength



Storage tank volume calculation - Reacharge Type Tank

2 % of Roof area

For 100sq.m - 2 cubic meter tank/2000 liter	Harvesting 80000 liter/year
200sq.m - 4 cubic meter tank/4000 liter	Harvesting 1.6 lakh liter/year
500sq.m - 10 cubic meter tank/10000 liter	Harvesting 4 lakh liter/year
1000sq.m - 20 cubic meter tank/20000 liter	Harvesting 8 lakh liter/year

Average Rainfall in Faridabad - 800 mm

Executive Engineer / कार्यकारी अभियन्ता
Division-II / मंण्डल-II
Municipal Corporation / नगर निगम
Faridabad (Haryana) / फरीदाबाद (हरियाणा)

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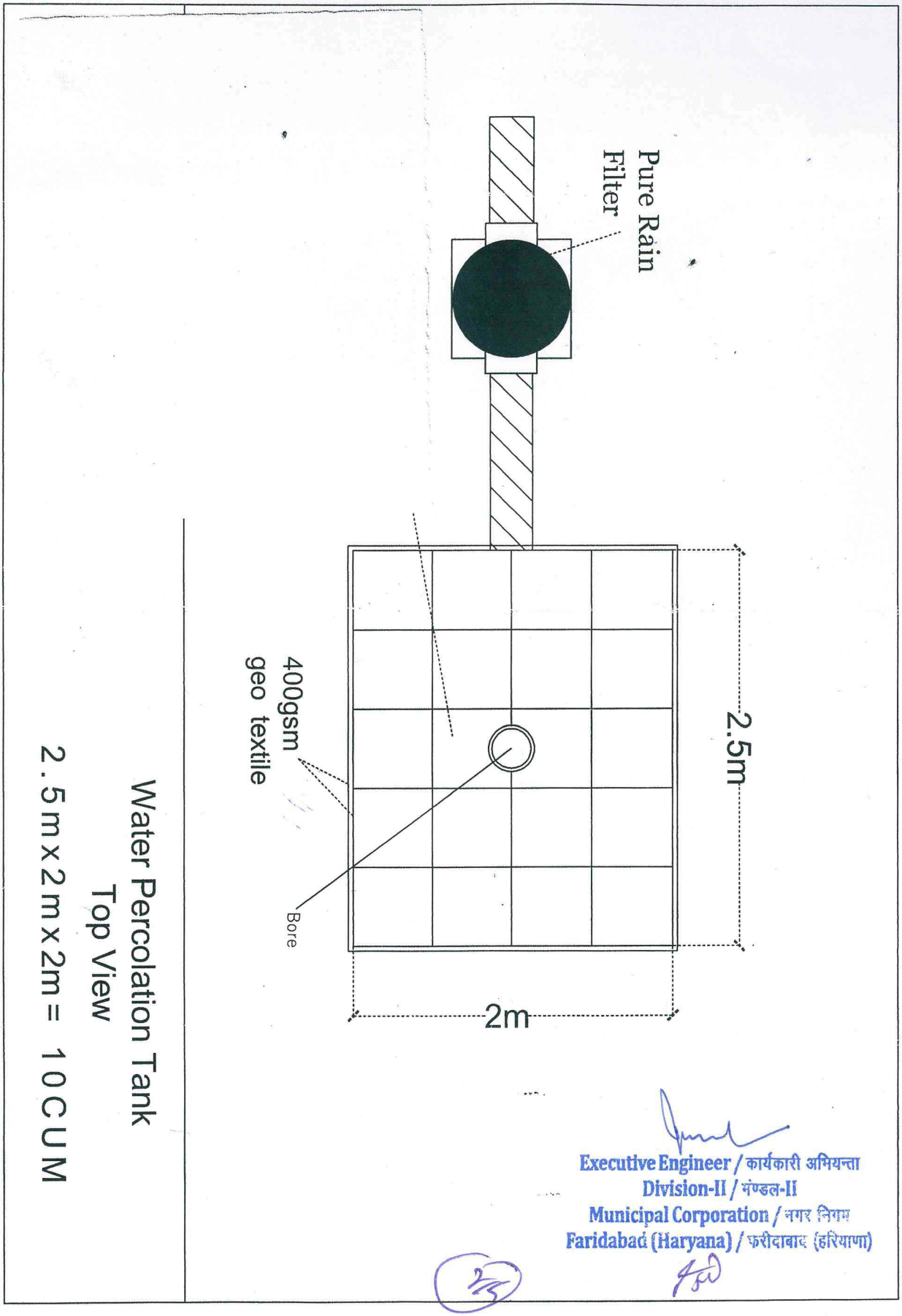

Water Percolation Tank

Top View

2.5 m x 2 m x 2m = 10 CUM

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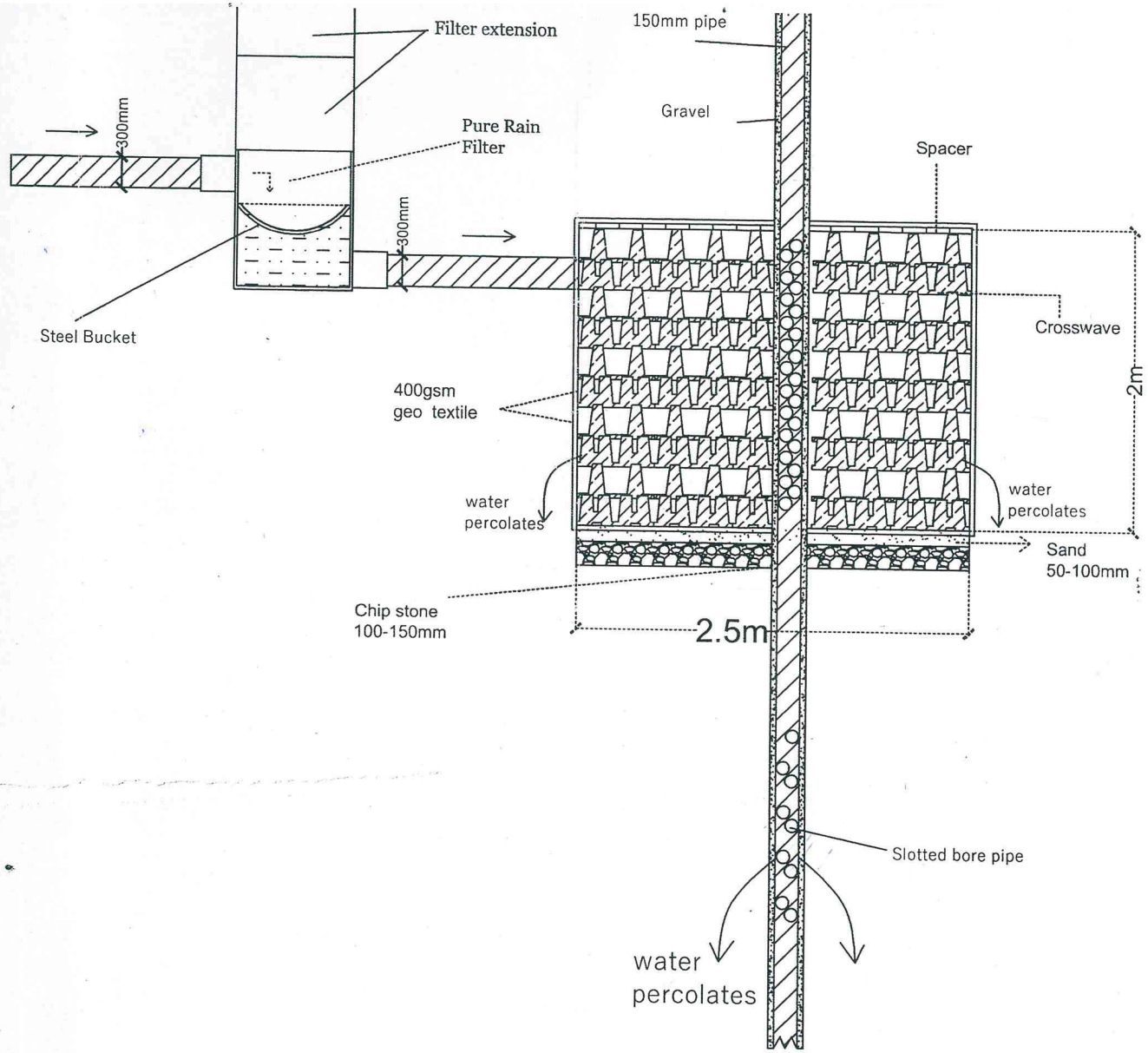
Division-II / मंण्डल-II
Municipal Corporation / नगर निगम
Faridabad (Haryana) / फरीदाबाद (हरियाणा)



Water Percolation Tank
Section View
2.5m x 2m x 2m = 10 CUM

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Division-II / संण्डल-II
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The work of constructing modular storm water management system (Rain water harvesting)		
Sr. No.	**Description**	**Unit**
1	Earth work in excavation in foundation, trenches, etc. in all kind of soil, not exceeding 2m depth including dressing of bottom and sides of trenches, stacking the excavated soil, clear from the as of excavation and subsequent filling around machinery, in 15 cm layer with compaction, including disposal of all surplus soil as directed within lead of 30 meter.	Cum
2	Construction of rectangular standard brick masonry desilting chamber having 2 chambers of 3ft x 3ft x 3ft having cover	nos
3	Boring/ Drilling bore well of required dia for casing /strainer pipe by suitable method as prescribed in IS 2800(Part I), Including collecting samples from different strata, preparing and submitting strata chart/bore log, Including hire & running charges of all equipments, tools, plants & machineries required for the job, all complete as per direction of engineer-in- charge, upto 60 metre depth below ground level (a) All type of soil 300 mm dia.	Mtr.
4	Supplying, assembling, lowering and fixing in vertical position in bore well unplasticized PVC medium well. screen pipes with ribs, conforming to IS 12818, including hire & labour charges, fittings & accessories etc. all complete for all depths as per direction of engineer-in-charge. 150mm nominal size dia.	Mtr
5	Supplying, assembling, lowering and fixing in vertical position in bore well unplasticized PVC medium well. Screen pipes with ribs, conforming to IS 12818, including hire & labour charges, fittings & accessories etc. all complete for all depths as per direction of engineer-in-charge. 150mm nominal size dia.	Mtr.
6	Supplying and fixing of 300 mm supreme UPVC Pipe 315mm O/D conforming to I.S 4985-81 Dated-12/12/2013,I.S marked having 6 KG per centimeter square Pressure i.e. excavation, refilling for providing proper loop from catch pit to filter /filter to cross wave as per entire satisfaction of Engineer in charge.	Mtr.
7	Supplying & laying of stone aggregate in foundation size 20mm nominal gauge including watering and ramming.	Cum
8	Supplying & filling of washed river sand (fine sand zone iv) including carriage to site, loading and unloading laying in trench watering and ramming consolidating and dressing complete.	Cum
9	Providing and fixing of non woven Geo textile having thickness of 400 gsm, having minimum tear Strength of 250 ASTM D4533, width wise at least215 ASTM D4533 having puncture strength of 1550 plus as per ASTM D6241 Having elongation at Break % of 57 plus as per ASTM D 4595 in Two layers, made out of long fibers to hold the modules and protect liner including cutting, sizing, heat welding, and needle punched for high porosity and proper percolation. Complete as per entire satisfaction of engineer-in-charge Formula : 2X (2(LxB)+2(BxH)+2(HxL)) +15% Wastage Layers	Sqm

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10	Providing and fixing of CGWB/GRIHA approved Rain Filters with extensions as required de-silting suspended solid catcher made out of FRP and strainers including bucket of SS 304 grade with long fiber foam size around 600mm dia, green color, filtration capacity 40 kiloliters per hour with porosity of 600 microns including providing and fixing of first flush diverter at the inlet junction of the filter complete in accordance to the design , drawing and specification complete as per entire satisfaction of Engineer-in-Charge. Size of Filter 780 mm Dia, 800 mm height	Nos.
11	Providing & Fixing of Co-polymer based rainwater harvesting modulee structure arranging the same in as directed by the engineer -in-charge and in complete accordance to the design, drawings. The rates are inclusive of all necessary transportation, loading, unloading excise, vat control etc. as per entire satisfaction of Engineer -in-charge.Having void ratio upto 92%, crush load capacity upto 20 tons, traffic bearing capacity uto 40 tons per sq.m.	Cum
12	Gravel Packing in tube well construction in accordance with IS : 4097, including providing gravel fine / medium / coarse, in required grading & sizes as per actual requirement, all complete as per direction of Engineer-in-charge. ($\pi x0.1^2x60 - \pi x0.05^2x60$)	Cum
13	Development of tube well in accordance with IS: 2800(part-I) and IS: 11189, to establish maximum rate of usable water yield without sand content (beyond permissible limits), with required capacity air compressor, running the compressor for required time till well is fully developed, measuring yield of well by "V" notch method or any other approved method, measuring static level & draw down etc. by step draw down method, collecting water samples & getting tested in approved laboratory, i/c disinfection of tubewell, all complete, including hire & labour charges of air compressor tools & accessories etc. All as per requirements and direction of Engineer-in-charge.	Hrs

Executive Engineer / कार्यकारी अभियन्ता
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