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# 1 Introduction

## 1.1 Preamble

The Andhra Pradesh Capital Region Development Authority (APCRDA) comprises parts of Krishna and Guntur districts of Andhra Pradesh state. The APCRDA is constituted through Andhra Pradesh Capital Region Development Act, 2014 replacing Vijayawada Guntur Tenali Mangalagiri Urban Development Authority (VGTM UDA). The Capital Area covers broadly an area of about 8914.52 sq. kms and largest urban development region in the country.

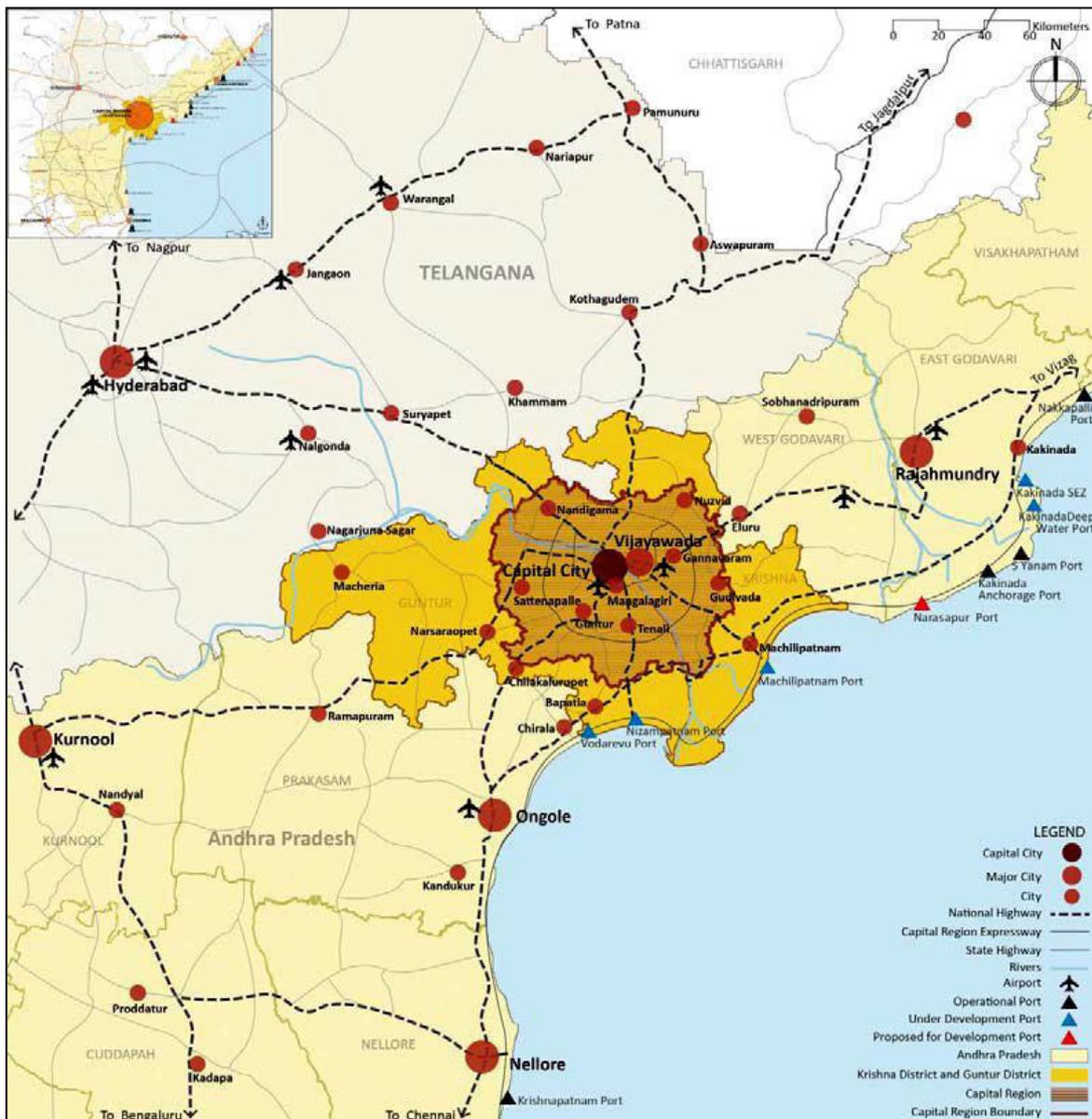
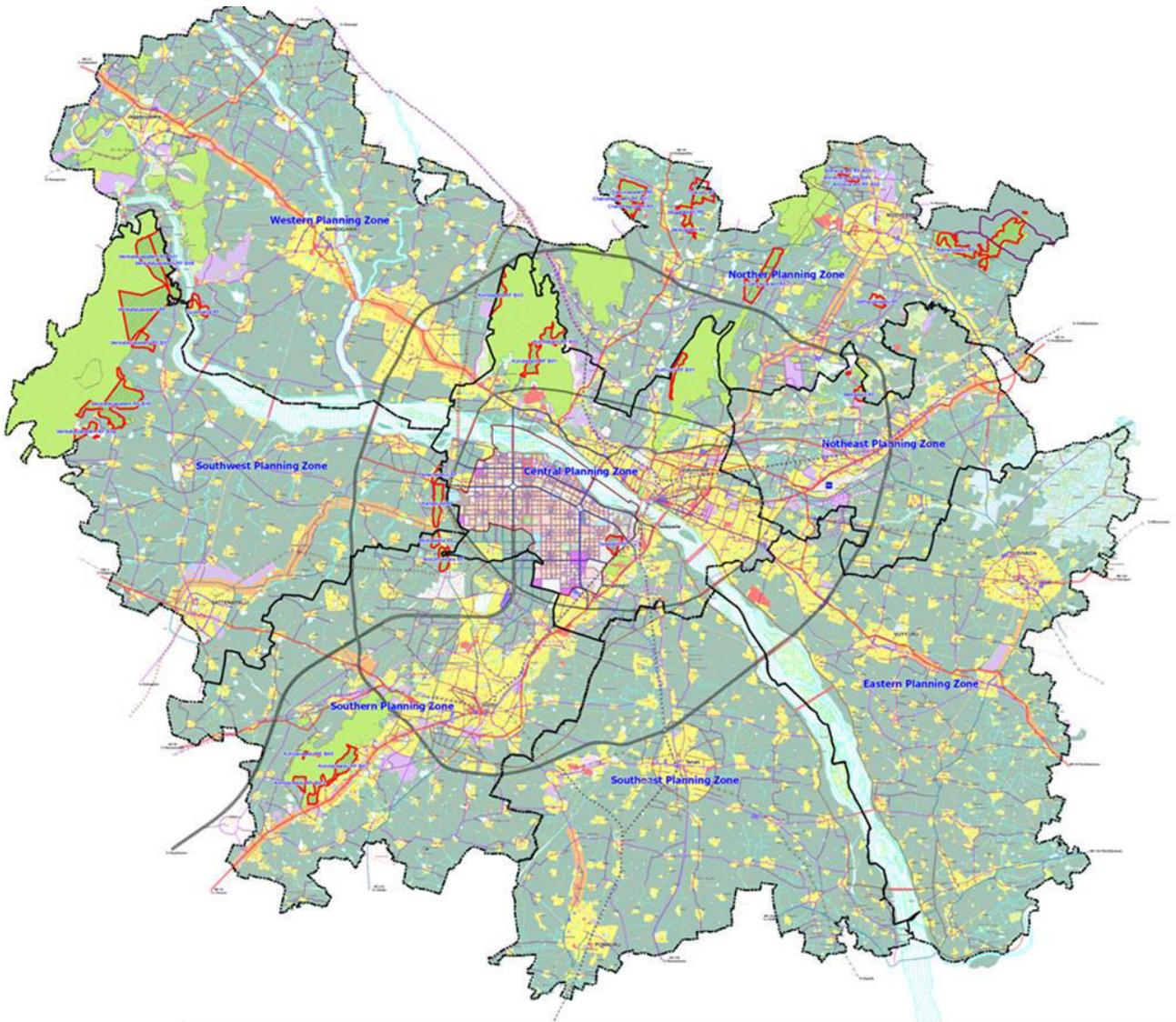


Figure 1: APCRDA location

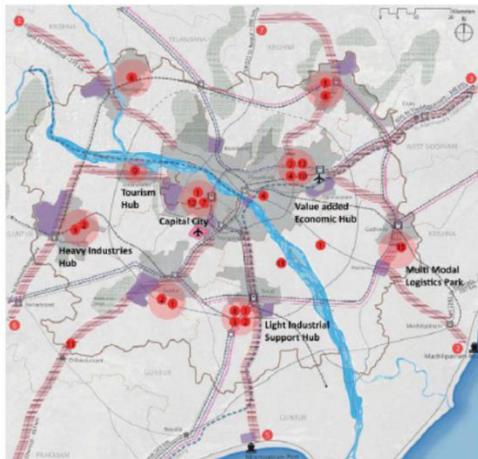
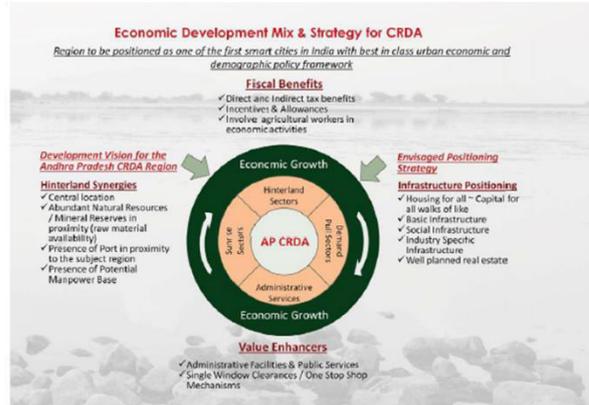
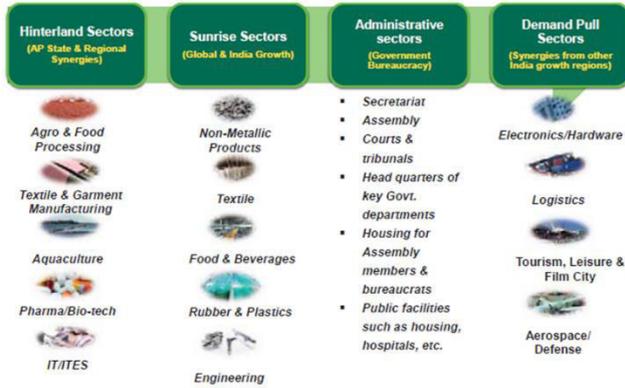
It includes 30 Mandals from Krishna and 26 Mandals from Guntur District. The region also includes the Phase-I (New Amaravati) of Andhra Pradesh state scheduled to develop in an extent of 217.23 Sq.km. Further, Govt. of Andhra Pradesh has amended the APCRDA jurisdiction with inclusion and as well as

exclusion of few Mandals and villages vide G.O. Ms. No. 207, dt. 22-9-2015. An area of 1413.72 Sq.km was added and simultaneously an area of 116.01 Sq.km was excluded from the region, making the total area of AP CRDA as 8914.52 Sq.Kms including the reserve forests.



*Figure 2: APCRDA Capital Area*

As a part of Concept Development Plan and Master planning exercise for the region, APCRDA intend to identify sizable and suitable lands for specific economic and social activities. Below are few activities envisaged for the development of the region, the following image shows the key sectors and their potential for development.



| Industry Segment                           | Opportunity for Capital Region |                     | Key Growth Drivers   |
|--|--------------------------------|---------------------|--|
|  | Short-Medium Term              | Medium to Long Term |  |
| Food & beverage products (Agro Processing) | ↑                              | ↑                   | Largest sector in the state (27% share in the overall output – 2008-11)  |
| Aquaculture                                | ↑                              | ↑                   | Existing eco-system, favorable climate conditions & fresh water sources  |
| Textile Industry                           | ↑                              | ↑                   | Abundant availability of raw materials – Substantial export demand   |
| Non-Metallic Mineral Products              | ↑                              | ↑                   | Downstream opportunities in the short-medium term due to raw material availability and growth in construction industry |
| Auto & Auto Components                     | ↔                              | ↑                   | Government thrust and anticipated demand growth in the region  |
| Rubber & Plastics                          | ↔                              | ↑                   | Strong inter – industry linkages; primarily as a support industry  |
| Pharmaceuticals                            | ↔                              | ↑                   | Hinterland synergies; bordering a large pharma hub; Establishment of PCPIR region to propel growth                     |
| Electronics Industry                       | ↔                              | ↑                   | Government thrust; presence of adequate power and manpower   |
| Basic & Fabricate Metal Industry           | ↔                              | ↑                   | Downstream opportunities in the short-medium term due to raw material availability                                     |
| Tourism                                    | ↑                              | ↑                   | Govt. thrust & places of cultural and religious importance   |
| Aerospace / Defense                        | ↔                              | ↔                   | Emphasis on the industry by both Central & State govt.   |
| Logistics                                  | ↔                              | ↑                   | Direct synergies with the overall industrial activity in the region  |
| IT / ITES                                  | ↔                              | ↑                   | Presence of skilled manpower, Govt. thrust   |

Figure 3: Potential sectors from development Plan in APCRDA Capital Area

### 1.2 Need for the Proposal

APCRDA proposes to develop specific social and economic activities under the purview of the Development Plan Proposals. During the process of identification of suitable lands, revenue, and reserve forest lands that are nearer to urban areas and that are suitable for the above activities were identified. Most of the alternatives explored are either Revenue lands, basic suitability analysis was carried out and most of them are either inaccessible, smaller than required, nominated for other uses and sparsely located. Meanwhile 26 reserved forests sites have been identified both in Krishna and Guntur Division to evaluate the suitability. For promoting and securing the planned development of the Capital Area by creating and establishing future economic drivers; it was found apt to locate these activities in the identified forest lands available within the Capital Area, since most of them are strategically located along growth corridors of the Capital Area. APCRDA entrusted preparation of Comprehensive Project report (Aarvee associates to support) with

proposed land use plan to obtain approval from Ministry of Environment and Forest & Climate Change, Govt. of India, New Delhi.

### 1.2.1 Data Collection & Site Visits

The following data shall be collected from the concerned divisions:

- i. Topo drawings or Topo Sheets from GSI of the RF Lands
- ii. DGPS survey boundary drawings/ data sheets- Each Block boundary and the boundary for proposed diversion extent.
- iii. Finalize the activities to be proposed in the identified RF lands
- iv. Three Alternative sites with location details.
- v. Any other data for the Project needs, as requested by consultants during contract duration

### 1.2.2 Site Visits

Aarvee Team carried out a detailed visit of the 26 Reserved Forest Blocks between 26th Sep to 1st October 2016. Respective forest block FROs and FBOs accompanied the team for the reconnaissance visit. This includes the profile of each Project site covering connectivity aspects, existing land use, surrounding developments, review of development controls (Bye-laws) and zoning regulations, environmental aspects and SWOT analysis. The existing infrastructure facilities including water supply, power supply and waste management shall also be studied.

### 1.2.3 Meetings with Officials

Several meetings were held with CRDA officials and other concern officers from revenue and forest departments.

### 1.2.4 Data Analysis

Parallel to this, planners were analysing the relevant data received from various sources. The analysis included understanding of physical site features such as hills, rivers, canals, forests, drains, etc., along with an understanding of the sociodemographic and economic pattern of the surrounding areas.

DGPS survey drawings and Forest boundaries were analysed with satellite imagery available to arrive at the exact boundaries proposed for diversion under this proposal.

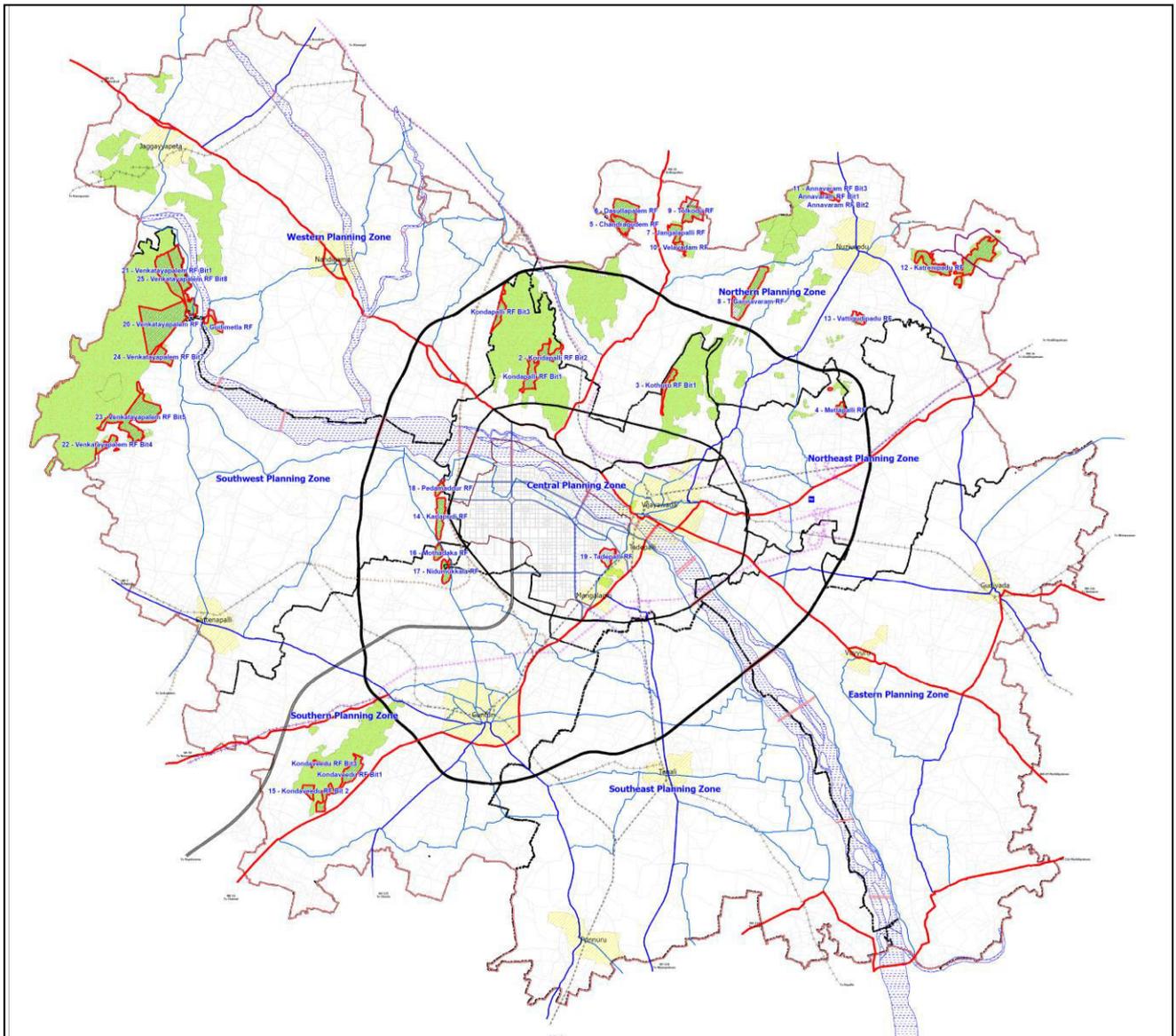
## 1.3 List of Proposed Forest Lands for Diversion

Table 1 : List of Proposed Lands for Diversion

| S.NO                    | FOREST BLOCK | PROPOSED ACTIVITIES                                     |
|-------------------------|--------------|---|
| <b>KRISHNA DISTRICT</b> |              |   |
| 1                       | Gudimetla    | Centre of Excellence for Ayurveda Research and Wellness |
| 2                       | Kothuru      | Integrated Health and Wellness center                   |
| 3                       | Metlapalli   | International Convention & Exhibition Centre.           |

|  |                       |   |                                 |
|--|-----------------------|---|---------------------------------|
|  <b>aarvee associates</b><br>architects engineers & consultants pvt. ltd. |                       | <i>Comprehensive Project Report for Proposed<br/>         Diversion of Kondapalli RF (890.43 Ha) In APCRDA Region</i> | Date:26-09-2017<br>Page:7 of 40 |
| 4  | Chandragudem          | IT,ITES Park & Allied activities  |                                 |
| 5  | Dasullapalem          | IT,ITES Park & Allied activities  |                                 |
| 6  | Jangalapalli          | Handloom & Handicraft Village   |                                 |
| 7  | T Gannavaram          | Centre for Education & Higher learning  |                                 |
| 8  | Tholukodu             | Biomedical & Biotechnology Research Centre  |                                 |
| 9  | Velvadam              | Biodiversity Education and Infotainment Centre  |                                 |
| 10   | Annavaram             | Agri Processing and Support Infrastructure  |                                 |
| 11   | Katrenipadu           | Centre of Excellence for Culture, Heritage and Media  |                                 |
| 12   | Vattigudipadu         | Institute of Fundamental Research & Aqua Research Complex   |                                 |
| 13   | Kondapalli            | Sports & Physical Training Centre (Bit 1&2), Agri-Tourism Projects (Bit 3)  |                                 |
| <b>GUNTUR DISTRICT</b>   |                       |   |                                 |
| 14   | Karlapudi             | Cultural Theme Park   |                                 |
| 15   | Kondaveedu            | Forest Academy, Heritage Park Adventure Eco Theme Park & Institutional Area   |                                 |
| 16   | Mothadaka             | Science City  |                                 |
| 17   | Nidumukkala           | Bio-Diversity Park  |                                 |
| 18   | Pedamadduru           | Tourist Village   |                                 |
| 19   | Tadepalli-Undavalli   | Business District   |                                 |
| 20   | Venkatayapalem        | Police & Armed Forces complex   |                                 |
| 21   | Venkatayapalem Extn 1 | Aerospace, Defense, Precision Engg. & Green Mobility Industrial Park  |                                 |
| 22   | Venkatayapalem Extn 4 | Integrated Cut Flower & Spice Park  |                                 |
| 23   | Venkatayapalem Extn 5 | Innovation Industrial Park  |                                 |
| 24   | Venkatayapalem Extn 7 | Integrated Bio Pharma Infrastructure Park   |                                 |
| 25   | Venkatayapalem Extn 8 | Aerospace, Defense, Precision Engg. & Green Mobility Industrial Park  |                                 |

### 1.4 Location Map of Proposed Forest Lands for Diversion



## 2 Kondapalli Fort

Kondapalli is now a town situated about 16 km from Vijayawada. It has a 14th century fort on a hill, with an impressive three-storeyed rock tower. A major attraction here is the dargah of Gareeb Saheeb, a Persian saint. The fort has witnessed the glory of many a dynasty. It served as a business centre. During the British rule, it was used as a military training base. It is now a popular picnic spot.



## 3 Kondapalli Reserve Forest

### 3.1 Site Introduction

Table 2: Site Assessment for Kondapalli RF

| 3.1.1 Introduction | a. Location & Site Details | <p><b>Kondapalli RF</b> is situated at Ibrahimpatnam Mandal, Krishna District, and AP. The RF is a Hilly Terrain; split into 3 parts which are accessible from NH-9, NH- 221 and other major roads to urban centres viz., Vijayawada (30 kms), Nandigama (35 kms) and Mylavaram (25 kms).</p> <p><b>Surrounding Location</b></p> <p>The area surrounding the subject land parcel are villages and rich agricultural fields</p> <ul style="list-style-type: none"> <li>• North - Duggiralapadu &amp; Alluru villages</li> <li>• South &amp; South East - Kondapalli &amp; Ibrahimpatnam villages</li> <li>• East - Konduru &amp; KadimPothavaram villages</li> <li>• West - Paritala &amp; Kanchikacherla villages</li> </ul> |
|--------------------|----------------------------|--|
|                    | b. Accessibility           | <p><b>Kondapalli RF</b> situated near Kethankonda (5.1 kms) &amp; Kondapalli villages (10.2 km), is accessible from Vijayawada via NH -9 which passes along the South to the RF site and from Mylavaram via NH 221.</p> <p>Vijayawada is easily accessible by road and rail from all parts of India. The nearest airport is at Gannavaram, which is 40 kms away.</p> <ul style="list-style-type: none"> <li>• ORR distance (at Intersection point): 20 kms</li> <li>• Distance from Capital City (Thullur): ~50 Kms</li> </ul>   |

**c. Key Features of Site**  
(Detail Breakup refer in Annexure - 1)

Spread across an area of **890.43 Ha**; the RF Site is a hillock with varying steep terrain. A maximum contour level difference of 55 m is recorded.

- Kondapalli RF Bit - I – 354.96 Ha
- Kondapalli RF Bit - II – 300.86 Ha
- Kondapalli RF Bit - III – 234.59 Ha

Located at a distance of ~ 10 kms from Kondapalli Village (to Main RF); it can be approached to

**Kondapalli Bit I**

By Road : NH 9 (Vijayawada & Nandigama)

By Rail : Vijayawada - Kondapalli

**Kondapalli Bit II**

By Road : Ibrahimpatnam – Mylavaram (NH-221)

By Rail : Vijayawada – Kondapalli

**Kondapalli Bit III**

By Road : NH 9 (Vijayawada & Nandigama)

Kanchikacherla- Alluru

By Rail : Vijayawada – Yerrupalem

The coordinates of the project sites are

- Kondapalli RF Bit-I – 16°39'14.68"N and 80°29'47.96"E.
- Kondapalli RF Bit-II – 16°40'44.10"N 80°30'45.40"E
- Kondapalli RF Bit-III – 16°43'22.58"N 80°27'38.99"E

Due consideration is taken to provide access to the existing settlements; if any within the site area.

**d. Forest Cover**

Located in Krishna Range, Kondapalli Section; the RF Site is spread across an area of 5306.71 Ha. It is a Dry deciduous Scrub Forest. Bamboo occurs in good proportions in Kondapalli RF site. Tella poniki softwood is found in the forest which is useful in making the Kondapalli Toys.

*Topography:* Hillock

Density of Forest Area : 0.3 to 0.4

The forest is home to several carnivorous animals like, leopards, wild dogs and a few others like, jackals, wolves, civet cats as well. The herbivorous animals in the forest include wild boars, sambar deer, chital, barking deer, rhesus monkey and four-horned antelopes. Birds such as peacocks and jungle fowl are also found in the forests.

**e. Alternative Sites**

The chosen Alternate Sites are not suitable and are surrounded by encroachment. The chosen sites are listed below.

**1. Kattubadipalem hillock:**

The identified site is spread across 104.2 Ha (Survey No: 26); in G.Kondur Mandal. Located to the North West of Vijayawada City along the Vijayawada – Ibrahimpatnam – Mylavaram expressway ; the chosen site is about 4 kms from Gaddamanugu village, where mining activities are undergoing, hence this site is not suitable for a Agri-Tourism Project and as per adangal information the area falls Forest land

**2. Chilukuru revenue hillocks:**

The identified site is spread across 505.21 Ha (Survey No: 801); in Paritala Village, Kanchikacherla Mandal. This Hillock is located to the North West of Vijayawada City along the Vijayawada -Hyderabad expressway. The chosen site is about 1 km from Chilukuru village, where mining activities are undergoing; hence this site is not suitable for a Sports City Project. As per adnagal data, the site is categorized as Hillock

**3. Trilochanapuram revenue hillocks:**

The identified site is spread across 14.26 Ha (Survey No: 18); in Trilochanapuram Village, **Ibrahimpatnam** Mandal. This Hillock is located to the North West of Vijayawada City along the Vijayawada -Hyderabad expressway. As per adnagal data, the site is categorized as Poramboku (Govt. land) and Patta land.

*(Refer alternative site assessment details in subsequent section)*

### 3.1.2 Nearby Attractions

The **Kondapalli Fort** situated in the 5 km vicinity of Main RF is a major tourist attraction. Kondapalli Fort, also locally known as Kondapalli Kota, is located in the Krishna district, close to Vijayawada, the second largest city of Andhra Pradesh, India. The historic fort on the hill (Eastern Ghats) located to the west of the Kondapalli village was built by Prolaya Vema Reddy of Kondaveedu during the 14th century, initially as a pleasure place and a business centre, along with the Kondaveedu Fort in Guntur district.

Apart from the fort, which is a major tourist attraction, another important artistic rural product of Kondapalli is the crafting of colourful toys, called the Kondapalli toys. A very light white wood (see image in gallery) is used to make the lively painted toys, including mythological figures, women and animals. This handicraft product has been given a Geographical Indication under the name “Kondapalli Bommalu” as protection given to a reputed product.

#### **Amravati Capital City**

The New Capital of Andhra Pradesh is envisioned to be the pioneer Smart City of India. It will be an economic powerhouse that will create a range of jobs for existing resident villagers by upgrading their skills, as well as provide high-tech and knowledge based industry jobs to be globally competitive.

The New Amaravati Capital city and Vijayawada will grow as twin cities in the future due to their close proximity. The diverse economy of the two cities will compliment each other and ultimately emerge as a Mega City.

### 3.1.3 Existing Facilities

- ✓ Kondapalli Fort (within 5 km vicinity)
- ✓ Water Source: Polavaram Canal

### 3.1.4 Proposed Facilities

- ✓ **Proposed Landuse** : Public & Semi-Public and Recreation
- ✓ **Activities** : Sports & Physical Training Centre and Agri-Tourism Projects

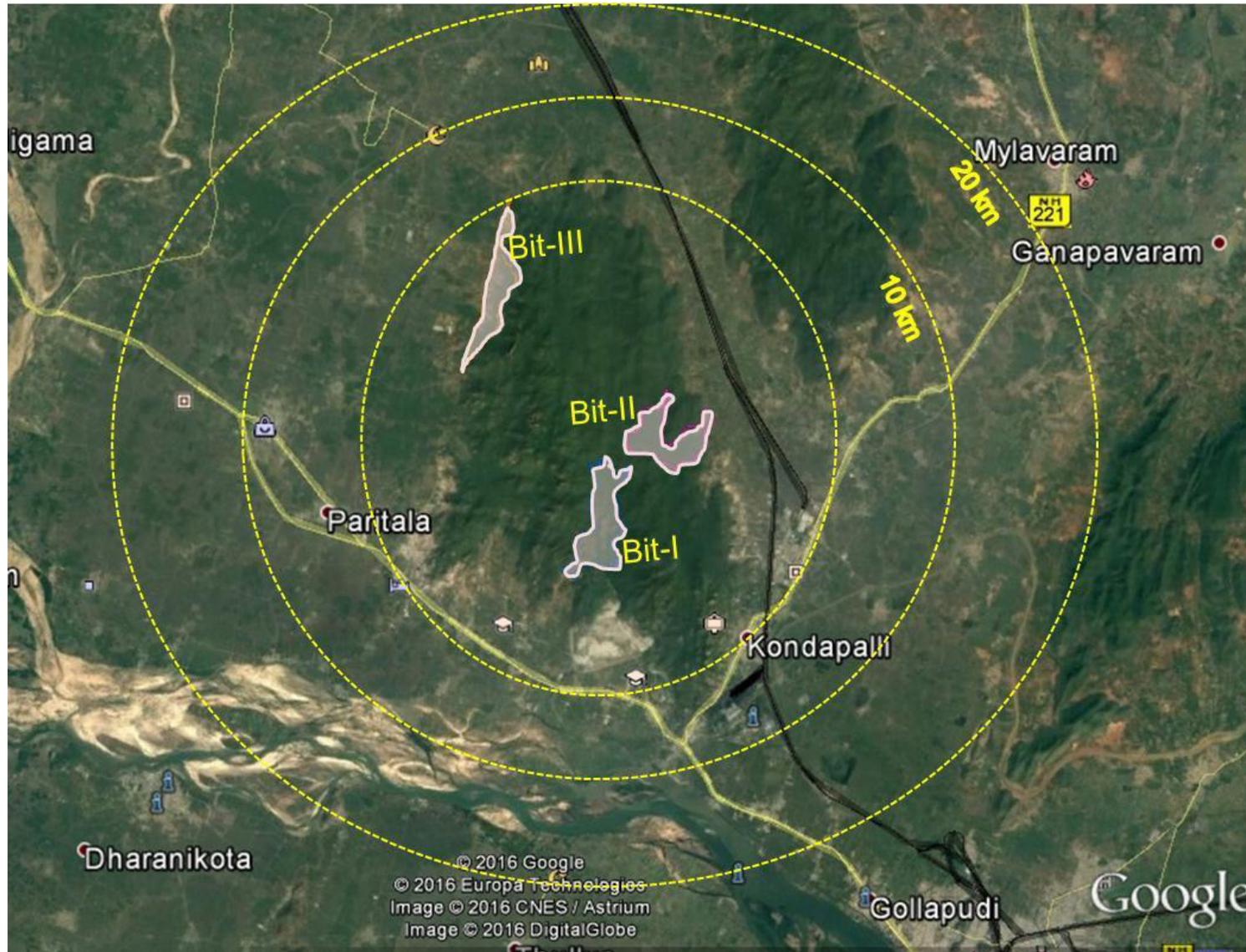


Figure 4: Regional Location Map of Kondapalli RF Sites



Figure 5: Site Accessibility – Kondapalli RF Site – Bit: I

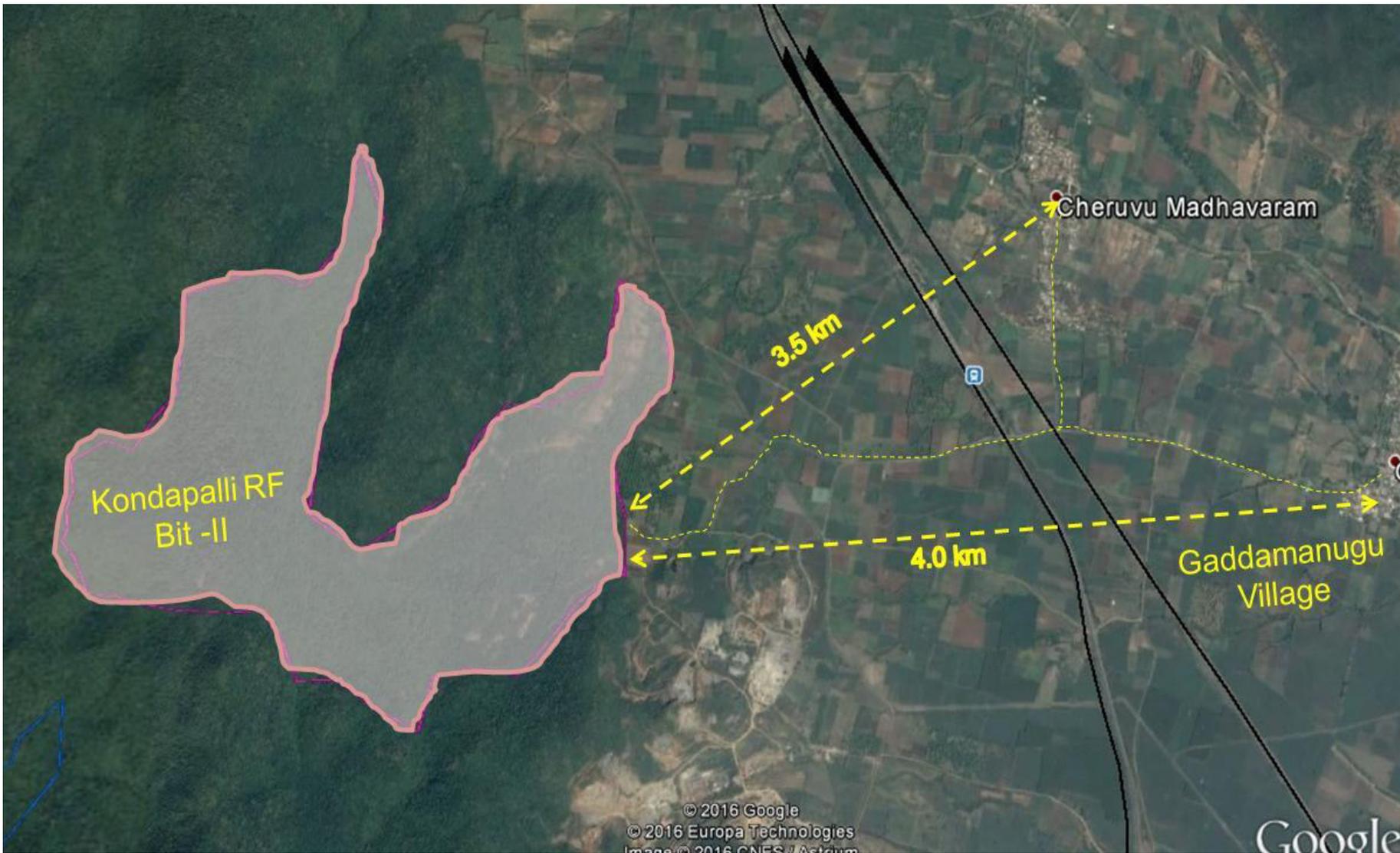


Figure 6: Site Accessibility – Kondapalli RF Site – Bit: II

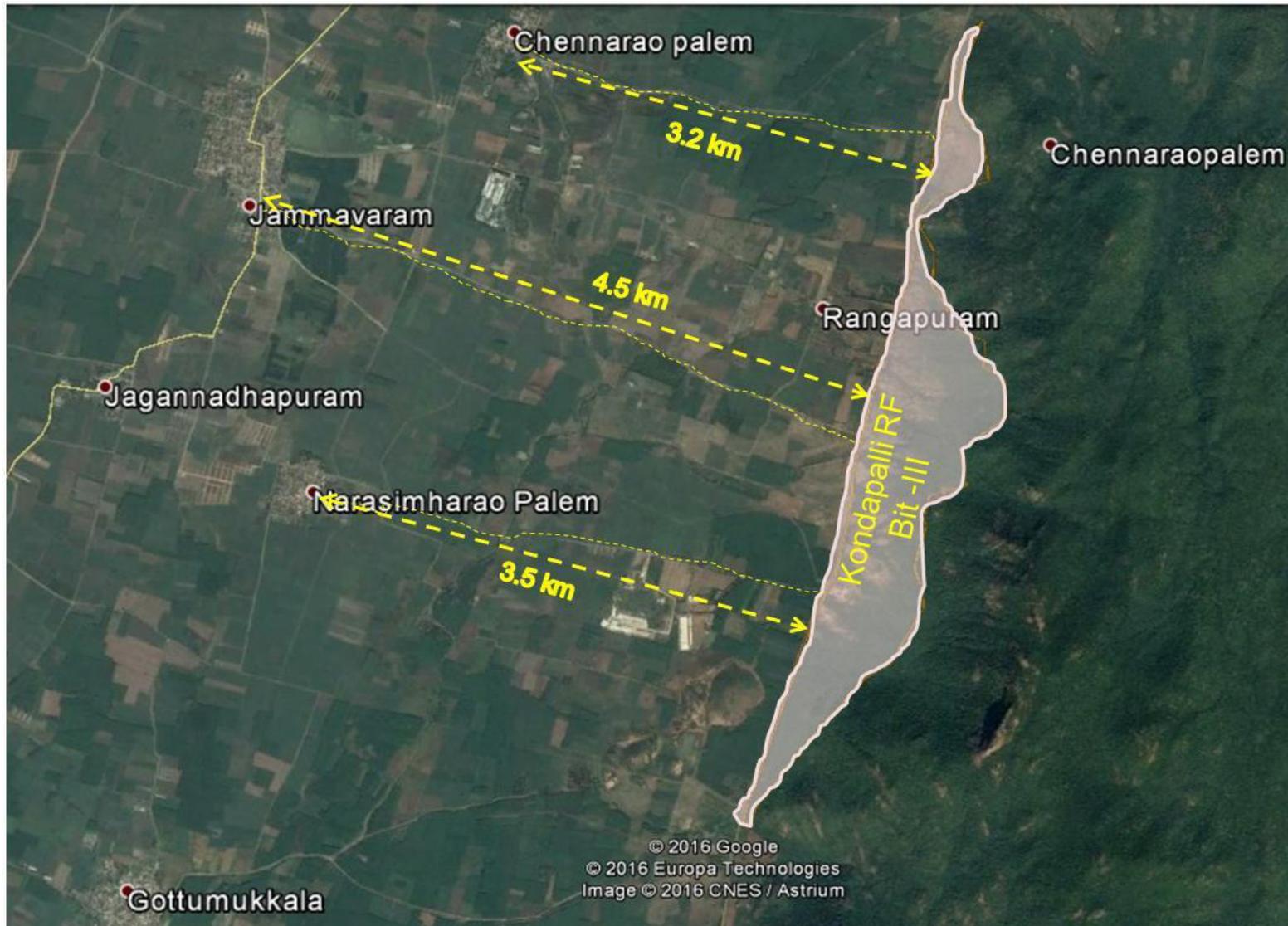


Figure 7: Site Accessibility – Kondapalli RF Site – Bit: III



Figure 8: Reconnaissance Survey- Kondapalli RF Site – Bit: I

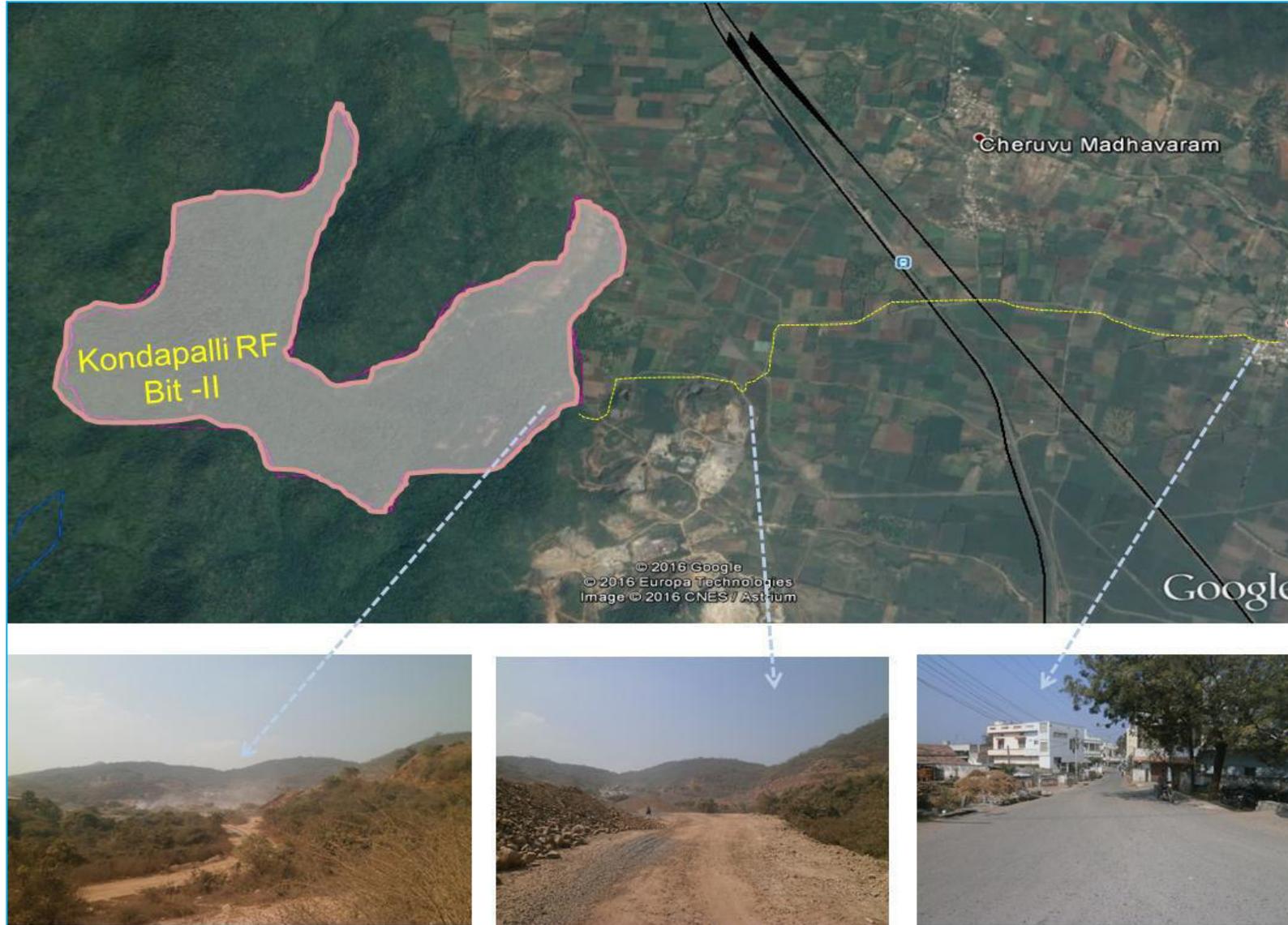
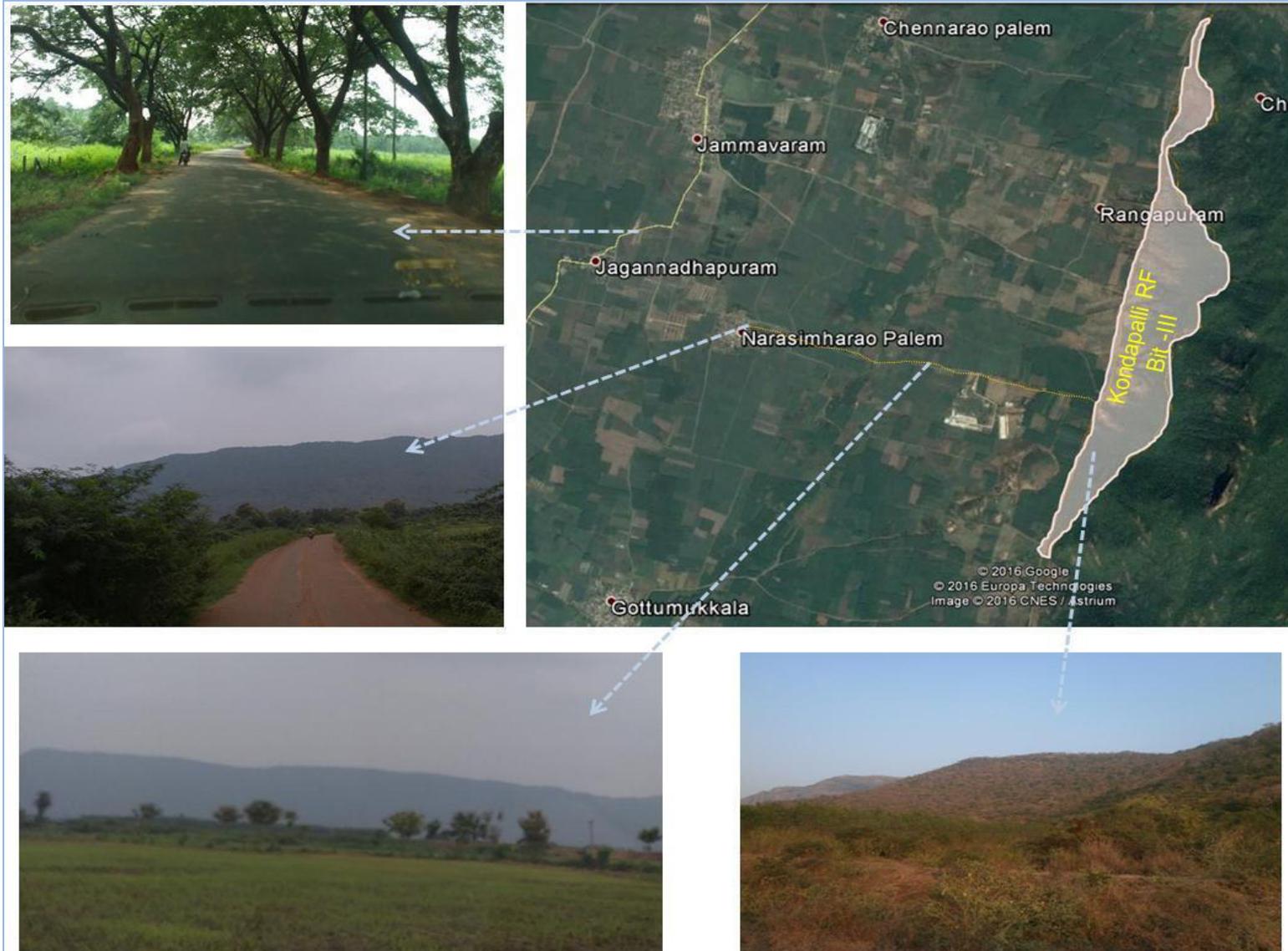


Figure 9: Reconnaissance Survey- Kondapalli RF Site – Bit: II



*Figure 10: Reconnaissance Survey- Kondapalli RF Site- Bit: III*

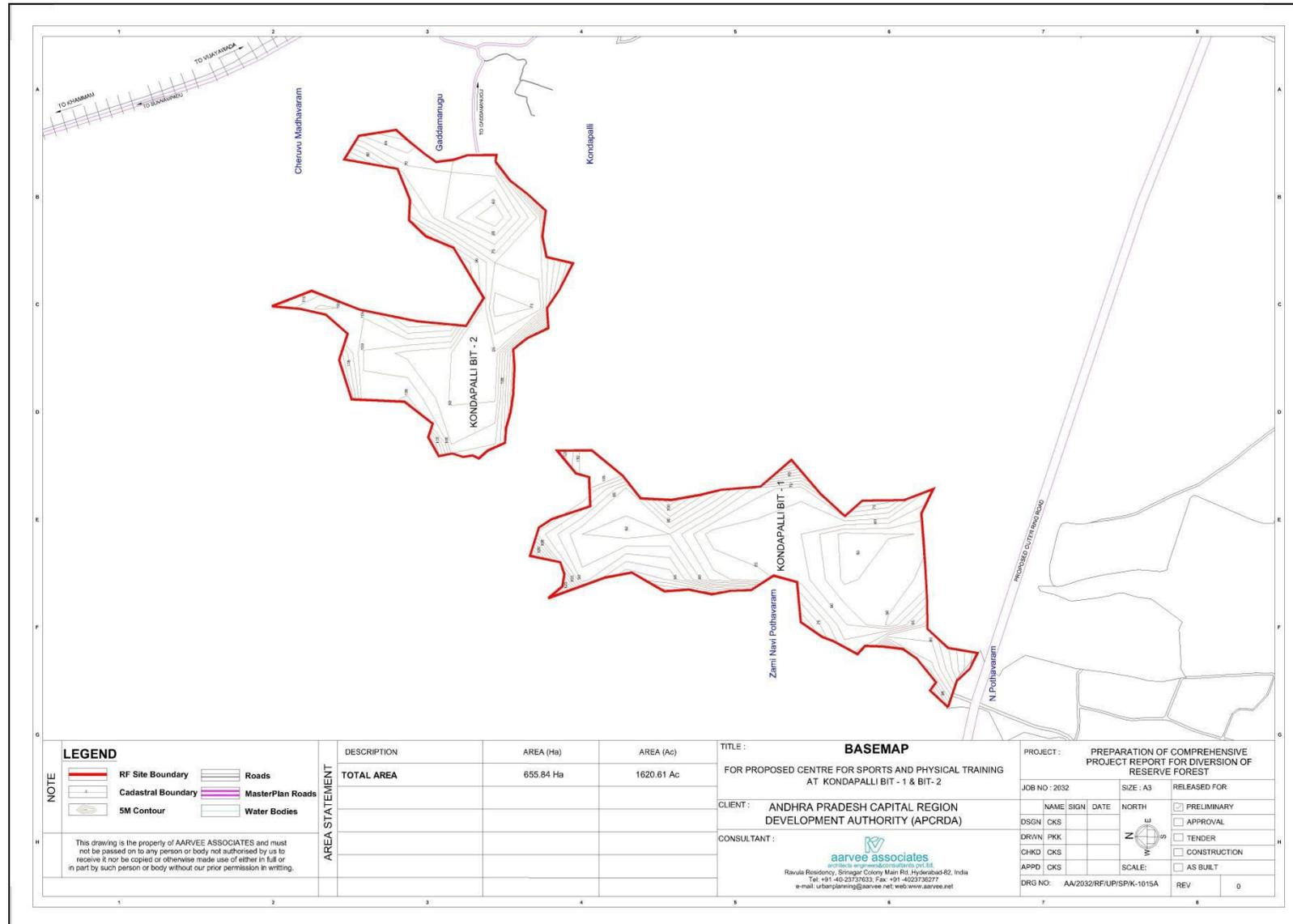


Figure 11: Base Map – Kondapalli RF Site – Bit I&II

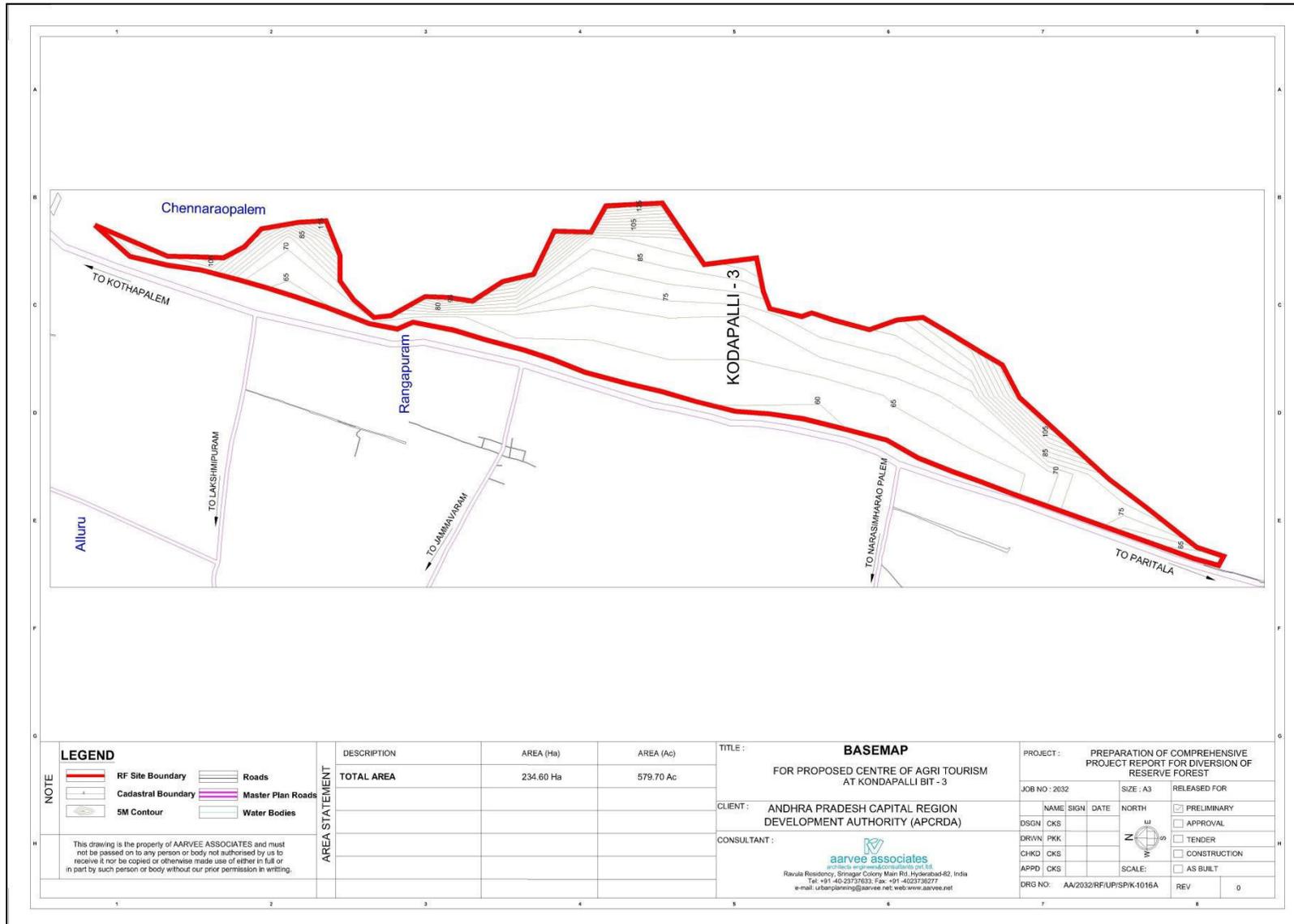


Figure 12: Base Map – Kondapalli RF Site - Bit III

### 3.2 Site Suitability Assessment

*Table 3: Site Suitability Assessment of Kondapalli RF Site*

| # | Particulars                                    | Good   | Average | Poor |
|---|--|--|---------|------|
| 1 | Proximity to Urban Areas                       | Located within the CRDA Region and is easily accessible from major urban centers such as ,Vijayawada, Nandigama & Mylavaram  | ----    | ---- |
| 2 | Site Accessibility                             | <ul style="list-style-type: none"> <li>• Good Connectivity : NH 9, NH 221</li> <li>• Availability of public transport facility (Buses &amp; shared autos)</li> <li>• Rail Access</li> <li>• Proposed ORR</li> </ul>  | ----    | ---- |
| 3 | Existing Features /Resources in proximity      | <ul style="list-style-type: none"> <li>• Good Approach Roads</li> <li>• Kondapalli Fort</li> </ul>   | ----    | ---- |
| 4 | Infrastructure (Water Supply, Power, drainage) | <ul style="list-style-type: none"> <li>• Water source for future availed</li> <li>• Access Road to the site</li> <li>• Remaining facilities – dependency onVijayawada town</li> </ul>  | ----    | ---- |
| 5 | Potential for Development                      | <p>The site is ideal to be developed as a <b>Sports &amp; Physical Training Centre and Agri-Tourism.</b></p> <p>Reasons</p> <ol style="list-style-type: none"> <li>1. Master Plan Proposal -           <ul style="list-style-type: none"> <li>• Strengthening of roads in and around the RF which connects the surrounding urban centres</li> <li>• With many upcoming projects to develop the fort and its surrounding area by Archeology Department; it is best suited that the entire area (RF Bit I&amp; II) to be developed as a Sports &amp; Physical training centre.</li> </ul> </li> <li>2. With Vijayawada developed as an administrative/commercial headquarters; and the entire stretch of NH-9 proposed as TOD corridor with different pockets identified as PSP and Industrial use); development of another Institutional Zone is benefitted for creation of Job and better administration.</li> <li>3. Land Availability</li> </ol> | ----    | ---- |
| 7 | Other similar Development in Proximity         | None   | ----    | ---- |
| 8 | Visitors Security w.r.t Site                   | No Threat Perception since the proposed site is well within the CRDA Region  | ----    | ---- |

**Location Map showing the forest land proposed for diversion in KONDAPALLI RF, KRISHNA DIVISION  
for Capital City Infrastructure Project in APCRDA**

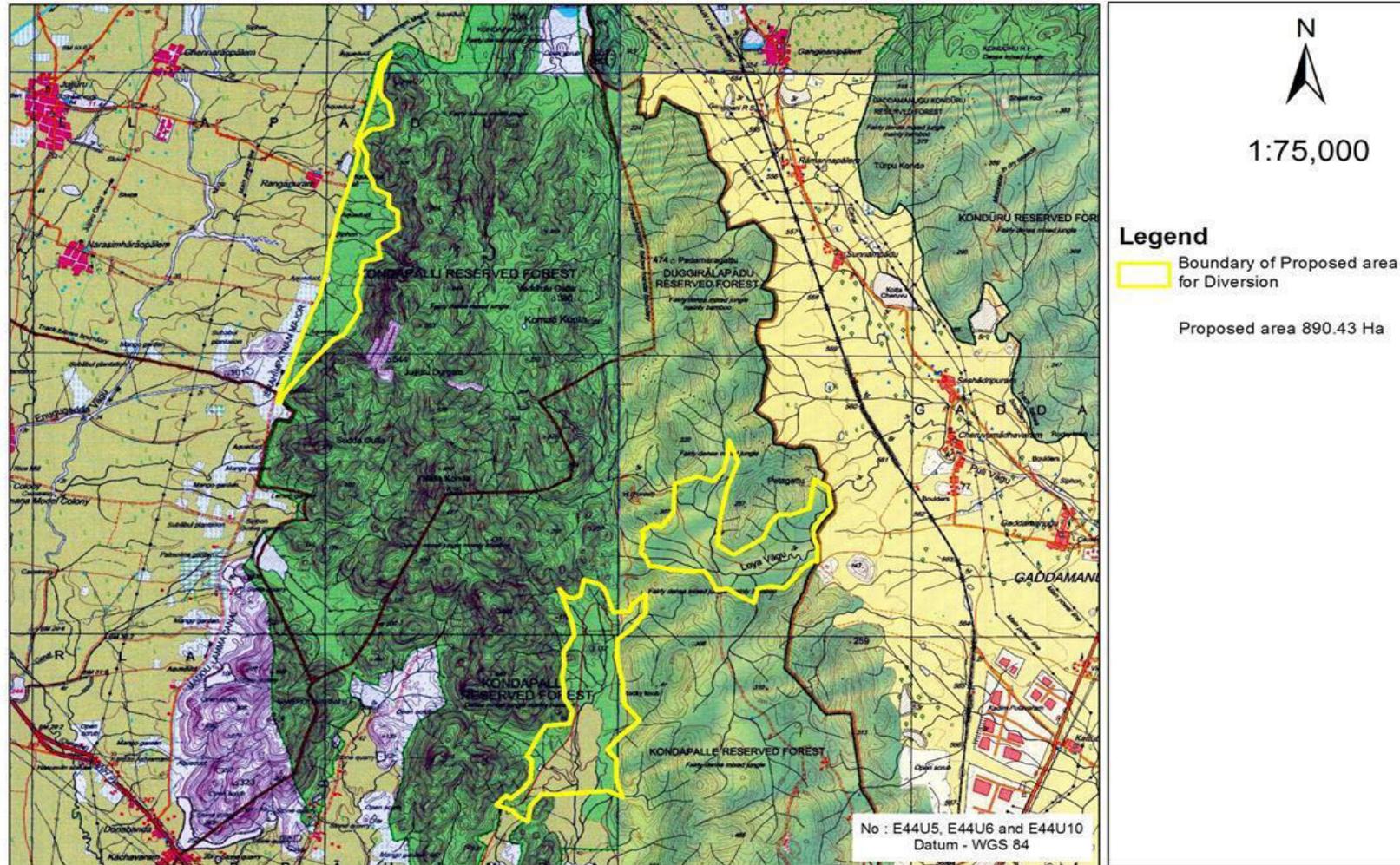


Figure 13: Topographic Map – Kondapalli RF sites

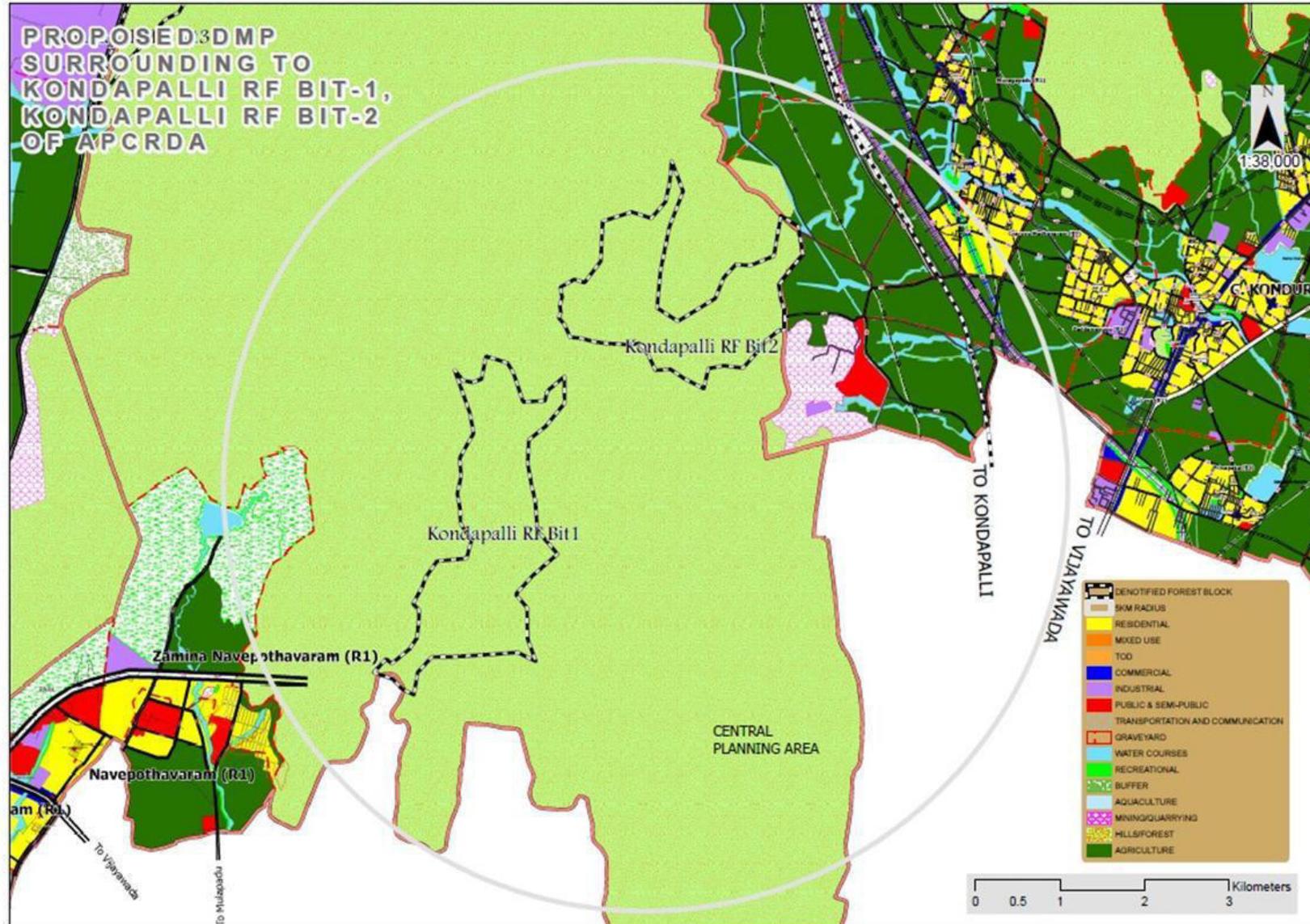


Figure 14: Proposed Development in and around the RF as per Master Plan (2035) – Kondapalli RF Bit- I&II

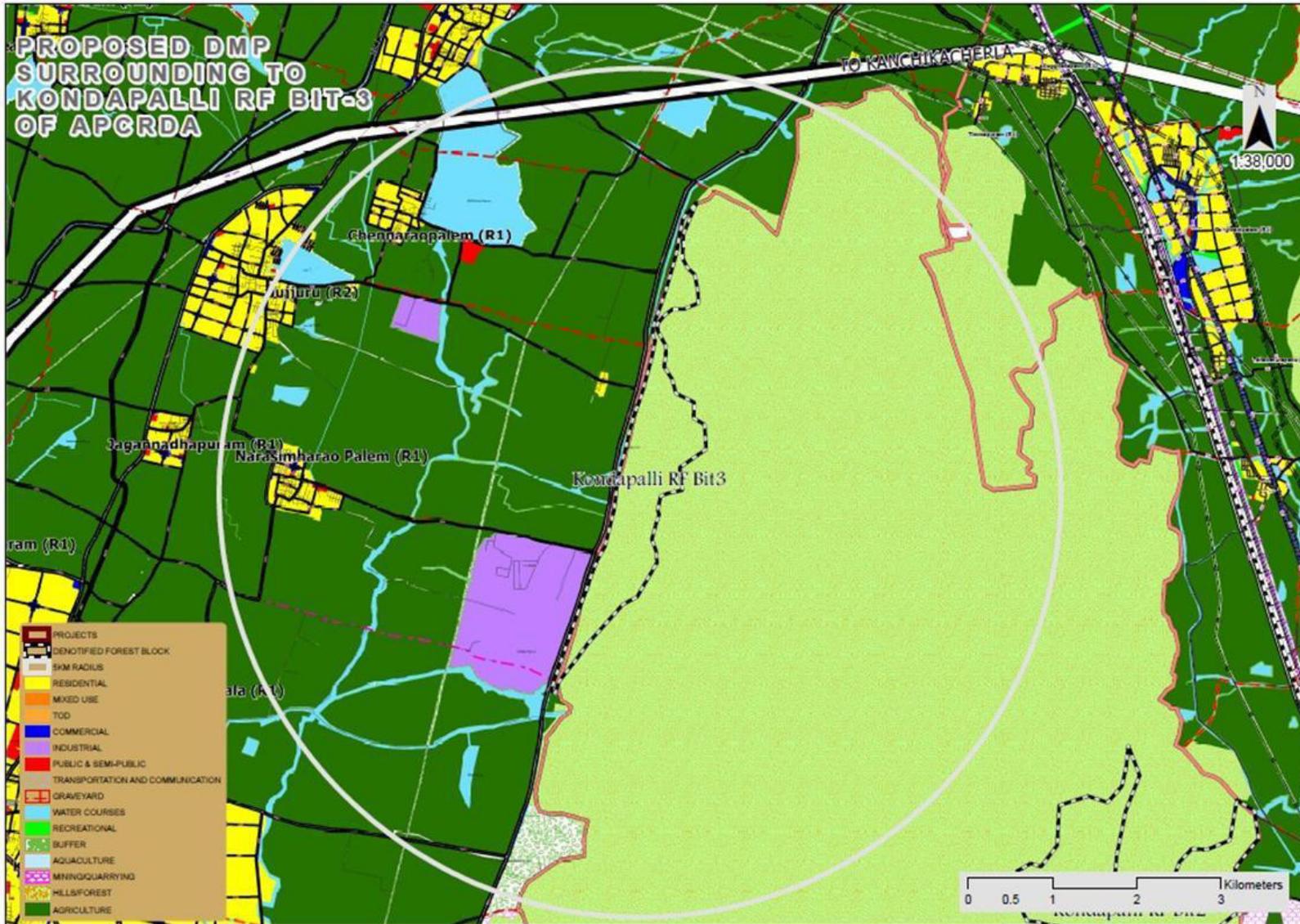


Figure 15: Proposed Development in and around the RF as per Master Plan (2035) – Kondapalli RF Bit- III

### 3.3 Concept Plan

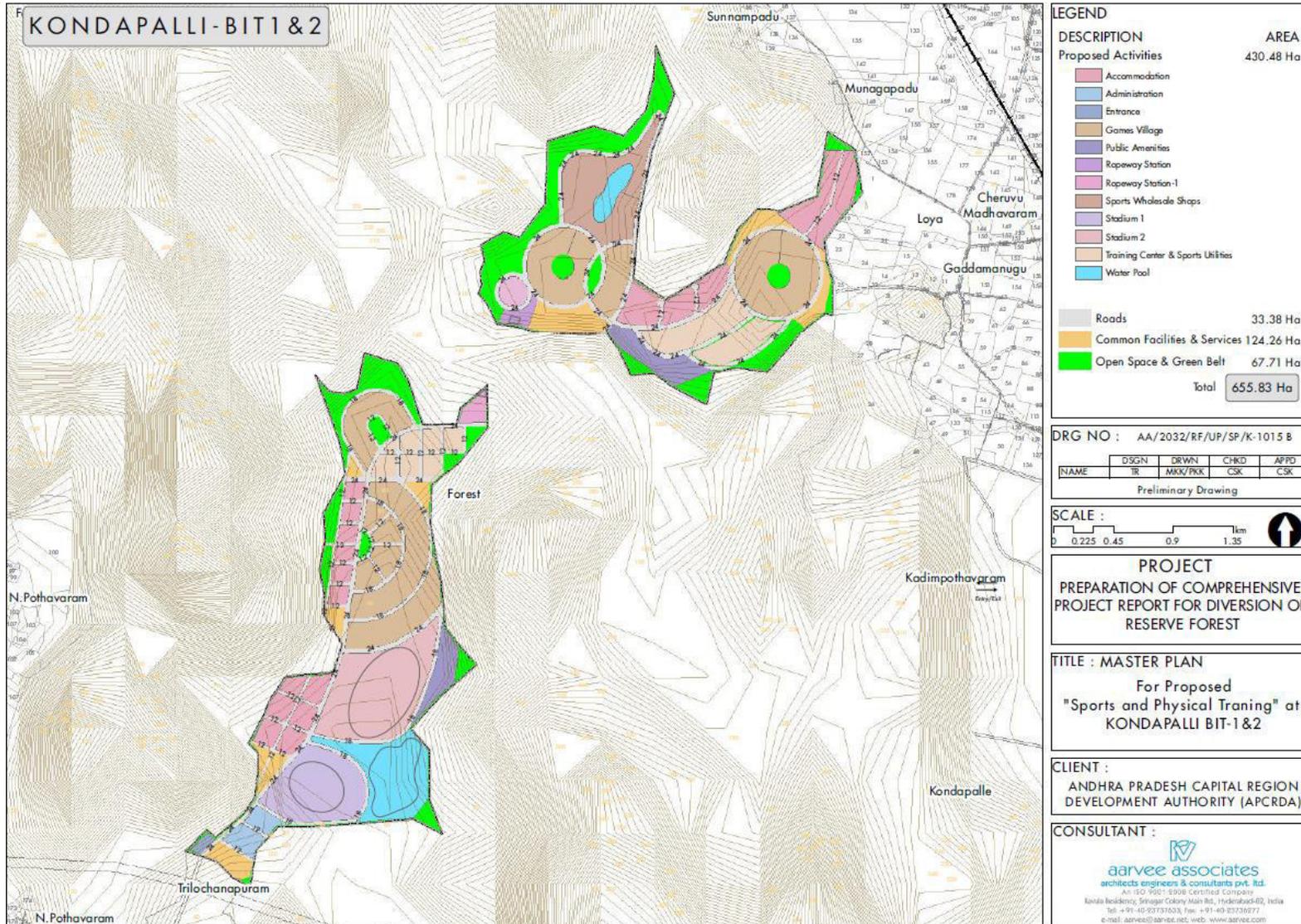


Figure 16: Concept Layout Plan – Kondapalli RF Bit- I&II

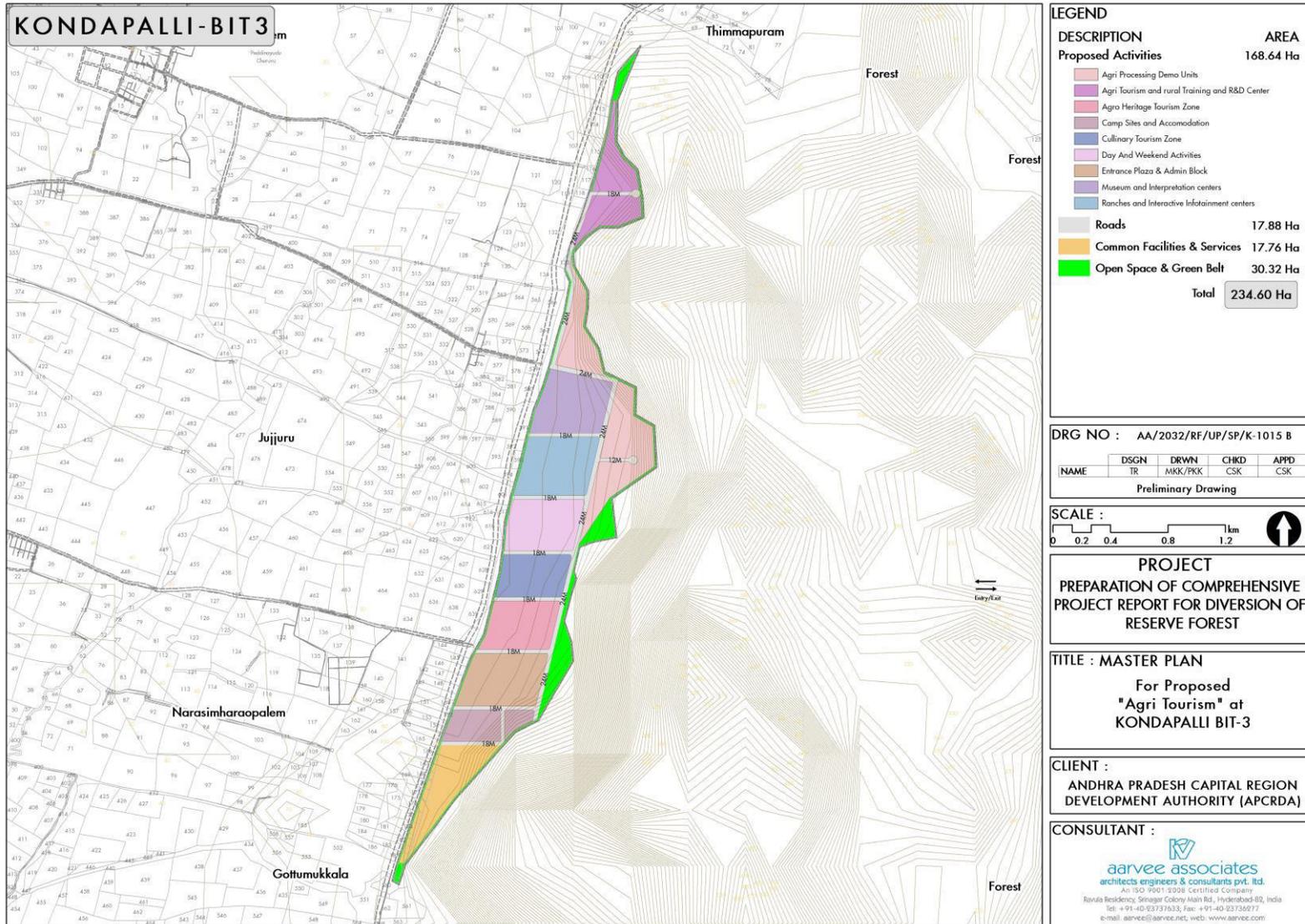
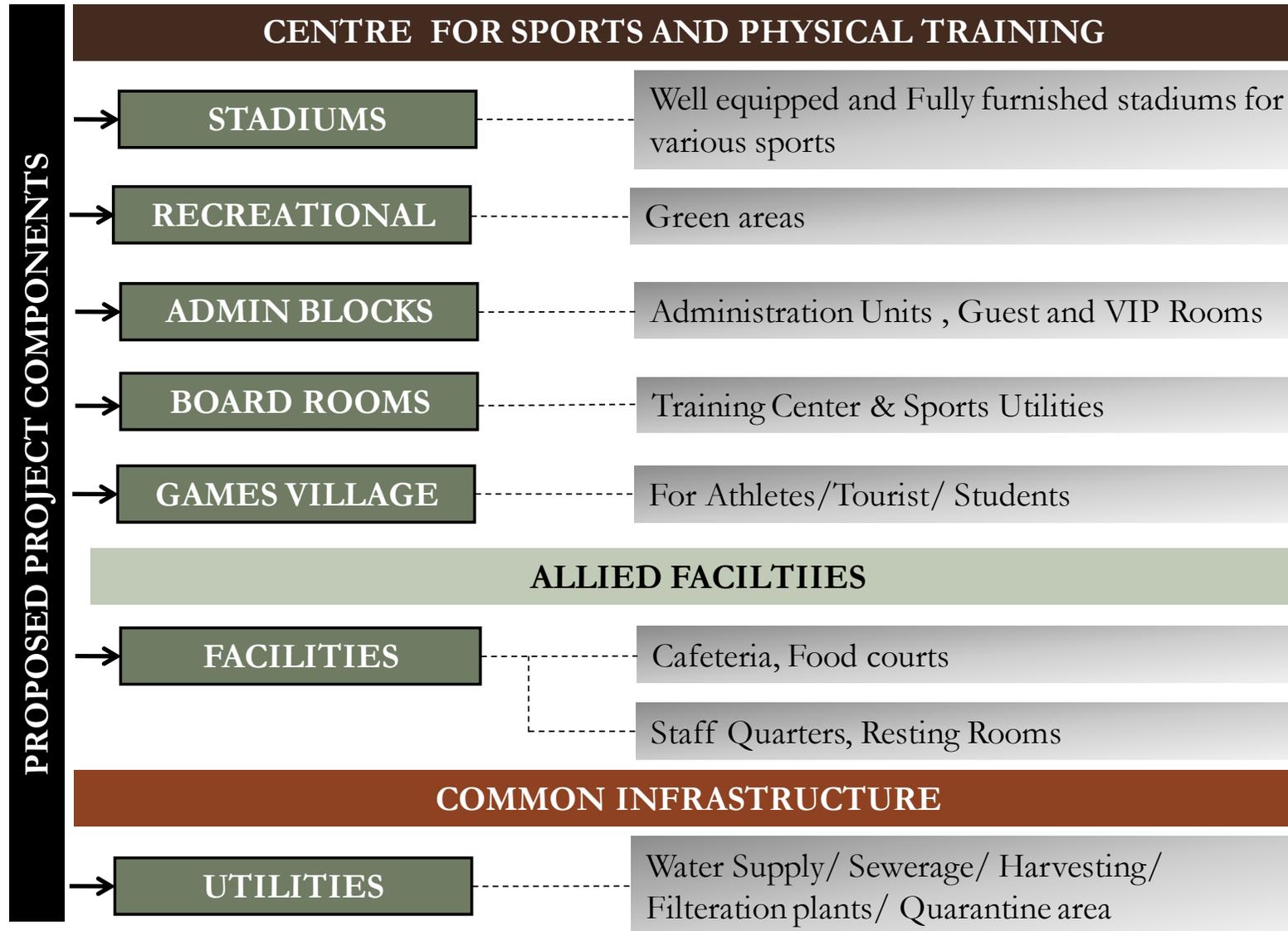


Figure 17: Concept Layout Plan – Kondapalli RF site-III



*Figure 18: Key Project Components – Kondapalli RF Bit- I&II*

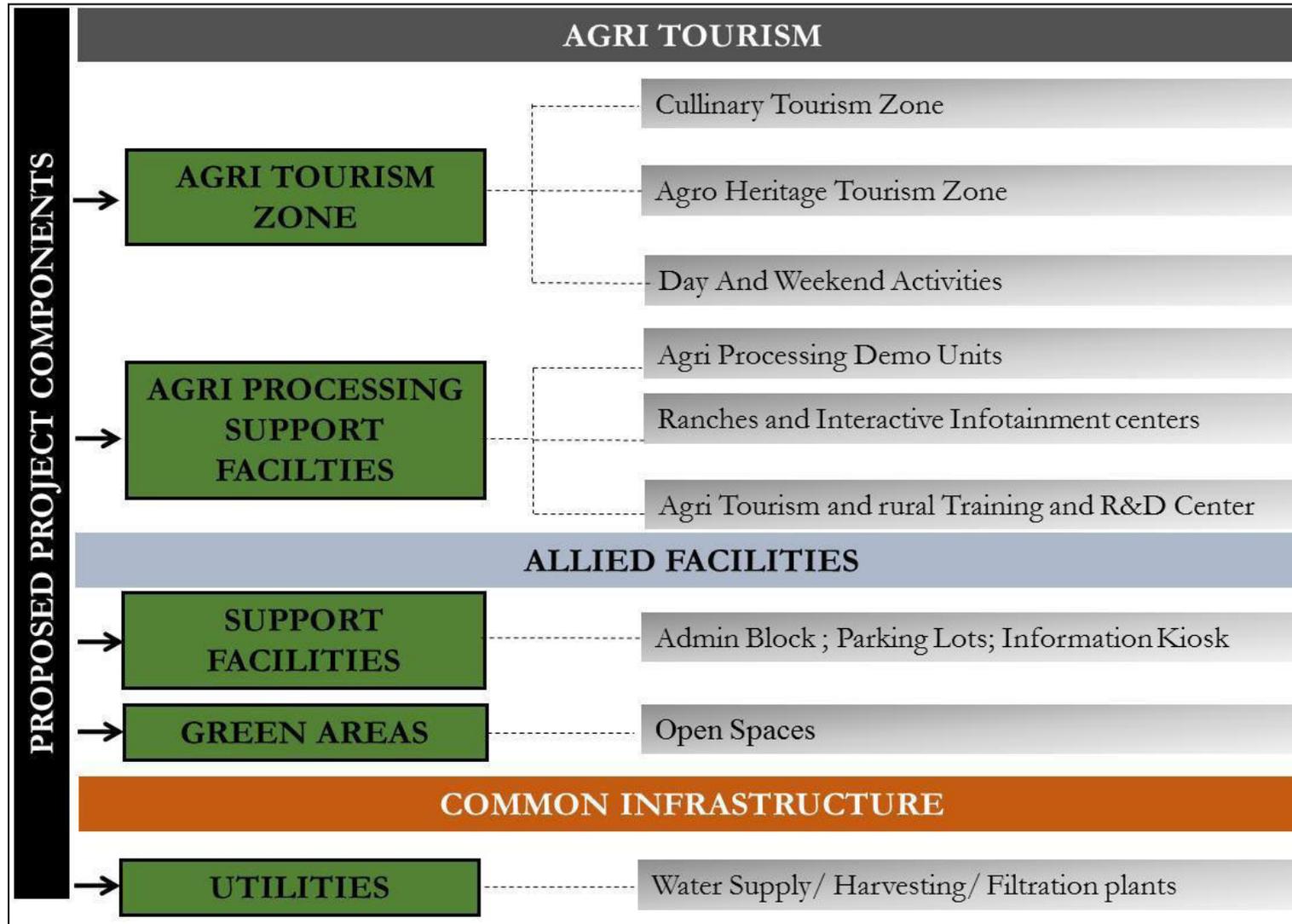


Figure 19: Key Project Components – Kondapalli RF Bit- III



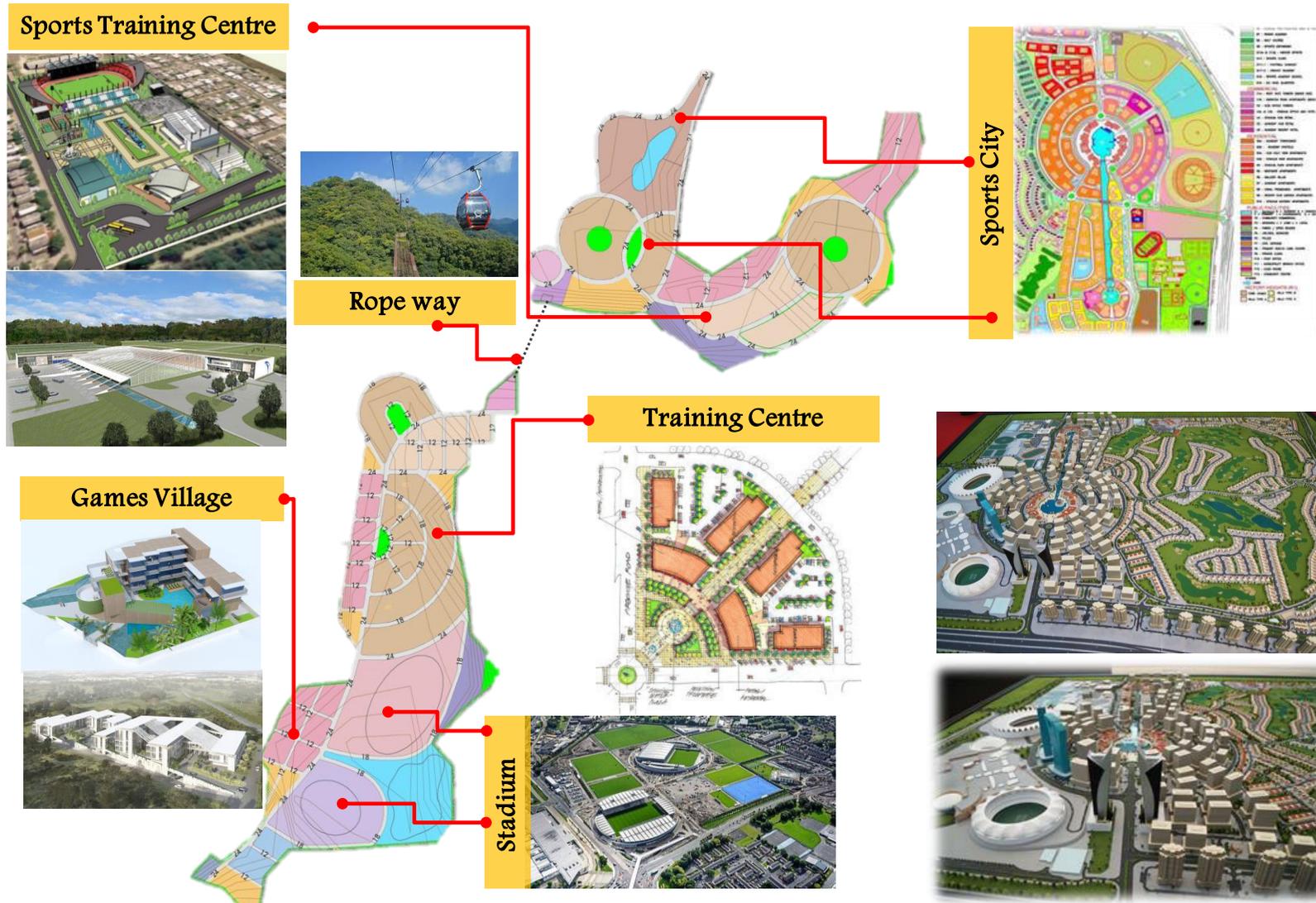


Figure 21: Illustrative views & images of proposed Sports & Physical Training Centre

### 3.4 Area Statement

Table 4: Area Statement for Kondapalli RF Bit I&II

| S.No     | Landuse                              | Area in Ha    | Area in Ac     | % to total area |
|----------|--------------------------------------|---------------|----------------|-----------------|
| <b>1</b> | <b>Proposed activities</b>           | <b>430.48</b> | <b>1063.72</b> | <b>65.64%</b>   |
| a        | Games Village                        | 130.62        | 151.67         | 30.34%          |
| b        | Administration                       | 7.87          | 19.45          | 1.83%           |
| c        | Entrance                             | 1.46          | 3.61           | 0.34%           |
| d        | Public Amenities                     | 20.22         | 49.96          | 4.70%           |
| e        | Ropeway Station                      | 3.3           | 8.15           | 0.77%           |
| f        | Ropeway Station-1                    | 3.38          | 8.35           | 0.79%           |
| g        | Sports Wholesale Shops               | 61.38         | 322.76         | 14.26%          |
| h        | Accommodation                        | 35.53         | 87.79          | 8.25%           |
| i        | Stadium 1                            | 36.37         | 89.87          | 8.45%           |
| j        | Stadium 2                            | 49.45         | 122.19         | 11.49%          |
| k        | Training Center & Sports Utilities   | 44.45         | 109.84         | 10.33%          |
| l        | Water Pool                           | 36.45         | 90.07          | 8.47%           |
| <b>2</b> | <b>Roads</b>                         | <b>33.38</b>  | <b>82.48</b>   | <b>5.09%</b>    |
| <b>3</b> | <b>Open Spaces &amp; Green Areas</b> | <b>67.71</b>  | <b>167.31</b>  | <b>10.32%</b>   |
| <b>4</b> | <b>Utilities</b>                     | <b>124.26</b> | <b>307.05</b>  | <b>18.95%</b>   |
|          | <b>Total</b>                         | <b>655.83</b> | <b>1619.9</b>  | <b>100.00</b>   |

*Table 5: Area Statement for Kondapalli RF Bit III*

| S.No     | Landuse  | Area in Ha    | Area in Ac    | % to total area |
|----------|--|---------------|---------------|-----------------|
| <b>1</b> | <b>Area for Proposed activities</b>            | <b>168.64</b> | <b>416.54</b> | <b>71.88</b>    |
| a        | Day and Weekend Activities                     | 17.80         | 43.97         | 7.59            |
| b        | Cullinary Tourism Zone                         | 13.81         | 34.11         | 5.89            |
| c        | Agro Heritage Tourism Zone                     | 15.93         | 39.35         | 6.79            |
| d        | Entrance Plaza & Admin Block                   | 19.95         | 49.28         | 8.50            |
| e        | Camp Sites and Accomodation                    | 2.70          | 6.67          | 1.15            |
| f        | Camp Sites and Accomodation                    | 8.24          | 20.35         | 3.51            |
| g        | Ranches and Interactive Infotainment centers   | 20.50         | 50.64         | 8.74            |
| h        | Museum and Interpretation centers              | 19.48         | 48.12         | 8.30            |
| i        | Agri Processing Demo Units                     | 11.00         | 27.17         | 4.69            |
| j        | Agri Tourism and rural Training and R&D Center | 8.31          | 20.53         | 3.54            |
| k        | Agri Tourism and rural Training and R&D Center | 8.69          | 21.46         | 3.70            |
|          | Agri Processing Demo Units                     | 22.23         | 54.91         | 9.48            |
| <b>2</b> | <b>Roads</b>                                   | <b>17.88</b>  | <b>44.16</b>  | <b>7.62</b>     |
| <b>3</b> | <b>Open Spaces &amp; Green Areas</b>           | <b>30.32</b>  | <b>74.89</b>  | <b>12.92</b>    |
| <b>4</b> | <b>Utilities</b>                               | <b>17.76</b>  | <b>43.87</b>  | <b>7.57</b>     |
|          | <b>Total</b>                                   | <b>234.60</b> | <b>579.46</b> | <b>100%</b>     |

### 3.5 Open Spaces & Green Area Calculation

Table 6: Open Space & Green Area Calculation in Kondapalli RF Bit I & II

| S.No     | Landuse   | Area in Ha     | Area in Ac       | % to total area |
|----------|---|----------------|------------------|-----------------|
| <b>1</b> | <b>Proposed activities</b>                        |                |                  |                 |
| a        | Games Village                                     | 130.62         | 151.67           | 33.15%          |
| b        | Administration                                    | 7.87           | 19.45            | 2.00%           |
| c        | Entrance  | 1.46           | 3.61             | 0.37%           |
| d        | Public Amenities                                  | 20.22          | 49.96            | 5.13%           |
| e        | Ropeway Station                                   | 3.3            | 8.15             | 0.84%           |
| f        | Ropeway Station-1                                 | 3.38           | 8.35             | 0.86%           |
| g        | Sports Wholesale Shops                            | 61.38          | 322.76           | 15.58%          |
| h        | Accommodation                                     | 35.53          | 87.79            | 9.02%           |
| i        | Stadium 1   | 36.37          | 89.87            | 9.23%           |
| j        | Stadium 2   | 49.45          | 122.19           | 12.55%          |
| k        | Training Center & Sports Utilities                | 44.45          | 109.84           | 11.28%          |
| <b>A</b> | <b>Sub-total of Plot area under each activity</b> | <b>394.03</b>  | <b>973.65</b>    | <b>60.08%</b>   |
| <b>2</b> | <b>Utilities</b>                                  | <b>124.26</b>  | <b>307.05</b>    | <b>78.83%</b>   |
| <b>3</b> | <b>Roads</b>                                      | <b>33.38</b>   | <b>82.48</b>     | <b>21.17%</b>   |
| <b>B</b> | <b>Sub-total of Roads and Utilities</b>           | <b>157.64</b>  | <b>389.52844</b> | <b>24.04%</b>   |
| <b>4</b> | <b>Green &amp; Open Spaces</b>                    |                |                  |                 |
| a        | Common Green & Open Spaces                        | 67.71          | 167.31           | 19.88%          |
| b        | Water Pool  | 36.45          | 90.07            | 10.70%          |
| c        | Open Spaces within the Plots (60% of A)           | 236.418        | 584.19           | 69.42%          |
| <b>C</b> | <b>Sub-total Green and open spaces</b>            | <b>340.578</b> | <b>841.57</b>    | <b>51.93%</b>   |
|          | <b>Total</b>                                      | <b>655.83</b>  | <b>1619.9</b>    |                 |

Table 7: Open Space &amp; Green Area Calculation in Kondapalli RF Bit III

| S.No     | Landuse   | Area in Ha     | Area in Ac    | % to total area |
|----------|---|----------------|---------------|-----------------|
| <b>1</b> | <b>Proposed activities</b>                        |                |               |                 |
| a        | Day and Weekend Activities                        | 17.8           | 50.66         | 10.56%          |
| b        | Cullinary Tourism Zone                            | 13.81          | 34.12         | 8.19%           |
| c        | Agro Heritage Tourism Zone                        | 15.93          | 39.36         | 9.45%           |
| d        | Entrance Plaza & Admin Block                      | 19.95          | 49.30         | 11.83%          |
| e        | Camp Sites and Accomodation                       | 2.7            | 6.67          | 1.60%           |
| f        | Camp Sites and Accomodation                       | 8.24           | 20.36         | 4.89%           |
| g        | Ranches and Interactive Infotainment centers      | 20.5           | 43.98         | 12.16%          |
| h        | Museum and Interpretation centers                 | 19.48          | 48.14         | 11.55%          |
| i        | Agri Processing Demo Units                        | 11             | 27.18         | 6.52%           |
| j        | Agri Tourism and rural Training and R&D Center    | 8.31           | 20.53         | 4.93%           |
| k        | Agri Tourism and rural Training and R&D Center    | 8.69           | 21.47         | 5.15%           |
| l        | Agri Processing Demo Units                        | 22.23          | 54.93         | 13.18%          |
| <b>A</b> | <b>Sub-total of Plot area under each activity</b> | <b>168.64</b>  | <b>416.71</b> | <b>71.88%</b>   |
| <b>2</b> | <b>Utilities</b>                                  | <b>17.76</b>   | <b>43.87</b>  | <b>49.83%</b>   |
| <b>3</b> | <b>Roads</b>                                      | <b>17.88</b>   | <b>44.16</b>  | <b>50.17%</b>   |
| <b>B</b> | <b>Sub-total of Roads and Utilities</b>           | <b>35.64</b>   | <b>88.03</b>  | <b>15.19%</b>   |
| <b>4</b> | <b>Green &amp; Open Spaces</b>                    |                |               |                 |
| a        | Common Green & Open Spaces                        | 30.32          | 74.89         | 23.06%          |
| b        | Open Spaces within the Plots (60% of A)           | 101.184        | 250.03        | 76.94%          |
| <b>C</b> | <b>Sub-total Green and open spaces</b>            | <b>131.504</b> | <b>324.95</b> | <b>56.05%</b>   |
|          | <b>Total</b>                                      | <b>234.6</b>   | <b>579.46</b> |                 |

### 3.6 Block Cost & Cost Benefit Analysis (CBA)

Financial assessment of Cost Benefit Analysis (CBA) is done by calculating the total project cost as per the best industry practices for development of the project, assuming basic features and specifications. These features and specifications may vary when detailed assessment and engineering activities are carried out for the development.

*Table 8: Constriction Cost – Kondapalli RF – Bit I&II*

| S.No | DESCRIPTION                         | Amount (Rs in lakh) |
|------|-------------------------------------|---------------------|
| 1    | Sports and Physical Training Centre | 80468.67            |
| 2    | Roads and Approaches                | 10152.15            |
| 3    | Green Avenues & Buffer areas        | 7520.18             |
| 4    | Basic Facilities                    | 9814.10             |
| 5    | Miscellaneous Cost (2.5% of PC)     | 2698.88             |
|      | <b>Total Construction Cost</b>      | <b>110653.97</b>    |

*Table 9: Constriction Cost - Kondapalli RF – Bit III*

| S.No | DESCRIPTION                            | Amount (Rs in lakh) |
|------|--|---------------------|
| 1    | Agri Support Infrastructure Facilities | 31606.47            |
| 2    | Roads and Approaches                   | 3617.88             |
| 3    | Green Avenues & Buffer areas           | 2300.63             |
| 4    | Basic Facilities                       | 3752.50             |
| 5    | Miscellaneous Cost (2.5% of PC)        | 1031.94             |
|      | <b>Total Construction Cost</b>         | <b>42309.42</b>     |

### 3.7 Parameters for Evaluation of Benefit, not Withstanding Loss of Forest – RF Bit I & II

| Sl. No. | Parameters  | Nature of Proposal   |
|---------|---|--|
| 1.      | Increase productivity attributable to the specific project  | Setting up of Sports & Physical Training Centre facilities will generate employment opportunities in the Krishna region. More than 15,000 persons will get employment in various activities in the centre  |
| 2.      | Benefits to economy   | Economy/business will generate through Food courts along with activities, parks & institutions.<br><br>Project cost: Rs. 1106.54 Crores  |
| 3.      | No. of population benefited   | About 1.5 lakh population benefited annually (Direct & Indirect)   |
| 4.      | Employment potential  | Approximately <b>15,000 people</b> in various capacities will be employed during construction of this project a large numbers technician and supporting staff will be retained after construction for maintenance and related work.                  |
| 5.      | Cost of acquisition of facility on non-forest land where feasible   | No acquisition of private land is necessary.   |
| 6.      | Loss of (a) agricultural & (b) non-forest land wherever feasible  | Not Applicable   |
| 7.      | Cost of rehabilitating the displaced persons as different from compensatory amounts given for displacement    | Not Applicable   |
| 8.      | Cost of supply of free fuel wood to workers residing in or near forest area during the period of construction | Free electricity will be provided for lighting. The employees will be facilitated to get the LPG gas connections at nearby location. Management has discouraged the use of fire wood by the workers of this ongoing project for the cooking purpose. |

### 3.8 Parameters for Evaluation of Benefit, not Withstanding Loss of Forest – Bit III

| Sl. No. | Parameters  | Nature of Proposal   |
|---------|---|--|
| 1.      | Increase productivity attributable to the specific project  | Setting up of Agri Tourism facilities will generate employment opportunities in the Krishna region. More than 10,000 persons will get employment in various activities in the centre   |
| 2.      | Benefits to economy   | Economy/business will generate through Food courts along with activities, parks & institutions. Project cost: Rs. 423.09 Crores  |
| 3.      | No. of population benefited   | About 1.0 lakh population benefited annually (Direct & Indirect)   |
| 4.      | Employment potential  | Approximately <b>10,000 people</b> in various capacities will be employed during construction of this project a large numbers technician and supporting staff will be retained after construction for maintenance and related work.                  |
| 5.      | Cost of acquisition of facility on non-forest land where feasible   | No acquisition of private land is necessary.   |
| 6.      | Loss of (a) agricultural & (b) non-forest land wherever feasible  | Not Applicable   |
| 7.      | Cost of rehabilitating the displaced persons as different from compensatory amounts given for displacement    | Not Applicable   |
| 8.      | Cost of supply of free fuel wood to workers residing in or near forest area during the period of construction | Free electricity will be provided for lighting. The employees will be facilitated to get the LPG gas connections at nearby location. Management has discouraged the use of fire wood by the workers of this ongoing project for the cooking purpose. |

### 3.9 Site Suitability Assessment for Alternative Site



Figure 22: Alternate sites for Kondapalli RF site

*Table 10: Site Suitability Assessment for Alternative Site of Kondapalli RF site*

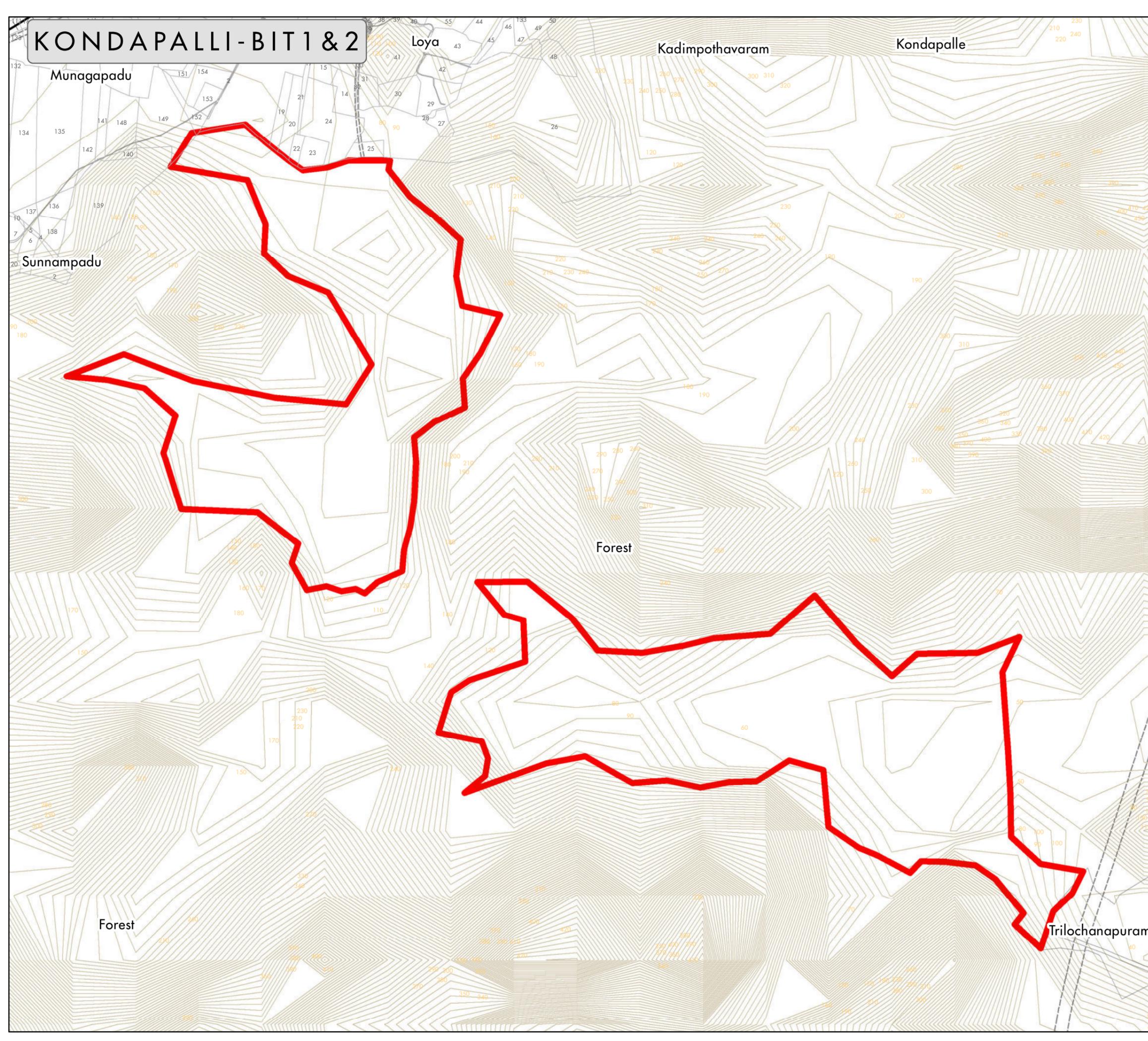
| # | Particulars                               | Good   | Average                                    | Poor  |
|---|---|--|--|---|
| 1 | Proximity to Urban Areas                  | Vijayawada & Mylavaram   |  |   |
| 2 | Site Accessibility                        | Vijayawada – Hyderabad expressway Ibrahimpatnam-Mylavaram road |  |   |
| 3 | Existing Features /Resources in proximity |  |  | Just surrounding villages; encroachments  |
| 4 | Existing Infrastructure                   |  | To avail Facilities provided at Vijayawada |   |
| 5 | Potential for Development                 |  |  | <ul style="list-style-type: none"> <li>• Mining Activities</li> <li>• Limited Land availability</li> <li>• Proposed site not suitable for Sports&amp;Physical centre Development</li> </ul> |

**Conclusion:**

The APCRDA examined revenue hillocks near Trilochanapuram, Kattubadipalem and Chilukuru but due to mining activities failed to identify any areas, which is more than 100 acres. Hence the forest block Kondapalli is identified for creation of Institutions & Industries, which is adjacent to Vijayawada-Hyderabad National Highway, as there is no alternative left to the APCRDA.

# Annexures

# KONDAPALLI-BIT 1 & 2



## LEGEND

-  Contours
-  Cadastral
-  Existing Roads
-  Rail Network
-  Master Plan Roads
-  Study Area

DRG NO : AA/2032/RF/UP/SP/K-1015 A

| NAME | DSGN TR | DRWN MKK/PKK | CHKD CSK | APPD CSK |
|------|---------|--------------|----------|----------|
|      |         |              |          |          |

Preliminary Drawing



**PROJECT**  
**PREPARATION OF COMPREHENSIVE PROJECT REPORT FOR DIVERSION OF RESERVE FOREST**

**TITLE : BASE MAP**  
**For Proposed "Sports and Physical Training" at KONDAPALLI BIT-1&2**

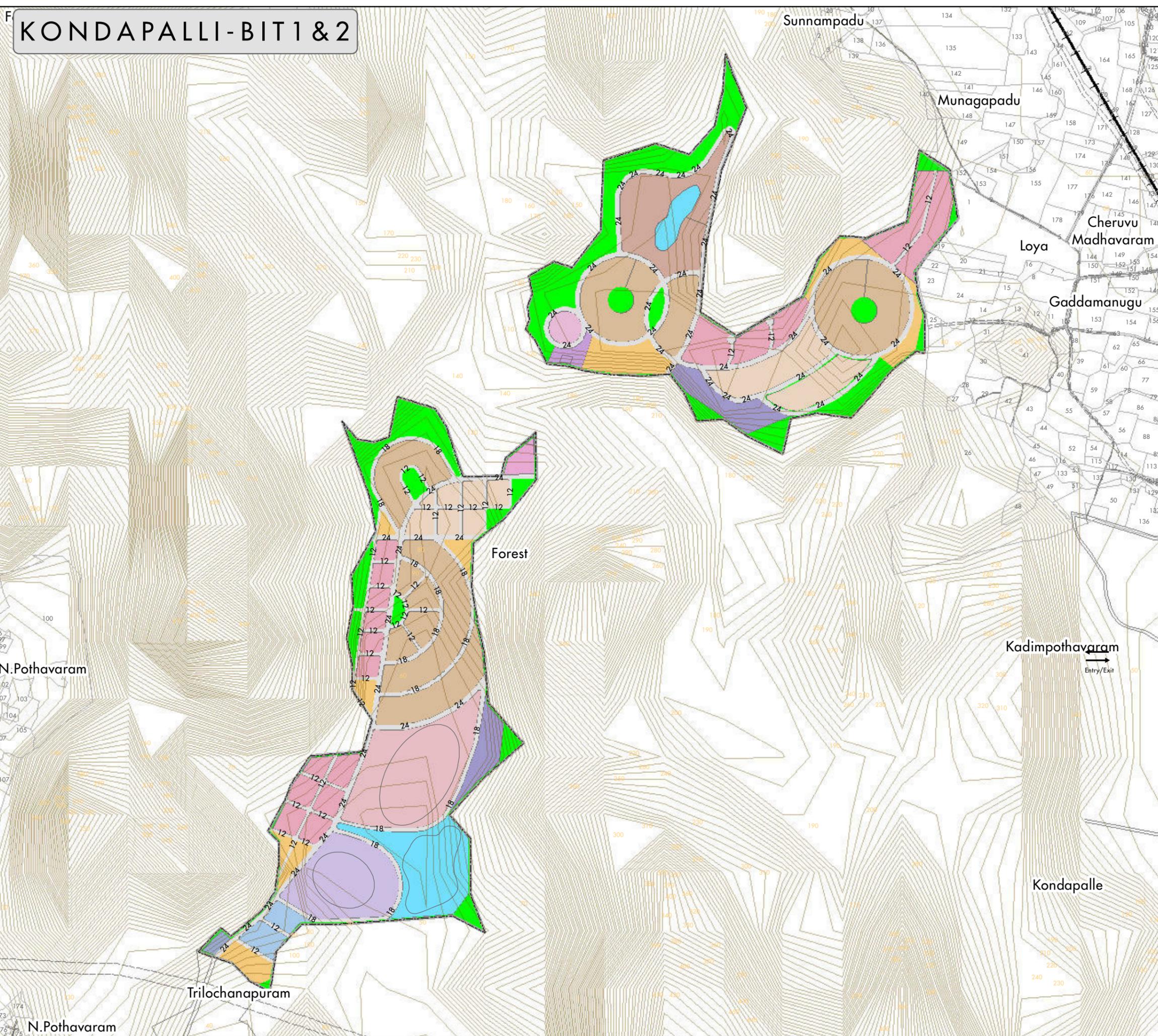
**CLIENT :**  
**ANDHRA PRADESH CAPITAL REGION DEVELOPMENT AUTHORITY (APCRDA)**

**CONSULTANT :**



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 e-mail: aarvee@aarvee.net; web: www.aarvee.com

# KONDAPALLI-BIT 1 & 2

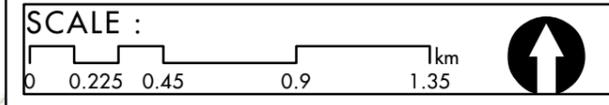


| LEGEND                             |                  |           |
|------------------------------------|------------------|-----------|
| DESCRIPTION                        | AREA             |           |
| <b>Proposed Activities</b>         |                  |           |
| Accommodation                      | 430.48 Ha        |           |
| Administration                     |                  |           |
| Entrance                           |                  |           |
| Games Village                      |                  |           |
| Public Amenities                   |                  |           |
| Ropeway Station                    |                  |           |
| Ropeway Station-1                  |                  |           |
| Sports Wholesale Shops             |                  |           |
| Stadium 1                          |                  |           |
| Stadium 2                          |                  |           |
| Training Center & Sports Utilities |                  |           |
| Water Pool                         |                  |           |
| Roads                              |                  | 33.38 Ha  |
| Common Facilities & Services       |                  | 124.26 Ha |
| Open Space & Green Belt            | 67.71 Ha         |           |
| <b>Total</b>                       | <b>655.83 Ha</b> |           |

DRG NO : AA/2032/RF/UP/SP/K-1015 B

| NAME | DSGN | DRWN    | CHKD | APPD |
|------|------|---------|------|------|
|      | TR   | MKK/PKK | CSK  | CSK  |

Preliminary Drawing



**PROJECT**  
**PREPARATION OF COMPREHENSIVE PROJECT REPORT FOR DIVERSION OF RESERVE FOREST**

**TITLE : MASTER PLAN**  
**For Proposed "Sports and Physical Training" at KONDAPALLI BIT-1&2**

**CLIENT :**  
**ANDHRA PRADESH CAPITAL REGION DEVELOPMENT AUTHORITY (APCRDA)**

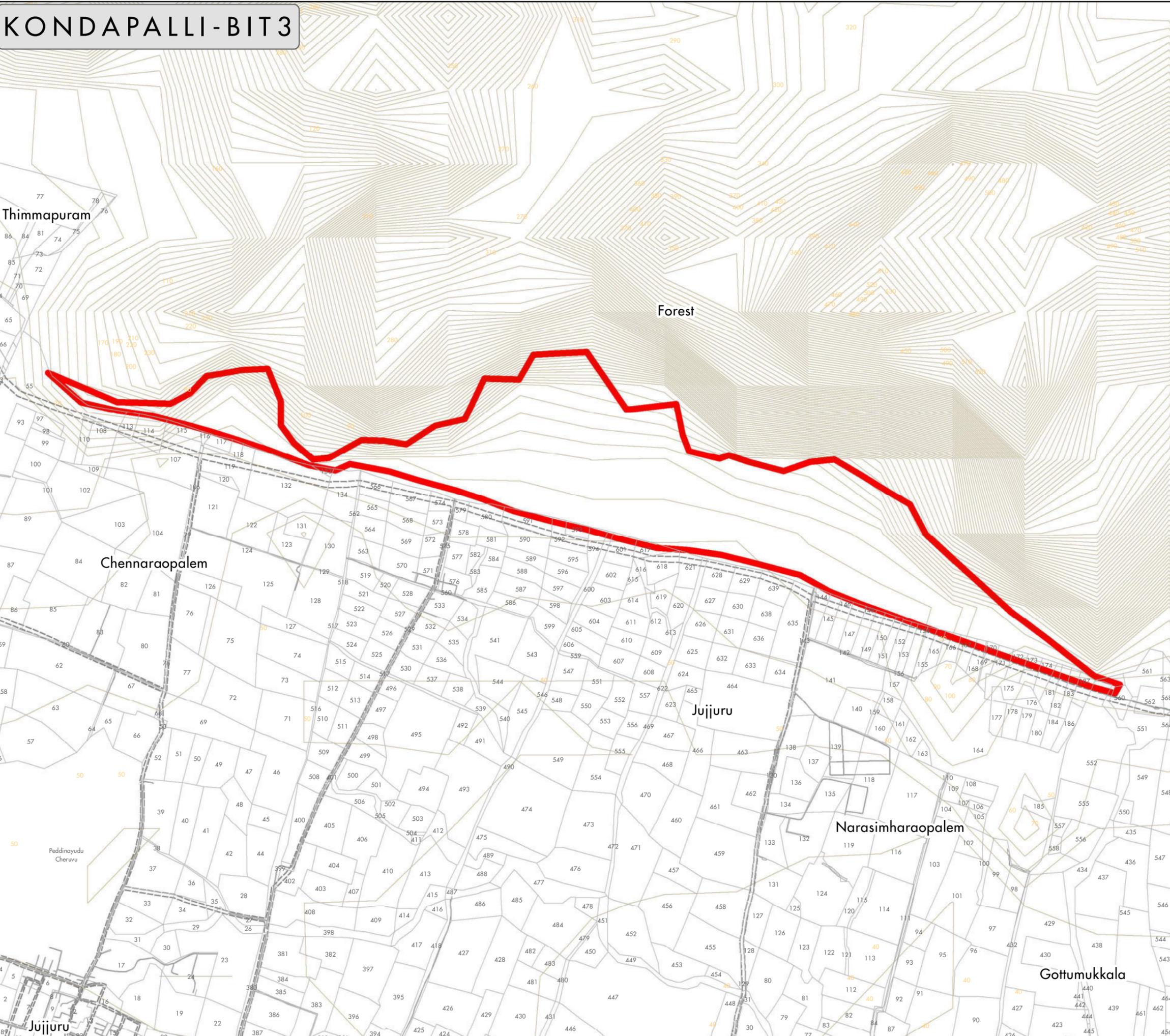
**CONSULTANT :**

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 e-mail: aarvee@aarvee.net; web: www.aarvee.com

# KONDAPALLI-BIT3

**LEGEND**

-  Contours
-  Cadastral
-  Existing Roads
-  Rail Network
-  Master Plan Roads
-  Study Area

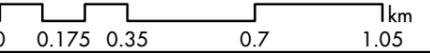


DRG NO : AA/2032/RF/UP/SP/K-1015 A

|      |         |      |      |
|------|---------|------|------|
| DSGN | DRWN    | CHKD | APPD |
| TR   | MKK/PKK | CSK  | CSK  |

Preliminary Drawing

SCALE :




**PROJECT**  
 PREPARATION OF COMPREHENSIVE  
 PROJECT REPORT FOR DIVERSION OF  
 RESERVE FOREST

TITLE : BASE MAP

For Proposed  
**"Agri Tourism" at  
 KONDAPALLI BIT-3**

CLIENT :

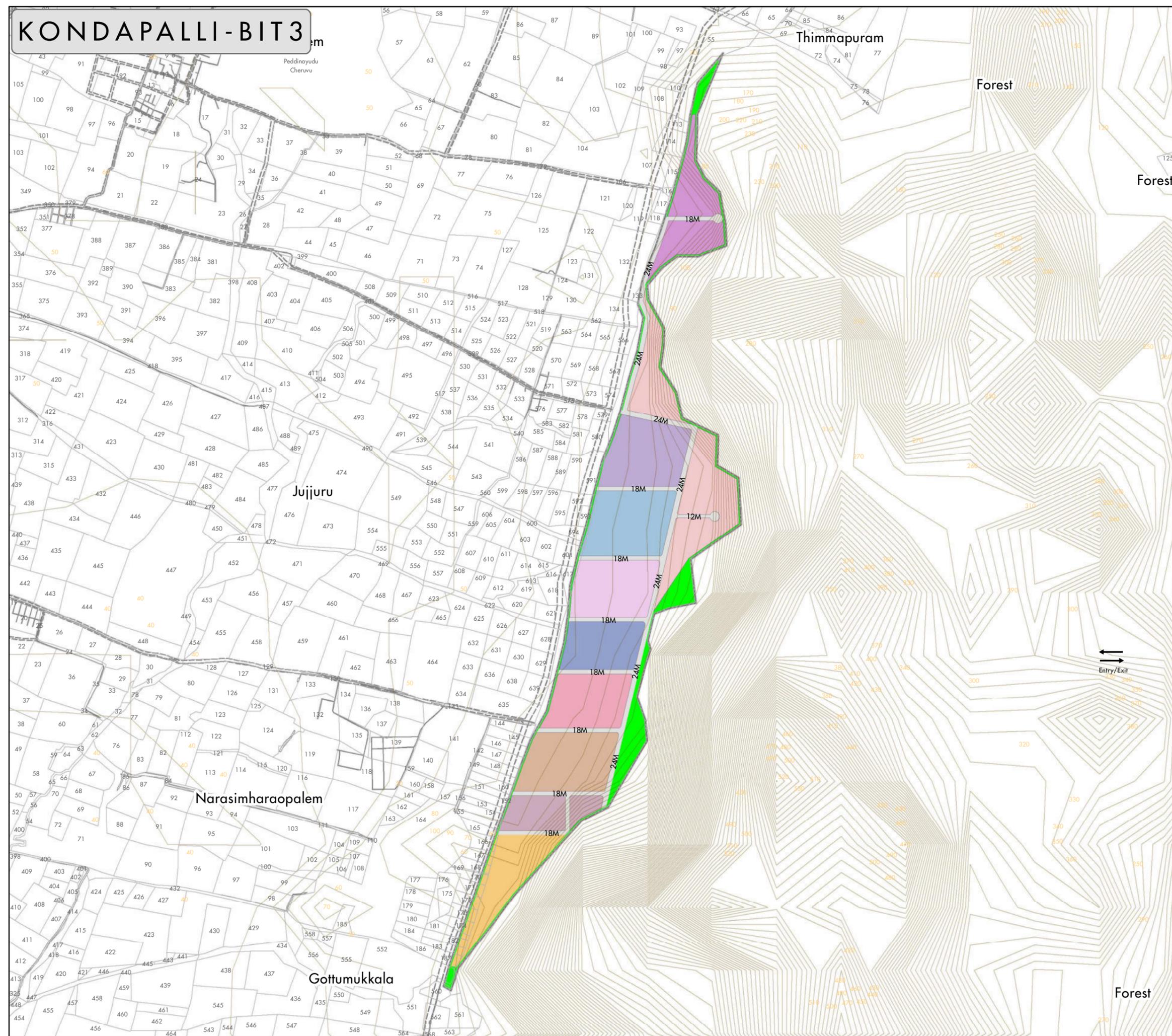
ANDHRA PRADESH CAPITAL REGION  
 DEVELOPMENT AUTHORITY (APCRDA)

CONSULTANT :



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# KONDAPALLI-BIT3

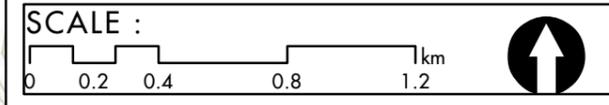


| LEGEND   |                  |
|--|------------------|
| DESCRIPTION                                    | AREA             |
| Proposed Activities                            | 168.64 Ha        |
| Agri Processing Demo Units                     |                  |
| Agri Tourism and rural Training and R&D Center |                  |
| Agro Heritage Tourism Zone                     |                  |
| Camp Sites and Accomodation                    |                  |
| Cullinary Tourism Zone                         |                  |
| Day And Weekend Activities                     |                  |
| Entrance Plaza & Admin Block                   |                  |
| Museum and Interpretation centers              |                  |
| Ranches and Interactive Infotainment centers   |                  |
| Roads  | 17.88 Ha         |
| Common Facilities & Services                   | 17.76 Ha         |
| Open Space & Green Belt                        | 30.32 Ha         |
| <b>Total</b>                                   | <b>234.60 Ha</b> |

DRG NO : AA/2032/RF/UP/SP/K-1015 B

| NAME | DSGN TR | DRWN MKK/PKK | CHKD CSK | APPD CSK |
|------|---------|--------------|----------|----------|
|      |         |              |          |          |

Preliminary Drawing



**PROJECT**  
**PREPARATION OF COMPREHENSIVE**  
**PROJECT REPORT FOR DIVERSION OF**  
**RESERVE FOREST**

**TITLE : MASTER PLAN**  
**For Proposed**  
**"Agri Tourism" at**  
**KONDAPALLI BIT-3**

**CLIENT :**  
**ANDHRA PRADESH CAPITAL REGION**  
**DEVELOPMENT AUTHORITY (APCRDA)**

**CONSULTANT :**

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