

# Pre-Feasibility Report

## 1.0 Preamble

Andhra Pradesh Industrial Infrastructure Corporation Ltd (APIIC) is the premier organization in the state of Andhra Pradesh, vested with the objective of providing industrial infrastructure through the development of industrial areas. The corporation has so far developed over 320 industrial areas spreading over an extent of about 57,424 acres excluding SEZ and non allotted plots. The Corporation is also developing sector focused parks like Edible oil units, Auto Parks, Textiles processing parks, Leather parks in the state of Andhra Pradesh.

With the advent of economic liberalization the Corporation has reoriented itself to the changing needs of economy and assumed the role of facilitator. To its credit the Corporation has developed Hi-Tech city with a private promoter. The corporation is the principle facilitator in Mega Projects like Special Economic Zone, Visakha Industrial Water Supply, Gangavaram Port, Convention Centre, Mega Industrial Parks at Parawada, Pashamylaram, Financial District, and Hardware Park at Hyderabad.

The Corporation has to its credit the execution of civil works for various Government Departments. It has executed works covering Referral Hospitals, Navodaya Schools Polytechnic Buildings Court Complex, Building and Hostel for Indian Institute of Information Technology. Government entrusted the responsibility of constructing Games Stadium and Games Village for the National Games on Project Management Basis. The Corporation is the Nodal Agency for Government Sponsored scheme like Growth Centres, Export Promotion Industrial Parks, and Integrated Infrastructure Development Centers.

The Industrial Areas are equipped with approved layouts, internal roads, water supply and power supply. In continuation with above said works, APIIC is planning to establish a Multiproduct SEZ in an area of 2550.87 Acres (1032.302 ha) covering five villages viz. Menakuru Konetirajupalem Dwarakapuram, Palepalem of Naidupeta Mandal and Palachuru of Pellakuru Mandal, Nellore District. The latitude & Longitude of the proposed site are given in **Table 1.1**.

**Table 1.1**  
**Latitude & Longitude site boundaries falling in respective villages**

S.no	Name of village	Latitude	Longitude
1	Menakuru	13 <sup>0</sup> 55' 2.04"N	79 <sup>0</sup> 50'16.2" E
2	Konetirajupalem	13 <sup>0</sup> 55'3.54"N	79 <sup>0</sup> 47'40.2"E
3	Palachuru	13 <sup>0</sup> 54'35.94"N	79 <sup>0</sup> 48'49.5"E
4	Dwarakapuram	13 <sup>0</sup> 55'1.74"N	79 <sup>0</sup> 47'39.72"E
5	Palepalem	13 <sup>0</sup> 54'10.2"N	79 <sup>0</sup> 50'0.66"E

### Location Analysis

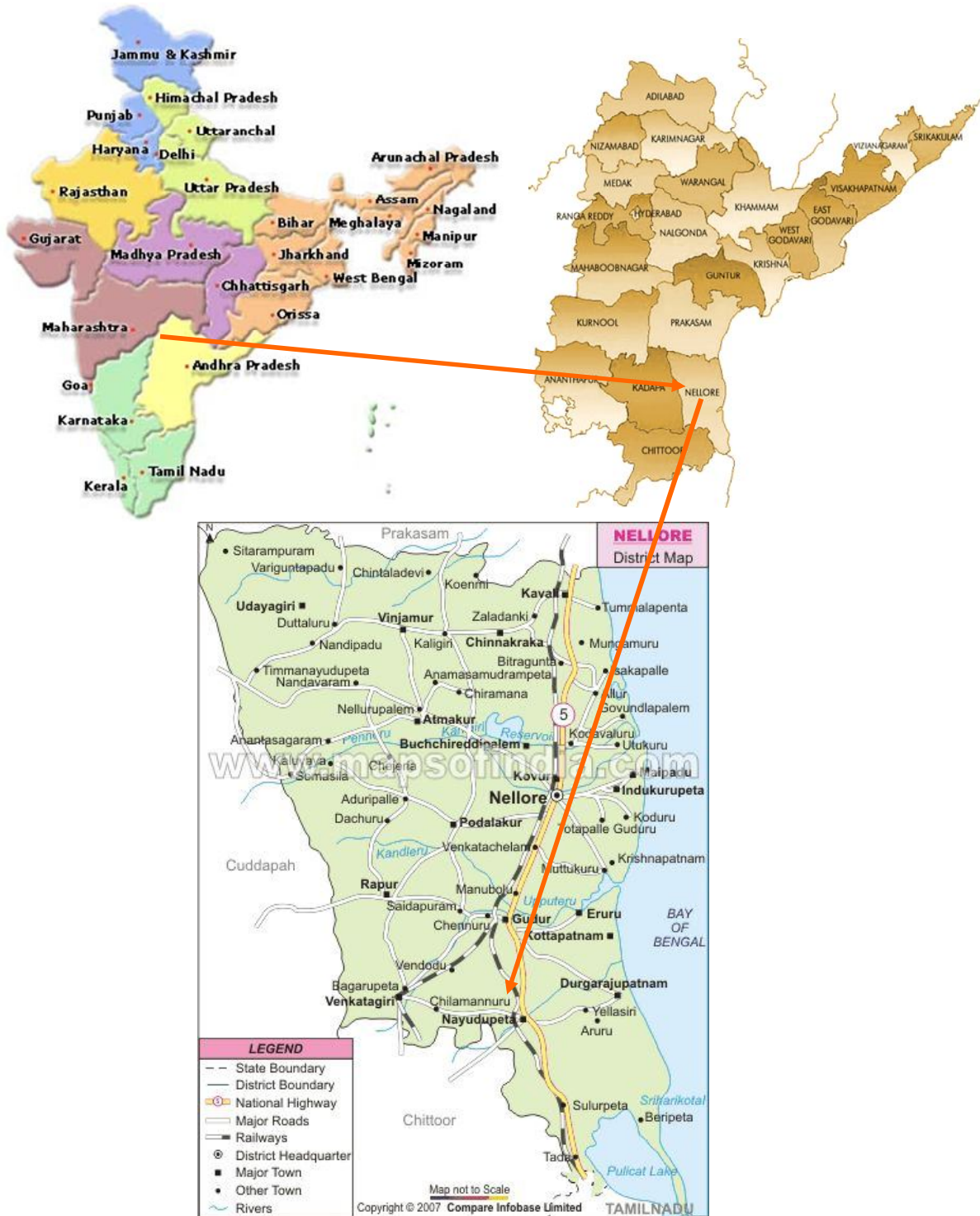
- ✚ Availability of commercial and social infrastructure
- ✚ Ample availability of cost effective land.
- ✚ Availability of skilled man power.

### Project Rationale

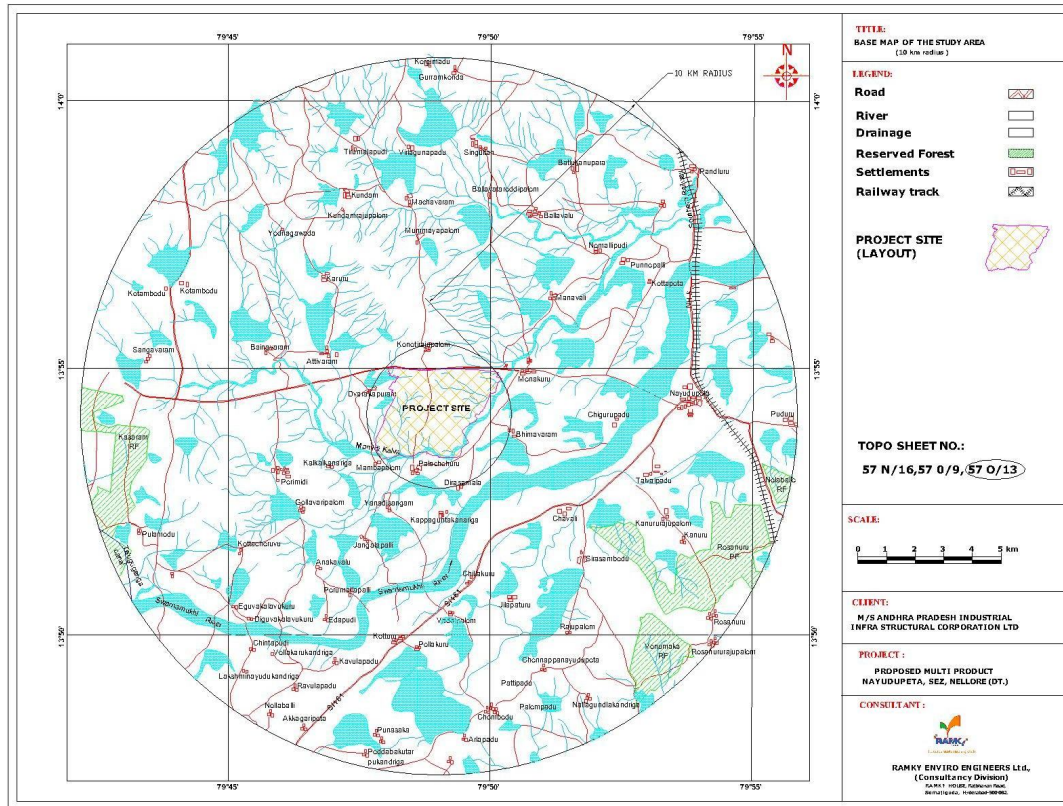
SEZs have a tremendous socio-economic impact on Indian economy. SEZs have contributed to the growth and development of the Indian Economy in terms of exports, employment and investments. It is the key growth driver of Nation's economy and has made the country globally competitive.

The list of Survey numbers of various plots falling in the proposed Multiproduct SEZ is enclosed as **Annexure 1**. The location map of the proposed project site is shown in **Figure 1.1**.

**Figure 1.1**  
**Location map of the Project Site**



**Figure 1.2**  
**Topographical Map of the Project Site**



## 1.1 Need for the Project

The main reasons for establishing the SEZ near Naidupet is:

- To improve the Industrial Infrastructural facilities in Nellore district of A.P
- Availability of World class Business groups at the nearest city Chennai (around 125 km)
- Good infrastructure availability at short distance less than 75 km (Nellore District Head Quarters)
- Availability of skilled manpower at short distance less than 75 km
- Government's positive attitude towards the industrialization

## 1.2 Concept of development of Multiproduct SEZ.

Indian economy has witnessed tremendous growth in the last decade primarily due to the contributions made by the exports. In order to augment the growth of the exports the Government has set up Special Economic Zone (SEZs) which would provide a hassle free and internationally competitive environment for companies. The exports have been facilitated by the growth in a number of industries such as chemicals and Pharmaceuticals, readymade garments, iron ore, machinery and equipment etc.

Southern India houses the majority of SEZs. With a view to facilitate large scale development of a number of industries APIIC proposes to establish a multiproduct SEZ in the State. The SEZ would provide infrastructure support and other incentives for the growth of most lucrative businesses in the State. The APIIC would provide infrastructure support for the proposed multiproduct SEZ. The SEZ would encompass firms from different industries such as Textiles, automotive industry, engineering industry etc. The proposed Multiproduct SEZ is 12 km away from Naidupet Mandal having head quarters in Nellore. The district head quarters Nellore is about 75 kms from the area and the nearest big city having all communication and marketing facilities is Chennai at a distance of 125 km. The area is well connected with BT roads from Naidupet. All BT road leading from Naidupet to Venkatgiri passes from the SEZ. Broad gauge railway (grand trunk) is also passing through Naidupet town. The road and railway connections have lent very high prominence to the area under consideration. At present three industries have purchased the land from APIIC in the proposed park, the details of the industries which have purchased the land are given in **Table 1.2**.

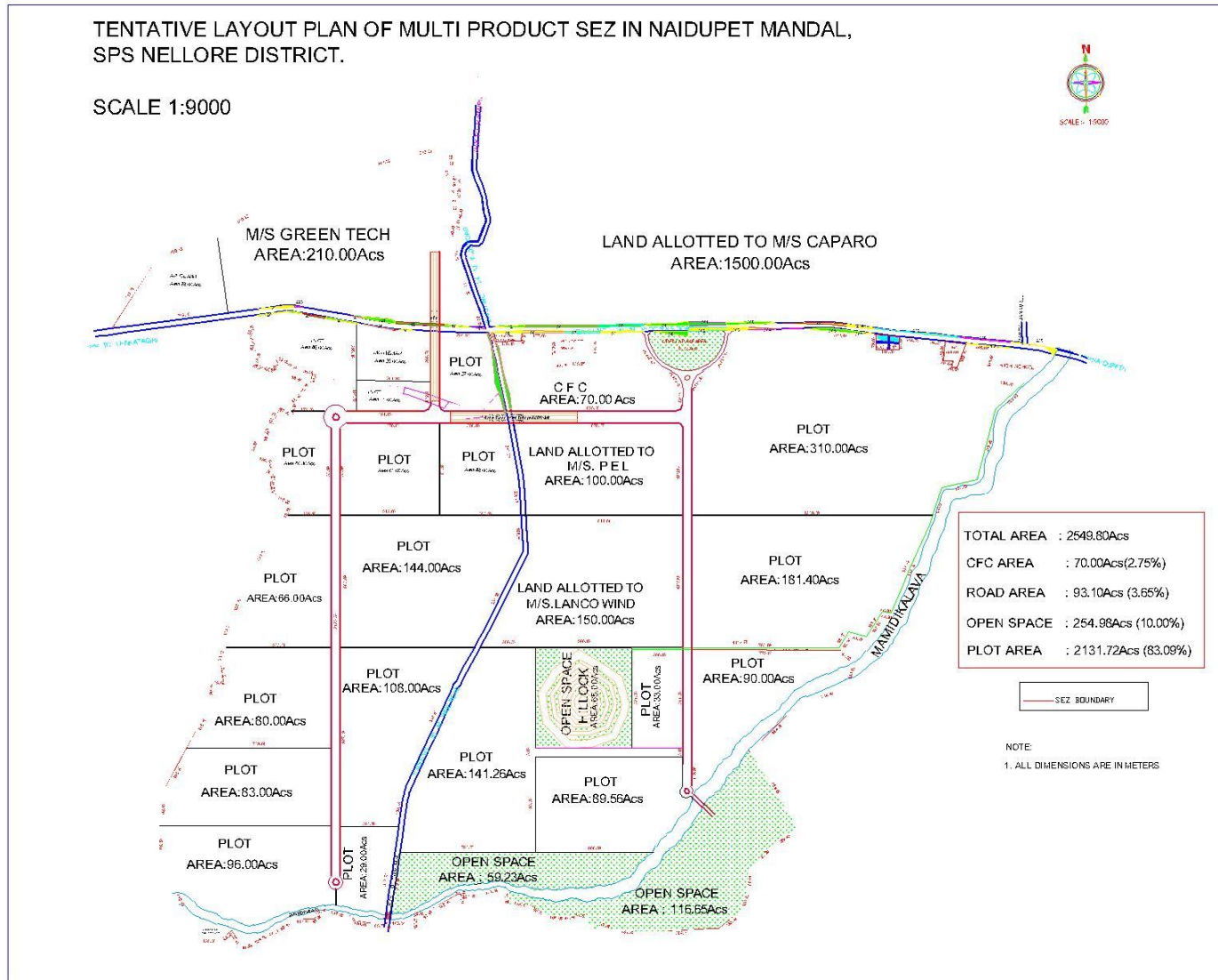
**Table 1.2**  
**List of Industries**

<b>S. No</b>	<b>Name of the company</b>	<b>Village / Mandal</b>	<b>Area (Ha)</b>	<b>Date of Allotment</b>	<b>Line of Activity</b>
1	M/s Greentech Industries Pvt Ltd	Menakuru (V), Naidupet (M)	84.96	27.05.2009	Automobile Parts
2	M/s Prime Electric Pvt Ltd	Menakuru (V), Naidupet (M)	40.46	13.03.2009	Power equipments (Transformer)
3	M/s Hemair Systems Ltd	Menakuru (V), Naidupet (M)	10.11	14.05.2009	HVAC equipment & Clean room technology Equipment

The role of the APIIC for the proposed multiproduct SEZ will consists of developing **Common infrastructural facilities** - roads, water, power, drainage, street lightening and green belt etc. **Social Infrastructure** - Banks, Post Office, canteens, primary health centre, etc. The SEZ will also have an Industrial Area Local Authority for maintenance of the SEZ, approval of building plans etc. the layout of the proposed multiproduct SEZ is shown in the **Figure 1.3**.



**Figure 1.3 Layout of the proposed Multiproduct SEZ (Tentative)**




Establishment of a Multiproduct SEZ promises to change the existing scenario and cluster the scattered community in and around the region. The setting up of the SEZ is expected to provide a major boost to the state's multiproduct sector by ensuring a fair share of export revenues and also by raising the living standard of workers. The setting up of the Multi product SEZ is also expected to bring about a marked improvement in the operational efficiency of the units in the state and reduce the monopoly of merchant exporters.

The proposed Multi Product SEZ will develop all amenities required for environmental friendly operation of units, and other units which can be occupied by the industrialists without any administrative hassles associated with setting up of an industry. The following are the highlights of the project.

- The proposed SEZ is having sufficient area to house good number of multiproduct industries.
- The entire Multi product SEZ will come up in a planned manner with an approved layout taking into consideration all the statutory requirements.
- The park will have well-planned uniform and common infrastructure facilities like roads, storm water drains, rain water harvesting pits and greenbelt.
- The SEZ will have uninterrupted power supply.
- The SEZ will have a well-planned water supply system.

The facilities to be provided in the proposed Multiproduct SEZ are shown in the **Figure 1.4**



<b>Figure 1.4 Common Infrastructure</b>	
<b>Water storage and supply</b>	
<b>Power supply</b>	
<b>Roads Network and Street Lighting</b>	
<b>Storm water drainage system</b>	

### 1.3 Feasibility of the Project

Detailed feasibility studies were carried for the proposed Multiproduct SEZ. The results of the study are very encouraging and instilled confidence in the project proponents about the success of the project.

The study was carried out in a systematic way starting with site suitability studies to the financial feasibility of the project by assessing the demand through personal interviews with some of the industrialists.

The study revealed that the land under Multiproduct SEZ would be completely occupied by the end of 2012. The demand assessment summary based projections were also carried during the study.

The infrastructure requirement for the Multiproduct SEZ can be broadly classified into the following four heads:

- ✚ Basic Infrastructure
- ✚ Environmental Infrastructure
- ✚ Other Infrastructure - Industry Specific and social

The basic infrastructure covers the main requirements like

- ✚ Water - Water treatment facility
- ✚ Power
- ✚ Roads
- ✚ Street lights





The environment infrastructure covers:

- ✚ Green Belt
- ✚ Storm Water drains
- ✚ Wastewater treatment facilities
- ✚ Solid waste collection and disposal facilities

Other Infrastructure – Industry specific

- ✚ Fire fighting facilities
- ✚ Security etc.
- ✚ First aid facilities
- ✚ Canteen

Inline to the above the social infrastructure or Common Facility Centers (C.F.C) would be provided by the APIIC in order to make the facility ready for occupation by the industries as early as possible. The following facilities will be provided as part of the social infrastructure development:

-  Buses, Bust stand
-  Post offices, Banks
-  Parks and open spaces
-  Restaurants, etc

#### 1.4 Land Breakup of the Project

The details of the land allotted for various purposes viz. industrial activity, common facilities and green belt, etc as per the master plan and presented in the **Table 1.3**.

**Table 1.3**  
**Land Area Break up**

S. No	Description	Area in Acres	Area in Hectares	% of Allocation
1	Plotted area	2131.72	862.6	83.61
2	Green Belt at park level	254.98	103.19	10.00
3	Road Network	93.10	37.68	3.65
4	CFC Area	70.00	28.33	2.74
<b>Total</b>		<b>2549.80</b>	<b>1032.27</b>	<b>100</b>
Note: 1. In all 33% of the total area will be maintained as green belt at park level 2. 10% at SEZ level i.e. 254.98 acres (103.18ha) 3. Additional 23% of greenbelt will be maintained by individual plot owners				

#### 1.5 Road Network

The proposed site is well connected to the Naidupet Mandal Head quarters. The proposed internal road network in the SEZ has been planned as Type I: Road with median having 2-lane carriageway on both the sides. After placing the road the utility requires a minimum space of 3 to 4 m on either side to accommodate water supply lines, sewage conveyance lines, storm water drains, overhead electrical lines etc. So the minimum ROW planned is 24 m / 30m main corridor and 15 or 18 m for inner roads.

Area allotted for **Roads is 37.68 Ha** (3.65% of overall site area). In order to maximize land values and minimize land taken by major and minor roads, hierarchy of roads is proposed to ensure a smooth traffic movement inside the Multiproduct SEZ. Site planning intentions have been guided by the desire to minimize on expensive road works by utilizing 100% of all existing roads. The road pattern in the Multiproduct SEZ is in a grid system with major axis leading from main entrance. The widths of the roads proposed in the Multiproduct SEZ are designed to cater heavy goods vehicle and container specific. The main spine road will be a major traffic collector into and out of proposed Multi product SEZ.

### 1.5.1 Road Design Criteria

Roads of this Multiproduct SEZ are generally catering for:

- ✚ Movement of goods/machinery/finished products through heavy vehicles.
- ✚ Movement of persons through light vehicles including cyclist/pedestrian. Other roads around parking area shall be considered for aesthetic and pleasing lighting systems.

**Basic requirement of road lighting shall be as follows:**

- a. Adequate level of illuminations for heavy vehicles/light vehicles/cyclist
- b. Uniform illumination level over the carriage way with minimum glare.
- c. Safety of movement
- d. Minimum disturbance during dust conditions.
- e. Use of high efficiency lighting fixtures with high lumen output and low power consumption
- f. Aesthetic look.

Power Supply to road lighting system shall be fed through underground PVC insulated armoured, aluminum conductor cables.

### 1.6 Landscaping

The landscape concept would be to create a 'park like' environment within the proposed Multiproduct SEZ. Lush greenery with extensively landscaped areas is set aside within the site such as entrance plaza and perimeter fringes to ensure that forested landscape areas are achieved. These areas shall not be used for any use other than the prescribed use. However these areas may be used to have natural drains, which are not cemented but lined with interlocking blocks to ensure percolation of rain water and such drains will be used to convey rain water runoff.

While linear planting is to be carried out along the roads, informal and mass plantings are proposed for landscape areas. **Approximately 33% of the land within the Multiproduct SEZ (i.e.10% by APIIC and 23% by the industries) has been allotted for Green Belt.** These are maintained by the Nodal developer and comprise of:

- ✚ Linear Green Strips
- ✚ Defined landscaped areas at the entrance gateway and pocket parks within the Multiproduct SEZ.
- ✚ The following guidelines are followed to achieve the nature of land scape envisaged.
- ✚ To complement the network of roads, the road side trees are very important. Large shade trees are planted at 10 m center to center to achieve a canopy environment in the shortest possible time.

- ✚ The buffer zone would be densely planted with quick growing trees to have the forest effect. Here, function screening is the main priority, thus heavy foliage and low branching trees are preferred. To create identity, different areas will have different varieties planted- one area for color, area for form, one area for fragrance and one area for shade.

## 1.7 Storm Water Drainage System

Surface drains with trapezoidal section will be provided along the roads for storm water flow. These drains are proposed on both side of the road near the property line.

The entire storm water drainage system for the proposed Multiproduct SEZ will be planned utilizing the natural slopes to design an economical system. The area forms part of Karnatic Plain exhibiting a gently sloping topography with two varying mounds located

- One in the north western corner
- The other smaller one in the south eastern corner of the area

The general slope is due to east and south. The highest contour in the area is 129 mts (spot height) in the end NW corner and the other is 67 mts (spot height) in the SE corner. The general elevation ranges between 35 to 50 m MSL.

### 1.7.1 Drainage

The area is having a high drainage density with dendritic pattern in the southern portion, South of Menakuru- Venkatagiri BT road and parallel drainage flowing due east in the northern part. The entire area drains into Mamidi kalva, a tributary of the Swarnamukhi River which forms the southern and eastern borders of the area. From Palacheru to Menakuru, the Mamidi Kalava flows in the SW to NE direction. There are numerous tanks located outside the area which are being fed by local streamlets originating in their vicinity. The drainage density in the area is between 1.5 to 2 km/sq km and general slope of the area is less than 2%.

## 1.8 Water Supply Network

Water is one of the major resources for industries coming up in the proposed Multi Product SEZ. It is directly used in the process and also other uses like floor washings, domestic purposes, utilities and green belt development etc.,

### 1.8.1 Raw water sourcing and storage

As a part of the Multi product SEZ a storage reservoir has been proposed. The reservoir shall be fed with the water supply and will be the ultimate source of water for the proposed Multi product SEZ. The water for the proposed Multi Product SEZ is sourced from the following sources identified given in **Table 1.4**.

**Table 1.4**  
**Details of the various water sources identified**  
**(Based on Hydro geological & Geophysical investigations)**

S. No	Particulars	Location	No	Yield (mgd)	Remarks
1	Filter points	Existing along Mamidi Kalva	26	1.82	Average 8000 gph/point
2	Filter points	Proposed along Mamidi Kalva.	8	0.42	
3	Existing bore-wells	Existing in site drilled by farmers 24, drilled by APIIC 11	35	0.18	Average yield 3000 to 8000 lph/ - bore-well
4	Proposed borewells	Recommended in site	47	0.37	
5	Infiltration well	Swarnamuki river near Kappaguntla	1	2.5 to 3.0	Based on the studies carried out
6	Infiltration well	Swarnamuki river near Murthireddypalem	1	2.5 to 3.0	
7	Telugu Ganga	Irrigation department	-	0.5 TMC	Allotted for industrial use
1) First Filter points will be used through common storage 2) Second source will be infiltration well at Kappaguntla and Murthireddypalem 3) Third source will industrial allocation of Telugu ganga 4) Development of bore-wells will be left to individual entrepreneurs					

### 1.8.2 Water Demand

This water demand includes all forms of water use such as water required for production units, water required for workers, commercial use and landscape irrigation. In addition, the multi product SEZ would also require adequate provision of water for fire fighting. The primary source of water is filter points along Mamidi Kalva or infiltration well along Swarnamukhi River. Table below shows the water demand for the proposed multiproduct SEZ.

**Table 1.5**  
**Water Demand -in m<sup>3</sup>/day**

Details	Fresh	Treated	Total
Process	4926	0	4926
Utilities (Boiler, Cooling tower, etc)	821	821	1642
Domestic	1385	462	1847
Greenbelt	2700	4750	7450
<b>Total</b>	<b>9832</b>	<b>6033</b>	<b>15865</b>
<b>Note:</b> Water per acre considered 4 KLD Process requirement : 75 % Utilities: 25 % Domestic: 45 LPD Number of employees: 25 (20 permanent, 5 Temporary) Greenbelt requirement 10 KLD/acre			



## 1.9 Power Supply & Control System

The proposed Multi product SEZ will house different sized plots accordingly the load demand has been worked out to be 50 KW/acre has been considered for the load calculation of the SEZ. The total power requirement for the proposed Multi product SEZ is 108.69 MW for the total units proposed in the Multi product SEZ. A substation of 220 KVA Capacity has been proposed in the proposed Multi product SEZ. 10 acres of land has been allocated for setting up of substation. Power requirement details have been given in table below:

**Table 1.6**  
**Power requirement details**

S. No	Details	Land	KW/Acre	KW	MW
1	Industrial Area	2132	50	106600	106.6
2	Common Area	418	5	2090	2.09
<b>Total</b>		<b>2550</b>		<b>108690</b>	<b>108.69</b>
<i>For plotted area 50 KW/Acre has been considered</i> <i>For Common area 5 KW/Acre has been considered</i> <i>The total power estimated for the proposed multi-product SEZ approximately 108.69 MW</i>					

### 1.9.1 Street lighting:

Street lighting is proposed to be provided on either side of the road all along the length on stepped tubular poles each provided with 1 x 250 W HPSV lamps in a staggered manner. Power for the street lights shall be drawn from AP TRANSCO and shall be distributed through underground cabling network. Power supply to road lighting system shall be fed through aluminum conductor cables.

**Table 1.7**  
**Technical Details of Street Lighting System**

S. No	Description	30m Row	24m Row	18M Row
1	Pole arrangement	Twin arm pole on center verge	Single arm pole on one side of the road.	Single arm pole on one side of the road.
2.	Type of lighting fixtures.	250W, HPSV lamp	150W, HPSV lamp	150W, HPSV lamp
3.	Tilt of fixture	10°	10°	10°
4.	Lamp lux	25,000 lumens	13,500 lumens	13,500 lumens
5.	Mounting height	9.5M	9.5M	8M
6.	Spacing	25M-30M	25M-30M	25M-30M

### 1.10 Fire Hydrant

External fire hydrant, double outlet, stand post type, as per IS 908 are proposed on main water supply distribution lines as per requirement. Fire brigade inlet connections and draw off connections will be provided into the distribution system at water works site.

### 1.11 Manpower Requirement

The total manpower requirement for the project can be primarily divided into two categories, manpower requirement during construction phase and manpower requirement for operations. The manpower requirement during the construction stage is basically construction labour. The total manpower requirement is estimated and is given in the table below:

The manpower requirement during operations basically depends on the industries proposed to be located in the park. The estimated total manpower requirement on completion of the project work during operation of all the industrial units in the park is projected in table below:

**Table 1.8**  
**Man power requirement details**

S. No	Details	Permanent	Temporary	Total
1	Operation	32842	8210	41052
2	Construction	50	450	500
		<b>32892</b>	<b>8660</b>	
<i>Permanent employees :20 acre has been considered</i> <i>Temporary employees: 5 acre has been considered</i>				

### 1.12 Wastewater generation

The sources of wastewater from the Multiproduct SEZ are from the industrial units. Industries would be using water for manufacturing activities and for operating utilities viz., boilers etc. The quantification of wastewater generated from the Multi product SEZ is detailed in the following table:

**Table 1.9**  
**Wastewater Generated - KLD**

S.No	Details	Wastewater
1	Process	4433
2	Utilities (Boiler, Cooling tower, etc)	657
3	Domestic	1663
	<b>Total</b>	<b>6753</b>
<i>Wastewater generation considered from process: 90% of the water requirement</i> <i>Wastewater generation considered from Utilities : 40% of the water requirement</i> <i>Wastewater generation considered from Domestic needs: 90% of the water requirement</i>		

At unit level, the process effluents will be segregated into high and low TDS and treated respectively, the treated water will be reused and zero discharge will be maintained, similarly the domestic sewage will be treated in STP or septic tank/soak pit, the treated water will be reused for flushing, green belt and dust control measures. The treated water would be mostly reused for greenbelt.

### 1.13 Solid Waste Generation

The major sources of solid waste from the proposed multiproduct SEZ can be studied under the following heads:

- Process Residues from industrial units
- Solid waste from common infrastructure

The main solid waste generated from the proposed Multi product SEZ is dry waste in the form of cut yarn, fiber and chemicals used in the process. Solid waste generation and disposal mechanisms are also discussed below:

**Table 1.10**  
**Solid Waste Generation Details**

S.No	Details	Units	Quantity	Remarks	Disposal
1	Industrial waste	kg/d	3284.2	2kg/acre	TSDF/Sale
2	Chemical waste	kg/d	4926.6	3 kg/acre	TSDF
3	Domestic Waste	kg/d	410.5	0.25 kg/person	Municipal bin
4	Waste oil	kg/m	2200	100 kg/unit	TSDF
5	Used Batteries	nos/annum	44	2 per unit	Buy back

### 1.14 Techniques of Cleaner Production – Energy Efficiency (CP-EE)

The new & creative approach to enable less waste intensive production is based on different techniques will be adopted by regular up gradation of process technology. These techniques are as hereunder.

#### Source Reduction

Under this category, 5 techniques of CP – EE are briefly discussed below:

**Good Housekeeping:** Systems to prevent leakages & spillages through preventive maintenance schedules and routine equipment inspections. Proper working instructions, supervision and regular training of workforce would facilitate proper housekeeping.

**Process change:** Under this head, four CP – EE techniques are covered:

**Input Material change** – Substitution of input materials by eco-friendly (non-toxic or less toxic than existing and renewable) material preferably having longer service time.

Better Process Control Modifications of the working procedures, machine-operating instructions and process record-keeping in order to run the processes at higher efficiency and with lower waste generation and emissions.

**Equipment Modification** – Modification of existing producing equipment and utilities, addition of measuring and controlling devices, in order to run the processes at higher efficiency and lower waste and emission generation rates.

1. **Technology Change** – Replacement of the technology, processing sequence and / or synthesis pathway in order to minimize waste and emission generation during production.

### **Recycling**

- a. **On-site Recovery and Reuse** – Reuse of waste materials in the same process or for another useful application within the industry.
- b. **Production of useful By-Product** – Modification of the waste generation process in order to transform the waste material into a material that can be reused or recycled for another application within or outside the company.

### **Product Modification**

Characteristics of the product can be modified to minimize the environmental impacts of its production or those of the product itself during or after its use (disposal).









#### **1.15 Benefits of adopting CP-EE**

The benefits of integrating CP and EE (CP – EE) are as follows:

**Structured approach for long-term viability of EE:** EE improvement Programmes alone have often been unsustainable because they lacked well-structured CP methodology for addressing together energy and environment issues. This has been compounded by a lack of professionals with the multi-skills needed to integrate energy management with other environmental issues. Incorporating EE into the well-established and structured CP approach would help to ensure the long-term viability of EE measures.

Global business mandates, Conventions and Protocols: Global business mandates, conventions and protocols expressing international concern for resource conservation, energy and environment. Stand-alone CP or EE measures not always attractive: CP or EE measures not always attractive: CP solutions are not attractive if resources are low priced or subsidized. By combining it with energy efficiency, more attractive solutions can be proposed. Alternately, CP-EE may enhance the attractiveness of reducing energy consumption in cane of low energy costs.

#### **Other benefits of CP-EE:**

-  Conservation of Raw Material and Energy
-  Lower Costs
-  Improved Environment
-  Better compliance with environmental regulations
-  Better working environment
-  Quality improvement
-  Improved efficiency / productivity
-  Better access to finances

- ✚ Market requirements
- ✚ Public Image

## 1. 16 Financial analysis of the Project

The proposed Multi product SEZ is a service industry and the major operational expenditure is towards the power, fuel consumption, chemical consumables, repairs & maintenance, salaries, administration costs, etc. Therefore operational skills attain a lot of significance in this project. Initial project establishment cost is crucial in successful establishment and operation of this project. The total estimated capital cost of the project is 116908.84 lakhs and the total EMP cost estimated is around 3024 lakhs.

**Table 1.11**  
**Capital Cost and Price Breakup (Rs. In Lakhs)**

S.No	Name of the work	As per land cost provision estimate amount	Already incurred	Future Expenditure
1	Land use conversion charges	255.00	0.00	255.00
2	Layout Approval fee	207.00	0.00	207.00
3	PS Investigation, Name Boards, Gas foundation stones etc.,	112.00	22.06	89.74
A	Preliminary survey and construction of boundary pillars for the proposed mega Multiproduct SEZ at Naidupet, SPS Nellore Dist Est Rs. 35.70 Lakhs.		14.21	
B	Construction of entrance gate way pedestal at IP, Naidupet Est. Rs. 4.50		5.47	
C	Foundation Stone laying function at Multiproduct SEZ at Menakuru, Naidupet, SPS, Nellore dt.		2.38	
4	WBM & BT internal roads.	2934.00	99.04	2834.96
A	Formation of main road with gravel sub base including CD works to Prime Electric Limited in Multi Product SEZ at Menakuru (V), Naidupet (M), Nellore Dist, Est. Rs. 59.00 Lakhs.		54.39	
B	Formation of Main road from junction of Naidupet- Rapur R & B Road to Prime Electric Limited in Multi Product SEZ , Menakur(V), Naidupet(M), SPS Nellore dt. Est Rs. 59.00 Lakhs.		44.65	
5	Fly over & under pass	5000.00	0.00	5000.00
6	Fencing with chain linked mesh	551.00	0.00	551.00
7	Internal Water supply from Swarnamukhi & Mamidikaluva	2000.00	12.67	1987.33
A	Providing Water Supply		7.14	

	arrangements through bore wells Est. Rs. 70 lakhs.			
B	Consultancy services for detailed engineering survey of water supply scheme from Kandaleru Reservoir upto Sri City SEZ, SPS Nellore Dist. Est Rs. 8.65 Lakhs.		5.53	
8	Head works & Distribution	1200.00	0.00	1200.00
9	Proportionate of Ext Infrastructure	10101.00	49.19	100051.81
	Repairs from chainage km 0/0 to Naidupet Rapur Road and repairs to old MC Road from chainage km 110/8 to 112/0 approach road to SEZ Menakur, Nellore Dt. Est Rs. 54.00 lakhs.		49.19	
10	Power Supply for industrial Units	680.00	0.00	680.00
11	Street lights	325.00	0.00	325.00
12	Avenue Plantation	203.00	0.00	203.00
13	Common Facilities buildings/CTO Excise etc.,	500.00	0.00	500.00
<b>Grand Total</b>		<b>24068.0</b>	<b>365.92</b>	<b>113884.84</b>

These do not include effluent treatment and conveyance cost. Detailed costs have to be arrived based on site situation.

**Table 1.12**  
**EMP Cost Details (Rs. in Lakhs)**

S.No	Name of the work	Cost provision estimate amount
1	Storm water drains	2435.00
2	Sewerage treatment	500.00
3	Others (Avenue plantation, Engineering Consultancy, EIA Studies, etc)	89.00
<b>Grand Total</b>		<b>3024.00</b>