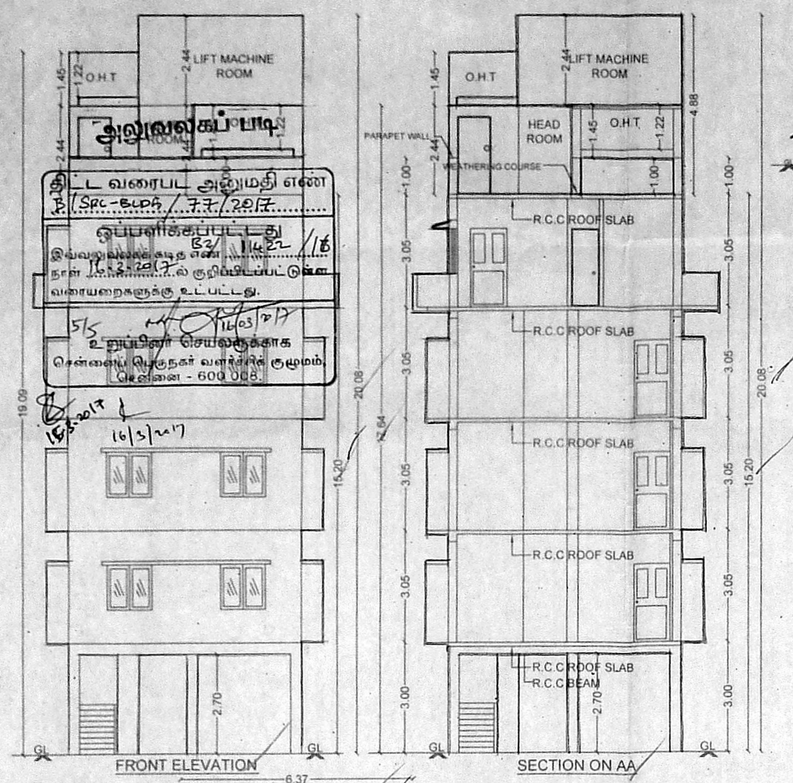
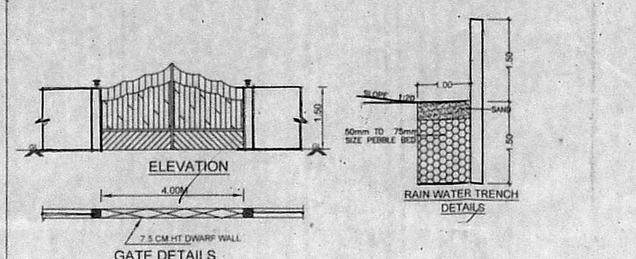
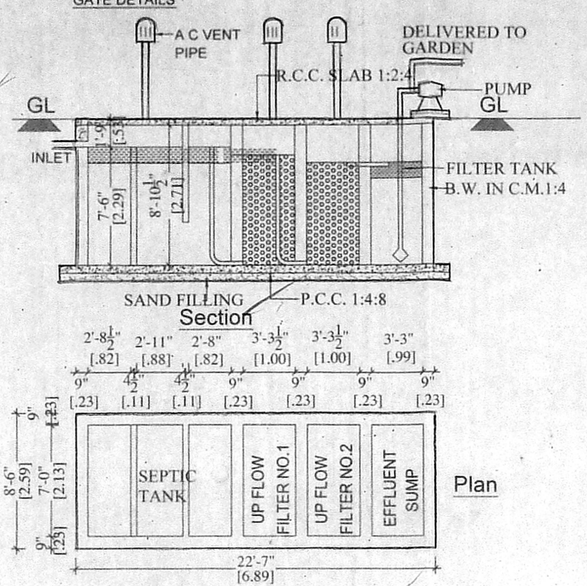
அலுவலகப் படி







Details of upflow filter septic tank

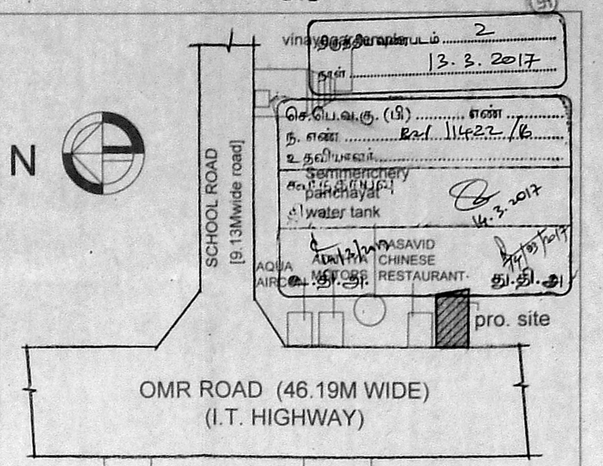
DESIGN OF SEPTIC TANK WITH TWO UP-FLOW FILTERS

OFFICE FSI AREA (50 SQ.M PER UNIT) = 541.83 = 541.83/50=11 UNITS
RESIDENTIAL = 2 UNITS
THEREFORE TOTAL UNITS = 11+2 = 13 UNITS
NO. OF USERS (5 PERSON PER UNIT) = (13X5) = 65 PERSONS
RATE OF WATER SUPPLY : 150 LITRES/HEAD/DAY
FLOW OF SEWAGE PER DAY : 65 X 150 = 9750 LITRES

ASSUMING THE DETENTION PERIOD : 18 HOURS
TANK CAPACITY (9750X18)/24 : 7312.50 LITRES

THE TANK WILL BE CLEANED EVERY YEAR. SO SLUDGE
STORAGE CAPACITY AT THE RATE OF 50 LITRES FOR PER YEAR
= 65 X 50 = 3250 LITRES
TOTAL 7312.50+3250 = 10562.50 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 = √4/3 : 1.15M.
L = 3 X 1.15 : 3.45M.
FREE BOARD OF THE TANK : 0.69M.
TOTAL DEPTH OF THE TANK : 2.00M. + 0.69M. = 2.69M.
REQUIRED SIZE OF SEPTIC TANK : 3.75 M. X 1.15M. X 2.69M. = 21 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 65 PERSONS : 9750 LITRES
EXTRA FLOW TAKEN FOR FUTURE EXTENSION (ADD 50%) : 3000 LITRES
TOTAL DISCHARGE : 12750 LITRES
ASSUME THE PERCOLATING CAPACITY OF FILTER MEDIA OF THE UP FLOW FILTER PIT AS 1.25 M3 (1250 LITRES/M2/DAY)
VOLUME OF UP FLOW FILTER PIT REQUIRED : 9 M3 / 1.25 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 : √3.6 = 1.90M.
REQUIRED SIZE OF UP FLOW FILTER PIT : 1.90M. X 1.90M. X 2.0M = 7.22 M3.
REQUIRED SIZE OF EFFLUENT COLLECTION TANK : 3.61 M3
WE PROVIDE THE 2 NOS. OF UP FLOW FILTER PIT OF SIZE : 2 NOS X 1.00X 2.13X 2.0M. = 8.52 M3
WE PROVIDE THE EFFLUENT COLLECTION TANK : 1.00M X 2.13M X 2.00M. = 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.



PLAN SHOWING THE PROPOSED CONSTRUCTION OF A COMMERCIAL CUM RESIDENTIAL BUILDING IN OMR ROAD (I.T HIGHWAY) IN OLD S.NO.137/2B ,S.NO. 137/2B1(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	3'3" X 7'0"	1.00 X 2.13
D1 DOOR	3'0" X 7'0"	0.91 X 2.13
D2 DOOR	2'6" X 7'0"	0.76 X 2.13
W WINDOW	6'0" X 4'0"	1.81 X1.22
CJ CEMENT JALLY	5'0" X 2'0"	1.52 X6.00
W1 WINDOW	4'0" X 4'0"	1.22 X1.22
W2 WINDOW	3'0" X 4'0"	0.91 X1.22
V VENTILATOR	2'0" X 3'0"	0.61 X0.91

AREA STATEMENT

PLOT EXTENT	SQ.M
AS PER DOC	546.82
AS PER PATTA	540.00
AS PER SUPER IMPOSED & LEAST AREA	538.60

	FSI AREA (m)²	TOTAL FSI AREA (m)²
FIRST FLOOR:		
RESIDENTIAL	10.69	
COMMERCIAL	170.01	180.70
SECOND FLOOR:		
RESIDENTIAL	10.69	
COMMERCIAL	170.01	180.70
THIRD FLOOR:		
RESIDENTIAL	10.69	
COMMERCIAL	170.01	180.70
FOURTH FLOOR:		
RESIDENTIAL	169.24	
COMMERCIAL	13.64	182.88
TOTAL	724.98	724.98

F.S.I = 724.98 / 538.60 = 1.346

REFERENCE
PROPOSED
ROAD
BOUNDARY

OWNER'S SIGNATURE:

S. SUBRAMANIAM, M.S.(Struc)., PDQS, DRTM.
Licensed Surveyor, Class-1 (No.1882/2015)
Chartered Engineer (AM 82130/91)
New No: 14, Old No. 17A, Kannimar Villa,
Ganga Nagar, Jafferkhanpet, Ashok Nagar,
Chennai-83, Ph : 24749439, 24749489.
kannimarconsultants@gmail.com

LICENSED SURVEYOR