

Pre Feasibility report

CHAPTER 1 INTRODUCTION

The proposed development of Harohalli phase II and Phase III industrial areas in various survey no's of Harohalli village, Ramanagara Dist, Karnataka state is an industrial theme park with a vision of providing "Hassle free production environment" for IT/BT, General engineering industries, electronic industries, chemical industries, garment and food processing industries etc. Proposed site for the development of industrial area comprises of rural environment. The area earmarked for the phase II & III industrial area is 919.01 acres & 1316.90 acres respectively. Presently the land is barren with degraded shrubs in most of the area and partly agricultural land. The details of the land use for the proposed Phase II and Phase III are as follows.












Table 1: Land Break up Details of the Proposed Project Phase II & III



S. No	Description	**Phase II			Phase III		
		Acre	Ha	%	Acre	Ha	%
1	Industrial	550.13	222.63	59.86	700.10	283.32	53.16
2	Commercial	---	--	---	41.48	16.78	3.15
3	Amenity	45.86	18.56	4.99	41.14	16.64	3.12
4	Utility	---	---	---	28.94	11.72	2.20
5	Park	90.96	36.81	9.89	120.18	48.64	9.13
6	Buffer	49.42	20	5.38	141.06	57.08	10.71
7	Parking	19.37	7.84	2.11	96.96	39.24	7.36
8	Road	163.26	66.07	17.77	147.04	59.51	11.17
Total Area		919.01	371.91	100.00	1316.90	532.93	100.00

**** Note: Phase II: Environmental Clearance has been obtained from SEIAA, Karnataka**

The SEIAA issued EC for Harohalli 2nd Phase vide ref. enclosed EC copy as **Annexure 1**.

KIADB develops industrial layouts with the following facilities.

-  Industrial plots
-  Network of roads with median
-  Road side drains
-  Service duct along the roads
-  Wide footpaths on either sides of road
-  Cross drainage works/culverts
-  Water supply network
-  External electrification
-  Rain water harvesting of layout
-  Landscape
-  Plots of civic/public utilities

-  Sufficient parking area
-  Operational compound wall

Water & power supply for the proposed project will be met without affecting the other users.

Need for the Project & its Importance to the Country & or Region

In order to improve the socio – economic status of the country “Development of Industries is a Must” Due the proposed industrial area development at Harohalli village, Ramanagara District

1. There will be positive impacts on the socio – economic status of the surrounding areas
2. More employment opportunities will be generated
3. Physical infrastructure development such as improvement to roads, UGD lines, street lights etc. will be developed in orderly.

Also a Project like Harohalli Industrial Development Area (IDA), at this juncture will be welcomed by all types of industries. Keeping the Environmental Management as the focal issue right from the Industrial Development Area (IDA) Layout stage will definitely herald a new era in the sustainable industrial growth in harmony with the environment. Harohalli Industrial Development Area (IDA) has a potential to prove that the Industrial development and environment protection can go hand in hand in contrast to the general feeling that the industrialization leads to pollution.

Planning Concept

In the proposed 2nd phase industrial area, about 59.86% reserved for industrial plots development, 4.99% for amenities, 9.89% for parks, 5.38% for buffer, 2.11% for parking and 17.77% for roads. In the proposed 3rd phase industrial area, about 53.16% reserved for industrial plots development, 3.15% for commercial activities like banks post office, retail shops etc. 3.12% for amenities, 2.20% for utilities like storage systems, STP, CETP etc. 9.13% for parks, 10.71 % for buffer, 7.36% for parking and 11.17% for roads.

Water demand: 30 MLD

Source: Tertiary Treated water from Vrushabhavathi Treatment Plant (BWSSB)

Power Source: BESCO

Tentative power demand: 4 MW

All industries coming up in the proposed Industrial Development Area (IDA) if required will utilize the services of the Common Hazardous Waste Management Facility (CHWMF) already existing near Dobaspet on NH 207. All the hazardous waste will be transported to this facility for treatment and for further safe disposal. Safe storage and transportation of the solid and hazardous waste is the total responsibility of the individual industry.

CHAPTER 2

IDENTIFICATION OF THE PROJECT/BACKGROUND INFORMATION

2.1 Identification of the Project & Project Proponent

KIADB has so far developed 148 industrial areas in 28 districts of the State. KIADB has acquired 904.84 Ha of land in Harohalli, Ramanagara District, Karnataka for the development of industrial area.

The department of Industry & Commerce, Government of Karnataka is striving to create adequate infrastructure facilities, catalysts for the industrial & socio – economic development of the region & overall growth of Karnataka. As a part of this endeavor, the Karnataka Industrial Area Development Board (KIADB), has decided to develop Industrial Parks in many districts. Proposed industrial area at Harohalli is one among them. 1st and 2nd phases of Harohalli Industrial Areas are already being operational and many industries have been set up and some are operational. Since the project site is well connected to the Bangalore city and already two phases of industrial areas are in operation, there is a huge demand for industrial plots and growth of industries can also be envisaged.

Any activity aimed at development will have repercussions on the environment, both positive and negative. Environmental Impact Assessment study is a management tool, which enables the proponent to identify the negative impacts and to mitigate the negative impacts through appropriate Environmental Management Plans. Hence KIADB as a part of the compliance to the regulatory requirement i.e. to obtain environment clearance from MOEF, have appointed a consultant to carry out the “Environmental Impact Assessment (EIA) Study for the Proposed Development of Harohalli Industrial Area, Ramanagara District, Karnataka.

2.2 Brief Description of Nature of the Project

The Project envisaged is an Industrial theme park with a vision of providing “Hassle free production environment” for IT, General industries, electronic industries, chemical industries, garment and food processing industries etc.

In the 1st and 2nd phases, chemical, pharmaceutical and engineering industries are working. 0.7 MLD STP and 2.5 MLD ETP is being proposed in the 2nd phase industrial area for treatment and land has been ear marked for the same.

2.3 Need for the Project & its Importance to the Country & or Region

In order to improve the socio–economic status of the country “Development of Industries is a Must”. The Surrounding area of the proposed industrial area is rural in nature and lot of

educated unemployed exists. By developing this industrial area, these unemployed may get jobs and also under CSR activities, KIADB & individual industries will develop roads, School for rural children, hospital, public sanitation etc. This will bring the change in the rural folk.

Due to industrial development export and import of various products and in turn state will get revenue in the form of taxes to the exchequer. There will be positive impacts on the socio – economic status of the surrounding areas

2.4 Demand – Supply Gap

The State Government has taken several initiatives to create quality infrastructure for industries across the State. Specialized agencies like Karnataka Industrial Areas Development Board (KIADB) and Karnataka State Small Industries Development Corporation (KSSIDC) have been playing key roles in creating industrial infrastructure. Due to growth in industrialization, the demand for industrial infrastructure has been increasing steadily in the recent years. KIADB & KSSIDC are putting substantial efforts to meet the demand from new and existing investors by way of developing new industrial areas and estates. In spite of this, the gap between demand and supply still exists, creating setback for investors in establishing their projects in the State. State Government has identified industrial infrastructure development as a priority and it is envisaged to encourage private players in developing industrial infrastructure in the State to augment the activities being carried out currently by KIADB and KSSIDC towards easing availability of land required for industries.

2.5 Imports V/s Indigenous Production

The opening up of the Indian economy has greatly increased the role of trade. In the Eleventh Plan, the total share of merchandise exports and imports as a proportion of GDP rose from 36.4 per cent to 45.6 per cent. **Important Legislations and programmes of Government of India:** National Competitiveness Programme was announced in 2005 with an objective to support the Small and Medium Enterprises (SMEs) in their endeavor to become competitive and adjust to the competitive pressure caused by liberalization and moderation of tariff rates. Some of the schemes introduced as a part of the programme include:

- Support for Entrepreneurial and Managerial Development of SMEs through Incubators
- Enabling Manufacturing Sector to be competitive through Quality Management Standard & Quality Tech. Tools (QMS/QTT)
- Building Awareness on Intellectual Property Rights (IPR) for MSME
- Lean Manufacturing Competitiveness Scheme for MSMEs
- Design Clinic Scheme for design expertise to MSMEs Manufacturing sector (DESIGN)

- Marketing Assistance & Technology Up-gradation Scheme in MSMEs.
- Technology and Quality Up gradation Support to MSMEs
- MSME Act 2006 was introduced to provide for facilitating promotion, development and enhancing competitiveness of micro, small and medium enterprises.
 - Automotive Mission Plan 2006-16 was introduced with a vision to increase the output of the sector to INR 9019.75 billion (USD 145 billion) and create additional employment for 25 million persons by 2016.
 - In 2011, the Government of India announced a National Manufacturing Policy with the objective of enhancing the share of manufacturing in GDP to 25% within a decade and creating 100 million jobs.
 - The Ministry of Food Processing Industries launched a Centrally Sponsored Scheme - National Mission on Food Processing (NMFP) during 12th Plan. The NMFP contemplates establishment of National Mission as well as corresponding Missions in the state and District level to promote food processing sector across India.
 - India's National Action Plan on Climate Change, launched in 2008, establishes eight National Missions. Among these are the National Solar Mission with the aim of generating 20 gigawatts of solar power by 2022; the National Mission for Enhanced Energy Efficiency; and the National Water Mission, which aims to increase water use efficiency by 20 percent, among other goals.
 - Companies Bill, 2011: It aims to enhance transparency in company operations, improve corporate governance and strengthen regulation for corporates and auditing firms. It also makes it mandatory for profit-making companies to spend two percent of their profit for community welfare as per CSR.
 - Land acquisition Act 2013 has been approved and will replace the Land acquisition Act of 1894.
 - Science, Technology and Innovation Policy (STI), 2013 emphasizes on innovation and setting up research facility with an aspiration to place India among the top five scientific powers in the world by 2020. The Policy targets increase in gross expenditure in R&D to 2 per cent of Gross Domestic Product from the current 1 per cent in this decade by supporting increased private sector participation.

Karnataka's industrial growth between FY 2005-06 and FY 2011-12 was 7.39% as against India's 7.93%. Karnataka GSDP has grown at 5.9% to reach INR 3, 03,444 crore in 2012-13 (constant price) against India's 5%. Bangalore has been at the fore front of attracting both domestic and foreign investments. The state has been able to attract considerable amount of FDI across various sectors. Between April 2000 and October 2013, Karnataka received FDI

to the tune of INR 54,508 crores. From 2009-10 to 2013-14, the State High Level Clearance Committee (SHLCC) cleared 484 projects worth INR 671460.21 crores with employment potential for 22, 72,064 persons. In the same period, State Level Single Window Clearance Committee cleared 2041 projects worth INR 31794.25 crores with employment potential for 466640 persons. Karnataka's export of INR 2, 58,368.53 crore during the period 2012-13 constitutes 12.69% of all India exports. Karnataka's share in national exports for electronics and software constitute about 38% and for product exports constitute 6.3%. Share of electronics and software in state exports stands at 60% for the period 2012-13.

2.6 Export Possibility

State Government is contemplating to come out with dedicated State Export promotion policy and IPR Policy to promote exports from Karnataka.

For instance, Karnataka has rich biodiversity and ten agro-climatic zones suited for majority of the agricultural & horticultural crops and a long coastline that encourages fisheries. The state contributes around 7% of the agricultural production and 15% of the horticultural production in the country. Karnataka has abundant availability of raw material to consistently tap into the growing demand for processed foods both from domestic and export standpoint. However, the State faces severe constraint in terms of limited processing facilities and inadequate quality control and testing methods as per international standards. Given the high potential for employment generation in the sector and the anticipated output, it is imperative to provide an enabling environment for the sector.

2.7 Employment Generation (Direct & Indirect) due to the Project

Impact of 2009-14 Industrial Policy ·

As against the targeted Investment of INR 3.00 lakhs Crores and employment generation for 10.00 lakh people, around 1200 large enterprise proposals were approved during the policy period , with an investment of INR 6,95,000 crores and employment generation for 25,86,000 people. Out of which few have already implemented and many of them are under various stages of implementation. Besides, 101366 MSMEs have been established with an investment of INR 8400 crores and employment generation for 6,40,000 people. · Land bank concept has been established and through which Government has initiated action for acquisition of 1,15,000 acres and out of which 31,000 acres of land is finally notified for development. · Action has been initiated for supply of tertiary treated water to augment the water scarcity and to adopt water conservation measures. Action has been initiated for establishment of Sector specific parks namely, Pharma, Aerospace, Spice, Jewelry, IT/BT, ITIR, Hardware Park, Food, Textile, Apparel, etc. On the basis of the above, we may presume that from the proposed Harohalli IInd & IIIrd phase industrial areas there will be huge employment generation opportunities.

CHAPTER 3 PROJECT DESCRIPTION

3.1 Type of the Project Including Interlinked & Interdependent Projects, if any

It is not an interlinked/interdependent project.

3.2 Location (map showing general location, specific location & project boundary & project site layout) with Site Co - ordinates

LOCATION MAP

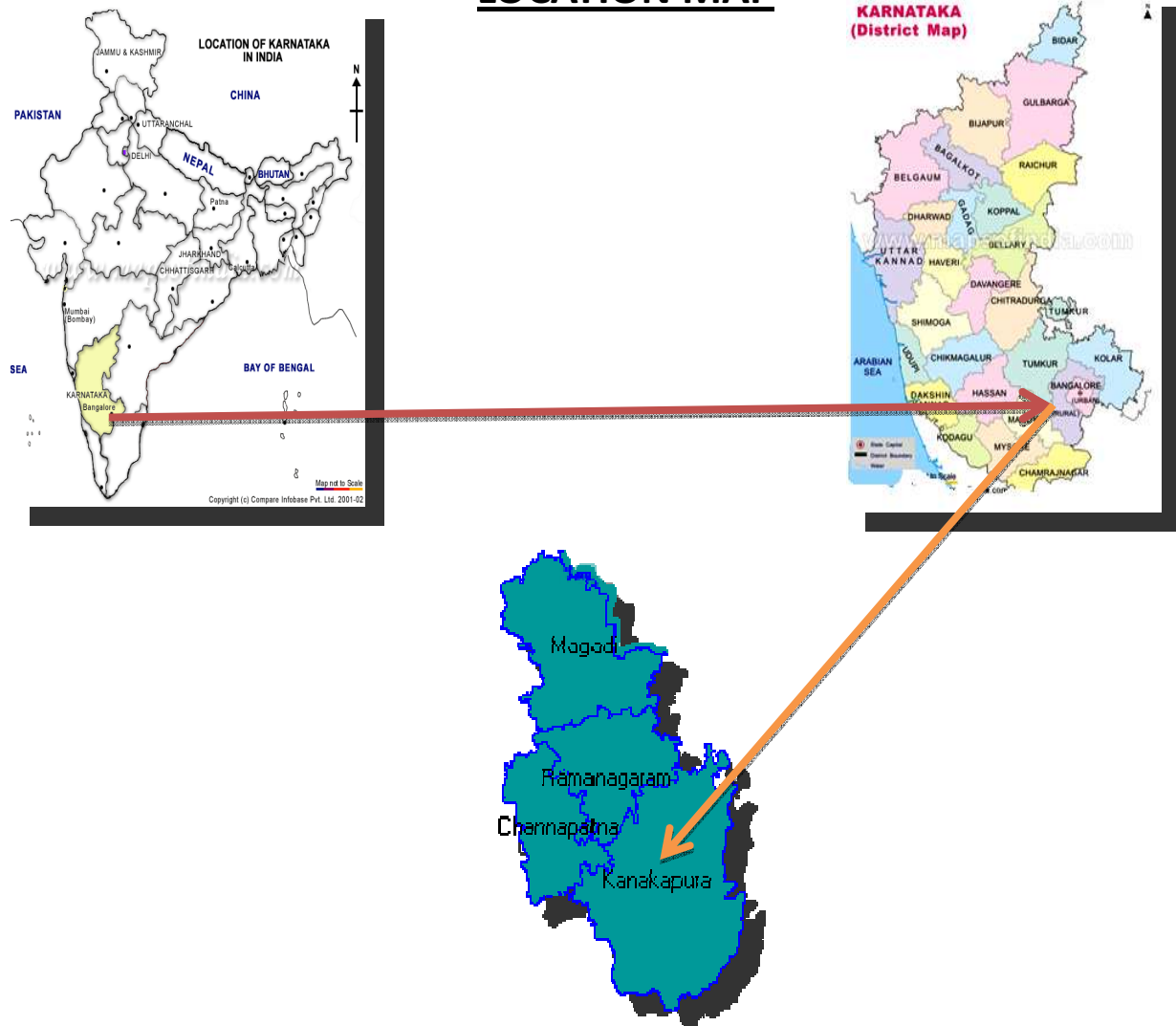
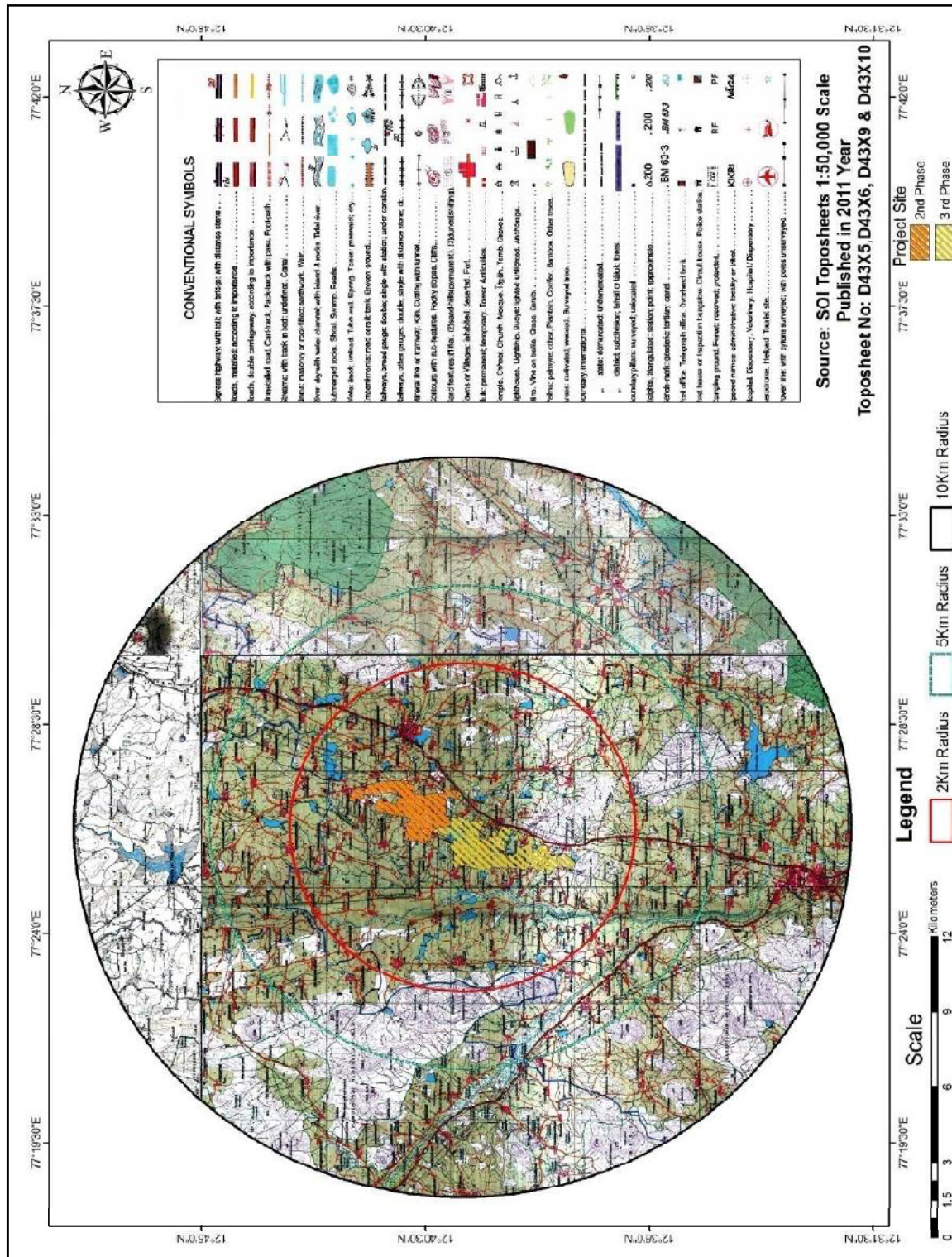


Table: GPS for the Proposed Project Phase II

S.No	Latitude N			Longitude E		
	Deg	Min	Sec	Deg	Min	Sec
1	12	42	2.69	77	26	51.3
2	12	41	58.86	77	27	6.37
3	12	41	31.45	77	26	38.68
4	12	40	48.35	77	26	28.85
5	12	40	56.47	77	26	1.52
6	12	40	22.19	77	26	10.04
7	12	39	59.92	77	26	26.85
8	12	39	49.93	77	27	4.92
9	12	40	51.51	77	27	12.92

Table: GPS for the Proposed Project Phase III

S.No	Latitude N			Longitude E		
	Deg	Min	Sec	Deg	Min	Sec
1	12	40	22.19	77	26	10.04
2	12	39	59.92	77	26	26.85
3	12	38	59.48	77	26	18.45
4	12	38	27.76	77	26	5.09
5	12	37	31.73	77	25	23.11
6	12	38	33.87	77	25	20.47
7	12	39	56.94	77	25	23.15
8	12	39	55.84	77	26	1.36



Topographical Map – 10 Km radius

3.3 Details of Alternative Sites, Considered & the Basis of Selecting the Proposed Site, Particularly the Environmental Considerations gone into should, be highlighted

No alternative site proposed – land developed by Karnataka Industrial Areas Development Board (KIADB). The proposed project location is very ideal in all respects.

3.4 Size or Magnitude of Operation

Table: Land Break up Details of the Proposed Project Phase II & III

S. No	Description	**Phase II			Phase III		
		Acre	Ha	%	Acre	Ha	%
1	Industrial	550.13	222.63	59.86	700.10	283.32	53.16
2	Commercial	---	--	---	41.48	16.78	3.15
3	Amenity	45.86	18.56	4.99	41.14	16.64	3.12
4	Utility	---	---	---	28.94	11.72	2.20
5	Park	90.96	36.81	9.89	120.18	48.64	9.13
6	Buffer	49.42	20	5.38	141.06	57.08	10.71
7	Parking	19.37	7.84	2.11	96.96	39.24	7.36
8	Road	163.26	66.07	17.77	147.04	59.51	11.17
Total Area		919.01	371.91	100.00	1316.90	532.93	100.00

**** Note: Phase II: Environmental Clearance has been obtained from SEIAA, Karnataka**

3.5 Project Description with Process Details (a schematic diagram/flow chart showing the project layout, components of the project etc., should be given)

Layout Plan is enclosed as **Annexure 2**.

3.6 Raw Material Required along with Estimated Quantity, Likely Source, Marketing Area of Final Product/s, Mode of Transport of Raw Material & Finished Product.

The proposed project is an industrial park development to facilitate the industrial entrepreneurs to develop the industries in this region. There are no major raw materials required for construction of industrial area is concerned and locally available material will be procured for development of industrial area. However for development of industries, individual will procure as per their requirement.

Raw materials required for construction will be procured locally & from the nearest quarry.

3.7 Resource optimization/recycling & reuse envisaged in the project, if any, should be

Excavated earth will be utilized for leveling purpose & other pavement works. Fly ash will be utilized as building material. Treated wastewater will be reused for gardening purpose.

3.8 Availability of Water & its source, Energy/Power Requirement & Source should be given

Surface water demand: 30MLD

Source: Tertiary Treated water from Vrushabahvathi Treatment Plant (BWSSB)

Power Source: BESCO

Tentative power demand: 4 MW

3.9 Quantity of wastes to be generated (liquid & solid) & scheme for their management/disposal

All industries coming up in the proposed Industrial Development Area (IDA) if required will utilize the services of the Common Hazardous Waste Management Facility (CHWMF) already existing in the near Dobaspet on NH 207. All the hazardous waste will be transported to this facility for treatment and for further safe disposal. Safe storage and transportation of the produced solid and hazardous waste is the total responsibility of the individual industry.

3.10 Schematic representations of the feasibility drawing which give information of EIA Purpose

Layout plan is enclosed as **Annexure 2**.

CHAPTER 4 SITE ANALYSIS

4.1 Connectivity

The proposed Industrial area is in Harohalli village, Ramanagara District. The project site is well connected to NH - 209.

4.2 Land Form, Land Use & Land Ownership

Presently the lands are barren with degraded shrub in most of the area, while some land is also covered by agricultural activity.

4.3 Topography

The ground is very undulating and has ridges at center and eastern part of the layout.

4.4 Existing land use pattern

The project site is well connected to NH - 209. Presently the lands are barren with degraded shrub in most of the area, while some land is also covered by agricultural activity.

4.5 Existing Infrastructure

The project site is well connected to NH - 209.

Table: Existing Infrastructure around the Proposed Project Site

Sl. No	Description	Distance in Kms
1	NH 209	Adjacent to the site
2	SH 3	3.8 km S
3	SH 17	12.5 km NNW
4	Bannerghatta National Park	14.8 km NE

4.6 Soil Classification

The soils of Ramanagara Districts are broadly classified in to four categories viz (i). Loamy soil (ii) Lateritic soil (iii) Lateritic gravelly soil and (iv) Red sandy soil. The common soil is reddish to brown colored comprising red sandy-to-sandy loam soils. The area in particular is generally red sandy with patches of silty loam and red loamy soils. Due to this factor water quickly percolates in to the soil without causing any marshy conditions. The cultivable soils are spread over the area.

4.7 Climatic Data from Secondary Sources

The climate in the study region is generally hot and humid and is characterized with seasonal variations of

Winter	Dec to Feb
Summer	March to May
Monsoon	June to August
Post Monsoon	Sep to Nov

The climate setting of the area has been arrived by collecting the existing secondary data from IMD station Bangalore among other sources and by generation of primary data to

ascertain the values. The nearest IMD station is Bangalore located 34 kms aerielly from the proposed project site. Summary of the climatological data is presented here under. The data has been ascertained by establishment of a micro-meteorological station in the project area.

4.8 Social Infrastructure Available

Table: Existing Social Infrastructure

Sl. No	Description	Distance in Kms
1	NH 209	Adjacent to the site
2	SH 3	3.8 km S
3	SH 17	12.5 km NNW
4	Bannerghatta National Park	14.8 km NE

CHAPTER 5 PLANNING BRIEF

5.1 Planning Concept

The Project envisaged is an Industrial theme park with a vision of providing “Hassle free production environment” for IT, General industries etc.

5.2 Population Projection

Due to the proposed project, population from various regions may migrate towards Harohalli I.A. & there will be slight increase in the population.

5.3 Land use planning

Table: Land Use Analysis of Phase II & Phase III

S. No	Description	**Phase II			Phase III		
		Acre	Ha	%	Acre	Ha	%
1	Industrial	550.13	222.63	59.86	700.10	283.32	53.16
2	Commercial	---	--	---	41.48	16.78	3.15
3	Amenity	45.86	18.56	4.99	41.14	16.64	3.12
4	Utility	---	---	---	28.94	11.72	2.20
5	Park	90.96	36.81	9.89	120.18	48.64	9.13
6	Buffer	49.42	20	5.38	141.06	57.08	10.71
7	Parking	19.37	7.84	2.11	96.96	39.24	7.36
8	Road	163.26	66.07	17.77	147.04	59.51	11.17
Total Area		919.01	371.91	100.00	1316.90	532.93	100.00

**** Note: Phase II: Environmental Clearance has been obtained from SEIAA, Karnataka**

As per the statutory requirement, 15m buffer zone will be left all along the boundary of the industrial area.

5.4 Assessment of Infrastructure Demand (Physical & Social)

Due to the proposed project the following infrastructure development takes place:

1. **Road improvement:** The road network consists of three types depending upon the traffic flow.
2. **Approach road:** A suitable approach road from the national highway to the proposed site & the exits road are planned with connection to the internal road network. Suitable horticulture development is also planned.
3. **Storm water drainage:** RCC storm water drainage is planned along the roads with suitable catch drains & discharged outside at a suitable point.
4. **Water supply:** External water supply scheme is planned with GLSR located at a highest point as per the contour & is used for feeding the distribution network.
5. **Electrification:** External electrification is provided & a provision of 5 HP is provided for each plot.

6. **Green belt development:** 15 m buffer zone along the boundary of the project site will be marked for green belt development. Also landscaping will be done along the roads.
7. **Rainwater harvesting:** Rainwater harvesting pits will be provided at an interval of 5m all along the storm water drains.
8. **Compound wall:** A compound wall of 2.89m high barbed wiring, with goose neck overhang is planned all around the operational area with gates.
9. **Fire station:** A suitable land for fire station for rescue & fire fighting services is proposed along with other facilities for catering to emergency services. A storage water sump, pumping facilities facility for filling the fire tenders & other equipment's etc., are also planned.

5.5 Amenities/Facilities

Provision of plots for police station, STP, canteen, electric grid, public transport & solid waste management etc., are all being taken care of.

CHAPTER 6 PROPOSED INFRASTRUCTURE

6.1 Industrial Area

Due to the proposed project the following infrastructure development takes place:

1. **Road improvement:** The road network consists of three types depending upon the traffic flow.
2. **Approach road:** A suitable approach road from the national highway to the proposed site & the exits road are planned with connection to the internal road network. Suitable horticulture development is also planned.
3. **Storm water drainage:** RCC storm water drainage is planned along the roads with suitable catch drains & discharged outside at a suitable point.
4. **Water supply:** External water supply scheme is planned with GLSR located at a highest point as per the contour & is used for feeding the distribution network.
5. **Electrification:** External electrification is provided & a provision of 5 HP is provided for each plot.
6. **Green belt development:** 15 m buffer zone along the boundary of the project site will be marked for green belt development. Also landscaping will be done along the roads.
7. **Rainwater harvesting:** Rainwater harvesting pits will be provided at an interval of 5m all along the storm water drains.
8. **Compound wall:** A compound wall of 2.89m high barbed wiring, with goose neck overhang is planned all around the operational area with gates.
9. **Fire station:** A suitable land for fire station for rescue & fire fighting services is proposed along with other facilities for catering to emergency services. A storage water sump, pumping facilities facility for filling the fire tenders & other equipment's etc., are also planned.

6.2 Green Belt

15m buffer zone all along the boundary of the project site will be marked for the development of green belt. Also landscaping will be done all along the length of the roads.

6.3 Social Infrastructure

Provision of plots for police station, STP, ETP, canteen, electric grid, public transport & solid waste management etc., are all being taken care of.

6.4 Connectivity

The project site is well connected to NH - 209.

6.5 Drinking water management

Water demand: 30 MLD

Source: Tertiary Treated water from Vrushabhavathi Treatment Plant (BWSSB)

6.6 Sewerage System

A well planned sewerage network is being planned for the proposed industrial area.

6.7 Industrial & Solid Waste Management

All industries coming up in the proposed Industrial Development Area (IDA) if required will utilize the services of the Common Hazardous Waste Management Facility (CHWMF) already existing in the near Dobaspet on NH 207. All the hazardous waste will be transported to this facility for treatment and for further safe disposal. Safe storage and transportation of the produced solid and hazardous waste is the total responsibility of the individual industry.

As we do not know the type of industries coming up, at present we cannot calculate the quantity of wastes that will be generated.

6.8 Power Requirement & Supply/Source

Power Source: BESCO

Tentative power demand: 4 MW

CHAPTER 7

REHABILITATION & RESETTLEMENT (R&R) PLAN

The land losers have been given appropriate compensation. There is no shifting of any families hence no rehabilitation or resettlement is envisaged.

CHAPTER 8

PROJECT SCHEDULE & COST ESTIMATES

Likely date of start of construction work: 2016

Likely date of completion of construction work: 2018

Project cost for both Phases: 1171.6944 Crores

CHAPTER 9

ANALYSIS OF PROPOSAL (FINAL RECCOMENDATIONS)

Proposed Industrial Area Development at Harohalli (2nd & 3rd phase), Ramanagara District and other surrounding villages would have very little negative impacts on the surrounding areas or on the environment. However, all necessary pollution control measures will be adopted. The project would indeed help the socio – economic condition of the area and it is highly recommended for the development of industrial area.

Due the proposed industrial area development at Harohalli, Ramanagara District

1. There will positive impacts on the socio – economic status of the surrounding areas
2. More employment opportunities will be generated
3. Physical infrastructure development such as improvement to roads, UGD lines, street lights etc. will take place

ANNEXURE -1

No. SEIAA: 5 : IND: 2013

**STATE LEVEL ENVIRONMENT IMPACT ASSESSMENT
AUTHORITY, KARNATAKA STATE**

(Constituted by Ministry of Environment & Forests, Government of India)

Department of Ecology and Environment
Room No.709, 7th Floor, IV-Gate,
M.S. Building, Bangalore-560 001,

Date: 22nd August 2013.

To,

The CEO & Executive Member,
Karnataka Industrial Area Development Board (KIADB)
No. 14/3, 2nd Floor,
Rashtrothana Parishat Building (RP),
Nrupathunga Road, Bangalore - 560 001.

☎ : (080) 22211066, 22215383, 22215069.

☎ : (080) 22217702.

✉ : kiadb@mail.kar.nic.in

Sir,

Sub: Development of Industrial Area at Survey Numbers of Harohalli 2nd Stage Industrial Area at Harohalli, Medamaranahalli, Hulugondanahalli, Bannikuppe Devarakaggalahalli villages of Ramanagara District by Karnataka Industrial Area Development Board (KIADB) - Issue of Environmental Clearance- reg.

* * * * *

This has reference to your applications No. IADB/EIA/CEO&EM/13043/2012-13 dated: 04.01.2013 addressed to SEIAA, Karnataka and subsequent letters addressed to SEIAA/SEAC, Karnataka seeking prior environmental clearance for the above project under the EIA Notification, 2006. The proposal has been appraised as per prescribed procedure in the light of the provisions under the EIA Notification, 2006 on the basis of the mandatory documents enclosed with the application viz., the Application in Form 1, prefeasibility report and the additional clarifications furnished in response to the observations of the State Expert Appraisal Committee (SEAC), Karnataka.

It is, inter-alia, noted that M/s. Karnataka Industrial Area Development Board (KIADB), have proposed for development of industrial area envisaged is an industrial theme park with a vision of providing "Hassle free production environment" for the manufacturing of IT/BT precision, electronic industries, garments and food processing/chemical industries, rubber, plastic, foundry and other/general industries on plot area of 371.90 Ha (919-19 Acres) (Details of the land as in Annexure). Out of 371.90 Ha, 222.63 Ha is for industrial area, 18.56 Ha is for civic amenities, 36.81 Ha is for parks, 7.84 Ha is for parking, 66.07 Ha is for roads and 20.00 Ha is for buffer zone. Total water requirement for the industrial area is 4 MLD (Domestic: 0.68 MLD + Industrial: 2.92 MLD+ Gardening: 1.4 MLD)

will be met from BWSSB tertiary treated water supply (Cauvery). Total waste water generated is 2.96 MLD (Domestic effluent: 0.55 MLD + Industrial effluent: 2.34 MLD). Domestic waste water will be treated in STP of 0.70 MLD and industrial effluent will be treated in CETP of 2.50 MLD capacity. Total power requirement is 5578 KVA will be sourced from KPTCL.

It was noted that, the project proposal was considered initially by Expert Appraisal Committee, Ministry of Environment and Forests, Govt. of India, New Delhi and ToRs were issued on 10th November 2009 for conducting Environment Impact Assessment Study. EIA has been conducted by M/s. Ramky Enviro Engineers Limited, "Ramky House" Site No. 25-30, 2nd Cross, Raghavendra Nagar, Hennur Ring Road, Kalyan Nagar (Post), Bangalore - 560 043 who is NABET, QCI accredited. The public consultation was held on 02.02.2012.

It was further noted that, the final EIA have been presented before EAC, MoEF, GOI, New Delhi in 116th Meeting held on 19th - 21st September 2012. The EAC has suggested the proponent to apply before the SEIAA as no 'A' category activities are envisaged.

The SEAC, Karnataka, based on the information submitted by you, presentation made by you and the consultant, M/s. Ramky Enviro Engineers Limited, "Ramky House" Site No. 25-30, 2nd Cross, Raghavendra Nagar, Hennur Ring Road, Kalyan Nagar (Post), Bangalore - 560 043, during the meetings held on 18th & 19th January 2013, 14th & 15th February 2013 and 5th April 2013 and has recommended for issue of Environmental Clearance.

The State Environmental Impact Assessment Authority (SEIAA) Karnataka has considered the project in its meeting held on 17th May 2013 and after due consideration of the relevant documents submitted by the project proponent and additional clarifications furnished in response to its observations and the appraisal and recommendation of the SEAC, have accorded environmental clearance as per the provisions of Environmental Impact Assessment Notification-2006 and its subsequent amendments, subject to strict compliance of the terms and conditions as follows:-

A- SPECIFIC CONDITIONS

I. Construction Phase:

1. "Consent for Establishment" shall be obtained from Karnataka State Pollution Control Board under Air and Water Act and a copy shall be submitted to the SEIAA before start of any construction work at the site.
2. Set up an environment management cell with appropriate lab facility shall be created as the project starts. It shall monitor all necessary parameters and activities during construction and operational phases from day one. The cell also ensures that the cell manages / maintains all the environmental aspects such as sewage treatment, solid waste disposal, maintenance of green belt areas, etc.
3. All required sanitary and hygienic measures should be in place before starting construction activities and to be maintained throughout the

- construction phase. Sufficient number of toilets/bathrooms shall be provided with required mobile toilets, mobile STP for construction work force.
4. A First Aid Room should be provided in the Project both during construction and operation of the project.
 5. Adequate drinking water and sanitary facilities should be provided for construction workers at the site. The safe disposal of wastewater and solid wastes generated during the construction phase should be ensured.
 6. Provision shall be made for the housing of construction labourers within the site with all necessary infrastructures. The housing may be in the form of temporary structures to be removed after the completion of the project. The facilities shall include the crèche.
 7. Provision should be made for the supply of fuel (kerosene or cooking gas); utensils such as pressure cookers etc. to the labourers during construction phase.
 8. All the labourers to be engaged for construction should be screened for health and adequately treated before engaging them to work at the site and detailed report submitted to SEIAA. Safety standards as per National Building Code (NBC) should be ensured.
 9. For dis-infection of wastewater which is not meant for recycling for toilet flushing, use ultra violet radiation and not chlorination. For treated wastewater meant for reuse for toilet flushing, disinfect by using chlorination.
 10. All the topsoil excavated during construction activities should be stored for use in horticulture / landscape development within the project site.
 11. Disposal of muck, construction debris during construction phase should not create any adverse effect on the neighboring communities and be disposed taking the necessary precautions for general safety and health aspects of people, only in approved sites with the approval of competent authority.
 12. Soil and ground water samples should be tested at the project site during the construction phase to ascertain that there is no threat to ground water quality by leaching of heavy metals and or other toxic contaminants and report submitted to SEIAA.
 13. Construction spoils, including bituminous material and other hazardous materials, must not be allowed to contaminate watercourses and the dumpsites for such material must be secured so that they should not leach into the ground water.
 14. The diesel generator sets to be used during construction phase should be of low sulphur diesel type and should conform to E (P) Rules prescribed for air and noise emission standards.
 15. The diesel required for operating DG sets shall be stored in underground tanks and if required, clearance from Chief Controller of Explosives shall be taken.
 16. Vehicles hired for bringing construction material to the site should be in good condition and should conform to the applicable air and noise emission standards and should be operated only during non-peak hours.
 17. Ambient noise levels should conform to the residential standards both during day and night. Incremental pollution loads on the ambient air and

- noise quality should be closely monitored during construction phase. Adequate measures to reduce air and noise pollution during construction keeping in mind CPCB norms on noise limits.
18. Fly ash should be used as building material in the construction as per the provisions of Fly Ash Notification of September 1999 and amended as on August 2003.
 19. Ready mixed concrete must be used in building construction.
 20. Storm water control and its re-use as per CGWB and BIS standards for various applications.
 21. Water demand during construction should be reduced by use of pre-mixed concrete, curing agents and other best practices and only tertiary treated water shall be used for construction as per G.O. No. FEE 188 ENV 2003 dated 14.08.2003.
 22. No ground water is to be drawn without permission from the Central/State Ground Water Authority.
 23. Separation of grey and black water should be done by the use of dual plumbing line for separation of grey and black water.
 24. Treatment of 100% grey water by decentralized treatment should be done.
 25. The provision of Energy Conservation Building code, 2006 shall be fully complied with.
 26. Roof should meet prescriptive requirement as per Energy Conservation Building Code, 2007 by using appropriate thermal insulation material.
 27. Opaque wall should meet prescriptive requirement as per Energy Conservation Building Code, 2007 which is proposed to be mandatory for all air conditioned spaces while it is optional for non-air conditioned spaces by use of appropriate thermal insulation material to fulfil requirement.
 28. The Proponent shall obtain the construction material such as stones and jelly etc. only from the approved quarries and other construction material shall also be procured from the authorized agencies/traders.
 29. The proponent shall obtain approval from the competent authorities for structural safety of the building due to earthquake, adequacy of firefighting equipment etc. as per the National Building Code (NBC) including protection measures for lightening etc.
 30. The project authority shall ensure that no water bodies are polluted due to project activities.
 31. Safety standards as per National Building Code (NBC), 2005 should be followed and ensured.
 32. The project Authorities shall ensure that the National Building Code, 2005 is complied with and adhered to.
 33. The project authorities shall not use Kharab land if any, for any purpose and keep available to the general public duly displaying a board as public property. No structure of any kind be put up in the Kharab land and shall be afforested and maintained as green belt only.
 34. The authorities should include the condition while issuing plots to the prospective individual industries that they should develop greenbelt of 33 % of the plot area allotted for them.

35. The industrial units in the industrial area and the associated facilities shall be strictly in accordance with the norms laid down by the Karnataka State Government and KSPCB/CPCB.
36. The project authorities shall strictly adhere to the commitments made in the letter No. IADB/JDTP/EC /90/3480/2013-14 dated 04.06.2013 with regard to establishment of STP/CETP, buffer zone, green belt, conditions to be incorporated in the lease document while allotting plots to individual industries, environment safety aspects etc.
37. The company will undertake all relevant measures, as indicated during the Public Hearing for improving the Socio-economic conditions of the surrounding area.
38. The project Authorities shall undertake activities towards the corporate social commitment plan made vide letter dated 11.03.2013 with a total budget not less than Rs. 14 Lakhs and shall be executed within a period of 2013-2017 as committed and report be submitted to the Authority.

II. Operation Phase.

1. The Company shall implement all the recommendations made in the Environmental Impact Assessment /EMP report and risk assessment report.
2. The installation of the Sewage Treatment Plant (STP) shall be got certified by an independent expert and a report in this regard should be submitted to the SEIAA before the project is commissioned for operation. Treated effluent emanating from STP shall be recycled/reused to the maximum extent possible. Treatment of 100% grey water by decentralized treatment should be done. Discharge of treated sewage shall conform to the norms & standards of the Karnataka State Pollution Control Board. Treated sewage should be used for flushing, gardening, etc. as proposed. Necessary measures should be made to mitigate the odour problem from STP.
3. The solid waste generated should be properly collected and segregated. Wet garbage should be composted and dry / inert solid waste should be disposed off to the approved sites for land filling after recovering recyclable material.
4. Diesel power generating sets proposed as source of backup power for elevators and common area illumination during operation phase should be of enclosed type and conform to rules made under the Environment (Protection) Act, 1986. The height of stack of DG sets should be equal to the height needed for the combined capacity of all proposed DG sets. Use low sulphur diesel. The location of the DG sets may be decided with in consultation with Andhra Pradesh Pollution Control Board.
5. Noise should be controlled to ensure that it does not exceed the prescribed standards. During night time the noise levels measured at the boundary of the building shall be restricted to the permissible levels to comply with the prevalent regulations.
6. The project proponent shall ensure that the greenery of the area is maintained. Further, 33% of the project area shall be dedicated for green belt development. The local Forest Department shall be associated for this purpose and requisite budget earmarked.

7. Weep holes in the compound walls shall be provided to ensure natural drainage of rain water in the catchment area during the monsoon period.
8. Rain water harvesting for roof run- off and surface run- off, as plan submitted should be implemented. Before recharging the surface run off, pre-treatment must be done to remove suspended matter, oil and grease. The borewell for rainwater recharging should be kept at least 5 mts. above the highest ground water table.
9. The ground water level and its quality should be monitored regularly in consultation with Central Ground Water Authority.
10. Traffic congestion near the entry and exit points from the roads adjoining the proposed project site must be avoided. Parking should be fully internalized and no public space should be utilized.
11. A Report on the energy conservation measures confirming to energy conservation norms finalized by Bureau of Energy Efficiency should be prepared incorporating details about building materials & technology, R & U Factors etc and submit to the SEIAA in three months time.
12. Energy conservation measures like installation of CFLs/TFLs for the lighting the areas outside the building should be integral part of the project design and should be in place before project commissioning. Use CFLs and TFLs should be properly collected and disposed off/sent for recycling as per the prevailing guidelines/ rules of the regulatory authority to avoid mercury contamination. Use of solar panels may be done to the extent possible.
13. Adequate measures should be taken to prevent odour problem from solid waste processing plant and STP.
14. The building should have adequate distance between them to allow movement of fresh air and passage of natural light, air and ventilation.
15. The project authorities shall strictly comply with the rules and regulations under Manufacture, Storage and Import of Hazardous Chemicals Rules, 1989 as amended in October 1994 and January 2000. all transportation of Hazardous Chemicals shall be as per the MVA, 1989. Authorization from the KSPCB shall be obtained for collection, treatment, storage, and disposal of hazardous wastes.
16. The project authorities must strictly comply with the rules and regulations with regard to handling and disposal of hazardous wastes in accordance with the Hazardous Wastes (Management and Handling) Rules, 2003. Authorization from the KSPCB must be obtained for collection/treatment/storage/disposal of hazardous wastes.
17. Application of solar energy should be incorporated for illumination of common areas, lighting for gardens and street lighting in addition to provision for solar water heating. A hybrid system or fully solar system for lighting and heating should be provided. Details in this regard should be submitted to the SEIAA.
18. The individual industries shall take all necessary clearances including Environment clearance in accordance with the law. The project Authority shall incorporate such condition in the lease/ sale deed/ Agreement.
19. The project authorities shall bifurcate the industrial plots and residential plots, if any with a thick and tall vegetative barrier green belt.

20. The project Authority shall incorporate a condition in the prospective lease/sale deed/Agreement with individual industries that they also shall abide by the conditions of this E.C.

B. GENERAL CONDITIONS:

1. The project authorities shall strictly adhere to the stipulations made by the Karnataka State Pollution Control Board (KSPCB).
2. No further expansion or modifications of the industrial area shall be carried out without prior approval of the SEIAA/Ministry of Environment and Forests as the case may be.
3. The project proponent shall also comply with all the environmental protection measures and safeguards as per the information provided.
4. The implementation of the project vis-à-vis environmental action plans shall be monitored by MoEF, Regional Office at Bangalore / KSPCB/ CPCB and the Department of Environment & Ecology, Bangalore. A six monthly compliance status report shall be submitted to monitoring agencies.
5. The project proponent shall inform the public that the project has been accorded environmental clearance by the SEIAA and copies of the clearance letter are available with the KSPCB and may also be seen at Website of the Authority at <http://www.seiaa.kar.nic.in>. This shall be advertised within seven days from the date of issue of the clearance letter, at least in two local newspapers that are widely circulated in the region of which one shall be in the vernacular language of the locality concerned and a copy of the same shall be forwarded to the MoEF Regional Office at Bangalore / KSPCB/ CPCB and the Department of Environment & Ecology, Bangalore.
6. The project authorities shall inform the MoEF Regional Office at Bangalore / KSPCB/ CPCB and the Department of Ecology and Environment, Bangalore, the date of financial closure and final approval of the project by the concerned authorities and the date of start of the project.
7. The SEIAA, Karnataka may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.
8. The SEIAA, Karnataka reserves the right to stipulate additional conditions, if found necessary. The company in a time bound manner will implement these conditions.
9. The above conditions will be enforced, inter-alia under the provisions of the Water (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986 Hazardous Wastes (Management and Handling) Rules, 2003 and the Public Liability Insurance Act, 1991 along with their amendments and rules.
10. The issue of Environment Clearance doesn't confer any right to the project proponent to operate / run the project without obtaining statutory clearances / sanctions from all other concerned Authorities.
11. Concealing factual data or submission of false/fabricated data and failure to comply with any of the conditions mentioned above may result in withdrawal of this clearance and attract action under the provisions of Environmental (Protection) Act, 1986.

12. Any appeal against this environmental clearance shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.
13. Officials from the Department of Environment and Ecology, Bangalore/ Regional Office of MoEF, Bangalore who would be monitoring the implementation of Environmental safeguards should be given full cooperation, facilities and documents/ data by the project proponents during their inspection. A complete set of all the documents submitted to MoEF / SEIAA should be forwarded to the CCF, Regional Office of MoEF, Bangalore/ Department of Ecology and Environment, Bangalore/ Regional Officer, KSPCB Bangalore.
14. In the case of any change(s) in the scope of the project, the project would require a fresh appraisal by this Authority.
15. The Authority reserves the right to add additional safeguard measures subsequently, if found necessary, and to take action including revoking of the environment clearance under the provisions of the Environment (Protection) Act, 1986, to ensure effective implementation of the suggested safeguard measures in a time bound and satisfactory manner.
16. All other statutory clearances such as the approvals for storage of diesel from Chief Controller of Explosives, Fire Department, Civil Aviation Department, Forest Conservation Act, 1980 and Wildlife (Protection) Act, 1972 etc. shall be obtained, as applicable by project proponents from the competent authorities.
17. These stipulations would be enforced among others under the provisions of water (Prevention and Control of Pollution) Act, 1974, the Air (Prevention and Control of Pollution) act 1981, the Environment (Protection) Act, 1986, the Public Liability (Insurance) Act, 1991 and EIA Notification, 2006.
18. Under the provisions of Environment (Protection) Act, 1986, legal action shall be initiated against the project proponent if it is found that construction of the project has been started without obtaining environmental clearance.

Yours Faithfully,

(RAMACHANDRA)
Member Secretary,
SEIAA.

Copy to:

- 1) The Secretary, Ministry of Environment & Forests, Government of India, Paryavaran Bhavan, CGO Complex, Lodi Road, New Delhi - 110 003.
- 2) The Member Secretary, Karnataka State Pollution Control Board, Bangalore.
- 3) The CCF, Regional Office, Ministry of Environment & Forests (SZ), Kendriya Sadan, IV Floor, E & F wings, 17th Main Road, Koramangala II Block, Bangalore - 560 034.
- 4) Guard File.

Annexure to Environmental Clearance letter No. SEIAA 5 IND 2013
dated 22nd August 2013

Details of Land of the Proposed Harohalli Industrial Area 2nd stage

Village: Harohalli, Taluk: Kankapura Dist: Ramanagara

Name of village	Survey No.	Extent in Acre Guntas
Harohalli	478	23
	479/1A	1-07
	479/1b	00-16
	479/2	0-19
	479/3	0-20
	479/4	1-21
	479/5	1-11
	479/6	0-20
	487/1 A1	1-11
	487/1 A2	1-00
	487/1 A3	1-20
	487/2	1-17
	488/1	1-17
	488/2	1-18
	488/3	1-22
	489/1	2-37
	489/2	1-10
	489/3	1-33
	490/1	2-15
	490/2	1-04
	490/3	0-24
	518/1	1-12
	518/2	0-33
	518/3	2-13
	519/1	1-04
	519/2	0-24
	519/3	0-26
	519/4	0-31
	519/5	0-17
	519/6	1-02
	519/7	0-28
	520	7-12
	521	5-37

	522/1	6-18 ½
--	-------	--------

	522/2	0-19 ½
	523	6-15
	526	2-31
	529	75-00
	532	5-01
	533	6-01
	534/1	0-17 ½
	534/2	0-07
	534/3	0-10
	534/4	0-06
	534/5	0-08
	534/6	0-05
	534/7	0-05 ½
	535	1-02
	536/1	3-21
	536/2	0-03
	536/3	1-23
	537/1	3-24
	537/2	0-04
	537/3	0-06
	537/4	0-05
	537/5	0-03
	537/6	0-25
	537/7	0-03
	538	1-27
	539/1	1-34
	539/2	1-28
	539/3	1-24
	539/4	2-00
	540/1A	0-36
	540/1B	2-01
	540/2	3-10
	541/1	1-05
	541/2	1-10
	541/3	1-29
	541/4	0-09
	541/5	0-35
	541/6	1-02
	541/7	0-09
	541/8	0-12
	541/9	0-12
	541/10	0-10
	541/11	0-10
	562/1	1-01
	562/2	1-10
	563/1	1-00
	563/2	0-21

	564/1	5-25
	564/2	0-29
	629	32-30
	707	6-30
	708/1	16-01
	708/2	0-20
	709/1	0-16
	709/2	0-24
	709/3	1-25
	709/4	1-18
	709/5	1-19
	709/6	1-26
	709/7	0-25
	709/8A	0-05
	709/8B	0-20
	709/9	0-08
	709/10	1-21
	709/11	0-20
	710/1	5-11
	710/2	4-38
	731	6-19
	732	12-01
	733/1	2-01
	733/2	1-25
	733/3	0-39
	733/4	0-27
	733/5	1-25
	740	0-31
	741	10-00
	742/1	7-05
	742/2	3-27
	743	9-07
	744/1	1-24
	744/2	4-26
	744/3	1-23
	744/4	1-03
	744/5	1-04
	745	8-30
	746/1A	1-24
	746/1B	0-31
	746/2	3-08
	746/3A	4-18
	746/3B	2-05
	747/1	6-00
	747/2A	2-02
	747/2B	1-05
	749	9-30

	750/1	5-26
	750/2A	2-10
	750/2B	1-23
	751	6-30
	777/1	2-36
	777/2	1-31
	778	1-20
	779	3-19
	780	5-19
	781/1	5-13
	781/2	0-10
	781/3	0-14
	784	5-26
	798	2-08
	799	2-00
	800	2-00
	808	2-07
	811	5-09
	812	5-05
	814	2-11
	815	2-23
	831	1-08
	832	2-01
	833	2-01
	874	3-00
Total		476 – 21
Medamaranahalli	55	7-22
	55	8-10
	55	1-00
	57	2-21
	58/1	2-34
	58/2	0-11
	58/3	1-01
	58/4	0-34
	58/5	0-13
	59/1	4-21
	59/2	0-35
	60/2	2-20
	60/3	1-01
	61/1	0-23
	61/2	3-11
	62/1	1-12
	62/2	2-13
	63/3	0-34
	63/4	0-30
	63/5	0-10
	64/4	0-22

	65	0-38
	69/1	4-34
	70	15-25
	71	8-00
	71	1-17
	71	0-25
	71	0-30
	71	2-22
	71	0-32
	71	2-00
	71	1-23
	71	1-26
	71	0-37
	71	1-10
	71	1-20
	76	2-00
	77/1	0-19
	77/2	1-01
	77/3	0-28
	77/4	0-04
	77/5	0-01
	77/6	0-01
	77/7	0-01
	77/8	0-19 ½
	77/9	0-11
	77/10	0-14
	77/12	0-14
	77/13	0-06 ½
	82/1	2-18
	91/2	0-15
	112	2-00
	113	3-04
	114	1-09
	115	3-30
	116	3-33
	117	4-00
	142	1-10
Total		115 -36
Hulugondanahalli		
	22	1-30
	23	3-27
	24	0-28
	25	3-00
	46/5	1-38
	58	8-00
	58	2-10
	58	1-32

	58	2-00
	58	1-25
	58	2-00
	58	2-00
	58	0-20
	58	2-00
	58	2-00
	58	1-00
	58	2-00
	58	1-20
	58	1-10
	58	0-38
	58	2-00
	58	1-18
	58	0-39
	58	0-20
	61/1	1-24
	61/2	1-24
	62/5	2-03
	146/1	3-13
	146/2	2-09
	146/3	0-25
	146/4	4-22
	146/5	0-15
	147/1	2-03
	147/2	2-02
	159/3	2-30
	159/7	3-00
	159/8	1-31
	160	10-04
	194	6-08
	200	4-00
	202	4-00
	209	4-00
	210	4-00
	211	4-00
	214	4-00
	234	4-00
	235	3-30
	236	4-00
	244	2-20
	245	2-20
	246	2-10
	247	0-32
	248	0-30
	249	2-00
	250	0-30

	251	1-10
Total		139 -30
Bannikope	20	25-00
	20	0-20
	20	1-04
	20	0-18
	20	0-18
	20	1-00
	20	5-00
	20	5-00
	20	2-20
	20	4-00
	20	5-00
	20	5-00
	170	18-00
	170	2-00
	170	3-00
	170	0-20
	170	0-30
	224	3-24
	251	2-00
	274	1-20
	252	4-22
	253	0-38
	254	2-28
	260	3-10
	261	1-09
	263	4-20
	275	1-10
Total		104 -31
Devarakagalahalli	27/1	0-08
	27/2	0-12
	27/3	0-16
	27/4	0-09
	27/5	0-12
	27/6	0-15
	27/7	1-37
	27/8	0-29
	27/9	0-04
	27/10	1-14
	27/11	0-11
	27/12	0-06
	28/1	0-14
	28/2	0-04
	28/3	0-02

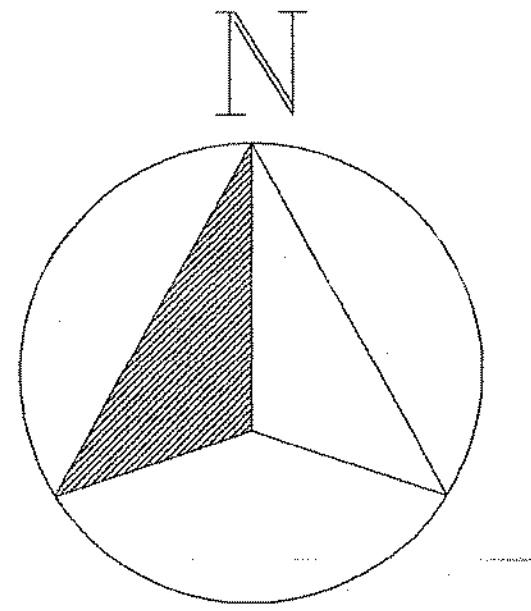
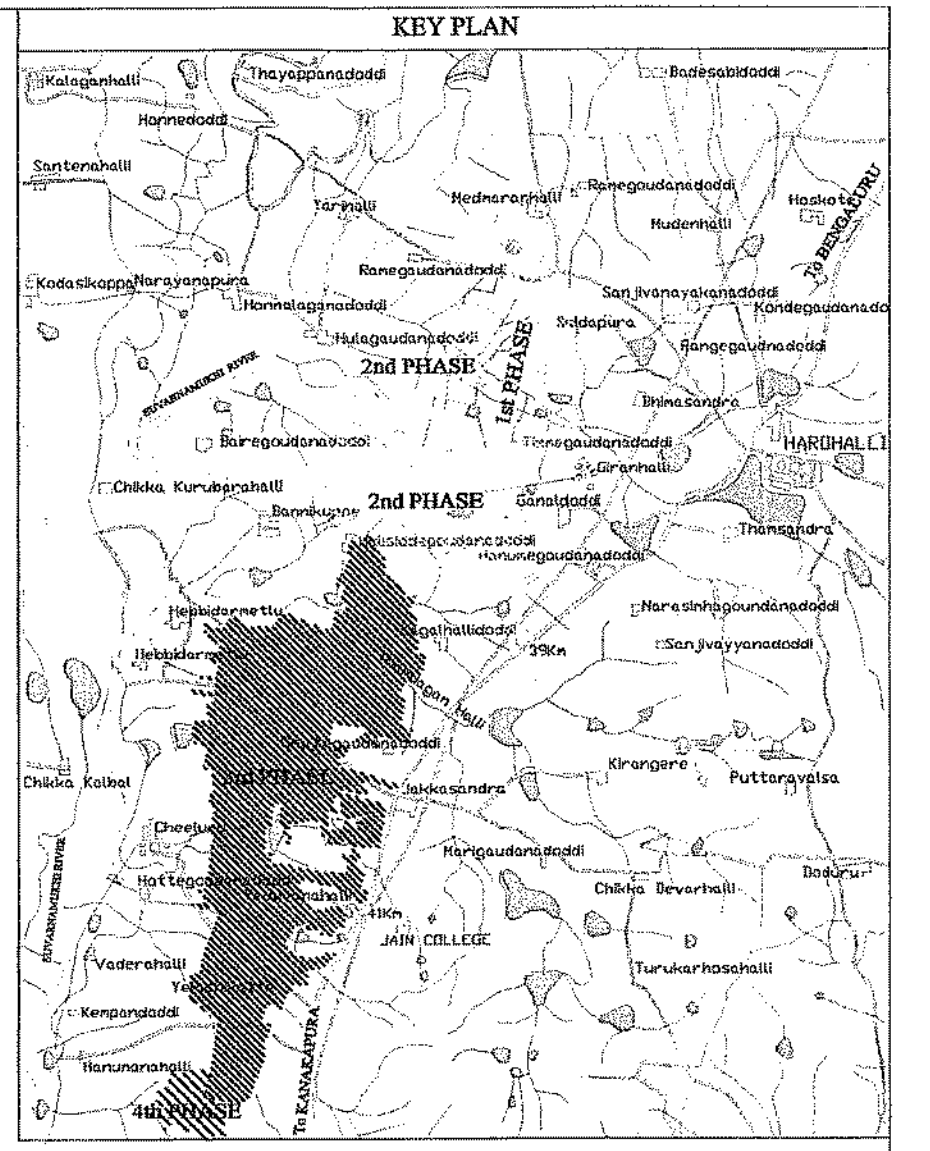
	28/4	0-03
	28/5	0-05
	29	4-00
	29	2-00
	29	2-00
	29	0-30
	29	5-00
	29	2-00
	53/1A1	1-00
	53/1A2	0-01
	54/1	3-06
	54/2	1-00
	55	0-17
	59	2-22
	60/1	3-29
	100	2-03
	101	1-17
	104	2-01
Total		40 -07

SUMMARY:

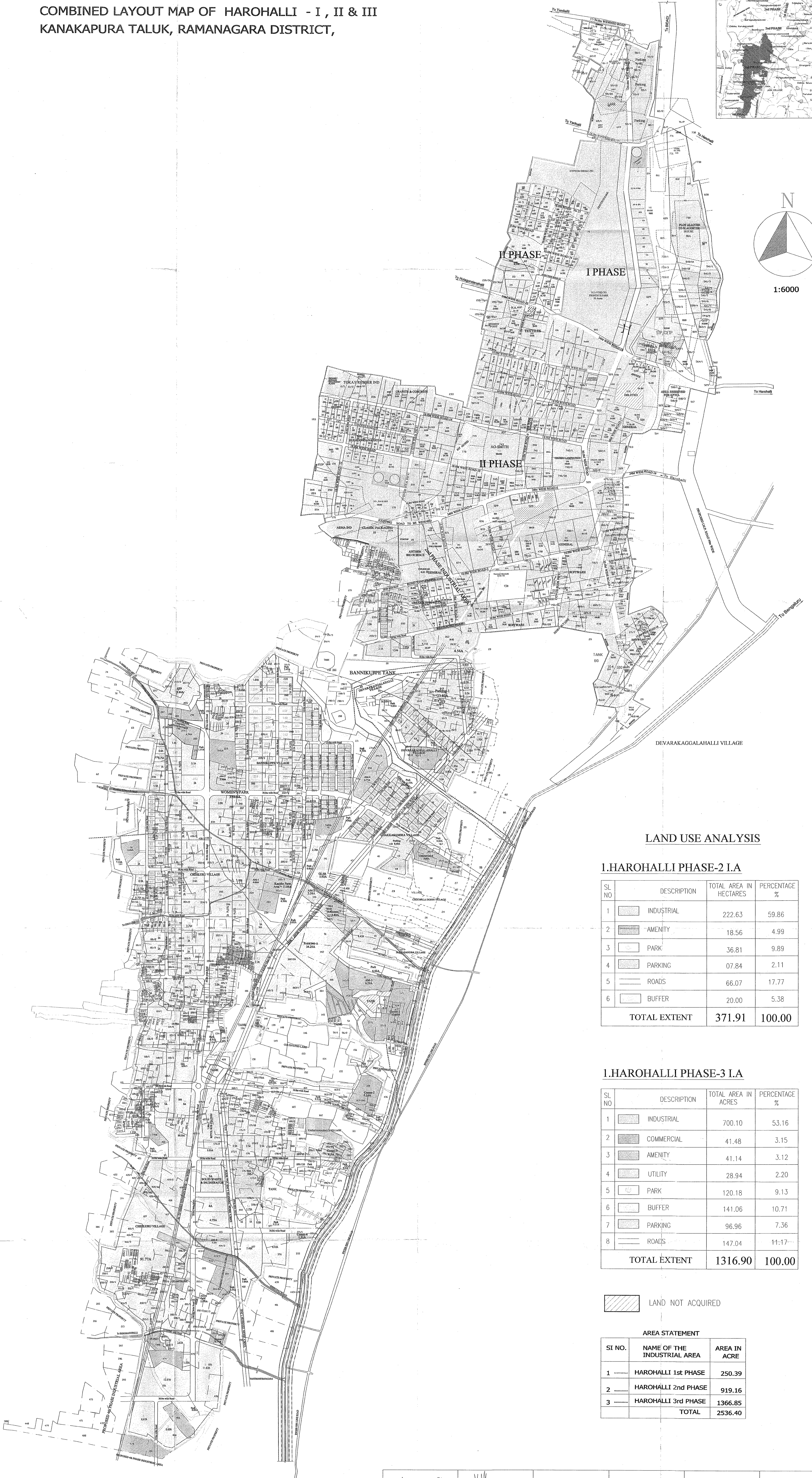
Sl no.	Village	Extent in Acres Guntas
1	Harohalli	476-21
2	Medamaranahalli	115-36
3	Hulagondanahalli	139-30
4	Banikoppe	104-31
5	Devarakalahalli	40-07
6	Govt Land	40-02
		919-19

ANNEXURE-2

COMBINED LAYOUT MAP OF HAROHALLI - I, II & III
KANAKAPURA TALUK, RAMANAGARA DISTRICT,



1:6000



LAND USE ANALYSIS

I.HAROHALLI PHASE-2 I.A

SL NO	DESCRIPTION	TOTAL AREA IN HECTARES	PERCENTAGE %
1	INDUSTRIAL	222.63	59.86
2	AMENITY	18.56	4.99
3	PARK	36.81	9.89
4	PARKING	07.84	2.11
5	ROADS	66.07	17.77
6	BUFFER	20.00	5.38
TOTAL EXTENT		371.91	100.00

I.HAROHALLI PHASE-3 I.A

SL NO	DESCRIPTION	TOTAL AREA IN ACRES	PERCENTAGE %
1	INDUSTRIAL	700.10	53.16
2	COMMERCIAL	41.48	3.15
3	AMENITY	41.14	3.12
4	UTILITY	28.94	2.20
5	PARK	120.18	9.13
6	BUFFER	141.06	10.71
7	PARKING	96.96	7.36
8	ROADS	147.04	11.17
TOTAL EXTENT		1316.90	100.00

LAND NOT ACQUIRED

AREA STATEMENT

SI NO.	NAME OF THE INDUSTRIAL AREA	AREA IN ACRE
1	HAROHALLI 1st PHASE	250.39
2	HAROHALLI 2nd PHASE	919.16
3	HAROHALLI 3rd PHASE	1366.85
TOTAL		2536.40