

Approved in G.O. No. 527 H 202 (4-2)
31. 29. 12. 2000

ANNEXURE - A

Reference No.: C.T.C.P. No. 2102/96 MP.1.
Regional Office : Vellore Region,
Vellore - 1. 36. 23. 12. 99

ARAKKONAM MASTER PLAN REPORT

Approval of Local Planning
Authority

Resolution No. 1333 dated 16.10.98

[Signature]
MEMBER SECRETARY/
EXECUTIVE AUTHORITY,
LOCAL PLANNING AUTHORITY,
ARAKKONAM, VELLORE DT.

[Signature]
DEPUTY DIRECTOR OF TOWN AND
COUNTRY PLANING,
VELLORE REGION,
VELLORE DISTRICT

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DEPUTY DIRECTOR OF TOWN &
COUNTRY PLANING,
MASTER PLAN DIVISION,
MADRAS - 2.

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ADDITIONAL DIRECTOR OF TOWN AND
COUNTRY PLANING, MADRAS-2.

21/23

[Signature]
SPECIAL COMMISSIONER OF TOWN AND COUNTRY
PLANING, MADRAS-2.

[Signature]
COMMISSIONER AND SECRETARY TO
GOVERNMENT, HOUSING AND URBAN
DEVELOPMENT DEPARTMENT, MADRAS.

GOVERNMENT OF TAMILNADU

ABSTRACT

Local Planning Area - Modified Master Plan for Arakkonam Local Planning Area - Approval under section 28 of the Tamil Nadu Town and Country Planning Act, 1971 - Accorded.

HOUSING AND URBAN DEVELOPMENT (UD 4.2) DEPARTMENT.

G.O.(Ms.) No.527 ✓

Dated 29.12.2000. ✓

READ:

1. G.O.(Ms.) No.729, Housing and Urban Development Department dated 31.08.95.

READ ALSO:

2. From the Special Commissioner of Town and Country Planning, Letter Rec.No. 2102/96 MP1, dated 23.12.99.

===

ORDER:

In the Government order first read above, the Government have accorded consent to the publication of a notice of preparation of the modified master plan for the Arakkonam Local Planning Area. The Special Commissioner of Town and Country Planning in his letter second read above, has forwarded the modified master plan for the Arakkonam local planning area and requested the Government to accord approval to the said modified master plan under section 28 of the Tamil Nadu Town and Country Planning Act, 1971.

2. The Government after careful examination of the proposal of the Special Commissioner of Town and Country Planning referred to in para 1 above, have decided to approve the modified master plan for the Arakkonam local planning area. Accordingly, under section 28 of the Tamil Nadu Town and Country Planning Act, 1971 (Tamil Nadu Act 35 of 1972), the Governor of Tamil Nadu hereby approves the ^{modified master plan for} Arakkonam local planning area. The copies of the modified master plan for the Arakkonam local planning area as approved by the Government are communicated to the Special Commissioner of Town and Country Planning.

3. The following notification will be published in the next issue of the Tamil Nadu Government Gazette. The Special Commissioner of Town and Country Planning is requested to ensure that the Notification is republished in the manner

prescribed in rules 12 and 15 of the Master Plan (Preparation, publication and Sanction) Rules.

NOTIFICATION.

In exercise of the powers conferred by sub-section (1) of section 30 of the Tamil Nadu Town and Country Planning Act, 1971 (Tamil Nadu Act 35 of 1972), the Governor of Tamil Nadu hereby publishes the approval of the Government under section 28 of the said Act for the modified master plan for the Arakkonam local planning area submitted by the Special Commissioner of Town and Country Planning.

2. The modified master plan for Arakkonam local planning area with all its enclosures shall be kept open to the inspection of the public, in the office of the Arakkonam Municipality during office hours.

(BY ORDER OF THE GOVERNOR)

AJAY BHATTACHARYA
SECRETARY TO GOVERNMENT.

To
The Works Manager, Government Central Press, Chennai.79.
(for publication of Notification in the Tamil Nadu Government Gazette).
The Special Commissioner of Town and Country Planning, Chennai.2.
The Deputy Director of Town and Country Planning, Vellore Region, Vellore.
The Commissioner of Municipal Administration, Chennai.5.
The Commissioner, Arakkonam Municipality, (through Special Commissioner of Town and Country Planning)
The Member-Secretary, Arakkonam Local Planning Authority, (through Special Commissioner of Town and Country Planning)
The Law Department, Chennai.9.

sf/sc

Forwarded/by Order

சி. பி. சிவசாமி
Section Officer.
4.1.2021

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CHAPTER 1

Introduction: MASTER PLAN

1.1 A 'MASTER PLAN' prepared for an orderly development of an urban area shall be a container of the following items:

- i) An assessment of the present stage of the physical and socio-economic developments of the urban area.
- ii) An analysis of the factors which had brought the present stage of physical and socio-economic developments over a long period.
- iii) An assessed forecast about the probable future development of the "Development causing Factors" and therefore the probable future developments of physical and socio-economic spheres of the urban area.
- iv) The 'proposed' future physical and socio-economic developments of the urban area which shall be on the basis of the policy-'DESIRED-CUM-REQUIRED'.

1.2 Thus the Master Plan for an urban area accounts the past and present developments of physical and socio-economic aspects of the urban area under question and suggests the future desire level of developments for the same.

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URBAN GROWTH AND URBAN DEVELOPMENT

1.3 From the Table I observes that Growth of urban population in India is steadily increasing and the urban population of Tamilnadu is always higher than that of the National average but also much larger in content. About one third of its total population is in urban areas. Urban growth rate is accelerated by the increase in the birth rate, faster in migration, encouragement of decentralised economic activities etc. The requirements of the infrastructural facilities of such fast growing centres are normally not adequately metwith, since the "effects of the growth" are neither anticipated nor cared.

1.4 The physical development has resulted in many segments in a chaotic development. Under these circumstances planned development of the town will provide for the optimum utilization of the town's development potentialities which in turn will develop an enjoyable socio-economic structure for the years to come. To control the development provisions were made in Tamilnadu Town and Country Planning Act 1971. This act provides for declaration of Local Planning area and constitution of Local Planning Authority. Under this Act provision is made for preparation, sanction and implementation of

master plans, power for acquisition and disposal of land for planning purposes.

1.5 Arakkonam town is an important railway junction on the railway line running from Madras towards the west and is 68 km away from Madras. There is a big railway workshop in which a few thousands of workers are employed. There is also a loco shed nearby. Handlooms and beedi are important household industries in this town.

1.6 The present master plan report confines to Arakkonam Local Planning Area only. The planning period is taken as 20 years from 1991 - 2011. This plan has to be reviewed once in five years and necessary revision has got to be effected based on the development requirements.

CHAPTER 2

LOCATION AND HISTORY OF THE TOWN

LOCATION:

2.1 Arakkonam town is located at a distance of about 68 km to the west of Madras on the broad gauge railway line from Madras with a railway junction from where the Madras to Bombay and Madras to Cochin / Bangalore railway lines branches out. Its relative position with the other towns of the region is shown in the location map (Map No.1)

HISTORY:

2.2 Arakkonam was an excentric point to historical events. The Madras-Kancheepuram-Vellore historical corridors which had historical events of the period of pallava dynasty, mohgul rulers and the English rulers had slightly by-passed Arakkonam by a distance pf about 15 miles to its south. Probably Arakkonam might have been a small village in those days and thus should have failed to attract the forces which caused the historical incidents.

MUNICIPAL ADMINISTRATION:

2.3 The present Municipality is functioning from 1958 and the town area is 9.06 sq.km. The Arakkonam town at present is a first grade Muni-

pality. This municipality comprises of revenue villages of Arakkonam, Ammanur, Perumuchi and Pulimangalam. The total population of the town as per 1991 census was 71,500.

CHAPTER 3 =
PHYSICAL FEATURES

TOPOGRAPHY:

3.1 Generally Arakkonam town is of plain terrain. It is at $13^{\circ} 05'$ north latitude and $79^{\circ} 43'$ east longitude. It is geographically in the North east side of North Arcot Region. It has got an even earth surface. Arakkonam town is situated at an altitude of 295' above mean sea level.

CLIMATE:

3.2 The seasonal climatic conditions are generally hot. The average maximum and minimum temperature are $101.3^{\circ} F$ and $67.1^{\circ} F$ respectively. The town is receiving rainfall during southwest and northeast monsoon periods. These periods are June to September and October to December respectively. There is nothing special about Flora and Fauna.

SOIL:

3.3 The soil of the area is Black sandy to Black clay.

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CHAPTER IV
POPULATION STUDIES

POPULATION GROWTH:

4.1. In any physical planning, study of "Population" and the "Growth rate" of the population indicates how the particular land area was "attractive" to the human being during the past. Unless the presence of the minimum required facilities at a place for the development of the socio-economic structure, the total population as well as its growth rate shall never be "appreciable". Thus the "population" is a "General Constituent" of any urban shape requiring particular study.

An important feature of "Indian Population Studies" is that the population of any particular settlement whether urban or rural will always show an increase over a decade of normal events. Decrease in the population growth rate is a rare event. The important observation to be made in the population studies, thus is to scale the growth rates of the place under question with respect to the region, local area and places of similar status and character.

Arakkonam town has population of 71,500 as per 1991 census. The population of the town has shown increase of 20.36 over the Decade of 1981 - 91.

The growth of population for Arakkonam by decennial variation from the year 1961 to 1991 is shown below in table No.1.

Table No.1

POPULATION VARIATION

Year	Population	Persons	Variation in Percentage
1931	12,115	-	-
1941	15,484	+ 3369	27.80
1951	23,032	+ 7548	48.75
1961	30,658	+ 7626	33.11
1971	43,347	+ 12689	41.39
1981	59,405	+ 16058	37.05
1991	71,500	+ 12095	20.36

Source : Census of India, North Arcot District.

It is seen that the population of Arakkonam town has increased by 490.1 % from what was in the year 1931.

From 1931 the variation is in the upward trend with fluctuating growth rate. The increase is high in the decade 1951-1961, 1971-1981, 1981-1991 and this might be due to the migration of population either into the Arakkonam town or in the village included in the local planning area where large scale industries are newly located and thus have registered population increase from 20% to 40% per decade. Table I may now be referred.

Arakkonam need to be quantified and phased to serve a population of 1,00,000 by 2011. The same is adopted in this plan.

SEX RATIO AND LITERACY

4.2 The sex ratio and literacy standard of the Arakkonam Town are given in Table II. for the years 1961, 1971, 1981 and 1991. Based upon these figures, and the observations made in the population growth rate, the following informations about the environment for immigration for education etc. are notable.

- i. The male - female sex ratio is more or less equal unlike in any newly industrialised towns. The migration is not straight away detectable depending upon these ratios.
- ii. The literacy standard in general as well as in particular to the sex-wise is appreciable and steady. The corresponding figures for the state is lower than that of the Arakkonam Town. This might be due to not only the educational facilities available at Arakkonam but due to the employment potentialities available for educated workers at Arakkonam as well as in the Madras Metropolitan Area. The influence of the Madras Metropolitan Area in this respect is discernible.

Table II

LITERACY AND SEX RATIO

Year		Total	Males	Females
1961	Population	30,658	15,794	14,864
	Sex ratio	-	1,000	941
	Litrates	17,010	10,924	6,086
	Percentage of literates	55%	69%	41%
1971	Population	43,347	22,377	20,970
	Sex ratio	-	1,000	937
	Litrates	25,248	15,295	9,953
	Percentage of literates	58%	68%	47%
1981	Population	59,405	30,336	29,069
	Sex ratio	-	1,000	958
	Litrates	39,072	22,674	16,398
	Percentage of literates	66%	75%	56%
1991	Population	71,500	36,223	35,277
	Sex ratio	-	1,000	974
	Litrates	52,776	29,357	23,419
	Percentage of literates	74%	81%	66%

EMPLOYMENT STRUCTURE.

4.4 Percentage of workers to population in district and urban is depicted in table No.3

Table No.3

WORK FORCE DISTRIBUTION 1981

	District Total	District Urban
1.Total population	4414324	1015529 ^o
2.Total workers	1855382	311519
3.Percentage of workers	42.03	28.27

Nearly 20% of Urban population in concentrated on secondary and tertiary activities.

Working population:

4.5 Information on employment has been collected in successive census of India, using a different concept to define ^a worker making intercensal comparison difficult. The economic questions of 1981 census have been so framed as to admit of comparison to a certain extent with the 1971 and 1981 census. The economic questions of 1981 census have been modified from those of the previous census so as to elicit full details of main workers, marginal workers and non workers.

The work concept of 1961 and 1971 censuses as opposed to the income or 'economic' Independence concept of the earlier census is adopted in the 1981 census. But the criterion for the classification of persons as "workers" has been changed.

In 1981 census working population is classified as 1)Main workers 2)Marginal workers and 3)Non workers.

Main workers are those who have worked as cultivators, Agricultural labourers, house hold industry workers and other workers. Other workers are the following workers: live stock, forestry, fishing, hunting and plantations, orchards and allied activities, mining and quarrying, manufacturing, processing, servicing and repairs other than house hold industry, construction, trade and commerce, transport, storage and communications and services.

The Marginal workers are those workers who have engaged themselves in economically productive work for some part of the year but not as main work (ie. less than 6 months)

Non workers are those who had never worked during the year.

This trichotomy partially permits a comparability of 1981 census economic data with that of 1971 as well as 1961. The main workers of 1981 census can be expected to correspond to the workers of 1971 and the main workers and marginal workers of 1981 together to correspond the workers of 1961.

the following tabulation shows the differentials among the categories of workers in 1981 and 1991 for Arakkonam Town.

OCCUPATIONAL CHARACTERISTICS

4.6 As per 1981 and 1991 census the distribution of workers by their occupation is shown in table No.4

Cultivators and Agricultural workers have decreased in 1981 over that of 1971 and this shows diversion of workers to other sectors. The other worker's sector had shown a fall for the period 1971-81 over that period 1961-71 while house hold manufacturing sector had shown an increase for the same period. However percentage of workers to the total population had shown an increasing trend for the period 1971-81 over that of 1961-71.

Table No. 4 OCCUPATIONAL PATTERN

Workers Category	1961			1971			1981		
	Number of workers	Percentage to total workers	percentage to total population	Number of workers	percentage to total workers	Percentage to total population	Number of workers	Percentage to total workers	Percentage to total population
1. Cultivators	48	0.57%	0.16%	176	1.78%	0.41	261	1.76%	0.44%
2. Agricultural Labourers	82	0.97%	0.17%	160	1.62%	0.40%	202	1.58%	0.34%
3. House hold manufacturing repairing industry	38	0.45%	0.12%	100	1.00%	0.23%	264	1.78%	0.44%
4. Other Workers	8314	98.01%	27.12%	9469	95.60%	21.84%	14063	95.08%	23.68%
Total	8182	100.00		9905	100.00		14790	100.00	

Source: Census of India, North Arcot District 1961, 1971 & 1981.

CHAPTER 5

LAND UTILISATION

5.1 In order to understand about the "fairness" of the existing physical developments of the town, the existing land use studies are done. The existing land uses are given in Table No.5

Existing Land Use:

5.2 The town's land use has been classified under the following major classification.

- a. Residential
- b. Commercial
- c. Industrial
- d. Educational
- e. Public and semi public
- f. Transportation
- g. Agriculture

5.3 The existing pattern of development of Arakkonam Town is shown in land and building use map (Map No.2). Development have occurred in Western side of Arakkonam-Tiruttani road and Eastern side of Arakkonam-Kancheepuram road. The main residential area have occurred in northern side of Arakkonam-Tiruttani road.

Table No.5

Existing Land Use in 1994

Sl. No.	Use zone	Area in Hectares	Percentage to developed area	Percentage to total area
1	2	3	4	5
<u>I. Developed area</u>				
1.	Residential	278.92	42.60	30.80
2.	Commercial	13.24	2.02	1.45
3.	Industrial	35.87	5.48	3.95
4.	Educational	14.11	2.15	1.55
5.	Public & Semi public	51.20	7.82	5.65
6.	Transportation			
	Railway	212.36	39.93	28.35
	Road	49.10		
Total developed area		654.80	100.00	72.25
<u>II. Undeveloped Area</u>				
Agriculture				
	Wet	65.36	86.10	23.90
	Dry	150.92		
	Land Under Water	34.92	13.90	3.85
Total undeveloped area		251.20	100.00	27.75
Grand Total		906.00	100.00	100.00

Description of existing land use:

5.4 The details of different land use of the town under major use classification are briefly discussed below.

RESIDENTIAL

5.5 Residential use in the town spread over an area of ~~278.92~~ hectares which is ~~42.60%~~ of the developed area.

COMMERCIAL:

5.6 It is a normal event that the combined presence of large scale transportation and industrial complex would give rise to the development of commercial activities. A similar feature is expectable in Arakkonam town. But due to the presence of the large development poles like Madras to its east, and Kancheepuram to its south at a distance of 15 miles the existing commercial activities at Arakkonam is not at the expected level. Wholesale trades are less. Only about 20% of the workers are in commercial sector and the sector occupied an area of about 2.02% of the town developed area. The town has not specialised in the trade of any particular items. However Arakkonam's commercial sector would be able to rise to the level of a sub-Regional growth centre in marketing industrial goods.

Industries:

5.7. All the Major industries are located outside the Municipal Boundary except Railway Engineering workshops. Industrial estate is functioning in the outside Municipal area. Most of the small and service industries are located along the Arakkonam-Sholingur road and Arakkonam-Kancheepuram road. Land under this use is 5.48% of the total developed area of the town i.e. 35.87 hectares. The Table no.6 indicates the major industries in Arakkonam vicinity area.

TABLE No.6

MAJOR INDUSTRIES IN ARAKKONAM AND VICINITY AREA

Sl. No.	Name	Ownership	Site area (Hectares)	Total H.P.	Employment	In-put	Production
1.	Tamil Nadu Steels	Government	50	600	570	Iron Cast Scrap iron	Iron Billets
2.	Southern Asbestos	Private	20	725	350	Cement Asbestos	Asbestos, Cement sheets and accessories
3.	Indien Hume pipe Company limited	Private	10	110	27	Steel, cement, sand and jelly	Hume pipes and accessories
4.	Railway Workshop Loco steel etc.	Government	21	-	1783		Repairing railway engines and manufacturing accessories.

Note:

All these major industries are located just outside the Municipal Boundary.

Source : Survey

EDUCATIONAL INSTITUTIONS:

5.8 Surprisingly, there is no College in this town. There is a College even in Tiruttani Road, whose population is hardly 16,000. The reasons may be its proximity to Madras and Kancheepuram where this facility is available. Particularly Madras, the centre for Higher education and research is well linked with Arakkonam by rail. So it is not a major problem for those who aspire for this facility.

As regard there are 4 Higher Secondary Schools and 3 High Schools run with a total strength of 11,912 students. Two of these Higher Secondary Schools are run by Government. One exclusively for boys and another exclusively for girls. The third one privately managed, is meant for both boys and girls. There are 16 Primary Schbbls, 15 Nursery Schools are functioning, and 1707 Students are studying here. Educational use in the town spread over an area of 14.11 Hectares which is 2.15% of the developed area. Table No.7 shows the Educational particulars of Arakkonam Town.

Table No.7

Educational Particulars (1994)

Sl. No.	Description	No.	Strength
1.	Nursery School	15	1707
2.	Primary School	16	4464
3.	High School	3	4390
4.	Higher Secondary School	4	7522

PUBLIC AND SEMI PUBLIC

5.9 Land under public and semi public use constitute 7.32% of the total developed area of the town covering an extent of 51.20 hectares. Most of them are located along the Arakkonam-Tiruttani road in private buildings. The details of the different categories of public and semi public uses are discussed below:

Office:

The public offices are distributed along the Arakkonam - Tiruttani road.

POST AND TELEGRAPH:

Like many of the Taluk Headquarters, this town is also provided with a head post office. The railway mail service (RMS) is an added facility for this town by virtue of being an important railway junction. This town is also provided with a telephone exchange of Auto Max 2 type, Both the telephone exchange and the Head post office are housed in a spacious departmental buildings with provision for future expansion.

HEALTH INSTITUTIONS:

Arakkonam being the Taluk Headquarters, a Government Hospital with a bed strength of 106, is located near the bus stand, on a plot of roughly a hectare. The southern railway is also running a sub-divisional hospital with a bed strength of 24. In addition there are at least 22 private clinics totalling having a bed strength of 28.

RELIGIOUS:

The religious institutions like temples, Mosque and Churches are having only local importance.

MONUMENTS.

There is no notified/protected monuments in this town.

TRANSPORT AND COMMUNICATION:

The roads, railways, transport terminals etc., cover an extent of 265.45 hectares. The details are discussed in the separate chapter.

RECREATION:

There are two parks namely Vedachala Mudaliar Park (440 Sq.m) and Gandhi Park (466 Sq.m) are maintained by the Municipality. There is a Town Hall with an extent of 2286 Sq.m is located in this town which is owned by town hall club. Four schools are having play ground with an extent of 23984 Sq.m. All the above mentioned parks and play fields provides 2.81 hectares of lands. Under this use. Airworks and 0.035 hectares for 1000 population which is far below the standard of 0.4 hectare per 1000 population.

WATER SUPPLY:

Protected Water supply is available to the town right from 1940. The first scheme with its source at river Kallar was implement in 1939, at a cost of Rs.1.93 lakhs. A second scheme was implemented in 1969 not only to supplement the requirements of the town but also to feed the continuous steel plant and its township.

In the first scheme, the head work is located near the source and it is 6 km from the town. A 60' long infiltration gallery laid in the river bed collected the sub-soil water. The collected water is stored in the collection well of 11'6" diameter chlorinated and pumped into the 7" diameter and 16;300 feet long G.I. Main pipe which conveys water to the town. The supply to the town is regulated by means of an over head tank and the distribution system. As mentioned earlier, this scheme was supplying the whole town until 1969 after which the supply was restricted to southern part of town. The dividing line being the Broad gauge railway line. The potential of this source is estimated to be 2,00,000 gallons (9 lakhs litres) a day, out of which 1,50,000 gallons (8 lakhs litres) is tapped at present.

The second scheme has its source at the junction of Kallar river with Varadakshiyar river near Pudukesavaram, about 16 km away from the town. This scheme also works under the same principles. This is a combined scheme for the town and the continuous steel plant implemented at a cost of Rs.48.33 lakhs, which is maintained by TWAD Board. This scheme supplies 5,00,000 gallons (21 lakhs litres) a day to the northern part of the town. Apart from the above, 11 bore wells are being used for the supply of water to this town. Now the water is supplied through 206 public taps and 4368 house connections. The ultimate yield of this source is estimated to be 22,75,000 gallons a day out of which only 7,75,000 is allocated for the town.

Analysing the present quantity of water supply it is found that only 7,00,000 gallons (43 lakhs litres) per day is supplied to a population of nearly 72,000. Thus the per capita supply is hardly 9.72 gallons (44 litres) per day. This present supply is grossly inadequate considering the standard requirement of 30 gallons (135 litres) per head per day. The survey has also revealed that the protected water is just enough for only drinking purposes. Cooking and other items are carried out by using well water only. The present water scarcity can be solved to some extent by tapping the two sources fully. Accordingly, 2,00,000 gallons (9 lakhs litres) from the first source and 7,75,000 gallons (35 lakhs litres) from the second source (being the share allocated to the town) will be available. Even then the per capita supply will be about 20 gallons (90 litres) per day only. But, to solve the present problem fully by supplying 30 gallons (135 litres) per head per day is possible only by diverting 13,00,000 gallons (58.5 lakhs litres) from the second source in addition to the 2,00,000 gallons (9 lakhs litres) available from the first source. When this is the case for the present population, the problem for the projected population is more severe. The projected population of 1 lakh will require 30 lakh gallons (135 lakhs litres) per day in 2011. It is suggested to divert the entire 22.75 lakh gallons (102 lakhs litres) from the second source. A third scheme must be implemented to supply the steel plant and supplement 5 lakh gallons to the town.

Sewage Disposal :

There is no underground drainage system at present. All that is available is open drains on either side of the roads and streets, meant for carrying sewage and rain water, to dispose into the irrigation tank (Periyeri). The drainage length is about 9.9 kms. Where there is no such open drainage facilities water has been collected in Pits and then such collected water is removed by Municipality through carts. There is a composite yard (extent 6 cents) on the Kavanur road maintained by the Municipality. The garbage collected from the towns are ultimately dumped here.

Low cost sanitation has been provided for 2300 houses under IUDP scheme in this town.

AGRICULTURAL

5.10 The extent under this use is 216.28 hectares which works out to 86.10% and water bodies constitutes 3.85% to the total area of the town. The extent of wet lands 65.36 hectares. The non-urban use is distributed mainly along the fring of the town.

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CHAPTER-6

TRAFFIC AND TRANSPORTATIONS

6.1 Normally no town can be out of the picture of Traffic and Transportation. The level and the pattern of the existing facilities for traffic and transportation is an indication of the efforts of man in the past to build his socio - economic structure to such a level which he might have thought as "optimum" from time to time. Further the "circulation pattern" is the frame which naturally decides the general physical shape of any human settlement, both for the present as well as for the future. It is, therefore, the study of traffic and transportation of Arakkonam town as detailed in the forth coming points have become important.

Railways:

6.2 As mentioned in the early points railway establishment in Arakkonam Town is one of the pioneering forces which caused developments in Arakkonam town from as early as 1861. The railways establishment includes a large scale passengers junction, a large scale goods yard, a loco maintenance shop, a goods wagon service shop and a large railway colony of 1000 units with necessary infrastructural facilities. The station and its goods yard form an important Broad Gauge junction since it is at this place, the railway line from Madras branches out for Bombay in one direction and for Bangalore and Cochin in the other direction. Detachment and attachment of passenger bogies and goods

wagons between trains to Bombay, Bangalore, Cackin, Mangalore etc., are being daily done in this junction as routine works. The junction receives daily 20 express trains in the broad gauge line and despatches the same numbers. It has a metre gauge link to Chengalpattu via Kanchepuram. It may be noted here that Chengalpattu is another important railway junction on the Madras - Tiruchi - Madurai metre gauge line. The Railway establishment has an employee strength of 1300. Certain Statistical details of the railways are given in Table 3.

TABLE 3

RAILWAY ESTABLISHMENT AT ARAKKONAM

1. Railway establishment land	: 125.46 hectares
2. Railway employees	: 1300
3.(i) Number of Express Trains:	
a) Received	: 20 per day
b) Despatched	: 20 per day
ii) Number of passenger trains:	
a) Received	: 3 per day
b) Despatched	: 3 per day
iii) Number of Units:	
a) Received	: 17 per day
b) Despatched	: 17 per day
4. Number of goods wagon dealt with:	
a) Broad gauge	
Outward/day	: 11
Inward/day	: 3
b) Metre gauge	:
Outward/day	: 2
Inward/day	: 1

5. Season ticket holders between Madras - Arakkonam
and for the intermediate stations:

Per day : 168

Per month : 5036

6. Number of tickets issue from Arakkonam to Madras
and back to Arakkonam

Per day : 4437

per month : 133105

7. Number of commuters using the train daily:

Arrival/day ~~12837~~ 730 persons

Departure/day - 12837 persons.

6.3 The railways at Arakkonam, art from functioning itself as a place of transshipment of men and materials between Madras, Bombay, Bangalore, Cochin etc., it had given rise to certain definitely identifiable marks in the occupational character and in the industrialisation character of the town. About 4000 members of season ticket holders viz. Commuters, travel between Arakkonam and Madras for the definite purpose of employment. The share of the Non-employment group in the Commuters is negligible. The distance of 68 miles between Arakkonam and Madras is covered in one hour by Express Train and the travel time and train timings are extremely convenient to the commuters. Because of the existance of such a transportation facilities between Arakkonam and the Madras Metropolitan Area, the Arakkonam people have become as one of the

keen competitors for the employments at Madras Metropolitan Area. This feature among Arakkonam workers has got a long heritage and will be continuing in the future also.

Because of the direct linkage character of the railway line with the important capital towns, commercial towns, port towns etc., Arakkonam has become a suitable place for the location of non-resource based large and small industries. It is under these circumstances, some of the under mentioned industries and industrial complex have developed in Arakkonam.

- i. The State Government owned "Arakkonam Continuous Steel Plant".
- ii. The State Government participating joint venture project "Arakkonam forgings and castings limited".
- iii. The southern cement Asbestos Company
- iv. Arakkonam Industrial Estate

Thus the railways have become as one of the main development inducers of Arakkonam Town.

BOUNDARY

6.4. The Arakkonam Town's boundary has the shape of a distorted circle. The predominant railway line, with the majority of the railway land, cuts the town area from east to west in the middle. Thus the town for

all practical purposes has been divided into two pieces. One to the north of the railway line and the other to the south of the railway line. These two parts of the town is connected by a lane under passage near the station yard. This is the only motorable road linkage between the two parts of the town and is a place of heavy order bottlenecked.

The predominantly area serving roads of the town are:

- i) Arakkonam - Tiruttani Road
- ii) Arakkonam - Tiruvellore Road
- iii) Arakkonam - Kancheepuram Road
- iv) Arakkonam - Sholinger Road
- v) Arakkonam - Ochari Road

6.5 The length of roads according to their types within the town are given below:

- i) Highways roads - 4.8 KM
- ii) Municipal roads - 31.2 KM

The length of roads according to their types of surface within the town are given below:

- i) Cement concrete roads - 3.643 KM
- ii) Black topped roads - 15.172 KM
- iii) Metal roads (WEM) - 12.257 KM
- iv) Unmetaled roads - 0.406 KM

The Kancheepuram-Arakkonam-Tiruttani Road passes through the town from south to north till the centre of the town and then towards the north west. The roads from Tiruvellore and Sholingur joins this arterial road in the centre of the town. The roads and streets to the other parts of the town branches out from these roads. The meeting of the said roads in the middle of the town to the north of the railway station creates the "Town CENTRE COMPLEX" in the middle of the town. It is at this place the towns market whole sale and retail shops, the existing bus terminal, the court and the taluk head quarters hospital etc., are linearly located along the Kancheepuram-Arakkonam-Tiruttani Road. This road is locally named as Gandhi Road. The location of the "Town Centre Complex" in the middle of the town and the convergence of the predominant roads at this town centre gives the impression that the basic circulation pattern is that of the "RADIAL PATTERN".

The circulation pattern within the residential areas seem to be relaxing due to the less vehicular traffic. This does not guarantee that the existing pattern of circulation in residential areas are the more satisfactory one. On the other hand the physical developments on the main through fares are heavily strain causing to the traffic. The severeness of the traffic problem can be understand from the table No.9. The specific instances of traffic and transportation problems is one can observe from the table are:

i) The town complex area has the highest traffic and transportation problem contributed by the high order road encroachment. Actually, the roads in the town complex-area do not have the minimum required road fittings such as pedestrian platforms, the pedestrian guard rails, pedestrian road crossings etc., which may be due to the road encroachments. At many places, two buses find difficulties to cross each other often at such events, the pedestrians have to take shelter in the adjoining shops. The shopping customers bargain right on the road.

ii) Another bottle neck and constricted point is the railway narrow under pass situated at 0/4 km of Arakkonam-Kancheepuram road. These two roads meet in the under pass. The under pass is with restricted head room (3.03 x 3m) height. Hence heavy vehicles and loaded vehicles can not negotiate this under bridge. Because of the naval air station situated along Arakkonam-Kancheepuram road the importance to find out the way to widen the under pass is at most importance.

iii) The roads in the off town centre area do register considerable amount of encroachments and the road fittings too are absent. These roads too will soon reach the stage of the others in the town centre area.

The roads in the town centre area offer little scope for expansion, because the encroachments are largely invested commercial buildings. The traffic and transportation relief to these areas are possible

only by appropriately shifting the "importance" of these area to a new nearby site. This is found possible and would be seen in the forthcoming points. Any other solution based on "traffic management and regulations" would not be able to deliver the desired level of traffic and transportation relief to these areas.

Present Bus Terminal:

6.6 The town's "BUS TERMINAL" is an another aspect of dissatisfaction in the town's traffic problem in the town centre area. The existing bus terminals functional area includes that of an authenticated area of 0.25 acre vacant land and the adjoining roads which are the arterials of the town. The passengers waiting sheds and public conveniences are totally absent. Thus the existing bus terminal area is neither convenient to traffic nor to the passengers and hence Arakkonam Municipality has purchased 4 acres of land from Railway department and constructed a new bus stand along Arakkonam-Sholingur road nearer to the railway workshop under I.U.D.P scheme. and put into use from the year 1988. But the new bus stand is not effectively used and still buses are standing at the old bus stand at Gandhi road and makes a lot of conjection there.

NAVAL AIR STATION

6.7. At present Naval Air Station is located adjacent to this town along the Arakkonam - Kancheepuram road in the south to an extent of 50 hectares in Local Planning Area limits.

TABLE No. 2

TRAFFIC AND TRANSPORTATION PROBLEMS

	Width of the road in feet		Percentage of encroach- ment	Actual Discharge in PCU per hour	Percentage of efficien- cy	Remarks
	Right way	Effective way				
1. Under Passage to market	39' 6"	9'	75%	222	600	36%
2. Market to Dusstand	35' 6"	21'	35%	349	600	60%
3. Dus stand to Jothinagar and to Tiruttani	34'	19'	45%	282	600	50%
4. Tiruvellore road	32'	178	50%	115	-	-
5. Kancheepuram Road	27' 6"	12'	55%	181	-	-
6. Sholingur Road	28'	12'	55%	148	-	-

Source: Arakkonam Municipality

These data relate to the town centre complex area. The efficiency of the road has plunged down to the lowest order of 36% and the encroachment on the road is as high as 75%.

These data relate to the areas off the town centre complex where also the encroachment on the roads are as high as 50% Efficiency of the roads are not worked out since the existing actual traffic are considerably low.

CHAPTER-7

ECONOMIC AND PLANNING FACTORS

7.1 The predominant economic base of the town are:

- i) Transportation
- ii) Industry and
- iii) Commercial

The transportation created the first force of development in Arakkonam. Industry took the advantage of the availability of the transportation. The Commerce have emerged by utilising the advantages of the first two.

On his first visit itself, it may not be difficult for a reconnaissance surveyor to Arakkonam to identify the functions of the town as transportation, industrial and commercial. These three sectors are the main economic base of the town. As mentioned early the railway establishment is the basic force of development inducer since 1861 when the present railway junction was formed. The geographical location of Arakkonam on the railway network of the southern peninsula has become so ideal that it developed itself as an important passenger and goods centre between the part towns of Bombay, Cochin, Mangalore, Madras etc. The railways having not only expanded itself for its own requirements. It had complimented the town to become suitable for the location of non-resource based industries in large and small. The town's location at a distance of one hour travel from City of Madras has become another advantageous aspect

to avail the industrial development opportunities available at Madras such as input Capital, technical know-how, marketing, transportation etc. The details of the important industries at Arakkonam are already given in Table No.6

It is a normal event that the combined presence of large scale transportation and Industrial Complex would give rise to the development of commercial activities. A similar feature is expectable in Arakkonam Town. But due to the presence of the large development poles like Madras to its east the Kancheepuram to its south at a distance of 15 miles, the existing commercial activities at Arakkonam is not at the expected level. Wholesale trades are less. Only about 20% of the workers are in Commercial sector and the sector occupied an area of about 0.9% of the town developed area. The town has not specialised in the trade of any particular items. However Arakkonam's Commercial sector would be able to rise to the level of a sub-regional growth centre.(i.e.marketing centre)

OWNERSHIP OF THE LAND:

7.2. Nearly 40% of the total area of the town is under private ownership. The percentage of land under Government and Municipal control is 30% and the Railway land is about 20%. Remaining 10% land is under the control of Naval.

LEVEL OF URBANISATION

7.3. The increase in percentage of workers to the total workers in manufacturing processing, servicing and repairs, shows the increasing trend, whereas the percentage of workers engaged in agricultural sector shows the decreasing trend, when compared with 1971 census. More than 95% of working population is employed in other works.

HOUSING - ACCOMMODATION DENSITY, STRUCTURAL CONDITIONS ETC.

7.4. The housing conditions of Urban areas are normally the indicating factors about the existing Urban environment, which in turn lets to know about the health conditions of the present socio-economic structure of the town. For the purpose of study the houses have been divided into three categories based upon the various structures and elements of the house. For the purpose of calculating the accommodation density, only the good and fair houses are taken into account.

i) About 35% of the existing houses are unfit for habitation. Out of 6154 fit houses, only 3400 houses are provided with water supply connections. The public sewerage system is not available in the town. Hence the fit houses for habitation in all respects can be only 3400 that is only about 40% of the existing houses.

ii) The average accommodation density is about 2.61 at town level that is to say one house accommodate 2.61 Nos. of families instead one house for one family. At certain zones, the accommodation density is as high as 6.

iii) The residential density at town level is about 408 persons per hectare, whereas the desirable density is considered to be as 300 persons per hectare. At certain zone the density is as high as 755 persons per hectare.

iv) The town centre areas, abutting the main arterials of the town account for high density whereas these areas have considerably good and fair houses.

The structural conditions of the buildings and their distribution, the density of the residential area population and their distribution are such that the areas around the town centre and the areas abutting the arterial roads fit themselves as suitable areas for redevelopment. However the residential area conditions are not good, but bad only. The availability of sufficient vacant area off the centre offers good scope for the development of future residential areas as well as for the redevelopment of the areas mentioned earlier.

7.5. The Tamil Nadu Town & Country Planning Act 1971 provides preparation of Master Plan and Detailed Development Plan for the local planning area of the local planning authority. This act also provides power for acquisition.

DETAILED DEVELOPMENT PLAN

7.6. One Detailed Development Plan was sanctioned for Arakkonam Town and four Detailed Development Plans were notified under Town and Country Planning Act 1971.

POSITION OF THE TOWN IN THE ADMINISTRATIVE SETUP AND
CONTROL OF DEVELOPMENT OF THE TOWN:

7.7. Arakkonam Town was constituted as Third grade municipality in the year 1958. In 1974 this town was declared as Second grade municipality and from 1984 onwards this town has been upgraded as First Grade Municipality. The Town covers an area of 9.06 sq.kms. The Arakkonam Municipality jurisdiction has been declared as local planning area by the Government under section 10 (4) of Town & Country Planning Act 1971 in G.O.Ms.No. 667 of RDLA dated 16.3.1974 and local planning authority was constituted under section 11 (1) of Town & Country Planning Act 1971 in G.O.Ms.No.650 of RDLA dated 8.4.1975. A Master Plan for Arakkonam LPA was approved by Government under section 28 of the Town & Country Planning Act 1971 in G.O.Ms.No.804 H & UD dated 20.9.84 and the Master Plan is taken for review under section 32 of Town & Country Planning Act. Hence Arakkonam local planning authority is the main local Government controlling the development of the town and other Government agencies exercising control over the areas through Taluk Office, Public Works Department, Highways Department, Tamil Nadu Housing Board, Tamil Nadu Electricity Board and Tamil Nadu Water Supply And Drainage Board.

GRADE OR CATEGORY OF THE TOWN INDICATED IN REGIONAL PLAN

7.8. In the North Arcot Region there are 29 urban centres as per 1981 census. The category of urban centres in the region have been rested against a number of factors to fix their grade in the overall urban pattern. The factors considered are 1) Population 2) Administrative Status and 3) Scale of education, Medical, Recreational and Marketing facilities. According to this pattern, there are 2 nos. of I order, 4 nos. of II order, 4 nos. of III order and 17 nos. of IV order urban settlement in the region. Arakkonam Town ranks as II order urban settlement within the North Arcot Region.

CHAPTER-8

Part-II

PLANNING PROBLEMS

8.1 To plan various types land use, to assess the perspective needs for different kinds of urban requirements, it is of importance to know the magnitude of population which probably will be contained in Arakkonam town in the next twenty years. The census population for the year 1991 is 71,500 and the projected population for the year 2001 as 85,000 and in 2011 Arakkonam local planning area population 1,00,000 has been taken and adopted for planning purposes.

LIMITATIONS DUE TO NATURAL FEATURES

3.2 Arakkonam town is a flat terrain and there is no remarkable natural physical barrier obstructing the future development.

But Arakkonam town's boundary has the shape of a distorted circle. The predominant railway line, with the majority of the railway land, cuts the town area from east to west in the middle. Thus the town for all practical purposes has been divided into two pieces-one to the north of the railway line and the other to south of the railway line.

At present Naval Air Station is located adjacent to this town along the Arakkonam-Kancheepuram road in the south to an extent of about 2500 acres of land which limits possible developments in the south.

8.3. The Kancheepuram - Arakkonam - Tiruthani road passes through the town from south to north till the centre of the town and then towards the north west. The roads from Tiruvallur and Sholingur joins this arterial road in the centre of the town. The overall development may be expected along all the major roads located in Southern part of the town viz., Tiruthani road, Tiruvallur road, and Kancheepuram road.

LIMITATIONS DUE TO MAXIMUM POPULATION AND POPULATION DENSITY

8.4 The present area of Arakkonam town is 9.06sq. kms. and the population according to 1991 census is 71500. The entire population is distributed over the Arakkonam town. The overall density of the town is 79 persons per hectare. The gross density of residential area is 256 persons per hectare. Maximum density of 250 persons/hectare is found in the Town centre area and average density of 125 to 250 persons/hectare is found in Girival pettai, and palanipettai area of the town. Low density of 125 persons/hectare is found in the Northern and southern end of the town. The projected population for the town in the year 2011 is 1,00,000 and the proposed gross density is 245 persons/hectare which is less than the existing density. Hence there is no limitation for urbanisation due to maximum population and population density.

LIMITATIONS DUE TO NON-URBAN USES

8.5. Existing land use analysis reveals that 34.92 hectares of land (4% of the town extent) has been occupied by land under water. Because of the rich agricultural value all the classified wet lands 65.36 hectares have to be maintained as such. Hence this needs to be left undeveloped area. Due to the growth of the town all the dry lands are being converted into other uses. Agricultural activity in the local planning area is being discouraged due to the physical development of the town. Hence there will be no limitations due to non-urban uses.

LIMITATIONS DUE TO IMPOSSIBILITY OF PROVIDING UTILITIES AND SERVICES

8.6. The existing developed area is well served by utilities and services. The additional area that will get urbanised as in future will merely call for the extension and expansion of the existing infrastructural facilities which will not be a problem for this town. Hence there is no restriction on this aspect.

LIMITATION DUE TO ADMINISTRATIVE JURISDICTION

8.7. Arakkonam Town was constituted as a third grade municipality in the year 1958. In 1974 this town was declared as second grade Municipality and from 1984 onwards this town has been upgraded as First grade Municipality. The town's jurisdiction extend over

four. revenue villages viz. 1) Arakkonam 2) part of Ammanur 3) Permuchi 4) Puliymangalam Villages. The present development is confined only to the local planning area. There is enough scope for urbanisation within the local planning area during the plan period. Thus there is no limitation so far as administrative boundary goes.

SCOPE FOR URBANISATION OF THE TOWN

8.8. After visualising the above factors it is seen that limitations for the Arakkonam town as such are very meagre. Due to the concentration of other urban centres and due to the influence of railway establishment in Arakkonam Town is one of the pioneering forces which caused, developments in Arakkonam town from as early as 1861, there is enough scope for urbanisation. The spatial distribution for various land uses are calculated taking into consideration of the needs of the proposed population. For assessing the spatial requirements the proposed population of 1,00,000 in 2011 of Arakkonam, the criteria adopted is that 50.39% of the total developed area would be for residential and the remaining for other non committant uses. Assuming an average gross density of 250 persons/hectare, the residential area required for Arakkonam in 2011 is 406 hectares.

Based upon the guide lines, the developable land needed for various categorious of proposed land use for Arakkonam town in 2011 is given in table no. 10 and depicted in the proposed land use map (map No.3).

Table No.10

PROPOSED LAND USE ANALYSIS

Land use	Existing in 1994 Extent in Hectares	%	Proposed area required in 2011	%	Additional area required in 2011
I. URBANISABLE AREA					
1. Residential	278.92	42.60%	406.80	50.39%	127.08
2. Commercial	13.24	2.02%	15.74	1.95%	2.50
3. Industrial	35.87	5.48%	38.12	4.73%	2.25
4. Educational	14.11	2.15%	16.71	2.07%	2.60
5. Public and semi public	51.20	7.82%	59.95	7.44%	8.75
6. Transportation Railway Road	212.36 49.10	39.93%	215.20 54.00	33.42%	7.74
Total Urbanisable area	654.80	100.00	805.72	100.00	150.92

II. NON-URBANISABLE AREA

Agriculture	65.36	86.10%	65.36	65.18%
Land under water	150.92	13.90%	34.92	34.82%
Total Non-urbanisable area	251.20	100.00	100.28	100.00
Net Total	906.00			

CHAPTER 9

LAND REQUIREMENTS

9.1 The assesment of land requirement for various uses for the future Arakkonam Local Planning Area is arrived based on the existing land use study of the town and the future economic growth suggested for full employment of the workable population.

RESIDENTIAL

9.2 The residential area to accommodate future population of one lakh of the town has been worked out assuming a gross residential density of 245 persons/ hectare and an extent of 406.00 hectares will be required for residential use in 2011. The present residential use occupies 278.92 hectares which works out to 42.6% of the developed area. The major roads, internal residential streets and lanes form part of it. According to the guidelines issues for the preparation of Master Plan for various towns residential average should be 53 to 64% as standard range. The existing residential use itself accounts for 42.60% which is less than the standard range. The major economic base of the town is transportation. Industry took the advantage of the availability of Transportation. Industrial use occupies major extent next to public and semi public use, considering the existing transport and future requirements, availability of lands it is proposed to adopt 50.39% of the developed area for the residential purpose, which is greater than the existing percentage and less than the standard range.

The total area of the urbanisable will be 654.80 hectares. The total population of the local planning area will be distributed throughout the residential area by adopting high density in 245 persons/hectare. It is suggested to utilise the pockets of vacant lands adjacent to the existing settlements.

COMMERCIAL

9.3 The essential constituents of Commercial zones are shops for occasional needs, banks and important buildings for cultural purposes such as town hall, theatres etc, and whole sale, retail business godown, warehouse areas, and installation with 20 horse power incidental to commercial purposes. The present land use of the town shows that 2.02% (13.24 Hectares) of the urbanisable area of the town is under commercial use. The area required for commercial use is assessed 15.74 hectares. in 2011. The Commercial use will be spread over along the road sides of Arakkonam - Tiruttani road and Arakkonam - Kancheepuram road.

INDUSTRIES

9.4 Except railway work shop and Arakkonam Industrial Estate all other notable industries such as Ramco Industries Limited, the State Government owned Arakkonam Steel Plant, Arakkonam Casting and Forgings Ltd., Madras Rubber Factory are located out of the town limit. The present land use break up for industrial sector is 5.48% of the developed area.

considering the major industries located in outside the planning area except railway workshops, only 4.73% of urban area is allotted for industrial use during the plan period will be 38.12 hectares of land. The required extent of land is provided in Arakkonam-Tiruttani road. In this area only controlled industries alone to be permitted.

EDUCATIONAL

9.5 The existing land use analysis of the developed area of the town indicates a percentage of 2.15% (14.11 hectares, for educational use. As regards the land needs for educational requirements, high schools, Higher secondary school and collegiate institutions reconsidered here. The standard adopted is one high school for 16,000 population, one higher secondary school for 40,000 and one college for 80,000 to one lakh population. At present there is no college in this town. The reason may be its proximity to Madras and Kancheepuram where this facility is available. Particularly Madras, the centre for higher education and research is well linked with Arakkonam by rail. So it is not major problem for those who aspire for this facility at present. However to cater the needs of the future population, 2.60 hectares of land for educational use proposed in Arakkonam and Kancheepuram road. There are already 25 Nursery schools, 16 primary schools, 3 high schools and 4 higher secondary schools in Arakkonam town. Considering the above facts 2.07% i.e. 16.71 hectares is proposed for future purposes.

PUBLIC AND SEMI PUBLIC

9.6 Government and Quasi Government offices, libraries, health Institutions, bus stand, parks, play fields, public and semi public buildings and open spaces fall under this category. The present land use break up of the town occupies an extent of 51.20 hectares which works out to 7.82% of the developed area. Under sites and services scheme about 70.63 acres of Government poromboke land has been selected for the development. In which more than 10% of land has been reserved for public purpose. The existing land use analysis of the developed area of the town indicates a percentage of 7.82% (51.20 hectares) for public and semi public use. It is proposed to allocate 7.44% of the urban area for this purpose. This works out to 59.95 hectares of land.

AGRICULTURAL

9.7 The area under this non urban use constitutes registered wet lands, dry lands and water bodies etc. In the local planning area all the registered wet lands occupied an extent of 65.36 hectares. Hence it is suggested to retain 65.36 hectares of wet land considering agricultural importance. The Table No.11 shows the proposed land use pattern of the local planning area suggested for adoption.

TABLE No.11 PROPOSED LAND USE ABSTRACT

Sl.No.	Land use zones	Area provided in Hect.
I.	<u>URBANISABLE AREA</u>	
1.	Residential	406.00
2.	Commercial	15.74
3.	Industrial	38.12
4.	Educational	16.71
5.	Public and semipublic	59.95
6.	Transportation	
	Railway	215.20
	Road	54.00
	Total	805.72
II.	<u>NON URBANISABLE AREA</u>	
1.	Agriculture(wet)	65.36
	Land under water	34.92
	Total	100.28
	Gross Total	906.00

CHAPTER - 10

STRATEGY OF DEVELOPMENT

10.1 Population forecast in 2011 for the Local Planning Area is one lakh. Based on the planning standards, various land uses requirements for the projected population are worked out and distributed as shown in the proposed land use map. The different land use zones are inter connected with the net work of roads, with object of yielding optimum benefits for the inhabitants. The various zones are further divided into workable planning units. The zoning regulations (G.O. Ms.1730 RD&LA dt 24.7.74) and development part of each unit are in the annexure enclosed.

10.2 The local planning area is divided into various use zones comprising of 42 proposed land use zones. Number of different proposed land use zones are given below.

1. Primary Residential Units - PR
2. Mixed Residential Units - MR
3. Commercial Units - C1 to C9
4. Controlled Industrial Units - I1 to I4
5. Educational Units - E1 to E11
6. Public and Semipublic Units - P1 to P7
7. Agricultural Units - AI1 to AI9

10.3 The entire town is to be developed by 2011 in accordance with the proposed land use commencing from 1991. The Local Planning Authority shall regulate

the manner, of development as prescribed in zoning regulations (vide G.O. Ms. No. 1730 RD&LA dt 24.7.74) annexed to this report. In so far as the areas covered under sanctioned developed plans are concerned, the rules and regulations of the respective detailed development plans should be enforced by the local planning authority.

10.4. Under the integrated development of small and medium Towns, the Central Government has sanctioned Rs. 80.50 lakhs for various projects. The details of the projects are as follows.

<u>Project</u>	<u>Amount Sanctioned</u>
a) Re-development of daily market	Rs.21.00 lakhs.
b) Godown in Gandhi Road	Rs. 3.50 lakhs.
c) Bus Stand	Rs.31.00 lakhs.
d) Sites & Services (Kovanur)	Rs.25.00 lakhs.

The above mentioned projects were completed and put into use.

Under Municipal Urban Development fund the State Government has sanctioned a sum of Rs. 50.00 lakhs as follows.

<u>Project</u>	<u>Amount Sanctioned</u>
a) Bus Stand Phase II	Rs. 10.00 lakhs.
b) Office Complex	Rs. 15.00 lakhs.
c) storm water drains and improvements of roads	Rs. 20.00 lakhs.
d) Improvement of water storage and pumping equipment	Rs. 5.00 lakhs.

The above mentioned projects are nearing completion.

CHAPTER 11

DEVELOPMENT POLICY

11.1 It is essential that in the formulation of policies for a comprehensive development plan for an urban area, which covers a period of twenty years, attention must be paid to the force and to the major variable that influence its growth. Such long time projections naturally involve some elements of uncertainty, especially when the past data do not lend themselves to easy interpretation.

The existing different use zones of the town such as residential, commercial, industrial, education etc. have been quite haphazard and non-conforming. Hence a strong policy should be followed not to allow non-conforming uses.

Therefore integrated land use planning, building regulations are to be exercised essentially providing functional efficiency and orderly growth of urban local planning area. Hence the local planning authority will look after the implementation of plans, which will have control over the local planning area viz. Arakkonam Town.

11.2 Local Planning Authority for Arakkonam town was constituted under section 11(1) of Town and Country Planning Act 1971 vide G.O. Ms. No. 650 RD&LA

dt. 8.4.75. Therefore control of the physical plan in accordance with Master plan zoning regulations (vide G.O. Ms. No. 1730 of RD&LA dt. 24.7.1974) is now vested with local planning authority.

Arakkonam Master Plan envisages for the projected population of 1,00,000. This population is distributed into various residential zones. The development policy which is envisaged for the development of Arakkonam Master Plan area is discussed as follows.

- 11.3
- 1) The development of residential areas could be executed by Arakkonam Local Planning Authority, Tamil Nadu Housing Board, Tamil Nadu Slum Clearance Board, Tamil Nadu Harijan Housing Corporation and Private Developers.
 - 2) The authority could acquire any of the proposed areas and develop plots with all infrastructural facilities and the same could be sold to public. This could also facilitate to bring the development in an orderly manner in conformity with the master plan proposals.
 - 3) The Housing Board and other Government agencies could acquire lands and construct houses for public in conformity with Master Plan proposals depending on demand and financial resources.

4) The Major residential requirements are usually provided by the private agencies. Hence the land owned by the individuals would also be allowed to be developed individually in accordance with Master plan proposals.

COMMERCIAL

11.4 The authority could acquire commercial area of any extent, proposed in the Master Plan and develop commercial areas with the assistance from HUDCO, IUDP and also with authorities of own resources to meet the commercial needs of anticipated population of 1,00,000. Private developers may also be permitted to develop commercial areas as contemplated in Master plan proposals.

INDUSTRIAL

11.5 Industrial zones in the Master Plan is to be acquired and developed and sold to public by the agencies like 'SIFCOT' 'SIDCO' as well as by private enterprises depending upon the need.

EDUCATIONAL

11.6 Area allotted in educational zone could be acquired by the authority or its agencies or charitable institutions allowed to develop. Further the areas where the authority or its agencies or private developer acquires land for development of housing, required allocation may be made to fulfill the education needs depending upon the requirements.

PUBLIC AND SEMI PUBLIC

11.7 The reservation of lands made exclusively for this purpose might be useful in order to facilitate the Government offices to function effectively. The Tamil Nadu Housing Board or the PWD or the concerned Government department may acquire this area and office building may be constructed to house the Government office. Besides above, in areas where the authority acquires land for housing necessary provision may be made to allot space for public and semi public uses depending upon the requirements.

PUBLIC OPEN SPACES

11.8 Certain lands under public open spaces parks, play fields etc. in approved layouts educational institutions etc. will be declared under parks, play fields and open spaces act 1959, and would be taken possession of by the authority and with the special permission certain areas within this use zone shall be permitted for uses specified under the zoning regulations. Private developer could also be encouraged to develop land accordance with the Master plan proposals with the sanction of the authority.

TRAFFIC AND TRANSPORTATION

11.9 The existing Housing Board road which branches from Tiruttani-Tiruvallur road have a width of 80' upto the end of the neighbourhood scheme. Taking

into advantage of the above present road, the proposed 80' road which links the Tiruttani-Tiruvallur road in the south offer the facility of circular movement along the area coming under the neighbourhood scheme. Such circular pattern will have a definite say in relieving the traffic congestion in the core area of the town. As said early, the town has been divided into two parts by the railway track with only one under pass situated at 0/4 km of Arakkonam-Kancheepuram road. These two roads meet in the under pass. The under pass is with restricted head room (3.03 x 3.0m) height. Hence heavy vehicles and loaded vehicles can not negotiate this under bridge. It is used only by the light vehicles and the height restricted vehicles. The other vehicles going to northern side has to cross the railway line through the railway gate no. 33B. The frequency of closing the railway gate is very often and the duration of closing is also for longer intervals. From the Arakkonam Administrative report 1989 - 90, it reveals that Arakkonam Municipality has approaches the State Government for widening the railway under bridge. This may be considered as the most important and priority may be given for this work.

Highways Department has proposed the construction of railway over bridge at an estimated cost of Rs. 9.50 crores on the existing level crossing no. 33B at railway km. 69/41.43 in Arakkonam-Jolarpet Junction at Arakkonam.

The proposed bridge is to be located at 45 metres away from the Railway gate no. 33B near Arakkenam junction. The approach road starts from Arakkenam-Sholinghur road on northern side and Arakkenam-Ocheri road on southern side. The proposed railway over bridge will be between the carriages 256 and 588.

The alignment branches off from km 1/8 of Arakkenam-Sholinghur road. After running along the existing black top railway road it passes over so many railway lines and then goes through Ramco Industries Ltd. lands and then through Ammanur. In this portion some length passes through patta lands after crossing the Ammanur. The alignment runs through Mathur Kandigai Village and then through some vacant sites where layouts are proposed. Then the alignment joins with the black topped Municipal road and ends at km 0/6 of Arakkenam-Ocheri road.

The proposed construction of the railway over bridge work is under progress.

The specific proposals are

- i) Widening of the existing Tiruttani-Tiruvallur road in the south portion.
- ii) New 80' road linking the 80' neighbourhood scheme road and Tiruttani-Tiruvallur road in the south.

- iii) Widening of the existing railway under bridge.
- iv) Proposed railway over bridge on the existing level crossing no. 33B.

AGRICULTURAL USES

11.10 In this use zone, it is proposed to preserve all the agricultural registered wet lands located on the north side of Tiruttani-Tiruvallur road as shown in the proposed land use map.

CHAPTER 12

ZONING REGULATION

12.1 In order to implement the proposals, contained in the Master Plan certain essentials and important zoning regulation will have to be enforced by the planning authority. It has however to be noted that the zoning regulations contemplated in this chapter are approved by the Government in the order Ms. No. 1730 Rural Development and Local Administration Department dated 24th July 1974. Every Development within the area covered by the ~~Master Plan~~ for Arakkonam Local Planning area shall conform to the use zone regulation prescribed therein in this Master Plan and the zoned uses for survey no. as prescribed in the schedule and all developments shall conform to this.

12.2 The zoning for Arakkonam Local Planning Area is shown in the Map enclosed. The uses that are permissible in the natural course are described hereunder. However in respect of areas comprised within the sanctioned Detailed Development Plan under section 29 of the Town and Country Planning Act 1971 the use zones and provisions contained in respective detailed development plan will prevail.

12.3 The use zone regulations given in the Annexure I shall guide for the grant of refusal of planning permission and shall be enforceable.

CHAPTER 13

SALIENT FEATURES

- 13.1 The existing Arakkonam Urban area with the location of Railway establishments, Naval area besides Government Offices, Educational Institutions and Commercial firms has grown from Arakkonam-Tiruttani Road. The grid-iron has the advantage of easy accessibility and potentiality for surrounding development encircling the core area. The proposed land use pattern is worked out along the existing roads and based on possible trends of developments covering all the directions.
- 13.2 The proposed urbanisable area is dry lands adjacent to existing development. The suggested Master Plan for Arakkonam planning area provides optimum reservation of land for residential and its allied uses considering the existing potentialities. One sanctioned Detailed Development Plan and sites and services schemes under IUDP are the special features in the proposed Master Plan.
- 13.3 The proposed land use zones are arrived at by dividing the residential area into units which will contain all the infrastructural facilities. Controlled Industrial area is provided along Arakkonam-Tiruttani road and the Government Industrial Estate is located along Arakkonam-Ocheri Road.
- 13.4 Commercial areas are located on either sides along the Arakkonam-Tiruttani Road and Arakkonam-Kancheepuram Road giving provision to small scale industrial development and the development of commercial activities.

13.5 The proposed population and the level needed for that population shall have the advantage of utilising the existing water supply system. It is ascertained that present consumption of 40 litres per day/head can be continued by increasing pumping hours and storage capacity.

13.6 As regards transport, due to the introduction of new road and widening of existing Tiruttani-Tiruvallur road in the south portion there is no hinderance for thorough traffic. Further traffic congestion in the Arakkonam-Tiruttani road and Arakkonam-Kancheepuram road have been reduced. Formation of sanctioned Detailed development plan roads and its extention outside the town limit, and formation of New over bridge and widening of the existing under pass will releive the congestion and also allow for free flow of traffic in future.

13.7 Agriculture sectors are zoned considering registered wet lands fertility and irrigation facility.

Copy of:

GOVERNMENT OF TAMIL NADU
ABSTRACT

TOWN PLANNING-Preparation of zonal plans-formulation of-
Draft regulations submitted by the Director of Town and
Country Planning-Approved.

RURAL DEVELOPMENT AND LOCAL ADMINISTRATION
DEPARTMENT

G.O.Ms.No.1730

Dated the 24th July 1974

Read:

- 1.D.O.Lr.No.28352/MD/73-1, RD&LA dt. 7.3.1973.
- 2.From the Director of Town and Country Planning,
Lr.No.10989/73-SM, dt. 21.3.1974.
- 3.From the Member-Secretary, Madras Metropolitan
Development Authority, D.O.Lr.No.1983/74-ADP, dt.
19.5.1974.

ORDER:

The Director of Town and Country Planning
submitted draft zoning regulations on use of land and
buildings particulars in urban areas. These regulations
list out the uses permissible in each of the use zones and
the restrictions to be imposed. For the purpose of
these regulations, it has been suggested that the
urban areas may be divided into the following six major
use zones:-

1. Residential use zone
2. Commercial use zone

3. Industrial use zone
4. Educational use zone
5. Public and semipublic use zone
6. Agricultural use zone

Of these, the Residential Use Zone has been further sub-divided into two categories, namely

1. Primary Residential Use Zone; and
2. Mixed Residential Use Zone

The Industrial Use Zone has been similarly sub-divided into three categories namely:-

1. Controlled Industrial Use Zone;
2. General Industrial Use Zone; and
3. Special Industrial and Hazardous use zone.

2. The Director has also stated that the Tamil Nadu Town and Country Planning Act, 1971 provides for the zoning of areas under Sections 17(1) and 20(2) (g) through the Master Plans and detailed development Plans respectively. He has recommended that the draft zoning regulations may be approved and communicated to the Local Planning authorities for adoption as part of the Master Plan for proper land use planning and control in addition to other regulatory measures, and that as for the Madras Metropolitan Area, a copy of

the regulations may be sent to the Member-Secretary, Madras Metropolitan Development Authority for adoption as part of the Metropolitan Development Plan with such modification as may be necessary, in consultation with him (the Director) and the Government.

3. A copy of the draft regulations was sent to the Member-Secretary, Madras Metropolitan Development Authority for his views. He has stated that the comprehensive land use proposals and Zoning regulations for Madras Metropolitan Area are under preparation and that the suggestion of the Town Planning Directorate will be considered and incorporated to the extent as may be necessary in the final proposals.

4. The Government have examined the suggestion. They accept the views of the Member-Secretary, Madras Metropolitan Development Authority so far as it relates to the Madras Metropolitan Area and, as for other Urban Areas of the State, the Government approve in principle, the draft zoning regulation submitted by the Director of Town and Country Planning. The Director is requested to furnish copies of the draft zoning Regulations to the Local Planning Authorities as soon as they are constituted.

-66-

5. The receipt of this order may be acknowledged by the Director of Town and Country Planning.

(BY ORDER OF THE GOVERNOR)

M.P. RAJENDRAN
SECRETARY TO GOVERNMENT

/true copy/

ANNEXURE I

LAND USE ZONE REGULATIONS

(as appended in G.O.Ms.1730 RD&LA dated 24.7.1974)

I. RESIDENTIAL USE ZONE

- a) Primary Residential Use Zone
- b) Mixed Residential Use Zone

Use-Zone I(a) Primary Residential Use Zone

Uses permitted:

1. All residential buildings including single and multi family dwellings, apartment dwellings and tenements together with appurtenances pertaining thereto;
2. Professional consulting offices of the residents and other incidental uses therefor;
3. Petty shops dealing with daily essentials including retail provisions, soft drinks, cigarettes, newspapers, milk-kiosks, cycle repair shops and single person tailoring shops;
4. Hair dressing saloons and Beauty Parlours;
5. Nursery and primary schools;
6. Taxi and auto-rickshaw stands; and
7. Parks and play fields

Use Zone I (b) Mixed Residential Use Zone

Uses permitted

1. All uses permitted under use Zone I(a) i.e. primary Residential use zone;
2. Hostels and single person apartments;
3. Community Halls, Kalyana Mandapams, Religious buildings, Welfare centres and Gymnasias;
4. Recreation clubs, Libraries and Reading Rooms;
5. Clinics, Dispensaries and Nursing Homes;
6. Government, Municipal and other Institutional sub-offices;
7. Police stations, post and telegraph office, Fire Stations and Electric sub-station;
8. Banks and Safe Deposit Vaults;
9. Educational Institutions excluding Colleges;
10. Restaurants, Residential Hotels and other Boarding and lodging Houses;
11. Petrol filling and service stations;
12. Departmental stores or stores or shops for the conduct of retail business;
13. Vegetable, Fruit, flower, fish, eggs and meat shops;
14. Bakeries and confectionaries;

15. Laundry, tailoring and Goldsmith shops and
16. Cottage industries permissible in residential areas under G.O.Ms.No.565, dt. 13.3.62.

II. COMMERCIAL USE ZONE-USE ZONE 2

Uses permitted

1. All uses permitted in Use Zones 1(a) and 1(b) i.e. Residential use zones;
2. All commercial and business uses including all shops, stores, market and uses connected with the display and sale of merchandise, either wholesale or retail but excluding explosives, obnoxious products and other materials likely to cause health hazards;
3. Business offices and other commercial and financial institutions.
4. **Warehouses, repositories and other uses** connected with storage or wholesale trade, but excluding storage of explosives or products which are either obnoxious or likely to cause health hazards;
5. Cinemas, Theatres and other commercial entertainment centres;

6. Research, Experimental and Testing laboratories not involving danger of fire, explosion or health hazards;
7. Transportation terminals including bus stands, railway stations and organised parking lots;
8. Automobile repair shops and garages;
9. Small industries, using electric motors not exceeding 20 H.P and / or employing not more than 25 workers, which are not noxious or offensive due to odour, dust, smoke, gas, noise or vibration or otherwise dangerous to public health and safety; and
10. Installation of electric motors not exceeding 20 H.P for use incidental to the commercial activities. permissible in the zone.

III. INDUSTRIAL USE ZONE-USE ZONE 3

- a) Controlled Industrial Use Zone
- b) General Industrial Use Zone
- c) Special Industrial and Hazardous Use Zone.

Use-Zone III a) Controlled Industrial Use Zone

1. All Commercial uses listed under use Zone 1(a), 1(b) and 2 i.e. residential and commercial uses zones;
2. Industries using electric power not exceeding 130H.P. (L.T.maximum load) but excluding industries of obnoxious and hazardous nature by reason of odour, liquid effluent, dust, smoke, gas, vibration etc., or otherwise likely to cause danger or nuisance to public health or amenity;
Provided that these industries may use steam, oil or gas power during periods of power shortage or failure;
3. Hotels, Restaurants and clubs, places for social intercourse, recreation and worship and dispensaries and clinics; and
4. Residential building for caretakers, watchman and other essential staff required to be maintained in the premises.

Use-Zone III (b) General Industrial Use Zone

Use permitted:

1. All commercial uses listed under Use Zones 1(a), 1(b) and 2 i.e. residential and commercial uses zones;

2. All industries without restrictions on the horse power installed or type of motive power used excluding those of obnoxious or hazardous nature by reason of odour, liquid, effluent, dust, smoke, gas, vibration etc., or otherwise likely to cause danger or nuisance to public health or amenity;
3. Hotels, restaurants and Clubs, or places for social inter-course, recreation and worship or for dispensaries and clinics; and
4. Residential buildings for caretakers, watchmen and other essential staff required to be maintained in the premises.

Use-Zone III c) Special Industrial and Hazardous Use Zone

Uses permitted

1. All commercial uses listed under Use Zones 1 and 2 i.e. residential and commercial use zones;
2. All industries permissible in the use zones III(a) and III(b) i.e. the controlled and general industrial use zones.

3. All uses involving storage, handling, manufacture or processing of highly combustible or explosive materials or products which are liable to burn with extreme rapidity and/or which may produce poisonous fumes or explosion;
4. All uses involving storage, handling, manufacturing or processing which involve highly corrosive, toxic or noxious alkalies, acids or other liquids or chemicals producing flames, fumes and explosive, poisonous irritant or corrosive gases;
5. All uses involving storage, handling or processing of any material producing explosive mixtures of dust, or which result in the division of matter into fine particles subjects to a spontaneous ignition;
6. Processing or manufacturing anything from which offensive or unwhole some smells arise;
7. Melting or processing tallow or sulphur;
8. Storing, handling or processing of manure, offal, blood, bones, rages, hides, fish, horns or skin;
9. Washing or drying wool or hair;

10. Making fish oil;
11. Making soap, boiling or pressing oil, burning bricks, tiles, pottery or lime;
12. Manufacturing of distilling sago and artificial manure;
13. Brewing beer, manufacturing by distillation arrack or spirit containing alcohol, whether denatured or not;
14. In general, any industrial process which is likely to be dangerous to human life or health or amenity and not permissible in the Use Zones III(a) and III(b) i.e. controlled industrial and the general industrial use zones;
15. Hotels, restaurants and clubs or places for social-intercourse, recreation and worship or dispensation and clinics; and
16. Residential buildings for caretakers, watchmen and other essential staff required to be maintained in the premises.

IV. EDUCATIONAL USE ZONE-USE ZONE 4

Uses permitted

1. Schools, colleges and other higher education and training institutions and the uses connected therewith;

2. All uses permitted in use zone 1(a) i.e. primary residential use zone;

3. Hostels and single person apartments.

4. Recreation clubs, libraries and reading rooms; and restaurants.

V. PUBLIC AND SEMI PUBLIC USE ZONE-USE ZONE 5

Uses permitted

1. Government and Quasi Government offices;
2. Art Galleries, Museums, Aquariums and Public Libraries;
3. Hospitals, Sanitoria and other medical and public health institutions;
4. Harbour, Airport and Flying Club;
5. Organised parking lots and bus and taxi stands;
6. Parks, playfields, swimming pools, stadia, zoological Gardens, Exhibition grounds and other public and semi-public open spaces; and
7. All uses permitted in the Use Zones 1(a) and 1(b) i.e. the residential use zones.

VI. AGRICULTURAL USE ZONE-USE ZONE 6

Uses permitted

1. All agricultural uses
2. Farm houses and buildings for agricultural activities.

3. Rural settlements with allied uses
4. Public and private parks, play fields, gardens, Caravan and camping sites and other recreational uses;
5. Dairy and Cattle Farms;
6. Piggeries and poultry farms;
7. Water tanks and reservoirs;
8. Sewage farms and garbage dumps;
9. Airports and broadcasting installations;
10. Forestry;
11. Cemeteries, Crematoria and Burning and Burial grounds.
12. Storing and drying of fertilisers;
13. Fish curing;
14. Salt manufacturing;
15. Brick, tile or pottery manufacture;
16. Stone crushing and quarrying; and
17. Sand, clay and Gravel quarrying.

VII. SANCTIONED DETAILED DEVELOPMENT PLANS-USE ZONES

In so far as the areas covered under sanctioned Detailed Development plan areas are concerned the rules and regulations of Detailed Development Plans alone will apply.

ANNEXURE II

ARAKKONAM LOCAL PLANNING AREA

Proposed Land use zone comprising survey field numbers

USE ZONING COMPRISING SURVEY FIELD NUMBERS

1

2

RESIDENTIAL

PRIMARY RESIDENTIAL

1pt, 5pt, 6, 7, 9, 10, 11, 14pt, 20pt, 21, 22pt,
23pt, 24, 25, 28pt, 29, 30pt, 31, 32, 33pt, 34
to 37, 141 to 143, 144pt, 145pt, 146pt, 231pt,
232pt, 233, 234, 235pt, 236pt, 237pt, 238pt,
239, 241 to 244, 245pt, 246pt, 247pt, 249Bpt,
251 to 254, 259, 260pt, 261pt, 262pt, 263pt,

264pt, 265pt, 266pt, 267 to 281, 282(except 282B) 283 to 288,

290, 291, 292pt in Arakkonam .

MIXED RESIDENTIAL

132pt, 151pt, 152pt, 153, 165 to 167, 168Apt,
168Bpt, 169 to 171, 172pt, 173 to 175, 177 to
182, 183pt, 184 to 190, 191pt, 192, 193pt, 207pt,
208pt, 213pt, 214, 216, 217pt, 218, 219, 220pt,
221pt, 222pt, 224pt, 226pt, 228pt, 229Bpt, 230,
248, 249Apt, 249Bpt, 255pt, 256pt, **258pt, 282B, 297pt**
292pt, 299, 301, 302pt, 303 to 305, 307pt, 308pt,
309B, 310, 311A, 312Bpt, 313, 314Cpt, 315, 316,
318pt, 320Bpt, 321Apt, 323Apt, 323B, 324pt, 325A,
325B, 325C, 327/1, 327/2, 344pt, 349, 350, 354,
356, 358, 360, 362, 364, 366, 368, 370, 375pt,
377pt, 379pt, 381pt, 383pt, 385pt, 387pt, 389pt

**In Arakkonam(153, 165, 166, 167, 171, 194, 196, 197 and 200
included in S.F.No.168)(214 and 216 included in S.F.No.213)**

1

2

MIXED RESIDENTIAL

.5pt, 7pt, 12 to 14, 15pt, 16, 17, 18pt, 19,
21, 22, 32 to 34, 38pt, 44, 45, 46pt,
47Apt, 50pt, 54, 57, 416, 417pt, 447,
451pt, 452 in Ammanur (part)
8pt, 9, 10pt, 11pt, 12pt, 13, 14pt, 15pt,
16pt, 19pt, 405pt in Permuchi (part)
174 and 176 in Euliyamangalam (part)

COMMERCIAL

- C1 207pt, 208pt, 226pt, 227pt, 228pt, 229A,
249Apt, 258pt, 344pt in Arakkonam.
- C2 191pt, 193pt, 213pt, 215pt, 217pt, 221pt,
222pt, 224pt, 229Bpt, 256pt, 375pt, 377pt,
379pt, 381pt, 383pt, 385pt, 387pt, 389pt
in Arakkonam.
- C3 148pt, 168Apt in Arakkonam.
- C4 163, 168Bpt in Arakkonam.
- C5 154, to 157, 161 in Arakkonam.
- C6 309A, 311B, 312A, 314A, 320A, 321Apt,
321Bpt, 322, 323A, 324pt in Arakkonam.
- C7 302pt, 307pt, 312Bpt, 314Cpt, 318pt, 319,
320Bpt in Arakkonam.
- C8 10pt, 11pt, 12pt, 15pt, 16pt, 19pt
in Perumuchi (part)
1, 2A in Ammanur (part)
- C9 5pt, 7pt, 46pt, 47Apt, 50pt
in Ammanur (part)

1

2

INDUSTRIAL

CONTROLLED INDUSTRIES

- I1 249Bpt, 256pt in Arakonam
- I2 415pt in Ammanur (part)
- I3 38pt, 48 in Ammanur (part)
- I4 30pt in Arakonam

GENERAL INDUSTRIES

NIL

SPECIAL HAZARD INDUSTRIES

NIL

EDUCATIONAL

- E1 247pt, 250pt, 255pt, 256pt in Arakonam
- E2 215pt in Arakonam
- E3 168Bpt in Arakonam
- E4 33pt in Arakonam
- E5 298pt in Arakonam
- E6 4pt in Ammanur (part)
- E7 18pt in Ammanur (part)
- E8 7pt in Ammanur (part)
- E9 50pt, 51, 52 in Ammanur (part)
- E10 11pt, 12pt in Perumuchi (part)
- E11 405pt in Perumuchi (part)

PUBLIC AND SEMI PUBLIC

- P1 343 in Arakonam
- P2 229Bpt in Arakonam
- P3 240pt in Arakonam
- P4 33pt in Arakonam
- P5 195, 213pt, 215pt, 220pt in Arakonam
- P6 292pt in Arakonam
- P7 168Bpt in Arakonam

AGRICULTURAL

- AI1 227pt in Arakonam (Burial Ground)
- AI2 256pt in Arakonam (Burial Ground)
- AI3 231pt in Arakonam (Burial Ground)
- AI4 176pt in Arakonam (Periya Eri)
- AI5 26, 27, 28pt, 38 to 90, 91pt, 92pt, 93pt, 94 to 112, 113pt, 114, 115pt, 116pt, 117, 118, 119pt, 120pt, 121, 122pt, 123 to 129, 130pt, 131pt, 133, 134pt, 135pt, 136, 137pt, 138pt, 139, 140pt, 149, 150pt **240pt Burial ground,**
- AI6 8, 19pt in Arakonam (Burial Ground)
- AI7 19pt in Arakonam (Burial Ground)
- 146pt in Arakonam (Chitteri)
- AI8 308pt, 312Bpt in Arakonam (Burial Ground)
- 317pt
- AI9 205 in Arakonam (Burial Ground)

1.

2

SHOLINGHOR EXTENSION P.D. PLAN (SANCTIONED)

S.F.Nos. 198, 199, 201, 202, 203, 204, 207pt,
208pt, 210, 211, 334 in Arakkonam town.

TRAFFIC AND TRANSPORTATION

1pt, 5pt, 12, 13, 14pt, 17pt, 18, 19pt, 20pt,
22pt, 23pt, 91pt, 92pt, 93pt, 113pt, 115pt,
116pt, 119pt, 120pt, 122pt, 130pt, 131pt, 134pt,
135pt, 137pt, 138pt, 140pt, 144pt, 145pt, 147,
150pt, 151pt, 152pt, 162, 168Apt, 168Bpt, 172pt
176pt, 183pt, 206, 209, 212, 225, 232pt, 235pt,
236pt, 237pt, 238pt, 245pt, 246pt, 247pt, 249Bpt,

250pt, 257, 289, 298pt, 300, 314C, 328, 331, 332, 335 to

340, 345 to 348, 351 to 353, 355, 357, 359, 361,
363, 365, 367, 369, 371 to 374, 375pt, 376, 377pt,
378, 379pt, 380, 381pt, 382, 383pt, 384, 385pt,
386, 387pt, 388, 389pt, 390 in Arakkonam.

4pt, 5pt, 6, 7pt, 11, 49, 444 to 446, 449,
451pt, in Ammenur(part)

17, 18, 406 in Perumuchi(part)

213 in Fuliyaamangalam(part)

CHANNEL

223A, 223B, 306, 314 B in Arakkonam.

RAILWAY PROPERTY

1pt, 2 to 4, 5pt, 14pt, 15, 16, 17pt, 158 to 160,
164, 260pt, 261pt, 262pt, 263pt, 264pt, 265pt,
266pt, 292pt, 293 to 296, 297pt, 298pt, 317pt,
326, 329, 330, 333, 341, 342 in Arakonam.
(S.F. Numbers 158, 159, 160, 164, 294, 333
included in 293)

3, 8 to 10, 15pt, 20, 415pt, 417pt, 418pt,
419, 423 in Ammanur (part)
175, 197pt, 212 in Puli Yamangalam (part)

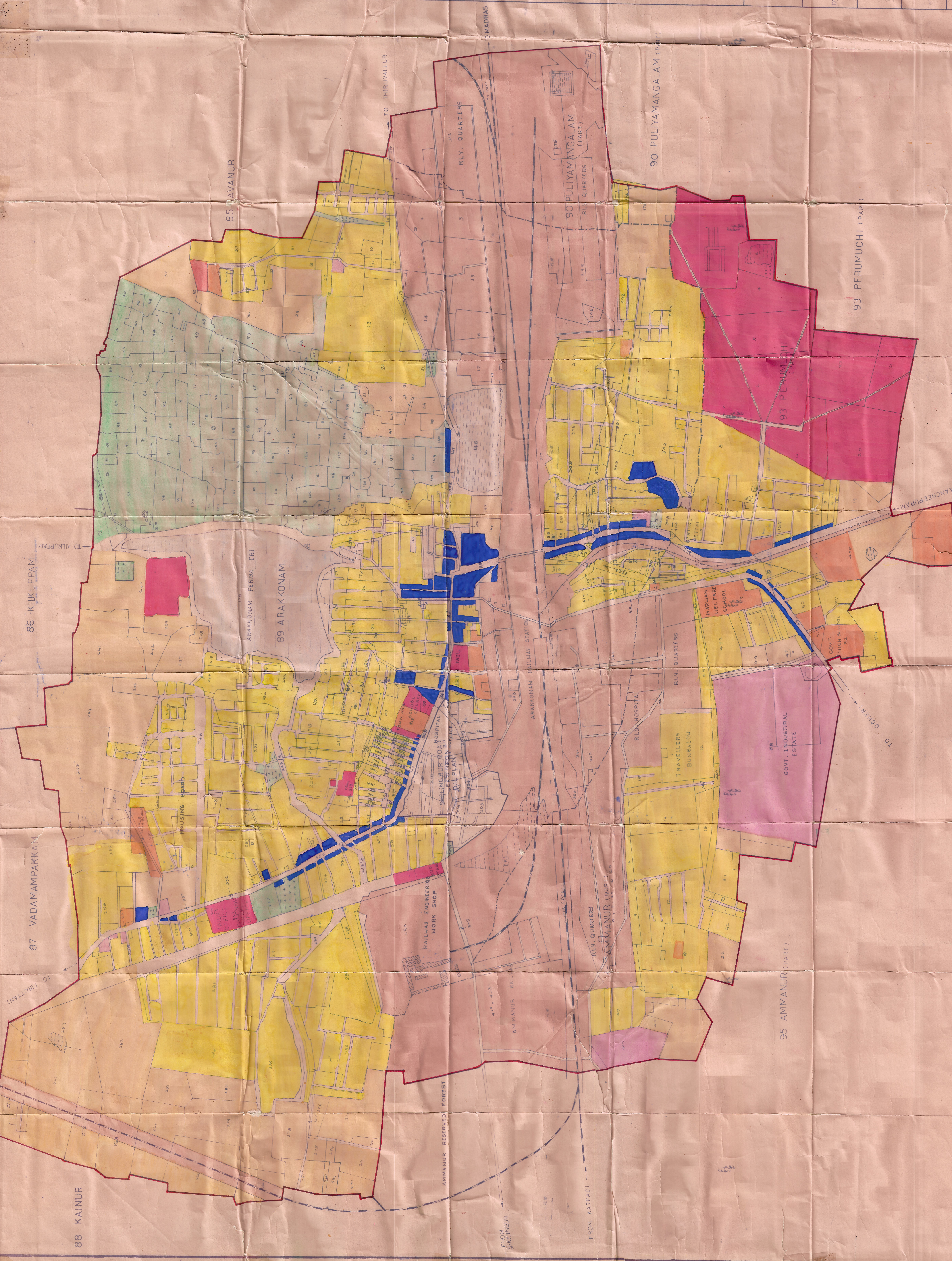
NAVAL STATION (DEFENCE)

1, 2, 4 to 7, 8pt, 14pt, 20 to 22 in
Perumuchi (part)

ARAKKONAM MASTER PLAN EXISTING LAND USE

LEGEND

- L.P.A. BOUNDARY
- VILLAGE BOUNDARY
- D.D. PLAN BOUNDARY
- ROADS
- RESIDENTIAL
- COMMERCIAL
- INDUSTRIAL
- EDUCATIONAL
- PUBLIC & SEMI PUBLIC
- AGRICULTURE
- RAILWAY PROPERTY
- WATER BODIES



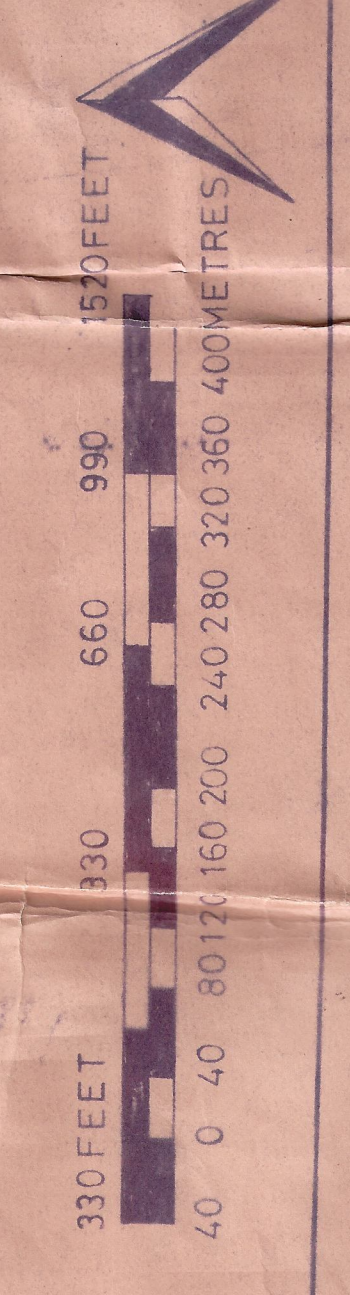
MEMBER SECRETARY
EXECUTIVE AUTHORITY
PLANNING
VELLORE REGION

DEPUTY DIRECTOR OF TOWN AND COUNTRY PLANNING

DR. DIRECTOR OF TOWN & COUNTRY PLANNING
M.P. DIVISION, MADRAS - 7

SPECIAL COMMISSIONER OF TOWN & COUNTRY PLANNING
MADRAS - 2

GOVT. SECRETARY TO GOVERNMENT
U.D. DEPT.



DIRECTORATE OF TOWN AND COUNTRY PLANNING
GOVERNMENT OF TAMILNADU

ARAKKONAM LOCAL PLANNING AREA