

**CALCULATION:**

NO OF DWELLING UNITS = 14 x 3 = 42 NOS.  
 NO OF USERS = 42 x 5 = 210 PERSONS  
 NO OF UNITS PER DWELLING 2  
 AS PER GOVT OF INDIA MANUAL ADOPTING  
 A PEAK FACTOR OF 6  
 PEAK DISCHARGE  $6 \times 2 \times 42 = 504$  LITERS/MINUTE  
 RATIO ASSUMED = 1:3 COEFF  $\rightarrow 0.92$

SURFACE AREA OF SEPTIC TANK REQUIRED

$= \frac{504 \times 0.92}{10} = 46.37$  SQM SAY  $48m^2$

PROVIDE 4m x 12m SIZE

**LIQUID DEPTH:-**

VOL OF SEDIMENTATION =  $48 \times 0.30 = 14.4m^3$   
 VOL OF SLUDGE STORAGE  $210 \times 0.0002 \times 36.5$   
 VOL OF DIGESTION = 1.533

$210 \times 0.032 = 6.72$   
 $22.65m^3$

LIQUID DEPTH  $\frac{VOL}{SURFACE AREA} = \frac{22.65m^3}{48m^2} = 0.47m$

INLET PIPES INVERT LVL ASSUMING A GRADIENT OF  
 1 IN 80 STARTING FROM FIRST CHAMBER = 0.61m  
 TOTAL LIQUID DEPTH =  $0.47 + 0.61m$

SIZE OF SEPTIC TANK SAY = 1.08  
 = 4m x 12m x 1.1m

**WASTE WATER DISPOSAL OF SEWAGE TREATMENT PLANT**

UP FLOW FILTERS:  
 NO OF USERS 210 PERSONS.  
 VOL OF LIQUID =  $210 \times 0.045 = 9.45m^3$   
 DEPTH =  $1.1 - 0.3 = 0.80m$

AREA OF FILTER =  $\frac{9.45m^3}{0.80m} = 11.8125m^2$   
 B/10399/367-2/15/90



OVER ALL SIZE 4m x 12m x 1.1m  
 UP FLOW FILTER 4m x 2.0m x 0.95m  
 UP FLOW FILTER 4m x 2.0m x 0.80m

| S. NO. | NAME           | SIZE             |
|--------|----------------|------------------|
| 1      | SEPTIC TANK    | 4m x 2.0m x 1.1m |
| 2      | UP FLOW FILTER | 4m x 2.0 x 0.95m |
| 3      | UP FLOW FILTER | 4m x 2.0 x 0.80m |

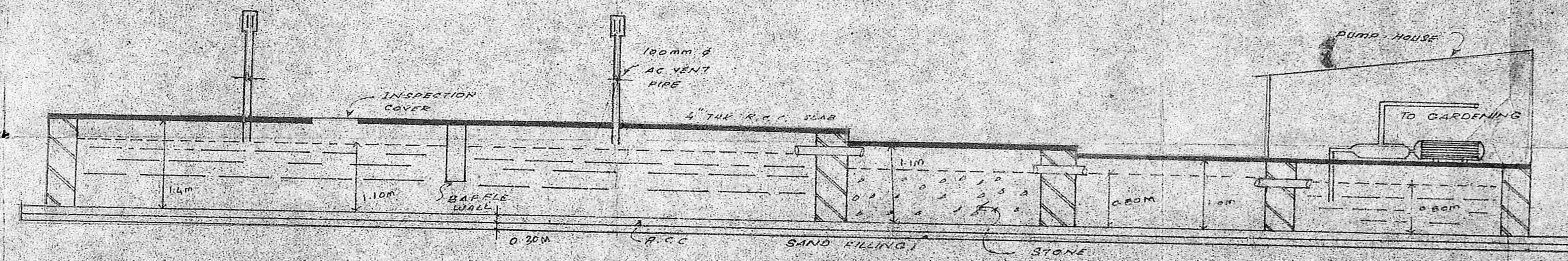
PROPOSED RESIDENTIAL FLATS  
 FOR SRI SANTHANA GOPALA RANGAN  
 & VEERARACHAVAN  
 AT PLOT NO. 16 S.NO. 6/10  
 8th street NANGANALLUR MADRAS 61

SIG. OF OWNER  
 P. Ravi

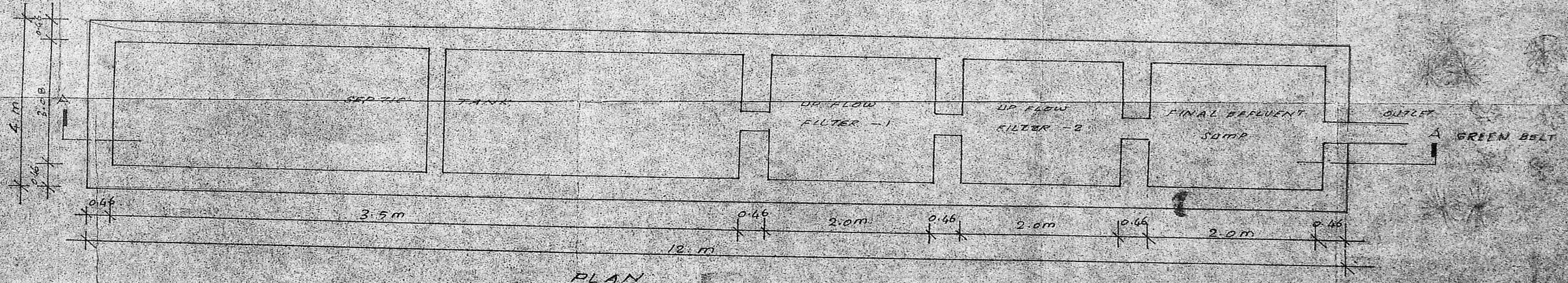
P. RAVI ARCHITECTS (P) LTD  
 LICENSED SURVEYOR CLASS I No. R.A. 11  
 CORPORATION OF MADRAS  
 22, ELLAIAMMAN COLONY, MADRAS-600 066

REG. ARCHITECT  
 22 SECOND CROSS STREET  
 ELLAIAMMAN COLONY  
 MADRAS 61

SHEET NO. 2



SECTION A A



PLAN