

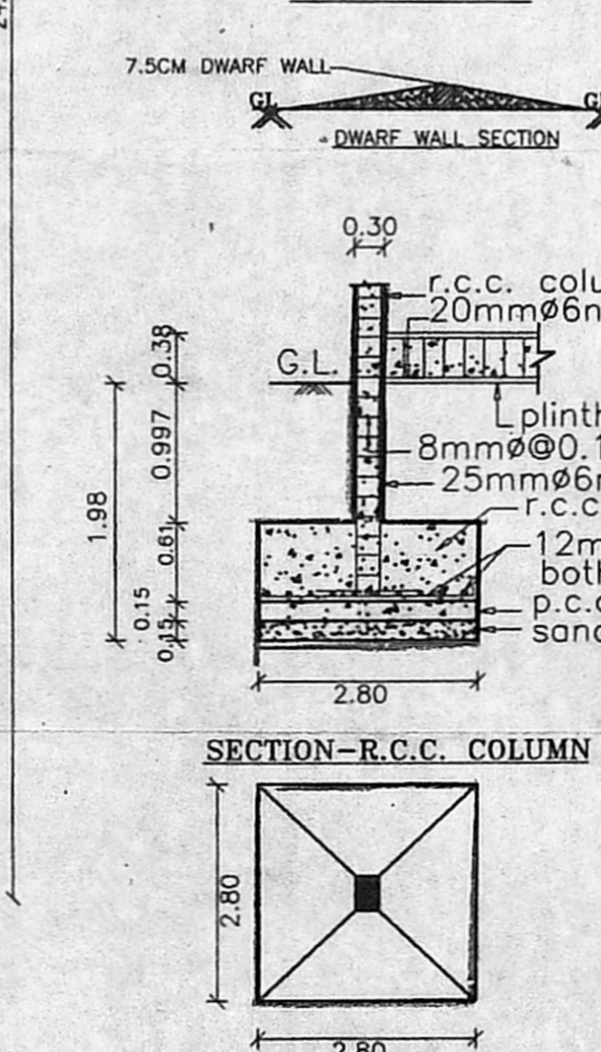
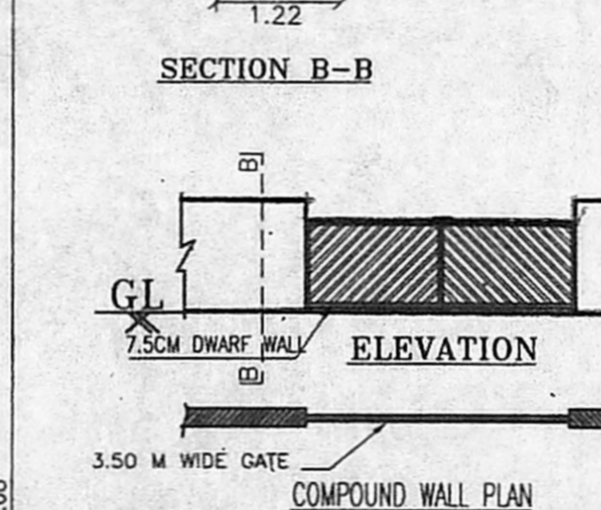
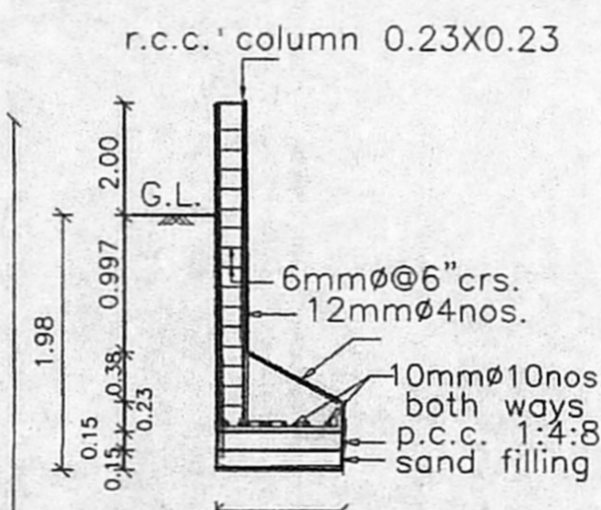
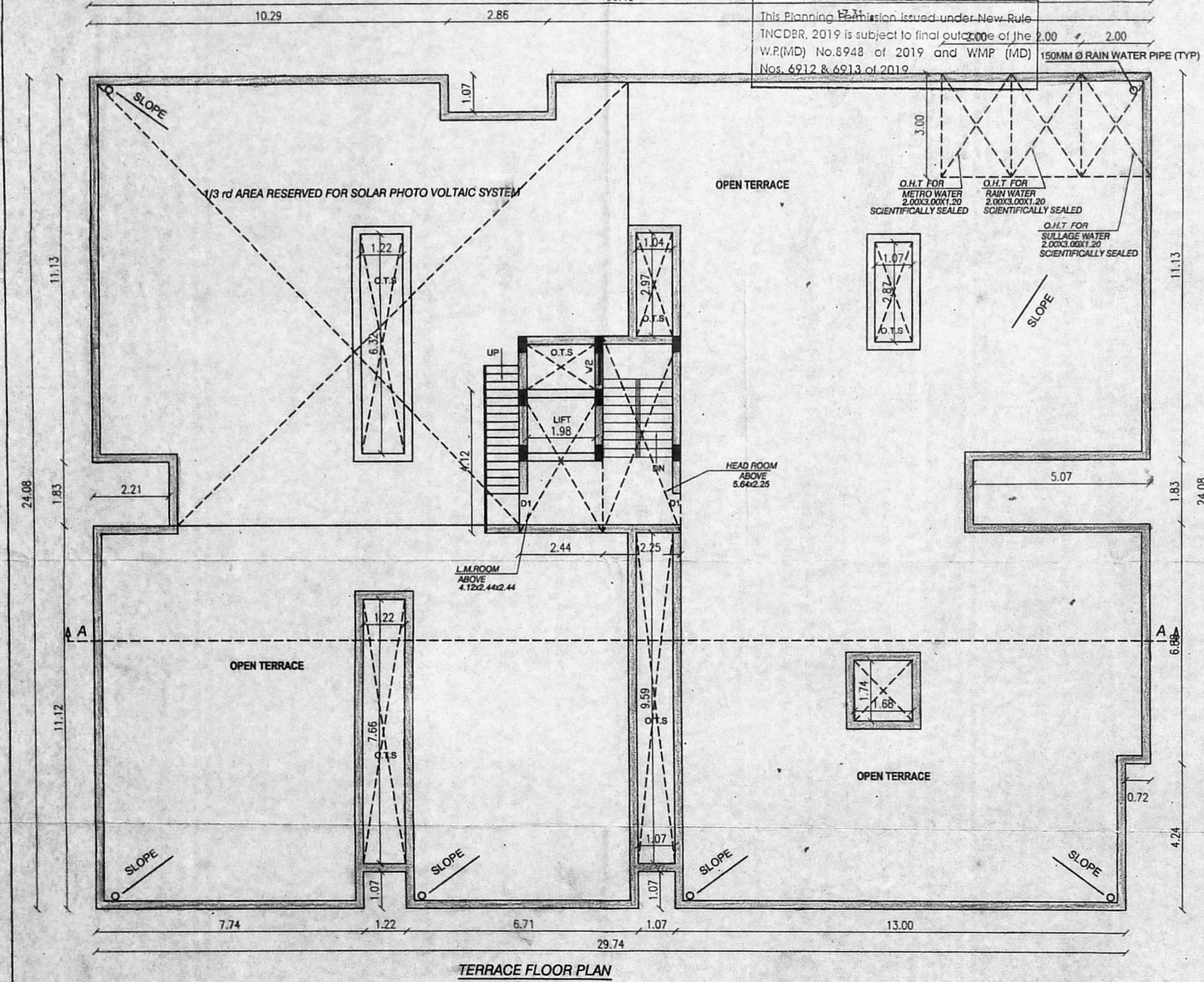
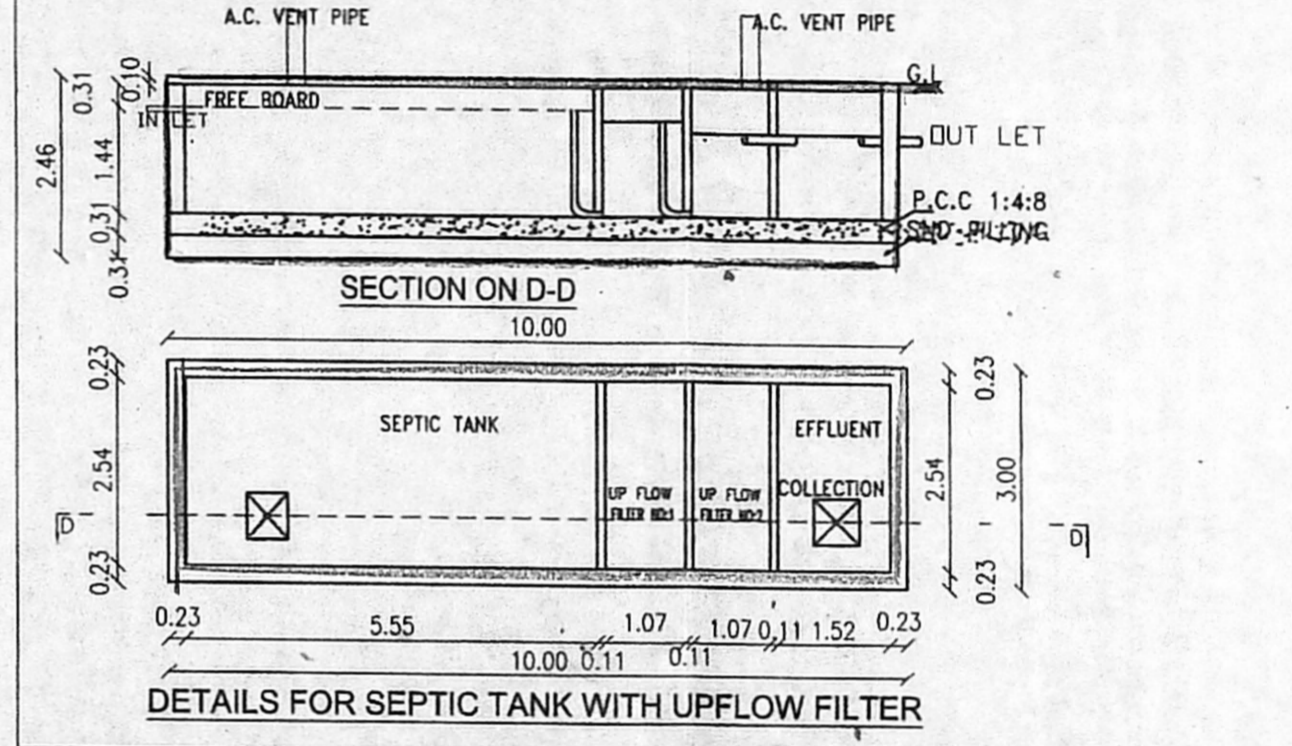
DESIGN OF SEPTIC TANK WITH UPFLOW FILTER

DWELLING UNIT = 40
 NO OF USERS = 40 X 5
 FIXTURE UNIT PER DWELLING = 2 X 40 = 80 NoS.
 TOTAL NO OF FIXTURE UNIT = 2 X 40 = 80 NoS.
 ASSUME A PEAK FACTOR OF 5LPM/FIXTURE UNIT = 400 LPM
 SEPTIC TANK

SURFACE AREA REQUIRED = 400 X 0.92 = 36.80M²
 VOLUME OF FREE BOARD = 36.80 X 1.10 = 40.48M³
 VOLUME OF SEDIMENTATION = 36.80 X 0.30 = 11.04M³
 VOLUME OF DIGESTION = 200X0.030 = 6.00M³
 VOLUME OF SLUDGE = 200X365X0.0002 = 14.60M³
 TOTAL VOLUME = 42.68M³

DEPTH OF SEPTIC TANK 42.68/36.80 = 1.16
 PROVIDING L X B = 2.5:1
 SIZE OF SEPTIC TANK = 5.55M X 2.54 X 1.44

UPFLOW FILTER
 CAPACITY PEAK GRAVITY = 40 X 0.045 = 1.80M³
 ASSUME DEPTH = 0.80M
 HENCE AREA OF FINAL EFFLUENT SUMP = 1.80/0.80 = 2.25M²
 SIZE OF FINAL EFFLUENT SUMP = 2.54X1.64X0.80M
 SIZE OF UPFLOW FILTER-1 = 2.54X1.07X1.30M
 SIZE OF UPFLOW FILTER-2 = 2.54X1.07X1.30M



PLAN SHOWING THE PROPOSED CONSTRUCTION OF STILT + 5 FLOORS RESIDENTIAL BUILDING WITH 40 DWELLING UNITS AT CHENNAI METRO CITY MAIN ROAD, AYNAMBAKKAM, CHENNAI COMPRISED IN S.NO.149/2 OF AYNAMBAKKAM VILLAGE WITHIN THIRUVERKADU MUNICIPALITY LIMIT.

ALL MEASUREMENTS ARE IN METRES

Ar. VIJAY KJ, B.Arch, PGPACM
 Reg No: CA/2009/44248
 A7 Block 2, No.159/118,
 Strahans Road, Pattalam,
 Chennai - 600 012

REGISTERED ARCHITECT/
 REGISTERED ENGINEER

Er. P. [Signature] M.E.S.Engg.
 Registered Structural Engineer Grade-I (SE)
 Registration No SE/GR-119/02/009
 S Manians Apartment,
 No.5/13, Thambiah Road Extn.,
 West Mambalam, Chennai-600 033.

REGISTERED STRUCTURAL ENGINEER

For S.P. HOMES PVT. LTD.
 Managing Director

OWNER'S SIGNATURE / POWER HOLDER