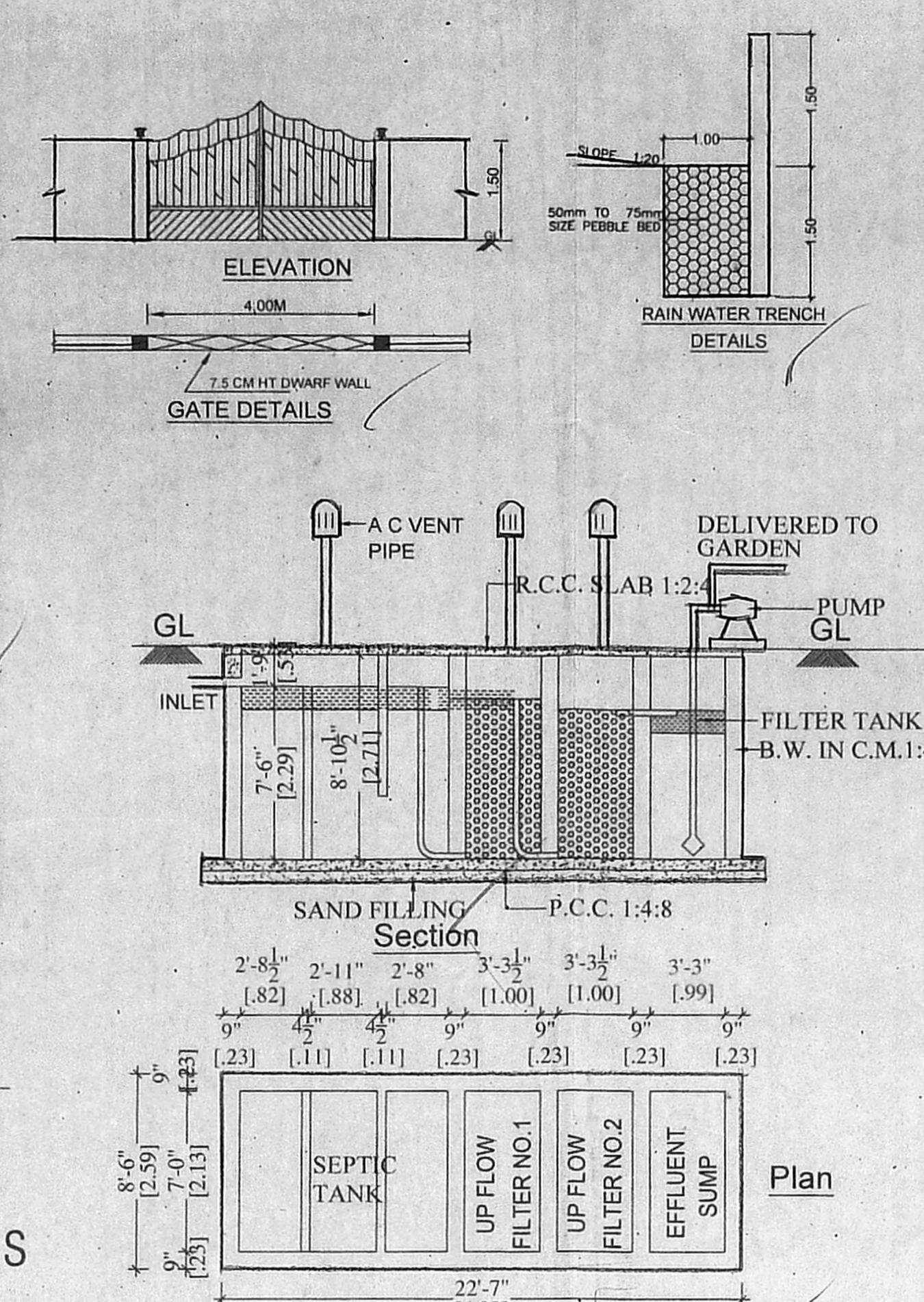


FRONT ELEVATION

SECTION ON A-A



Details of upflow filter septic tank

DESIGN OF SEPTIC TANK WITH TWO UP-FLOW FILTERS

OFFICE FSI AREA (50 SQ.M PER UNIT) = 672.33 = 672.33/50=14 UNITS
 RESIDENTIAL = 2 UNITS
 THEREFORE TOTAL UNITS = 14+2 = 16 UNITS
 NO. OF USERS (5 PERSON PER UNIT) = (16X5) = 80 PERSONS
 RATE OF WATER SUPPLY = 150 LITRES/HEAD/DAY
 FLOW OF SEWAGE PER DAY = 80 X 150 = 12000 LITRES

ASSUMING THE DETENTION PERIOD : 18 HOURS
 TANK CAPACITY (12000X18) : 9000.00 LITRES

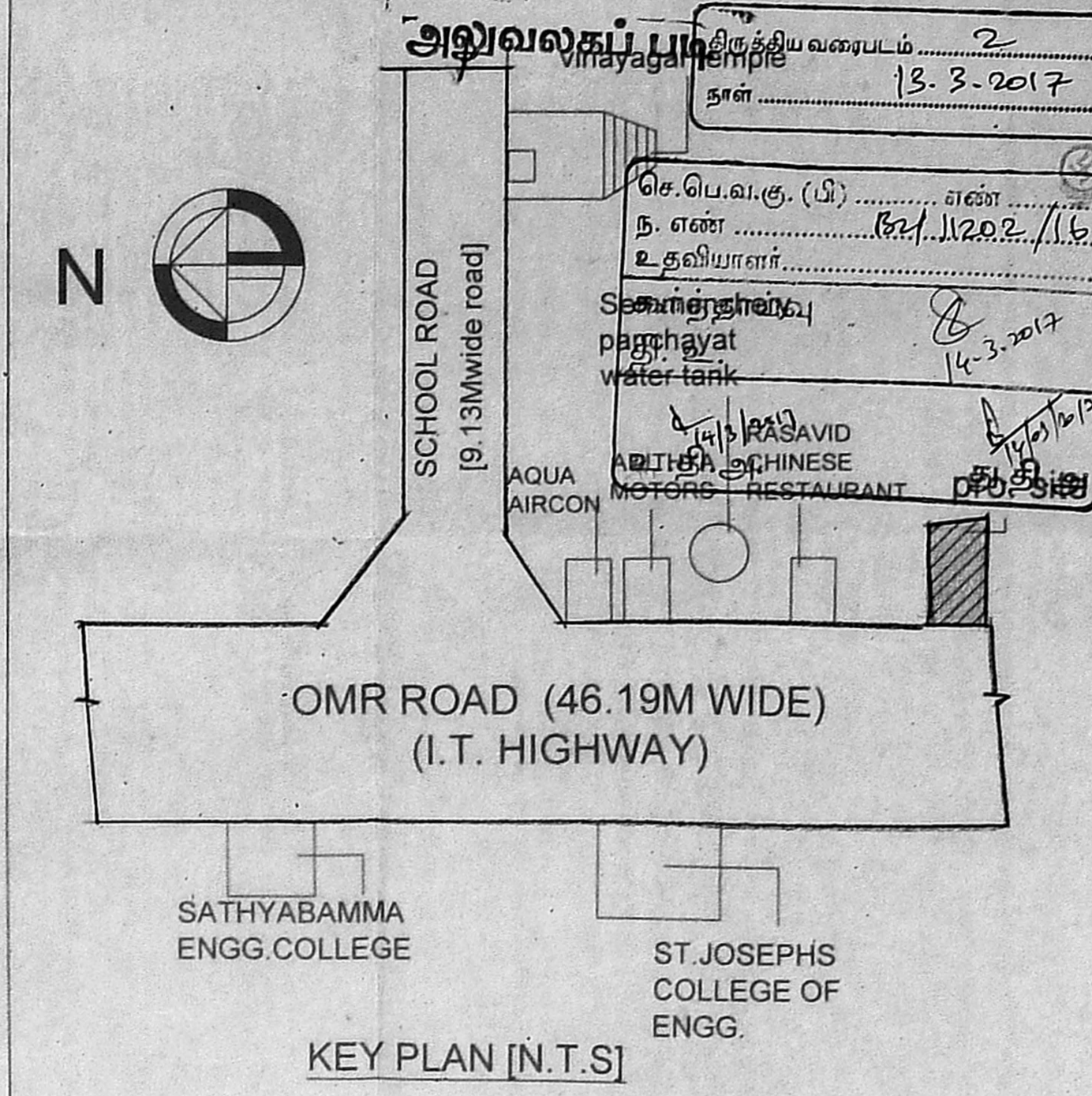
THE TANK WILL BE CLEANED EVERY YEAR. SO SLUDGE STORAGE CAPACITY AT THE RATE OF 80 LITRES PER YEAR = 80 X 50 = 4000 LITRES

TOTAL : 9000+4000 = 13000 LITRES
 WITH PROVISION FOR FUTURE EXPANSION ADD 25% EXTRA LET THE TANK CAPACITY BE = 8 M³
 DEPTH OF FLOW AS = 2.00 M (AVERAGE)
 PLAN AREA OF THE TANK = 8 M³ / 2M = 4M²

THE RATE OF L/B = 3:1
 BREATH B = $\sqrt{4/3}$ = 1.15M
 L = 3 X 1.15 = 3.45M
 FREE BOARD OF THE TANK = 0.60M
 TOTAL DEPTH OF THE TANK = 2.00M + 0.60M = 2.60M
 REQUIRED SIZE OF SEPTIC TANK = 10.57 M³

WE PROVIDE THE SEPTIC TANK OF SIZE IS = 2.74M X 2.13M X 2.69M = 15.70 M³
 HENCE THE SEPTIC TANK IS SUFFICIENT.

UP FLOW DETAILS:
 DISCHARGE FOR 80 PERSONS = 12000 LITRES
 EXTRA FLOW TAKEN FOR FUTURE EXTENSION (ADD 50%) = 3000 LITRES
 TOTAL DISCHARGE = 15000 LITRES
 UP FLOW FILTER PIT AS 1.25 M³ (1250 LITRES/M²/DAY)
 VOLUME OF UP FLOW FILTER PIT REQUIRED = 9 M³ = 7.2 M³
 DEPTH OF UP FLOW FILTER PIT = 2.00M
 PLAN AREA REQUIRED = 7.2 M³ / 2.0 M = 3.6 M²
 LENGTH AND BREATH = 3/8 = 1.90M.
 REQUIRED SIZE OF UP FLOW FILTER PIT : 1.90M X 1.90M X 2.00M = 7.22 M³
 REQUIRED SIZE OF EFFLUENT COLLECTION TANK = 3.61M³
 WE PROVIDE THE 2 NOS. OF UP FLOW : 2 NOS X 1.00X 2.13X 2.00M
 FILTER PIT OF SIZE = 8.52 M³
 WE PROVIDE THE EFFLUENT : 1.00M X 2.13M X 2.00M
 COLLECTION TANK = 4.26 M³
 HENCE THE SEPTIC TANK SIZE (2.74MX2.13MX2.69M) UP FLOW FILTER PITS SIZE (2 NOS X 1.00M X 2.13M X 2.00M) AND EFFLUENT COLLECTION TANK SIZE (1.00M X 2.13M X 2.00M) ARE SUFFICIENT FOR THE FLATS.



KEY PLAN [N.T.S]

PLAN SHOWING THE PROPOSED CONSTRUCTION OF A COMMERCIAL CUM RESIDENTIAL BUILDING IN OMR ROAD (I.T HIGHWAY) IN OLD S.NO. 137/2 PART S.NO. 137/2B3 (AS PER PATTA), SEMMENCHERY VILLAGE, CHENNAI - 600119, SHOLINGANALLUR TALUK, WITHIN GREATER CHENNAI CORPORATION LIMIT.
 ZONE - XV DIVISION - 200 SCALE 1:100

SPECIFICATION:

SAND FILLING IN FOUNDATION
 PCC 1:4:8 IN FOUNDATION
 BRICK WORK IN CM 1:5
 RCC WORK M25 GRADE
 PLASTERING IN CM 1:4
 NOTE MINIMUM CONCRETE GRADE USED IS - M25 (1:1:2)

JOINERY DETAILS

MD DOOR	33' X 70'	1.00 X 2.13
D1 DOOR	30' X 70'	0.91 X 2.13
D2 DOOR	26' X 70'	0.76 X 2.13
W WINDOW	60' X 40'	1.81 X 1.22
CJ CEMENT JALLY	50' X 20'	1.52 X 0.60
W1 WINDOW	40' X 40'	1.22 X 1.22
W2 WINDOW	30' X 40'	0.91 X 1.22
V VENTILATOR	20' X 30'	0.61 X 0.91

AREA STATEMENT

PLOT EXTENT	SQ.M
AS PER PATTA	620.00
AS PER DOC / LEAST AREA	607.02
AS PER SUPER - IMPOSED AREA	612.59

	FSI AREA (m ²)	NON-F.S.I AREA (m ²) (BALCONY)
FIRST FLOOR: RESIDENTIAL	10.69	
COMMERCIAL	211.09	
SECOND FLOOR: RESIDENTIAL	10.69	
COMMERCIAL	211.09	
THIRD FLOOR: RESIDENTIAL	10.69	
COMMERCIAL	211.09	
FOURTH FLOOR: RESIDENTIAL	218.96	9.14
TOTAL	884.30	9.14

F.S.I = 884.30 / 607.02 = 1.457

REFERENCE

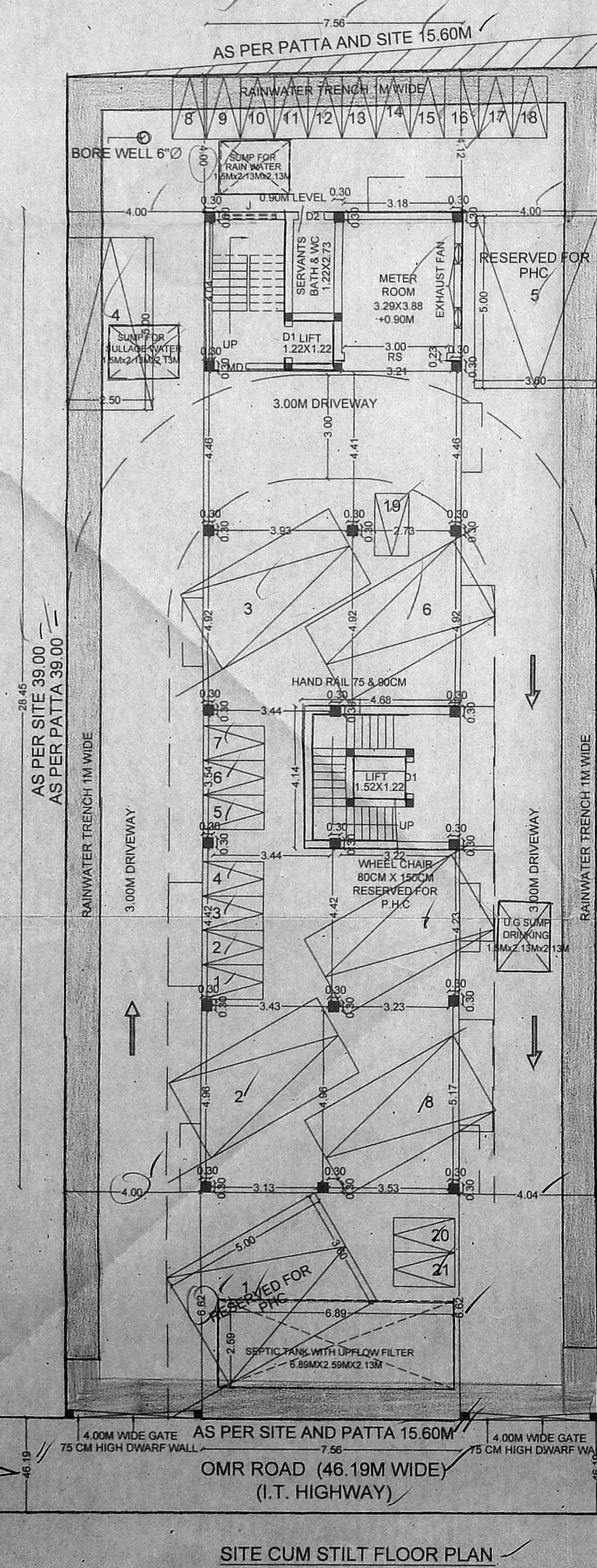
- PROPOSED
- ROAD
- BOUNDARY

OWNER'S SIGNATURE:

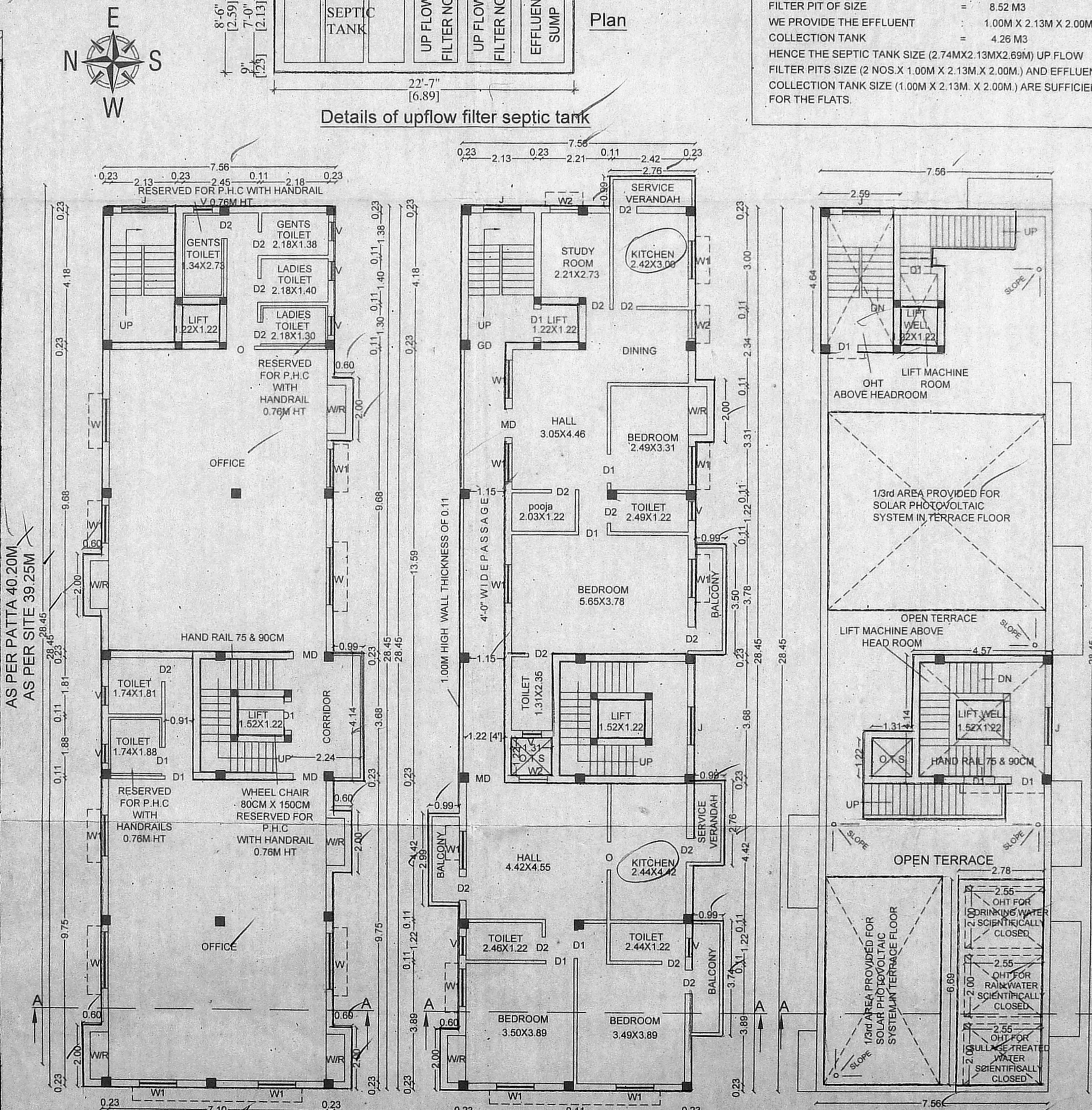
S. SUBRAMANIAM, M.S.(SCE), FDOCS, DRTM, Licensed Surveyor, Class-1 (No.182/2015) Chartered Engineer (AM 82130/91) New No. 14, Old No. 17A, Kannimar Villa, Ganga Nagar, Jafferkhampet, Ashok Nagar, Chennai-63, Ph: 24749439, 24749489, kannimarconsultants@gmail.com

K. Dhana Sekar

LICENSED SURVEYOR



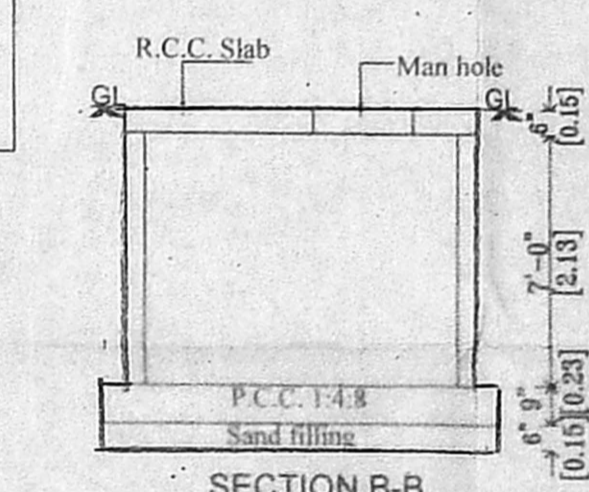
SITE CUM STILT FLOOR PLAN



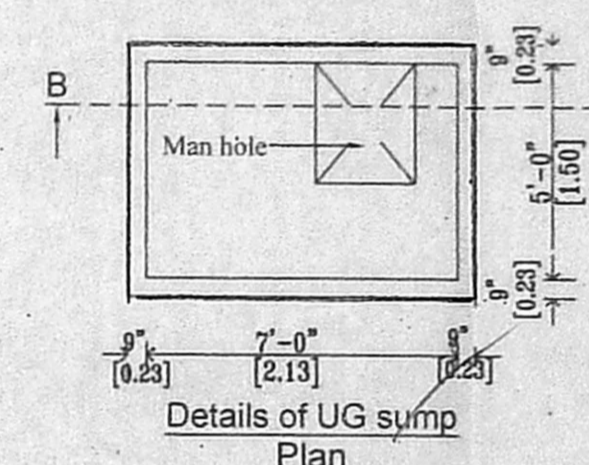
TYPICAL FLOOR PLAN FIRST TO THIRD

FOURTH FLOOR PLAN

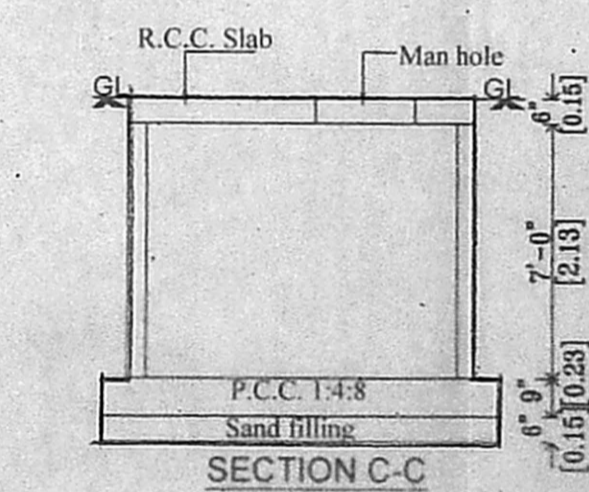
TERRACE FLOOR PLAN



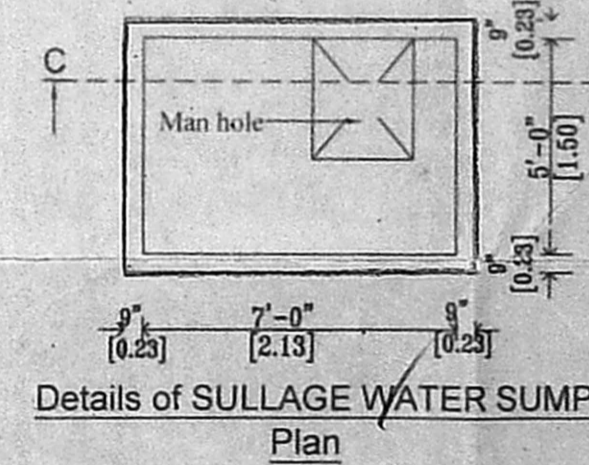
SECTION B-B



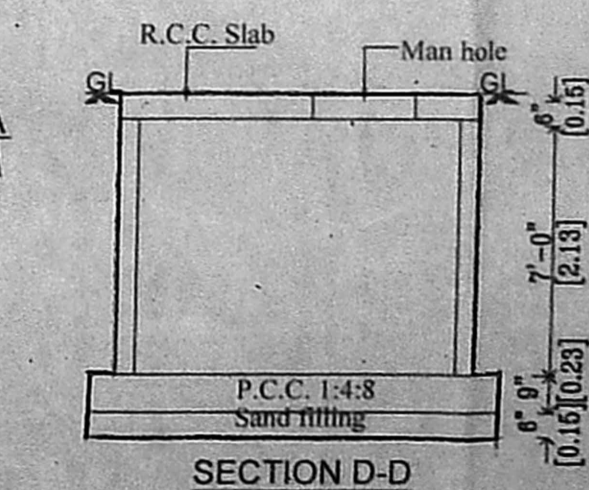
Details of UG sump Plan



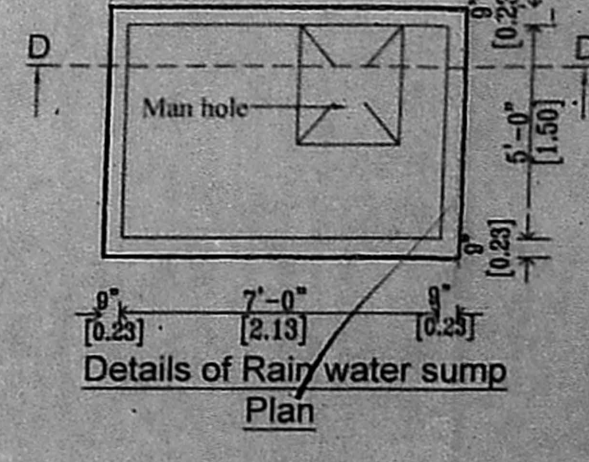
SECTION C-C



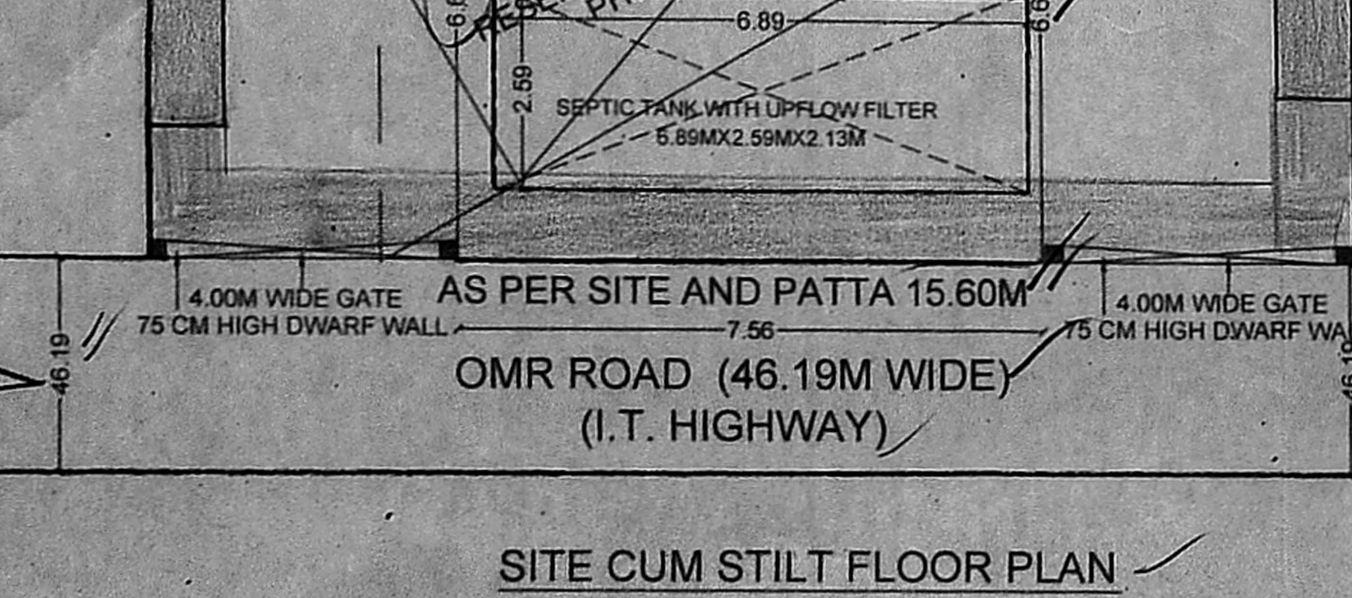
Details of SULLAGE WATER SUMP Plan



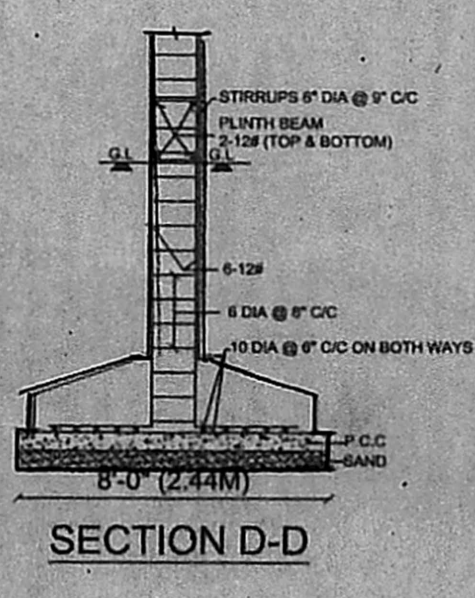
SECTION D-D



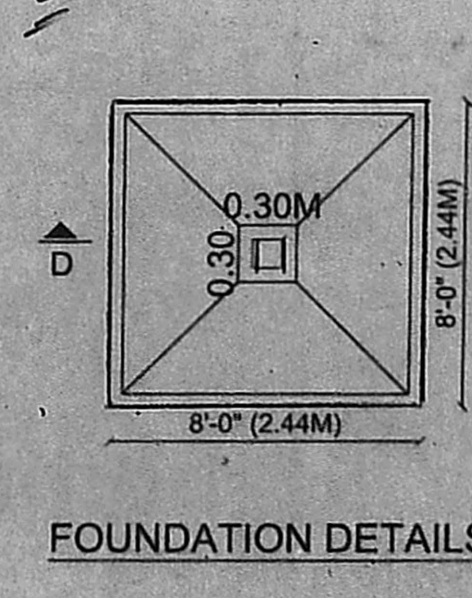
Details of Rain water sump Plan



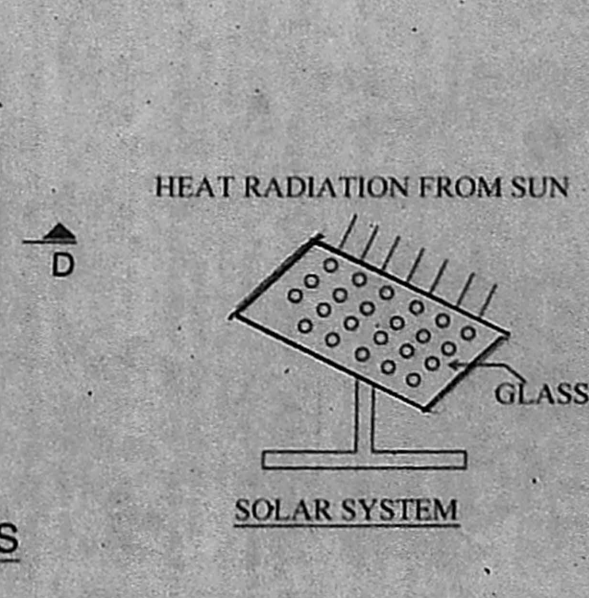
Section of Compound wall



SECTION D-D



FOUNDATION DETAILS



SOLAR SYSTEM