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## 1. INTRODUCTION

### 1.1 Initial Steps

As a first step towards the preparation of master plan, Local Planning Area (LPA) Nakodar, has been delineated and notified U/S 56(1) of “The Punjab Regional and Town Planning and Development Act, 1995” in the official gazette vide Notification No. 12/27/2010-4HG1/2592 dated 5.08.2010 (Annexure I). The LPA of Nakodar includes Nakodar M.C. along with 52 villages of district Jalandhar. The total area of LPA is 13851 Hectares. The detail of areas and population of LPA Nakodar has been detailed out in Annexure II while the schedule of boundary has been detailed out in Drawing No. DTP (J) 17/2010 dated 5-05-2010.

While delineating the LPA Nakodar, the following factors have been considered as mentioned in rule 22 of the Punjab Regional and Town Planning and Development (General Rules 1995):

- a) *Boundaries of municipal council Nakodar, Revenue Boundaries of villages and permanent features have been kept in mind for proper identification of land falling in LPA.*
- b) *Geographical and location aspects have also been taken into account.*
- c) *Major road pattern of the town especially the development potential on Nakodar-Mehatpur road, Nakodar-Shahkot road, Nakodar-Kapurthala road, Nakodar-Noormahal road, Nakodar-Shankar road and Nakodar – Jalandhar Road and railway linkages i.e. Nakodar - Jalandhar, Nakodar-Ludhiana and Nakodar-Lohian Khas railway line have taken into consideration to make the planning area more accessible for proper development.*
- d) *To study and analyze the present population and population increase due to designation of Nakodar town as Tehsil headquarter so that projected population can be adjusted in planned manner in the near future.*
- e) *To enhance the industrial development, the trend of existing industrial development, expected industrial development have also been studied and analyzed and have been taken into consideration.*
- f) *To strengthen the economic base and commercial activities of Nakodar, the need for planned development of this area has been kept into consideration*
- g) *To make the periphery of the town manageable in a proper manner, the extents of the town and its expansion have also been considered.*

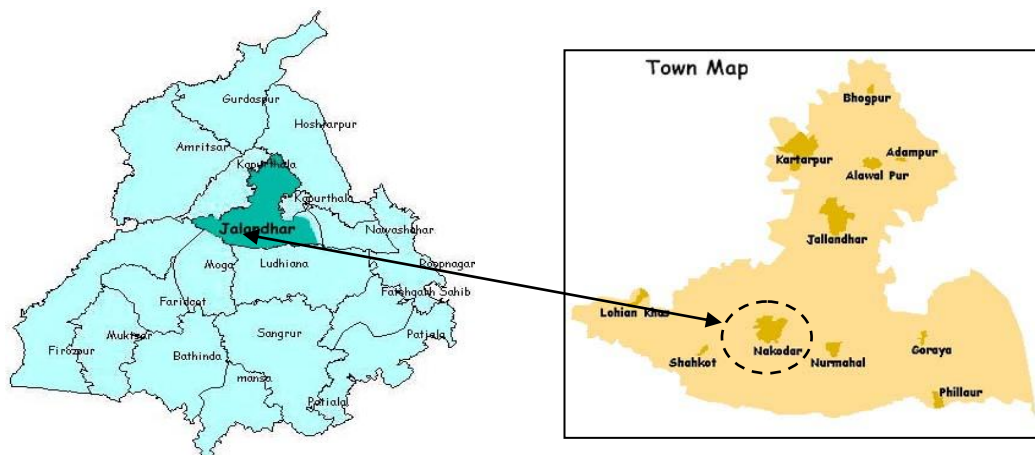
- h) For the planned and balanced development of this area, the ecological and environmental considerations have been taken care of.
- i) State and Regional level planned and development aspects have also been considered so as to control the pressure on existing infrastructure and amenities of this newly created Tehsil headquarter.

## 1.2 Regional Setting

LPA Nakodar lies between 31°5' North, 75° 29' east longitude in Doaba Region of South Western Punjab. It is surrounded by Moga District on the south west, Kapurthala District on the east as well as north west side, Ludhiana District on the south side.

Nakodar is situated in between of Satluj and Beas River and is located about 24 kms from Jalandhar city the district headquarter and is connected by road with Jalandhar, Mehatpur, Shahkot, Nurmhal and Kapurthala. It is also connected by railway link with Jalandhar, Lohian Khas and Ludhiana.

**Figure 1: LPA Nakodar with respect to Punjab State and surrounding region**



## 1.3 Physiography and Climate

The surface of Nakodar is the part of Indo – Gangetic Plain, which was formed by deposition of alluvium brought by rivers originating in Himalayas. A distributor namely Satluj is passing through Nakodar from Sharkpur to Shahkot is the main canal of Nakodar Town.

The Climate of this town is on the whole dry except during the brief South-West monsoon season. During the month of June, it is generally the hottest month with mean daily temperature at 41°C and the mean daily minimum temperature at about 27°C. It is generally the coldest month in January with the mean daily maximum temperature at about 19°C and the mean daily minimum temperature at about 6°C. The average annual rainfall in this district

Jalandhar is 650.0 mm. The rainfall in the district in general increases from the South-West towards the North-East and varies from 551.3 mm at Nakodar to 892.33 mm at Adampur.

#### 1.4 Historical Background

Nakodar town is a historical town. It is said to be set up by Hindu 'Kambos'. It is also believed that an Afgan named Nakodar Khan established the town. Another belief is that Malik Nakodar Khan a brother of Rae Izzat founded the town when Manj Rajput crossed the Sutluj. A fourth account reveals that it was founded by the Nikudari legion (ming or hazarah) of the Mughals. It is mentioned in the Ain-I-Akbar that it was once occupied by 'Main' (the term used for Manj Rajputs) who formed it a sub division of their territory.



During sikh period, Sardar Tara Singh captured it and built a fort. He also made it the centre of a considerable territory. Maharaja Ranjit Singh seized it in the year 1816. It also functioned as a cantonment upto 1854 during British period..The other features of this town are 20 Mosques, 16

Temples of Ganesha and 8 Gurudwaras. Now with the enactment of Punjab Regional and Town Planning and Development (Amendment) Act, 2006, Government of Punjab has decided to prepare Master Plans for all cities and towns of Punjab which also includes Nakodar town. For this purpose LPA Nakodar has been notified under section 56 (1) of Punjab Regional and Town Planning & Development (Amendment) Act, 2006 vide Notification No. 12/27/2010-4HG1/2592 dated 05-08-2010.

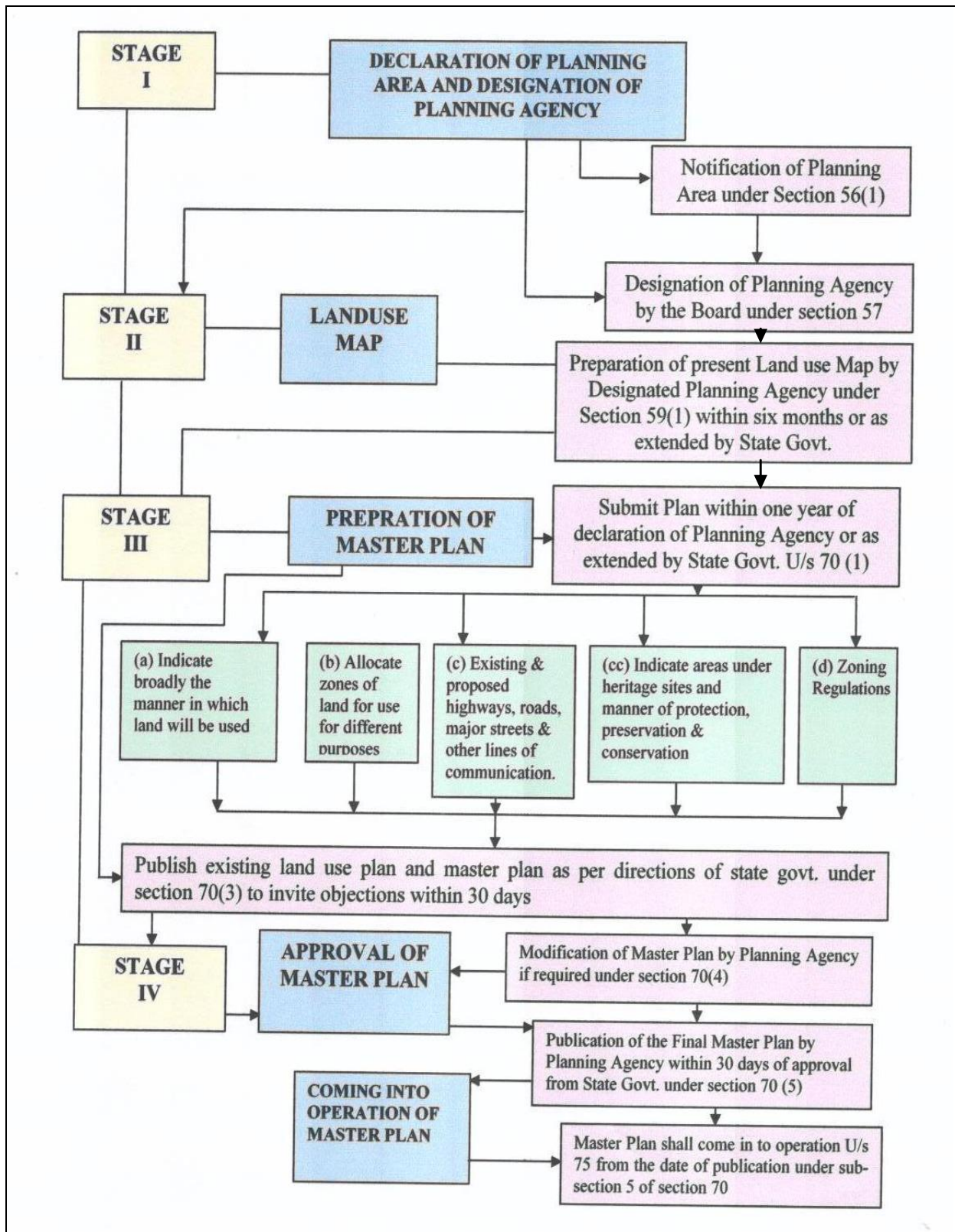
#### 1.5 Legal Framework for Preparation & Implementation of Master Plan

The principal legislation governing regional and town Planning is the "Punjab Regional and Town Planning and Development Act, 1995 (PRTPD)" which was enacted in the year 1995 (Punjab Act No.11 of 1995). Act has been amended in the year 1996, 2003 & 2006.

This act provides the framework for preparing Master Plans and Regional Plans and provides for the manner in which the use of land in the area of a planning authority is regulated. The Act also prescribes specific time period for various steps in the plan preparation process. The entire process of preparation of master plans as per the provision of the ibid act has been shown in the form of flowchart (see figure 2)



Figure 2 : Stages of Master Plan Preparation





## 2. POPULATION, HOUSING, ECONOMY AND EMPLOYMENT

### Population

#### 2.1 Population Growth and Characteristics

Demographic profile of the area in terms of the population, growth rate, population density, literacy rate etc. helps in determining the social as well as the economic character of the area. The study has been done decade wise which helps in bringing out the trends of the growth rate, literacy level, sex ratio etc. of the LPA, Nakodar and Nakodar town.

#### Local Planning Area, Nakodar:

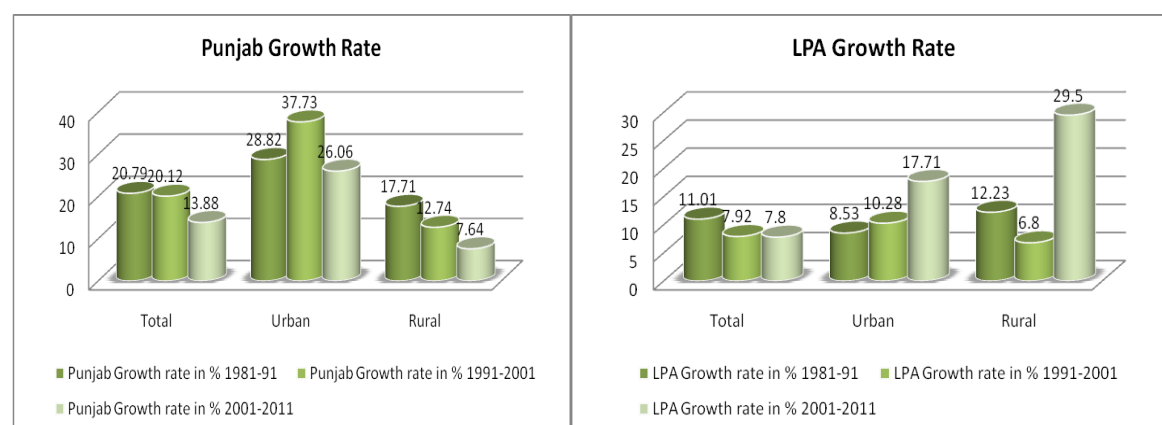
The Local Planning Area Nakodar includes one town namely, Nakodar along with 52 villages of district Jalandhar. Local Planning Area experienced growth rate of 11.01% and 7.92% during the year 1981-1991 and 1991-2001 respectively. Thus showing a decline in the population growth rate during the 2001-2011 which might be due to the weak economic base of the town and out migration to other countries. LPA Nakodar has a population of 95609 persons in 2001 and 103000 persons in 2011. The growth trend of population of Punjab State and LPA, Nakodar is given in table below:

**Table1: Population Growth Rate of Punjab State and LPA, Nakodar: 1981-2011**

	Population				Growth rate in %		
	1981	1991	2001	2011	1981-91	1991-2001	2001-2011
<b>Punjab State *</b>							
Total	16.79	20.28	24.36	27.74	20.79	20.12	13.88
Urban	4.65	5.99	8.25	10.40	28.82	37.73	26.06
Rural	12.14	14.29	16.11	17.34	17.71	12.74	7.64
* Population In Millions							
<b>LPA, Nakodar</b>							
Total	79798	88589	95609	103000	11.01	7.92	7.80
Urban	26239	28478	31408	36905	8.53	10.28	17.71
Rural	53559	60111	64201	66095	12.23	6.80	29.50

Source: Census of India, Punjab 1981, 1991, 2001, 2011

**Figure 3: Population Growth Rate of Punjab State and LPA, Nakodar: 1981-2011**



## Nakodar Town

Nakodar is a major urban settlement of District Jalandhar and is the only urban area of LPA, Nakodar. As per the table given below regarding the population growth of Nakodar town over the decades from 1941 to 2011, it can be said that growth of population is not uniform. Nakodar town recorded a lowest growth rate of -7.65% during 1941–1951, the negative growth rate during this period can be attributed to out migration from the town due to partition. However, the town registered high growth rates of 44.51% during the decade of 1971-1981. The high growth rate during this period perhaps may be due to commercial and industrial development and also due to normalized social and economic. The population profile of Nakodar town indicates that during the decade of 1951–1961 a growth rate of 28.81% was recorded whereas in 1961–1971, the growth rate of population decreased to 25.62%. However during the last two decades of 1981–91 and 1991–2001, the growth rates i.e. 8.53% and 10.28% are on decline which is perhaps due to the out migration of the population to the foreign countries thus increasing the NRI count in this area. The growth rate of the town was very low as compared to Punjab urban growth rate which was about 26.06% during 2001–2011. The detail of population growth of Nakodar town from 1941 to 2011 is given in table below .

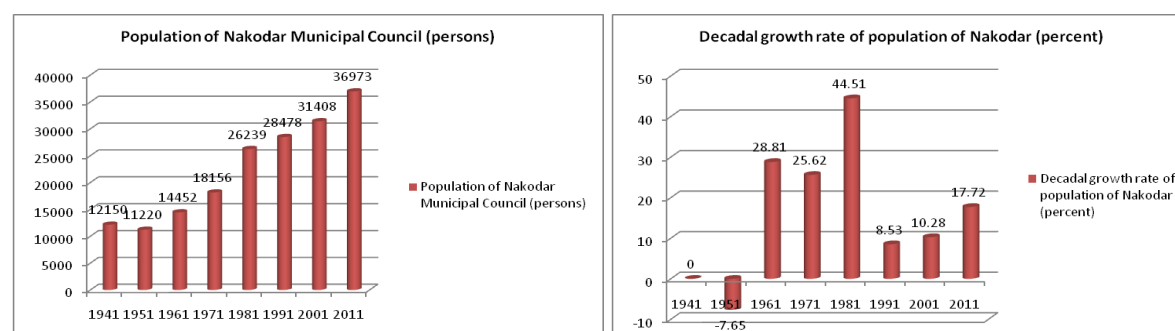
**Table 2: Population Growth Rate Nakodar town: 1941-2011**

Year	Population of Nakodar Municipal Council (persons)	Decadal growth rate of population of Nakodar (percent)
1941	12150	-
1951	11220	-7.65
1961	14452	28.81
1971	18156	25.62
1981	26239	44.51
1991	28478	8.53
2001	31408	10.28
2011	36905	17.72

*Source: Census of India, Punjab 1941 – 2011*

While reflecting the figures of above table into a diagrammatical way gives an immediate impression of variation of growth rate as shown in Figure below:

**Figure 4: population and Decadal growth rate of Nakodar.**



## Population Growth in the Context of Punjab State

Population Growth in the context of Punjab State is same in 1961-1981 but it increased in 1991-2001 as 0.47%, 0.38% in 2001 and 2011 in 0.36%.

**Table 3: Growth Trends – Urban Population in Punjab and Nakodar town**

Year	Urban population of Punjab (persons)	Population of Nakodar M.C. (persons)	Population of Nakodar M.C. as percent of total urban population of Punjab	Decadal growth rate of urban population of Punjab (percent)	Decadal growth rate of population of Nakodar (percent)
1961	2567306	14452	--	--	--
1971	3216179	18156	0.56	25.27	25.62
1981	4647757	26239	0.56	44.51	44.51
1991	5993220	28478	0.47	28.95	8.53
2001	8245566	31408	0.38	37.58	10.28
2011	10399146	36905	0.36	26.06	17.71

Source: Census of India 1961-2011

It is evident from the above table that growth rate of Nakodar town is less than Punjab state and also share of urban population to the total urban population of Punjab is decreasing.

## Population Distribution in LPA, Nakodar:

As per the figures of 2011 census, Nakodar is the urban settlement of L.P.A having a population of 36,973. Out of rural settlements Sankar and Boparai are the largest villages having a population of 5639 and 3507 respectively whereas the smallest village is Panjgrain having a population of 4 persons only. The size of rural settlements is closely related to the hierarchy and importance of the roads. The detail of population growth of these village is given in Table below;

**Table 4 : Growth Rate of Villages of LPA Nakodar: 1981-2011**

Population Year wise				Growth Rate of Villages%		
1981	1991	2001	2011	1981 – 1991	1991 – 2001	2001-2011
53559	60111	64201	66095	12.23	6.80	2.95

Source: District Census handbook 1981, 1991, 2001, 2011

## 2.2 Sex Ratio

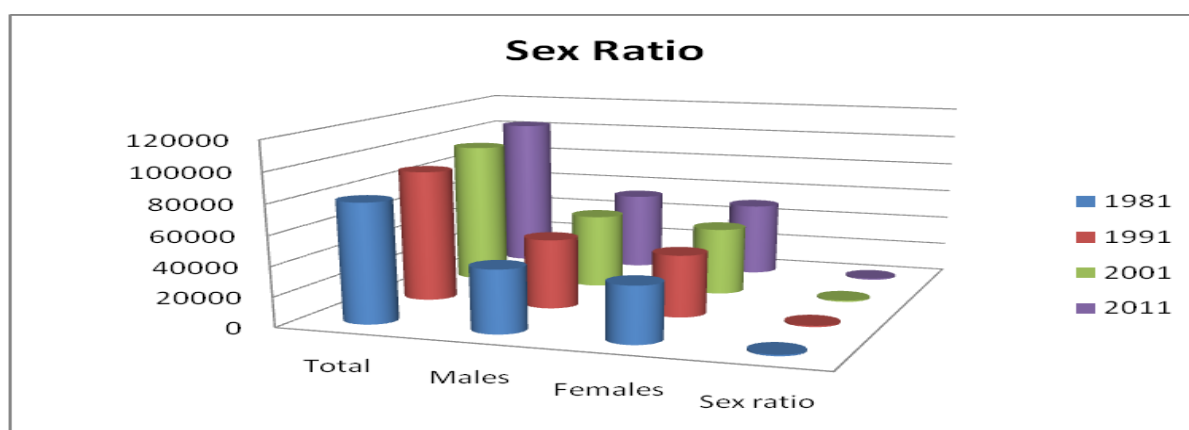
According to 1981 census, the sex ratio was 875 females per 1000 males in LPA Nakodar which improved to 885 and in 1991 and it further improved to 891 by the year 2001. In case of Nakodar town also, the sex ratio increased from 885 in 1981 to 889 in 1991 and 912 in 2001 to 943 in 2011. The sex ratio of LPA Nakodar when compared with the state figure of 876 females per 1000 males seems to be quite positive with the figure of 943 in 2011. The details of sex ratio in LPA Nakodar is given in table below:

**Table 5: Sex ratio of LPA**

Year	Total	Males	Females	Sex ratio
1981	79798	42113	37682	895
1991	88589	46910	41689	889
2001	95609	50004	45605	912
2011	103000	53055	50013	943

(Source: District Census Handbook, Nakodar)

**Figure5: Sex Ratio of Nakodar**



### 2.3 Caste Composition

The total SC population in the LPA Nakodar is 49225 persons which is 47.75% of the total population in 2011. Whereas the average SC population in Punjab state 28.85% of total population, which shows that the percentage of SC population in LPA is more than that of Punjab state. It is continuously increasing every decade.

**Table 6: Scheduled Caste population & %age of SC Population to total Population of LPA Nakodar**

Year	Total Population	SC Population	%age of SC Pop to Total Pop
1981	79798	31922	40.00
1991	88589	38023	42.92
2001	95609	43726	45.73
2011	103000	49225	47.75

(Source: District Census Handbook, Nakodar)

### 2.4 Literacy

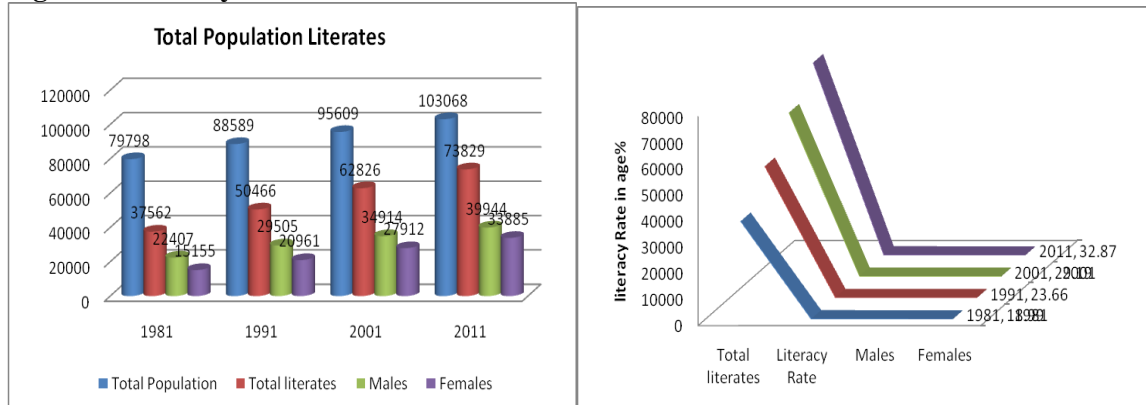
The literacy rate in 1981 was 47.07%, which increased to 56.97% in 1991 and further rose to 65.71% in 2001 and 71.63% in 2011. The percentage of male literates has been recorded 36.52% whereas in case of females it was 32.87% in 2011. As per trend, literacy rate of female increased from 18.99% in 1981 to 32.87% in 2011 in LPA, Nakodar, which shows that more and more girls are coming to schools. Similarly, literacy rate of Nakodar town also substantially increased from 47.07% in 1981 to 71.63 % in 2011.

**Table 7: Literacy Rate LPA Nakodar**

Year	Total Population	Total literates	Literacy Rate (in %age)	Males		Females	
				Number	%age	Number	%age
1981	79798	37562	47.07	22407	28.08	15155	18.99
1991	88589	50466	56.97	29505	33.31	20961	23.66
2001	95609	62826	65.71	34914	36.52	27912	29.19
2011	103000	73829	71.63	39944	38.75	33885	32.87

(Source: District Census Handbook, Nakodar)

**Figure 6: Literacy Rate of LPA Nakodar and Nakodar Town**

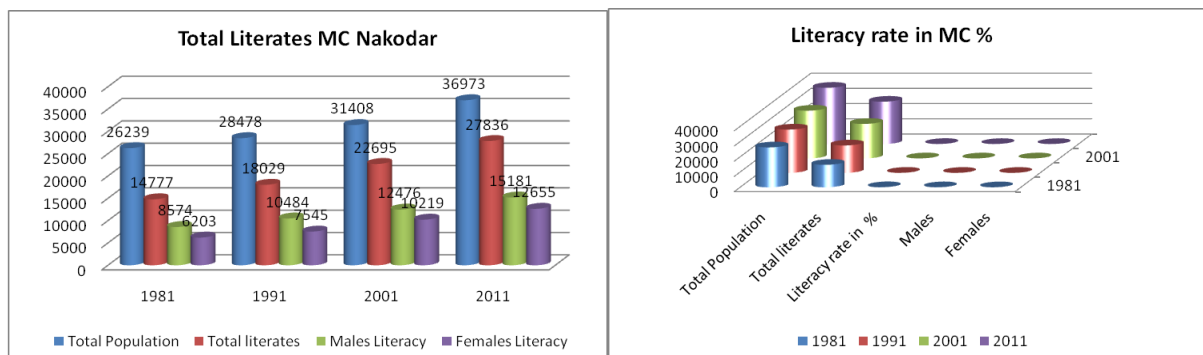


**Table8: Literacy rate of Nakodar Town: 1981-2011**

Year	Total Population	Total literates	Literacy rate in %	Males Literacy		Females Literacy	
				Number	%age	Number	%age
1981	26239	14777	56.32	8574	32.67	6203	23.64
1991	28478	18029	63.31	10484	36.81	7545	26.49
2001	31408	22695	72.26	12476	39.72	10219	32.53
2011	36905	27836	75.29	15181	41.10	12655	34.23

Source: Census of India, 1981, 1991, 2001,2011

**Figure 7: Literacy Rate of Nakodar Town**



Literacy rate of Nakodar town is higher as compared to the Punjab state i.e. 75.29% in 2011. This shows that the existing education system in the Nakodar town is very strong.

## 2.5 Economy and Employment

Economic data as available for the state is not available for the town. The trends of economic growth have therefore to be judged on the basis of employment data as given below:

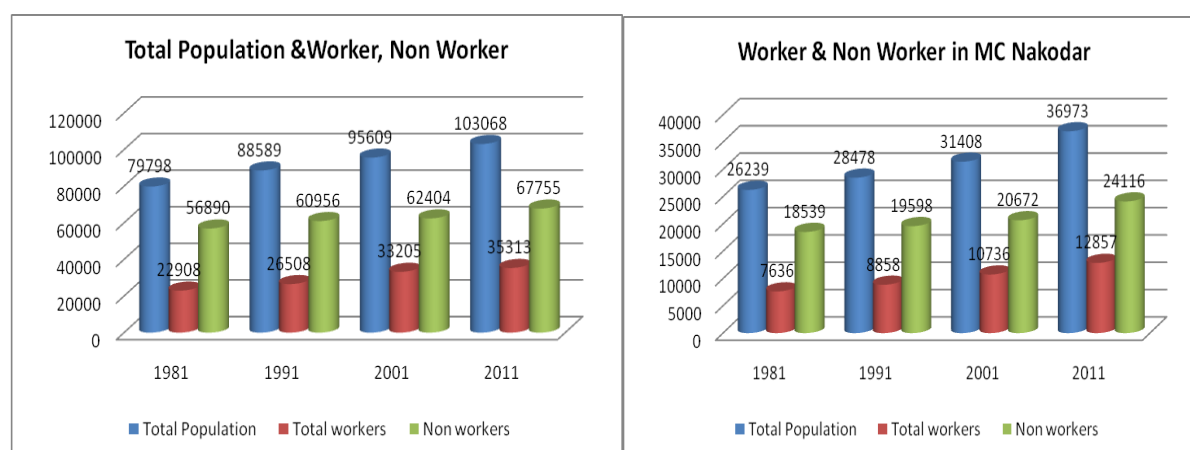
## 2.6 Work force Participation & Employment

**Table 9: Workers and Non-workers of LPA, Nakodar & Nakodar town (1981–2011)**

Year	LPA, NAKODAR				NAKODAR TOWN			
	Total Population	Total workers	%Age	Non workers	Total Population	Total workers	%Age	Non workers
1981	79798	22908	28.71	56890	26239	7636	29.10	18539
1991	88589	26508	29.92	60956	28478	8858	31.10	19598
2001	95609	33205	34.73	62404	31408	10736	34.18	20672
2011	103000	35313	34.26	67755	36905	12857	34.77	24116

Source: Census of India, Punjab 1981, 1991, 2001, 2011

**Figure 8 : Total Workers and Non-Workers in LPA Nakodar and Nakodar Town**



## 2.7 Occupational Structure

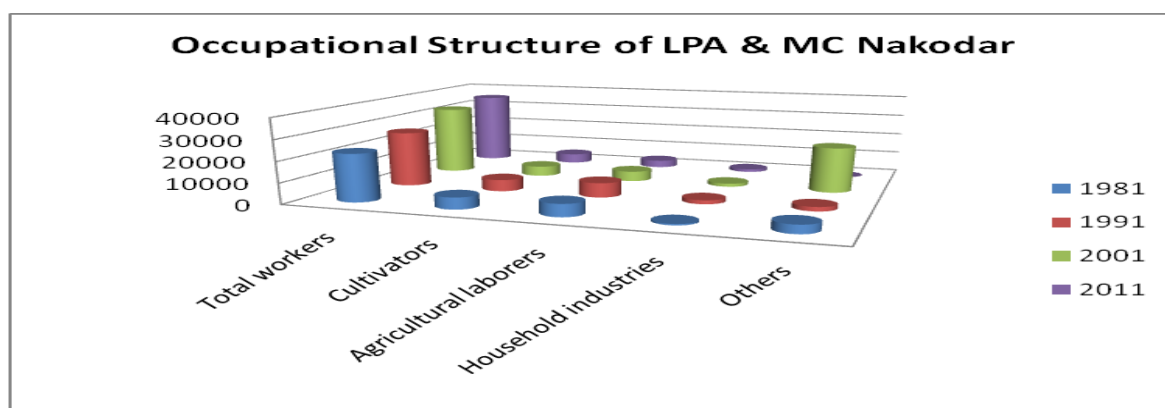
The change in occupational structure has been noticed to a considerable extent in primary sector i.e. cultivators and agricultural labourers have been decreased from 24.49% in 1981 to 13.47% in 2011 within LPA, Nakodar. The percentage of workers working in household industrial sector has recorded an increase from 2.78% in 1981 to 3.97% in 2011. This trend shows that the labour of LPA Nakodar is shifted from primary sector to tertiary sector during 1981-2011.

**Table 10: Occupational Structure of LPA, Nakodar 1981-2011**

Year	Total workers	Cultivators		Agricultural laborers		Household industries		Others	
		No.	%age	No.	%age	No.	%age	No.	%age
1981	22908	5610	24.49	5993	26.16	636	2.78	4042	17.64
1991	26508	5576	21.04	6977	26.32	1873	7.07	2086	7.86
2001	33205	4907	14.78	4909	14.78	1564	4.71	21825	65.73
2011	35313	4759	13.47	3585	10.15	1402	3.97	-	-

Source: Census of India, Punjab 1981, 1991, 2001, 2011

**Figure 9: Occupational Structure of LPA, Nakodar (1981 -2011)**



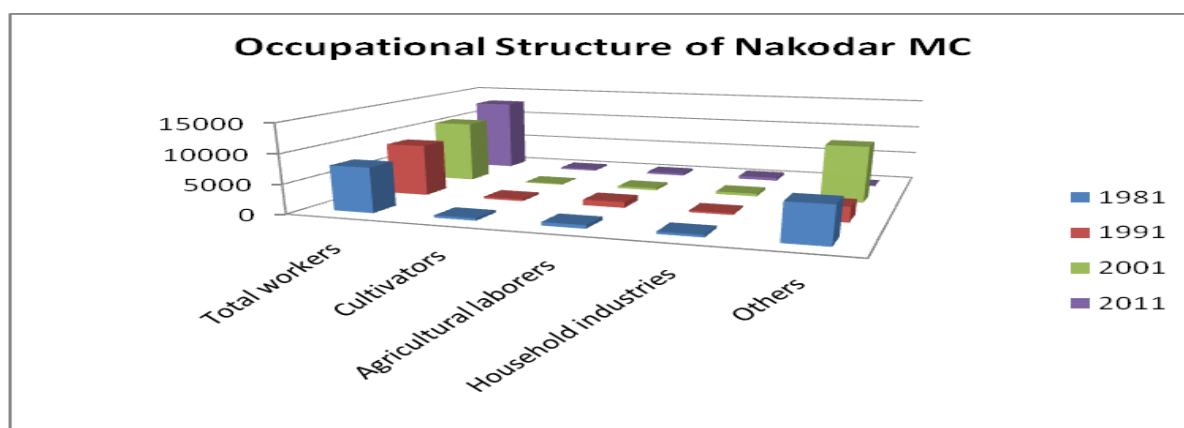
In case of Nakodar town the workers engaged in primary activities i.e. cultivators and agricultural laborers decreased from 7.58% in 1981 to 2.92% in 2011. The house hold industry after showing a decreasing trend during 1981 to 1991 as 5.08% to 3.15% and again recorded a minor decrease from 4.35 % to 4.21 % during 2001 to 2011. Similarly the share of workers engaged in other activities recorded decrease from 81.94 % to 29.30 % in the year 1981 to 1991 and then it increased from 29.30 to 90.90% in 2001. These figures show that the scenario of development of Nakodar has changed; the upcoming of a number of institutions attracted a large number of workers and profusely of different fields.

**Table 11: Occupational Structure of Nakodar Town: 1981-2011**

Year	Total workers	Cultivators		Agricultural laborers		Household industries		Others	
		No.	%age	No.	%age	No.	%age	No.	%age
1981	7636	412	5.40	579	7.58	388	5.08	6257	81.94
1991	8858	340	3.84	986	11.13	279	3.15	2595	29.30
2001	10736	145	1.35	365	3.40	467	4.35	9759	90.90
2011	12857	313	2.43	376	2.92	542	4.21	-	-

Source: Census of India, Punjab 1981, 1991, 2001, 2011

**Figure 10: Occupational Structure of Nakodar MC (1981 -2011)**





## 2.8 Manufacturing Industry

Industries have been found to be the prime movers of the physical and economic growth of the urban areas. Town has varied types of industries such as rice sheller's, cold storages etc. situated at distinct locations all over the town.

### Industrial Growth

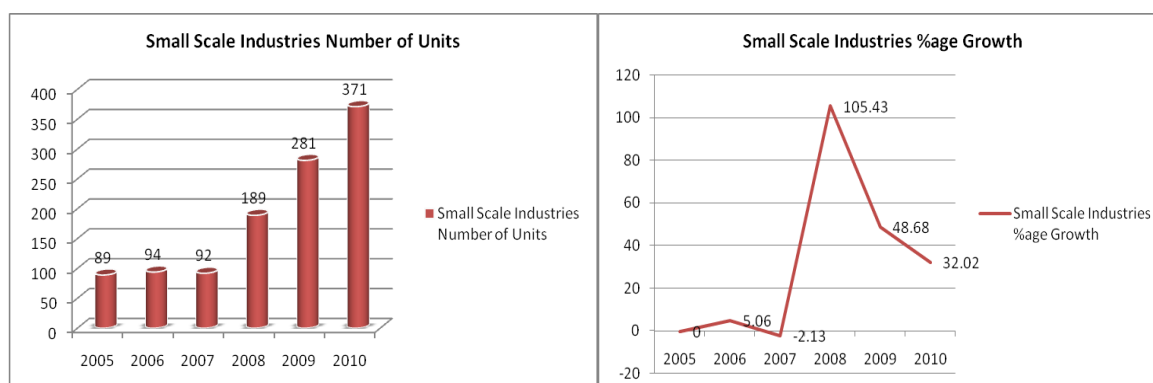
There is no large scale industry and 371 small scale industries operational in Nakodar LPA. From the table given below, it is evident that there has been no establishment of large scale industrial units since 2001. Talking in the absolute terms, it may be said that starting from 89 in 2005, thus showing decline and incline in industrial growth which is because of various reasons like out migration of population resulting in closing of no. of small scale industrial units and ineffective industrial are concerned. The percentage growth rate of the Small Scale Industrial Units has been tabulated in the following table:

**Table 12: Growth of Small Scale Industrial Units in Nakodar**

Year	Small Scale Industries	
	Number of Units	%age Growth
2005	89	-
2006	94	5.06
2007	92	-2.13
2008	189	105.43
2009	281	48.68
2010	371	32.02

(Source: GM, DIC, Nakodar)

**Figure 11 Number of small scale industries**



### Employment

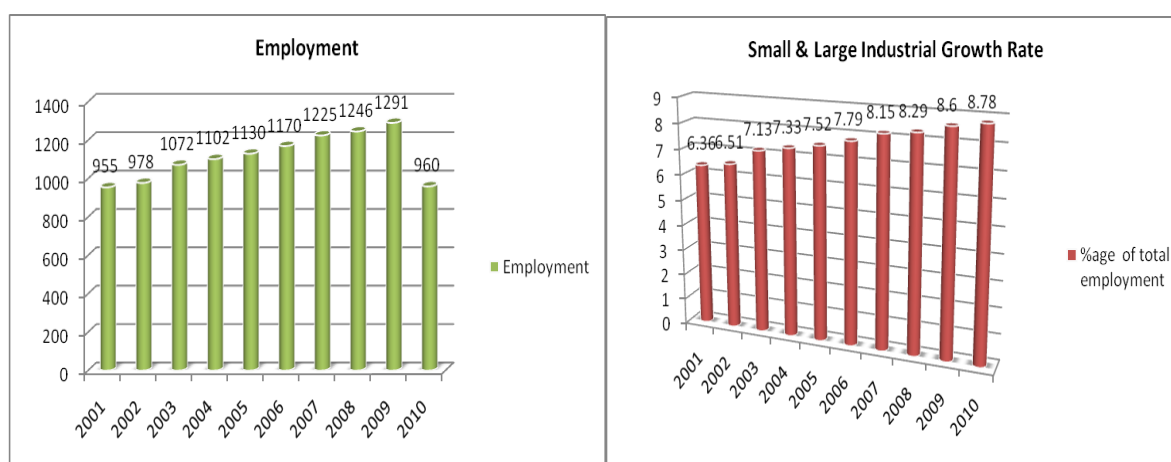
Keeping in view the trends prevailing in the Industrial Units, small scale industrial units have been found to be not only largest in number but also generator of major proportion of employment in the town. The growth rate of employment of small scale units in the year 2002-2003 is 9.61% which and declined as 25.63% in the year 2010. The details of total employment generated are given in table below:

**Table 13: Employment in Small & Large Industrial Sector**

Year	Small Scale Industries		
	Employment	%age Growth	%age of total employment
2001	955	-	6.36
2002	978	2.41	6.51
2003	1072	9.61	7.13
2004	1102	2.80	7.33
2005	1130	2.54	7.52
2006	1170	3.54	7.79
2007	1225	4.70	8.15
2008	1246	1.71	8.29
2009	1291	3.61	8.60
2010	960	-25.63	8.78

(Source: GM, DIC, Nakodar)

**Figure 10 Employment in Small & Large Industrial Growth Rate.**



### Key Issues:

With a view to rationalize the growth and development of industries in Nakodar and to provide a supportive and enabling environment which would attract higher investment, generate more employment and improve productivity of the industrial units, following key issues have been identified:-

- The infrastructure and services within the existing Industrial Establishments needs to be upgraded in order to improve the environment and productivity of the existing units.

### 3. EXISTING LAND USE

#### 3.1 Preparation of base map

The work of preparation of base map for the LPA, Nakodar was done by the District town planner, Jalandhar. The base map of whole Planning Area Nakodar is generated on 1:10,000 scale using google imagery data. The Cadastral maps of the villages falling in LPA, Nakodar were procured from the State Revenue department by the office of District Town Planner, Jalandhar and these maps have been scanned in the office of District town planner, Jalandhar and registered with imagery data to demarcate village boundaries. The features like roads, rails, high and low lands, drains and settlements etc. have also delineated from imagery data, and shown on the base map prepared on basis of satellite imagery. After editing the map details the attributes to different features were assigned. After the preparation of LPA, Nakodar using google imagery, the base map for densely populated urban areas of Nakodar town (core areas) was prepared on using resolution data.

#### 3.2 Enhancement through field surveys

The base map for the LPA, Nakodar and the densely built up areas (i.e. core areas) prepared through ground truthing field survey by the office of D.T.P Jalandhar. The various land uses have been identified at the site and earmarked accordingly. Similarly the road network, drains, distributaries and other communication zones have been verified and checked at site. After conducting field surveys, the necessary changes which had ultimately been incorporated and an updated base map was prepared.

#### 3.3 Existing Land Use: LPA, Nakodar

The LPA, Nakodar comprises 13851. hectares of area out of which the area of Municipal Council Nakodar is 1508.55 hectare LPA, Nakodar covers the revenue estates of 52 villages includes the area of one urban centre i.e. Nakodar as shown on Existing Land Use Plan, Drawing No.DTP(J) 9/2012 DATED 03/09/2012. Besides this, LPA, Nakodar is comprised of mostly agricultural. The detail of breakup of existing land of LPA Nakodar is given in table below:-

**Table 14 : Existing Land Use LPA, Nakodar-2009**

NAME OF LANDUSE	Area in Hect.	% age to the total area
Residential	991.52	6.53
Commercial	61.03	0.40
Industrial	4.00	0.03
Recreational	3.33	0.02
Rural and Agricultural	13837.8	91.10
Traffic and Transportation	247.45	1.63
Government	8.22	0.05
Public & Semi-Public	37.16	0.24
<b>Total</b>	<b>13851</b>	<b>100.0</b>

Source: M.C. Nakodar

### 3.4 Existing Land Use: Nakodar town

LPA, Nakodar comprises 13851 hectares covering the land of 53 villages including Nakodar town. The total area of Municipal Council of Nakodar in the Year 2009 was 1508.55 hectares. The detail of major existing land uses within the M.C. Limits is given in table below:

**Table 15: Existing Land Use Nakodar Town -2010**

NAME OF LANDUSE	Area in Hect.	% age to the total M.C. area
Residential	329.34	21.84
Commercial	50.14	3.32
Industrial	1.75	0.12
Recreational	3.33	0.22
Rural and Agricultural	1036.21	68.72
Traffic and Transportation	50.68	3.36
Government	8.22	0.54
Public & Semi-Public	28.33	1.88
Total	1508	100

*Source: M.C. Nakodar*

#### **Residential**

It is very much clear from table that the residential use has a larger share of town area comparing to other uses. Out of the total Municipal area of 1508.55 hectares about 329.34 hectares i.e 21.84% of the total M.C. area is under residential use which includes both planned and unplanned development. The population density is high in inner areas (>150 persons/hectare) as compared to outer areas (< 50 persons/hectare). The inner zone of the town is characterized by irregular street pattern, narrow lane, low ventilation of buildings, dilapidated structures etc. So far as the residential use is concerned it has expanded in each corner of the city. The central part of the city is predominately residential and in addition to old town localities, some new unauthorized colonies are coming up in the town.

#### **Commercial**

The commercial use is the most important use of the urban areas. It may have lesser share in area but plays an important role in town character. In case of Nakodar town the total area covered under commercial use is 50.14 hectares which is 3.32% of the total developed area. Besides the commercial areas along major roads, fruit and vegetable market are the other commercial areas located in the town. The commercial areas of the town lack adequate parking and other public amenities. The commercial area of the town is in the form of semi-organized bazaars along streets and roads. Apart from this there are informal bazaars in the form of temporary shops like Rehri walas, fairhi walas and khokhas located in the existing commercial areas and near the bus stand, railway station, grain market, and near other

important economic activities. These activities are not of permanent nature and are using the roads therefore areas covered under this use are not shown separately.

### **Industrial**

As table depicts that the total area under industrial use is 1.77 hectares which is 0.13% of the total M.C. The Nakodar city has medium and small scale industrial units with 371 small scale industries only

### **Recreational**

The total area under recreational use is just 3.33 hectares which is 0.22 % of the total municipal area. Recreational aspect is also covered in detail in part of social infrastructure of Chapter 4. Mostly the town lacks the recreational facilities. There are no organized parks and open spaces in the town for recreational purposes except one.

### **Traffic & Transportation**

The total area under traffic and transportation is 50.68 hectares which is 3.36% of the total M.C area, which is quite low as compared to norms and standards. The major problems related to this aspect are missing road hierarchy, lack of parking places, traffic bottlenecks, encroachment of roads, lack of traffic signals etc. The details of existing road network and other uses relating to traffic transportation are shown in Existing Land Use Plan, Nakodar Drawing No. DTP (J) 9/2012 DATED 03/09/2012.

### **Government**

This use comprises the area under Govt. /Semi Govt. office, Govt. land and reserved land. The total area covered under this use is 8.22 hectares which is 0.54% of the total M.C area.

### **Public & Semi-Public**

This Use comprises the areas covered under Education, Health, Socio-Cultural, cremation grounds etc. The total area covered by this use is about 28.33 hectares which is 1.88% of total municipal area. The most of public and semi-public uses are concentrated in the central part of the town whereas few uses of this category are also seen in the outer parts of the town.

### **Agricultural / Rural**

There are some chunks of land falling within municipal limits which are still being used for agricultural purposes. 1036.21 hectares area is under agricultural use which is 64.72% of total M.C. area which shows that the most of the area under the M.C. limit is not developed. Availability of such large areas under agriculture use means there is sufficient land available for urban growth at cheaper rates and it also implies good potential for the scope of development of agro based industries. The Existing Land Use Plan of Nakodar, Drawing No. DTP (J) 9/2012 DATED 03/09/2012. Shows the spatial distribution of all the uses within and outside the limits of Nagar Panchayat, Nakodar.

**Major contributors to the air pollution are:-**

- Vehicular exhaust due to the presence of large number of vehicles and higher use of personalized vehicles.
- Narrow road width, low capacity of the roads and high intensity of traffic.
- Use of low grade fuel (by adding kerosene/diesel in petrol by auto rickshaws)
- Presence of large number of intermediate public transport vehicles and use of kerosene as the fuel.
- Smoke emitted by various Industries.

## 4. EXISTING INFRASTRUCTURE

### 4.1 Water supply

The Water supply system of Nakodar town is dependent on surface water. In Nakodar, ground water is available 20 meter below the ground level, but the quality of ground water is not suitable for drinking purpose due to presence of excessive chlorides and fluorides and high degree of TDS. River Sutlej by Nakodar. The raw water is easily available to water works site. There are 7 tube wells and 1 water tank on Makbra road, which is not working.

#### Water Connections

The town at present has 3071 registered water connections to different category of users. The table indicates that during the year 2004-2010. It has been observed that larger proportions of the connections fall under the category of domestic use which constitute about 96.07% whereas commercial water connections constitute only 3.93% of the total water connections..

**Table 16: Detail of water supply connections in Nakodar from 2006-2010**

Years	Water supply		
	Domestic	Commercial	Total
2006	2658	102	2760
2007	2692	104	2796
2008	2777	111	2888
2009	2875	114	2989
2010	2955	116	3071

*Source: Municipal Council, Nakodar*

**Table 17: Existing Water supply**

Category	Amount of Water supplied/ Day	Registered connections	Population	Water supply in LPCD
Municipal Council Area	7.35 MLD	3071	36905	250

*Source: PWSSB*

#### Water demand & Supply

The estimated population as per PWSSB for the year 2001 which is served by piped water system is 36905 which is 97% of total population. This gives gross per capita supply of 250 lpcd. As per as the norms prescribed, the amount of water supplied is 135 lpcd. Accordingly, the amount of water supplied is higher than the prescribed norms. The duration of water supply is 3 times a day and the total duration work out is 3 hours on daily basis.

### 4.2 Sewerage Network

Municipal Council of Nakodar with association of Punjab Water Supply & Sewerage Board (PWSSB since 1977) provides the facility of sewerage network to the areas falling within the municipal council. The sewerage includes the waste generated from domestic, industrial, commercial and institutional units etc. operating in the town. At present, 70% of the



population could be provided with the sewerage facility where as the remaining 30% of the population is still to be provided with this facility.

#### 4.3 Storm Water Drainage

Following the analogy of sewerage network, the town has high degree of deficiency in the storm water network also. Besides the fact of inadequate sewerage system, no storm water drain exists in the town. In the absence of storm water system, the rain water is largely discharged into the sewer network. This results in heavy loading of the sewerage network, ultimately leading to choking of the pipes, overflow of the sullage and backflow of the sewage. This calls for the urgency of having a separate storm water network to be put in the place for the whole town to dispose off the rainwater effectively.

#### 4.4 Solid Waste Management

Solid waste is a combination of unwanted and discarded materials from households, commercial and industrial operations besides street sweeping. Solid waste management is the prime responsibility of Nakodar Municipal Council within its boundaries. The Municipal Council organizes the collection and transportation through its own conservancy workers and tractor trolleys. Municipal Council collects solid waste from all the residential areas within its limits and then transports it to the dumping site. The process of solid waste management can be broadly classified into following stages:-

- i. Primary and secondary collection
- ii. Waste Storage & segregation.
- iii. Waste transportation
- iv. Disposal of Waste.

The solid waste is first collected from the points where it is generated and taken to the collection centers defined by the Municipal Council. After the garbage is dumped at the identified places it is transported by the Municipal Council to the dumping site for final disposal. At present Nakodar municipal council uses only one site for dumping the solid waste. The site is located on Purana Mansian road. The area used for dumping is 4 acres 5 Kanal 14 marlas(37 kanal 14 Marlas). There are about 26 permanent employees, 80 Labourers and 3 driver for 3 Trollies deployed by the municipal council for this purpose.

**Table 18: Details of Waste Dumping Site**

Sr. No.	Site	Land area (acres)	Remarks
1.	Malsian Road	4acres 5 kanal 14 Marlas	The site is is not fully filled

*Source: M.C. Nakodar*

#### 4.5 Traffic and Transportation

Transportation is an integral part of any city/town that is totally responsible for the existence and prevailing characteristics of the city. Without transportation, the functional differentiation of the city/town into areas of specialized land uses could not have occurred, and without transportation, the functionality of the town cannot be achieved or in other words it acts as the spinal cord of the city/town.

##### Existing Road-Rail Network

Road and Rail play a significant role in the transport sector in Nakodar and surrounding areas. The road network is studied in terms of classification of roads, length of roads, cross section of roads, area of road network and major road intersections. Similar data regarding rail network and Railway crossings is also studied.

##### Road network at Local Planning Area, Nakodar



There are four scheduled roads passing through the LPA Nakodar i.e. Nakodar-Jalandhar road, Nakodar-Malsia road, Nakodar-Kapurthala road and Nakodar- Jagraon road.

Sr. No	Name of Road	Total in Km.	Within MC	MC to LPA, Nakodar
			Road Length (km)	Road length (km)
1	Nakodar –Jalandhar Road	8	6	2
2	Nakodar – Malsian Road	7	4.5	2.5
3	Nakodar –Kapurthala Road	2.32	0.14	2.18
4	Nakodar –Noormahal Road	7.5	6.12	1.38
5	Nakodar – Jagraon Road	3.8	1.5	2.3

##### Road Network at town level

In Nakodar all the major roads converge literally at one point thus making junctions which results in choking of traffic.

The important roads entering the town are listed below:

- Nakodar –Mehatpur Road (Scheduled road no. 32)
- Nakodar –Jalandhar Road (Scheduled road no. 26)
- Nakodar – Malsia Road (Scheduled road no. 11)
- Nakodar –Kapurthala Road (Scheduled road no. 40)
- Nakodar –Noormahal Road

As per the existing positions of these roads, it becomes clear that the town have wide road network. The inner town road network has irregular alignments, inadequate width and frequent intersections leading to serious capacity constraints.

## **Terminals**

### **Bus Terminal and Frequency of bus Service**

There is one Bus Terminal in Nakodar town which is situated on Jalandhar Road having an area of 7 acres which is not sufficient to accommodate all the components as per the norms given in UDPFI Guidelines. Since bus terminal lies at the center of the town it creates congestion in the areas surrounding it and the main road passing in front of it. With large number of rickshaws, auto rickshaws, taxis occupying the space around the bus terminal, movement of traffic in the area largely remains chaotic for most part of the day.

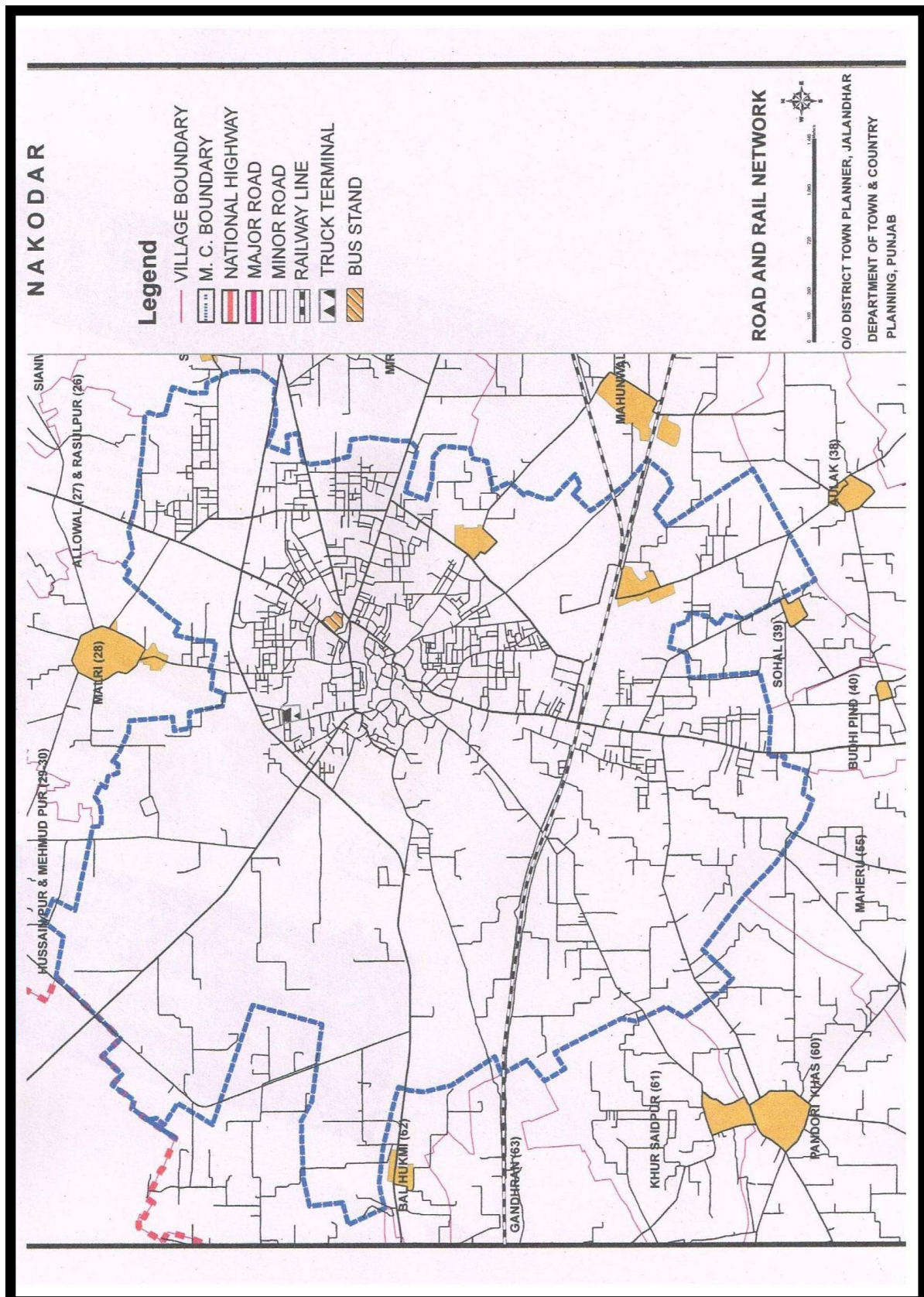
### **Rail Based Transport**



In addition to road traffic, railway also has a reasonable volume of goods and passenger traffic into Nakodar town. Nakodar town has a rail network connecting the town with Jalandhar and Ludhiana. Passenger trains pass through the town on daily basis which caters to the traffic on Nakodar – Jalandhar, Nakodar- Shahkot and Nakodar- Ludhiana railway line. Besides long distance travelling, railway also caters to daily commuting passengers which mainly comprises of govt. employees, industrial and agricultural workers. Railway being the economical and efficient mode of transportation, largely catering to the intercity long distance traffic would continue to attract large volume of passenger traffic.

**Table 19: Detail of passenger trains passing through Nakodar town**

<b>Name of route</b>	<b>Incoming</b>	<b>Outgoing</b>
Nakodar – Jalandhar	3	3
Nakodar- Ludhiana	3	3
Nakodar- Shahkot	2	2



In addition to Passenger trains, large number of goods trains i.e. near about 30-50 trains per year are also passing through the town for transportation of raw material and finished goods. Railway plays an important role in the movement of goods.





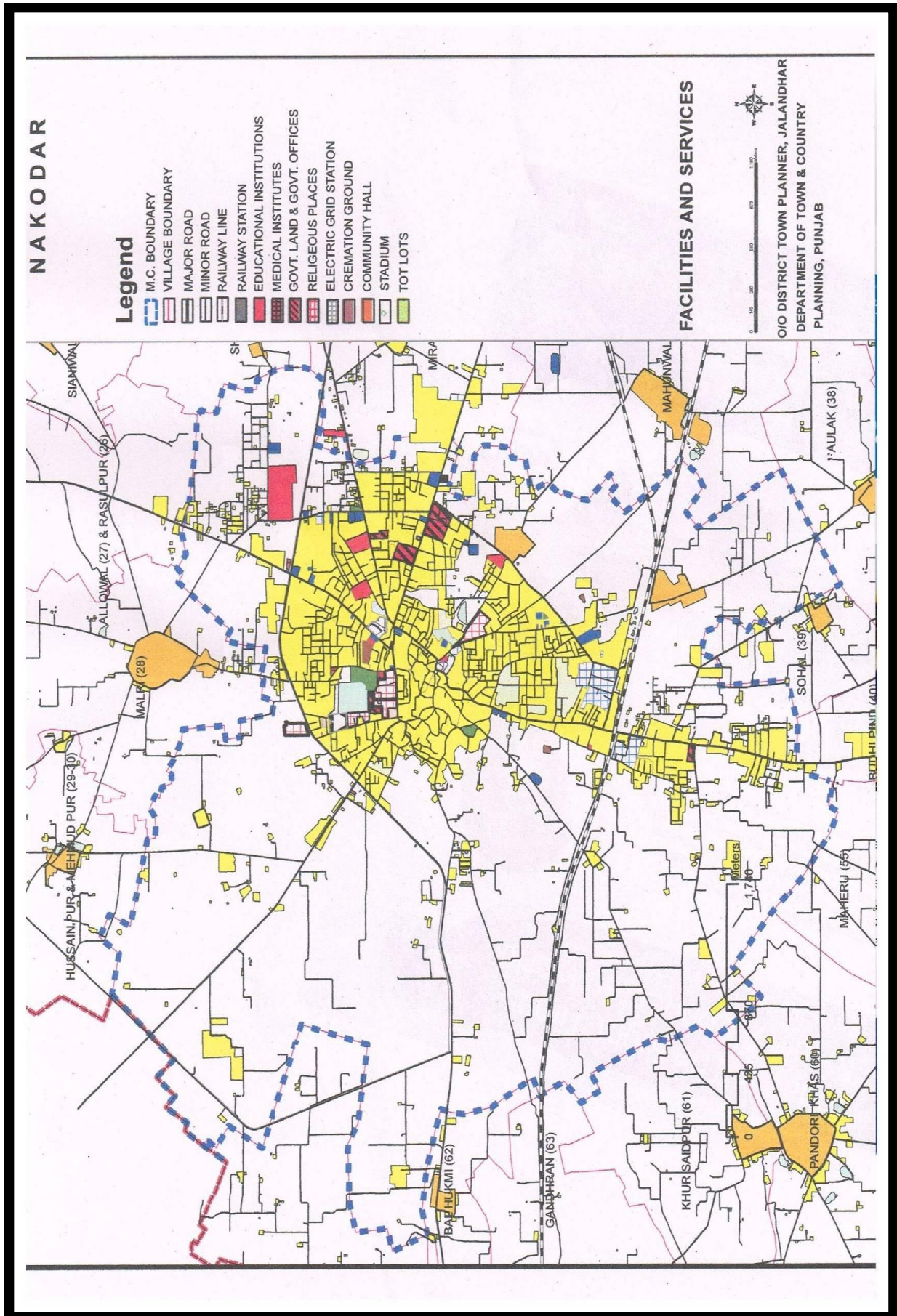
Colleges, and veterinary & nursing institutes. For getting the study of medical and engineering, students have to go to nearby cities like Ludhiana, Jalandhar, and Phagwara etc. Besides the higher level of institutions Nakodar town and its Local Planning Area has number of schools of primary & secondary/ Higher Secondary level which imparts education at school level. Presently there are 40 primary, 15 middle schools and 7 high/higher secondary schools functioning in the rest of LPA, Nakodar. Considering the existing population and norms & standards defined for educational institutions, quantitatively the number of institutions is not adequate to cater the needs of the education of the town and qualitatively also most of the institutions have been found to be deficient in the basic amenities and facilities.

The following table shows the availability of educational facilities in LPA, Nakodar

**Table 200: Educational facilities in LPA, Nakodar**

Sr. No.	Name of Facility	Existing in Numbers
		LPA, Nakodar
1	Primary & Elementary schools	40
2	Middle schools	15
3	High/Secondary Schools & Senior Sec. Schools	7
4	Colleges (Degree)	12
5	Veterinary Institute	-
6	ITI	
	<b>Total</b>	<b>74</b>

Source: Census of India, Punjab 2001



## 4.7 Health Care

A health care provider is an organization that delivers proper care system in a systematic way to an individual in need of health care services. There are number of units of medical facilities of different types providing health services to the residents of Nakodar town, LPA as well as to the persons from outside the LPA. Out of these units there is 1 hospital in Nakodar town, 3 Primary Health Centers, CHC in LPA, Nakodar and Nakodar town and 16 Nursing homes providing medical facilities to the inhabitants of Nakodar town. Also about 160 private doctors and RMPS are looking after the health of the citizens of Nakodar town and 320 chemists are providing the health facilities to the people of Nakodar and its surroundings villages.

The details of different medical facilities available in Nakodar town and Local Planning Area, Nakodar is given in table below:

**Table 21: Medical Facilities in LPA, Nakodar**

Sr. No.	Name of the Facility	Existing numbers
1	Civil hospitals	1
2	Dispensary	47
3	PHC	3
4	CHC	3
5	Private practitioners	79
6	RMP	81
7	Chemists	320
8	Nursing homes	16

*Source: CMO, Nakodar and Census of India, Punjab 2001*

## 4.8 Sports and Recreational Facilities

Recreational facilities constitute an important element of physical and social development of an individual and for that reason, their provision and balanced spatial distribution at the local, sub-city and city level assumes importance. Recreational facilities have been found to exist in the shape of parks and open spaces, cinemas, stadiums, museums, sports related activities, clubs, library and amusement parks etc. Recreational facilities have also been divided into active and passive recreational facilities. Provision of both these facilities has to be made in order to cater to the essential needs of the individuals and communities.

## 4.9 Parks and Open Spaces



As per the record of the M.C. Nakodar. The most parts of the town are virtually lacking the parks and open spaces. All the parks cover an area of about 1.52 hectares. Major parts of the Nakodar town have been developed in unplanned way, so most of these do not have parks and open spaces. Similarly old parts of the



town also lack parks and open spaces. So the existing land for parks and open spaces is inadequate and don't match the planning norms and standards.

#### **4.10 Cinemas & Multiplexes**

There are 2 cinemas in the town catering to the entertainment needs of the residents. Besides this, no new cinema or multiplexes are coming up due to slow development of the town.

#### **4.11 Other Recreational facilities**

In addition to the above there are 1 public library/reading room and one stadium in Nakodar town which provide recreational facilities to the general public. However, any well-organized cultural or drama club has not been noticed in the town thus town is lacking the facility of good theater. There is no museum, no Art Gallery etc. in the town for recreational purposes.

#### **4.12 Sports**

There are four sports stadium in the different colleges like Guru Nanak national college, Satyam institute of management, Bharat college of nursing and K.R.M.D.A.V. college. The sports facilities available in town are not according to norms & standards. However, looking at the growing population it is important that adequate level of recreational facilities are to be created in the town and distributed to cover the entire population of the town.

#### **4.13 Post and Telegraph**

Due to advancement in the technology and policy of liberalization adopted, post and telegraph has emerged as an important medium of communication. These facilities serve considerable proportion of population both at the town and LPA level. Their provision should be made as per defined norms in order to cater to the needs of vast majority of town population.

## 5. VISUALISING THE FUTURE

### 5.1 Population Projections

The population is the basic human factor for which planning is done. The requirements of different types of infrastructure for Nakodar town and for surrounding villages of LPA, Nakodar in 2031 would be based on the projected population for that year and also migration of population that seeks livelihood in the town. For the purpose of population projections, following two methods have been applied:

1. Ratio method or sharing pattern method
2. Extrapolation method: Extrapolation of the past trends and assuming that the trend will continue in future.

In addition to this, the government policies and the opportunities affecting the growth of Nakodar town and rural areas of LPA, Nakodar have also been kept in mind. The following table gives the detail of decadal growth rate of population of Nakodar town, population of rural areas and total population of LPA, Nakodar:

**Table 212: Growth of Population of LPA, Nakodar (Total, urban & Rural)**

Year	Nakodar Town		Rural		Total	
	Population	Growth rate (in percent)	Population	Growth rate (in percent)	Population	Growth rate (in percent)
1991	28478	-	60111	-	88589	-
2001	31408	10.28	64201	6.80	95609	7.92
2011	36905	17.72	66095	29.50	103000	7.80

(Source: Census of India, Punjab, 1991, 2001, 2011)

#### Method 1: Ratio Method or Sharing Pattern Method

In order to achieve more realistic picture of projected population it has been decided to follow the share of urban and rural population of LPA, Nakodar to the total urban and rural population of Punjab state. Report of the technical group on Population projections constituted by the National Commission on Population entitled "POPULATION PROJECTIONS FOR INDIA AND STATES 2026" has provided projection of Punjab urban, Punjab rural and their share in the total population of the state upto year 2026 as represented in table below:

**Table 22: Projected Population of Punjab Total, Punjab Urban and Punjab Rural 2001-2026**

Year	2001	2006	2011	2016	2021	2026
Punjab Total	24359	26059	27678	29112	30323	31345
Punjab Urban	8263	9439	10681	11940	13185	16456
Percentage Urban	33.92	36.22	38.59	41.01	43.48	52.50
Growth rate of Punjab Urban in %	-	14.23	13.16	11.79	10.43	24.81
Punjab Rural	16096	16620	16997	17172	17138	14889
Percentage Rural	66.08	63.78	61.41	58.99	56.52	47.50
Growth rate of Punjab rural in %	-	3.28	2.26	1.03	-0.20	-13.14

(Population in Thousands)

The percentage share of Nakodar town and rural population of LPA, Nakodar to total urban and rural population respectively of Punjab is calculated and is given in table below:

**Table 23: Percentage share of Nakodar town and Rural Population of LPA, Nakodar**

Percentage share of Nakodar town to the Total Urban Population of Punjab				Percentage share of Rural Population of LPA, Nakodar to Total Rural Population of Punjab			
1981	1991	2001	2011	1981	1991	2001	2011
0.56	0.47	0.38	0.36	0.44	0.42	0.39	0.36

*Source: Census of India 1981, 1991, 2001, 2011)*

For projecting the urban population i.e. of Nakodar town, the percentage of urban population (Nakodar town) is derived from the total urban population of Punjab in year 2011 which comes out as 0.36%. This figure of 0.36% has been used constantly for projecting the urban population for Nakodar town for the year 2016, 2021, and 2026. For calculating the projected population of 2031, the growth rate of previous three years is taken.

Similarly, for projecting the rural population of LPA, Nakodar, the percentage share of LPA, Nakodar's rural population has been derived from total rural population of Punjab in the year 2011 which comes out as 0.38% and the same has been used constantly for projecting rural population upto the year 2016. Thereafter growth rate of 2011 – 2016 i.e. 1.03% has been taken for calculating the projected population of LPA, Nakodar rural for the year 2021, 2026 and 2031 because the growth rate of Punjab rural during the year 2016 - 2021 and 2021 – 2026 is negative. The Projected population of Nakodar town and LPA, Nakodar rural is given in the table below:

**Table 24: Projected Population and Growth Rate of LPA, Nakodar**

Year	Nakodar Town		Rural Areas		LPA, Nakodar	
	Projected Population	Growth Rate (in percent)	Projected Population	Growth rate (in percent)	Projected Population	Growth rate (in percent)
2011	36905	-	66095	-	103000	-
2016	45372	11.79	68688	1.03	114060	5.05
2021	50103	10.43	69395	1.03	119498	4.77
2026	62533	24.81	70109	1.03	132642	10.99
2031	78047say 78000	24.81	70831say 71000	1.03	148378 say 149000	11.86

*(Source: Computed values)*

## Method 2: Population Projection by Extrapolation Method:

Apart from above method, another method is extrapolation of past trends and assuming that the trend will continue in future. The average growth rate of Nakodar town for past three decades 1991–2001 and 2001–2011 comes out 14% whereas for rural areas it is about 7.86% for past two decades 1991–2001 and 2001–2011. For calculating the projected population of Nakodar town, the average growth rate of 25% is assumed for 2011–2021 years and 30% for the year 2021 – 2031. For rural areas, taking into account the trend of growth of LPA, Nakodar rural, overall growth pattern and Projection of rural areas of Punjab, the growth rate

for the decade 2011-2021 it is assumed as 10% and then again taking into account decreasing trend for the decade 2021 – 2031 it is assumed as 10%. The above future rates of growth for Nakodar town and rural areas of LPA, Nakodar have been projected on certain assumptions given next to table below. The projected population of Nakodar town, including rural areas of LPA, Nakodar and LPA, Nakodar up to year 2031 is given in table below:

**Table 25: Projected Population for LPA, Nakodar**

Year	Nakodar Town		Rural Areas		LPA, Nakodar
	Population	Average Growth Rate in % age	Population	Average Growth rate in %age	Population
2011	36905	-	66095	-	103000
2021	46217	25	72704	10	122227
2031	60082	30	79975	10	140057

(Source: Computed values)

### Assumptions for Population Projection

1. Nakodar town is the Tehsil Headquarter of the Jalandhar District.
2. The growth rate for calculating population projection of the next decades (2011-2021 and 2021 – 2031) is taken as 25% and 30% as the upcoming new development of industrial and trade sector will boost up because of the industrial policy of Punjab.
3. Nakodar has the strong linkages with, Jalandhar, and with other major towns and these linkages acting as a major infrastructure development for industrial sector and also helpful for the development of the town.

The following table gives the comparative picture of projected population for Nakodar town, rural areas and LPA, Nakodar for 2031 by two methods:

**Table 26: Comparison of Projected Population of LPA, Nakodar**

Method	Nakodar Town Projected Population	Rural Areas Projected Population	LPA, Nakodar Projected Population
Method 1	78000	71000	149000
Method 2	60082	79975	140057

Out of the above two methods, Population Projected by Method No.1 is adopted for the plan formulation, as there will be development of trade commerce, industrial sector in planned manner and in anticipation of new govt. policies likely to be framed by the Govt. to develop this region. Despite general trend of reduced population growth rate, Nakodar town is likely to retain its share of urban population. The Projected Population of Nakodar town therefore has been taken as around 65000 persons for the year 2031.

## 5.2 Workforce Projections

For calculating the workforce projection, LPA, Nakodar is divided into two parts:

1. Nakodar town
2. Villages in LPA, Nakodar (Rest of LPA, Nakodar)

Employment data category wise is not available for Nakodar town and including LPA. To estimate the 2031 employment data category wise for rest of LPA, percentage of main workers to population for the year 2031 forecast (which is based on %age of 2011) for the year 2031 for the above said constituents are calculated as given in tables below:

**Table 27: Workforce projections for LPA Nakodar**

Year	LPA, NAKODAR			Remarks
	Total Population	Total workers	%Age	
1981	79798	22908	28.7	Existing Population and workers as per census.
1991	88589	26508	29.9	
2001	95609	33205	34.7	
2011	103000	35313	34.3	
2021	119498	47799	34.3	Assumed work force Participation rate
2031	148378	59351	34.3	

(Source: Computed values)

**Table 28: Workforce projections for Nakodar town**

NAKODAR TOWN				
Year	Total Population	Total workers	%Age	Remarks
1981	26239	7636	29.1	Existing Population and workers as per census.
1991	28478	8858	31.1	
2001	31408	10736	34.2	
2011	36905	12857	34.3	
2021	50103	17135	34.3	Assumed work force Participation rate
2031	78047	26692	34.3	

(Source: Computed values)

## 5.3 Infrastructural requirements

### 5.3.1 Water Requirements

**General:** In true sense, the term water demand refers to the estimated quantity of water required for a town to fulfill water needs of the people residing in the town. The estimated water demand includes per capita consumption, system losses, industrial and commercial consumption, firefighting demand etc. The water demand is broadly classified as domestic and non-domestic water demand.

#### Rate of water supply:

##### Domestic water demand

The Indian Codal Precisions recommended a minimum water supply of 135 lpcd for cities and the same has been adopted for Nakodar. The residential area in Nakodar is expected to have a much higher demand due to better life style adopted by the residents. However,

considering the availability of water and the norms followed by the PWSSB, supply of 135 lpcd for domestic purpose will be adopted for requirement purpose.

### **Industrial water demand**

Bulk supply to industrial establishment will be considered as per specific requirement of each industry. However, the figures of 135 lpcd include water requirements for commercial, institutional and minor industries.

## **5.4 The Strengths, Weaknesses, Opportunities, Threats (SWOT) Analysis**

The present strengths, the opportunities likely to be presented by the town itself and the surrounding region, the present weaknesses of Nakodar town and the threats emanating in the region have been outlined. The following Strengths, Weaknesses, Opportunities and Threats for LPA, Nakodar have been identified:

### **5.4.1 Strengths and Opportunities**

The strengths and opportunities are the factors which allow positive change or present development options or alternatives. The following are the strengths and opportunities in the context of vision and strategies for LPA, Nakodar.

- Road connectivity – Located on Jalandhar Nakodar road
- Important urban centre of Doaba region and Tehsil Headquarter
- No threat of competition from any major city in the region.
- Regional linkages - It is well connected to surrounding towns/cities as Jalandhar, Ludhiana, Moga and Phagwara.
- Rail connectivity - Presence of Railway line in the town making it more accessible is also helpful in the economic development of the town because of goods transport railway yard.
- Employment Potential - Good employment generation due to industries, trade and commerce.
- Regional level Commercial centre - Grain market and vegetable market
- Agricultural products - A vast fertile hinterland producing various crops like wheat, rice etc. is a potential source for the economic development of the town especially for the development of agro based industries.
- Demography - High percentage of literacy rate in the town offers a valuable skill manpower resource for the economic development of the region.
- Nakodar is called a hub of NRI's which is the potential of the town is, helping in the economic and social development of the town.

#### **5.4.2 Weaknesses and Threats:**

- Urban Growth and Land Management: Most of the urban development is unplanned and haphazard in the town. No planned scheme of PUDA, Improvement Trust and Local body.
- Concentration of commercial activities in congested areas of the old part of the town with narrow streets, no parking spaces etc. are creating major traffic and environmental problems.
- Poor road geometry, narrow streets, encroachment of roads, lack of parking spaces, lack of recreational facilities like open spaces, parks, stadiums renders the town unfit for comfortable living.
- Educational facility is not sufficient for the town and for its surrounding areas because of which students have to go to major cities like Jalandhar, Ludhiana etc. for getting quality and higher education.

#### **5.5 Vision- 2031**

The year 2031 is taken the vision year for the master plan so as to tally the data as per the census year. Therefore based on the outcome of discussions held in the meetings of ‘Think Tank’, the Vision Nakodar 2031 is articulated as follows:

*“To transform ‘NAKODAR TOWN’ into an administrative, industrial, tourist and service centre by providing high quality physical and social infrastructure in an inclusive and environmentally sustainable manner.”*

##### **5.5.1 Strategies to attain Vision 2031**

In order to achieve the objectives and goals enshrined in the vision statement, mission statements for various focused areas have been detailed below:

##### **Growth management**

- Promoting planned development through effective town planning.
- Rationalizing land use pattern for effective traffic management and provision of basic services and amenities.
- Making effective plan implementation and enforcement as integral part of town planning and development process.
- Strengthening the economic base of the town through provisions of more areas for industrial development especially the development of agro based industries.
- Conserving the cultural fabric.
- Making growth management process participatory.
- Review of master plan on regular basis.



- Improving system of approvals of building plan through use of IT and GIS.
- Making urban development self-sustaining.

### **Urban Environment**

- Urban environment to be made integral and essential part of town development process.
- Environment to be made integral part of planning and decision making process.
- Effective treatment of all sewage generated within the town.
- Improving solid waste management.
- Creating / developing new and improving existing parks and open spaces.
- Promoting better water management.
- Making town free from air, water and noise pollution.
- Discouraging the growth of slums and improving existing slums.

### **Urban Services:**

#### **Water supply**

- To ensure safe, equitable, reliable, adequate and quality water supply
- To ensure 100% coverage of the LPA.

#### **Sewerage and Drainage**

- Total coverage of the town with sewerage and drainage system including slums.
- To promote eco-friendly decentralized treatment system.
- To minimize sewerage generation through water saving appliances
- To promote recycling of sewage
- To promote protection of natural water bodies
- To promote optimum use of storm water as an alternate source of water supply.

#### **Solid waste management**

- To improve the solid waste management in the town using best practices.
- To use PPP model for Solid waste management.
- To promote “Recycling” system of SWM.
- To make solid waste management people centric

### **Traffic and Transportation**

- To improve safety, mobility and efficiency of traffic within and outside the town
- To segregate and rationalize the inter and intra town traffic
- To improve road geometry and road capacity of existing network
- To minimize pollution caused by traffic and transportation and improve environment.

- To create new road network and to improve the existing network to promote operational efficiency of traffic.
- To provide adequate parking spaces to remove traffic bottlenecks.
- To plan and provide effective public transport services

#### **Social Infrastructure**

- To provide adequate sites based on norms, for creating / developing various social infrastructures.
- To involve private and corporate sectors for providing/developing and maintenance of social infrastructure.
- To make optimum use of mechanism of planned development for developing adequate and quality infrastructure.
- To promote community participation in maintenance and upkeep of social infrastructure.

## **6 THE MASTER PLAN NAKODAR - 2031**

### **6.1 Components of the Master Plan**

The scope of a master plan is limited to the broad proposals and allocation of land for various uses such as residential, industrial, commercial, recreational, public and semi-public etc. It proposes a network of major roads to have better traffic circulation systems for the present and the future. It will include zoning regulations for regulating development within each zone. Therefore, the Master Plan is an important instrument for guiding and regulating development of a town over a period of time and contributing to planned development both conceptually and operationally. Master Plan of LPA, Nakodar – 2031 comprises following components as described below:

1. Existing Land use Plan
2. Proposed Land use Plan
3. Zoning Regulations & Development Controls

### **6.2 Master Plan Objectives**

The long term vision and the mission statements would require spatial land use planning, infrastructure planning, financing and implementation, effective management and operation of infrastructure services, and regulating and enforcing plan proposals. The objective of the Master Plan is to create enabling spatial Land Use Planning framework to achieve the Vision of LPA, Nakodar. More specifically, the following are the objectives:

- To make Nakodar town as the most vibrant administrative and economic center to promote the balanced regional growth.

- To make land allocation in an environmentally friendly manner.
- To provide better quality of life by minimizing haphazard, unplanned and sub – standard growth and development within LPA and to promote planned growth in order to maintain healthy living environment.
- To effectively manage the traffic and transportation within the town through the mechanism of rationalizing the landuse pattern defined in the Master Plan.
- To make land available for public purposes.
- To minimize travel within the town by creating self-contained and self-sufficient communities
- Adequate parking spaces to be created in the town as an integral part of commercial, industrial and institutional planning and development process.
- To strengthen the basic infrastructure favourable for Agro based industries.
- To rationalize the distribution of physical and social infrastructure in order to have better reach and to ensure appropriate quality of life to all the residents of the town.
- To optimize the use of available land resource through well-defined development norms.

### **6.3 Evaluation of Existing Structure**

Understanding of existing town structure is prerequisite to visualize future structure for accommodating projected growth. The structure of the town can be appreciated by noting the relationship between living and work areas in terms of their connectivity with each other. A thematic map of LPA, Nakodar shows such a structure as it exists at present. A careful study of this map brings out the following facts of the existing structure:

- The Central part of the town where main bazaars are located is the main work area of the town where most of the people are engaged in trade and commerce. The second work area is the jalandhar Road and Kapurthala Road where the concentration of various activities like industrial units and godowns, focal point, shops and workshops are located.
- There is no doubt about potentiality of Nakodar because of railway line link but at the same time town has been fragmented into two segments which have poor connectivity with each other.

### **6.4 Proposed town structure -2031**

Cities grow organically depending upon the availability of land and potential for growth, sometimes leap frogging the natural as well as manmade barriers. On the basis of studies conducted by the office of District Town Planner Jalandhar, it is observed that most of the development activities around Nakodar are concentrated in the areas located in the vicinity of existing developed areas and also along the main roads. Keeping in view, the present growth

trend and the future size of the town, only the following town structure has been envisaged as most suitable for the development of future town of Nakodar:

COMPACT CORE WITH EXPANSION ON ALL SIDES IN THE VICINITY OF THE EXISTING DEVELOPED AREAS.

The pattern of this town structure has the following merits and demerits:

**Merits:**

- Minimum invasion upon fertile and scarce land resource of the state.
- Compact and integrated development of the town, avoiding sprawl.
- An effective, economic and efficient infrastructure development.
- Close relationship of work-place and residential areas.

**Demerits:**

- It may create a feeling of congestion and more load on existing infrastructures
- Improving core town infrastructure to cope with increased population may be difficult.

## 6.5 Land use Requirements

Before proceeding to prepare proposed land use plan and transport network the areas required for different purposes is to be worked out on the basis of norms and standards of various organizations.

**Land required for main land uses:**

The land requirements for different uses for the projected population of Nakodar and the villages falling in fringe area of Nakodar have been worked out on the basis of norms given in UDPFI. The assessment of the urbanisable area is normally based on the proposed residential area which is considered to be 40% of total proposed urbanisable area of cities like Nakodar as per the norms given in UDPFI. The proposed road network would open up many new areas for urban uses. Therefore keeping in view the proposed road network particularly the Ring Road, the new proposed areas are required to be put under different uses out of which major share is to be covered by residential use.

### 6.5.1 Residential use:

For the purpose of working out the requirements dwelling unit having average of 2 bed rooms has been taken as shown in table below:

**Table 29: Calculation of average plot area in Nakodar Town**

Sr. No.	Description	Area in sq.m
1	Carpet area of average dwelling unit. 1 Living Room, 2 Bed Rooms, 1 Kitchen and other sub units etc.	120
2	Built up area inclusive of walls, verandahs etc.	144
3	Plot area @ footprint to plot ratio of 0.65	222

**Table 30: Stage Wise Residential Area Requirements for Nakodar Town (2011-2031)**

Year	Projected Population	No. of Families	Net Land Required in Hectares (Assumed 1 family per plot)	Gross Land Required in Hectares
2011	36905	8117	180	360
2021	50103	10021	223	446
2031	78047	15609	346	692

(Source: Computed values)

Note:

- The number of households in the above table has been calculated on the basis of the assumed family size of 5 members per family for the year of 2031. It is further assumed one family per plot.
- Keeping in view the present character of the town and also future, it is assumed that most of the residential development will be in the shape of plotted development.
- The gross residential area has been calculated by adding 50% more area to net residential area for provision of roads, parks, convenient shopping area, health, educational and utilities etc.
- The proposed residential area includes the requirements of the all the sections of the society. It also includes the housing needs of the urban poor.

### 6.5.2 Commercial Use

The area requirements for commercial activities have been calculated as per UDPFI guidelines. The classification of towns given by UDFPI guidelines, the towns having population up to 1,00,000 persons qualify in the category of small size town. The projected population of Nakodar town for 2031 has been worked out to be about 78,000 which is just close to the category of 1 lac size, thus it is quite convincing that Nakodar town would remain a small size town in the future to come. Therefore, the norms applicable to a small size town have been adopted for calculating area requirements for commercial use as per table below:

**Table 31: Area of Commercial Centers**

Name of Centre	Area in sq. mts per 1000 persons	Number of shops
Cluster Centre	220	1 for 110 persons
Sector Centre	300	1 for 200 persons
Community Centre	500	1 for 200 persons
Total	1020	

(Source: UDPFI Guidelines)

As per the figures given in the table above, 1020 sq. mts. area for different categories of commercial areas has been proposed for 1000 persons thus 1.02 sq. mts area is required per person. Therefore keeping in view the projected population of 84000 persons for Nakodar

town and the urban fringe, the total area required for commercial activities of the town has been worked out as below:

**Table 32: Commercial area requirements of Nakodar town**

Name of Town	Projected Population	Commercial Area Required@ 1.02 sq. mtrs. per person
Nakodar town	78000	7.9 hectares

**Table 33: Projected Urbanisable Area Requirements for Nakodar Town - 2031**

Town	Year	Gross Residential Land required	Urbanisable area required*	Industrial use requirement **
Nakodar	2011	360	885	106
	2021	446	1090	131
	2031	692	1695	203

**Note:**

\*For calculating the Urbanisable area the residential use is assumed as 40% of the total urbanisable area.

\*\*Assumed % age of industrial use is 12% for Nakodar town and urbanisable area as per UDPFI standards.

### 6.5.3 Recreational facilities

As per PAPR Act 1995, about 45 % of the area of a colony is to be left for non-saleable purposes out of which 10 % is to be left for public buildings. It has been found that normally 28-30% area is under circulation i.e. roads, pavements etc. Assuming the figure at 28-30% for roads, the remaining 5-6% has been considered for recreational, sports etc. By this formula if we have one hectare area of a colony then 600sq.mt. is supposed to be provided for this category. Keeping in view the average size of plots as 222 sq.mts., about 25 plots can be adjusted in one hectare area (assuming 55% saleable area), which would accommodate about 25 families taking average size of one family as 5.5 members a total of 137.5 say 137 persons are estimated to live in one hectare. Therefore, by this calculation about 4 sq.mt. recreational area works as share of each person. However at town level approx. 2 sq.mt. per capita area is to be added for town level open spaces. Thus total 6 sq.mt. per capita area is required at town level for recreational facilities.

Total area required at town level = 78,000 x 6 sq. mts.  
= 46.8 hec

## 6.6 Space Norms and Standards

### 6.6.1 Social Infrastructure and Public Utilities:

Basically UDPFI norms and standards have been followed for calculating the area requirements for different social infrastructure and public utilities however the Punjab State Govt.policies issued from time to time have also been adopted wherever these are applicable.

There are three different sets of norms and standards taken into consideration, the comparative chart of these is given in Annexure IV.

### 6.7 Strategy for obtaining Land for public purposes

A town typically requires 40 to 50% of its area for variety of public purposes. Where land is owned by the state as in Delhi, Chandigarh or Navi Mumbai it is easier to allocate land for public purposes. However where private land market is active, the land for public purpose is a major challenge for proper implementation of Master Plans. Conventional master planning relied on the powers of compulsory acquisition of land designated in the master plan for public purposes. However limitations of this approach have been painfully exposed. At the same time not addressing the question of land for public purposes may limit the utility of the master plan itself.

With this background a wide menu of strategies to obtain land for public purposes is examined in this part. The land required for public purpose can be divided into four-fold classification as illustrated in table below.

	A Specific Location	B Flexible Location
<b>A.</b> Positive impact on land prices	<b>AA</b> Arterial Road network	<b>AB</b> Parks, play grounds, schools etc.
<b>B.</b> Negative impact on land price or environmental impact invoking NIMBY response.	<b>BA</b> Sewage Pumping Stations and treatment plants	<b>BB</b> Solid waste disposal sites

(In many cases necessity of a particular activity at the town scale is recognized e.g. solid waste disposal site or a slaughterhouse. But they are locally undesirable and invoke “Not in My Backyard” response.)

No single alternative needs to be used throughout the town. It may vary for example, in core areas vs. outlying areas. Similarly different alternatives may be suitable for different types of public purposes. The possible alternatives for obtaining land for public purposes such as roads, educational, health, parks, water supply, sewerage, social and religious institutes, old age homes, community centers etc with their limitations are listed as below.

#### 6.7.1 Through O.U.V.G.L. Scheme:

Identifying vacant government land (including municipal land) and using it as source for providing land for public purposes. However given the need for using government land for generating financial resources, entire stock of government land need not be assigned to non-remunerative public purposes. In fact government land would offer many opportunities for PPP where part of the land could be used for public purpose. For example a plot of

government land could be allocated for an intercity bus terminal with a budget hotel. Rationalizing obsolete uses of public lands could be another way of putting public land to more relevant public purpose. But this requires public land at other location.

Make specific designations on the master plan and then proceed with compulsory acquisition of land. Impracticability of this is too well known to be recounted here. But this may be unavoidable in certain cases – particularly 'A' category public purpose.

#### **6.7.2 Through T.D.R.:**

Alternative to monetary compensation could be award of Transfer of Development Rights either to remainder of the land or to a distant location. This could be in three generic cases viz. Roads and Road widening: Development rights calculated at the FAR permissible in adjoining area may be allowed to be used in the remainder of the plot up to a limit. Development rights that cannot be so consumed can be transferred elsewhere in receiving areas. If FAR is related to width of the road, resistance to widening may get reduced.

Public purposes on open land or exclusive plots: Lands required for parks and playgrounds or exclusive uses like secondary school, fire station etc. can receive TDRs in lieu of compensation. Weight related to price differentials in originating and receiving zones could be considered as an incentive.

Public purposes that require built-up space but not necessarily exclusive plot: Examples of this could be municipal vegetable market, library etc. In such cases landowner may be allowed to fully use his development rights provided that he offers the built up space required for the public purpose.

#### **6.7.3 Through PAPR Act 1995**

Layout and Sub-division Regulations: These regulations depending upon the total area of layout can provide for some reservation for general public purpose in addition to local requirements. This is currently being used under the colonization rules operated under the PAPRA Act.

#### **6.7.4 Through Land Pooling or Town Planning (Development) Schemes:**

As per the provisions of section 91 (Chapter XII) of Punjab Regional and Town Planning & Development (Amendment) Act, 2006, the concerned Authority may for the purpose of implementation of the provision of the Master Plan or for providing amenities where the same are not available or are inadequate, frame the Town Development Scheme and land for various amenities can be earmarked as per the provisions of sub section 2(g) of section 91.

The strategic approach would relate to geographically depicting the sites required for public purpose and proposing regulatory framework for obtaining the land for public purpose



whether shown on the plan or not. For this, master plan has to consider a wide menu. Described below is a possible menu. Admittedly all items on the menu may not be available for every city.

**Table 34: Strategy for Obtaining Land for Public Purpose**

Alternative	Land Acquisition through 1894 Act	TDR	Development of land through PAPR Act 1995, TDS under PRTPD Act 2006 and Development Schemes under PTI Act, 1922	Land Pooling	Govt. / Panchayat / Waqf Board lands
<b>Plan Proposal</b>	Land designated for public purposes	Land designated for public purposes	Land designated for public purposes	Land designated for public purposes	Land designated for public purposes
<b>Regulation</b>	No separate regulatory provision necessary	Regulation about use of TDR on receiving plots is necessary	Certain proportion (about 40%) of land is dedicated for public purposes.	This requires a separate legal process to be followed of reconstitution of plots along with evaluation of compensation and betterment as provided in Chapter XII of the 1995 Act.	No separate regulatory provision necessary
<b>Means of securing land</b>	Compulsory acquisition by paying monetary compensation	Monetary compensation substituted by Transfer of Development Rights (TDR)	Availability of land through layout plan provisions		Land can be made available through transfer of ownership from one department to another. No monetary compensation is involved.
<b>Limitations</b>	Lack of finances for compensation	Lack of finances for compensation	This is to be market driven and present response is said to be not so encouraging.	Comprehensive Land Pooling Policy is required to be framed.	Locational disadvantages in certain cases.
	Landowners' resistance	Landowners' resistance		Difficulty in pooling of land of large number of owners.	Minimum area requirement may not be fulfilled
	Iniquitous distribution of costs and benefits. Cost borne by those who lose land and benefits enjoyed by surrounding landowners	Iniquitous distribution of costs and benefits. Cost borne by those who lose land and benefits enjoyed by surrounding landowners		Time consuming and complicated process	Source of revenue for Panchayat Bodies / Waqf Board gets depleted.
		But where real estate prices are high particularly where land price is several times the construction cost, chances of success are high.		Equitable distribution of costs and benefits to different shareholders.	

Alternative	Land Acquisition through 1894 Act	TDR	Development of land through PAPR Act 1995, TDS under PRTPD Act 2006 and Development Schemes under PTI Act, 1922	Land Pooling	Govt. / Panchayat / Waqf Board lands
		New concept difficult to be implemented.		New concept difficult to be implemented.	
		Could also be used for heritage conservation.			

Given the details included in the Master Plan, it is not possible to specify which of the above techniques will be used for obtaining land for public purpose. This would be addressed in the detail zone plans.

### 6.8 Proposed Land Use Plan - 2031

After going through the detailed studies conducted by the office of DTP Jalandhar pertaining to LPA, Nakodar and discussions held at different levels i.e. with Govt., Chief Town Planner and Think Tank and further based on analysis, assumptions and projected population of LPA, Nakodar, the Proposed Land Use Plan 2031 has been prepared, in which different landuse zones have been earmarked such as residential, commercial, industrial, rural and agricultural etc. In addition specific designated uses have also been shown in respect of proposed traffic & transportation, utilities, recreational, government, public and semi-public uses etc.

After examining the various possibilities and taking into account the pattern suggested in Urban Development Plan Formulation & Implementation (UDPFI) Guidelines published by Ministry of Urban Affairs & Employment, Government of India, New Delhi, the aforesaid land use categories have been adopted for the proposed landuse plan. The other concerned aspects of these landuses have been detailed out in the following sub-heads. The issues, guidelines and controls mentioned below may be read with Zoning Regulation of this master plan. As discussed earlier in the chapter the existing pattern of town structure i.e. compact core with expansion on all sides has been broadly adopted while preparing proposed land use plan of LPA, Nakodar, in which pattern of continuous growth of Nakodar town spreading over adjoining area has been kept in view. The proposed land use plan of LPA, Nakodar has been shown on Drg. No DTP (J) 11/2013 Dated 24/07/2013. The details of proposed areas are given in Table below:

**Table 35 : Break-up of Major Proposed Landuses LPA, Nakodar-2031**

Sr. No.	Proposed Landuse	Developable Area*		LPA, Nakodar	
		Area in Hact.	%age	Area in Hact.	%age
1	Residential	3281.14	59.26	3281.14	23.68
2	Commercial	67.60	1.22	67.60	0.48
3	Mixed landuse	1055.0	19.06	1055	7.61
4	Industrial (includes warehousing)	740.0	13.38	740.53	5.34
5	Rural and Agricultural	0	0	8314.5	60.02
6	Designated Areas				
	i) Traffic & Transportation	311	5.62	311	2.25
	ii) Utilities	12	0.22	12.0	0.087
	iii) Government	8.3	0.15	8.3	0.061
	iv) Recreational Areas	3.3	0.06	3.3	0.023
	v) Public, Semi-Public	57.66	1.04	57.66	0.41
	<b>Total</b>	<b>5536.53</b>	<b>100</b>	<b>13851</b>	<b>100</b>

(source: computer valus)

\*Developable Area excludes the area proposed to be retained as predominantly ‘Rural and Agricultural’

### **Residential:**

The projected population of Nakodar town works to be around 78, 000 persons by the year 2031 which is little less than three time than the number of 2011 census figures, therefore the rise in demand for residential areas is inevitable. In order to accommodate the projected population within the limits of proposed urbanisable area of Nakodar, the proposals have been made on the pockets which have been identified as most potential and suitable for residential purpose. Besides this, the rural settlements falling in LPA, Nakodar are proposed to expand around its existing built up areas (Abadis) upto about 100 meters as shown on Proposed Land Use Plan Drg. No. DTP (J) 11/2013 Dated 24/07/2013.

### **Proposed Density Gradient LPA, Nakodar – 2009-2031**

Residential density shall be as per the provisions laid down in Housing and Urban development policy notified by the Housing and Urban development department Punjab or amended by the Govt. from time to time.

### **Mixed land use zones**

The co-existence of residential with commercial and residential with industrial activities is a common character of our cities. This character is more prevalent in inner zone of the town. This character of land use generally called “Mixed Land use” has developed over a period of time necessitated by the socio-economic habits of the people. This juxtaposed character of land uses have compact built form, narrow street circulation and low rise-high density development accommodating a mixture of land uses in a single building. The economic role played by these areas cannot be ignored. Hence an attempt is made in the present Master Plan to make these areas continue to play an active economic role and the strategy is to provide suitable framework for allowing mixed use activities appropriate to the character of the areas

with greater flexibility in terms of permitting a variety of uses like commercial (retail shops), household and green category industry or outlets for specialized services etc. along with residential use.

### **Mixed Land use along major roads**

The areas along all the major roads i.e. Nakodar road to Jalandhar road, Nurmahal road, Mehatpur road and Malsian road upto the depth of 300 mts. or as shown on proposed landuse plan Drg. No. DTP (J) 11/2013 Dated 24/07/2013 is marked as mixed landuse zone where all the activities as permissible in Residential, Commercial, Industrial (except Red and orange category industries), Institutional use zones shall be allowable. The area under the Mixed Zone is 1055 hectares i.e. 19.06 % of total develop area and 7.61% of total LPA area.

## **6.8.2 Commercial**

### **General Business**

The studies reveal that the existing commercial areas in the town are very congested where the lack of parking facilities and narrow approach etc. are the major problems. Therefore to serve the additional population of the town more new commercial areas are required to be developed in the new expansions. The existing wholesale grain market and vegetable market will function as such on the present site.

### **Informal Sector**

It is felt that organized sites for informal sector are required to be created near the main town functions such as Railway Station, Bus stand, Hospital, Major institutions, Courts and other transport nodes etc. It is suggested that the organized well planned sites for rehri markets shall be proposed in the new planned colonies.

### **Policy for existing areas**

With a view to make informal sector, an integral part of the planning process and keeping in view the National Policy on Urban Street vendors, the following provisions are proposed to be made for the informal sector:

- The location/concentration of present stationary informal units shall be considered on case to case basis and steps for relocation/improvement shall be taken. It should be ensured that such activities do not spill over on the road network in the right of way. The Govt. /concerned local agency would coordinate to achieve the objective.
- The areas of informal sector shall have suitable public conveniences and solid waste disposal arrangements.

- Formulation of guidelines for schemes would include ‘Hawking’ and ‘No Hawking’ zones. Specific areas would be earmarked for stationary and mobile street vendors by the concerned local authority.
- The local authorities would take up new design of stalls, push-carts and mobile vans of various sizes and with cleaning facilities, giving due consideration to urban design requirement of specific area, where informal shopping is being permitted.
- No informal unit should be permitted along/near the intersection in order to avoid traffic congestion and accidents.

### Planning norms for informal trade

As already stated informal sector is proposed to be made an integral part of planning process. Accordingly, the informal sector trade would be incorporated in the planned development in various use zones. The provision of informal sector trade units should be ensured at the time of sanction of building plans/layout plans as per the norms given in the table below:

**Table 36: Planning Norms for Informal Sectors**

Sr. No.	Use zones/use premises	No. of informal shops/units
i	Retail trade:	
	Metropolitan city centre, district centre, community centre, convenience shopping centre	3 to 4 units per 10 formal shops(to be provided in informal bazaar/service market components)
ii	Government and commercial offices	5 to 6 units per 1000 employees
iii	Wholesale trade and freight complexes	3 to 4 units per 10 formal shops
iv	Hospital	3 to 4 units per 100 beds
v	Bus terminal	1 unit for 2 bus bay
vi	Schools	
	Primary Secondary/	3to 4 units
	Senior secondary/integrated	5 to 6 units
vii	Parks	
	District parks	8 to 10 units at each major entry
	Neighborhood parks	2 to 3 units
viii	Residential	5 unit/1000 population
ix	Industrial	5 to 6 units per 1000 employees

### 6.8.3 Industrial

At present area under Industrial use is 4 hectares which is proposed to be increased to 190 hectares in LPA Nakodar. To provide more economic opportunities to the existing and future population of the town and depending upon the requirements of the town large size pocket of industrial zone is proposed in the town. While proposing this zone, the wind direction is also kept in view. These zones will promote the establishment of small/medium/large scale industrial units by providing developed plots supported by required infrastructure. Development of the industrial area will be governed by the guidelines defined in the master plan.

### **6.8.3 Rural and Agricultural Zone:**

With the intention of preserving the basic character of agriculture, the remaining of the rural area, which has not been proposed for other uses, will be retained as Rural and agricultural zone. Out of total area except the proposed area, the remaining rural and agriculture retained as such which is shown in proposed land use plan Drg. No. DTP (J) 11/2013 Dated 24/07/2013.

### **6.8.5 Traffic and Transportation**

Transport network and proposed land use need to be considered in an integrated manner. For Master Plan of LPA Nakodar, extensive road network has been proposed taking into account the connectivity requirements. The entire network may develop in phases as the traffic demand builds. However, it is emphasized that landuse proposals of Master Plan may be reviewed as the road network actually develops.

Entire LPA, Nakodar and Nakodar Town will be served by well-structured and well defined road hierarchy in order to cater the traffic needs of the town population and arising from living areas to work areas and vice versa. This would include redefining of existing road network and the network to be created in the areas proposed to be brought under urbanization. Keeping in view the future shape and size of Nakodar urban area, there is a need to create/ propose an efficient network in the shape of ring and radial roads. This would be distinctly beneficial in reducing congestion and air pollution.

### **Proposed Road Network:**

The proposed road network for LPA, Nakodar has been developed concurrently with the proposed land use pattern as shown in the Plan, Drg. No. DTP (J) 11/2013 Dated 24/07/2013 covering an area of 311 hectares i.e. 5.62 % of total developable area and 2.25% of total LPA. In order to provide relief to the town roads and keeping in view the existing roads and the increased volume of traffic in future, the concept of ring radial road pattern has been followed.

### **Ring Roads**

Looking forward for the year 2031 and keeping in view the proposed town structure of LPA, Nakodar, Outer ring road around the town, having a right of way of 200 feet (R1) has been proposed for bypassing the traffic and to provides connectivity among other outside roads to the existing town roads. To interconnect all the major roads and to reduce congestion on the southern side of the town, Road along the distributary has been proposed in the master plan

having a right of way of 150 feet (R2) and further ring road has been linked with proposed 200 feet ring road. While proposing these roads, the existing physical features and revenue boundaries of the villages and existing roads have been taken care of. The alignment of all these proposed roads has been shown in proposed land use plan Drawing No. DTP (J) 11/2013 DATED 024/07/2013.

#### **Existing Roads:**

To provide link with the proposed ring roads so that to make the various settlements of LPA Nakodar more accessible and to provide smooth and comfortable journey to them, various link roads have been proposed to be widened to 60', 80' and 100'. The roads proposed for widening have been shown on Drg. No. DTP (J) 11/2013 Dated 24/07/2013. It is proposed that tree plantation along the main roads may be done in consultation with the landscape Architects, Horticulture department and Forest Department. The selection of trees should be in such a manner that the greenery of trees and blooming of flowers may be seen throughout the year. The list of trees is attached at Annexure III.

#### **Proposals for Urban Roads:**

The study of existing town road network reveals that although for now most of the existing roads are not overcrowded but in future, some of these roads may become overcrowded due to increase in traffic volume. Although, there is little scope of improvement of Right Of Way (R.O.W.) but still some measures of road engineering can be adopted for improving the capacity of these roads, as per the guidelines for capacity enhancement of Urban Roads in plain areas published by the Indian Road Congress. Some of the measures that could be considered for enhancement of capacity of roads are as under:

- Prohibiting on–street parking of vehicles, and simultaneously developing off–street parking facility;
- Segregating the bi-directional traffic flow through central verge/median wherever it is possible;
- Provision of segregation of slow moving vehicles such as animal drawn carts, rickshaws/ tongas etc.;
- Imposing restrictions on the movement of animal drawn /other slow moving vehicles, and/ or heavy commercial vehicles on these roads during selected periods, specially the peak hours;
- Reduction of roadside congestion through control of abutting land–use and roadside commercial activity;

- Provision of adequate facilities for pedestrians and cycles wherever it is possible;
- Banning certain conflicting movements at major intersections, particularly during peak hours;
- Controlling the cross traffic and side-street traffic by regulating the gaps in medias; and
- Improving traffic discipline such as proper lane use and correct over taking, through appropriate road markings, education and publicity.

The following urban roads in LPA, Nakodar have been identified and proposed for adopting the traffic engineering measures inside the town area.

### **Proposed roads for capacity enhancement in Urban Areas -2031**

- Nakodar – Jalandhar Road
- Nakodar – Nurmahal Road
- Nakodar –Mehatpur Road
- Nakodar –Malsia Road

<b>Road Over Bridge and Flyover</b>	
i. Road over bridge on ring road Nakodar to Jalandhar Road	(Proposed)
ii. Road over bridge on ring road Nakodar to Nurmahal Road	(Proposed)
iii. Road over bridge on ring road Nakodar – Mehatpur Road	(Proposed)
iv. Road over bridge on ring road Nakodar – Malsia Road	(Proposed)

### **Rail over bridge and flyovers**

At present there is no Railway over bridge presently there in the town. In order to ensure the smooth flow of regional and local traffic over the proposed road network of LPA, Nakodar more Rail over bridges and flyovers are proposed. The list of these in order of priority is given as below:

<b>Rail Over Bridge and Flyover</b>	
i. Nakodar to Jalandhar railway line	(Proposed)
ii. Nakodar to Nurmahal railway line	(Proposed)
iii. Nakodar – Shahkot railway line	(Proposed)
iv. Rail over bridge on Ring road	(Proposed)

### **6.8.6 Utilities**

The existing utilities like water works, Electric Grid stations, etc. which are available within the boundaries of LPA, Nakodar are proposed to be retained as such. However, no additional sites for water works and electric grid stations are being proposed in the master plan. As far as the existing site of garbage disposal is concerned, this is fully utilized and a new site is needed for the future as per the rules quoted in the solid waste management rules. The location and area of the site may be finalized after conducting detailed surveys and studies in



consultation with the concerned department. The environmental considerations are very important to be observed while selecting the location of the garbage disposal site.

#### **6.8.7 Government, Public & Semi-public**

As it has already been discussed in earlier part of the report, there are several categories of designated areas such as Public & Semi-public uses existing in the Nakodar town and LPA, Nakodar. All these designated areas have been proposed to be retained as such. Also Govt. and semi Govt. offices existing in Nakodar town proposed to be merged at one place i.e. at the existing location of Mini-Secretariat.

#### **6.8.8 Recreational Areas**

Different trees as notified by Govt. will be planted on the strips along the main roads (Annexure III). Existing parks, open spaces and stadiums and other recreational areas will be retained as such. Other recreational areas will be carved out in the planned colonies under PAPRA Act 1995.

#### **6.8.9 Heritage Conservation**

Muhammed Momin tomb and Haji Jamal tomb of Nakodar declared as protected monuments under the notification no. 1764 date 16-06-1992 issued by Govt. of India. This notification prohibiting constructions/mining operations upto a distance of 100 mtrs in prohibiting area and 200 m further beyond it in regulated area from the protection limits of the monuments.

#### **6.8.10 Environment**

Creation of a sustainable physical and social environment for improving quality of life is the vision of the plan. The unplanned and haphazard urbanization in Nakodar is putting enormous pressures on the physical environment with increasing adverse impact in terms of pollution. To overcome this problem following measures should be taken in future.

- **Air**

The air quality in the town, in terms of pollution levels is a matter of concern, and has been responsible for a number of respiratory diseases, heart ailments, eye irritation etc. The three main sources of air pollution in Nakodar are vehicular emission, industrial emissions and from other sources such as diesel generator sets and domestic cooking etc.

Apart from the issue of pollution on account of industries, the major area of planning and intervention would relate to transport planning. With the phenomenal growth in the number of vehicles, the oil based emission in the air has increased beyond permissible limits. The most significant aspect in the context of congestion and pollution, relates to the growth in personalized transport as compare to the availability of public transport. Private vehicles in

Nakodar creates tremendous pressure on road space, parking and creates pollution directly and through congestion.

- **Noise**

Noise is emerging as a major pollutant and irritant as well as a constant source of disturbance and health hazards. Against a permissible level of 50-60 dB (A), the sound level in Indian cities often exceeds 80 dB (A). Faulty and leaking silencers, over use of pressure horns and vehicles plying on roads accentuate noise level, besides the noise from commercial and industrial activities, unabated use of sound amplifiers, generator sets and fire- crackers etc also causes noise pollution.

The Noise Pollution (Regulation & Control) Rules 2000 specify the noise levels in the industrial area, commercial area, residential area and silence zone. It also specifies banning of all noise creating activities between 10 PM to 6 AM, which may be adhered to by the concerned agencies.

By proper land use planning, a buffer can be created between location of public, semi-public and commercial activities along major transport routes and residential zones. Green buffer of thin leaved trees, land formations, mounds embankment, etc along major roads could also provide effective barriers to transmission of noise. The characteristics of trees to be planted are given in Annexure VII. It is also necessary to improve monitoring and implementation of the Noise Pollution, (Level) Rules 2000 and, to notify certain areas as 'No Horn Zones'. The design and surface material of roads and pavements should also ensure reduction of noise. Working in night shifts for household industries or non-conforming industries in the residential areas should be prohibited. Pressure horns on vehicles should be strictly prohibited.

## **7. ZONING REGULATIONS AND DEVELOPMENT CONTROLS**

### **7.1 ZONING REGULATIONS**

Chief Town Planner, Punjab being the Planning Agency designated under Section 57 of the Punjab Regional and Town Planning and Development (Amendment) Act, 1995 for the Local Planning Area declared under Section 56 of the said Act, following the requirement under clause (d) of sub section 1 of Section 70 of the Punjab Regional and Town Planning and Development (Amendment) Act, 1995 hereby makes following Zoning Regulations as a part of Master Plan prepared for the LPA Nakodar. In view of the above, Zoning Regulations proposed under this Master Plan are essentially concerned with the control of land use. The proposed land use plan includes following land use zones

- Residential
- Commercial
- Industrial
- Mixed Landuse
- Recreational
- Rural and Agricultural

In addition specific area/network designations have been indicated in respect of proposed arterial road network, existing rail network, transport terminals etc.

As defined earlier, since sub-division of land, design and construction of buildings is being controlled through well-established building byelaws / regulations by the concerned Authorities. The Zoning Regulations under the Master Plan are seen as the guiding parameters for these agencies to ensure that the development permitted by them is within the framework of the Master Plan.

**The Development controls/Guidelines/Norms & Standards revised from time to time by the Government shall have overriding effect on the Development controls mentioned in the master plan.**

#### **7.1.1 USE AND DEVELOPMENT OF LAND TO BE IN CONFORMITY WITH MASTER PLAN**

Section 79 of the Punjab Regional and Town Planning and Development (Amendment) Act 1995 provides as under:

*After coming in to operation of this Master Plan, no person shall use or permit to be used any land or carry out any development in any area otherwise than in conformity with such Master Plan, provided that the Competent Authority may allow the continuance of any use of any land, for a period not exceeding ten years, upon such terms and conditions as may be*

*provided by Regulations made in this behalf; for the purpose and to the extent, for and to, which it was being used on the date on which such a Master Plan came into operation.*

## **7.1.2 SHORT TITLE, SCOPE, EXTENT & COMMENCEMENT**

### **1 Title**

These Regulations shall be called the Zoning Regulations for Local Planning Area, Nakodar (herein after referred to as "Regulations").

### **2 Scope of the Regulations**

The scope of these regulations is limited to defining permissible land uses in various land use zones depicted in the Proposed Land Use Plan forming part of the Master Plan. Other aspects of "development" such as sub-division and layout of land or intensity of development measured through FAR, ground coverage, parking requirements, building design and construction etc. will be governed by other acts and regulations promulgated by Government from time to time. **Competent Authorities under such regulations shall ensure that the developments permitted by them are in conformity with these regulations.**

### **3 Jurisdiction**

These Regulations shall apply to all "development" in the Local Planning Area, Nakodar declared under section 56 of the Punjab Regional and Town Planning and Development Act 1995 *vide* notification no 12/27/2010-4HG1/2592 dated 5/8/2010.

### **4 Date of Coming into Force**

These regulations shall come into force on the day on which the designated Planning Agency publishes the final Master Plan along with these Regulations in the *Official Gazette* after obtaining the approval of the State Government under sub section (5) of section 70 of the Punjab Regional and Town Planning and Development Act 1995.

*Till such approval, the authorities considering the application for permission for development shall give due regard to the draft proposals including these regulations.*

## **7.1.3 DEFINITIONS**

For the purpose of these zoning regulations, the following definitions, unless the context otherwise requires, shall apply:

- 1. “Act”** means the Punjab Regional and Town Planning and Development Act, 1995 (Punjab Act No. 11 of 1995) as amended from time to time.
- 2. “Atta Chakki”** is categorized as service industry where:
  - Grinding of only food grains is carried out through the process of crushing under the load and rotational movement of two plates or blocks.
  - The maximum electric load does not exceed 20 KW.

- The Atta Chakki shall be used for grinding food grains supplied by the consumers only and no sale/purchase of food grains/flour shall be carried out by the Atta Chakki owner at commercial level.
  - The Atta Chakki shall only be permitted on roads having minimum 40 feet ROW.
3. **“Chief Town Planner”** means the Chief Town Planner of the Department of Town & Country Planning, Punjab or any other officer to whom his powers are delegated.
4. **“Competent Authority”** means any person or authority appointed by the State Government by notification to exercise and perform all or any of the powers and functions of the competent authority as per section 2 (m) of the Punjab Regional and Town Planning and Development Act, 1995.
5. **“Cottage Industry”** means industrial units employing less than 10 workers, not creating excessive traffic and not emitting fumes, noise and effluents injurious to the existing sewers and not contrary to the provisions of the Water Pollution (Prevention and Control) Act, 1974, Air Pollution (Prevention and Control) Act, 1981, and Environment (Protection) Act, 1986.
6. **“Existing Land Use Plan”** means the Plan showing the different land use existing at the time of preparation of the Existing Land Use Plan of Local Planning Area Nakodar and as indicated on Drawing No. DTP (J) 09/2012 dated 03/09/2012.
7. **“Farm House”** means a building allowed on a minimum holding of 2.5 acre of agricultural land for residential and agricultural related activity of the land holder.
8. **“Fashion Technology Park”** means where knowledge based infrastructure to inspire the global fashion community catching all segments of designing, manufacturing, marketing, R & D, logistics, broad forecasting, etc. are all under one roof.
9. **“Government”** means the Government of the State of Punjab.
10. **“High Technology Park/IT Park”** will largely be high technology, value added kind of industrial development in the form of Science Park, Business Park and R & D Park. The target industries include IT Park and biotechnology industries.
11. **“Household Industry”** means household occupation/industry conducted only by family members/persons residing in the dwelling with or without power and not contrary to the provisions of the Water Pollution (Prevention and Control) Act 1974, Air Pollution (Prevention and Control) Act, 1981, and Environment (Protection) Act, 1986.
12. **“Industry”** means a specific branch of manufacture and trade, which includes green, orange and red category industries as categorized by PPCB/Department of Industries or as amended from time to time. It excludes mining and quarrying.
13. **“Knowledge Park”** means a platform for interaction and provision of clustering opportunities to all the organizations, institutions, hotels, restaurants, hospitals, Professional

offices, real estate agency clubs, business parks, etc. with main objective of facilitation of better technology for public and private sector.

**14. “Logistic Park”** means an area within which all activities related to transport; logistics and distribution of goods for both national and international transits are carried out by various operators on a commercial basis.

**15. “Local Planning Area”** means the Local Planning Area declared under section 56 (1) of the Punjab Regional and Town Planning and Development (Amendment) Act, 1995 (Punjab Act No. 11 of 1995) vide notification no. 12/27/2010-4HG1/2592 dated 5/8/2010.

**16. “Mixed Landuse”** means the multiple use of land (except orange & red category industries), which is allowed to co-exist subject to fulfillment of environmental safeguards.

**17. “Non-Conforming Building or Use”** means use in respect of any land or building in the Local Planning Area, the existing use of which land or building is contrary to the prescribed land use in the Master Plan and its zoning regulations.

**18. “Planning Agency ”** means the Chief Town Planner, Punjab designated as such under Section 57 of the Punjab Regional and Town Planning and Development Act, 1995 (Punjab Act No. 11 of 1995) for Local Planning Area Nakodar.

**19. “Proposed Landuse Plan”** means the plan showing the proposed/admissible uses of different areas and land use zones covered in the LPA Nakodar and as indicated on the Drawing No. DTP (J) 11/2013 DATED 24/07/2013.

**20. “Public and Semi Public Activities”** means government/ semi government offices, educational, cultural, religious, medical and health institutions, community centres , etc.

**21. “Zoning Plan”** means the plan of an area or part thereof or supplementary layout plan approved by the Chief Town Planner, Punjab and maintained in the office of Competent Authority showing the permitted use of land and such other restrictions on the development of land as may be prescribed in the zoning regulations, for any part or whole of the area such as sub-division of plots, open spaces, streets, position of protected trees and other features in respect of each plot, permitted land use, building, land, height, coverage and restrictions with regard to the use and development of each plot in addition to such other conditions as laid down in these Regulations hereinafter.

**Terms used, but not defined in these Regulations, shall have the same meaning as assigned to them in the Acts.**

#### **7.1.4 LAND USE ZONES**

The proposed land use plan incorporated in the Master Plan of LPA Nakodar depicts the following land use zones:-

- Residential
- Commercial
- Industrial
- Rural and Agricultural
- Mixed Land use

Besides this, the following designated land uses have also been depicted on the Proposed Landuse Plan:

- Traffic and Transportation
- Public and Semi Public
- Utilities
- Government

### 7.1.5 LAND USE CLASSES

For the purposes of these Regulations various land uses are grouped into following land use classes. Each class of land use has been given a specific code. The Landuse Classes and Landuse Codes are detailed below:

#### Landuse Classes with Use Class Codes

Sr. No.	Land use class	Use class code
1	Residential	A
2	Trade and Commerce	B
3	Manufacturing	C
4	Transport, Storage & Warehousing	D
5	Offices	E
6	Education, Training and Research Institutes	F
7	Healthcare facilities	G
8	Recreation, Entertainment	H
9	Public utilities and services	I
10	Agriculture, forestry and fishing	J

### 7.1.6 USE PROVISIONS IN LAND USE ZONES

The following table describes the land use classes and their sub-classes along with the uses permitted in various land use zones. The **shaded cells** in the table indicate that the use is generally permissible. A **number** in the cell indicates the conditions, subject to which the use is permissible. The conditions have been listed at the end of the table.

#### Land Use Zones and Permissible Land Uses

Following table describe the land use classes and their further sub – classes permitted in various land use zones. The shaded cells in the table indicate that the use is generally permissible. A number in the cell indicates the conditions listed at the end of the table subject to which the use is permissible.

CLASS CODE/ SUB CODE	LAND USE CLASS/SUB CLASS	LAND USE ZONES					
		Residential	Commercial	Mixed Landuse	Industrial	Recreational	Rural and Agricultural
<b>A</b>	<b>Residential</b>						
A1	Residential in the form of Plotted Development, Group Housing, Household Industries, EWS Housing and Service apartments				1		
A2	Old Age homes, Orphanages, Hostels for students and working women						
A3	Service apartments, Hotels including Star Hotels, Motels, Guest Houses, Dharamshala, Lodging Houses, Sarai, Rain Basera				3		
A4	Jails, Asylums, Reformatories, Juvenile/delinquents and the like						
A5	Residences for Watch and Ward Staff, Residences for Industrial Workers/Management						
A6	Farm Houses						16
A7	Housing not classified above						
<b>B</b>	<b>Trade and Commerce</b>						
B1	Retail Trade including Markets for Fruits and Vegetables, Meat and Fish; Super Markets, Informal Shopping, Rehri Market, Department Stores, Cash-n-Carry Stores, Malls, Restaurants, Hotels and Multiplexes.						
B2	Personal & Community Services like Laundry, Hair Dressing, Beauty Parlours, Tailoring, Coaching Classes, Cyber Cafes, Bank Branches, ATM, Boutiques, Phone Booths, Pan Shop, Chemist Shop, Sweet Shop, Tea Stall, Electric & Electronic Shop with Repair Facilities, Photo Studio, Property Dealer Shop, Dairy Products, Cable TV, Readymade Garments, Stationery Shop, etc.						
B3	Wholesale trade with storage of commodities			4			4
B4	Filling Station (Petrol Pump of all kinds) *						
B5	Storage and sale of Kerosene, Thinner and other petroleum products, Gas Godown and like.	19	19				
B6	Gas Distribution (without Storage of Cylinders)						
B7	Trade Fairs, Exhibition and Convention Centres						
B8	Showroom of Mills/ Factory Retail Outlets, Auto mobile showrooms and their workshops	21		21			
B9	Marriage Palace**						
B10	Trade Not Classified Above						
<b>C</b>	<b>Manufacturing (NIC-2008, Section C)***</b>						



CLASS CODE/ SUB CODE	LAND USE CLASS/SUB CLASS	LAND USE ZONES					
		Residential	Commercial	Mixed Landuse	Industrial	Recreational	Rural and Agricultural
C1	Manufacture of Food Products (NIC Division 10)	5	5	6			
C2	Manufacture of Beverages (NIC Division 11)						
C3	Manufacture of Textiles (NIC Division 13)						
C4	Manufacture of wearing apparel (NIC Division 14)			6			
C5	Manufacture of Leather and Related Products (NIC Division 15)						
C6	Manufacture of Wood and Products of Wood and Cork; Except Manufacture of Furniture (NIC Division 16)			6			
C7	Manufacture of Paper and Paper Products (NIC Division 17)						
C8	Printing and Reproduction of Recorded Media (NIC Division 18)			6			
C9	Manufacture of Coke & Refined Petroleum Products (NIC Division 19)						
C10	Manufacture of chemicals & chemical products (NIC Division 20)						
C11	Manufacture of Pharmaceuticals, Medicinal, Chemical & Botanical Products (NIC Division 21)						
C12	Manufacture of Rubber and Plastics Products (NIC Division 22)						
C13	Manufacture of Other Non-Metallic Mineral Products (NIC Division 23)						8
C14	Manufacture of Basic Metals (NIC Division 24)						
C15	Manufacture of Fabricated Metal Products, except Machinery and Equipment (NIC Division 25)						
C16	Manufacture of Computer, Electronic and Optical Products (NIC Division 26)	20, 6	20, 6	20,6			
C17	Manufacture of Electrical Equipment (NIC Division 27)			6			
C18	Manufacture of Machinery and Equipment n.e.c. (not elsewhere classified) (NIC Division 28)			6			
C19	Manufacture of Motor Vehicles, Trailers and Semi-Trailers (NIC Division 29)						
C20	Manufacture of Other Transport Equipment (NIC Division 30)						
C21	Manufacture of Furniture (NIC Division 31) excluding Saw Mill			6			2
C22	Other Manufacturing (NIC 32)						
C23	Repair of Machinery and Equipment (NIC Division 33)			6			
C24	Milk Chilling (Independent Plot), Pasteurization Plant, Cold Storage, Fruit Ripening Centre, Ice Factory			6			
C25	Rice Sheller's, Processing of Farm Products, Brick Kilns, Lime/ Charcoal Kilns, Bulk material market.						
C26	Cottage Industry, Repair of household articles, cycles, 2/3 wheelers, Household Industry, Atta Chakki, service industry and			6			

CLASS CODE/ SUB CODE	LAND USE CLASS/SUB CLASS	LAND USE ZONES					
		Residential	Commercial	Mixed Landuse	Industrial	Recreational	Rural and Agricultural
	its allied activities.						
C27	I.T. Park, Knowledge Park, Industrial park, Super Mega Mixed Use Integrated Park, Fashion & Technology Park and Film City	11	11				
C28	Cement, Sand and Concrete Mixing Plant (Batching plant), RMC, Bitumen, Sand, Concrete Mixing Plant (Hot Mix Plant)						
C29	Manufacture, Storage and sale of Fire Works		9	9			
C30	Stone crushers						
C31	Mechanized Agricultural market						
C32	Communication Towers / Antennas	17					
<b>D</b>	<b>Transport, Storage and Warehousing</b>						
D1	Warehousing and Storage Activities for Transportation (NIC Division 52) and Loading & Unloading Yard						12
D2	Rail and Air Freight Terminals/ Metro Stations/ MRT/ ICP	22	22				
D3	Truck Terminals, Weigh bridges						
D4	Bus, Auto-Rickshaw/Taxi/Two Wheeler/Cycle/Tempo Terminals						
D5	Warehousing, Logistic Park, Freight Complex, Container Yards (ICD), Dry & Wet Ports						
D6	Storage & Godowns			9	9		9
D7	Toll Plaza's/Toll Barrier.						
<b>E</b>	<b>Offices</b>						
E1	Publishing of Books, Periodicals and Other Publishing Activities (NIC Group 581) Software Publishing (NIC Group 582)		7	6	7		
E2	Motion Picture, Video and Television Programme Production, Sound Recording & Music publishing activities (NIC division 59)						
E3	Broadcasting and Programming Activities (NIC Division 60)						
E4	Telecommunications (NIC Group 61), Centre and State Govt./ Semi-Govt. / Defence, Private Business Offices						
E5	Computer Programming and Related Activities (NIC Division 62)						
E6	Information Service Activities (NIC Division 63)						
E7	Finance, Banking and Insurance (NIC Section K)						
E8	Real Estate Activities (NIC Section L)						
E9	Professional, Scientific and Technical Activities (NIC Section M)						
E10	Administrative & support services (NIC Section N)						
E11	Public Administration and Defence; Compulsory Social Security						
E12	Professional Services like Lawyers, Chartered Accountants,						

CLASS CODE/ SUB CODE	LAND USE CLASS/SUB CLASS	LAND USE ZONES					
		Residential	Commercial	Mixed Landuse	Industrial	Recreational	Rural and Agricultural
	Architects, Engineers, Town Planners, consultancy, etc.						
<b>F</b>	<b>Educational, Training and Research Institutes</b>						
F1	Pre-Primary Schools, Play Schools, Kindergartens/ Anganwari, Primary Schools	13	13	13	13		13
F2	Secondary Schools, Colleges, Vocational Training Institutes, Research & Training Centres, Universities, Centres of Advanced Education & Training like IIM or IIT, Medical Institutes and all Institutes not classified above	13	13	13	13		13
<b>G</b>	<b>Healthcare Facilities</b>						
G1	Medical and Dental Clinics, Dispensaries	13	13	13	13		13
G2	Hospitals (NIC Group 861) including General & Super Specialty Hospitals, and Health Centre	13	13	13	13		13
G3	Nursing Care Facilities (NIC Group 871)	13	13	13	13		13
G4	Residential Care Activities for Mental retardation, Mental health & Substance abuse (NIC Group 872)						
G5	Residential Care Activities for the Elderly and Disabled (NIC Group 873)						
G6	Veterinary Services ( only small clinics)						
G7	Health Care Facilities not classified above.						
<b>H</b>	<b>Recreational, Entertainment, Cultural and Religious Activities</b>						
H1	Creative, Arts and Entertainment Activities (NIC Division 90) and Multimedia centres						
H2	Libraries, Archives, Museums & Other Cultural Activities (NIC Division 91), Trade Fairs/ Mela Grounds, Heritage villages, Arts & craft villages etc						
H3	Gambling & Betting activities, Casinos, Pubs & bars (NIC Division 92) e.g. Race Course						23
H4	Sports Club, Amusement and Recreational Activities (NIC Division 93), Tot-lots, Stadia, Playgrounds, Golf Courses, Swimming Pool, etc.						
H5	Places of Worship						
H6	Arts, Entertainment & Recreational activities not classified above						
<b>I</b>	<b>Public Utilities and Services</b>						
I-1	Electricity, Gas, Steam and Air Conditioning Supply (NIC Section D) including Power Stations and Network						
I-2	Water Collection, Treatment and Supply (NIC Division 36)						
I-3	Sewerage (NIC Division 37)						

CLASS CODE/ SUB CODE	LAND USE CLASS/SUB CLASS	LAND USE ZONES					
		Residential	Commercial	Mixed Landuse	Industrial	Recreational	Rural and Agricultural
I-4	Waste Collection, Treatment and Disposal Activities; Materials Recovery (NIC Division 38) and Carcass Disposal Site	14					
I-5	Postal and Courier Activities (NIC Division 53)						
I-6	Police Stations/posts, Community centre's (Sanj & Suvidha Kendra's)						
I-7	Fire Station & Fire hydrants						
I-8	Cemeteries, Graveyards, Cremation Grounds						
I-9	Telephone Exchange						
I-10	Public Utilities and Services not classified above						
<b>J</b>	<b>Agriculture, Forestry and Fishing (NIC Section A)</b>						
J1	Crop and Animal Production, Hunting and Related Service Activities (NIC Division 01)	15					
J2	Land Conservation and Preservation Measures such as Storage, Check Dams and other Water Harvesting Measures						
J3	Fishing & Aquaculture (NIC Division 03), Dairy, Piggery, Poultry farming, Mushroom Growing Centres, Slaughter Houses, Cattle/cow sheds, cattle fair grounds, Emu farms, etc.						
J4	Quarrying of stone, sand & clay (NIC Group 081)						
J5	Plant Nursery and Greenhouses related to Nursery, Floriculture						
J6	Agro based industry such as egg, apple, package boxes manufacturing						

Notes		
<b>NIC</b>	National Industrial Classification (All Economic Activities) 2008, Central Statistical organization, Ministry of Statistics and Programme Implementation, Government of India, <a href="http://www.mospi.nic.in">www.mospi.nic.in</a>	
<b>A</b>	Shaded areas indicate that the use class is permissible in the zone.	
<b>B</b>	Shaded area with number/notation indicates the conditions attached.	
	<i>Only EWS Housing.</i>	<b>1</b>
	<i>Repair of only Agricultural related equipments.</i>	<b>2</b>
	<i>Only Star Hotels, Guest Houses and Service apartments.</i>	<b>3</b>
	<i>Wholesale trade in agricultural commodities only, provided it is minimum 200 m away from village abadies / residential areas.</i>	<b>4</b>
	<i>Only Bakery.</i>	<b>5</b>
	<i>Only Green Industries.</i>	<b>6</b>
	<i>Provided that the site abuts on at least 60 feet wide existing/proposed road of Master Plan.</i>	<b>7</b>
	<i>Only manufacture of bricks, earthen pots, country tiles, SW pipes, Interlocking pavers, Hollow Blocks, Solid Blocks, etc.</i>	<b>8</b>

	<i>Subject to the Clearance from concerned competent authority from time to time.</i>	<b>9</b>
	<i>Outside municipal limits with the condition that it is located minimum 100 m away from the phirni of a village abadi. In case, a cold storage is to be set up within a distance of 100 m from already approved residential area (other than being a village abadi) or an approved residential colony is to be set within 100 m of an existing cold storage, then the owner of the land use, which comes later, shall be bound to provide a minimum of 15 m wide green buffer of broad leaf trees to the site in which approved residential area or cold storage is located.</i>	<b>10</b>
	<i>Only I.T. Park and Knowledge Park.</i>	<b>11</b>
	<i>Only warehousing of agricultural commodities.</i>	<b>12</b>
	<i>Subject to fulfillment of conditions of Punjab Govt. Notification No.17/17/2001-5HG2P.F./3031 dated 20.08.2013 &amp; instructions issued from time to time if applied to avail the incentives under above said policy.</i>	<b>13</b>
	<i>Subject to fulfillment of norms/guidelines of Punjab Pollution Control Board.</i>	<b>14</b>
	<i>Except Animal Production.</i>	<b>15</b>
	<i>No new farm house in the Master Plan shall be permitted on a road having less than 40 feet ROW or as specified in the Master Plan. However, in case the existing road width is less than the minimum specified width as per Master Plan or 40 feet wide, then the proportionate land on both sides shall be safeguarded for the road abutting site for widening to comply with the minimum requirement. However farm house shall have at least minimum revenue Rasta of 16.5 feet of approach road.</i>	<b>16</b>
	<i>Telecommunication Towers / Antennas are permissible in every land use, however in case of residential areas, they are permitted in open spaces (parks, playgrounds and open spaces of public buildings). Necessary structure safety certificate is required from approved structural consultant in case Telecommunication towers / antennas come on approved commercial buildings / premises. No communication towers / Antennas are allowed to set up on any residential house / buildings.</i>	<b>17</b>
	<i>Toll Plazas are allowed on NH/ SH/ Schedule roads/ MDR's/ ODR's and Proposed roads in master Plans with the condition that requisite 'No Construction Zone' as applicable shall be adhered to along with other necessary government approvals.</i>	<b>18</b>
	<i>Only for retail sale and distribution</i>	<b>19</b>
	<i>Only assembling and repair of computer and IT products</i>	<b>20</b>
	<i>As per office order of PPCB No-GPC/NIP/F-10/2010/4 dated 17.02.2010 subject to the condition that the unit will not discharge trade effluent more than 1500Lt/day.</i>	<b>21</b>
	<i>Only Metro and MRT Stations</i>	<b>22</b>
	<i>Race course only allowed in Rural and Agriculture Landuse</i>	<b>23</b>

**Note:** All the Land uses only depict the compatibility of Land uses only. The other conditions need to be fulfilment of State Govt. from time to time.

\* The siting of all kinds of petrol pumps shall be subject to instruction/ guidelines of IRC/ MORTH/ TCPO/ Departmental guidelines and Punjab Govt.instructions issued from time to time.

\*\* Subject to fulfillment of Norms and Guidelines of Marriage Palace policy issued by the Govt.and Punjab Govt.instructions issued from time to time.

\*\*\* All types of industries permitted in the above in various land use zones of the master plan in the table above are subject to the fulfilment of requirements of different departments.

**Note:**

1. All land uses, which are compatible including industries, except the orange and red category industries, shall be permitted in the mixed land use zone.

2. *Retail sale of petroleum and other related petro products without storage is permissible in residential and commercial areas of the master plan after getting prior permission of the concerned competent authority.*

3. *The requisite guidelines/ notifications issued and amended from time to time by the concerned ministry regarding Gas/ Oil pipe lines/ corridors shall be applicable to irrespective of the land use shown on Proposed Land use plan Drawing No. DTP (J) 11/2013 DATED 24/07/2013*

4. *The requisite guidelines/ notification issued and amended from time to time by the concerned ministry regarding Defence lands and Airports (including Airport, Ammunition dumps, missile/ Radar based stations etc.) shall be applicable to irrespective of the land use shown on Proposed Land use plan Drawing No. DTP (J) 11/2013 DATED 24/07/2013.*

5. *The requisite guidelines/ notification issued by the Department of culture (Archaeological survey of India) regarding protected monuments shall be applicable in the master plan irrespective of the land use shown on Proposed Land use plan Drawing No. DTP (J) 11/2013 DATED 24/07/2013*

**The specific activities / uses not mentioned in the above table but found compatible for a particular land use zone shall also be permissible with permission of the competent authority.**

#### **7.1.7 DESIGNATED AREAS**

Following areas have been specifically designated in the proposed land use plan.

- Traffic and Transportation
- Utilities
- Government
- Public and Semi Public

#### **7.1.8 USE PROVISIONS IN DESIGNATED AREAS**

Following uses are permissible in the designated areas mentioned above.

- **Traffic & Transportation: Uses Permissible**

All types of road, railway and air networks, Rail Yards, Railway Station & Sidings, Airport, Cargo Terminal, Transport Nagar (including Post & Telegraph Offices & Telephone Exchange, Dhabas, Labour Yards, Areas for Loading and Unloading, Stores, Depots and Offices of Goods Booking Agencies, Petrol Filling Station & Service Garages, Parking Spaces, Public Utilities and buildings), Bus Terminus & Depot, Bus Stop Shelter, Taxi/ Tonga/ Rickshaw/Scooter Stands, Parking Spaces and other support infrastructure/facilities.

- **Utilities: Uses Permissible**

Water Supply, Sewerage System (including main pumping station and Sewage Treatment Plant (STP)), Drainage, Storm Water, Solid Waste processing and disposal, Electricity, Communication Systems and Related Installations, etc.

- **Government: Uses Permissible**

Government and Semi Government Offices, Government Administrative Centres/ Secretariat, other Projects/Activities undertaken from time to time to meet the operational/administrative needs of the govt. etc. The land use of all central/state govt. lands shall be as determined by the respective governments from time to time.

**In case of land belonging to the Development Authorities/Improvement Trusts/Local Bodies or any parastatal agencies, its use shall be as determined by such agencies subject to the prior approval of the Department of Housing & Urban Development & State Govt.**

**The use of land covered under Optimum Utilization of Vacant Government Land (OUVGL) Scheme of the State Government shall be as determined by the Government at any appropriate time notwithstanding the provisions of these regulations.**

In case of Defence Land, the uses permitted shall be as determined by the Ministry of Defence from time to time with prior consultation to the competent authority.

- **Public and Semi-Public: Uses Permissible**

**Educational** including Schools, Colleges, Universities, Vocational Training Institutes, Technical Institutes, etc., **Healthcare** including Dispensaries, Hospitals, Nursing Homes, Super Specialty Hospitals, etc., **Cultural and Religious institutions** including Theatre, Auditorium, Community Centre, Club, Orphanage, Old Age Home, Temples/Gurudwaras/Churches/Masjids, Police Stations, Fire Stations, Cremation ground, Playground, Stadium, etc. **Recreational** including Green Belt (Forest, Agriculture use, Vegetation belt, Wild life sanctuary, Bird sanctuary, Biodiversity Park, Fire Post, Amenity Structure, Agro forestry, Floriculture farm etc, Regional Park (Zoological & Botanical Garden, Orchard, Plant Nursery, Picnic Hut, Shooting Range etc), City Park (Aqua park/water sports park, Amphitheatre, Open Playground), District Park (Theme Park, Recreational club, National Memorial, Open-air food court, Children Park, Area for water-harvesting, Archaeological park, Specialized Park etc.) Local Parks, Sports Stadium/Complex, Cricket Stadium, Sports Training Centres, Open Air Auditorium, Holidays Resorts with ground coverage not exceeding 2%, Public Institutional Libraries, Swimming Pools with built up areas not exceeding 2%, Music, Dance & Drama Training Centre, Yoga, Meditation, Spiritual & Religious Centre, Recreational Club, Banquet Hall, Open Air Theatre, Auditorium, Museum, Exhibition-cum-Fair Ground, Museum, exhibition centre & art gallery, auditorium & open air theatre, Cultural & Information Centre, Social & Cultural Institute, International Convention Centre, Planetarium.

**Note:**

- *The following amenity structures are permissible in the above use premises except in Central Vista and Heritage areas: Toilet blocks, Pump Room, Electric Room, Guard Room and Equipment Room.*
- *Interpretation Centre and Administrative office is permissible only in Heritage Areas.*

**Other Uses**

**i) Forest Areas: Uses Permissible**

The use of the land notified under the Indian Forest Act, 1927 and the Punjab Land Preservation Act, 1900 shall be subject to the provisions of the said Acts as amended from time to time, irrespective of the land use of such land shown on the Proposed Landuse Plan. No construction/activity shall be permitted in this area unless expressly allowed by the Forest Department/State Govt.

**ii) Restricted Area: Uses Permissible**

In case of Government (Defence) Land, the extent of Restricted Area (No Construction Zone) around such lands shall be as notified by the Central Government from time to time under the Works of Defence Act, 1903. Irrespective of the land use shown, if any, in the Proposed Landuse Plan, no construction shall be permitted in such zones without the permission of the Ministry of Defence, Govt. of India. Use, if any, indicated on the Proposed Landuse Plan shall be governed by and subject to the provisions of the Works of Defence Act, 1903.

**iii) Protected Monuments/Sites: Uses Permissible**

In case of protected monument/heritage building or conservation site notified by the competent authority, i.e. (Archaeological Survey of India/State Govt.), only the activities related to the promotion, preservation and conservation are allowed. All other uses are prohibited.

All Protected Monuments/Sites declared under The Ancient Monuments and Archaeological Sites and Remains Act, 1958 shall have a 100m of Prohibited Area and another 200m as Regulated Area around the limits of Protected Monument/Site as declared vide Notification No. S.O. 1764 dated 16<sup>th</sup> June 1992 of Department of Culture (Archaeological Survey of India) for purposes of both mining and construction. Irrespective of the land use shown, if any, in the Proposed Landuse Plan, no construction is allowed within the Prohibited Area of 100 m. The construction in the next 200 m shall only be permitted with the prior approval of the competent authority/ASI.



### 7.1.9 SPECIAL CONDITIONS

- Minimum area required for Educational and Healthcare facilities shall be as defined above or as prescribed by government or the accrediting authorities from time to time.
- All developments will be subject to Environmental Clearance wherever required.
- The siting of Petrol Pump / Filling Station shall be subject to instructions/guidelines of IRC/MORTH/TCPO /Punjab Govt. issued from time to time.
- Minimum width of access road for warehousing uses shall be 60 feet.
- All public and semi-public uses in residential zone shall be located on independent plots with minimum access of 60 feet.
- All types of industries permitted in the industrial/ mixed land use zone are subject to the fulfilment of conditions issued by industries department / Punjab Pollution Control Board from time to time.
- In case of the standalone projects having depth more than the prescribed depth of the mixed land use in the Proposed Land use Plan, such projects shall be considered for approval irrespective of the prescribed depth of the mixed land use.
- In case of any ambiguity/clarification regarding the interpretation of the Land Use Plan, the master copy of drawing based on GIS shall be referred.
- The siting and location of major traffic nodes including Bus Terminus, Truck Stand, etc. and physical infrastructure including STP, Electric Grid Station, Solid Waste Dumping Site, Water Works, etc. shall be as decided by the Govt. from time to time.
- The Proposed Landuse Plan does not indicate in any manner the ownership pattern of land falling within the LPA. The Proposed Landuse Plan defines broadly the land use pattern proposed for the land falling within the LPA.

### 7.2 DEVELOPMENT CONTROLS

The purpose of the Development Control Regulations (DCR) is to assist all the Stakeholders including developers and end-users within the Local Planning Area Nakodar to strive for a sustainable, quality and environment friendly development.

These Development Control Regulations are applicable to the all new and future developments and developers shall have to abide by the zoning and planning intentions of the Master Plan.

**However, Development Proposals/Projects including CLU, which have already been approved by the Competent Authority before coming into operation of these**

regulations, shall continue to be honoured/permitted, subject to the terms and conditions of approval and shall not be affected by these controls.

The F.A.R., height, ground coverage, parking area, set back, width of road, frontage of site, etc. regarding residential, commercial, institutional, industrial or any other use for areas existing within M. Cl. limits shall be governed by Municipal Bye-laws.

The Development controls/ Guidelines/ Norms & Standards revised from time to time by the Government shall have overriding effect on the Development controls mentioned in the master plan. Development controls regulations for residential, commercial, industrial, institutional, Public and Semi Public, Public buildings, Residential and other uses shall be governed by the Housing and Urban Development policy notified by Govt. or as amended by the Govt. from time to time.

Some of the key regulations currently in force are reproduced below:

#### **7.2.1 RESIDENTIAL**

- The lowest hierarchy street within residential zone of Master Plan shall be minimum 35 feet wide or as prescribed in the guidelines issued by govt. from time to time.
- The saleable area of any plotted residential colony shall be as per the provisions of PAPR Act, 1995 or as amended from time to time.
- Construction of residential houses sold by promoters on floor basis shall also be considered as Group / Flatted housing developments and parking requirements shall be as per the norms applicable to the group housing.
- Upto 0.20% of the total covered area of group housing project shall be allowable for convenient shopping such as grocery, vegetable, laundry shops, milk booth etc.

#### **7.2.2 COMMERCIAL**

There shall be provision for small scale, double storey commercial subject to the condition that abutting road shall have a minimum width of 60 feet with minimum 20 feet front setback from road for parking purposes. However, the norms for low rise commercial developments within the existing municipal limits shall be as per the local body/Municipal Council's rules and Regulations.

#### **Note:**

1. *If the project is located within M.C. limit, the provision related to ground coverage, FAR, height of building & parking norms shall be as provided in the Municipal building byelaws.*
2. *The parking norms per ECS shall be as below:*
  - 23 sq. m. for open parking.
  - 28 sq. m. for parking under stilts on ground floor.

- 32 sq. m. for parking *in the basement.*
- 3. *These commercial facilities are intended to serve the needs of local residents and will not be shown separately on the Master Plan. Instead, they are assumed under the predominant residential land use.*
- 4. *The Development controls/Guidelines/Norms & Standards revised from time to time by the Government shall have overriding effect on Development controls mentioned in master plan.*

### 7.2.3 INSTITUTIONAL

- **The Development controls/Guidelines/Norms & Standards revised from time to time by the Government shall have overriding effect on Development controls mentioned in master plan.**
- Other building regulations shall be governed by the Zoning Plan approved by the competent authority.
- Within urbanisable area of the master plan institute will be permitted on road with minimum width of 60'-0".
- In rural areas of the master plan institutes are permitted on 16'-0" road width which shall be widened to 40'-0" width of road.

### 7.2.4 INDUSTRIAL

Building controls like Permissible ground coverage, floor area ratio, height; parking etc. for industries shall be as per the norms/ building bye-laws of the concerned agency as amended from time to time.

#### 7.2.4.1 Existing Industries:

Nakodar being a small sized town has some industrial units located in different parts of the town, on which economic growth of the town is dependent. The up routing of these industrial units may not be in public interest from the economic point of view. Hence the existing industrial units (Industries existing before the final notification of the master plan) in Nakodar town are proposed to be accommodated in the Master Plan but at the same time the environmental consideration of the area has to be kept in mind because the surrounding area of this industrial cluster is coming up as residential. Thus these industrial units in Nakodar town are accommodated in the Master Plan irrespective of the land use shown on the proposed land use plan with condition:

- *That the further expansion of the unit shall be permissible within the existing premises only (the premises existing at the time of final Approval of Master Plan) and no new area shall be allowable to be added to the existing industrial premises for further expansion of the unit.*
- *That the existing industrial unit shall conform to the norms and standards prescribed by the Punjab pollution Control Board and shall install pollution control devices as per the requirements of Punjab Pollution Control Board.*

#### **7.2.4.2 Incentives for shifting of existing industries**

Red category and orange category Industries existing within the non-designated industrial zone, which are in operation as on date of Master Plan notification will shift outside this zone to any of the designated industrial zone within the state of Punjab or within the designated industrial zone of the master plan and generate at least the same number of jobs at the new location, will enjoy the following benefits:

- No C.L.U., E.D.C or Licence Fee on the existing industrial site shall be charged if used for plotted residential purposes provided the industry shifts within three years of the notification of the Master Plan. If used for any permissible land use other than plotted residential, the difference between CLU, EDC and License Fee of the new land use and plotted residential has to be paid. In case that particular land is put to a land use for which CLU, EDC or License Fee is less than the plotted residential, the difference between these fees / charges for the plotted residential and proposed land use shall not be payable by the Government / Urban Development Authority
- If the industry shifts in the subsequent two years of the above mentioned period of three years, it will enjoy 50% discount on CLU, EDC and License Fee on the present site if used for plotted residential purposes. If used for any permissible land use other than plotted residential, the difference between the CLU, EDC and License Fee of the new land use and that of 50% of plotted residential has to be paid. In case that particular land is put to land use for which CLU, EDC or License Fee is less than the plotted residential, the difference between these fees / charges for the plotted residential and proposed land use shall not be payable by the Government / Urban development Authority.
- No C.L.U., E.D.C or License fee on the new industrial site shall be payable if the industry shifts within five years of the notification of the Master Plan.
- After shifting to the new location, the type of such industry may change.

The prescribed distance for residential development in the non-designated industrial zone from existing red industries shall be as prescribed by the Department of Environment, Government of Punjab or Punjab Pollution Control Board.

**Note:**

- 1. Residential component in the industrial plot / premises shall not exceed 5% of the area of the site and shall be within the maximum permissible covered area.**
- 2. No new industry in the Master Plan shall be permitted on a road having less than 40'-0" ROW or as specified in the master plan. However, in case the existing road width is less than the minimum specified width as per Master Plan or 40'-0" wide then the**

*proportionate land on both sides shall be safeguarded for widening to comply with the minimum requirement. In case of industries existing before the final notification of the master plan, if the road width is less than 40 feet then the owner of the site/ industry shall give a self-declaration for leaving the required strip of land from his ownership as and when required by the concerned authority.*

3. *Minimum width of the access road for the Atta Chakki shall be 40'-0".*
4. *Industrial / IT Park shall have minimum 10 acres area. In IT Park, IT component shall have FAR 2. In industrial park, for an industry component FAR shall be 1 and other components shall have FAR as mentioned under different uses in the Master Plan.*
5. *The Development controls/Guidelines/Norms & Standards revised from time to time by the Government shall have overriding effect on Development controls mentioned in master plan.*

#### **7.2.5 No construction zone along major roads**

6. All properties within the jurisdiction of LPA Nakodar that abuts major roads of R1, R2, and R3 category shall have No construction zone from the proposed ROW as mentioned below, irrespective of the land use shown in the Proposed Landuse Plan bearing. Drg. No DTP (J) 11/2013 Dated 24/07/2013.

#### **No construction zone along major roads**

<b>Sr. No</b>	<b>Name and Hierarchy of road</b>	<b>Proposed ROW (in meters) outside Muni. Council limits</b>	<b>No construction zone (in meters) on both sides of Proposed ROW</b>
1	Proposed Ring road (R1)	200	5
2	Nakodar – Jalandhar Road	150	5
3	Nakodar – Malsian Road	150	5
4	Nakodar –Mehatpur Road	150	5
5	Nakodar –Noormahal Road	150	5
6	Proposed Road (R3)	80	5

- *It is proposed that the existing village link road which are not becoming the part of road hierarchy of R-1 to R-3 and the roads which are falling agricultural zone of the master plan shall be widened to minimum 40'.*
- *The proposed road widening as shown on the plan shall be equally wide on both sides of the existing road except where habitation/ settlement come in alignment. In that case, widening shall be as per the ground conditions or as recommended by the concerned implementing agency.*
- *The road widening wherever proposed along the canal/drain/railway line shall be on that side of the canal/drain/railway line as shown on the proposed land use plans.*
- *The Development controls/Guidelines/Norms & Standards revised from time to time by the Government shall have overriding effect on Development controls mentioned in master plan.*

### 7.2.6 ENVIRONMENTAL CONSIDERATIONS

- Minimum buffer of 15 meters green belt of broad leaf trees should be provided around the boundary of village *abadi's* falling in the industrial zone of Master Plan. A buffer strip of 15 meters of broad leaf trees shall also be provided between residential areas and red category industries falling in the industrial zone of Master Plan boundaries of which are located within 100m from the boundary of such areas. It is clarified that 15 meter buffer shall be provided by the owner of the project who comes later.
- All residential colonies, commercial establishments like shopping malls, multiplexes, etc. shall maintain a minimum distance of 250 m from the hazardous (Maximum Accident Hazardous or MAH) industries notified by the competent authority. The distance shall be measured from source of pollution/hazard in the industrial premises to the building lines as per zoning plan of the colony/complex. However, for specified type of industry like rice Sheller/sella plants, stone crushers, hot mix plants, brick kilns, etc., standards prescribed by PPCB or any other agency shall apply.
- Gap of at least 100 feet should be left between the railway boundary and the nearest private buildings, so as to avoid smoke and noise nuisance to these adjacent buildings. Wherever it is not possible to leave, a road width of minimum 20 feet may be left between the railway boundary and the nearest adjacent buildings, as per the standards prescribed by the Railway Board conveyed by Divisional Suptt., N Railway, Ferozpur to Secretary, Local Self Government, Punjab vide their letter dated 22.09.1971.

### 7.2.7 SAFETY

#### 7.2.7.1 Fire

Fire services have to play pivotal role and be fully prepared in protecting people from fire hazards, building collapse, road accidents and other unforeseen emergency etc.

#### Planning norms and standards for safety/ fire facilities

Sr. No.	Category	(Pop./unit (approx.))	Plot area
1	Fire post	3-4 Km radius	2000 sq. mt.
2	Fire station	5-7 Km radius	1.0 Hectares.
3	Disaster Management Centre	1 in each administrative zone	1.0 Hectares along with suitable open (2 hectares) for soft parking, temporary shelter, parade ground etc.
4	Fire Training Institute/ College	City level ( one site in urban extension)	3.0 Hectares

#### 7.2.7.2 Development Controls for Safety/ Fire Facilities

Development Controls for safety/fire facilities shall be as per Zoning Plan/Building Byelaws

of the local body/any other concerned agency or as per State government instructions issued from time to time.

### **7.2.7.3 Guidelines for locating fire stations & fire fighting facilities in urban areas:**

- Fire station shall be so located that the fire tenders are able to reach any disaster site immediately within minutes.
- Fire station shall be located on corner plots as far possible & main roads with minimum two entries.
- In new layouts, concept of underground pipelines for fire hydrants on periphery, exclusively for fire fighting services shall be considered.
- Fire stations are permitted in all land use zone/sectors except in Recreational use zone.
- Necessary provisions for underground/over ground fire fighting measures, water lines, hydrants etc. may be kept wherever provision of fire station is not possible.
- The concerned agencies shall take approval from Fire Department for firefighting measures while laying the service for an area.

### **7.2.8 OTHER DEVELOPMENT CONTROLS AND GUIDELINES REQUIRED**

- **Expansion of *Abadis*:** Contiguous expansion of village *abadis* falling in the non-residential zones of Master Plan is permissible up to a distance of 100 m from the existing Lal lakir / *phirni* of villages to accommodate the natural/contiguous growth of villages. However, for the village *abadis* falling in residential zone of Master Plan, the development shall be regulated by the norms and standards defined for the development of the residential areas.
- Minimum 5 m wide green strips on each side of minor water bodies / drain shall be maintained in the portion falling within the existing municipal limits and 10 m in the portion falling outside the existing municipal limits. Other major water bodies like rivers/major canals, etc. shall have minimum 30 meters green strips on each side in the portion falling within and outside existing municipal limits. Realignment of water bodies shall be permissible wherever feasible, subject to the certification by the Drainage/Engineering Department to ensure free flow of storm water. After any such realignment, the river mouth, the river bed and the green strip/buffer on either side shall be maintained at least to the minimum prescribed level. In these green strips, golf course, sports and recreational activities shall be permissible, but no construction would be allowed. The supporting activities for these activities shall be constructed outside the green strips.
- All commercial/public/industrial or other buildings of public use shall be made friendly for the physically challenged persons as per the norms and standards specified by the Government/competent authority from time to time.

- Provision for Rainwater Harvesting shall be made compulsory in all buildings subject to the guidelines issued by the Competent Authority from time to time.
- All new buildings to be constructed shall be made energy efficient based on design and use of energy efficient electrical appliances. Retrofitting of all existing buildings to make them energy efficient shall be taken up on priority.
- Trees shall be planted within and outside all residential areas and public/industrial buildings. Landscaping shall be made integral part of the building design.

### **7.2.9 TRANSFERABLE DEVELOPMENT RIGHTS**

To facilitate development, it is necessary to accord top priority to the implementation of public utilities and infrastructure (such as roads, parks, green belts, etc.), which will in turn encourage urbanisation. However, the respective technical agency or authority will not be able to proceed with its implementation programmes until the ownership of private land affected by these public utilities and infrastructure has been transferred to the state or to the relevant authority(s). Acquisition of private land for this purpose can be carried out through one of the following options:

- Cash compensation can be made to affected land owners whose land is to be acquired.
- A government approved land pooling scheme can be implemented.
- Transferable Development Rights (TDR).

Under the TDR scheme, the affected land owner(s) shall be entitled to additional FAR for the development of the balance land parcel at a rate of 1:1. The additional FAR will not be subjected to any CLU, EDC or license/permission fees. The land owner(s) also has/have the option to sell it in total or in parts to a third party.

All the records of transactions administered under the TDR scheme shall be maintained by the state and/or relevant authority(s), based on the precedence set in Mumbai, Maharashtra. The TDR scheme shall be restricted to development projects for public infrastructure and facilities, which shall be announced from time to time. The additional FAR shall not be transferable from one LPA to another one.

Detailed policy guidelines on the operation and implementation of TDR scheme shall be as per State government instructions issued from time to time.

### **7.3.1 EXCEPTIONS**

- Uses determined by the Chief Town Planner, Punjab as compatible with uses permissible shall be allowed in respective zones.



- Development / projects approved prior to coming in to force of these regulations shall be deemed to be in compliance with these Regulations.
- The site on which various projects have been approved or whose change of landuse has already been permitted by competent authority/Govt. inform the final notification of the master plan such sites shall be deemed to be adjusted as sanctioned/ permitted.
- Use of land covered under Optimum Utilization of Vacant Government Land (OUVGL) Scheme or any other project of the State / Central Government shall be determined by the Government at any appropriate time notwithstanding the provisions of this Master Plan.
- In the event of conflict in interpretation of data within the study area, the information in the GIS format will be deemed as the accurate version and will prevail.
- In case the area of a project falls partially under no construction zone along a water body, relaxation of maximum up to 5% on the total area of the project shall be allowed towards calculation of saleable area in lieu of the area falling under the no construction zone. In case, the area falling under no construction zone is less than 5% of the total area of the project then the relaxation shall be proportionately less.
- The buildings / premises for which the existing (present) land use has been retained as such in the Master Plan may continue to operate without time limit. However, in case the present use of the buildings / premises is discontinued (partially or wholly) these buildings / premises or part thereof may be put to any compatible use (except industry) with the surrounding use zone in the Master Plan provided it fulfils the other development regulations / controls as laid down in the Master Plan or as prescribed by the Govt. /Local Body from time to time.
- In case of Defence Land, the extent of No Construction Zone around such lands shall be as notified by the Central Government from time to time depending upon the nature of the use of the land, irrespective of the fact whether such uses are indicated/not indicated on the Proposed Landuse Plan.
- The Development controls/Guidelines/Norms & Standards revised from time to time by the Government shall have overriding effect on the Development controls mentioned in the master plan.

### **7.3.2 DISASTER MANAGEMENT**

According to the Indian Seismic Zone Map, Nakodar is placed in Seismic Zone IV, which means high damage risk zone. Such natural and manmade disasters neither can be prevented

nor predicted. However, with the technological advancement to some extent mechanism can be developed to mitigate the after effects of the disaster. Areas of vulnerability can be identified and necessary measures can be proposed by the concerned agencies. The concerned local bodies should keep updating the building byelaws to safe guard against disasters and ensure effective and impartial enforcement. Following policies and strategies for disaster management are proposed:

1. Disaster Management Plan for the area should be immediately prepared after conducting detailed survey of the area.
2. Local body being the nodal agency for disaster management shall identify vulnerable areas such as areas with high density and poor accessibility in the town and propose suitable measures. Proposed Disaster Management Centres should be established in every zone/sector to deal with the disasters, including bio-chemical and nuclear disasters
3. All buildings shall be made structurally safe in order to mitigate the damage caused by the natural and manmade disasters, including earthquake, fire, etc. and the building plans should includes structural designs & shall conform to the guidelines and the stipulations made in the building byelaws and the NBC. It shall be duty and responsibility of the owner of the building to make the building safe against these disasters.
4. The concerned local body responsible for sanctioning of building plans should have technically well trained staff to scrutinize the building plans.
5. The implementation of approved building design should be ensured at site through site inspections at three stages of construction activity i.e., when the building is at plinth level, door level and roof level.
6. Building byelaws shall incorporate the aspects of Multi Hazard Safety, and Retrofitting.
  - Priority shall be given to public buildings (such as hospitals, educational, institutional, power stations, infrastructure, heritage monuments, lifeline structures and those which are likely to attract large congregation) for their ability to withstand earthquake of the defined intensity.
  - Suitable action should be taken for retrofitting and strengthening of structures identified as vulnerable as per earthquake manuals and National building code. A techno-legal regime has to be adopted for provision Multi Hazard Safety aspects..
7. Educate people, particularly school children, about after effects of disaster
8. Public awareness through media campaigns and advertisements about emergency procedures and location of emergency shelters etc. should be taken up by local body.

### **7.3.3 RESIDENTIAL DENSITIES**

Residential density shall be as per the provisions laid down in Housing and Urban development policy notified by the Housing and Urban development department Punjab or amended by the Govt. from time to time. The areas zoned for residential use are not derived from affordable densities but are based on potential for growth. A large proportion of the areas of these density zones particularly on the periphery may remain undeveloped by 2031.

### **7.3.4 OLD TOWN**

Keeping in view the typical character of the old town and its pattern of development, special strategies would be required for the rational development of old town area. The strategy will ensure decongestion of population and decongestion of activities for creating more open spaces and improving the quality of life by making available land for physical and social infrastructure. Strategies would also include pedestrians of the congested area minimizing change of land use, minimizing sub-division of land, preserving and enhancing the ambience of buildings of historical, cultural and religious importance besides rationalizing the traffic and transportation.

Special schemes need to be formulated for the area of historic importance Development of the area along with road widening needs to be taken up on priority basis.

### **7.3.5 IMPLEMENTATION OF THESE REGULATIONS AND DEVELOPMENT CONTROLS**

- All authorities competent to grant permission for layout or sub-division of land or construction of building or development of land in any other form shall ensure that the permitted development is in compliance with these Regulations.
- Land owners desirous of developing their land can obtain, by applying to the designated authority in writing and giving details of their land along with necessary maps, a list of permissible uses.
- Similarly the land owners proposing development of certain uses on their land can obtain a certificate of "Compliance with Master Plan" from a designated authority.

**ANNEXURE I**

GOVERNMENT OF PUNJAB  
DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT  
(HOUSING 1-BRANCH)

## NOTIFICATION

No. 12/27/10-4HGP/2592  
Whereas it appears to the Governor of Punjab that to meet the challenge of rapid growth of Nakodar Town of Distt. Jalandhar as to provide for a workable framework for comprehensive planned and regulated development, preparation of Statutory Master Plan of Nakodar Town and its surroundings in an orderly manner and to prepare its Master Plan under "The Punjab Regional and Town Planning and Development (Amendment) Act, 2006", to regulate the development in and around Nakodar Town the state government intends to declare the Local Planning Area of Nakodar Town within the meaning of sub section (1) of section 56 of "The Punjab Regional and Town Planning and Development (Amendment) Act, 2006". The total area of proposed Local Planning Area is 13851 Hectares which includes Nakodar Town and adjoining 52 villages. The schedule of boundary of Local Planning Area is as under -

Schedule of Boundary:

North : Starting from point 'A' which is the Tri Junction of village Sarai Khan (H.B.No. 124), Haweli (H.B.No. 109) and Kangna (H.B.No. 70) and moving towards east along the boundaries of village Kangna (H.B.No. 70), village Bhagpur (H.B.No. 128) and village Rayabwal ((H.B.No. 129), village Nurpur (H.B.No. 67), village Kotla Bhagu ((H.B.No. 64), village Ladhra (H.B.No. 131), Nakodar (M.C) crossing Kapurthala road and again moving along M.C. Boundary of Nakodar, village Mehmudpur (H.B.No. 30), village Hussainpur (H.B.No. 29), village Kotla Jagan (H.B.No. 137), village Saidpur (H.B.No. 136), village Gohir (H.B.No. 19) and village Boparai (H.B.No. 18), crossing Nakodar-Jalandhar road and moving again along village boundaries of village Bopa Rai (H.B.No. 18), village Chak Kalan (H.B.No. 11), village Chak Khurd (H.B.No. 10) upto point 'B' which is the Tri Junction of village Chak Khurd (H.B.No. 10) village Gura (H.B.No. 12) and village Chak Wandal (H.B.No. 9).

EAST: Thence from point 'B' moving towards south along the eastern boundaries of village Gura (H.B.No. 12), village Panj Garain (H.B.No. 13) & crossing Nakodar-Jalandhar Railway Line & again moving along boundaries of



-2-

village Panj Garain (H.B.No.13), Village Sarih (H.B.No. 15). Village Littran (H.B.No. 34), village Nawan Pind Arayan(H.B.No.35), crossing Nakodar Nurmahal road and again moving along boundaries of village Nawan Pind Arayan (H.B.No.35), village Sidhwan (H.B.No. 43) crossing Nakodar Phillaur railway line and then again moving along the village boundary of village Sidhwan(H.B.No. 43) upto point 'C' which is the meeting point of village Sidhwan (H.B.No. 43), village Pandori Jagir (H.B.No. 75), village Shamsabed (H.B.No. 80) and village Haripur (H.B.No. 44).

**SOUTH:** Thence starting form point 'C' moving towards west along the southern boundaries of village Sidhwan((H.B.No. 43), village Bath (H.B.No. 42), village Muhem(H.B.No. 41), village Budhi Pind(H.B.No. 40), village Bara Islam(H.B.No. 54), village Maheru(H.B.No. 55), and Pandori Khas(H.B.No. 60) up to Point 'D' which is tri junction of village Pandori Khas(H.B.No. 60), village Mandiala(H.B.56), and Saleman(H.B.No. 57).

**WEST:** Thence starting form point 'D' towards north along the western boundary of village Pandori Khas (H.B.No.60), village Nawan Pind Dakhani (H.B.No.59), village Alewali (H.B.No.74), village Bara Sidhpur(H.B.No.65),village Bhodipur(H.B.No.66), village Kangna (H.B.No.70) crossing Nakodar-Lohian railway line and Nakodar-Moga road again moving towards north along village boundary of village Kangna(H.B.No. 70) upto point 'A' which is the starting point .

The boundary of Local Planning Area, Nakodar Town has been specifically shown on Drg.No. DTP(J)17/2010 dated 05.05.2010.

All the provision laid down in 56(2) of " The Punjab Regional and Town Planning and Development (Amendment) Act.2006" and all the concerned rules framed have been into consideration.

Place: Chandigarh  
Dated: 21/8/2010.

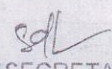
Dr. S.S.Sandhu  
Secretary to Govt of Punjab  
Department of Housing & Urban Developmnet



No. 12/16/2008-4HG1/

Dated, Chandigarh, the:

A copy along with spare copy is forwarded to the Controller, Printing & Stationary, Punjab, Chandigarh with the request that this notification may be published in the official gazette [Extra ordinary] and 100 copies of the printed notification may be sent to the Government for record.

  
JOINT SECRETARY

DEPARTMENT OF HOUSING & URBAN DEVELOPMENT

Endst. No. 12/16/2008-4HG1/ 2873 Dated, Chandigarh, the: 31/8/10-

A copy is forwarded to the Chief Town Planner, Punjab, Chandigarh w.r.t. his letter No. 6278-CTP(PB)/ SN-30 dated 13-08-2010 for information & necessary action.

  
JOINT SECRETARY

DEPARTMENT OF HOUSING & URBAN DEVELOPMENT

Endst. No. 12/16/2008-4HG1/

Dated, Chandigarh, the:

A copy is forwarded to the Chief Administrator, PUDA, S.A.S. Nagar for information & necessary action.

JOINT SECRETARY

DEPARTMENT OF HOUSING & URBAN DEVELOPMENT

Endst. No. 12/16/2008-4HG1/

Dated, Chandigarh, the:

A copy is forwarded to the Additional Chief Administrator, PUDA, Jalandhar for information & necessary action.

JOINT SECRETARY

DEPARTMENT OF HOUSING & URBAN DEVELOPMENT

Endst. No. 12/16/2008-4HG1/

Dated, Chandigarh, the:

A copy is forwarded to the Deputy Commissioner, Jalandhar for information & necessary action.

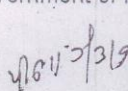
JOINT SECRETARY

DEPARTMENT OF HOUSING & URBAN DEVELOPMENT

Endst. No. 12/16/2008-4HG1/

Dated, Chandigarh, the:

A copy is forwarded to the Director Information Technology, Punjab with a request that this notification may kindly be published on the website of Government of Punjab.

  
JOINT SECRETARY

DEPARTMENT OF HOUSING & URBAN DEVELOPMENT



**ANNEXURE II****LIST OF SETTLEMENTS FALLING WITHIN LOCAL PLANNING AREA, NAKODAR.**

**NAME OF CITIES AND VILLAGES FALLING WITHIN LOCAL PLANNING AREA  
NAKODAR DISTRICT JALANDHAR**

Sr. No.	Name of village	H. B. No.	Area (in ha)	Population as per 2001 census
1	2	3	4	5
1	Kangna.	70	484	2184
2	Bhag Pur	128	157	522
3	Rayab Wal	129	144	284
4	Nurpur.	67	365	2082
5	Kotla Bhagu	64	120	510
6	Musewal	68	117	355
7	Bhodi Pur	66	131	547
8	Ladhran	131	321	1189
9	Bara Sidhpur	65	78	427
10	Gandhran	63	552	2005
11	Bal Hukmi	62	65	412
12	Khur Saidpur.	61	287	962
13	Alewali	74	216	562
14	Nawan Pindi Dakhni	59	185	1395
15	Pandori Khas.	60	427	2159
16	Meheru	55	368	963
17	Bara Islam	54	143	412
18	Budhi Pind	40	110	285
19	Sophal Khurd.	39	70	792
20	Aylac	38	213	955
21	Muhem	41	437	1678
22	Bath Kalan	42	243	2244
23	Sidhwan.	73	456	1813
24	Mehmud Pur.	30	93	382
25	Hussainpur	29	173	711
26	Malri	28	316	2397
27	Rasulpur	26	73	605
28	Allowal	27	206	739
29	Nangal Jiwan.	138	155	508
30	Kotla Jangan.	137	245	846
31	Saidu Pur	136	124	455
32	Gohir	19	345	1987
33	Bopa Rai Kalan.	18	672	3457
34	Chak kalan	11	322	2170
35	Chak Khurd.	10	268	1231
36	Gura	12	245	354
37	Tahli	17	325	1837
38	Panj Grain	13	289	030
39	Hussain Abad.	16	211	736
40	Sarih	15	953	5422
41	Sankar	21	181	1158
42	Dherian	20	110	837
43	Sianiwal.	25	184	1450
44	Shak Pur	24	061	315
45	Muzzafar Pur	23	47	1082
46	Chak Muglani	22	101	004
47	Jawinde	33	165	638
48	Miran Pur	32	453	1849
49	Littran	34	139	1259
50	Nawan Pind Arian	35	459	1442
51	Bir Pind	36	299	1499
52	Mahunwal	37		
53	Nakodar MC		360	31408
			<b>13263</b>	<b>98245</b>

District Planning  
Jalandhar

**ANNEXURE III**

List of trees recommended for plantation on the main roads within urban limits / Master Plan Areas

Sr. No.	Name of Tree (Botanical / Common)	Description
1	Alstonia Scholaris (Chhatim)	Tall tree with columnar shape, evergreen, very ornamental. Bears greenish-white flowers in October – December.
2	Barringtonia Acuitangula (Smudhar Phal)	Medium tree with spreading habits, deciduous from April to May. Ornamental foliage and flowers in pendulous branches. Bears crimson flowers in April and September.
3	Bauhinia Blackiana (Kachnar)	Small tree, evergreen with columnar form, highly attractive and ornamental. Propagated by layers and cuttings. Flowers deep pink from January to April and from September to November.
4	Bauhinia Purpurea (Kachnar)	Medium tree with columnar form, evergreen. Bears purple coloured flowers in November.
5	Bauhinia Variegata (Kachnar)	Medium tree with columnar form. Sheds leaves in January, February, profusely flowering tree, highly beautiful when in bloom. Bears pink, white and purple coloured flowers in February, March and April.
6	Cassia Fistula (Amaltas)	Tall columnar shaped tree, leafless in April – May, very hardy tree, looks very ornamental when in bloom. Bright yellow flowers in April – May.
7	Cassia Grandis (Pink Mohur)	Medium in height with spreading habit. Highly ornamental tree. Bears deep carmine flowers in November and December.
8	Cassia Javanica (Java – ki – Rani)	Medium in height, leafless in April – May. It is the most beautiful flowering tree. Bears clusters of pink flowers in May – June.
9	Cassia Marginata (Pink Mohur)	Medium in height, spreading and graceful tree. Bears deep pink flowers in May and June.
10	Cedrela Tuna (Tun)	Tall columnar shaped tree, leafless in December – January. Fairly fast growing and hardy tree with creamy white flowers in March – April.
11	Chakassia Tabularis	Tall spreading tree, evergreen and hardy. Excellent for shade. Flowers are greenish, white in April – May.
12	Chorisia Speciosa (Mexican Silk Cotton Tree)	Medium in height, pyramidal in shape, leafless from October to January, fast growing and bottle shaped green trunk. Flowers are of pink and yellow colour in October – November.
13	Delonix Regia (Gulmohar)	Tall tree with spreading crown, leafless from January – March. Fast growing, very ornamental creates mass effect with orange red flowers from April to June.
14	Ficus Religiosa (Pipal)	Tall columnar shaped tree, leafless in February – March, very hardy and fast growing flowers pale green in April.
15	Ficus Infectoria (Pilkhan)	Tall spreading, fast growing and hardy tree, leafless in March, good for shade, need protection from cattle, green yellow flowers in November and December.
16	Hetrophragma Roxburghii (Marour Phaly)	Tall columnar tree, evergreen, flowers are of pale, yellow brown colour in March.
17	Jacrandia Mimosaefolia (Jakaranada or Neely Gulmohar)	Medium in height, leafless when in bloom, good for parks and houses, fern like bipinnate leaves. Bears flowers of violet-blue colour in April – May.
18	Kigelia Pinnata (Jhar Phanoos)	Tall and spreading tree, evergreen hardy. Fast growing flowers are of crimson, yellow and brown colour in April – May.
19	Lagerstroemia Frosreginae	Medium sized tree, columnar shape, very pretty, leafless in winter



	(Queen's Flower)	(December – February). Purple and pinkish blooms in April – May and July – August.
20	Lagerstroemia Thorelli (Pride of India)	Medium in height, columnar in shape, beautiful tree, leafless from December – February, flowers of mauve colour from June to December.
21	Lagerstroemia Rosea	Medium in height, columnar tree, very pretty. Leafless in winter (December – February) with deep pink flowers from April to September.
22	Pongamia Glabra (Karanj)	Tall spreading and fast growing tree, leafless in March. Bears mauve colour coloured flowers in April – May.
23	Pterospermum acerifolium (Kanak Champa)	Tall columnar tree, ever green, handsome, bear's sweet scented flowers of creamy white colour in March – April.
24	Putranjiva Roxburghii (Jiva Pota)	Medium in height, pyramidal shaped, ever green, handsome and very graceful tree, good for shade and beautiful form. Flowers are of pale yellowish colour in March – April.
25	Saraca Indica (Sita Ashok)	Height medium, spreading tree, evergreen, very hardy, foliage glossy and ornamental. Highly flow growing takes 30 years to become a good tree. Bears highly attractive scarlet coloured flowers in large compact clusters in February and March.
26	Schleichera Frijuga (Kusum)	Tall columnar shaped tree, evergreen, good for shade, leaves become red in March and April and again in July and September. Flowers are of green colour in February and March.
27	Sweitnia (Mahogany)	Evergreen, shady, attractive foliage, very hardy, tall tree with columnar shape, blooms in April and tree is slowing growing and very good for avenues.
28	Tabeuia Rosea	Small in height, columnar in shape, deciduous from December to February, scanty foliage and flower colour is purple – pink in February to March.
29	Terminalia Arjuna (Arjan)	Tall, columnar shaped tree sheds leaves in March. Very hardy tree, flowers of pale – yellowish white colour appear in September to October.
30	Terminalia Chebula (Bahera)	Tall, columnar shaped tree, leafless in March, pale – yellow flowers all the year round.

**ANNEXURE IV**

**SPACE NORMS AND STANDARDS**

<b>Aspect</b>	<b>As per zoning regulations and sub-division clauses for Master Plan in Punjab/Govt. Policies</b>	<b>UDPFI Guidelines</b>	<b>Delhi Master Plan</b>
Primary school	<b>Population:3,000-4,000</b> No. of students: 600 Area a) Old city (over 650 ppha) : 0.2 ha b) Outer areas (less than 650ppha):0.5 ha	<b>Population: 5,000</b> Number of students :500 Area per school:0.4 ha Covered area:0.20 ha Minimum play field area: 0.20 ha	<b>Population: 10,000</b> Area:2000-4000 sq m
Senior Secondary School	<b>Population:12,000-20,000</b> No. of students: 1000 Area a) Old city (over 650 ppha) : 1.00 ha b) Outer areas (less than 650 ppha):2.5 ha	<b>Population: 7,500</b> Number of students :1000 Area per school:1.60 ha Covered area:0.60 ha Minimum play field area: 1.00 ha	<b>Population: 10,000</b> Area:6000-8000 sq. m.
College	<b>Population:30,000</b> No. of students: 800 Area a) Old city (over 650 ppha) : 2.50 ha b) Outer areas (less than 650 ppha):5.00 ha	<b>Population: 1,25,000</b> Number of students :1000-1500 Area per college:4.00 ha Covered area:1.80 ha Play field area:1.80ha Residential/hostel area: 0.40 ha	<b>Population: 5,00,000</b> Area: As per UGC Norms
University	N.A.	New University Area:60.00ha	sites in urban extension to be provided at city level Area: up to 20.00 ha
Technical Education Centre	N.A.	Population :10,00,00 Area per centre 4.00 ha Area per technical centre:2.10 ha Area per ITI:1.40 ha Area per coaching centre:0.30 ha	Population :5,00,000 Area : 4000 sq m
New Engineering College	Number of students :300 Area a) Old city:(over 650 ppha): 1.00 ha b) Outer areas (less than 650ppha):2.50 ha	2 Number to be provided in urban extension Number of students:1500-1700 Area per college:60.00ha	Population :5,00,000 Area: As per AICTE norms
Medical/Pharmacy College	Area :5 acres(Rural) Area: 2.5 acres (Distt. Headquarter Corporation Limit)	2 site of 15 ha each in urban extension including space for specialized general hospital.	Population: 10,00,00 Area :As per Medical Council of India /Regulatory body
Dispensary	Population :5,000 Area: 0.1ha	Population:15,000 Area :0.08 to 0.12 ha	Population:10,000 Area :800-2000 sq m
Primary Health Center			
Nursing Home	N.A.	Population :45,000-1,00,000 Capacity:25 to 30 beds Area:0.20 to 0.30 ha	Population :50,000 Area:1000-2000sq m
General Hospital	Population :50,000	Population:2,50,000	Population:5,00,000

Aspect	As per zoning regulations and sub-division clauses for Master Plan in Punjab/Govt. Policies	UDPFI Guidelines	Delhi Master Plan
	Area:2.5 ha	Capacity:500 beds Area for hospital :400 ha Area for resi. accommodation :2.00ha Total area :6.00ha	Capacity :501 beds and above Area :25,000-45,000sq m.
Veterinary Hospital	N.A.	N.A.	Population :5,00,000 Area:2,000sq m
Community Hall and Library	N.A.	Population :15,000 Area: 2,000 sq m	N.A.
Club	N.A.	Population :1,00,000 Area :10,000sq m.	Population:5,00,000 Area:5000sq m
Amusement park	N.A.	N.A.	Up to 10 ha
City level p ark	N.A.	N.A.	Population :5,00,000 Area 10acres
Neighborhood level park	N.A.	N.A.	Population 10,000 Area:10,000 sq m
Golf Course	N.A.	N.A.	Population :10,00,000 Area :10-30 ha
Sports Centre/Stadium	N.A.	N.A.	Population :5,00,000 Area :3-10 ha
Post and Telegraph Office	Population :10,000 Area :0.1 ha	N.A.	Population :10,00,000 Area :2,500 sq m
Religious Building	Population :15,000 Area :0.1 ha	N.A.	Population :10,00,000 Area :40,000 sq m
Old Age Home	N.A.	N.A.	Population :5,00,000 Area :1,000 sq m
Orphanage/ Children Centre	N.A.	N.A.	Population :5,00,000 Area :1,000 sq m
Multipurpose Ground (Exhibition cum fair Ground)	N.A.	N.A.	Population :1,00,000 Area :20,000 sq m
Burial/ Cremation Centre	N.A.	N.A.	Population :10,00,000 Area :10,000 sq m
Electric sub-station	Population :50,000 Area : 0.4 ha	N.A.	Population :5,00,000 Area :29,600 sq m
Police Post	N.A.	Population :40,000-50,000 Area :0.16 ha (area inclusive of essential residential accommodation)	Population :1,00,000 Area :1000 sq m
Police station/police Division	Population:50,000 Area:0.8 ha	Population:90,000 Area:15 ha Area inclusive of essential residential accommodation 0.05 ha additional to be provided for civil Defence and home guards	Population :2,50,000 Area :10,000 sq m
Police Line	N.A.	Population:20,00,000 Area:4.00 to 6.00 ha	1 for each administrative zone to be provided at city level Area:2.0 ha
District jail	N.A.	Population :10,00,000 Area :10.00 ha	Population :25,00,000 Area :5.0 ha
Fire Station	N.A.	1 fire or sub-station within 1 to 3 km to be provided for 2 lakh population Area for fire station with essential residential	3 Fire Station for 5,00,000 population within radius of 5 to 7 km Area: 10,000 sq m

Aspect	As per zoning regulations and sub-division clauses for Master Plan in Punjab/Govt. Policies	UDPFI Guidelines	Delhi Master Plan
		accommodation :1.00 ha Area for sub-fire station with essential residential accommodation :0.60 ha	

From the comparative table of norms and space standards as given above, the norms suggested by UDPFI Guidelines have been found more suitable for the preparation of Master Plan Nakodar because of the following reasons:

- The norms and standards suggested by UDPFI Guidelines are more detailed and cover almost each physical and social infrastructure as compared to Present Master Plan Zoning Regulation /Govt. policies
- Norms and standards suggested by UDPFI Guidelines are more realistic and suit to local conditions such as prevailing development controls, availability of land, land prices etc.
- UDPFI Guidelines suggest different norms and standards for different category of towns like small and medium towns, large cities and hill areas which is not available in other guidelines.
- The Norms and standards of Present Master Plan Zoning regulation are not detailed and do not cover the whole of activities, hence are not being adopted.
- Norms and standards suggested by Delhi Master Plan have not been found suitable for LPA, Nakodar because these norms are of higher level, formed especially for Mega city like Delhi, where development controls are very tight, population is more than 1.25 crores and the land is scarce and costly.

**Note:**

The norms and space standards as suggested by Punjab Govt. policies from time to time shall have the overriding effect on the norms and standards of UDPFI Guidelines adopted for the preparation of Master Plan, Nakodar.

For the aspects which are not covered under UDPFI Guidelines, the norms and standards as suggested by Master Plan zoning Regulations shall be adopted and where these zoning regulations are also silent, only in that case, the norms and standards suggested by Delhi Master Plan shall be followed.

## Traffic and Transportation

The norms and standards for Traffic and transportation as given in UDPFI Guidelines were discussed with higher authorities, following roads hierarchy has been adopted;

### Road hierarchy

- **R-1**                                **200 feet wide**
- **R-2**                                **150 feet wide**
- **R-3**                                **100 feet wide**
- **R-4**                                **80 feet wide**

### Footpath

The width of footpaths is listed as below;

Minimum width	1.5 m
Adjoining shopping frontage	At least 3.5 m
Longer shopping Frontage	Minimum 4.5 m

Width should be increased by 1m in business/ shopping areas

### Cycle Track

The minimum width of cycle tracks should be 2m. Each additional lane, where required, should be one meter. The capacity of cycle tracks recommended is as below:

Width of Cycle Tracks	Width in meters	Capacity (Cycle /hr.)	
		One way	Two way
Two lanes	3	250-600	50-250
Three lanes	4	>600	250-600
Four lanes	5		>600

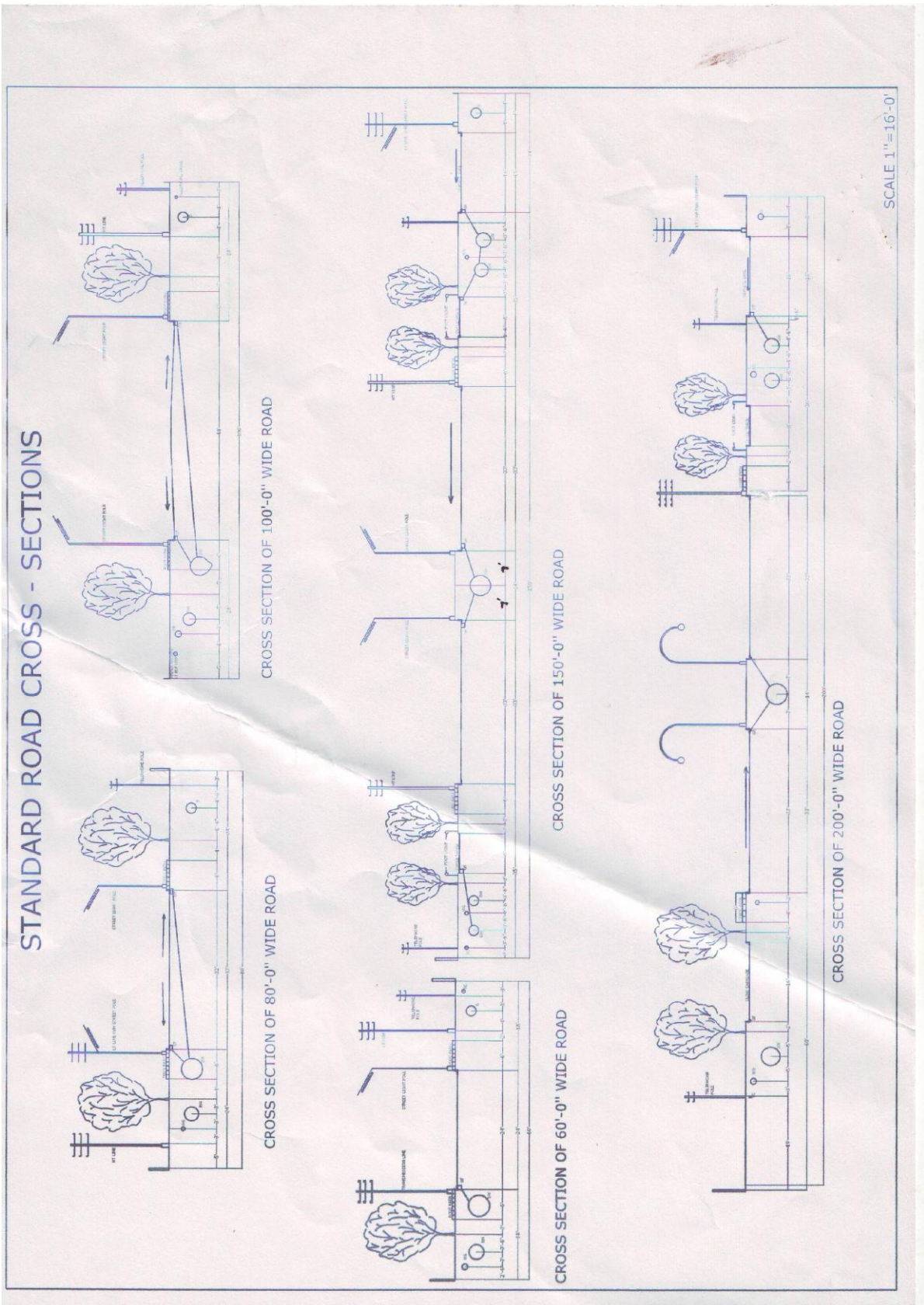
### Parking

- Group housing 2 ECS per 100 square meters covered area on all floors subject to maximum 3 ECS per dwelling unit.
- Commercial 2 ECS per 100 square meters covered area
- Institutional/ Hotel/ Hospital/Multi-media 1 ECS per 100 square meters of the covered area (if the project is covered under notification no. 17/171/5-Hg 2/311 dated 11 /01/08, otherwise the parking norms meant for commercial uses i.e. 2 ECS /100sq meters covered area shall apply.)

### Note:

The E.C.S shall be counted as below:

- 23 sq. meters for open parking
- 28 sq. meters for parking under stilts on ground floor
- 32 sq. meters for parking in the basement



**OFFICE OF THE DEPUTY COMMISSIONER, JALANDHAR**

**ANNEXURE V**

**List of Think Tank Members**

A committee namely “Think Tank” comprising the following officers from Public Sector and enlightened citizens from Private Economic Sector and Social Sector is hereby constituted for the preparation of Master Plan, Nakodar. The Think Tank will share the vision and help in developing a strategy to arrive at the Vision-2031 for Jalandhar city.

Sr. No.	DESIGNATION	NAME	CONTACT NUMBER	
<b>PUBLIC SECTOR</b>				
1	Deputy Commissioner, Jalandhar			Chairman
2	S.D.M, Nakodar.			Member
3	C.A. Jalandhar ( JDA)			Member
4	E.O, Municipal Council, Nakodar			Member
5	Xen, PSPCL, Jalandhar			Member
6	Xen, PSTCL, Jalandhar			Member
7	Xen, Water Supply and Sewerage Board, Jalandhar			Member
8	Xen, PWD (B&R), Jalandhar			Member
9	Xen, Public Health, Jalandhar			Member
10	Xen, Pollution Control Board, Jalandhar			Member
11	SP, Traffic, Jalandhar			Member
12	DTO, Jalandhar			Member
13	Asstt. Traffic Manager Railway			Member
14	B.D.P.O, Nakodar			Member
15	DTP, Jalandhar			Member Secretary
<b>PRIVATE SECTOR</b>				
16	Industrialist	Sh. Tirlochan Singh	98154-20300	Member
17	Real Estate Developers	Sh. Baljeet Singh Sh. Paramjeet Singh	99884-70708 98761-83429	Member
18	Financer	Sh. Robin Kumar Gupta	98723-00624	Member
19	Architect/ Civil Engineer	Sh. Surinder Kumar Sh. Raman Sehgal	98144-72490 94170-33658	Member
20	Media	Sh. Ravinder Pal	98142-35180	Member
<b>SOCIAL SECTOR</b>				
21	Welfare Association	Sh. Vinod Misser	98156-07440	Member
22	Non Govt. Organization	Sh. Ajay Kumar Grover	98141-88484	Member
23	Historical Society	Sh. K.K.Koul	94173-66771	Member
24	Educationist	Sh. Raguvir Singh Panwar	92160-25427	Member
25	Institutions	Dr. Rajinder Kumar	98142-98756	Member