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DRAFT
GREATER NOIDA MASTER PLAN 2021

1. INTRODUCTION

Rapid urbanization is an intrinsic part of the development process. One of the major challenges before the nation is to provide for planned neat urban settlements with adequate greenery and open spaces rather than unplanned haphazard and polluted slum like urban settlements. The quality of the urban centre determines the quality of life of the inhabitants. Planning of a new urban centre therefore is of utmost importance for defining the quality of life.

(A) LOCATION

The new city of Greater Noida is located close to the National Capital of Delhi in the National Capital Region (NCR)**.** It is situated in close proximity to Delhi at a distance of about 25 Kms from the border of Delhi (at Okhla Barrage). The notified area of Greater Noida comprising of 124 villages and about 40000 Ha. Of area is broadly bounded by National Highway 24 in the north-west, river Hindon in the western side and G.T. Road/Northern Railway main line to Calcutta on the eastern side. It is abutting the areas of Noida on its western side and Ghaziabad on the northern side. Due to nearness to Delhi and both these towns being well developed the pressure for development is there on Greater Noida.

(B) BACKGROUND

The creation of Greater Noida is an outcome of the intensive pressure of the National Capital of Delhi on its periphery. On the east of Delhi, abutting the border, is located the notified area of Noida which is a planned township. Just outside the notified area of Noida, the pressures for development around Delhi and DMA started manifesting in the form of haphazard growth by colonizers and speculative land dealings in the area. The Government of Uttar Pradesh was concerned with unplanned growth in the area and initially declared it as notified area under U.P. Regulations of Building Operations Act, 1958 on 19th Sept., 1989, under U.P. Industrial Area Development Act, 1976.

Thereafter, the Government of Uttar Pradesh vide notification dated 28th January 1991 constituted Greater Noida Industrial Development Authority. The first Master Plan was got prepared by the Authority in 1992 from School of Planning & Architecture as a consultant. The plan was for 5.00 lakhs population and was then revised in NCR Plan context in 1996 as Outline Development Plan 2001 for Surajpur-Kasna sub regional centres.

I THE NCR CONTEXT

The NCR Plan-2001

Regional Plan for the National Capital Region 2001 envisaged balanced and harmonious development of the region and creation of appropriate rural – urban balance through well conceived 4 tier hierarchy of settlements. The plan envisaged controlled and restricted development within Delhi and DMA. For achieving this objective, the plan provided for dispersal of economic activities outside Delhi Metropolitan Area (DMA) by providing excellent infrastructure facilities and fast modes of transport and communications to regional and sub regional centres.

The NCR Regional Plan-2001 identified four levels of settlements for desirable population size and probable functions within the National Capital Region.

	Level of Settlements	Population Size
1.	Regional centres	3.0 lakhs and above.
2.	Sub-Regional centres	0.5 lakhs to 3.0 lakhs
3.	Service Centres	10,000 to 50,000
4.	Basic villages	less than 10,000

In the U.P. Sub-Region, Surajpur and Kasna were the two sub-regional centres identified within the Greater Noida Development Area. The city has been planned by integrating these sub-centers.

Development of Greater Noida Industrial Development Area, within which two Sub-Regional centres of Surajpur and Kasna fall, was thus envisaged in accordance with Sub-Regional Plan of Uttar Pradesh, approved by NCR Planning Board. Accordingly, the two proposed urban nodes were planned to have a development of 1,50,000 population for each of the two sub-regional centres, incorporating the industrial areas already developed by the UPSIDC. The Outline Development Plan was prepared in 1996 for a projected population of 3.0 lakhs by the year 2001 and urbanisable area of 5075 Ha. And approved by the NCR Planning Board. In 1996.

The NCR Plan-2021

The NCR Plan-2021 has been fianlised and notified on 17th September 2005. Greater Noida has been identified as a Metro Centre and lies on the Rest of NCR zone delineate in the NCR Plan-2021. As per the Plan, in the

'Rest of NCR' accelerated development of both urban and rural areas is proposed to continue. Infrastructure is proposed to be substantially upgraded at local and regional level (both by Sate and Central Government) in order to induce the growth in these areas, specifically in the identified settlements i.e., Metro Centres and Regional Centres. This will make them more attractive for locating economic and allied activities and for attracting private sector investment. These Centres are envisaged as powerful growth nodes to attract capital functions and activities and help in population dispersal from the National Capital. Because of their special functional status and size, a very high level of physical, social and economic infrastructure better than that in the Capital is required to be developed within these towns/complexes. This would include efficient intra-urban mass transportation system as well as strong transport and communication linkages with Delhi, other Metro Centres and NCR towns. The objectives of NCR Plan-2021 for Planning Greater Noida as Metro Centre have been followed in preparation of Master Plan-2021.

2.0 THE OUTLINE DEVELOPMENT PLAN-2001 (ACHIEVEMENTS) AND PRESENT SCENERIO (ACHIEVEMENT UPTO MARCH 2006)

4. THE OUTLINE DEVELOPMENT PLAN – 2001 (PHASE-I)

The Integrated plan of Surajpur and Kasna Sub Regional Centres was based on the following objectives :

OBJECTIVES

1. To curb speculative land dealings in the Development Authority area in order to prevent unplanned and haphazard growth.
2. To promote planned development integrated with industrial development for achieving the NCR plan objective of dispersal of population and economic activities outside Delhi.
3. To provide for low density development with regional level institutional and recreational activities aiming to serve the entire region.
4. To facilitate the emergence of these industrial centres with ample employment and work opportunities at a place suited for such activities and provide the workers a conducive environment for work and enjoyment of good quality of life.

Concept of the Outline Development Plan was based on the population targets of 1,50,000 persons each for both the centres by 2001. This population figure was used to work out gross land area requirements for residential, commercial, recreational, public and semi-public, transport and other related uses as well as facilities. Industrial areas in Surajpur and Kasna as developed by UPSIDC were adopted as it is in qualitative and quantitative terms.

PLANNING AND DESIGN CONCEPT

The key physical features of the structure and design of the Outline Development Plan 2001 were as follows:-

1. The river Hindon is a major ecological resource which has to be conserved and should have more plantations and organized green areas all along Hindon river front.

2. The reserve forest cover in the North is the major ecological resource which should be conserved. Some parts of this reserve forest are presently degraded and an upgradation scheme would be taken up actively to improve the ecological balance and protection of the wild life.
3. The concept of inter-flowing green spaces as in Chandigarh, and in Delhi Master Plan, has also been provided in GNA as a continuous lung-space which will ultimately connect to local level open space system to be shown as part of detailed development plans.
4. A grid iron pattern of road network has been proposed which is conducive to establishment of an efficient transport system. In both the complexes comprising the GREATER NOIDA AREA, pedestrian and cycle paths would be provided adequately to create better environment. Road side tree plantation on the pattern of New Delhi would be attempted.

In addition to the industrial and residential areas the important features of this complex would be the large areas devoted to regional recreational activities such as ornamental Garden, Recreational, Botanical, Zoological, Theme and Amusement Parks and River Front.

The landuse breakup under various landuses was as follows:-

OUTLINE DEVELOPMENT PLAN – 2001
SUB – REGIONAL CENTER – SURAJPUR

Table-1 : PROPOSED BREAKUP OF LAND USE 2001

Sl.No.	Landuse Category	Area (ha.)	Percentage
1.	Residential	513.59	18.39
2.	Commercial	52.62	1.88
3.	Industrial	920.12	32.95
4.	Public and Semi-Public (Including Utilities)	308.63	11.05
5.	Recreational	928.04	33.23
6.	Transportation	69.92	2.50
	Total	2792.92	100

THE OUTLINE DEVELOPMENT PLAN – 2001
SUB REGIONAL CENTER – KASNA

Table-2 : PROPOSED BREAKUP OF LAND USE 2001

Sl.No.	Landuse Category	Area (ha.)	Percentage
1.	Residential	796.41	34.89
2.	Commercial	47.12	2.06
3.	Industrial	675.84	29.61
4.	Public and Semi-Public (Including Utilities)	262.00	11.48
5.	Recreational	433.86	19.01
6.	Transportation	67.40	2.95
	Total	2282.63	100

(A) THE ACHIEVEMENT OF THE OUTLINE DEVELOPMENT PLAN 2001 (AT THE TIME OF PLAN PREPARATION IN YEAR 1999)

Greater Noida Industrial Development Authority is now at a stage to attain the completion of its first phase of development as proposed for the year 2001 and approved by the NCRPB. The development under the various land uses proposed upto 2001 is 90% complete and by the end of 2001 the development will be completed for the remaining landuses except for the Recreational Use Zone area which includes regional level recreational activities and therefore the development of this area will extend to the second phase.

5. LANDUSE BREAKUP

The integrated development area of Surajpur and Kasna sub regional centres has been divided broadly into 6 uses namely Residential, Commercial, Institutional, Industrial, Recreational and Transportation related uses. The landuse as per Outline Development Plan 2001 is as follows (combined for Surajpur and Kasna Sub Regional Centre) –

Landuse	Planned	
	Area (in Ha.)	Percentage
Residential	1310.00	25.81
Commercial	99.74	1.96
Institutional	570.63	11.24
Industrial	1595.96	31.46
Recreational	1361.90	26.83
Transportation & related use	137.32	2.70
Total	5075.55	100

(a) Residential -

Under the residential landuse provision of 1310 ha land has been made. 24 residential sectors had been proposed and all of them have been planned, the development of 20 sectors has been completed/nearing completion, Remaining 4 sectors are expected to be complete by December 2001. Almost all the residential sectors have been disposed off as on date thereby fulfilling the first phase of development and disposal.

6. Industrial

The total industrial area planned to be developed and disposed of as per ODP-2001 was 1596.96 ha out of which 1160.0 Ha. Area has been developed and disposed off and the remaining area is under development and disposal. The area is located mainly on G.T. road the landuse change of which has been approved recently. The demand for industrial land has increased recently due to shifting of non conforming industries from Delhi and therefore the disposal of remaining area is likely to be completed in next one to two years.

The township has been specially created to promote industrial development. Therefore one of the main objectives is also "To develop the city as a preferred destination for investors". There has been an investment of Rs. 10,000 crores in the city and a number of MNC's are coming to the area.

Mostly the industries set up are capital intensive, and require large chunks of land. Hence low worker density of about 26 ppha is there in the Industrial area.

7. IInstitutional

The total institutional area planned as per ODP-2001 is 570.63 ha. The development and disposal that has been done for this use uptil now is for around 340 Ha. Another 160 Ha. Is committed for disposal and therefore entire area is likely to be disposed off by December 2001.

Recently there has been a significant demand of land from reputed institutions for engineering, medical, management college and Integrated schools. Therefore the city is becoming a knowledge hub. The institutions coming up will serve the other areas of NCR also since accessibility and quality infrastructure is being provided in the area.

The District Headquarters are also proposed to be located in Greater Noida. Therefore the township will also have an administrative character thereby adding to the tertiary sector activity.

8. Commercial

At present, convenient shopping and sector shopping centres are being developed in the sectors where habitation is taking place to cater to the daily needs of the residents.

At the city level, Alpha shopping street has been planned and 7 plots for building shop cum offices towers have been disposed off at an average price of Rs. 10,000/- per sqm. Reflecting a considerable demand for commercial space in the township.

In the present plan, the city lacks a major commercial centre of the likes of City Centre, and provision for wholesale trade facilities.

(e) Recreational

In addition to the above uses the area is also being developed as a destination for amusement and leisure. An 18 hole Golf course designed by Greg Norman and an Integrated Sports Complex is being developed in about 450 acres. There is also a demand for amusement parks, clubs, motels, socio cultural centres etc. The high percentage of this area has been kept to give the city the character of green and openness. Major portion of this area shall be developed by the Authority and kept as green under its aegis.

(f) Landscape

A landscape plan has been prepared for the whole city. Emphasis has been laid on keeping the city green, environment friendly and pollution free.

At the city level the main stretches taken up are-

- Green belts along 'The Promenade' and 'Entry Road'.
- Plantation on major road including Medians/Central verge on Entry road and The Promenade.
- Development of Entry to the city and major roundabouts as focal points with fountains and landscaping.

At the sector level works taken up are

- Development of Theme Parks in each sector.
- Road side plantation

9. Transportation.

Regional linkages –

No city can develop in isolation without proper access from surrounding areas. The main regional links planned are –

1. Noida-Greater Noida Expressway
2. 1Link Road from NH 24 to the 'Entry Road'
3. Link from G.T. Road via Dadri ROB.
4. Faridabad-Noida-Ghaziabad Expressway
5. Rail Link from Tughlakabad to Maripat.

Road

The 2 main arterial roads 'The Entry Road' 45.0 m wide and 'The Promenade' 80.0 m wide have been developed as high quality roads for fast movement of intra city traffic. At present, these roads are connecting the city with the surrounding area. The sector peripheral roads are being developed in stages alongwith the development of the sectors.

Rail

The nearest railway station at present is Dadri located just outside the notified area on the main railway line to Calcutta. The rail link from Tugalabad to Dadri and Boraki Via Noida is planned which will link the area to the western railway main line to Bombay. It is proposed that commuter rail link will also be provided along this line.

No public transportation system has been proposed in the present plan.

(h) Social Infrastructure

Social Infrastructure has been planned in an heirarical manner both at sector level and at city level.

(1) Education – Nursery and higher secondary schools are planned within the sector. Higher education facilities/like technical vocational colleges, universities are planned at the city level.

(2) Health – Dispensaries and Nursing Homes are provided at sector level. At the city level general hospitals and □rbanizatio hospitals have been planned. One 50 beded hospital is already functional in the area.

(3) Security – Provision has been made for police posts for a group of sector and police stations at the city level. One police station in Surajpur and one in Sector Beta are already functional.

(4) Fire Services – Adequate provision has been made in the plan for Fire Station at City level and sub fire station at sector level specially in Industrial Sectors. The fire station at Noida Phase II is catering to the requirement of Greater Noida also.

(5) Communications – Post offices have been planned for group of sectors and a head post office at city level. At present only rural post office is functional. Efforts are being made to establish a post office in the urban area.

(6) Other Community Facilities – Amongst other community facilities are provisions of Milk Booths and Vegetable, Community Centres, Library, Religious Buildings which have been provided as per population norms at sector and city level and are being developed as per the demand build up.

(i) Physical Infrastructure

The Master Plans for water supply, drainage and sewerage had been prepared by the U.P. Jal Nigam initially and are being followed for providing the trunk and sector level services.

(i-1) Water Supply

At present, the source of water supply is ground water. The area is divided into water supply zones, and a system of tubewells, overhead tanks and trunk and other supply lines have been developed as per the Master Plan. Industrial area, at present, does not have water supply system except for Toy City and Mahila Parks where small industrial plots are provided.
In the long run, 85 cusec Ganga water supply shall be available from Upper Ganga Canal to supplement the ground water source for meeting the future needs.

(i-2) Sewerage
The trunk sewer required for the present development area have been nearly completed. The sewer line are laid at the time of development of various sectors. The sewerage treatment plant is proposed at the southern end near Kasna.

(i-3) Drainage.

The general slope of the area is from eastern side towards river Hindon in the west. The drainage system has been designed accordingly. Underground drains have been planned in most of the areas. The Drains are being constructed alongwith the development of sectors.

(i-4) Power

Privatised power supply is provided by Noida Power Company Ltd. By bulk purchase from U.P. State Electricity Board and the distribution is carried out by NPCL. The electrical network consists of 132 KV sub station, 33 KV sub station, 11 KV sub station and HTLT distribution lines. The electrical cables from 33 KV sub station are laid underground.

(i-5) Convergence Network

The plan for the convergence network and the laying of the optical fibre shall be carried out by RPG Netcom Ltd. Which has been □rbanizati by the State Government for the same. This network shall also be laid underground.

(i-6) Telecommunications –

Three telephone exchanges are already functional in the area which are equipped with state-of-the-art equipment and facilities. Underground telephone lines are laid as per the demand in the various sectors. Efforts are being made by the Authority to lay the telephone lines along with the laying of other services at the time of development of the sectors.

(i-7) Solid Waste Management

A state of the art system for collection of solid waste from all residential, commercial, institutional and industrial units has already been put into place through private participation. Efforts are on for scientific disposal of the waste through private developers. The objective is to provide a neat and clean healthy environment to the inhabitants of the city.

(i-8) Expenditure and Investment —

The Authority was set up in January 1991 and the work started with acquisition of land. The bulk of land was transferred from U.P. State Industrial Development Corporation which was already operational in the area. Thereafter the land acquisition and disposal progressed in a phased

manner. So far upto November 2000, about Rs. 462.90 crores have been spent of land acquisition, Rs. 337.85 crores have been spent on development of Infrastructure i.e. roads, sewage, drainage, water supply, electrification, horticulture etc. and about Rs. 10.6 crores on maintenance of infrastructure (the figures are at 1999 prices).

PRESENT SCENARIO (Upto March 2006 with reference to draft Master Plan-2021)

Greater Noida Industrial Development Authority has developed phase-I and a part of second phase of development as proposed for the year 2011.

10. LANDUSE BREAKUP (EXISTING)

The Master Plan development area of Greater Noida has been divided broadly into 7 uses namely Residential, Commercial, Institutional, Industrial, Green areas, SEZ and Transportation related uses.

Landuse	Planned	
	Area (in Ha.)	Percentage
Residential	3000.00	22.10
Commercial	720.00	5.30
Institutional	1970.00	14.52
Industrial	2600.00	19.16
Green area	3000.00	22.10
SEZ	1000.00	7.37
Transportation & related use	1280.00	9.43
Total	13570.00	100

11. Residential -

Under the residential landuse provision of 3000 ha land has been made. 45 residential sectors have been proposed and of them, the development of 27 sectors has been completed 4 sectors are expected to complete by December 2006. The work of development on 8 residential sectors is being taken up.

(b) Industrial

The total industrial area planned to be developed and disposed of as per Maser Plan-2011 is 2670 ha out of which about 1200.0 Ha. Area has been developed and disposed off and 125 Ha. Area is under development. The developed area does not include the area of UPSIDC which has been denotified but was previously included in the area calculations.

The township has been specially created to promote industrial development. Therefore one of the main objectives is also "To develop the city as a preferred destination for investors".

12. Institutional

The total institutional area planned as per Master Plan-2011 is 1970.03 ha. About 1140 Ha. Area in Knowledge Park-I, II, II & IV has been planned and developed.

There has been a significant demand of land from reputed institutions for engineering, medical, management college and Integrated schools. Therefore the city is becoming a knowledge hub. The institutions coming up will serve the other areas of NCR also since accessibility and quality infrastructure is being provided in the area. There is a significant demand from Information Technologies (I.T.) and Information Technologies Enable Services (I.T.E.S.) related investors, and the city is liking to become a destination for IT industry also.

The District Headquarters have already been located in Greater Noida and other district offices are in the process of being setup. Therefore the township will also have an administrative character thereby adding to the tertiary sector activity.

13. Commercial

At the city level, an area of about 30.0 Ha has been planned/developed. Alpha Commercial Belta-I has been planned and developed, Alpha Commercial Belt-II, Beta Commercial Centre and Delta Commercial Belt have been planned. Now the prevailing rate is around Rs. 60,000/- per sqm. Reflecting a considerable demand for commercial space in the township.

At present, convenient shopping and sector shopping centres are being developed in the sectors where habitation is taking place to cater to the daily needs of the residents. These facilities have been developed in around 12 sectors.

(e) Green Areas

In addition to the above uses the area is also being developed as a destination for amusement and leisure. An 18 hole Golf course designed by Greg Norman is functional and an Integrated Sports Complex is being developed in about 450 acres. 3 social clubs and a resort hotel are functional at present.

(f) Landscape

A landscape plan has been prepared for the whole city. Emphasis has been laid on keeping the city green, environment friendly and pollution free.

At the city level the main stretches taken up are-

- Green belts along 'The Promenade' and 'Entry Road'.
- Plantation on major road including Medians/Central verge on Entry road and The Promenade.
- Development of Entry to the city and major roundabouts as focal points with fountains and landscaping.
- A city park in 22 Acres of land has been developed.
- A Sports stadium has been planned in 35 acres of land and work has commenced.

At the sector level works taken up are

- Development of 8 Theme Parks in residential sectors.
- Road side plantation

14. Transportation.

Regional linkages –

The main regional links available/developed so far are –

1. Noida-Greater Noida Expressway (to be further extended upto Agra)
2. Link Road from NH 24 to the 'Entry Road'
3. Link from G.T. Road via Dadri ROB.
4. Existing Delhi-Hawraha Rail line.

Arterial Roads

The 5 main arterial roads i.e. the Expressway way from Noida to Greater Noida 75m wide, 'The Entry Road' 45.0 m wide and 'The Promenade' 80.0 m wide, the 105m wide road upto knowledge park-IV and 130m wide road in knowledge park-II and III. Have been developed as high quality roads for fast movement of intra city traffic. At present, these roads are connecting the city with the surrounding area. The 60.0m wide sector peripheral roads are being developed in stages alongwith the development of the sectors.

In addition to the roads the bus shelters all along the major roads and other public conveniences have been developed.

Rail

The nearest railway station at present is Dadri and located just outside the notified area on the main railway line to Calcutta. The rail link from Tugalabad to Dadri and Boraki Via Noida is planned route finalized by Rail Vikas Nigam which will link the area to the western railway main line to Bombay. Also commuter rail link will be provided along this line. The new railway station at Boraki has also been proposed.

Public transportation system has been proposed in the present plan.

(i) Social Infrastructure

Social Infrastructure has been planned in an hierarchical manner both at sector level and at city level.

(1) Education – Nursery and higher secondary schools (about 80 nos) are planned within the developed sectors. Higher education facilities like technical vocational colleges, universities have also been allotted land in the city. Various schools, technical & vocational institute are already functional.

(2) Health – Dispensaries and Nursing Homes have been provided at sector level. At the city level general hospitals and specialized hospitals have been provided. Two. 250 beded hospital have started functioning in the area. Nursing home sites (about 26 nos) are planned in developed sectors and few of them are functional.

(3) Security – Provision has been made for police posts for a group of sector and police stations at the city level. One police station in Surajpur and one in Sector Beta are already functional. The district Police Line in 82 acres of land is functional.

(4) Fire Services – Adequate provision has been made in the plan for Fire Station at City level and sub fire station at sector level specially in Industrial Sectors. At present, one fire station at Ecotech-II is functional.

(5) Communications – Post offices have been planned for group of sectors and a head post office at city level. At present one post office is functional. Efforts are being made to establish the head post office and other post offices at sector level.

(6) Other Community Facilities – Amongst other community facilities are provisions of Milk Booths and Vegetable booths, Community Centres, Library, Religious Buildings which have been provided as per population norms at sector and city level and are being developed in phases.

(i) Physical Infrastructure

(a) Transportation Master Plan has been prepared by M/s RITES Ltd.

(b) The Master Plans for water supply, drainage (including rain water harvesting) and sewerage have been prepared by M/s DHV Consultant.

I Master Plans for transport, power, social infrastructure like security, fire stations, telecommunications, postal master plan have been prepared by the Authority.

(i-1) Water Supply

At present, the source of water supply is ground water. The area is divided into water supply zones, and a system of tubewells, overhead tanks and trunk and other supply lines have been developed as per the Master Plan. Industrial area, is now being provided water supply system as per new Industrial policy. 85 cusec Ganga water supply shall be available from Upper Ganga Canal to supplement the ground water source for meeting the future needs for which work has been awarded to M/s U.P. Jal Nigam and proposed to be completed in a period of 3 years.

At present approximately 500 km length of water supply lines, 15 Nos over head tanks and 25 Nos Tube wells have been constructed in the developed area.

(i-2) Sewerage

The trunk as well as internal sewers required for the present developed area has been completed. The sewer line are laid at the time of development of various sectors. The sewerage treatment plant is proposed at the southern end near Kasna for which work has been awarded to M/s U.P. Jal Nigam.

At present approximately 460 km length of sewerage network has been completed and is functional. Treatment of present sewage is being done by oxidation pond near Hawalia drain.

(i-3) Drainage.

The general slope of the area is from eastern side towards river Hindon in the west. The drainage system has been designed accordingly. Underground drains have been planned in most of the areas. The Drains are being constructed alongwith the development of sectors.

At present approximately 500 km length of drains has been constructed and are functional.

(i-4) Power

Privatised power supply is provided by Noida Power Company Ltd. By bulk purchase from U.P. Power Corporation Ltd and the distribution is carried out by NPCL. The electrical network consists of 132 KV sub station, 33 KV sub station, 11 KV sub station and HTLT distribution lines. The electrical cables from 33 KV sub station are laid underground.

At present approximately 125 Nos 11/0.4 kv electric sub stations have been constructed in the developed sectors.

(i-5) Convergence Network

The plan for the convergence network has been prepared the optical fibre network has been provided and developed sectors br RPG Netcom Ltd. Which has been authorized by the State Government for the same.

3.0 APPROACH TO PLAN PREPERATION

3. APPROACH TO PLAN PREPERATION

(3-a) THE APPRAISAL OF THE NCR PLAN 2001, PLAN-2021 AND ROLE OF GREATER NOIDA IN THE PRESENT SCENARIO

The NCR plan envisages controlled and restrictive growth of National Capital of Delhi and the towns adjoining the Delhi Metropolitan Area (DMA) in order to reduce immigration to Delhi from the surrounding region. Outside DMA, in the rest of NCR, the policy is of induced growth in the Metro Centre and Regional Centres, so that they develop and become nodal settlements which absorb the immigration to Delhi from the surrounding region.

The concept of restrictive growth in Delhi and DMA has not worked well as economic activities have not moved out of Delhi and the DMA towns, as was envisaged. Delhi and DMA towns have continued to grow at an accelerated pace due to the play of market forces. In contrast, outside DMA the identified Centres for growth have not developed as envisaged due to lack of proper and fast accessibility from Delhi, lack of proper infrastructure and funds for developing these Centres at par or with better facilities and infrastructure than Delhi. Hence, these centres have not become economically viable centre for location of activities to counter the migration to Delhi by arresting the continuous flow of population to Delhi and the DMA.

Transportation corridors are synonymous to urban development as they provide high accessibility which is crucial for growth. Areas adjacent to transportation linkages have a high degree potential for development and if not planned can result in unplanned unintended growth. The NCR plan-2001 had not recognized the major transportation corridors emanating from the city of Delhi in all directions in the surrounding region and the area abutting the DMA as the main pressure areas for development. If these areas are kept vacant under agriculture use or as green areas with practically no development, with the impact of market forces and inadequate enforcement machinery, they will be prone to urbanization haphazard development. The NCR Plan 2021 has now identified transport corridors as Highway corridor zones for planning.

The priority areas identified for accelerated growth outside DMA have to include the areas along transportation corridors and the areas abutting the DMA for planned urban development so that they come up as planned areas. These areas, taking the advantage of market forces, will be more suitable for development as counter magnets to the growth of Delhi and DMA.

Greater Noida has been upgraded in the NCR Plan-2021 Board to a Metro Centre. It is recognized as one city in the NCR plan as against 2 sub regional centres Surajpur and Kasna Complex – and is envisaged as a nodal centre for accelerated urban growth. It lies just outside the DMA (Central NCR region-CNCR in the NCR plan-2021) abutting Noida and having direct access through Noida via DSC road, Noida-Greater Noida Expressway and from National Highway 24 and G.T. Road.

The role of Greater Noida city assigned in the NCR Plan-2021 is of a Metro Centre which should be developed as a better place in terms of quality of urban environment and provision of social and physical infrastructure than Delhi and CNCR so as to perform the function of attracting economic activities and population from Delhi & DMA and at the same time it should be an attractive place to arrest the □xistence□n to Delhi and DMA from the surrounding hinterland.

(3-b) ROLE OF THE CITY IN ITS REGIONAL CONTEXT.

The influence of the region cannot be ignored as an important factor in the development of a new town. In 1991, the national economic policy on liberlisation has influenced the development of Delhi and its periphery. The main focus of the Multinational Companies were the 4 metropolitan cities of Delhi, Bombay, Calcutta and Chennai. For the multinational firms looking for cheaper land near the capital city, the obvious location for the same was in the periphery of Delhi. The □xistence of industrial majors like LG Electronics, Honda Siel Cars, Pepsi etc. can be explained in light of the above phenomenon.

Another landmark decision of the Supreme Court regarding shifting of polluting and non conforming industries from Delhi has had a major impact on the development of the periphery of Delhi. There has been a manifold increased in demand for cheaper industrial land outside Delhi. The land prices in DMA being more or less comparable to that of Delhi, the direct impact has been increase in the pressure on land outside DMA.

The role of the periphery in supporting the Capital city can also be seen in providing large chunks of land for many activities of National/Regional importance. The location of Export Promotion Council for Handicrafts, the Inland Container Depot, a large number of Engineering and Management Colleges of regional level etc. is an indication of the role a city on the periphery can play in decongesting the metro city and providing of adequate supply land for various essential activities of a region.

The notified area of Greater Noida is surrounded by the cities of Noida, Ghaziabad, Faridabad and Delhi. Each of these cities are being planned and developed as an urban centre. If the administrative boundaries are ignored, the entire development in the surrounding region is in the form of a large continuous stereotype urban agglomeration without any distinct identity of the city. All these cities are being planned in isolation as individual entities.

The NCR plan which attempts at proposing a coordinated development of the region is for the time frame of 2021. The regional concept and policies of the NCR plan have to be kept in view by the individual city plans which can then dovetail and provide the right inputs into the NCR Plan 2021.

Considering the surrounding urban agglomeration, the role of the Greater Noida city has been envisaged as lung space for the region. The city is being planned and developed with a marked difference in greenery and openness to provide relief from the urban sprawl. In the core area of the region (the area in between Entry road and NH 24) regional level institutional uses requiring large chunks of land for campus type of development are proposed. The availability of adequate land at comparatively cheaper prices will make this area conducive for locating such activities by providing adequate transportation linkages from Delhi and surrounding areas.

The concept of green and openness coupled with state of the art infrastructure facilities ensuring better quality of life than in Delhi and surrounding areas will be the key to development of the city of Greater Noida. This approach will help the objectives of NCR plan of dispersing activities from Delhi to 'Rest of NCR' zone and attract the residents of Delhi and surrounding cities living in congested urban areas to move out to a more eco-friendly and pollution free environment outside Delhi within easy access thereby inducing out migration from Delhi. The regional level activities in Greater Noida city will also help the hinterland and help in reducing the migration to the capital city. The city will, thus, fulfill its role as envisaged in the NCR Plan.

(3-c) OBJECTIVES OF PLAN PREPERATION

The following are the main objectives for preparation of the Master Plan. These objectives and strategies to achieve them are detailed out in the Vision Paper prepared for the City (Annxure-I).

1) To chalk out a futuristic, holistic plan which exhaustively provide for all issues related to urbanisation.

2) To create a modern, composite and efficient city comparable to international standards in terms of —

- ♦ Infrastructure – hard and soft
- ♦ Urban design and aesthetics
- ♦ As a land of plenty where supply always exceeds demand, and
- ♦ Where quality of life would be distinctive.

15. To evolve a city with an ambience

- ♦ Marked by its green landscapes, and
- ♦ Characterised by its greenery, flowers and fountains

mirroring the city's relaxed life-style.

4) To proactively attract investors ------ Industrial, Institutional, Recreational and Residential ---- through a modern, efficient, investor-friendly and people-friendly organization;

5) To involve the existing rural population in the process of urbanisation, so that they also partake in the benefits flowing therefrom.

(3-d) <u>THE PLANNING CONCEPT</u>

The important factors which determine the identity of the city are –

- ♦ Areas of National and Regional significance
- ♦ The regional connectivity
- ♦ The character of the city in terms of economic base.
- ♦ The physical structure of the town

<u>Areas of National and Regional significance</u>

In its regional context, the city has been planned to provide for large chunks of land for two main National and Regional level activities:

16. An area of about 570 ha. For large plots (Minimum plot size of 10. acres) for Information Technology (I.T.) and Information Technology Enabled Services (I.T.E.S.)

2) SEZ (special economic zone) in about 1000 Ha. Of land to be developed as per National and State SEZ policy.

Since these activities will cater to the needs of the region they are strategically located on the periphery of the city in a distributed manner to provide easy and direct access from the surrounding region. These zones will be self contained areas with provision of required residential, commercial areas, and facilities.

♦ The regional connectivity

The regional level linkages are vital for development of a new town. The linkages (road, rail and air both for commutes and freight) should be provided for quick uninterrupted access to the city . The concept therefore envisages adequate regional level linkages to the area.

(i) From Delhi and Noida – access via DND flyway to the Noida-Greater Noida Expressway which is now proposed to be extended upto Agra.
(ii) .Another link is proposed from NOIDA via Okhla barrage through the Master Plan road no. 3, extending it across the river Hindon and providing access to the area in between NH24 and the Entry Road.
(iii) A link will also be available from the Eastern peripheral Expressway of the NCR plan-2021 at NH 24 interchange point.
(iv) From NH 24 a 60.0 m wide link is planned to the area on north of Entry road.
(v) Link to surrounding areas of Uttar Pradesh shall be available via NH 24 byepass in the northern side and from G.T. Road in the eastern side of the area
(vi) Plans are also on the anvil to provide commuter rail links from Tughlakabad in Delhi via Noida upto Boraki/Dadri in Greater Nodia. The alignment for the same has been □rbanizat by the Railways.
(vii) For movement of goods traffic, the ICD has been located near Dadri and functional, will be provided with rail linkage from Tughlakabad.
(viii) Link with Delhi Metro for Noida to Greater Noida by a Rapid Rail transit system as per provision in the NCR Plan-2021

♦ The economic base –

Greater Noida has been planned and developed as a city with industry as its main economic activity supported by the residential, commercial, institutional and other such uses required for a comprehensive urban development. The city is also developed as a knowledge centre with a large number of educational centres already located in the area. The city has also been assigned as District Head Quarters by the State Government and the District Collectorate, Police Lines and other district level offices are also located here. Hence the city will also house the major administrative functions of the District.

Hence, the character of the city will emerge as an Industrial cum Institutional Centre set in an environment of greenery and openness.

- The physical structure –

(i) The Regional linkages form the main structure of the city as outlined above in regional connectivity.

(ii) The existing grid iron pattern of road network which is conducive to establishment of an efficient public transport system, will continue to remain the basic structure of the urban form.

(iii) This will also help in optimum utilization of infrastructure already laid in the area developed so far. The services laid have been designed for a load of 5.0 lakhs population for the year 2011 which was proposed in the area lying on the north-eastern side of the present development. If the services, specially drainage and sewerage, are under utilized, they may not function properly and likely to get choked in future. Besides, the expenditure on new trunk services which would have had to be laid if the existing infrastructure is not fully utilized can be saved

(iv) The shape of the notified area of 124 villages makes it inevitable to plan the area as a linear development extending from Northern end near NH 24 upto Kasna in southern side. Hence the urban form evolved is in form of a linear city .

(v) A main central spine forms the backbone of the city. Lined by green belts along the road on one side and the high density development in terms of commercial/residential on the other side of the central spine not only gives it a unique urban form but also makes it economically viable corridor for a mass transit system.

(vi) To provide the eco-friendly green environment, the urban areas are interspersed with large chunks of open areas linked by continuous flowing greens for recreational uses, avenues, vistas, green belts running through the city.

4.0 LAND SUITABILITY ANALYSIS

To prepare the most scientific and specific land it is important that the potential index analysis is carried out to study the physical aspects of the area and then arrive at the suitable location of the various landuses.

(a) Proximity to linkage:

It is observed that development pattern generally follows the transportation corridors because of high accessibility. . A simulation exercise was carried out to identify these areas under development pressure based on their distance from transportation corridors. Identification of these areas and including them in the urbanisable area will ensure planned and controlled development as opposed to haphazard growth, which is seen in most cities.

(b) Proximity to existing settlements:

The areas close to the already existing settlements are also under higher development pressure. Past experiences have revealed that the pockets close to settlements are bound to witness unauthorized haphazard development if unattended. Greater Noida township, flanked by flourishing townships of NOIDA and Ghaziabad, is likely to witness growth pattern influenced by the surrounding townships. Hence, an exercise has been carried to identify the growth pattern influenced by location of the existing townships abutting Greater Noida along with the settlements located within the notified area and provide for them in the plan.

I Ground water availability:

Ground water is an important source of water supply in most of the cities across the country. Unfortunately most of the ground water aquifers in these cities are depleting at an alarming rate due to over exploitation and decrease in recharge supporting areas. Hence, location of the urbanisable area and strategic distribution of landuses can play a pivotal role in arresting these depleting levels. The availability of ground water and location of recharge areas have been considered while locating the landuses.

(d) Soil type and soil bearing capacity:

Characteristics of soil namely, infiltration rate, fertility etc that varies with soil types are of utmost importance for determining the location of various landuses such as industrial, agriculture etc Soil bearing capacity is an important factor determining the economics of construction activity. Hence, bearing capacity across the Greater Noida notified area has been studied with an aim to develop an economically efficient city.

(e) Drainage Pattern

The rivulets, nalas, surface water bodies etc form an integral part of any landform and help in effectively draining off the area. Retaining these natural features in the development plan can help to achieve a city that supports an intelligently planned physical infrastructure.

(f) Proximity to ecologically sensitive areas:

Lohia Lake and surrounding forest area which supports wetland ecology, is prone to be disturbed by development activity in its vicinity. Hence, careful assigning of landuse has to be made in this region. Similarly areas in proximity to other forestland, river Hindon and other ecologically sensitive areas in Greater Noida also need to be planned carefully.

(g) The composite results of the above mentioned aspects were obtained on super imposition of the suitability based on various parameters by giving due weightages to them. Accordingly, the following zones were identified –

(g-1) Areas most suitable and moderately suitable for urbanization.

(g-2) Areas away from main approaches and should be taken up as last priority for urbanization.

(g-3) Ecologically sensitive areas not suitable for urban development.

(g-4) Ground water re-charge areas not suitable for urban development.

On the above basis, the urbanisable area has been planned.

5.0 POPULATION PROJECTION

Population projection for the urban area in the new town like Greater Noida cannot be simply done based on any conventional projection methods based on past trends of growth because in a new township almost the entire population, which is going to settle, is going to migrate from surrounding areas.

Methods 1 (Average growth rate of neighbouring DMA towns method)

A study of surrounding NCR towns having similar industrial and administrative characteristics namely Noida, Faridabad and Gurgaon is done before projecting the population. By studying the Growth patterns, it is observed that the decadal growth rate for take off phase for these towns is in the range of 150 to 300 percent. Since Greater Noida is at a comparatively farther distance from Delhi, a lower decadal growth rate of 150 percent could be adopted for the projection of population. As proposed in Outline Development plan, 2001, the population for Greater Noida for the year 2001 is 3 lakh (to be achieved by 2003). Assuming this population as the base, Population for Greater Noida for 2011=6.6 lacs for the first phase.

After the take off phase, the growth rate is expected to slow down and stablise. Therefore, average growth rate of Faridabad and Noida, which are similar towns around is studied for the year 1981-91 and 2001-11 respectively, which suggests a decadal growth rate of about 93 percent in the second phase. On this basis, the population for the year 2021 works out to be = 12.70 lacs.

Method 2 (Industrial workforce method)

According to a sample survey done by the National Industrial Development Corporation Ltd. For 41 industries, 6418 persons were working in the surveyed industries in a total area of 245.29 ha. Therefore on this basis the total industrial workers in 1596.96 Ha industrial area can be assumed for the year 2001 (in 1596.96 ha) = 41,784.

The industrial workers density comes to 26 ppha. The low density is on account of high-tech, capital intensive industries located here, which have less labour requirement but large land requirement. Assuming that the units have scope for future expansion within their area, the density may increase marginally to 30 ppha.

With the pressure of demand of more Industrial land in proximity to Delhi and the policy of restricting industrial development in Delhi and DMA, the present trend of land allotment may continue it can be assumed that the industrial area will be developed @ of approx. 100 ha gross area per year. The total industrial area will be approx. 2600 ha. By the year 2011.

Assuming a workers density of 30 pph, total industrial workers come to 80,000. Assuming this as 40% of total work force, the total workers will be 80,000/40 x 100 = 2.0 lakhs.
Assuming a WFPR of 33% (as per UDPFI guidelines), total population for the year 2011 works out to = 6.06 lacs.
In 2021 – a decadal growth of 93% the total population for the year 2021 will be 11.7 lacs.

Method-3 (By area developed and allotted)

According to study done by M/s Feedback Infrastructure Ltd. Regarding provision of various infrastructure facilities, based on assessment of areas developed and allotted, population proposed for the year 2001 = 11,110 and, population proposed for the year 2011 = 4,95,820.
Taking this as base and for second phase taking the same decadal growth rate of 93%, population for the year 2021 = 9,56,933.

Comparative Analysis of Method 1-3.

Methods	**Projected Population (Lakhs)**	
17. 2021		
Method 1	6.60	12.74
Method 2	6.06	11.70
Method 3	4.96	09.57

For the final projection, the average for the above mentioned figures are taken which comes to 5.87 lakhs and 11.34 for the year 2011 and 2021 respectively. Apart from the urban population growth based on above mentioned methods, there is bound to be migration from the villages in the notified area (outside the urbanisable area) due to better living conditions in the urban area. The rural population for the villages in notified area is projected to 3.15 lakhs. It is assumed that about 30% of the population will move to urban settlements and there will be an addition of 1.0 lakh in the population on this account. Hence the total projected population for the year 2011 comes to 6.87 lakhs rounded off to 7.0 lakhs.

Similarly, for the year 2021 assuming a decadal growth rate of 93%, the population will be 12.34 lakhs say 12.0 lakhs.

6.0 LAND USE PROJECTIONS

Land use is proposed in master plan 2021 by considering the population for two phases i.e. 7.0 lakh for first phase (2001-2011) and 12.0 lakh for second phase (2011-2021).

Land use Projections for 1st and 2nd phase (2001-2011)

As defined in the concept the city is being planned comparatively low population density with more open spaces . So density assumed for the two phases of development is 60 pph. As per the existing provisions for town density.

Present gross density of Greater Noida (2001) =300000/5076.55 = 59 pph say 60 pph.
Total population projected for first phase =700000
Total area proposed for first phase =13570
Land use projections for second phase (2011-2021)
Population projected for second phase = 12,00,000
Total area proposed for second phase =22255 hectares

Land use break up (including SEZ and Regional level Institutional area)

Land use	2001(ha)	%age	2011(ha)	%age	2021(ha)	%age
Residential	**1310**	**25.8**	**3000**	**22.10**	**5000**	**22.36**
Industrial	**1596.96**	**31.5**	**3027.3**	**22. 3**	**4201.23**	**18.88**
Commercial	**99.74**	**2**	**720**	**5.30**	**1200**	**5.39**
Institutional	**570.63**	**11.2**	**2502.7**	**18.4**	**3473.99**	**15.51**
Green areas	**1361.9**	**26.8**	**3000**	**22.10**	**5000**	**22.36**
Transportation	**137.32**	**2.7**	**1280**	**9.45**	**3339.78**	**15.01**
SEZ			**40**	**0.3**	**40**	**0.78**
Total	**5075**	**100**	**13570**	**100**	**22255**	**100**

- Residential area proposed for first phase (2001-2011) is 3000 hectares which is 22.10 % of total land use and it will accommodate the population of 7.0 lakh. Residential area proposed for the second phase (2011-2021) for the population of 12.0 lakh is 5000 hectares (22.36% of total land use).

- This area have been worked out on the basis of gross residential density of about 230 ppha in the present plan for the first phase upto 2011. In the second phase upto 2021, the pressure on the land will increase due to decreasing the availability of land in Delhi and Noida and hence the gross residential density has been increased marginally to 240 ppha.

- ***Area under residential use for LIG and EWS housing shall be provided while preparing detailed sector layout.***

- At present industrial area is about 1600 ha. The industrial land is being disposed off at an average rate of 100 ha. Per year. Assuming a faster trend to continue for next forthcoming years (2001-2011) 1427.30 ha. (i.e total land upto 2011 (2027.30 ha.).
  In the second phase (2011-2021) due to increasing pressure on land the average rate of allotment per year has been marginally increased to 120 ha. Per year and the land requirement works out to 1200 ha. (total land upto 2021 – 3800 ha.)
  The list of restricted industries in Greater Noida is enclosed at Annexure A

- The Institutional land use comprising of area for Govt./Semi Govt. and Private Institutions and offices, Regional level Institutions (IT and ITES use) and public utilities. The area break up for the same is proposed as follows:-

S.No	Use	2011 (Ha)	Upto 2021 (Ha)
1.	Govt-Semi Govt, Private institutions and offices	1200	2050
2.	Regional level Institute (IT and ITES)	1002.70	1002.70
3.	Public utilities	200.0	350.0
	Total	**2502.7**	**3502.7**

- **Green Areas.**

The land for Green area comprises of:-

1. Recreational Green - 2016.0 Ha.
2. Institutional Green - 1017.0 Ha.
3. Parks and open spaces, green belts, Nursery and Horticulture 952.0 Ha.
4. Reserved forest - 1015.0 Ha.

The activities permitted in these area are outlined in Chapter-10 on Zoning Regulations.

- **Transportation Areas.**
  As per suggestion of chief town and country planner, UP Government, the transportation land use area has been increased to 15.01%. this has been achieved after including all regional linkages like, Eastern Peripheral Expressway, Orbital Rail, Ganga Expressway, Yamuna Expressway, Dedicated Freight Corridor, Northern Rail Link and other Roads of 45.0 mtr. width and more in institutional and Industrial areas.
- The percentage distribution of land under recreational and institutional use has been kept as per the provisions in the existing plan maintaining the character of industrial cum institutional city set in an environment of greenery and openness.
- The percentage of land under Transport and Commercial use has been increased as the provisions for the same were not adequate in the ODP-2001.

Town Density:- The Town density on the gross area 22255 Ha works out to about 56 person/Ha. The low town density is on account of the following:-

- The city has been planned as a lung space for the surrounding region, therefore a high percentage of area has been reserved for green area.
- Existence of large area of reserved forest within the Urban area.
- Being an industrial township, a high percentage of land is under industrial use. The industries require large chunks of land but being mechanized and capital intensive, have a very low workers density.
- High percentage of land under Institutional use providing large nos of Regional level Institutions serving not only the city but also the NCR region.

Therefore the proposed landuse and density of Greater Noida city has to be assessed viewed in light of the above and the objective to plan the city to provide for the inadequacies in the NCR Region and not as a Metro City in isolation.

7.0 THE MASTER PLAN PROPOSALS

18. SALIENT FEATURES OF THE PLAN

a) The development of a new city as a Metro Centre is highly dependent on linkages with the region. The proposed plan has been provided with adequate road and rail linkages for movement of commuters and freight.

b) The structure of the existing plan, grid iron system has been continued as the basic city structure.

c) Regional level landuses i.e Institutional uses, and the SEZ are located at the periphery of the city to provide quick, direct, uninterrupted access from the region.

d) The area on the North eastern side of the existing development upto the railway line has been planned for optimum □rbanizatio of the trunk services already designed and laid taking the load of services of this area.

e) The regional level institutional and Industrial have been provided in the area in between N.H.-24 and Entry road due to its good accessibility from Delhi, Noida and other parts of Uttar Pradesh.

f) The major work centres industrial and commercial are well distributed to avoid congestion . Industrial activities are distributed on the periphery. The commercial activities are distributed with respect to their residential catchment areas at central locations.

g) A 130.0 m. wide road has been planned as the backbone of the linear city for connecting the northern end to the southern part of the city and also to Noida and Delhi.

h) Hindon river, Lohia rivulet and lake, forest areas are major ecological resources. These areas are safeguarded against possible environmental pollution by exploitation for the residential and non-residential developments.

i) Along the Hindon river, at the downstream, ground water recharge areas are located and hence this area has been kept free from any development.

j) The concept of inter-linked green spaces has been found to be very appropriate not only as a continuous lung-space, but also as a multipurpose environmental feature, which enhances the quality of the built environment and provides the feeling of openness. This forms a very predominant feature in the city structure.

k) Along prime frontages of arterial roads definition of urban form and colour shall be stipulated for a comprehensive streetscape.

l) Grid iron pattern of road network with economic activities located on the major routes can support an efficient Mass Transportation System. The green corridor is provided on one side of the main central spine.

m) Use of cycles as a predominant mode for intracity movement is environment friendly and should be encouraged. To facilitate the same the transport plan shall provide for a well-defined system of cycle tracks and other non mortised vehicle along strategic corridors of pedestrian movement.

n) The residential areas are planned for an average population of 15000-25000 in grid of about 1.0 Km. X 1.0 Km. adjusted as per site conditions.

o) The residential sectors are planned in a manner to facilitate social cohesion by providing a mix of income groups. A mix of plotted and flatted development, low rise and high rise buildings will provide an interesting urban form. A hierarchy of open spaces and community facilities is planned to provide a conducive environment for social interaction. The hierarchical system of block, community, sectors and city has been followed.

p) The proposed Industrial areas are mainly located on the periphery. Industrial complexes of units of similar nature shall be developed comprehensively with □rbanizatio pool of support functions and services to promote small-scale sector. As a rule polluting industries shall not be encouraged in the area.

q) At the city level, if the commercial functions are located in one zone it becomes unmanageable creating chaotic conditions. Hence a number of small commercial centres on the junction of major arterial roads and shopping streets along the major arterial roads are proposed.

r) A four-tier hierarchy of commercial areas proposed at the sector level is convenient shopping, sector shopping, sub-district centre, shopping streets and city centres.

s) Predominantly Commercial, Institutional, Group Housing and Recreational uses are provided along major transportation routes . Residential plotted development along major routes has a tendency to be utilized for commercial development, hence wherever provided such areas will be planned as Mixed Use Zone allowing a mix of residential, commercial and institutional uses. Adequate parking areas shall be planned and detailed regulations framed specifying the extent and mix of uses in these zones.

t) Informal sector is provided as an integral part of the city providing about 5% of the land in residential sectors for this use. Informal commercial activity has also been identified as an important feature and made an integral part of planning at suitable locations on transportation routes and near planned commercial areas An attempt, therefore, is to bemade to absorb the informal sector, as far as possible, particularly within the fabric to planned urban development and economic growth of the integrated township.

u) Social infrastructure to include a hierarchy of Health facilities, educational facilities, postal and security services, the fighting services, distribution services, have been adequately planned at city level and sector level. These facilities are well dispersed spatially to cater to their catchment areas.

w) Public –private partnership is already being attempted in infrastructure development. The concept shall be extended to land development and disposal with specific areas identified for private development.

x) Specific plan for facilities in the rural hinterland has also been prepared.

7.2 TRANSPORT

A detailed Transport Master Plan has been prepared by RITES and salient features of the plan are as follows—

- Adequate road and rail linkages with Delhi and adjacent cities. The major road linkages planned are—

i) From Delhi and NOIDA—access via DND Flyway Toll Bridge to NOIDA-Greater Noida Expressway, which is proposed to be extended up to Agra (Taj Expressway).

ii) Link from Noida via Okhla Barrage road through the Master Plan road No.3 of Noida, extending it across river Hindon and providing access to the 130.0m wide road of Greater Noida.

iii) Link from Eastern peripheral Expressway of NCR Plan at NH-24 interchange (to be finalized after finalization of alignment of the Expressway).

iv) Link from NH-24 to connect area on north of Entry road (industrial sector Ecotech-III).

v) Link to surrounding areas of Uttar Pradesh shall be via NH-24 bypass in the northern side and from GT Road on eastern side of the area.

vi) A 130 m. wide road has been planned as backbone of the linear City for connecting its northern and southern parts and also Noida and Delhi.

- **Rail Linkages**

i) The Northern Railway main line from Delhi to Calcutta is abutting the Master Plan area. It is proposed to develop Boraki as a new railway station on this line for the City. A feasibility report for the same has been prepared by RITES and submitted to Railways.

ii) A rail link between Dadri and Tuglakabad is proposed, which will connect Greater Noida with the main railway lines in the East to Calcutta and West to Bombay.

iii) For movement of goods traffic Inland Container Depot has been located, which will be provided with rail linkage form Tuglakabad.

iv) There is proposal to have Transport hub at Boraki, which shall provide comprehensive facilities for integrate of passenger railway station, ISBT, Truck Terminal, etc.

- **Mass Rapid Transit System**

A feasibility study has been carried out by RITES for developing a rail transit system between Noida and Greater Noida also serving the City of Greater Noida. Based on the results of transport demand forecast and system selection, a Light Rail Transit (LRT) system has been recommended. The LRT system shall be able to cater the future travel demand and shall supplement the bus system.

Phase-1: NOIDA City Centre to GNIDA along Storm Drain, proposed SEZ, Gautam Buddha Expressway, Pari Chowk and along 105 m road upto proposed 130 m. road (about 29 km)—Costing about Rs. 2610 crores.

Phase-2: GNIDA to NOIDA City Centre- Along 130 m. middle spine road, NOIDA Sec 52 (about 25 km) – costing about Rs. 2250 crores.

The final report for the study submitted by RITES is available as a separate document.

- **Public Transport Plan**

A public transport system has been planned to serve the Intra-City's traffic movement. The desired demand for bus passengers is projected at about 1.9 and 4.1 lakh trips in the year 2011 and 2021 respectively. A bus system has been proposed for intra-city movement. Sixteen bus routes have been proposed to cover the entire region and also to connect various other destinations like Noida, Ghaziabad, Delhi. Four bus terminals have been proposed at Kasna, near Dadri, near Knowledge Park-V and at Boraki in the transport hub.

- **Road Network**

i) Hierarchy of road network—

  - 130 m. wide main arterial road (Central Spine from North-West to South-East).

- 105 m. wide the Meridian road.
- 80 m. wide Promenade (S.K. Road) and road along kot escape.
- 75 m. wide Noida-Greater Noida Expressway
- 60 m. wide sector peripheral roads
- 45 m. wide DSC Road (existing) and road along railway line.

19. Typical cross sections for roads having various Right of Way (ROW) have been recommended. The provision for NMVs, bus lanes, pedestrian facilities, space for services etc. has been proposed. Typical junction designs have also been proposed for different types of road cross sections. The detailed cross sections are incorporated in the Transportation Master Plan.

- To avoid heavy delays at rail-level crossings ROBs are prepared near Roopwas, Boraki, Gori Bachera, Sikandrabad crossing, LG factory, and sector Zeta-I.

- **The Intermediate Public Transport System (IPT)**

The IPT includes 3-seater auto rickshaws, 6/7-seater auto rickshaws, shared taxis, cycle rickshaws, tonga, etc. For an efficient transportation system, IPT modes are proposed to act as feeder to public transport systems, integrated with bus and other mass transit systems, which can be achieved by providing sufficient demarcated parking, waiting and circulation space for IPTs and smooth inter-modal transfer at bus stops/terminals and railway station. The IPTs identified are battery/CNG operated auto rickshaws and cycle rickshaws for short/feeder services and Tax for long distances.

Non motorized vehicles (NMV) offer low cost intermediate public/private transport, emit non-pollution, emphasize use of labour rather than capital for mobility and are well suited for many short trips. The appropriate integration of walking, NMV modes and motorized transport, is necessary to achieve an optimum scenario. The regulations and policies influencing NMV usage have been illustrated in the Transportation Master Plan report along with the facilities required such as NMV lanes, junction geometrics, etc.

- **Pedestrian Facilities**

Based on the projected traffic flow on the road network and the proposed landuse as per Master Plan 2021, critical locations where grade separation the pedestrian facilities would be required have been identified and detail plan for the same has been prepared integrating the locations with location of bus shelters/public conveniences.

- **Recommended Road Infrastructure Proposals**

S.No.	Project Scheme	No. of Locations
1.	Pedestrian subways	19
2.	Road over bridges	7
3.	Grade Separated Intersections	10
4.	Off street parking lots	3
5.	Transport terminals	2
6.	New Intra-city bus terminals	4

- The Transportation Master Plan prepared by RITES is available as a separate document.

20. TELECOMMUNICATION

The Telecom Master Plan has been prepared and the salient features of the plan are as follows—

- Highest level hierarchy of Exchange (TAX) for the entire District Gautam Buddha Nagar is located in Sector 62 Noida which will be the only one in the District also feeding Greater Noida.

- At second level, in Greater Noida the highest level exchange is existing at Sector Delta-I (5ESS Technology) which has the capacity up to 5 lakh connections at present and can be increased to meet the ultimate requirement of the City for the year 2021. Only one such exchange is planned as per requirement of the City.

- At second level, another exchange of 2 acres is proposed in the SEZ area.

- For areas near NH-24 and link road from Bisrakh, existing TAX (Trunk Exchange) at Sector 62, Noida will be used and will be sufficient to cater future demand of telecom facilities in this area.

- At third level small exchanges i.e. only remote subscribers unit (RSUs) have been proposed, covering an influence area of 2-5 Kms., depending on the density of connections. The same have been evenly distributed in Greater Noida area. These require land area of approximately 1000m^2 each which will be provided at the time of planning of the sectors. 2 such RSUs are existing at Kasna and Tilpata and land has been allotted in Builders Area, Gamma and Knwoledge Park.

- For providing Mobile Service, GSM towers have been proposed in the area. These shall require an area of 600m^2 each covering radius of 2.0 Km. around the tower location. In case required, these can also support small exchange for land line/broad band connections within the space of 600 sqm. For the tower.

- In case of bulk requirement in Group Housing Pockets, Institutions or Industries, small exchanges requiring an area of approximately 20m^2 (covered space) may be setup within the premises to cater upto 450 lines. These mini exchanges shall be connected to the nearest exchange (RSU).

21. Water Supply

The Master Plan for water supply has been prepared and the salient features of Plan are as follows—

1. Water demand has been calculated based on the saturation density (ultimate population) proposed in Greater Noida Master Plan. Per capita water demand has been considered 200 lpcd+15% wastage.
2. Total water requirement for 12.0 lakhs population is envisaged as 350 MLD. Water requirement projected for area under Phase-I (2001) is 80 MLD, Phase-II (2011) is 74 MLD and Phase-III (2021) is 197 MLD.
3. Initially source of water supply is from tubewells tapping underground water. Ultimately a perennial source of water will be Ganga Water from Upper Ganga Canal. 85 cusec Ganga Water has aheading been allotted to GNIDA by UP Govt. The project has been taken up by U.P. Jal Nigam.
4. The Plan Area has been divided in different water supply zones and provision of water supply i.e. distribution networks, tubewells, rising mains, overhead tanks/under ground reservoir have been made accordingly. In each zone, one zonal central water reservoir of 4 hours capacity has been proposed near overhead tanks.
5. Minimum terminal pressure at service connection is 17.0 m and disinfection by chlorination will be done at source. Mode of water supply will be continuous (7 days X 24 hours). Provision of 52 nos. tubewells has been taken in Phase-III (2011-2021).
6. At the time of Ganga Water availability the tubewell supply shall be closed. Tubewell supply shall be made at the time of closure of canal at the time of maintenance or for other reasons.
7. A detailed Water Supply Master Plan 2021 has been prepared and available as a separate document.

22. Sewerage

The Sewage Master Plan has been prepared and the salient features are as follows—

- Master Plan for sewerage for Greater Noida covers the technical proposal for sewer lines, pumping stations, transmission mains, sewage treatment plant and effluent disposal systems.

- The rate of water supply has been taken 200 lpcd and interception factor has been taken 0.80.

- The total sewage generation is estimated as 193 MLD for 12.0 lakh population. Of this, the generation for Phase-I (upto 2001) is 57 MLD, for phase-II (upto 2001-2011) is 48 MLD and Phase-III (upto 2011-2021) is 88 MLD.

- A sewage treatment plant of 105 MLD is proposed near village Kasna for Phase-I and Phase-II scheme. 44MLD STP (2 nos) will be provided for Phase-III near Lohia Lake and Dasna drain.

- For providing sewerage facilities Master Plan area has been divided in different zones and accordingly sewerage will be planned for trunk networks and for internal sector networks.

- Different technologies for sewerage treatment plant have been evaluated. Mainly FAB technology/C-Tech based S.T.P. is proposed to be adopted.

- The treated effluent will be well within the limit set by Central Pollution Control Board.

- A detailed sewage Master Plan has been prepared and available as a separate document.

23. Storm water drainage

The Master Plan for Storm Water has been prepared and the salient features of the plan are as follows—

- In the area proposed for phase-I & II, the ground is sloping from North-east to South-west, therefore the drainage net work is proposed from North-east to South-west direction and all drains are connected with the existing Hawalia drain which is ultimately discharging into River Hindon. Drainage of Phase –III area is proposed to be discharged in Dasna drain and Hawalia drain through Lohiya lake.

- Main drains have been designed as covered brick drains considering rainfall intensity of 1hr. duration-1.65^{II} /hr. occurring once in 2 years, time of concentration – 1 hr, average runoff coefficient – 0.30, average runoff – 0.50 cusecs/acre. However flooding of roads for an hour or so may be allowed and drains designed for a runoff of 0.50 cusecs/acre.

- Internal drains are proposed pipe drain where required gradient is available or otherwise covered brick drain. Internal drains have been designed considering rainfall intensity of 30 min. duration 2.5" /hr. occurring once in 2 years, time of concentration – 30 min, average runoff coefficient – 0.30, average runoff – 1.5 cusecs/acre. However flooding of roads for an hour or so may be allowed and drains designed for a runoff of 1.0 cusecs/acre.

- In the Master plan, ground water recharging structure are also proposed for phase-III, one pond with infiltration well is proposed in each sector and 30% of storm water is proposed of be recharged.

- The drainage Master Plan 2021 is available as a separate document.

24. Rainwater Harvesting

The guidelines for Rainwater Harvesting have been prepared as part of Drainage Master Plan and the salient features are as follows—

- In the Master Plan 2021 about 25% area has been planned under Green area. In green areas, though water is recharged naturally, Greater Noida has also made suitable recharge pits. Mainly two types of bore/recharge pits have been provided which are capable to take care of 750 m^2 and 4500 m^2 catchment area.

- Apart from provision of green belts other suitable measures have been adopted by Greater Noida for rainwater harvesting at City level. The ponds already existing in the area have been identified and are being conserved and maintained properly without disturbing its originality. Enhancing of ponds capacity by desilting/digging and plantation work around different ponds is being done by Greater Noida Authority.

- At household level Rainwater harvesting has been made mandatory for plots having an area more than $100m^{2.}$ Suitable arrangements are being made by allottees to tap rainwater via roof by channelising the clean water to rainwater recharging pits provided depending on the size of plots. In bigger plots industrial, commercial complexes, institutional, group housing etc also rain water harvesting has been made mandatory in Building Regulations.

- A detailed guidelines have been prepared for Rainwater Harvesting and is included in the Master Plan of drainage. In the developed sectors scheme is being implemented accordingly.

7.8 Solid Waste

GNIDA has incorporated the MSW management as an integral part of development of the township. A detailed system for collection and Transportation of Solid Waste has been prepared and the Authority is in process of developing a comprehensive management plan so as to manage and dispose their MSW in a scientific way.

- Scheme for Treatment and Disposal of MSW

Following steps have been proposed to GNIDA for collection, treatment and disposal MSW:

Step-1: Segregation of MSW at source and Collection from the house holds
Step-2: Transportation of MSW to the facility
Step-3: Segregation of MSW at facility for processing
Step-4: Shredding of the compostable waste to desired particle size
Step-5: Treatment of biodegradable waste through composting
Step-6: Disposal of non bio-degradable solid waste in to Secured Landfill Facility

- **Site for Treatment and Disposal of MSW**

As per the proposed municipal waste management system, major requirement is of the composting plant and the landfill facility where the waste can be composted and disposed in scientific way. The site for these facilities should be located in such a way that it poses minimum threat to the surrounding environment in terms ground and surface water contamination, soil contamination, ambient air pollution etc. Also it should meet the site selection criteria as per Municipal Waste (Management & Handling) Rules, 2000.

- GNIDA has already identified a site at village Amarpur for treatment and disposal of MSW. A study is being taken up to assess the suitability of the pre-identified site for the development of the composting plant and the landfill facility. The location of the site is indicated in the Master Plan.

- Detailed system has been prepare for Solid Waste Management and available with this document.

7.9 POWER

A tentative Power Plan 2021 is prepared to project the system peak demand and energy requirement in Greater Noida during 2005 to 2021. The salient features of the plan are as follows—

- The demand projections are made as per the land use plan detailed in the Master Plan. Capacity additions in the form of commissioning of New 400/132KV Substations, 132/33 KV Substations and new 33/11KV Substations are also proposed in the Power master plan 2021 to meet the increase in load demand.

- As per plan 2021, the Peak demand has been worked out to be 1550 MVA. The present peak demand of Greater Noida is 55MVA. The power requirement (Peak demand) of Greater Noida for the following years has been worked out.

25. 450 MVA by the year 2010

ii) 950 MVA by the year 2015

iii) 1550 MVA by the year 2021

- To meet this peak demand total 11 Nos. 132/33KV Substations having capacity of 2X75MVA, each and 46 Nos. 33/11KV Substations shall be required to be commissioned in phases as per load demand envisaged.

i.	**By 2010**	- 3 Nos. 132/33 KV Substations
		- 12 Nos. 33/11 KV Substations.
ii.	**By 2015**	- 1 No. 400 KV Substation.
		- 7 Nos. 132/33 KV Substations.
		- 25 Nos. 33/11 KV Substations.
iii.	**By 2021**	- 11 Nos. 132/33 KV Substations.

26. 46 Nos. 33/11 KV Substations

- The locations of these 400 KV, 132 KV and 33 KV Substations have been fixed and land as per requirement has been earmarked in the master plan.

- The corridor for construction of 132 KV and 33KV transmission lines have been proposed mainly along railway line, along green belt or along Bandha of Hindon River and this corridor has also been kept reserved only for electricity transmission lines in the Master Plan.

- The requirement of power in Greater Noida shall be met through following options.

27. From 1800 MW capacity Dadri Thermal Power House of NTPC. A 400 KV Double circuit Dadri Ballabhgarh power grid line is passing from Greater Noida. Proposed 400 KV Substation in Greater Noida shall be connected to this line.

ii) From proposed power generating station of 3500 MW capacity of Reliance Energy near Dadri.

iii) From State Transmission Grid of U.P. Power Corporation Ltd.

♦ The details of the power projection and proposals are available as a separate document.

28. Heritage and Conservation

Government of India, through Ministry of Environment and also Ministry of Tourism, is taking various measures to conserve heritage sites both manmade and natural including environment and eco sensitive zone.

Greater Nodia Industrial Development Authority in its endeavor to develop sustainable township proposes to prepare Conservation Master Plan for conserving heritage sites. This Plan envisages to conserve—

- Manmade site
- Natural sites like forest area, wetland etc.
- And also environment through ground water conservation and recharge policies and waste segregation.

♦ **Manmade Heritage**

GNIDA has no Archaeological Survey of India or State Archaeological Department protected monument. However, there are few unprotected monument in this area as this city find this place in history. A detailed exercise for listing of monuments/sites will be carried out and policy of conservation of such sites will be formulated in the Conservation Master Plan.

♦ **Natural Heritage:**

GNIDA is endowed with rich natural heritage sites which need to be developed as conservation areas. Policies and strategies for conservation of sites and bio-diversity shall be detailed out in the Conservation Master Plan. \Primarily important natural sites planed to be conserved are—

♦ Protected forest area; nearly 1015 Ha. Protected forest areas falls within the notified area of Greater Noida namely –

i) Gulistanpur Block

ii) Rampur Jagir Block

iii) Murshidpur Block

iv) Amarpur Block

- Wetland area around Lohia Lake

  This area is presently being visited by migratory birds. Hence Addition Bird Sanctuary is also being proposed to be developed.

- Lohia Rivulet

  This rivulet transverses through the Greater Noida Township serving as natural drainage system. This rivulet is proposed to be developed and conserved as a landscape features.

- Ponds

  There are large number of ponds with significant area which form the part of the natural drainage system of the area. A list of the same is being prepared and planned to be conserved in order to facilitate ground water recharge of aquifers.

29. Social Infrastructure

- Social Infrastructure is an important feature of City development. Social infrastructure is one of the features which is recognized as growth stimulating and sustaining route in planning. Greater Noida Master Plan has envisaged all categories of social infrastructure and made such provisions at the city level and sector level.

- The facilities of higher order like technical institutions, R & D centre, medical colleges, vocational colleges, hospitals etc. have been provided in the city level institutional area which shall not only be serving the city level but the whole of NCR ultimately the city is emerging as a knowledge hub.

- The residential sectors will provide educational facilities of nursery school, crèche and senior secondary school. The health facility of the order of dispensary and Nursing Home have been provided. The other facilities provided are community halls, library, milk booths, religious spaces, auto and taxi stand, tubewells and overhead tanks and space for electric sub stations.

- All the sectors have been planned as self sufficient sectors. Place for informal sector including informal commercial have been identified in the planning done at the grass root level.

7.12 Disaster Management Plan (DMP)

- Disaster Management Plan (DMP) is being prepared for the City and the National Institute of Disaster Management (NIDM) has been assigned the task to prepare a comprehensive and holistic plan covering the residential, commercial, industrial and other areas of the township.

- The DMP shall include different cycles of disaster management i.e., pre-disaster prevention and mitigation measures, during disaster response, evacuation, shelter and relief measures and post disaster rehabilitation and reconstruction measures.

- The DMP shall be developed on the basis of the following studies:

  a) Hazard Analysis

  b) Risk Analysis

  c) Disaster Management Strategy

- The DMP shall include the following—

a) Preparation of a comprehensive disaster resistant building code which will include features like earthquake resistant construction technology for various types of buildings to regulate all future constructions;

b) Assessment of the existing high rise buildings (seven stories and above) and recommendation of measures required for making these buildings safe for its residents and other users;

c) Assessment of all existing lifeline buildings such as schools, colleges, hospitals, dispensaries, cinema halls, shopping malls etc and recommendation of measures required for making these buildings safe for its users;

d) Preparation of detailed guidelines for retrofitting all other buildings which can be followed by the owners and other users;

e) Assessment of fire safety of various types of buildings and measures required for making these buildings safe;

f) Preparation of a detailed rescue, evacuation, temporary shelter and rehabilitation plan in times of emergency;

g) Preparation of a framework for involving the community level organizations such as resident's association, NGOs etc in the preparation and implementation of the DMP;

h) Assessment of existing institutional and other arrangements for dealing with situation of disaster in the township and recommendation of institutional arrangements required for implementation of the DMP;

i) Assessment of hazard and risks in the rural areas within the territorial area of the City and recommendation of special additional measures required for the risk management in such areas;

j) Studying the institutional and operational linkages of the governance of Greater Noida township with the district administration, the State Government and the Delhi administration and recommending measures for further strengthening the linkages during emergency situations;

k) Estimating the cost and phasing of the implementation of the DMP.

- An MOU has been signed with NIDM for the study and the work has already commenced and likely to be completed in about four months time.

8.0 ACTION PLAN

8.1 Preparation of detail services plans for

8.1.1 Water Supply

- **Plan prepared by DHV Consultants.**

8.1.2 Sewerage

- **Plan prepared by DHV Consultants.**

8.1.3 Drainage including Rain water harvesting.

- **Plan prepared by DHV Consultants.**

8.1.4 Electrification

- **Tentative plan prepared by Greater Noida Authority.**

8.1.5 Telecommunication

- **Plan prepared.**

8.1.6 Convergence Network

- **Plan prepared by Greater Noida Authority.**
-

8.1.7 Natural gas and industrial gas

- **Plan prepared by Greater Noida Authority.**

8.1.8 Postal Master Plan

- **Plan prepared by Greater Noida Authority.**

8.1.9 Optical fibre cable.

- **Plan prepared by Greater Noida Authority.**

8.1.10 Security.

- **Plan prepared by Greater Noida Authority.**

8.1.11 Police services.

- **Plan prepared by Greater Noida Authority.**

8.1.12 Fire services.

- **Plan prepared by Greater Noida Authority.**

8.2 Preparation of detailed traffic and transport plan.

- **Plan prepared by RIES Ltd.**

8.3 Preparation of phasewise development plan (capital budget) in terms of –

- **Land Acquisition**
- **Land Development**
- **Land Disposal**
- **Economic Viability**

8.4 Preparation of Management Strategy and Programme

- **Project implementation**
- **Maintenance**
- **Inter departmental coordinate**

30. Review of Master Plan after every 5 years.

9.0 PLAN PREPARATION FOR RURAL AREAS IN THE NOTIFIED AREA

Along with the Master Plan for the urbanisable area, due consideration has been given to plan for the rural zone to meet the needs of the original inhabitants of the area.

(a) For making a Plan for the rural areas, analysis of the existing facilities in the villages has been done. On that basis, shortfall in the provisions has been ascertained for future planning. Also the prospective growth centres have been identified for provision of higher order facilities in the area.
(b) The first step is to project the population for the next two decades. Based on the increase in population, facilities are proposed in the future.

POPULATION PROJECTION

For the next twenty years the population of the villages of Greater Noida is projected taking the average growth rate of the year from 1971 to 1981 and from 1981 to 1991. For the proposed urban areas and the areas falling within three kilometers of their radius, the growth rate is taken 15% more because urban areas show a higher growth rate due to migration.

Year	1971	1981	1991	2001	2011	2021
Population	119146	146446	191671	245275	313932	401885
Growth rate	---	22.91%	30.88%	26.90%	26.90%	26.90%

Note:

- Growth rate of urban areas for population projection after the year 1991 is taken as 30.92%

PROJECTION OF FACILITIES

Methodology for determining the shortfall in provision of health and educational facilities.

On the maps of Greater Noida, the facilities are marked with their respective zone of influence, i.e., that particular facility is easily accessible to people living within that zone. All the villages that do not get covered in the zone of influence of the existing facilities need access to that particular facility and the provision is made accordingly for year 2011 and 2021..

The provision for following facilities have been worked out –

(1) Educational facilities –
- Primary School
- Middle School
- High School
- PUC and Intermediate Colleges.

(2) Health-
- Primary Health Sub Centre
- Dispensary

HEIRARCHY OF VILLAGES IN TERMS OF FACILITIES

Some of the villages in the rural hinterland can be identified as future growth centres and planned development can be induced here to inhibit rapid and haphazard development.

To identify these developing centres, an analysis has been done by giving weightage to various facilities in these villages. Data from Census of India is being taken for this purpose. Given below is a list of facilities and their respective weightages.

WEIGHTAGES FOR THE INDICATORS

	Services and Facilities	Number of Settlements where they occur	Weightage
	Educational		
(i)	Primary	93	1.42
(ii)	Middle	27	4.89
(iii)	High	12	11.00
	Medical		
(i)	Dispensary	3	44.00
(ii)	Health Centre	26	5.07
(iii)	Medical Practitioner	35	3.77
	Drinking Water		
(i)	Tap	37	3.57
(ii)	Well	24	5.50
(iii)	Hand Pump	132	1.00
	Postal		
(i)	Post & Telegraph Office	18	7.33
	Communication		
(i)	Bus Station	13	10.15
(ii)	Railway Station	2	66.00
	Power Supply		
(i)	Electricity for Domestic Purposes	76	1.84
(ii)	Electricity for Agricultural Purposes	129	1.08
(iii)	Electricity for All Purposes	56	2.50
	Irrigated Area		
(i)	up to 30%	6	23.33
(ii)	30% - 60%	24	5.83
(iii)	60% - 90%	104	1.34
(iv)	above 90%	6	23.33

To get a composite weightage for each village, the respective weightages are given to the facilities wherever they occur. Then they are multiplied with the number of times they occur. After that all the values are added up for each village separately, thus forming a hierarchy list. For example, if in village A, there are 2 primary schools, one medical practitioner and electricity for domestic purposes available, then the composite will be:

Composite value for Village A = (2 X 1.42)+(1 X 3.77)+ (1 X 1.84)
= 8.45

On the basis of the weightages villages which have potentials for development have been worked out. Most of these villages are around the railway line and have certain important functions there, which are not in other villages, giving them a distinct character.

10.0 USE ZONES AND USE PREMISES DESIGNATED

10.1 ZONING REGULATIONS AND DEVELOPMENT CODE

This chapter details out guidelines for enabling the preparation of detailed plans such as Zonal Development Plan and Layout Plan. It includes designation of use zones and use premises, subdivisions of use zones into premises, use premises to be permitted in the use zone, use activities to be permitted in use premises.

10.1.1 Use Zones

Use Zone means an area for any one of the specific dominant uses of the urban functions. There shall be 7 use zones categories namely: Residential, Commercial, Industrial, Green areas, Institutional, Special Economic Zone (SEZ) and Transportation sub divided into sub use zones wherever necessary. The area other than the urbanisable area shall be named Agriculture Use Zone.

(a) Residential

R- Residential zone – Gross residential density shall be 230 ppha upto 2011 and 240 ppha upto 2021 on the total residential area in the Master Plan. However, density of different sectors may vary.

(b) Commercial

C- Commercial

I Industrial

M- Industrial

31. Green Areas

P1- Recreational green
P2- Institutional green
P3- Parks and open spaces, green belts, Nurseries and Horticulture
P4- Reserved forest.

(e) Institutional

I- Institututional

(f) Transportation

T- Transportation

(g) A1- Special Economic Zone

32. Use Premises

Use premises means one of the many sub-divisions of a use zone, designated at the time of preparation of layout plan, for a specific main use or activity.

There shall be use premises as designated in para 10.2.

Use activities permitted in use premises are given in para 10.3.

10.2 USE PREMISES PERMITTED IN USE ZONES

33. USES/USE ACTIVITIES PERMITTED IN USE PREMISES

Sl.No.	Use Premises	U S E Z O N E S								
		R	C	M	I	Green areas			T	Agri.
						P1	P2	P3		
1.	Amusement and Entertainment Park	NP	NP	NP	NP	P	NP	NP	NP	NP
2.	Bank	P	P	P	P	NP	NP	NP	P	NP
3.	Barat Ghar	P	P	NP	NP	NP	NP	NP	NP	NP
4.	Burial and Cremation ground, cemeties	NP	NP	NP	NP	NP	NP	NP	NP	P
5.	Bus depot and workshops.	NP	NP	P	NP	NP	NP	NP	P	NP
6.	Bus terminal, LRT terminals	NP	P	P	P	NP	NP	NP	P	NP
7.	Cargo and booking office	NP	P	P	NP	NP	NP	NP	P	NP
8.	Cinema/Multiplex	NP	P	P	NP	NP	NP	NP	P	NP
9.	Clinical Laboratory	P	P	P	P	NP	P	NP	NP	NP
10.	Community Centre/Auditorium	P	P	P	P	P	P	NP	P	NP
11.	Convenient/Sector Shopping	P	NP	P	P	NP	P	NP	P	NP
12.	Courts	NP	NP	NP	P	NP	NP	NP	NP	NP
13.	Creche and Day Care Centre	P	P	P	P	NP	NP	NP	P	NP
14.	Dairy Farming/Poultry farms	NP	NP	NP	NP	NP	NP	NP	NP	P
15.	Dharamshala	P	P	NP	NP	NP	NP	NP	P	NP
16.	Dispensary	P	P	P	P	NP	NP	NP	P	NP
17.	Drive in cinemas	NP	P	NP	NP	P	NP	NP	NP	NP
18.	Educational Institutions including Training Centre	NP	NP	NP	P	NP	P	NP	NP	NP
19.	Fair Ground	NP	NP	NP	P	P	NP	NP	NP	NP

		R	C	M	I	Green areas			T	Agri.
						P1	P2	P3		
20.	Farm House	NP	NP	NP	NP	NP	NP	NP	NP	P
21.	Gas Godowns	NP	NP	P	NP	P	NP	NP	NP	P
22.	Golf Course	NP	NP	NP	NP	P	NP	NP	NP	NP
23.	Higher Secondary School	P	NP	NP	P	NP	NP	NP	NP	NP
24.	Hospital	P	NP	NP	P	NP	NP	NP	NP	NP
25.	Hostel, Guest House, Boarding House, Lodgeing house	P	P	P	P	NP	NP	NP	P	NP
26.	Hotel	NP	P	NP	P	NP	NP	NP	P	NP
27.	Hawkers area	P	P	P	P	P	P	NP	P	NP
28.	Industrial plot/flatted factory plot	NP	NP	P	NP	NP	NP	NP	NP	NP
29.	IT Park/ unit enabled services	NP	NP	P	P	NP	P	NP	NP	NP
30.	Milk Chilling Centers	NP	NP	P	NP	NP	NP	NP	NP	P
31.	Motel	NP	NP	NP	NP	NP	NP	NP	P	P
32.	Motor garage and workshop	NP	P	P	NP	NP	NP	NP	P	NP
33.	Museum, Art Gallery, Exhibition Centre	P	P	P	P	NP	P	NP	NP	NP
34.	Night Shelter	P	P	P	NP	NP	NP	NP	P	NP
35.	Nursery and Kindergarten School	P	NP	NP	NP	NP	NP	NP	NP	NP
36.	Nursing Home	P	P	P	P	NP	NP	NP	NP	NP
37.	Offices	P	P	P	P	NP	NP	NP	P	NP
38.	Oil depot	NP	NP	P	NP	P	NP	NP	NP	P
39.	Open air theatre	P	P	NP	P	P	P	NP	NP	P
40.	Orchard	P	NP	P	P	P	P	P	P	P
41.	Orphanages	P	NP	NP	P	NP	NP	NP	NP	NP
42.	Park	P	P	P	P	P	P	P	P	P
43.	Parking	P	P	P	P	P	P	P	P	P
44.	Petrol Pump/Fuel Station	P	P	P	P	P	P	P	P	P
45.	Plant Nursery	P	NP	P	P	P	P	P	P	P
46.	Play ground	P	P	P	P	P	P	P	P	NP
47.	Police Lines, Civil Defense and Home Guards	NP	NP	NP	P	NP	NP	NP	NP	NP
48.	Public Utilities and Services/facilities	P	P	P	P	P	P	P	P	P
49.	Railway freight godowns.	NP	NP	P	NP	NP	NP	NP	P	NP
50.	Recreational Club	P	P	P	P	P	P	NP	P	NP

51.	Religious premises	P	NP	P	P	NP	P	NP	NP	NP
52.	Research & Development Centres.	NP	NP	P	P	NP	P	NP	NP	NP
53.	Residential group housing (flatted).	P	NP	P	P	NP	NP	NP	NP	NP
54.	Residential plot/plotted housing.	P	NP	P	P	NP	NP	NP	NP	NP
55.	Restaurant	P	P	P	P	NP	P	NP	P	NP
56.	Rural Centre	NP	NP	NP	NP	NP	NP	NP	NP	P
57.	Shooting range	NP	NP	NP	NP	P	NP	NP	NP	NP
58.	Shopping Centres	NP	P	P	P	NP	P	NP	P	NP
59.	Social and Cultural Centre	P	NP	NP	NP	NP	P	NP	P	NP
60.	Specialised parks/theme parks and gardens	P	P	P	P	P	P	P	P	P
61.	Sports Complex/Centre	NP	NP	P	P	P	P	NP	NP	NP
62.	Sports City	P	NP	NP	**P**	P	P	NP	NP	NP
63.	Storage, godowns and warehousing, cold storage	NP	P	P	NP	NP	NP	NP	P	P
64.	Swimming Pool	P	NP	P	P	P	P	NP	NP	NP
65.	Transport booking office (rail, road and air)	NP	P	P	P	NP	NP	NP	P	NP
66.	Transport Nagar	NP	NP	P	NP	NP	NP	NP	P	NP
67.	Vending Booth, Kiosks	P	P	P	P	P	P	P	P	NP
68.	Weekly Market	P	P	NP	NP	NP	NP	NP	NP	NP
69.	Wholesale Trade	NP	P	NP	NP	NP	NP	NP	P	NP
70.	Women's Hostel	P	NP	NP	P	NP	NP	NP	NP	NP
71.	Zoo	NP	NP	NP	NP	P	NP	NP	NP	NP
* P-Permitted, NP-Not Permitted, R-Residential, C-Commercial, M-Industrial, I-Institutional, P1-Recreational green P2- Institutional green P3-Nurseries and Horticulture, T-Transportation, A-Agricultural										
All use premises not covered in the above table, shall be permissible in various use zones after approval of the Authority's Board.										

Uses permissible in Special Economic Zone (SEZ) shall be as per National State SEZ policy and shall be approved by the Authority's Board.

34. USES/USE ACTIVITIES PERMITTED IN USE PREMISES

1) AMUSEMENT AND ENTERTAINMENT PARK
Amusement and Entertainment Park,10% ground coverage and 20% FAR Commercial 5% ground coverage.

2) BANK
Bank, Office
Support facilities upto 15% of FAR.

3) BARAT GHAR
Barat ghar
Support facilities upto 15% of FAR.

4) BOOKING OFFICE, (RAIL, ROAD AND AIR TRANSPORT)
Railway, Road and Air Transport Booking Office, Storage.

5) BURIAL GROUND, CREMATION GROUND, CEMETERY AND ELECTRIC CREMATORIUM
Burial Ground, Cremation Ground, Cemetery And Electric Crematorium, Retail Shops of Wood, Flowers and related materials
Support facilitiesupto15% of FAR.

6) BUS DEPOT
Bus Depot, Workshop, Offices,
Restaurant, support facilities upto 15% of FAR.

7) BUS TERMINAL/LRT TERMINAL
Bus terminal, Office
Restaurant, support facilities upto 15% of FAR.

8) CARGO AND BOOKING OFFICE
Cargo and Booking Office

9) CINEMA / MULTIPLEX
Cinema, Retail Shop, Office, restaurant
Support facilities upto 15% of the FAR.

10) CLINICAL LABORATORY
Clinical Laboratory.

11) COMMUNITY CENTRE
Community Centre, Club, Outdoor/indoor games facilities, areas for social and cultural activities,
support facilities upto 15% of FAR.

12) CONVENIENT/SECTOR SHOPPING
Retail and Service shops, Restaurant, Clinic, Office, Bank, Post Office.

Multiplex shall be permissible in the sector shopping to the extent of 50% of permissible FAR as per U.P. Government orders as amended from time to time.

13) COURTS
Courts, Library, Administrative Office, Bank, Post & Telegraph Office, Police Post, Lawyer's Chamber
Support facilities upto 15% of FAR.

14) CRECHE AND DAY CARE CENTRE
Creche and Day Care Centre.

15) DAIRY FARM, POULTRY FARM.
Dairy Farm, Poultry Farm.

16) DHARAMSHALA .
Dharamshala
Support facilities upto 5% of FAR.

17) DISPENSARY
Dispensary by public or charitable institutions.

18) DRIVE IN CINEMA
Drive in Cinema, Office, Restaurant,
Support facilities upto 15% of FAR.

19) EDUCATIONAL INSTITUTION AND TRAINING CENTRE
Educational institutions and training centres , staff housing upto 15% of FAR
Hostel and support facilities upto 35% of FAR.

20) FAIR GROUND
Fair Ground, Exhibition Centre (Temporary in nature),
Restaurant, and support facilities upto 15% of FAR.

21) FARM HOUSE
Farm House

22) GAS GODOWN
Gas Godown

23) GOLF COURSE
Golf Course, Integrated Sports Centre, Restaurant, Hotel, villas, club ,swimming pool, shopping mall,
support facilities upto 20% of FAR..

24) HAWKERS AREA
Hawkers

25) HIGHER SECONDARY SCHOOL
Higher Secondary School, Book and Stationery and Chemist Shop, Canteen, Bank Extension Counter, Auditorium, Indoor Games Hall, Swimming Pool, Post Office Counter Facility,Staff Housing (upto 15% of FAR).
Hostel and support facilities upto 35% of FAR

26) HOSPITAL

Hospital,

Support facilities upto 15% FAR.

27) HOSTEL, GUEST HOUSE, BOARDING HOUSE AND LODGING HOUSE

Hostel, Guest House, Boarding House and Lodging House

support facilities upto 15% of FAR.

28) HOTEL

Hotel, restaurant, convention halls

Retail and personal service shops, commercial offices upto 5% FAR

Support facilities upto 15% of FAR.

29) INDUSTRIAL PLOT/FLATTED FACTORY PLOT

Industries/flatted factory permitted as per norms of the Authority and pollution control board,

Staff housing upto 15% of FAR for plots 50 acres or more in area

30) INFORMATION TECHNOLOGY PARK

IT plots/buildings (min. 50% of FAR)

Commercial — 15% of FAR

Residential Plots/flats (15% of FAR)

31)MILK CHILLING CENTRE

Milk Chilling Centre.

32) MOTEL

Motel

Support facilities upto 15% of FAR.

33) MOTOR GARAGE AND WORKSHOP/SERVICE STATION

Motor Garage and Workshop, Lincenced Service Station,

Retail Shop (Spare Parts), Showroom for self product and services upto 10% of FAR

Support facilities upto 10% of FAR.

34) MUSEUM, EXHIBITION, CENTRE AND ART GALLERY, AUDITORIUM, LIBRARY

Museum, exhibition centre and art gallery, library, auditorium

Support facilities upto 15% of FAR.

35) NIGHT SHELTER

Night Shelter.

36) NURSERY AND KINDERGARTEN SCHOOL
Nursery and Kindergarten School.

37) NURSING HOME
Nursing Home, Chemist Shop
Support facilities upto 10% of FAR.

38) OFFICES
Central Government, Local Government & Public Undertaking Office, private offices
Support facilities upto 25% of FAR.

39) OIL DEPOT
Oil & Gas Depot

40) OPEN AIR THEATRE
Open Air Theatre.
Support facilities upto 15% FAR

41) ORCHARD
Orchard.
All structures shall be temporary in nature.

42) ORPHANAGE
Orphanage, staff housing
Support facilities upto 15% FAR.

43) PARK
Park, Kiosks, Parking (upto 10% area)

44) PARKING
Parking, kiosks, public convenience.

45) PETROL PUMP/FUEL STATION
Petrol Pump/Fuel Station, Automobile Repair Shop service shops, convino,

46) PLANT NURSERY.
Nursery
All structures shall be temporary in nature.

47) PLAY GROUND
Play Ground, Parking (upto 10% area), indoor games hall
Support facilities (upto 10% ground coverage and 20 FAR).

48) POLICE LINES, CIVIL DEFENCE & HOME GUARD

District Police Office and Civil Defence & Home Guard, Hostel, Play Ground.

Support facilities upto 25% of FAR, staff housing 15% of FAR.

49) PUBLIC UTILITIES AND FACILITIES/SERVICES

Overhead Tank, Underground Tank, Oxidation Pond, Septic Tank, Pumping Stations, Electric Sub-Station, Fire post, fire station, police post, police station, post office, post and telegraph office, telephone exchange, transmission tower, satellite/telecommunication centre, observatory/weather office, radio and television centers, waste disposal and treatment site and such other utilities and services.

50) RAILWAY FREIGHT GODOWN

Railway Freight Godown, Care Taker's Office,

51) RECREATIONAL CLUB

Recreational club, swimming pool, indoor and outdoor games facilities, guest rooms, restaurant

Support facilities upto 25% of FAR.

52) RELIGIOUS PREMISES/BUILDING

Religious buildings, Ashram, Bathing Ghat, Gaushala, Charitable Dispensary, Library, flower shops, sweet shops and other shops and facilities related to religious activities upto 15% of FAR.

53) RESEARCH AND DEVELOPMENT CENTRE

Research and Development Centre,

Staff housing upto 15% FAR

Hostel and support facilities upto 35% of FAR.

54) RESIDENTIAL – GROUP HOUSING (FLATTED/PLOTTED)

Residential Flat/Plot

Retail and Service shops as per norms

Social and physical infrastructural facilities as per population norms.

Support facilities upto 10% of FAR (total permitted FAR on the plot)

55) RESIDENTIAL PLOT / FLAT

Only residential activity will be permitted. However, professional activities by the residents of the premises in a part of the house shall be permissible.

56) RESTAURANT

Restaurant

Support facilities upto 15% of FAR.

57) RURAL CENTRE (WITHIN 1.0 KM. OF VILLAGE ABADI)

Rural Centre, Retail Shop, Repair Service Shop, Bank, Commercial Office, Cinema, Restaurant, Offices, Dispensary, Clinic, Hospital, Senior Secondary School Library, Community Hall, Police Post, Fire Post, Post Office, Educational institutions and such other activities.

58) SHOOTING RANGE

Shooting range

Support facilities upto 15% of FAR.

59) SHOPPING COMPLEX

Retail and Service Shop, office, Bank, Restaurant, Kiosk, Petrol pump.

60) SOCIAL AND CULTURAL CENTRE.

Social and Cultural Centre, Restaurant, guest rooms, Auditorium, Library, Music, Dance and Drama Training Centre, Museum, Exhbition Centre and Art Gallery, Information Centre, Yoga and Naturopathy Centre, Meditation, Spiritual and Religious Discourse Centre

Support facilities upto 25% of FAR.

61) SPECIALISED PARK, THEME PARKS AND GARDENS

Specialised Parks/Theme Parks and Gardens, kiosks, restaurant, indoor outdoor games facilities and rides,

Support facilities upto 15% of FAR.

62) SPORTS COMPLEXES/CENTRES –

Indoor/outdoor stadium or halls, heliport, aerosport, health club/spa, restaurant, kiosk, swimming pool, all types of sports facilities,

Support facilities upto 15% of FAR.

63) STORAGE, GODOWN, WAREHOUSING AND COLD STORAGE

Storage, Godown, Warehousing and Cold Storage, Wholesale Outlet, Office

Support facilities upto15% of FAR.

64) SWIMMING POOL

Swimming Pool

Support facilities upto 15% of FAR.

65) TRANSPORT NAGAR

Truck parking, retail shop, spare parts shop, repair shop, offices, service station, show room, restaurant, hotel, motel.

Support facilities upto 15% of FAR.

66) VENDING BOOTH, KIOSK
Vending Booth, Kiosk.

67) WEEKLY MARKET
Weekly Market, Informal Retail Trade (All structures will be either temporary or mobile, only for one day in a week).

68) WHOLESALE TRADE
Wholesale Shop, Godown & Storage,\
Commercial Office (restricted to 25% of the total floor area).

69) WOMEN'S HOSTEL
Women's hostel
Support facilities upto 25% of FAR.

70) ZOO
Zoo
Support facilities upto 10% of FAR.

Notes:

(i) Support facilities broadly consist of Creche and day care centre, watch and ward staff upto 20.0 sq.m. area, maintenance staff (upto 20.0 sqm. Area), canteen, park, Parking, Taxi and three wheeler stand, Public Conveniences,bank extension counter, post office counter.
(ii) Other support activities will depend on the main activity.
(iii) In case of clubbing of premises, uses of all the premises clubbed are allowed.
(iv) A structure which can be shifted from one place to another or removed as the case may be shall be considered as temporary structure.

35. RESTRICTION ON SUB DIVISION OF USE ZONES AND SUB DIVISION REGULATIONS

The Sub division of land with a view to prepare a layout plan is done for a zone, or area, which is designated primarily for a specific main use or activity already specified earlier. The seven categories of land uses specified therein are 1) Residential, 2) Commercial, 3) Industrial, 4) Green Area 5) Institutional 6) Transportation, 7) Special Uses.

The objective of regulations detailed herein is to guide the preparation of layout plans for use zones. These regulations include norms for provisions of circulation system, open spaces, and facilities. The service plans corresponding to these layout plans for provisions of physical infrastructure like water supply, sewerage, drainage, etc shall conforms on the norms framed by the Authority.

The use zones other than residential, commercial, industrial, green areas shall have integrated plans governed by respective building control regulation framed by the authority.

36. Residential Use Zone

The sub-division of this use zone and subsequent approval of the layout plan shall be governed by the provisions stated below:

- This use zone will have plotted development or flatted development or both.

10.4.1.1 The Park and play area shall be distributed in the following manner:

(a) Tot lot at 0.6 sq m per person.
(b) Park at 2.0 sq.m per person, with one of the parks to be of minimum 1.5 ha.
I Play area at 2.0 sq m person with one of the areas to be of minimum 1.5 ha.

Table 10.4.1.2 Provision of Social and Physical Infrastructure at Sector Level (Zone R)

Sl. No.	Use Premises	Service Population Per Unit	Unit Area in Ha
a)	Education		
1.	Creche and Day Care Centre	5000-25000	0.100
2.	Nursery School	5,000 – 7,500	0.100
3.	Senior Secondary School	7,500 — 15,000	1.000
b)	Health		
1.	Dispensary	7,500 — 15,000	0.500
2.	Nursing Home	5,000 – 7,500	0.100
c)	Shopping		
1.	Convenient Shopping Centres	4,000 - 5,000	0.2000
2.	Sector Shopping cum Service Centre	7,500 — 15,000	0.6000
3.	Kiosks/howker area		
d)	Other Community Facilities		
1.	Community Centre	7,500 — 15,000	0.4000
2.	Milk and Vegetable Booth	5,000 – 7,500	0.020
e)	Recreation		
1.	Tot lot	3,000 — 4,000	0.500
2.	Park	11,000 — 15,000	1.500
3.	Play Ground	11,000 — 15,000	1.500
f)	Utilities		
1.	Electric Sub-Station 11 KV	7,000 - 7,500	0.050
2.	Auto Cum Taxi Stand	11,000 - 15,000	0.050

10.4.1.3 Planning of a residential area regarding circulation system shall be governed by the following norms.

(i) The minimum ROW of a vehicular road shall be 12 m. However in situations where the road adjoins a park or any open space with building only one side, it may have a minimum width of 9 m. The maximum length of 12m/9m road shall be 300 m measured from one wider street to another.

A collector /distributor road which serves area of more than 5 ha either directly abutting or accessed through it, shall be minimum 18 m wide.

(ii) Maximum length of cull- de- sac shall be 150 m and loop roads 450 m.

10.4.2 Commercial Use Zone

10.4.2.1 Circulation systems in commercial areas shall be governed by the following norms.

(i) The maximum length for different classification of roads in commercial areas shall be indicated as below. No roads in this area shall be less than 18 m wide

(ii) The layout shall be provided at the junction roads in such a way that as far as possible all roads do meet at right angles.

10.4.3 Industrial Use Zone

10.4.3.1 In industrial areas, the space to be left open for parks and green buffers for ecological balance shall be as per the following table.

Individual Plot Size in Layout (sq m.)	Open Space (%)
Up to 400	3%
400 - 2000	2%
2000 - 12000	1%

Note: The space is exclusive of that provided for facilities and amenities.

10.4.3.2 Circulation system in industrial areas shall be governed by the following norms:

37. No road in an industrial area shall be of less than 24m ROW.
(ii) No dead end road shall be permitted as far as possible.
(iii) The layout shall be provided at the junction of roads in such a way that all roads meet at right angles as far as possible.

38. Green Areas –

P1- Recreational greens
10% ground coverage and 20 FAR.

P2- Institutional greens

39. Not less than 50% land to be utilized for Institutional campus as follows –

Institutional Area	-	75%
Max. permissible ground coverage	-	35
FAR	-	80
Maximum height	-	18.0 m.
Minimum plot size	-	50.0 Acres

25% of FAR to be used for staff housing.

25% of total plot area to be left as green area free from any constructions.

Remaining area to be used as recreational green with FAR and ground coverage so adjusted as to give an overall FAR of 45 and overall ground coverage of 25% on the entire area of Institutional green.

Note (i) Individual maximum FAR and ground coverage in recreational area shall however be 40 and 20% respectively.

39a. **SPORT CITY**

Development of Sports Cities is proposed in the Northern part of Greater Noida. The proposed sites are well linked by the proposed Development Plan roads connecting to National Highway-24, Noida, Ghaziabad, and other parts of the city. Greater Noida Sports cities are envisioned to be one to their kind in the country with a clear and divined focus on as integrated sports theme. They will provide a strong and clearly identifiable image to Greater Noida, where sports events catalyze other activities such as tourism, community meetings, exhibitions, conventions and festivals. In order that the vision remains relevant, the following key sports and other related recreational and institutional facilities have been proposed in the city-

A golf course, golf club house and driving ranges, integrated with the residential and commercial areas and a cricket stadium with covered grandstand, provisions of electronic scoreboards, television video screen, competition lighting, meeting rooms, media facilities etc. A multi purpose playing field for athletics and football with practice nets, and competition lighting, synthetic turf laid hockey field indoor stadium for badminton and table tennis courts weightlifting boxing, gymnastics, karate etc. Indoor central court tennis centre and indoor swimming centre with pools competition warm up and diving pool and other related facilities. Indoor and outdoor Stadium and playground may be added further as per the requirement.

Sports city shall include a sports academy serving as a centre of sports excellence with world class facilities and support services for a range of sports including Cricket, Tennis, Swimming, Athletics & Golf etc. Practice area could be incorporated within the sports ground and facilities for competition and training. The academy would also include office accommodation, laboratories, lecture theatres and specialist facilities. The sport city shall have sports medicine/health facility centre to provide cutting edge sports science and sports medicine support.

These should include clinical services, sport science, nutrition, athlete and career education, applied research centre with the provisions of laboratories, offices and workshops. There shall be other facilities like Integrated Sports Hotel, Hostel dormitories and service apartments within walking distance to all venues. Sports club business and leisure facilities meeting rooms and office accommodation shall be provided within the sports venues.

A network of roads shall be planned as a functional hierarchy to serve the City. Other facilities could include a transports hub, entry and exit gates, passenger lounges, bridges and underpasses as required. Car parking facilities shall be suitably planed throughout the city. There shall be an IT Centre/ Administration/ Media blocks and a major retail hub providing shopping facilities for the City. Residential and commercial facilities would also be developed within the Sport City area.

The sports city shall be developed as an integrated Mini Township with all modern and world class sports and other related facilities. Minimum 70% of the total area would be utilized for open spaces, sports, and other related recreational and institutional facilities. Greater Noida Authority will determine the land use pattern, permissible activities, planning norms and other regulations as required from time to time for the development of each of the Sport city

40. All uses permissible in use zone P1 shall be permitted in the area of recreational green in this sub use zone.

41. General Provisions for all landuses:

(i) In Controlled Area outside urbanisable area there shall be provision of 30m wide green belt on either side of canals while preparation of detailed Layout Plan.

(ii) Within urbanisable area and controlled area except existing built up area 5m wide green belt to be kept on either side while preparation of detailed Layout Plan.

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(iii) On either side of Loop/Link railway lines except existing built up area 9m wide green buffer to be maintained while preparation of detailed layout plan.

(iv) 'No Development Zone' of 20m to be developed around natural drains, lakes, ponds while preparation of detailed layout plan.

VISION PAPER FOR GREATER NOIDA
MASTER PLAN-2021

City of Greater Noida, which □rbanizati a completely new life style, is an integral part of the National Capital Region of India.

Wide location map showing it adjacent to Delhi, Ghaziabad, etc. Annexure-I.

Inherent Strengths of the City as developed so far.

- Ideal Location in terms of distance from Delhi. This modern city shall be very well accessible any yet maintain its distinct identity.
- Uniquely Composite Green City on the lines of Chandigarh.
- Pollution free and environment friendly Industrial Centre having excellent infrastructure facilities like power movement facilities for men and material.
- Unfailing infrastructure facilities for its residents, relaxed ambience, open green spaces called lungs of a city that is a promise in this land of Plenty.
- Support and active involvement of private sector and NGOs in planning, development and maintenance of Greater Noida infrastructure.

Experience of GNIDA so far and that of other similar □rbanization□ wisens us and we shall:

- Not be unplanned in development, dirty and congested.
- Not permit shortfall in infrastructure facilities like Power, Transport, Markets etc and strive for providing excess facilities than demand.
- Not be impractical in □rbanizatio in maintenance of the City, its greens, road furniture and signage's management.
- Not be unscientific and inefficient in solid waste management.
- Not be an enemy of environment in any way.
- Not let our duties become redundant as part of the GNIDA and as residents/users of Greater Noida City.

We shall strive for:

- Development and maintenance of Greater Noida as a modern and efficient city for industries.

- Development and maintenance of Greater Noida as a modern infrastructurally efficient, relaxed in ambience and green residential city.

- Technically modern, automated, people and investor friendly, efficient GNIDA devoid of red tape.

- Socially acceptable and harmonious □rbanization of existing rural areas and populace.

- Provide experienced assistance to all and a firm handed guidance and regulatory function by a committed team at GNIDA.

DETAILING OF EACH STRATEGIC POINT:

- **<u>Industrial Development</u>**

    - Single window/table clearance systems.

        - Transparency in work to be made apparent.

        - Easy dissemination of information e.g. touch screen computers within the reception area & other select places.

        - Simplification and standardization of procedure e.g. brochures with all information and formats to be made available.

        - Decentralization of information centres e.g. with Industries' Association etc.

        - Reduction in "Inspection Raj"

        - Provision for collection of periodic returns by email and similarly sending notices in case of defaults and collecting replies through email.

Master Plans for each facility to be prepared and integrated keeping in view requirement and timely availability.

- **Power**
    - Realistic assessment of demand & production at present level of production and distribution.
    - Derive augmentation.
    - Work backwards on PERT to provide for adequate supply.
    - Private participation planning for production or distribution.
    - Earmarking of site for captive power facility for Greater Noida.
    - Planning for increase in use of non-conventional energy sources.
- **Development control and Building norms.**
    - Standardization of some basic designs
    - Essential items for maintaining uniformity to be identified and norms set
    - Simplification of procedure for issue of building permits/clearances
    - Items of flexibility in building plans to be decided upon
    - Policy on industrial parking viz. Freight vehicles, factory parking etc. to be drawn up and incorporated in building plans.
    - Cooperative parking and group parking facilities can be developed by industries/GNIDA.
    - Decentralization of building plan clearances to few private agencies for specific items.
- **Transport Network development comprising of air, rail and road**
    - Projection of road, rail, air and parking requirement
    - Provision of freight container station, tie up with CWC etc and plan for site location.

- Modern ways of checks e.g., laden weight etc. to be planned for and set up in coordination with relevant deptt. Of U.P. Govt.

- Satellite airport for cargo to be set up.

- Satellite airport facilities for international guests of industries e.g. waiting lounges, ticketing centres, pick up and drop facility etc.

- Every heavy cehicle leaving and entering Greater Noida should be complaint of pollution, fitness, laden weight etc. norms. Policing should be automated with minimum stopping on roads. Visual policing system to be set up.

- **Environment protection and Pollution Control.**

    - Assessment of magnitude of problem in future years.

    - Identification of A,B,C and D categories of hazards and planning accordingly. Emperical data of other industrial centres may be relied upon.

    - Extent of greening essential for industries and options allowable to be decided.

    - Incentives for outstanding performers.

    - Policing and monitoring.

- **Telecommunications and Postal Services.**

    - Assessment of requirement for all kinds of telecommunication and postal needs including courier services.

    - Plan for timely and adequate availability of each item.

    - Plan for site requirement for telecom, postal and courier stations and timely issue of offers of allotment.

    - Follow up with different agencies for integrating Greater Noida requirement in their respective plans.

- **Water Supply and Sewerage**
    - Realistic assessment of demand and availability for future.
    - Derive augmentation
    - Work backwards on PERT to provide for adequate supply.
    - Private participation planning for water supply and sewer maintenance.
    - Earmarking of site for captive Water Supply and Sewage Treatment Plants for Greater Noida.
- **Solid Waste Management**
    - Identifying technologies that are available and which can be used for solid waste management.
    - Sites identification for land fills etc.
    - Provision of industrial incienerators etc.
    - Provision of biodegradable waste collection and its recyling**.**
- **Security and Safety.**
    - Assessment of requirement in fire control and other industrial disaster management requirements.
    - Integration of GNIDA plans with those of Fire Dept. and Central Industrial Security Force etc.
    - Communicating Future Requirement to various Deptts.
    - Coordination and monitoring for timely availability of services.
- **Participation of Industries, NGOs and Private persons in social upliftment of workers and staff engaged in this sector.**
    - Items of coordination and assistance to be identified e.g. for pollution control, solid waste management and safety and security, education and health care facilities for workers and their families.

- Identification of good institutions, local and also renowned ones.
- Invite participation with a clarity on what is required.
- Finalize and award work
- Monitor and look for more avenues for cooperation.

- **Residential Development**

  Master Plans for each facility to be prepared and integrated keeping in view future requirement and timely availability:

  - **Power**
    - Realistic assessment of demand and production at present level of production and distribution.
    - Derive augmentation.
    - Work backwards on PERT to provide for adequate supply.
    - Private participation planning for production or distribution.
    - Earmarking site for captive power facility for Greater Noida.
    - Consumer education for preventing power theft and proper bill payment and to make bill payment more consumer convenient.
  - **Development control and Building norms to allow flexibility**
    - To work out a set of items which should comprise of a building plan
    - To identify items that are essentially to be kept with Greater Noida Authority and those which can be kept flexible.
    - Setting of realistic norms and development of certain standard building designs which could be made available on payment.
    - Setting up of mobile squads for inspection and system of receipt of complaint/report.
    - Parking policy for residential parking to prevent blocking of roads and subroads.

- **Transport Network development comprising of air, rail and road.**
    - Extension of air services like tie up with air service providers.
    - Connection with Metro Rail of Delhi
    - Connection with major railway stations like Delhi, Ghaziabad etc.
    - City bus service, local permits, chartered bus service etc.
    - Connection with DTC, UPSRTC, RTC etc.
    - Terminals and depots designs and their setting up in time to be ensured.
    - Bus stop designing with provision for hawkers.
    - Taxi and autorichskaw service e.g. to be all CNG only, carriage lway to be earmarked for different services.
    - Plan of short distance travel e.g. rickshaws, decision on identification of traffic streets, introduction of new design, total ban etc.
- **Environment protection and Pollution Control**
    - Social forestry to prevent soil erosion
    - Identify areas of focus
    - Strategy of management of each area
- **Telecommunications and Postal Services**
    - Setting up adequate no of post offices
    - Planning of enough facilities for telephone connections
    - Cyber services including cafes
- **Water Supply and Sewerage**
    - Realistic assessment of demand and availability

- Derive augmentation
- Work backwards on PERT to provide for adequate supply
- Private participation planning for water supply and sewer maintenance.
- Earmarking of site for capital water treatment and sewage treatment plants for Greater Noida.

- **Solid Waste Management**
  - Identifying technologies that are available and which can be used for solid waste management.
  - Site identification for land fills etc.
  - Provision of community/industrial incinerators etc.
  - Promotion of biodegradable waste collection **and its recycling.**

- **Security**
  - Neighborhood watch scheme
  - Registration of domestic servants
  - Special assistance cell for senior citizens.
  - Enough no of police stations/posts to be planned and follow up with UP Police for manning them.

- **Education**
  - Planning for primary, secondary, college and vocational education in private as well as state owned sector
  - Assessment of requirement, earmarking of sites follow up for their setting up in time.

- **Recreation**
  - Development of clubs, fitness centres, swimming pools, community centres, libraries, band stands, cinema, multiplex, theatres etc.

- **Health care facilities**
    - Assessment of requirement in private and public sectors
    - Identification of sites and follow up for timely setup
    - Special provision of facilities for EWS and Greater Noida residents and a monitoring systems for this be developed.
- **Landscaping and greenery development with special emphasis on flowers, fountains and social forestry.**
    - Landscape Master Plan to be developed.
    - Recreational greens to be set up
    - Theme parks
    - Predominant flowering trees and shrubs in different areas to be used for naming sectors.
- **Providing a unique ambience for a relaxed lifestyle**
    - Traffic quieting devices to be planned and implemented.
    - Provision of open spaces, walkways etc.
- **Road furniture and siganges' management.**
    - To be road user friendly.
    - Special emphasis for senior citizens and children
- **Development of Neighbourhood Management Council as a watchdog and helper**

- **Organizational development**
    - Highly modern system support and record maintenance.
    - Microfilming of records.
    - Taking congnizance of email and papers received through computer
    - Internal information totally via email.
- **Transparency in functioning through Interactive Automation , where user of the City can get all the information needed on computer.**

- **Single Window/Table clearance system.**
    - Transparency in work
    - Easy dissemination of information e.g. touch screen computers within the reception area & other select places.
    - Simplification and standardization of procedure e.g. brochures with all information and formats be developed.
    - Decentralization of information centers e.g. with RWAs etc.
    - Reduction in "Inspector Raj"
    - Provision for collection of periodic returns by email and similarly sending notices in cases of default and collecting replies through computer.
- **Commitment of staff members of stated objectives.**
    - Training programmes, workshops etc.
    - System of assessment of employees satisfaction and moral
    - System of rewards and punishments
- **Responsive organization**
- **Meaningful involvement of external agencies in planning and development and defining their roles.**
    - Involvement of NGOs and committed individuals in policy planning and execution of social benefits.
    - Workshops and interaction programs.
- **Effective grievance redress and management**
    - Designation of officers who could be available and accessible always.
    - Standardization of system for handling of grievances

- **Marketing of Greater Noida facilities for seeking committed investors/users**
    - Advertisement
    - Publicity
    - Fairs and meals
    - Any other promotional plans

- **Rural Development**

Economic Betterment

- Provide avenues for self-employment.
- Local employment generation through imparting skills.
- 3 it is and ITTUP set up a technically train local youths.
- Scholarships offered for lone member in each displaced family.
- Computer training at affordable range, provided in village schools.
- Gainful participation in development projects by the local population.
- Tradition skills upgradation programmes executed by NGO.
- Mahila Dairy Scheme to augment income from traditional activities.
- Career guidance and regular EDPs conducted.

Human Resource Development

- Four fully equipped educational centres to be developed to cater to the local people's educational needs.
- Quality of education to be ensured through provisions for quality infrastructure along with well trained personnel.
- Informal education and related projects to be executed by NGOs.
- Health and general awarness already been implemented by national level NGO.
- Mobile crèches functioning which take **care of overall needs of the uncared for migrant labour children.**

Guided Urbanisation

- Model urban villages to be developed in a phases manner with infrastructure at par with urban developed sectors.
- 10% abadi settlement for acquired villages with guided controls so that they also merge with the aesthetically urban area.
- Commercial schemes floated priortising local people's participation and giving them an opportunity to benefit from the process of urbanization.
- Empowering them to manage and maintain their assets in line with the concept of Neighbourhood Management Council presently applicable only in urban sectors.

VISION ACTION PLAN FOR GREATER NOIDA MASTER PLAN-2021

INTRODUCTION

- The city of Greater Noida is strategically located in the National Capital Region. It is neither too near the Capital to lose its independent identify as a 'Modern City', nor is it so far so as to negate its accessibility and approachability.

- It is the one of the handful of composite green-field cities created in India after Chandigarh.

- Even at present it is perceived as a city with excellent infrastructure, green and relaxed in its ambience, at the same time giving a boost to pollution free industrial development.

- In encouraging the private sector in the process of development as well as for maintenance of infrastructure the city is in tune with the global perspective of development which adds credibility to its ambition to be a world class city.

OBJECTIVES

1. To create a modern, efficient city.

- Comparable with international standards in terms of:
  - Infrastructure------hard and soft.
  - Urban Design and Aesthetics.

- Which would be a land of plenty, where supply always exceeds demand, and

- Where the quality of life would be distinctive.

2. To evolve a city with an ambience.

- Marked by its green landscapes, and
- Characterised by flowers and fountains mirroring the city's relaxed life-style.

3. **To proactively attract investors----Industrial, Institutional, Recreational land Residential----------**

Though a modern, efficient, investor-friendly and people-friendly urbanization.

4. **To involve the existing rural population in the process of urbanization, so that they also partake in the benefits flowing there from.**

5. **To have a forward looking, holistic plan which exhaustively provides for all issues related to urbanization.**

It is expected that with the achievement of these objectives, the city would be able to provide to its inhabitants and environment and life-style which would enable them to be competitive globally.

PAST LESSONS

Shortfalls in major Indian cities which generally give an appearance of being ill planned, dirty and congested, Reasons being---

a) Inadequate and insufficient provision for services and facilities.

Supply always following demand;

- Inadequate parking facilities.
- Lack of hawkers and weekly markets.
- No provisions for informal sector ------- housing and commercial
  -------fruit and vegetable markets.
  -------petrol pumps
  -------public urinals
  -------cycle and pedestrian pathways

b) Lack of will to maintain and impractical urbanization maintenance expenditure.

c) Unscientific, insufficient solid waste collection and disposal system.

d) Neglect of aesthetic aspects of urban design—

- Street scape
- Colour scheme
- Signages
- Facades
- Road signs

e) No attention to Landscaping.

f) In the absence of a Transport Master Plan following are not provided for-

- Segregation of Traffic modes
- Cyclists and pedestrian needs.
- Bus terminals.
- Bus stops.
- Traffic movement and control.

g) Very weak regulatory functions.

STRATEGY TO ACHIEVE THE OBJECTIVES

The strategies proposed to achieve the stated objectives would include measures to avoid the shortfalls listed above.

1. Infrastructure—

Physical Infrastructure.

Master Plan for each component to be prepared.

- Road and tail network.
- Telecommunications
- Power
- Drainage
- Sewerage
- Convergence network
- Solid waste disposal
- Security
- Transportation

1.2 Social Infrastructure.

Action Plan to cover the following.

- Informal Sector
- Hawkers and weekly market.
- Community facilities.

- Post Offices
- Public utilities.
- Skill impartment
- Economic and social empowerment
- Avenues for self-employment
- Women and child healthcare
- General awareness projects
- Social and Cultural Centres.

1.3 Industrial Infrastructure.

In addition to the above, following shall also be provided—

- Single Tablc Clearance
- Aggressive marketing
- Effective redressal of grievances

1.4 Urban Design And Aesthetics—

Issuance and ensuring enforcement of Urban Design Regulations under Section 8 of the Act covering inter-alia the following aspects-

- Street elevations
- Facades
- Architectural features
- Landscaping
- Fixing of signages
- Defining of colour scheme
- Building line
- Road signs
- Boundary walls
- Focal points

1.5 Land of Plenty

- Provision at the initial stage itself for full of near full development
- Advance action, and continous annual monitoring of future anticipated demand on a five year time horizon (since it takes that much time to plan and implement).
- Provision of additional facilities well ahead of demand.

1.6 Quality of Life

- Timely development of infrastructure.
- Rigorous provision for all heads of development before or in time.
- Ensuring strict fulfillment of promises made to the inhabitants and investors.
- Generating a sense of urgency in the urbanization to serve the inhabitants in a friendly and efficient manner.
- All basic amenities made available without urbanization procedural formalities.
- Systems to be developed for maintenance of facilities.
- System to be maintained for achieving the above objectives.
- Citizen's partnership to be ensured in making it a better city so that every citizen feels an ownership with the city.
- Strict enforcement of laws and regulations.

3.1 City ambience

- Formulation of Landscaping Master Plan
- To develop the city as a city of flowers and fountains.
- Visual impact of greenery and landscape.
- Development of city recreational greens.
- To position the city as a destination of leisure and amusement
- Develop Theme Parks
- Plantation of predominantly flowering trees and shrubs
- Distinct flowering green belts along the roads and within the sectors.
- Distinguishing flowering trees in various pockets of the sectors, which are symbolic of the name of that p**ocket.**

4.1 Wooing of Investors

- High quality industries and institutions
- Leisure and amusement
- Private developers
- Residential allottees

3.1.1 Formulating a comprehensive communication strategy covering all aspects and all media

3.1.2 Positioning the city as an up-market destination

3.1.3 Distinctive residential ambience

3.1.4 Effective networking with urbanization influencing investment locations.

3.1.5 Pro-activity seeking out investors and follow up with them including personal follow up.

3.2 Modern, efficient urbanization development

- Develop systems of the urbanization which necessitate maximum urbanization on, moving towards a paperless urbanization.
- E-payments already in place, E-governance to take off.
- Single Table Clearances
- Simple and logical set of procedures prescribed
- Policy guidelines clearly pronouncing principles for decision making, which would ensure transparency in functioning of the urbanization.
- Continuous human resource development land appraisal exercises to be developed to ensure partnership of the staff towards the policy making process.
- Sense of ownership and feel responsive to the vision and objectives of the organisatioin.
- Norms and Standards of Infrastructure and facilities to be made a public document which would maintain pressure on performance.

4. Rural Development

4.1 Economic Betterment.

- Provide avenues for self-employment.
- Local employment generation through imparting skills.
- 3 it is and ITTUP set up a technically train local youths.
- Scholarships offered for lone member in each displaced family.
- Computer training at affordable range, provided in village schools.
- Gainful participation in development projects by the local population.
- Tradition skills upgradation programmes executed by NGO.
- Mahila Dairy Scheme to augment income from traditional activities.
- Career guidance and regular EDPs conducted.

4.2 Human Resource Development

- Four fully equipped educational centres to be developed to cater to the local people's educational needs.
- Quality of education to be ensured through provisions for quality infrastructure along with well trained personnel.
- Informal education and related projects to be executed by NGOs.
- Health and general awarness already been implemented by national level NGO.
- Mobile crèches functioning which take care of overall needs of the uncared for migrant labour children.

4.2 Guided Urbanisation

- Model urban villages to be developed in a phases manner with infrastructure at par with urban developed sectors.
- 10% abadi settlement for acquired villages with guided controls so that they also merge with the aesthetically urban area.
- Commercial schemes floated priortising local people's participation and giving them an opportunity to benefit from the process of urbanization.
- Empowering them to manage and maintain their assets in line with the concept of Neighbourhood Management Council presently applicable only in urban sectors.

5. Forward Looking Holistic Plan.

- The Master Plan-2025 is being developed keeping the above objectives and strategies in mind
- Pro-actively conserving energy
- Green area provided much more than the prescribed provision in any other city.
- Rain water harvesting being structured.
- Action has been started on a large number of such activities.
- Strict monitoring and follow up would be required.

6. Where we stand today:

- Master Plan (Micro and Macro) already formulated for all components of development in the first phase.
- Maintenance, Monitoring and Supervision Systems prepared for various stages of implementation.
- Privatisation of crucial infrastructure already in place (with some in the pipeline).

- Norms and performance standard for each services already formulated and at initial implementation stages.
- Neighbourhood Council already formed and functioning in inhabited sectors.
- System developed for each division. Monitoring and supervision ensured accordingly.
- Investor friendly and people friendly procedures followed Computerisation to a great extent already achieved. All information updated on web site on a regular basic for faster dissemination of information.
- NGOs at work for health and education fields like Implementation VHAI, IINRAM etc.
- ITI's and ITTUP contribute to skill development and entrepreneurial development
- Development of modal villages and upgradation of rural infrastructure to urban standards.
- Redressal of public grievances on a regular basis which provides an effective interface between the organization and its clientele.
- Time bound action plans for each division stressing on achievement of targets on or before time.
- Prevention of encroachment and immediate removal of encroachments ensured.
- Commercial complexes planned on modern concepts of planning and architecture.
- Green recreational facility functional in the city.
- To cater to the social and cultural needs, exclusive clubs, have also been encouraged to start functioning in the near future.

7. Monitoring and follow up.

- Actions have been initiated on most of the strategies listed above.
- Action under each head to be tabulated and put up before the Board and Neighbourhood Management Council every quarter.
- Capital Budget and Profitability Analysis on a long term basis to be prepared every year to ensure financial sustainability of the city.
- Adequate provision to be made for maintenance of infrastructure and landscaping.
- User fees and pricing of various facilities to be done from time to time to maintain financial viability

Annexure A
RESTRICTED INDUSTRIES

List of negative industries

1. **Smelter Process (Aluminum, Copper, Lead & Zinc)**
2. **Distillery**
3. **Dyes & Dyes Intermediate**
4. **Foundry, Cupola Furnace, Arc Furnace, Introduction Furnace & other Furnaces**
5. **Tanneries (Vegetable/ Chrome)**
6. **Pulp & Paper**
7. **Bone Mills & Allied Industries**
8. **Stone Crushing**

Permissible industries

after getting Site Clearance from competent authority (State Government & Central Government)

1. **Man Made Fiber**
2. **Nitric Acid**
3. **Paints Industries**
4. **Sulphuric Acid**
5. **Manufacturing of Asbestos**
6. **Cement Plant**
7. **Caustic Soda**
8. **Fertilizer Industries**
9. **Integrated Irons and Steel**
10. **Oil Refinery & Petroleum Refinery**
11. **Pesticides Industries**
12. **Pharmaceutical Industries**
13. **Petro Chemical Industries**
14. **Synthetic Rubber**

Permissible Industries (With ETP)

1. **Calcium Carbide**
2. **Cove Oven**
3. **Composite Woolen Mills**
4. **Inorganic Chemical Industries**
5. **Starch & Glucose**
6. **Toxic Organic Chemical**