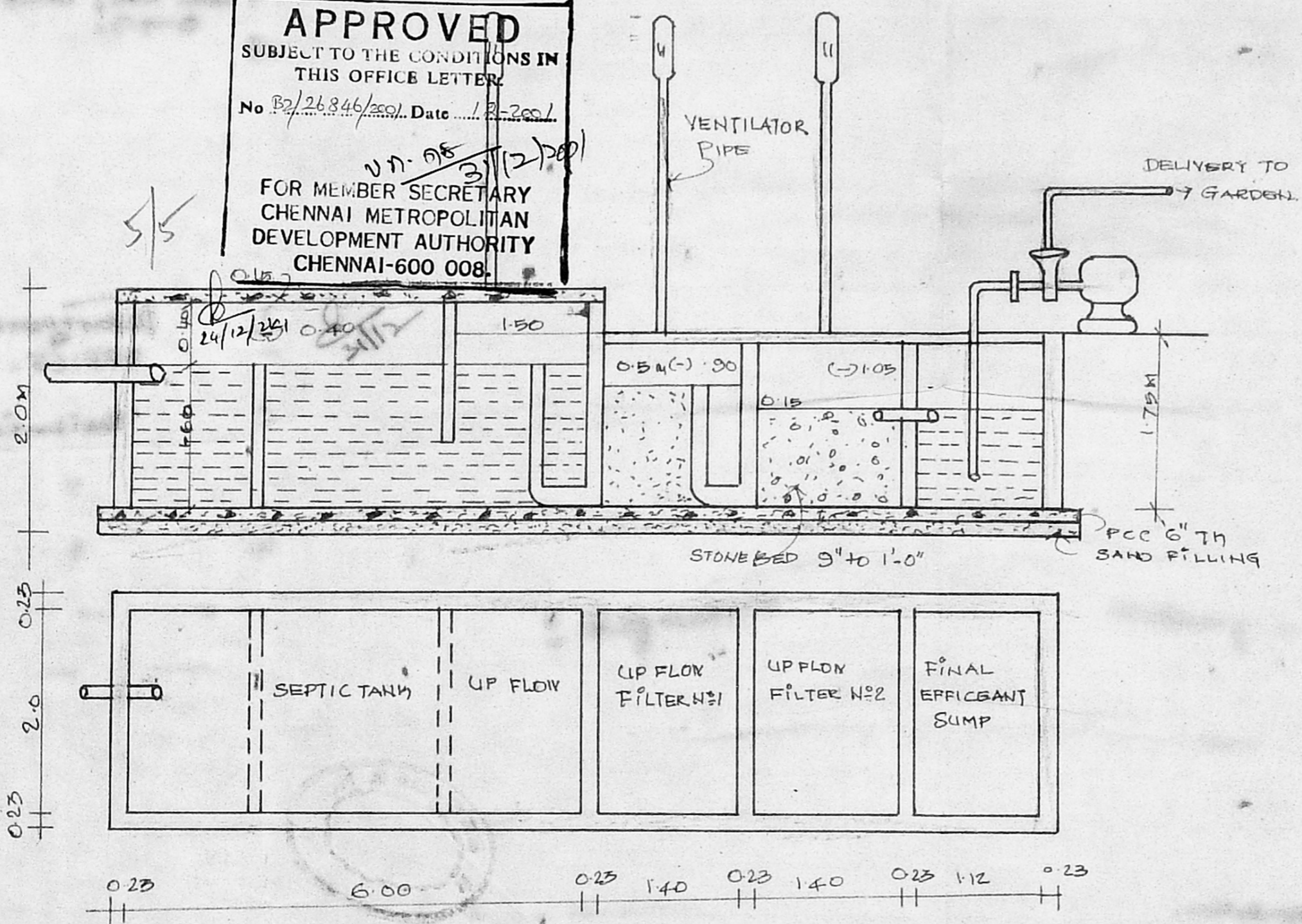


PLAN SHOWING THE PROPOSED CONSTRUCTION OF UPFLOW FILTER AT SN: 50B/25
 DOOR N: 240, TAMBARAM VALLACHERY MAIN ROAD N: 112 SELAIYUR VILLAGE
 TAMBARAM TALUK, KANCHIPURAM DISTRICT

B/3PL-BLD/467(B)/2001
 Planning Permit No.....
APPROVED
 SUBJECT TO THE CONDITIONS IN
 THIS OFFICE LETTER.
 No B2/26846/2001 Date 12/2001
 FOR MEMBER SECRETARY
 CHENNAI METROPOLITAN
 DEVELOPMENT AUTHORITY
 CHENNAI-600 008.



DETAILS OF UPFLOW FILTER
 (SCALE 1:75) (ALL DIMENSIONS IN METER)

DESIGN OF SEPTIC TANK TWO UP FLOW FILTERS

NO OF DWELLINGS 20 N:
 NO OF USERS 20 X 5 = 100 N:
 RATE OF WATER SUPPLY IS 150 LPH/DAY.
 THEN FLOW OF SEWAGE PER 100 X 150
 15000 LITERS.
 DETENTION PERIOD IS 18 HRS.
 TANK CAPACITY 15000 X 18
 11250 LITERS.

THE TANK IS TO BE CLEANED EVERY YEAR. SO SULLAGE
 STORAGE CAPACITY AT THE RATE OF 15 LITER FOR PERSON/YEAR
 150 X 15
 2250 LITERS.
 15000 + 2250
 17250 LITERS.

WITH PROVISION
 FOR FUTURE EXPANSION LET THE TOTAL TANK
 CAPACITY BE 20000 LITERS OF 20M²
 SEPTIC TANK HAVING A CAPACITY OF 20M²
 DEPTH OF LIQUID AS 1.6M
 PLAN AREA OF THE TANK 20 X 12.5M²
 250

THE RATIO OF LENGTH TO WIDTH OF TANK BE 3
 LENGTH X BREADTH X 3
 12.50M²
 BREADTH OF TANK 1.732
 50% 2.00

LENGTH OF TANK 2 X 3 = 6.00M
 FREE BOARD OF THE TANK 0.40M
 TOTAL DEPTH OF THE TANK 1.60 + 0.40 = 2.00M
 PROVIDE SEPTIC TANK SIZE 6.00 X 2.00 X 2.00M
 UP FLOW FILTERS

DISCHARGE FOR 200 PERSONS 30000 LITERS
 VOLUME 200 X 45 = 90M³
 DEPTH 1.1 - 0.30 = 0.8M
 PLAN AREA REQUIRED 9.0 / 0.80 = 11.25M²
 SIZE OF FINAL EFFLUENT SUMP 1.12 X 1.4 X 1.75

UP FLOW FILTER N: 1 1.4 X 0.7 X 0.80
 UP FLOW FILTER N: 2 1.4 X 0.7 X 0.80

OWNER

K. SELVAM, B.E. AME, C.Eng (I) A.I.V.
 Consulting Civil Engineer Chartered Engineer
 Approved Valuer Licensed Surveyor,
 Class: Reg. No: 78,2001-2002
 Corporation of Chennai.
 No. 15 East Club Road,
 Shenoy Nagar, Chennai-600 030,
 Ph: 6447615

LICENSED SURVEYOR