



RAJIV AWAS YOJANA

REQUEST FOR PROPOSAL (RFP) FROM GOVERNMENT ORGANIZATIONS

for

**“CONSULTANCY SERVICES FOR THE PREPARATION OF DETAILED PROJECT
REPORTS (DPRS) IN CERTAIN MUNICIPAL CORPORATIONS / MUNICIPALITIES
UNDER RAY”**

**The Mission Director
MEPMA
III Floor, ENC (PH) Building
Opp: PTI Buildings, 640, A.C.Guards
Hyderabad – 4**

Phone Nos. 040-23379044 / 45

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Letter of Invitation for RFP

Invitation No: 19/2/RAY/RFP/C/2014 dated 06.01.20141.

1. Rajiv Awas Yojana(RAY) is a programme of GoI for ‘Slum-free India’ with an objective that every citizen living in Urban slums will have access to basic civic and social services and decent Housing and developing strategies to prevent future growth of slums.
2. The Municipal Administration and Urban Development (MAUD) Department of the Government of Andhra Pradesh (GoAP) has been receiving Central assistance from MoHUPA, GOI towards the cost of the Rajiv Awas Yojana programme.
3. Mission for Elimination of Poverty in Municipal Areas (MEPMA) is the State level Nodal Agency (SLSA) for RAY scheme in the State and the Projects will be implemented by the respective MUNICIPAL CORPORATIONS / MUNICIPALITIES.
4. For sanction of Projects by GoI, the MUNICIPAL CORPORATIONS / MUNICIPALITIES require to prepare the Detailed Projects Reports (DPRs). Hence MEPMA[here with called as client except in Annexure E] is inviting this RFP, on behalf of the Municipalities / Municipal Corporations, for engaging consultancy services from the Government Organizations [here in called as CONSULTANT] for short listing the consultants and will be allotted the ULBs for the preparation of the DPRs.
5. Details of the services requested are provided in the Terms of Reference.
6. All information contained in this proposal should be treated as commercially confidential and you are required to limit dissemination on a need-to-know basis.
7. An Organization shall be selected as per procedures described in this RFP and in accordance with the policies of the GoAP and GOI.
8. The RFP includes the following documents:
 - a. Letter of Invitation
 - b. Bid Data Sheet and Check List
 - c. Instructions to the Organizations, Annexure A
 - d. Technical Proposal, for Standard Forms, Annexure B
 - e. Financial Proposal, for Standard Forms, Annexure C
 - f. Terms of Reference (ToR), Annexure D
 - g. Standard Contract Document, Annexure E (to be entered with the respective Municipal Corporation / Municipality)**

9. Please note that while all the information and data regarding this RFP is, to the best of the Client's knowledge, accurate within the considerations of scoping the proposed contract, the Client holds no responsibility for the accuracy of this information and it is the responsibility of the Organization to check the validity of data included in this document.
10. Details of bid submission are specified in Bid Data Sheet (BDS).
11. Proposals will be evaluated for the qualified Organizations as per the criteria and selected organizations will be short listed to allot the Municipalities / Corporations as per the procedure mentioned in this RFP. The decision of MD, MEPMA is final and no correspondence is entertained in this regard.
12. The selected organizations shall be required to enter to the agreement with the respective the Municipalities / Corporations to deliver the consultancy services.
13. The selected organizations are permitted to take-up 1(one) RAY-Detailed Project Report each only in each of the ULBs entrusted by SLNA.

**MISSION DIRECTOR,
MEPMA**

Bid Data Sheet (BDS) and Check list

1) BDS

1	<p>Name & designation of the Client: Smt. Anita Ramachandran, I.A.S., Mission Director.</p> <p>Name & designation of the Client's representative: Sri. G.Leela Gokarna Satry, Superintending Engineer</p>
2	Method of selection: Mentioned at Para of Instructions to the Bidders
3	Is Financial Proposal to be submitted together with Technical Proposal: Yes, in separate sealed covers
4	<p>Is pre-proposal conference will be held: Yes, on 28-01-2014 at 11.00 AM at MEPMA Conference Hall.</p> <p>However, Organizations wishes to seek clarifications may do so in writing to the Client's Representative and clarify before bid submission.</p>
5	Validity Period: Proposals must remain valid for 120 days after the submission date.
6	<p>Clarifications: may be requested not later than three (3) days before the bid submission last date.</p> <p>Amendments in RFP: Client may amend the RFP, if deemed necessary, not later than (1) before the bid submission last date.</p>
7	Sign of the Authorized person's with written confirmation is required: Yes
8	Soft copy of proposal required: Yes (in PDF format)
9	Joint Venture¹ is permissible: Yes
10	Bidder's minimum qualification Criteria: Applicable`
11	Organization shall have the previous experience of preparing at least 1 DPR for Infrastructure and Housing(<i>evidence must be submitted</i>)
12	Currency and Budget for Proposal: INR (Indian Rupee)
13	Financial and Technical Proposals should be clearly marked : FINANCIAL (or TECHNICAL) PROPOSAL FOR CONSULTANCY SERVICES FOR THE PREPARATION OF DETAILED PROJECT REPORTS (DPRS) IN CERTAIN MUNICIPAL CORPORATIONS / MUNICIPALITIES UNDER RAY
14	A Bid Security must be submitted: No ,
15	The amount of Bid Security : Nil for this RFP
16	<p>Performance Security : 30,000/- in case of Municipalities and 50,000/- in case of Corporations, Not related to this RFP, It is required at the time of Agreement with ULBs.</p> <p>This must be enclosed while entering in to the agreement with the concerned Municipality/ Municipal Corporation after selection. This may be provided as 100% Bank Guarantee (or) in the form of DD for 100% amount from any nationalized bank favouring to the concerned Commissioner, Municipal Corporation / Municipality. (Or) Option may be given to deduct the amount from the first invoice payment.</p>
17	Last date of submission : Proposals must be submitted not later than the

	31.01.2014 date and time: 3:00 PM.
18	Address for submission of Proposals: The Mission Director, MEPMA, III Floor, ENC(PH) Building, Opp: PTI Buildings, 640, A.C. Guards, Hyderabad – 4 Phone Nos. 040-23379044 / 45
19	Expected date for public opening of Technical Proposals: 31.01.2014, 4:00 PM
20	Expected date for public opening of Financial Proposals: [To be Notified]
21	Expected date for contract negotiations: [To be Notified]
22	Expected date for commencement of consulting services: [To be Notified]

2. Checklist for Bidders

The following checklist is for the convenience of the bidders. Kindly check the following points before submitting the bids.

S.No.	Checklist	Checkbox (please)
1.	Whether the proposals have been properly sealed, marked and labelled as	<input type="checkbox"/>
2.	Whether the Technical & Financial proposals are kept in Separate Envelopes and enclosed in another outer Envelope?	<input type="checkbox"/>
3.	Whether the proposal has been signed by the Authorized person?	<input type="checkbox"/>
4.	In case of Joint Ventures and associations, whether signed in original by duly authorized representatives with details of each signatory on a Rs. 100 Judicial stamp paper?	<input type="checkbox"/>
5.	Whether the soft copies of the technical proposals are submitted in PDF format?	<input type="checkbox"/>
6.	Whether the Bid Security is enclosed in Technical proposal?	<input type="checkbox"/>
7.	Have all the pages of the proposal been signed?	<input type="checkbox"/>
8.	Have all the CVs been Signed by Concerned person and properly	<input type="checkbox"/>
9.	Have the CVs been submitted according to the format given?	<input type="checkbox"/>
10.	Have the Eligibility Criteria been checked & the relevant documents enclosed as proof?	<input type="checkbox"/>
11.	Whether the number of pages of the proposal properly indexed?	<input type="checkbox"/>

2. INSTRUCTIONS TO CONSULTANT:

1 Introduction

- 1.1 The Consultant is invited to submit a Technical Proposal and a Financial Proposal. The Proposal shall be the basis for selection of the consultant(s) and allocation of Urban Local Bodies (ULBs) i.e. Municipal Corporations/Municipalities and ultimately for a signed Contract between the ULBs and the selected Consultant.
- 1.2 The Consultant shall bear all costs associated with the preparation and submission of its Proposal and contract negotiation.
- 1.3 The Client is not bound to accept any Proposal, and reserves the right to annul the selection process at any time prior to completion of the process of award of Contract without thereby incurring any liability to the Consultant.

2. Eligible Consultant:

- 2.1 A Consultant must be a Government Organizations like Government owned Engineering / Planning / Architectural / Polytechnic colleges / Training Institutions / Research Institutions.
- 2.2 Joint Venture (JV) is permitted between two or several Govt. organizations (or) between Govt. Organization(s) and external expert(s). In any case lead consultant shall be a Govt. organization.
 - a. all parties to the JV shall be jointly and severally liable; and
 - b. JV shall nominate a Representative from the lead consultant who shall have the authority to conduct all businesses for and on behalf of any and all the parties to the JV during the bidding process and, in the event the JV is awarded the Contract, during Contract execution. All partners in the JV shall have at least 3 years experience in DPR preparation in the relevant sector.
 - c. In case of consultants with out JV. The minimum criteria as mentioned in bid data sheet only be considered.

3. Only one Proposal:

- 2.1 Consultant may only submit one proposal. If a Consultant (including a Joint Venture) submits or participates in more than one proposal, such proposals shall be disqualified. This does not prohibit the inclusion of a Sub-Consultant, including individual experts, in more than one proposal

4. Clarification of RFP Documents:

- 4.1 Consultant may request clarification of any of the RFP documents up to a specified number of days before the submission date as indicated in the Data Sheet. Any request for clarification must be sent in writing, including by standard

electronic means, to the Client's representative whose address is provided in the Data Sheet. The Client will respond by standard electronic means and will send written copies of the response (including an explanation of the query, without identifying the source of inquiry) to all Consultants who have formally indicated that they intend to submit a Proposal. If the Client deems it necessary to amend the RFP as a result of a clarification, it shall do so following the procedure set out under Clause 5.

5. Amendment of RFP Documents:

- 5.1 At any time before the submission of Proposals, the Client may amend the RFP by issuing an addendum in the MEPMA web site.
- 5.2 Any addendum will be binding on to all the participants and hence interested consultants shall follow the web site regularly till the date for amendments, if any, mentioned in Data sheet.

6. Preparation of Proposal:

6.1 *Language proposal:*

- 6.1.1 The Proposal and all related correspondence exchanged between the Consultant and the Client shall be written in the English language. Supporting documents and printed literature that are part of the Proposal may be in another language provided they are accompanied by an accurate translation of the relevant passages in English, in which case, for the purposes of interpretation of the Proposal, the translated version shall govern.

6.2. *Cost of bidding:*

- 6.2.1 The Consultant shall bear all costs associated with the preparation and submission of its Proposal. The Client shall not be responsible or liable for those costs, regardless of the conduct or outcome of the bidding process

7. Sub-consultant arrangements and Joint Venture:

- 7.1 Unless otherwise specified in the Data Sheet, for the purpose of submitting a Proposal, a Consultant may enhance its expertise for the assignment either by:
 - a. Sub-consulting in which case the Consultant shall be the lead Consultant and shall be solely liable under the Contract. In this case, the Consultant must submit Letters of Association from each Sub-Consultant, OR
 - b. Forming a Joint Venture (JV) in which case the Consultant and the partners in

the JV shall be jointly and severally liable under the Contract. The Consultant shall submit a copy of the Joint Venture Agreement with Technical Proposal

7.2 The JV Agreement must:

- a. be signed in original by a duly authorized representative of each partner with details of each signatory provided in print below each signature;
- b. include an express provision that each partner is jointly and severally liable in respect of the Consultant's obligations;
- c. provide details of the name of the partner nominated to act as manager of the Joint Venture and who is authorized to act for the Joint Venture in terms of committing it to any obligations and liabilities and to receive and act upon instructions from the Client and to make and receive payments;
- d. provide full details of the proposed structure, the division of technical responsibilities between the partners and intended capitalization.

7.3 Partners CV:

Alternative experts shall not be proposed, and only one curriculum-vitae (CV) may be submitted for each position.

8. Full time employees:

8.1 It is desirable that the Team Leader or expert proposed as Team Leader is a regular full-time employee of the Consultant or the Sub-Consultant. A regular full-time employee is defined as a person who, on the date of submission of the Consultant's Proposal:

- a. is currently employed under a contract or agreement of employment with the Consultant or the Sub-Consultant;
- b. has been employed by the Consultant or the Sub-Consultant for the 4 consecutive months immediately preceding the date of submission of the Proposal;
- c. is entitled to receive regular remuneration and benefits from the Consultant or the Sub-Consultant; and
- d. is engaged to work for the Consultant or the Sub-Consultant for the number of hours per day and days per year considered the norm in the country of employment or in the country in which the person is assigned.

9. Instructions for submission of Proposal:

9.1 These instructions should be read in conjunction with information specific to the consulting services contained in the Covering Letter, Data Sheet and

accompanying documents.

- 9.2 Proposals must be received before the deadline specified in the Data Sheet to tender. Proposals must be submitted to the address specified on the Data Sheet and delivered on or before the time specified in the Data Sheet.

9.3 Documents comprising the Proposal:

Consultant shall submit simultaneously two sealed envelopes, one containing the Technical Proposal and the other the Financial Proposal, enclosed together in an outer single envelope. The Technical Proposals will be opened at the date and time specified in the Data Sheet. The Financial Proposal will remain sealed and will be held in custody by the client

- 9.4 The original Financial Proposals for all qualifying Technical Proposals will be opened in public at a date and time communicated after finalization of technical proposals.

9.5 Technical Proposal shall contain :

- a. Section 1: Covering Letter, subject to maximum of two (2) pages (Form Tech1 of Annexure B);
- b. Section 2: Experience to undertake tasks similar nature of assignment, subject to maximum two (2) pages;
- c. Section 3: Project detail sheets outlining previous experience of the firm in similar types of assignments completed during the last ten years (in prescribed format), subject to maximum of fifteen (15) pages (Form Tech2);
- d. Section 4: Technical Response including general approach, methodology, work plan, Cost effective and innovative Low cost housing models, innovative ideas restricted to maximum of twenty (20) pages including charts and diagrams;
- e. Section 5: CVs of personnel to work on this project (in the CV please include name of staff, nationality of staff, profession/designation of staff, proposed position in the team, whether employee of the firm, number of years with the firm, key qualifications, education, experience and languages known), restricted to maximum of two (2) pages per CV (Form Tech 3);

9.6 Financial Proposal shall contain:

- a. Section 1: Confirmation of acceptance of Conditions of Contract;
- b. Section 2: Pricing, using prescribed format (FIN 1 of Annexure C);
- c. Section 3: Matters not appropriate in any other appendix including your service

tax registration number, Turnover and net profit for the previous financial year (attach a copy of latest audited balance sheet and profit & loss account), commercial aspects of Joint Venture company (if applicable), parent company guarantees (if applicable), etc.

9.7 Submission instructions:

- a. An authorized representative of the Consultant shall sign all pages of the Financial Proposal.
- b. Consultants are expected to carefully review the contract provisions attached in the RFP for preparation of their Technical and Financial Proposals.
- c. The Consultant shall submit both Technical and Financial Proposals using the appropriate submission sheets provided in Annexure B: Technical Proposal Submission Forms and Annexure C: Financial Proposal Submission Forms. These forms must be completed without any alteration to their format, and no substitutes will be accepted. All fields shall be completed with the information requested.
- d. Consultants are required to submit their Technical and Financial Proposals in hard copy, and in soft copy in separate CDs, in Adobe Acrobat (PDF) format only. The respective CDs should be enclosed in the sealed envelopes for Technical Proposal and Financial Proposal, as specified in the Data Sheet. The number of hard copies to be submitted is specified in the Data Sheet.
- e. In case of discrepancies between the soft copy and the hard copy, the hard copy will be considered the binding version

10. Taxes:

- 10.1 The Consultancy charges payable are inclusive of all taxes such as: fringe benefit tax, value added or sales tax, service tax, duties, etc.

11. PROPOSED CEILING PRICES:

11.1 PRICES RELATED TO DPR PREPARATION (BIDDING ITEM)

- 11.1.1 All prices should be valid for the duration specified in the Data Sheet.
- 11.1.2 Ceiling Limits are fixed towards Consultancy charges for DPR preparation as mentioned in the Table below as per the size of the project.

S. No	Item	Ceiling percentage limits including all taxes under the Contract	
		Unit	In Figures (in words)
1	Preparation of DPR for Infrastructure and Housing in case the Projects cost	Percentage on the Project cost	0.75 (Zero point Seven Five)

11.1.3 The Ceiling percentage towards Consultancy charges mentioned in the above table vide clause 11.3 shall be treated as 100% and the consultant shall quote their discount percentage on the ceiling percentage.

11.1.4 Price quoted should be in terms of discounted percentage in the prescribed column specified in financial submission form [Annexure-C]

Note: 1. The Project cost means estimated cost of Infrastructure and Housing, but excluding other provisions.

2. The consultant shall take in to account the requirement as per clause 11.2.2 while submitting his financial proposal.

11.2 CEILING PRICES RELATED TO OTHER PREPARATORY ACTIVITIES (NON-BIDDING ITEMS)

11.2.1 The Consultant required to perform the following activities on need basis for which separate work order will be issued by the respective ULB and the following are the ceiling limits for each activity.

11.2.2 The percentage quoted for the DPR preparation in the Financial proposal submission form at Annexure C will be applicable to the following items also, if entrusted as per clause 11.2.1.

S. No	Item	Ceiling price	
		Unit	In Figures (in words)
1	Costs of satellite (Carto Sat I / Carto Sat II) images and other.	Per Sq. KM	Rs. 150/- (Rupees One hundred and fifty only) for bigger cities which may have Cartosat I / II images and Rs. 1500/- (Rupees Fifteen hundred only) for smaller cities
2	Preparation of Geo-referenced base map.	Per Sq. KM	Rs. 7500/- (Rupees Seven thousands and five hundred only)
3	For socio-economic survey	per Household	Rs. 25/- (Rupees Twenty Five only)
4	For data entry from slum survey, data verification and cleaning, compilation and collation at Zonal level	per Household	Rs. 20/- (Rupees Twenty only)

5	Cost of integrating the said geo-referenced maps / spatial data into GIS platform & integrating with socio-economic database / slum MIS to crate GIS enabled slum MIS.	per Household	Rs. 15/- (Rupees Fifteen only)
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12. Proposal validity:

- 12.1 Proposals shall remain valid for the period specified in the Data Sheet commencing with the deadline for submission of Technical and Financial Proposals as prescribed by the Client.
- 12.2 A Proposal valid for a shorter period shall be considered non-responsive and will be rejected by the Client.
- 12.3 In exceptional circumstances, prior to the expiration of the proposal validity period, the Client may request Consultant to extend the period of validity of their Proposals. The request and the responses shall be made in writing. A Consultant may refuse the request. A Consultant granting the request shall not be required or permitted to modify its Proposal.
- 12.4 During the Proposal validity period, Consultant shall maintain the availability of experts nominated in the Proposal. The Client will make its best effort to complete negotiations within this period.

13. Deadline for submission of proposals:

- 13.1 Proposals must be submitted to the address specified on the Data Sheet and delivered on or before the time specified in the Data Sheet.
- 13.2 The Client may, at its discretion, extend the deadline for the submission of Technical and Financial Proposals by amending the RFP in accordance with Clause 5, in which case all rights and obligations of the Client and Consultant subject to the previous deadline shall thereafter be subject to the deadline as extended.

14. Late Proposals:

- 14.1 The Client will not consider any Proposal that arrives after the deadline prescribed by the Client for submission of Proposals in the Data Sheet. Any Proposal received after the respective deadline for submission shall be declared late, rejected, and returned unopened to the Consultant.

15. Opening of Proposals:

- 15.1 The Client will open Technical Proposals in the presence of Consultant's representatives who choose to attend, at the address, date and time specified in the Data

Sheet as the deadline for submission.

16. Opening of Technical Proposals:

- 16.1 All the Technical Proposals shall be opened one at a time, and the following read out and recorded i.) name of the Consultant; and ii.) any other details as the Client may consider appropriate in the presence of the Consultant' representatives who ever present

17. Evaluation of Technical Proposals:

- 17.1 The evaluation committee shall evaluate the Technical Proposals on the basis of the information furnished as per clause 9.5
- 17.2 The consultants who have not carried out minimum criteria set out in Bid data sheet shall not be considered for opening of financial bids.
- 17.3 The committee may restrict the number of consultants ,in case of more response as felt required. Priority will be given based on the CVs for the number of Experts as required vide Clause no.7 of TOR and technical response enclosed with technical Bid.
- 17.4 The committee will list out the qualified consultants for opening their financial bids.
- 17.5 The decision of the MD, MEPMA is final in this regard.

18. Opening of Financial Proposals:

- 18.1 The Financial Proposals of all qualifying Technical Proposals shall be opened one at a time by the Client and the following read out and recorded:
- i. the name of the Consultant;
 - ii. prices; and
 - iii. any other details the Client may consider appropriate

19. Evaluation of Financial Proposals:

- (a) The price quoted for DPR charges at item 1 of the financial sheet shall only be considered for the evaluation.
- (b) Financial Proposals are expected to be within the budget, as specified at clause 11
- (c) The Price quoted by the L1 bidder shall be accepted as the tender price for Consultancy. In order to create a panel of short listed consultants, the other qualified bidders shall have to match the tender price for Consultancy (the L1 price). All the qualified bidders who match the tender rates shall be declared as qualified for empanelment as Consultants in MEPMA.
- (d) MEPMA shall correct any computational errors in the Commercial bid and in case of

dispute between the amounts expressed in words and figures, the former shall prevail.

20. Client's right to accept any Proposal, and to reject any or all Proposals:

20.1 The Client reserves the right to accept or reject any Proposal, and to annul the bidding process and reject all Proposals at any time prior to notification, without thereby incurring any liability to the Consultant.

21. Notification of Short listed consultants :

21.1 All the shorted listed consultants finalized by the Evaluation committee are declared as empanelled consultants for the preparation of the RAY DPRS in the selected Municipalities/Corporations in AP

22. Allocation of Work and Award of Contract:

22.1 Prior to the expiration of the Proposal validity period, the Client shall notify the successful Consultants, in writing, that its Proposal has been accepted for empanelment.

22.2 The empanelled consultants are allotted the ULBs, on their mutual understanding or draw lots if necessary. Negotiations are permitted in this regard. The decision of the MD, MEPMA is final in this regard.

22.3 The respective consultants shall enter in to an agreement with the concerned ULBs for the preparation of the DPRs under RAY.

22.4 The Consultants may be awarded ULBs Region wise such as Telengana, Andhra and Rayalaseema or in combination of Regions. Allocation of Regions is within the description of the SLNA.

23. Negotiations:

23.1 The successful Consultant will be informed in writing of the date, place and time for negotiations/clarifications, if any. Representatives conducting negotiations on behalf of the Consultant must have written authority to negotiate.

23.2 Negotiation will include both technical and financial negotiation, depending on the needs of the Client.

24. Start date:

24.1 The Consultant is expected to commence the Services on the date and concerned ULB as per the RAY guidelines.

Annexure-B: Technical Proposal Submission Forms

Tech 1: Covering Letter

[*Location, Date*]

To:

[*Name and address of client*]

Dear Madam,

We, the undersigned, offer to provide the Consulting Services for [*Insert title of assignment*] in accordance with your Request for Proposal dated [insert date] and our Proposal. We are hereby submitting our Proposal, which includes this Technical Proposal and a Financial Proposal sealed under a separate envelope².

We are submitting our Proposal in association with / as a Joint Venture: [*Insert a list with full name and address of each joint venture partner or sub-Consultant*]¹. Attached is the following documentation: [*letter(s) of association or Joint Venture Agreement*].

We hereby declare that we have read the Instructions to Consultant included in the RFP, and abide by the same, and specifically to conditions mentioned. [*In case of any declaration, reference to concerned document attached must be made*].

We hereby declare that all the information and statements made in this Proposal are true and accept that any misleading information contained in it may lead to our disqualification.

We confirm that all personnel and/or sub-Consultant² named in the tender will be available to undertake the services.

We undertake, if our Proposal is accepted, to initiate the Consulting Services related to the assignment.

We understand that submission of the proposal may not guarantee for awarding of work and if awarded agreement need to be entered with the concerned commissioner of the Urban Local Body (ULB)

Yours faithfully,

Authorized Signature [*In full and initials*]:

Name and Title of Signatory:

Name of Firm: Address:

Contact No. E mail id:

^{1, 2} [*Delete in case not applicable*]

Tech2: Project Detail Sheet

(Separate sheet shall be enclosed for each project)

Assignment name:	
Approx. value of the contract (in current Rs.):	-
Name of Client:	
Address of Client:	-
Start date (month/year):	-
Completion date	
Name of Joint Venture partner or sub-Consultant, if any:	
Name of Senior Staff (Team Leader) involved and functions performed indicated whether regular full-time employees of your organization or part-time/independent	
Narrative description of Project in brief:	
Description of actual services provided for the assignment:	

Authorized Signatory

Tech 3: Curriculum Vitae (CV) for Proposed Experts

[Individual CV shall be enclosed for each expert]

NAME

DATE OF BIRTH

NATIONALITY

EDUCATION

[year]

[name of institution and degree]

PROFESSIONAL BACKGROUND

[Description]

EMPLOYMENT RECORD

[Year (s) starting with present position]

[Employer]

EXPERIENCE RELATED TO THE PREPARATION OF INFRASTRUCTURE AND HOUSING PROPOSALS (or) PREPARATION OF DPRs *[describe in 4 to 5 sentences]*

Certification:

I, the undersigned, certify to the best of my knowledge and belief that this CV correctly describes my qualifications and experience;

[Name of Expert /Authorized signatory]

Date:

Place:

Annexure C: Financial Proposal Submission Forms

PROJECT TITLE:

“CONSULTANCY SERVICES FOR THE PREPARATION OF DETAILED PROJECT REPORTS (DPRS) IN CERTAIN MUNICIPAL CORPORATIONS / MUNICIPALITIES UNDER RAY”

No	Item	Discount percentage quoted	
		In Figures	In words
1.	Preparation of DPR for Infrastructure and Housing Under RAY.		

Note: The Ceiling percentage towards Consultancy charges mentioned in the above table vide clause 11.1.2 shall be treated as 100% and the consultant shall quote their discount percentage on the ceiling percentage.

[Signature]

Name of the Authorized Signatory:

Name of the Organization:

Address:

Contact No:

Annexure D:

TERMS OF REFERENCE

for

“CONSULTANCY SERVICES FOR THE PREPARATION OF DETAILED PROJECT REPORTS (DPRS) IN CERTAIN MUNICIPAL CORPORATIONS / MUNICIPALITIES UNDER RAY”

1. BRIEF DESCRIPTION OF TASK

The Task envisages “CONSULTANCY SERVICES FOR THE PREPARATION OF DETAILED PROJECT REPORTS (DPRS) IN CERTAIN MUNICIPAL CORPORATIONS / MUNICIPALITIES UNDER RAY”

The assignment is mainly for the preparation of DPRs for the required housing and basic physical and social amenities for the selected slums including selection of appropriate redevelopment model as per the guide lines of Government of India, Govt. of AP and Mission for Elimination of Poverty in Municipal Areas (MEPMA).

This may requires to facilitate the ULBs in slum household socio-economic survey, preparation of GIS based slum maps, analysis of geo-spatial and MIS data of slum survey and household survey, reconfiguration of slums

2. BACKGROUND:

2.1 The Govt. of India has launched the path breaking programme of Rajiv Awas Yojana (RAY), which envisages making India Slum-free by 2014. It provides a strategic and policy framework to the states, and also extends financial support to incentives states to bring in legal and institutional reforms to make cities slum-free in a time bound manner. It aims to upgrade housing and civic infrastructure for the settlements of the poor in urban areas, and to make adequate urban land available to meet the continuous need for housing land from the migrants as well as other poor households in the urban areas.

2.2 The broad objectives of RAY are:

- Bringing all the slums in to the formal system and also enable the slum dwellers to access basic amenities on par with the rest of the city/ULB.
- Redressing the failures of the formal system that lie behind the creation of slums.
- ~~Tackling the shortages of urban land and housing that keep shelter out of reach of the~~

urban poor and force them to resort to extra-legal solutions in a bid to retain their sources of livelihood and employment.

2.3 Slum free Andhra Pradesh by 2014

With a view to achieving inclusive and sustainable growth of urban areas, the Government of Andhra Pradesh has adopted the vision of Slum-free State by 2014. Mission for Elimination of Poverty in Municipal Areas (MEPMA) is the state level nodal agency for implementation of the RAY programme in the state.

3. THE CITY PROFILE NEED TO BE COLLECTED ARE(min.)

3.1 Introduction:

_____ MUNICIPAL CORPORATION / MUNICIPALITY, having _____ population has been located _____ in Andhra Pradesh. The city is bounded by the _____ to the West and _____ to the North, situated along the _____ railway/road. The city is part of the _____ district, and is spread over an area of _____ Sq.Kms. (Urban area), with a population of _____ Lakhs (2010). There are a total ofNo. of slums with a total slum population of _____.

3.2 Brief Time Line:

3.2 Physical and Geographical characteristics

3.3 Topography:

3.5 Climate and Rainfall:

3.6 Geology:

3.7 Institutional Arrangements – UCD/ UPA CELL:

3.8 Demography:

3.9 Population Growth Pattern: The population growth over the past decades has been analyzed to understand the growth pattern of the city.

Year	Area (in Sq.Km)	Population	Decadal Growth Rate %
1961			
1971			
1981			
1991			
2001			
2011			

3.10 Salient features of the town:

S. No	Indicator	ULB (as applicable)	Slums (as applicable)
1.	Location (Longitude / Latitude)		
2.	Area (in Sq. Km.)		
3.	Population		
	As per 2011 census (Projected)		
	As per 2001 census		
	As per 2021 census (Projected)		
	As per 2031 census (projected)		
4.	No. of Households		
5.	No. of Municipal Wards		
6.	No. of Slums		
	Notified		
	Non-notified		
7.	Solid Waste Management		
	Garbage generation/day (in MT)		
	Garbage lifted/day (in MT)		
	No. of HHs with door-to-door collection		
	No. of HHs practicing source segregation		
8.	Water Supply		
	Total installed capacity of protected water supply (in MLD)		
	Actual daily water supply (in MLD)		
	No. of House Service Connections		
	No. of Public Stand Posts (public taps)		
	Length of distribution system (in Km.)		
	% of Unserved population		
	No. of Power Bore wells		
	No. of Hand bores		

9.	Roads		
	Length of CC Roads (in Km.)		
	Length of BT Roads (in Km.)		
	Length of WBM Roads (in Km.)		
	Length of Gravel/ Murum Roads (in Km.)		
	Katchcha Roads (in Km.)		
10.	Drains		
	Length of Pucca Drains (in Km.)		
	Length of Katchcha Drains (in Km.)		
	Length of Storm Water Drains (in Km.)		

4. OBJECTIVES

4.1 Main Objective:

- 4.1.1 The Overall objective of this assignment is to transform the ULB into a Slum-free City by adopting an inclusive planning process wherein all the slum dwellers in the city will have a better quality of life with access to decent and affordable housing, all civic amenities and social infrastructure on par with the rest of the city, security of tenure and social security.
- 4.1.2 The interventions under the RAY scheme are expected to achieve the Goals in respect of Extreme Poverty and Hunger, Universal primary Education, Gender Equality and empower Women, Reduction of Infant Mortality, improving Maternal Health, Reduction of incidence of diseases like HIV/AIDS, Malaria etc, Environmental sustainability (including access to safe water supply and sanitation).

4.2 Specific Objectives of this assignment are:

- 4.2.1 Preparation of Detailed Project Reports for the selected slums covering housing, environmental and social infrastructure requirements under Rajiv Awas Yojana.
- 4.2.2 This includes preparation of GIS based slum maps, conducting total station survey of the slums, mapping of housing, environmental and social infrastructure as per the guide lines of Govt. of India and instructions of MEPMA.
- 4.2.3 The reports would include slum wise plans before and after reconfiguration with existing and proposed environmental, linking and social infrastructure in all sectors with detailed designs, detailed estimates with costs, rate analysis and detailed drawings for each component and each sector, implementation plan, sustainability plan (including O& M plan) outline designs for sizing purpose, line estimates with costs with rate analysis and drawings, implementation plan, sustainability plan (including O& M plan).

5. SCOPE OF WORK:

The scope work would include the following, among other incidental activities:

- Study of available relevant records including maps.
- Procuring relevant Satellite Image/digitized city base map **(if entrusted separately)**
- Facilitating the ULB in identification and inventory of all slums clusters
- Carry out the total station survey
- Piloting GIS based mapping and MIS integration for one slum.
- Facilitation to ULB in conducting Slum Household Socio-economic Survey by the community (or) carry out the same **(if entrusted separately)**
- Integration of Slum MIS and Geo-spatial Information using GIS software **(if entrusted separately)**
- Analysis of GIS enabled spatial and non-spatial data.
- Facilitation to ULB in conducting Micro-planning by the slum dwellers for housing, environmental and social infrastructure.
- Developing options for redevelopment model for the selected slum in consultation with community
- Facilitating to ULB for Micro-planning by the slum dwellers for housing, environmental and social infrastructure.
- Technical Assessment by the Engineers and agreement with the community.
- Preparation of Detailed Project Report (DPR) and developing at least one innovative idea.
- Attending and assisting the ULBs for desk appraisal, field appraisal and of final approval by the Competent Authorities at state level and central level.
- Facilitating the ULB in obtaining the technical sanction from the competent authority including attending the required documents / corrections if any.

DETAILED TASKS TO BE PERFORMED BY THE CONSULTANT:

SURVEY AND DATA ENTRY:

Facilitating the Slum Survey and data entry shall be carried out ,if the ULB already completed the activity. In case ULB entrusted the same, the following activities shall be carried out.

- Slum profile of the slum, Socio-economic survey for the individual HHs and additional infrastructure requirement as per the guidelines including printing of forms, canvassing etc.,
- For data entry from slum survey, data verification and cleaning, compilation and collation at Zonal level (including cost of data entry and data collation, training of personnel at zone level, cost of hardware for such entry and storage at zonal level for slum-wise and zone wise database). The collation should be able to generate web-enabled city level data base and baseline reports for city level technical cell.

PROCURING TOWN BASE MAP AND GIS BASED SLUM MAPPING

Satellite (Carto Sat I / Carto Sat II) images and other – to be procured from ISRO / NRSC subject to demand and entrustment of activity by the ULB.

5.1 Identification and inventory of all slum clusters in the urban agglomeration

- 5.1.1 With the help of digitized town base map (based on satellite image/aerial photography) procured from the Director of Town & Country Planning (DT & CP) and other available data, all the slums – notified and non-notified slums and slum pockets will be identified and inventoried, following the identification criteria for slums provided by State Government.
- 5.1.2 Cross-check the list available with the ULB with satellite image to check for any missing slum pockets, which will be added to the list, which shall include all notified, non-notified and slum pockets.
- 5.1.3 Simultaneously, satellite images will also be updated by identifying those slums which are not identifiable by their physical characteristics in the images – with the help of municipal officers and NGO/CBO representatives who will undertake *ground truthing exercise*.
- 5.1.4 Involve reputed NGOs/CBOs (with experience of working in urban slums) in both the above exercises to lead the community mobilization process.

5.2 Identification and mapping of potentially usable vacant lands

The consultant shall identify and map the available and potentially usable vacant lands in the city with ownership details, extent and current land use from the base map provided by the DT&CP, for use in relocation of hazardous/ objectionable slums.

5.3 Slum - GIS based slum mapping using Total Station and DGPS

- 5.3.1 The Consultant shall prepare GIS referenced base map of entire urban agglomeration after digitization of different features and integrating the said geo-referenced maps / spatial data into GIS platform & integrating with socio-economic database / slum MIS to create GIS enabled slum MIS (This will include cost of engaging technical agencies), cost of training ULB officials, cost of hardware for storage of spatial data, large format printer / plotter for printing maps etc.) (including slum-like conditions like narrow and haphazard road network, poor housing, and infrastructure) selected by the Client.

~~5.3.2 The town planning staff shall identify the slum boundary in coordination with the~~

consultant and the community. Prior to the Socio-Economic household survey, the consultant shall conduct topographical (ground) survey, which involves detailed geo-referenced topographical mapping and development of spatial database for the slum, using Total Station and DGPS.

- 5.3.3** A detailed slum map shall be prepared to a scale of **1:500**, showing the delineated slum boundary using DGPS, contours, plot boundaries, building foot prints, type of housing, land marks, physical features, environmental and social infrastructure and their condition. The geo-referenced slum map shall be integrated (superimposed) in the town base map. To ensure the accuracy of the topographical map, the exact location of various control points must be established by linking survey to Survey of India control points (GTS Benchmarks). The typology and symbology shall be as per GoI/MEPMA Guidelines.
- 5.3.4** The extract of the slum map in A0/A1 size shall be handed over to the field surveyor of the consultant for updating the field spatial and non-spatial data in the slum base map.
- 5.3.5** The field surveyor will collect the spatial data in consultation with the concerned Town Planning staff, Community Development (CD) staff and CBOs of the slum and hand over the same to the CAD operator for preparation of AutoCAD drawings.
- 5.3.6** The consultant shall take photograph of the dwelling/house with the head of the household and attach the same to the spatial data.

Table 1: Spatial and non-spatial data to be captured

S. No	Layers	Data Contents and Specifications
1	Base Map	<p>Slum boundary with schedule of boundaries of related slum / slum pockets. All major physical features with reference to names, such as highways, roads, railways, important land-marks (with specific names), water bodies, canals, rivers, etc.</p> <p>Details of land- ownership/Tenure status MUNICIPAL CORPORATION / MUNICIPALITY boundary, ward and zone boundaries. Location of survey of India control points</p>
2	Structure type, Buildings / & Open Areas	Type of house (katcha, semi-pucca, pucca), Foot prints of each building (structure) and its use, plot boundaries with dimensions, number of storeys;
3	Existing social infrastructure	<p>Community halls/centres, Anganwadi centres, Balwadi centres; primary/secondary schools, other educational institutions;</p> <p>PHC/UHCs; livelihood/production centres, night shelters; religious structures (specific names) and other land marks; plinth level of each building; vacant lands, play grounds, parks and gardens, burial grounds etc.</p>
4	Existing Infrastructure	<p>Roads & footpaths (both pukka and kucha with type i.e., CC, BT, WBM and earthen, Right of way, carriage way, width, length and condition). Details of storm water and sullage drains (pucca / kutchra) with direction of flow, sections and condition; Natural water and drainage channels; Location of culverts and their condition.</p> <p>Sanitation services – Number of individual, community and public toilets and their condition; Sewers, material, size, length and condition, septic tank, its condition and point of disposal.</p> <p>Water supply lines, type, lengths and condition and details of PSPs, bore wells, open wells, hand pumps and individual connections (by type power bore wells or municipal supply); power and telecommunication lines.</p> <p>Street lights, electric poles with pole nos., location and type of fixtures and condition.</p> <p>Solid waste management system with details of dustbins and collection points;</p> <p>Longitudinal sections with elevations at an interval of 15 m and also</p> <p>Cross sections at an interval of 15 m with elevations at 2 m intervals across the roads</p>

		<p>width including elevations of top of side drains,</p> <p>Elevations elevations at all road junctions, turnings and grade changes, court yard levels.</p> <p>All other relevant data/elevations as required for detailed designs for preparation of DPRs.</p>
5	Existing Offsite Infrastructure (adjacent linked infrastructure)	<p>Main access road/s (with width of carriage way & Right of Way.) from slum to Trunk road/s, Distance of trunk road from the slum boundary. Section and MFL/HFL of secondary outfall storm water drains (offsite) running through the slum or to which the slum is connected. Sections of major culverts, disposal points. Distance of outfall drain/disposal drain to the slum.</p> <p>Main and trunk sewers with diameter, Manhole top & invert levels at junction with main sewer from the slum, with distance from the slum. Capacity of Sewage Treatment Plant. Community toilets</p> <p>Location and diameter of water supply trunk main and distribution mains; ELSR/GLSR/sump capacity with GL, LWL and MWL; Transformers with capacity, location and distance from the slum, main power supply lines.</p> <p>Longitudinal sections with elevations at an interval of 30 m and also Cross sections at an interval of 30 m with elevations at 2 m intervals across the roads width including elevations of top of side drains, elevations at all road junctions, turnings and grade changes. Longitudinal section for the off-site storm water drains and water supply distribution trunk mains and main /secondary sewers for the available options.</p> <p>All other relevant data/elevations as required for detailed designs for preparation of DPRs.</p>
6	Contours	<p>Contours at 0.5 meter interval. Spot levels at all junctions, changes in slope, turnings and at 30 m. intervals along all roads and lanes.</p> <p>Nearest GTS Bench mark – Exact location, distance to TBM inside the slum, Reduced Level and notation</p> <p>TBM – Exact location, Reduced Level and notation</p> <p>A soft copy of the Total Station survey shall be submitted to ULB and to MEPMA.</p>
7	Potential natural and man-made hazards	<p>Location of potential natural and man-made hazards such as high tension power lines, power transformers, factories, low lying areas, foot hills, rock outcrops, steep slopes, nalas, etc.</p>

Notes:

1. During physical survey, the junction levels with respect to Mean Sea Level at all road junctions shall be captured covering the entire slum up to points of connectivity to town wide infrastructure like ELSRs(OHSR)/GLSRs/Sumps etc. for water supply and points of disposal for sewerage / storm water drainage. TBMs shall be established and captured in an excel sheet with unique ID, location with H. No. and Reduced Level with photograph.
2. Underground utilities should be mapped by marking lines approximately on the topographical map with the help of Municipal Engineering staff and local residents, making use of their local knowledge.
3. Each topographical slum map shall have:
 - a. a key map showing location of the slum in the city/town map with ward boundaries; and
 - b. a location map showing important land marks, physical features and access to the slum
4. For mapping of offsite linkages to trunk facilities for different services, line surveys (location, distance & levels) will be required. Payment for mapping of offsite links shall be made on the basis of contracted Rates per Sq.KM for topographical survey of the area and shall be calculated as length * 30 meters on either side of the centre line

5.4 Facilitation and coordination (or) conducting (if necessary on prior approval by ULB) by the Consultant, of the conduct of socio-economic household survey by the community in the selected slum and its proper data entry as follows:

- a. The socio-economic household survey will be conducted by the Slum Level Federation (SLF).
- b. The consultant shall provide Enumerator Block (EBs) maps for the slum consisting of about 200 households for conducting socio-economic household survey, duly indicating the EB number, Slum Code as I/001, II/001, III/001 (I, II, III are EB numbers and 001, 002, 0003 are slum codes as per MEPMA's Slum Profile Codes). The unique *id* number for the house in the order from 0001 to 0200 shall also be indicated on the EB map in clock-wise direction.
- c. The EB maps shall be handed over to enumerators (Community Resource Persons) by the consultant to conduct socio-economic household survey.
- d. The supervisor (verifies 100% of formats) and slum-charge officer (verifies 10% of formats) of that slum shall verify the data to ensure that no house/plot be left without enumeration. The senior officers shall also verify 2% of the formats. The supervisor, slum-charge officer and the senior officers shall verify at the field in their designated area randomly on a day-to-day basis to ensure accuracy of the data.
- e. The nominated first and second level officials would certify and affix their signature with date on the formats checked by them. The slum-charge officer shall handover the completed slum questionnaires in sequential order to the data entry operator.
- f. The data entry operator has to enter the data of the slum online on MEPMA's website.
- g. The consultant shall facilitate, coordinate and ensure that the non-spatial data is properly verified and validated before and after entry into the web-based MIS application of MEPMA/CGG. He shall also randomly verify the slum household

socio-economic data to detect and help correct inconsistencies.

- h. The consultant shall also coordinate the Topographical survey using total station and the Slum household socio-economic survey and ensure matching of spatial and non-spatial data when the same is integrated on a GIS platform.

5.5 Current levels of service:

Using slum maps (if available) or sketch maps made for the slum-based socio-economic household survey, conduct an inspection and map infrastructure availability.

1. Assess by inspection and limited consultation with slum dwellers, the quality and levels of service provided.
2. Provide a map of infrastructure for the whole slum and data at agreed geographic dis-aggregation to generate the indicators listed below, as well as a summary report indicating service levels within the slum. The summary should supply, but not be limited to, the following information:
 - a. Distance from slum boundary to the nearest trunk road
 - b. Percentage length of roads which are not pucca,
 - c. Percentage of road length not covered with pucca drains,
 - d. Percentage length of roads without street lights,
 - e. Percentage of households not covered with individual piped water supply connections,
 - f. Number of hours of water supply per day – dry and wet seasons,
 - g. Percentage of households not covered with toilets, and
 - h. Percentage of households not covered by solid waste collection system.
 - i. Access to health facility (UHC/PHC) within one KM distance from the slum.
 - j. Access to primary/upper primary school within one KM distance from slum.
 - k. Access to community halls

In each slum, the survey will also include a separate exercise of inspection, mapping and focus group discussion to ascertain availability, levels and quality of basic service provision. Services to be assessed will be roads, street lights, drains, water supply, sanitation, solid and liquid waste disposal.

The Consultant shall ensure that poverty alleviation staff (as nominated by the Municipal Commissioner)/SHG members are continuously involved in the survey exercises, data verification, data validation and reporting.

5.6 Biometric identification of slum dwellers (to be done by UIDAI/AADHAAR) - Deleted

5.7 Development of GIS thematic layers for the selected slum

After the preparation of physical layout plan of the slum, a GIS based slum map shall be developed, which shall consist of the following activities in various thematic overlays:

- The AutoCAD map of related slum will be converted/imported from CAD to Arc GIS, cleaning of spatial data, topology etc.
- Household enumeration for non-spatial data in MIS format (to be conducted by CBOs) of

the geo-spatial data with the MIS data in GIS mode. The MIS data would comprise the slum profile, slum household poverty socio-economic profile, livelihoods, environmental and social infrastructure, and the non-spatial field data collected by the consultant from Total Station survey.

- All the sectoral components shall be presented in separate thematic overlays as given in Table 1.
- The GIS based slum mapping for the Pilot slum shall be got vetted by the technical committee Chaired by the DT &CP and after clearance by the technical committee.
- After clearance by the technical committee the consultant shall modify his slum mapping and comply with all the recommendations of the technical committee chaired by the DT&CP and resubmit the modified mapping exercise to the committee for its final approval.

The slum mapping exercise will result in the preparation of a digitized, geo-referenced, GIS based slum map at 1:500 scale with a peripheral belt of 200 metres.

5.8 Extension of the pilot slum GIS based mapping exercise to all other slums in the city - Deleted

5.9 Software requirement

Option 1

- Windows/ Linux operating system with any internet browser
- Any standard GIS Software like Arc GIS 9.210.0 or the latest version

Option 2

- Windows/ Linux operating system with any internet browser
- Linux operating system configured with tomcat web server and PostgreSQL database for the server system.
- ARC GIS 9.3 or 10.0 or the latest version

This data will be used for the preparation of meaningful slum redevelopment plans and slum free city plan using a city wide zone based approach.

5.10 Development of GIS Applications – At each household level

This exercise will involve:

- a. Digitization of each plot and household boundaries in related slum
- b. Household enumeration for non-spatial data in MIS format
- c. Processing of MIS data of household
- d. Integration of AutoCAD maps with MIS data on a GIS platform in the required overlays covering all the above fields. The overlays shall include, among other layers, infrastructure components like roads, drains, sewerage, water supply, street lighting and

- solid waste management and social infrastructure.
- e. Customization

5.11 Developing a web enabled GIS and MIS application – Deleted.

5.12 Facilitate ULB in setting up a Data Centre (ULB will procure the hardware and software) for continuous maintenance and facilitate for its sustainability – Deleted.

5.13 Analysis of the individual slum data and slum household socio-economic data

The consultant shall analyze the spatial and socio-economic data to create city level spatial and socio-economic reports to facilitate slum level dialogues for developing slum redevelopment /rehabilitation plans. These activities shall be undertaken by consultants in partnership with local NGO/s experienced in community consultation and mobilization.

5.14 Micro-planning by slum dwellers for housing, environmental & social infrastructure

The consultant along with the municipal officials and the social development specialists shall visit the slums and discuss with the slum communities regarding their felt needs and preferences for housing, environmental and social infrastructure including rehabilitation needs.

5.15 Development of options for reconfiguration of each of the selected slums & selecting appropriate option

Based on the requirements such as density, ownership, land availability, tenability, status of housing, environmental and social infrastructure, etc. obtained from the analysis and situation assessment done, each slum must be reconfigured to eliminate slum like ambience. Multiple options (minimum of 2 options) for reconfiguration of the slums shall be provided to the slum dwellers to seek their feedback. The Lead NGO/Social Development Specialist/s from the ULB will facilitate and mobilize the community in this regard.

5.16 Development of options for in-situ Slum Redevelopment / Relocation with Rehabilitation models for each of the required each of the 1st year slums and selection of appropriate models - Deleted.

5.17 Consultation and community mobilization (slum dwellers, NGOs, elected representatives etc.) to finalize the selection of redevelopment model.

A participative process needs to be undertaken with the slum community with assistance from lead NGO, CBOs, elected representatives to decide on the choice of the redevelopment / rehabilitation model (in-situ redevelopment/ relocation with rehabilitation or horizontal/ vertical).

5.18 Technical Assessment by the Engineers and agreement with the community

The engineers will make a field assessment of the proposals given by the community, verify the feasibility and identify the linking infrastructure needs. The proposals will then be discussed and agreed with the community duly apprising them of the operation and maintenance requirements and the role of community in this regard. The consultant shall participate in the technical assessment.

5.19 Capacity Building of all stakeholders

The consultant shall conduct a rapid Capacity Enhancement Needs Assessment of various stakeholders Community Based Organizations (CBOs) and Non-Governmental Organizations (NGOs) and the Municipal functionaries and prepare a detailed Capacity Building Plan with specific proposals, category of trainees, schedule, time required, training institutions, modules to be prepared, responsibilities, support required, and the

outcomes expected.

5.20 Action Plan for prevention of formation of new slums - Deleted.

5.21 Preparation of Slum Free City Plan of Action (SFCPOA) - DELETED

5.22 Preparation of Detailed Designs and Contract Documents

5.22.1. Review of Analysis of data, slum reconfiguration and development model

A review will be made of the analysis of spatial and non-spatial data and of the reconfigured slum layout if applicable and of the development model. Community consultations shall be conducted to firm up the development model.

5.22.2. Selection and preparation of Detailed Project Report/s (DPR), *developing at least one innovative idea*

The consultant shall facilitate selection of a pilot slum, taking up at least one innovative idea (like PPP), and developing project/s around it. He shall also prepare DPRs for this slum for housing, environmental and social infrastructure.

5.22.3 Preparation of Detailed Project Report/s (DPR)

The consultant shall prepare the slum-wise Detailed Project Reports (DPRs). The DPRs shall comprise detailed proposals for housing, environmental infrastructure, social infrastructure. The DPR template as per the RAY guidelines for Detailed Project Reports.

The following **sectors** and details would be covered under RAY for preparation of Detailed Project Reports, among others: (The consultant shall develop options for reconfiguration and redevelopment and give reasons for the choice of the selected model. He shall facilitate to consult with the community and convince the community of the model selected, with his social development specialists.)

Housing:

- 1) Housing shall be decent and affordable as per RAY Guidelines issued by MoHUPA of GoI, including rental / transit housing with the provisions of civic infrastructure and services on ownership, rental or rental– purchase basis. The carpet area shall be as suggested by GoI/MEPMA. i.e. 21 – 27 Sqm Horizontal or vertical development shall be adopted based on the reconfiguration of the slum and the redevelopment model selected.
- 2) The consultant shall discuss in detail the options developed for reconfiguration of slum layout, reasons for choice of a particular option, describe the options for redevelopment models for each slum, hold consultations with the respective slum community, reasons for selection of a particular option for model, the proposed housing development, environmental and social infrastructure provision in the slum including detailed implementation arrangements. He shall also furnish conceptual, architectural, structural, plumbing, electrical drawings etc.

Water Supply:

- 1) Marking of water supply lines, their alignment, type, size and condition; details of source connectivity (ELSR / Sump/Water Supply trunk main) etc., inventory of existing feeder main with direction of flow, distribution mains with type of pipe, diameter; details of House Service Connections, location of PSPs and size, number of existing and proposed HSCs.
- 2) Superimposition of existing mains on the GIS based city/slum map.
- 3) Proposals for new feeder mains and distribution mains if required and marking the same on city/slum map.

Sewerage

- 1) Inventory of existing **Sewerage** network along with trunk and main sewers, pumping mains and location of nearest collection well and STP. Marking of sewer line alignment, flow direction, type and size of sewer line, invert level of Manholes at nodal points / junctions, Connectivity to lateral/ trunk sewer line, invert levels of trunk/lateral at joining point etc.
- 2) Superimposing the existing sewerage network with details of pipes – type, dia, depth, condition and manholes - top & invert levels and condition, on the GIS based city/slum map.
- 3) Proposals for new sewerage network and trunk/pumping mains to STP and marking the same on the above map.

Storm water drains:

- 1) Inventory of existing storm water drains with details – type (katcha or pucca), section, discharge at different locations, top & invert levels, condition, out fall drain 9 (if existing) with top, invert and MFL/HFL, size, culverts with vent size, invert level etc.
- 2) Superimposing the existing storm water drainage network with all available details on GIS based city/slum map.
- 3) Proposing new storm water drains in uncovered area with suitable section and leading to nearest out fall drain and marking the same on the above map.

Roads:

- 1) Inventory of Roads: Right-of-Way (ROW), carriageway, type, availability and of shoulder
- 2) Road Top Level, Court Yard Level, Ground Level, levels at 15 m (for onsite) and 30 m (for offsite) interval (On L/S) and 25 m. (on C/S), and at abrupt changes in elevations and turnings
- 3) Marking of TBMs with reference to GTS at all road junctions or at 200 metre intervals whichever is less.
- 4) Collecting data about existing road condition, availability of underground infrastructure over the road, encroachments if any etc.
- 5) Entries of collected data over GIS map and preparation of database of the road network.
- 6) Proposing new road profiles, temporary and permanent restoration of roads wherever the water supply and sewer lines are proposed and marking the same on GIS based slum map.

Street Lighting:

- 1) Exact location of Street Light pole, type of pole, condition of pole etc.
- 2) Type of street lighting fixtures and their output in Watts.
- 3) Transformer location, capacity

Social Infrastructure:

- Social infrastructure like community halls/Multi purpose community halls anganwadis, primary schools (only site provision if possible), urban health centers (only site provision if possible), informal markets, night shelters, child care centers, livelihood promotion centres, etc. may be covered as per the requirement

Off site Infrastructure:

- The slum level infrastructure (water supply, sewerage and storm water drains) proposed in the project should be integrated with the trunk/main infrastructure development in the city.
- If required, linked infrastructure shall be proposed.

Capacity Building:

- Conduct rapid Capacity Enhancement Needs Assessment and prepare a Capacity Building Plan for the Municipal functionaries, Community Based Organizations (CBOs) Slum Level Federations and Non-Governmental Organizations (NGOs) and the Municipal functionaries with specific proposals, category of trainees, schedule, time required, training institutions, modules to be prepared, support required, and the outcomes expected.

The final DPR shall be accompanied by detailed report about each slum, detailed designs, detailed and cost estimates and drawings with standard data and rate analysis.

5.22.4 Detailed Designs and Contract Documents

Prepare detailed designs, detailed estimates and accurate cost estimates for on-site and off-site infrastructure sub-projects, including necessary surveys.

Working in close liaison with the City Level Technical Cell and municipal staff, the consultants will be responsible for the following tasks:

- Review the existing infrastructure condition in the slum including underground utilities, and availability of off-site infrastructure - access roads, secondary water mains/sewer mains/storm water drains running through the slum or to which the slum is/can be connected and mark these on the slum map;
- Review the lane maps and the slum maps prepared by slum dwellers during **micro-planning** indicating the needs of the slum dwellers and incorporate this information into proposals wherever technically feasible;
- Review available secondary data and reports required for analysing the off site and on site infrastructure facilities and for designing these facilities;
- Ascertain the correctness of the topographical maps of each slum; in case of any discrepancy correct the same;
- Identify and carry out any additional surveys (additional Topographical survey, CBR, soil reaction, sulphates, traffic intensity surveys. etc) required for detailed design, in consultation with Client; the cost of these surveys shall be included in the quote of the bidder in their financial bid;
- Where water will be provided by an on-site tube well, identify any hydro-geological and geo- physical investigations required; The need and execution of hydro-geological these surveys will be agreed with the client in advance and will be contracted separately and shall be reimbursed to the Consultant based on actual receipts and prior approval;
- Conduct a preliminary environmental and social screening of the projects in the design of water supply, sanitation and sewerage, storm water drainage and solid waste management; only where felt essential, separate proposal for detailed environmental impact assessment need be made.
- Integrate disaster management, mitigation and adaptation aspects in the designs for

projects in water supply, sanitation and sewerage, storm water drainage and solid waste management due to disasters like earthquakes, landslides, winds, hales, cyclones etc. ;

- Prepare technical report on the infrastructure to be provided based upon the technical appraisal report prepared by the ULB. The report should describe the various technical options with recommendation for most appropriate option based on the RAY levels of service and standards;
- Prepare detailed designs of the agreed technical options provided in technical appraisal report and as per RAY standards as described at Attachment 2 of this ToR, including detailed and abstract (cost estimates) of sub-projects with accurate costs, including necessary hydro- geological investigations and designs, drawings to allow technical sanction by the competent authority and construction of the works by the contractor.;
- The Consultant is encouraged to use the Standard Engineering Designs (SEDs) available with MEPMA. and reasons should be given for any variations from these standard designs should be justified. However, the Consultant will be responsible for the accuracy and correctness of all estimates produced.
- The relevant BIS Standards shall be followed in the design of various components.
- Structural Engineering Drawings should be accompanied by layout drawings as described

5.22.5 Facilitation of appraisals and final approval of DPRs by the Competent Authorities

- 1)The consultant shall attend and facilitate the initial desk appraisal of the slum redevelopment models DPR (which may include the slum redevelopment models developed and thatselected after community consultations) and make necessary modifications. The consultant shall also attend and facilitate desk and field appraisal and final approval of the DPRs by MEPMA and GOI.
- 2)Prepare appraisal report at state level and central level as per the check list. Revising the DPRs duly addressing the remarks raised at state level and central level nodal agencies. Submit hard and soft copies of final DPRs after approval.
- 3) The consultant shall prepare concept plans and Power Point Presentations and explain the DPRs at state and central level nodal agencies.
- 4) The consultant shall attend and facilitate the ULBs in getting the technical sanctions from the competitive authorities.

5.22.6 Structure of the Detailed Project Reports (DPRs)

The structure of DPR shall be as per the Chapter-3 of Guidelines for preparation of DPR under RAY (latest) issued by MoHUPA, available on MEPMA/MoHUPA web sites.

6. EXPECTED OUTPUTS & DELIVERABLES

- 6.1 All deliverables **as given below** need to be submitted in English in the copies specified against each Stage in hard and soft copies to _____MUNICIPAL CORPORATION MUNICIPALITY. All reports, documents and deliverables shall be the property of _____MUNICIPAL CORPORATION / MUNICIPALITY. All the reports required by this ToR shall provide a decent and legible presentation and include a detailed "Table of contents", an executive summary of 4 to 10 pages, the main "text" organized into sections and emphasizing the proposals and recommendations and their justification. Supporting data and analysis shall be contained in "Annexes" which shall be referred, as appropriate in the body of the text. The reports shall be illustrated as appropriate with diagrams, sketches, charts, tables, graphs, drawings and maps to aid comprehension and assimilation of their contents. All paragraphs in the executive summary, the text and the annexes shall be numbered.
- 6.2 When the reports are furnished to _____MUNICIPAL CORPORATION / MUNICIPALITY three (3) soft copies of the reports together with 2 copies of a descriptive memorandum linking these files to the text shall also be provided to the _____MUNICIPAL CORPORATION / MUNICIPALITY on CD, data base preferable on MS Office later version.
- 6.3 In summary, the reports and specified outputs of the ToR shall be submitted to _____MUNICIPAL CORPORATION / MUNICIPALITY with timelines as follows:

Sl. No.	Description	Time in days for submission of reports	Cumulative time frame from inception in days	No. of Copies
1.	Inception report			
	a) Total Station survey in the specified slum (s) in the city including utility mapping, facilitation of slum household socio-economic survey and data entry in MEPMA website (MIS).			3 hard and 7 soft copies

2.	Interim report comprising a) Integration of slum MIS and spatial data from Total Station survey in Auto Cad & GIS mode. b) Analysis of GIS-MIS data, gap analysis for housing, environmental and social infrastructure, capacity building c) Options for reconfiguration of plot / slum layout and preparation of Slum Redevelopment/Relocation Models for the specified slums; d) Community consultations and selection of suitable redevelopment/relocation models supported by SLF resolution; e) Requirements for housing, environmental, linking and social infrastructure and Capacity Building Plan. f) Draft DPR for specified slum/s duly modifying slum redevelopment			3 hard and 7 soft copies
3.	Final Report Submission of Final DPR duly incorporating final alterations and corrections made atULB level, GoAP level and GoI level and submission of hard and soft copies.		(Final DPR Approval in CSMC)	10 hard and 10 soft copies
4	Final Bid Documents as per Approved DPR based on above design, drawing and estimates		(Release of relevant GOs from GOI and GoAP)	2 hard and 5 soft copies

6.4 All deliverables should be prepared as per RAY guide lines modified from time to time. Any other report or material required by Municipal Corporation/Municipality as per RAY guide lines should also be submitted whenever required. The consultant should always be in a position to alter part of the document or whole as per the directions of the GoAP or GoI. The number of notified slums given as may exceed and few non-notified slums also include in the SFCPOA and DPRs. The Client includes those additional slums also in the assignment and the consultant shall make changes in the proposal accordingly.

6.5 **Inception report - work plan** - The report should include, among others, a summary of key data gathered. The detailed work plan shall include detailed "Time-Task-Schedule" charts listing all the tasks and showing estimates by task of both the staff - Time input by both consultant and counterpart staff and the time requirement for task completion in bar chart format and also include supporting text describing the basis for the program.

6.6 Fortnightly/Monthly Progress Reports shall:

- (i) Review the work of the preceding *fortnight/month* period in relation to the Work Plan, including the conduct of liaison as required by the above paragraph;
- (ii) Identify any constraints to progress or full effectiveness of the work done and recommend measures for their alleviation; and
- (iii) Present an outline of the work planned to be done during the subsequent *fortnight / month* with reference to the Work Plan.

7. EXPERTISE AND INPUTS

Key personnel for DPR Key personnel	No. of persons	Qualifications & skills	Experience
Team Leader and Detailed design expert	1	Post Graduate civil engineer	10 years experience in detailed design out of which 3 years in construction supervision in water supply, road, drains and sewerage in urban areas.
Architect	1	B.Arch/M.Arch	5 years and 2 years of experience respectively in design of group housing
Urban Planner	1	B.Tech(Planning)	5 years of Experience in planning of lay-outs for Housing.
Structural Engineer	1	B.Tech (Civil)/ M.Tech (Structures)	5 years and 2 years of experience respectively in design of structures
Roads and Drainage Engineer	1	B.Tech (Civil)/ M.Tech (Transportation/Structures) engineer	5 years and 2 years of experience respectively in design of light traffic roads and drainage.
Water supply and sanitation and solid waste management engineer	1	B.Tech (Civil)/ M.Tech (Environmental / PH Engg.)	5 years and 2 years of experience respectively in design of water supply, sewerage and solid waste management systems. Or Post-Graduate Engineer with 3 years experience in the above areas.
Street lighting Engineer/ Electrical Engineer	1	B.Tech (Electrical/EEE)	3 years experience in Designing street lighting installations.

The indicative person months and schedule is at **Attachment 1**. However, the consultant is required to review the same and provide the work plan to be finalized during implementation of this consultancy.

The RAY guidelines and standards for preparing detailed designs and bid document is at **Attachment 2** (to be attached later after finalization).

8. DATA SERVICES AND FACILITIES TO BE PROVIDED BY _____ MUNICIPAL CORPORATION / MUNICIPALITY

8.1 Municipal Corporation / Municipality has to provide the consultant access to the records, maps, drawings, reports and other technical data in their possession to assist the consultant in the execution of the work. The consultant shall review the existing reports and data. The information/material borrowed by the consultant shall remain the property of _____Municipal Corporation / Municipality and shall be utilized by the Consultant solely for the purpose of the work to be done under this ToR. All such borrowed material shall be returned to the ___Municipal Corporation / Municipality. The consultant himself through field survey and investigation shall collect any other data/information required for completion of the studies, apart from the data/information provided by _Municipal Corporation /Municipality.

8.2 Except as noted in the paragraphs above, the consultant shall be solely responsible for the supply of all personnel, materials, equipment, supplies, office accommodation etc. for both his own and counterpart staff, office services, computers and accessories, and transport to complete the work required by this ToR.

9. COMPOSITION OF REVIEW COMMITTEE TO MONITOR CONSULTANT'S WORK

A Committee comprising the following officers / specialists would be constituted monitor the progress of the assignment and review the outputs of the Consultants.

- i. Head of Engineering Section (Chief/Superintending/ Executive / Dy. Exe. /Asst.Exe. Engineer)
- ii. Executive Engineer (Public Health) - in case of Grade 2 and 3 Municipalities iv) GIS / Planning Specialist of City Level Technical Cell
- iii. Head of Town Planning Section (Chief Planner / Asst. City Planner / TPO) / District Town and Country Planning Officer - Member Convener
- iv. Head of Urban Poverty Alleviation Cell
- v. Team Leader of 3rd party agency
- vi. Representative from MEPMA

A 3rd party agency may also be appointed by DTCP / MEPMA to verify the quality of GIS work and outputs of the GIS consultant. The GIS consultant shall be obliged to rectify his work and incorporate necessary modifications into his outputs and submit the final outputs duly adhering to the recommendations of the Review Committee and the 3rd party agency. The payments to the GIS consultant shall be regulated based on the report of the 3rd party agency.

For the evaluation of all the PPP projects, there will be representation from the Infrastructure Corporation of Andhra Pradesh (INCAP) / another appropriate agency in the above **REVIEW COMMITTEE**.

The consultant shall attend the periodic / monthly reviews conducted by ULB / MEPMA at Hyderabad / respective towns, at his own cost.

10. PROCEDURE TO REVIEW THE OUTPUTS OF THE CONSULTANT - INCEPTION, INTERIM, DRAFT FINAL AND FINAL REPORTS

The Review Committee will review the outputs of the Consultant at the specified milestones in review meetings chaired by the above officers, among others. The consultant shall make presentations of their outputs covering all the salient aspects in addition to their reports, plans etc.

Necessary modifications shall be made to the outputs as suggested by the Review Committee to its satisfaction. This Review Committee will present the evaluation report to the Commissioner, _____ MUNICIPAL CORPORATION / _____ MUNICIPALITY with appropriate recommendations.

The consultant's liability for services shall be up to 6 months after entrustment of the work to the construction agency.

Annexure 1

S.N o.	Na me	Position	Employment Status	Input Months
		DPR Key Personnel		
1		Team Leader and Detailed design expert		
2		Architect		
3		Structural Engineer		
4		Roads and Drainage Engineer		
5		Water supply and sanitation and solid waste management engineer		
6		Street lighting Engineer/ Electrical Engineer		
7		Surveyors / Draughtsman (Civil)		

Annexure 2

RAY Guidelines (latest) and Standards for Preparing Detailed Designs.

This is a guide and standards for the design engineer in the preparation of detailed designs with estimates; and bid documents including contract plans for RAY projects. The purpose is to guide the design engineer in produce clear and consistent detailed design documents for quick review and approval, and construction.

Design and Estimates

I. Detailed Design Report

- i. Designer's Review of Sub-Project Proposal and objective
- ii. Options
- iii. Survey and Design Information
- iv. Limitation and Site Conditions
- v. Design Standards, Norms, and Regulations, Applicable
- vi. Design Assumptions and Rates Adopted

- vii. Photo Record
- viii. Summary of Design
- ix. Annexes: eg.
 - 1. Engineering calculations and supporting drawings and diagrams
 - 2. Equipment Schedules

II. Design Plans

III. Implementation Plan

IV. Detailed Design Estimates

DETAILED DESIGN

SECTION -I. – Detailed Design Report

This stand-alone bound document contains information pertinent to the design set out in a clear and logical manner so that anyone with the requisite technical training can follow the design and calculations. Furthermore, the designer must be able to return to the calculations at any time and be clear about assumptions and procedures that have been followed.

i. Designer's Review of Sub-Project Proposal

A brief (no more than one paragraph) statement on the objectives of the sub-project and designer's review of the sub-project to ensure conformity with the approved sub-project. High light any modifications in scope with justification and benefits, if any.

ii. Options

Briefly list design options, if any, to address the stated problems with advantages and disadvantages. Include a statement of the prepared option with justification. When several design options have been identified, they must be discussed with the municipal engineer and then can be discussed informally with the RAY Engineering Team and the options presented in the detained design report.

iii. Survey and Design Information

Sources and dates of all surveys and design information used to complete the detailed design shall be listed. The consultant shall provide all referenced survey data and design information to the RAY and the ULB.

iv. Limitation and Site Conditions

Identify resource and site conditions that determine the nature of the design

v. Design Standards, Norms, and Regulations

Identify standards, norms, and regulations relevant to the project. The designer should use the technical specifications and norms provided in the related RAY Guidelines.

~~Where changes are necessary they should be discussed with the City Level Technical Cell and then~~

proposed in revised specifications.

vi. Design Assumptions Prepared

Statement of design assumptions. Rates adopted should be taken from the relevant SOR, if not highlight this point and provide justification.

vii. Photo Record

The designer shall make a photo record of the project site at the start of detailed design for use by the design team and shall be included in the detailed design report. Photos shall be taken of project site and at regular intervals along the length of the road/drain and at key locations such as bridges, critical ground changes, intersections, disposal points, encroachments, low courtyard level compared to road level. Each photo shall be labelled with the location, time of day and date taken. The regular intervals for taking photographs should not exceed 50m for on-site works, and 100m for off-site works.

viii. Summary of Design

Ensure the detailed design addresses the problems identified in the Micro Planning process. The summary shall include operation and maintenance implications and costs in terms of funds and manpower. Additionally, a statement comparing the detailed design estimated cost to proposed line estimates and any significant variation highlighted and explanation provided.

Engineering calculations and supporting drawings and diagrams

The design report is not complete without complete calculations supporting the design. When preparing the design report calculations, the following rules should be followed:

- Each page of the design report should be numbered. The report itself should be dated and signed by the designer.
- The design parameters adopted should be clearly stated and, where appropriate, justified at the beginning of the design report. Any other assumptions should be given and the fact that they are assumptions should be clearly stated. (For instance, the assumed sub-grade CBR might be required for road schemes sub-projects). The important point here is the fact that the basis for the design is clearly stated. If changes are subsequently needed because on-site conditions prove to be different from those assumed, there will be a starting point for estimating the size of the changes to be made.
- Calculations for networked systems, including water supply, drainage and sewerage, should be linked to layout plans or diagrams.

Wherever possible, design calculations should be presented in tabular form.

Equipment Schedules

Equipment schedules list the equipment that the designer has envisioned for the project in a tabular form. These lists summarises the equipment requirements and provides the necessary data to understand the designer's intentions. This information is contained in the detailed design report, but not the specification.

Typical equipment schedules:

-
- Pipe Schedule

- Valve Schedule
- Pump & Motor Schedule
- Lighting/Electrical Schedule
- Instrumentation Schedule
- General Equipment

Sample Pipe and Valve Schedules:

Pipe Schedule

Service	IS/BS No.	Size Nominal	Material	Interior Lining	Exterior Coating	Pressure Class	Joint	Remarks
Water Supply		90 mm	HDPE PE 63	n/a	n/a	4 kg/cm ²	Butt welding	Local distribution
Water Supply		160mm	HDPE PE 80	n/a	n/a	6 kg/cm ²	Butt welding	Feeder main

Valve Schedule

Designation (Type/Location)	IS/BS No.	Size	End Connection	Service	Specification	Remarks
Gate Valve (DI) feeder main		150 mm	flanged	water supply	Spindle stainless steel	feeder main shut off valves with cap

Operation Schedules

For design of water supply/sewerage systems, include the Operation schedule of reservoirs/ sumps etc. to reflect the field situation and prevailing practices as far as possible. The design of various components may be based, as far as possible, on the Operation Schedule included in the Design. Wherever the design is based on groundwater as source, the recuperation, experience in the vicinity etc. should be considered and suitable recharge structures and operation schedule for drawl of water should be recommended for sustainability.

Sample Operation Schedule for OHSR/GLSR/Sump

Sl. No.	Timings From To	Cumulative Inflow (KL)	Cumulative Outflow (KL)	Balance in the Reservoir/Sump (KL)
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SECTION II – Detailed Design Plans

The objective of the plans is a graphical representation of the design for accurate and efficient understanding. The following lists are guidelines for the designer shall provide additional notes and details that a considered necessary for understanding the drawings and work.

Plans must always:

- Take into account what has already been done; and
- Be responsive to actual problems and deficiencies.

Types of Plans - *General Plans*

COVER SHEET

Cover sheet for plan set identifying the Project, town, sub-project, location and funding source.

LEGEND SHEET & TABLE OF CONTENTS

For convenience, the legend of lines and symbols used in the plan set can be contained on a single sheet. A Table of Contents including sheet name and number should be included.

In many cases, the cover sheet, legend sheet and table of contents can be included on a single sheet. **SITE PLANS**

Site plans must include:

- Town plan showing the location of project area – One plan
- Site information on one plan showing
- Layout of the project area in appropriate scale;

Existing facilities and services (infrastructure);

- Proposed (new and rehabilitation) facilities and services (infrastructure);
- Possible future development which may or may not have been approved;
- Accurate contours and point elevations;
- Water bodies and watercourses, and areas subject to flooding;
- Reference points and co-ordinates, i.e. north arrow, road and building names, etc.
- Settlement plus any relevant ward and municipal boundaries;
- General notes necessary for understanding the plans and the work.

SCHEMATICS OR DIAGRAMS (FLOW CHARTS)

Line-schematic depicts flow or movement through a system. Lines, arrows, symbol, design and measured values, and notes are used to graphically represent flow in pipes and drains, traffic, electrical power, and solid waste transport. Not necessary to scale, schematics should be proportionally correct. Levels and capacities shall be indicated where necessary.

SECTIONS AND DETAILS

Sections- Details including cross-sections and longitudinal -sections of objects. Sections clarify how an object is constructed and how it relates to the surrounding environment.

Typical- Details typical to most projects in the sector such as pipeline trenches and road formation sections, usually from the Standard Engineering Details (SED).

Specific- Details specific to the project and may include modified SEDs. Sections and details are always to scale.

Plans by Sectors:

Items that are specific to works by sector or are of particular importance and should be included are given in the following list. However, roads and drains are on a common sheet because they are inter-linked.

WATER SUPPLY

Flow Schematic or Flow Chart for water transmission through a system shall include:

- Existing and proposed works;
- flow direction and value (average and peak);
- pipe diameters, lengths, and materials;
- primary and secondary reservoir volumes and water levels elevations;
- Frequency of supply and duration per zone;
- pump and motor ratings, etc.

Flow schematics are required for treatment and pumping systems, and completed distribution systems (network schematic).

Hydraulic Profile to scale of the system including:

- Ground elevations of the, treatment process, storage water levels, and water structures;
- Hydraulic elevation, static head, hydraulic grade line, and residual head;
- Other information required for assessing the system.

Site plan for water supply shall also include:

- Existing and proposed pipeline and valves and road numbers;
- Connections to existing / proposed services
- Water structures locations, i.e. tap stands, pumping stations
- Measured and design flow and pressure not included on flow schematic.

ROADS

Site plan for roads shall also include:

- Road number;
- Existing and proposed road alignments and right-of-ways;
- Overall road network with connectivity to main/secondary/approach roads;
- Location of other utilities like drains pucca/kutchha.

Plan and Profile of roads shall include:

- Detailed **plan** view of the road including existing and proposed road width dimensions and materials, drains and pipelines (existing and proposed), adjacent structures such as houses, culverts, drains, top level of drains, depth and size of water supply pipes, top of road, courtyard levels, etc.
- Detailed **profile** is typically shown below the detailed plan showing the road profile normally at the pavement centreline and include existing ground level, proposed level, depth of excavation, and drain and pipeline top and invert level (level is elevation). The longitude scale matches the detailed plan's but the vertical scale is exaggerated.
- Profiles shall be aligned under the plans.

Cross-sections for roads shall include:

- Road cross section shall be provided at intervals not more than 30m and at junctions, and change of grade, as site conditions require.
- Road shall extend past the limits of work and show the elevation of adjacent courtyards, basements, and plinth levels of houses;
- Existing and finished ground elevation;
- Top and bottom of road formation;
- Invert and sill levels of side drains, culverts, pipelines, cable crossings;
- Details of existing road;
- Notes and details on nature of soil, subsurface water level for dry season and monsoon.

DRAINS (open)

Site plans for drains shall include:

- . Road number
- . Road and drains, alignments and right-of-ways;
- . Connection to the overall drainage network and pipelines
- . Drain invert and sill elevations for new, existing including lateral drains, Good quality level survey and contour mapping are critical to this work.

Catchment Area (Watershed) Plan is a site plan, to scale, of the drainage watershed including watershed boundaries, contours, land-use (for estimating run-off), drainage network, tanks, and other watercourses. Required only for larger off-site drains. This should be given on a graph sheet.

Flow schematic for wastewater transport through a system shall include:

- . Flow direction and control devices (lock/sluiice/flood gates) and control points (culverts/bridges);
- . Point elevations;
- . Lateral connections;
- . Storm water retention basins;
- . Treatment (if any);
- . Pumps and motor ratings.

Flow schematic required for complicated drains and larger off-site drains.

Profile for drains shall include:

- existing ground levels or elevations;
- proposed finished ground levels or elevations;
- location and elevation (invert and sill) of existing lateral (cross) drains and culverts;
- top of drain elevation – top of drain (excluding any balustrade protection) shall be below ground level, road level and courtyard levels, and drains joining to main drain.
- slope and size of drain;
- drainage structures such as silt traps and culverts;
- existing and proposed drain invert elevation;
- bed level and maximum water/flood level of final disposal point. Profiles for most on-site drains will be reality simple.

SEWERAGE (UNDER-GROUND DRAINAGE)

Site Plan for underground drains shall include:

- Roads, drains, other underground utilities, and sewer alignments and right- of-ways;
- Connections to the overall sewer or drainage network.

Flow schematic for underground drains shall include:

- sewer diameters, material and manhole locations
- flow direction and control devices;
- point elevations and depth of sewer;
- lateral connections (including diameter),
- connectivity to main / trunk sewer
- treatment (if any), and disposal
- pumps and motor ratings, etc.

Flow schematics are required for treatment and pumping systems, many off-site works, and completed distribution systems (network schematic).

Plan & Profile for underground drains shall include:

- . ☐ Detailed **plan** view of sewer alignment including dimensions and materials of road, drains, underground utilities, and manholes (existing and proposed), adjacent structures such as houses, and manholes.
- . ☐ The **profile** is typically shown below the detailed plan showing the sewer pipeline profile existing and final ground level, depth of excavation, manholes and chambers, and drain and pipeline crossing (including elevation). The longitude scale should match that on the detailed plan, but the vertical scale is exaggerated.

For local systems in reasonable uniform sloping areas, may be appropriate to provide all details on plan.

STREET LIGHTING

Site Plan for street lighting shall include:

- . ☐ Existing and proposed power poles and light poles;
- . ☐ Type of light and fixtures;
- . ☐ Transformer locations and specifications;
- . ☐ Linkage to power grid.

SOLID WASTE MANAGEMENT

Site Plans for solid waste management shall include:

- . ☐ Locations of solid waste collection and transfer sites;
- . ☐ Collection routes (route maps);
- . ☐ Roads and drains

For other environmental infrastructure, provide plans as necessary that are consistent with the most appropriate section included above.

SECTION III - IMPLEMENTATION PLAN & CONTRACT PACKAGING

To ensure the works can be implemented within cost and within a reasonable time-frame an implementation plan is required. Preparation of a realistic Project Implementation Plan including contract packaging (clubbing) for the construction of the works designed is a critical component of detailed design, and work is not complete without it.

Types of Implementation Plans:

1. **Overall Implementation Plan (schedule)** – The consultant shall work with the ULB to make implementation plan with approved Slum-free City Plan of Action.
2. **Implementation Plan for Each Contract (Construction Plan)** – The consultant/designer shall prepare this as part of his work in preparing the bid documents.
3. **Supervision Plan/Program for works** – The consultant/designer shall prepare a construction works supervision plan for the ULB as part of his work in preparing the bid documents.

When preparing the Implementation Plan and Contract Packaging, the following rules should be followed: Work prioritising:

- . ☐ i) do underground work first – water supply and sewer pipelines before roads and drains; ii) Build roads and drains after pipes are in the ground; iii) street lighting and solid waste management – do any time convenient.
- . ☐ Consider other on-going works and works about to start in the ULB;
- . ☐ Consider construction supervision capacity - It may be necessary to stagger works based on municipal capacity.
- . ☐ Allow for slack in the task duration - If you estimate that it will take 7 days to construct an item, allow for 10 days or so, to account for the unforeseen delays and extra works. If during implementation, it is found the slack is not needed the next task can be started. Also provide allowances for seasonal weather and holidays.
- . ☐ Identify milestones - Milestones are important points in time that rarely last more than one day such as “Contract Signing”, “Commencement of Work” and “Pumps Operational” but must happen before implementation can move forward. Activities are work tasks such as “Excavation” and “Paving” that may take several days, weeks, or months to complete.

Computerized schedule programs such as MS Project are well suited to developing Implementation Plans (also called Implementation Schedules).

CONTRACT PACKAGING

Group or club sub-projects of the same type and in the same area to facilitate detailed design, estimating, and project management, and allow for multiple sub-projects included under one construction contract. Generally, all the sub-projects for an area, including contiguous settlements, should be designed together. Contract arrangements will be decided by the ULB.

Contract Types and Sub-Project Packaging (clubbing)

Details on the types of contract are provided in the **RAY Procurement Guidelines**, which the designer shall read prior to starting design work. Some contract packaging options include:

Local Competitive Bidding (LCB)

- . ☐ One detailed design can be one LCB, or
- . ☐ Two or more detailed designs can be clubbed into one LCB, or
- . ☐ One detailed design can be split up into two or more LCB packages.

HOUSING

Housing can be contracted on a NCB (National Competitive Bidding) basis, and can be one single package for the entire slum, or one package for each block.

WATER SUPPLY

Most on-site water supply works are installation of GI pipe and bore wells, both of which require specialised contractors. Therefore, several on-site and off-site sub-projects can be clubbed into one contract package to make a contract amount large enough to attract several firms to bid for the work. Due to the technical complexity of water supply, only LCB contracts will be used.

ROADS & DRAINS

In most cases, roads and drains are designed and constructed together because they are inter-linking infrastructure. Therefore, roads and drains should be clubbed into one contract of the appropriate value. Detailed design of major drains should be completed for the entire length through the ULB, and if necessary estimates prepared for each construction contract (LCBs), starting from the downstream end.

STREET LIGHTING

Street lighting and automatic on-off switches require specialised contractors. Therefore, several on-site and off-site sub-projects can be clubbed into one contract package to make a contract amount large enough to attract several firms to bid on the work. Due to the technical nature of street lighting and specialised nature of work, only LCB contracts will be used to procure the works.

SOLID WASTE MANAGEMENT

Detailed design and contract packaging of solid waste management works will depend on the nature of work.

Alternatively, all the infrastructure components in a slum can be clubbed into a single package, if suitable contractors with sufficient expertise in all the sectors are available in the region.

SECTION IV. – Detailed Design Estimates

The objectives of cost estimates

Once a design has been prepared, it is necessary to check its cost to ensure that:

1. it falls within the approved budget;
2. it represents value for money; and
3. the prices quoted by contractors are reasonable

Preparing and checking estimates

It is best if estimates are prepared and presented in a standard form. Two aspects of this standardisation are described here.

The first is to use standard details for all the commonly found system components. (For instance all standard road surfacing details, all standard drain cross-sections, manholes, chambers and inspection boxes, standard electricity lantern designs). Each will be accompanied by a simple schedule, setting out the various actions required to complete the work in the form of a simple bill of quantities.

- Where necessary, these individual actions can be further broken down in terms of the labour, materials and plant required to achieve them.
- The second is to present estimates on standard spread sheets. Such standard details are currently being developed for RAY. A summary of the types of estimates is provided below:
- “**Standard Schedule of Rates**” (SSR) are government accepted material and labour rates as per standard specifications.
- **Detailed Estimate** is material and labour quantities estimate for the given item of work.
- **SSR** is the data for various items of work used by the ULB.
- **Abstract Estimate** is the cost estimate for detailed design and includes all material and labour quantities and costs, including add-ons.

PLANS:

WATER SUPPLY

Flow Schematic or Flow Chart is required only for complex and large off-site works.

Site plan for water supply shall clearly show the location, diameter (OD/ID), pipe material, pipe depth, and fill material. Hydraulic details such as HGL etc are not required.

Typical and specific Details as required cost effective and quality construction of works.

ROADS (*roads and drains may appear on the same plans*)

Site plan for roads shall also include same items on detailed design plans. **Plan and Profile** of roads shall include same items on detailed design plans. **Cross-sections** for roads shall include

same items on detailed design plans. **Details** as required cost effective and quality construction of

works.

DRAINS (OPEN)

Site plans for drains shall include same items on detailed design plans.

Flow schematic may be required for large or complex works. If required, shall include same items on detailed design plans.

Profile for drains shall include same items on detailed design plans.

Details as required for cost effective and quality construction of works.

SEWERS (UNDERGROUND DRAINAGE)

Site Plan for underground drains shall clearly show the location, diameter (OD/ID), pipe material, pipe depth, and fill material.

Flow schematic, only required for complex works and large off-site works. If required, shall include same items on detailed design plans.

Plan & Profile for underground drains shall include same items on detailed design plans.

Details as required cost effective and quality construction of works.

For local systems in reasonable uniform sloping areas, may be appropriate to provide all details on plan.

STREET LIGHTING

Site Plan for street lighting shall include same items on detailed design plans.

Details as required cost effective and quality construction of works.

SOLID WASTE

Site Plans for solid waste management shall include same items on detailed design plans.

Details as required cost effective and quality construction of works.

For other environmental infrastructure, provide plans as necessary that are consistent with the most appropriate section included above.

List of References (to be provided during implementation of this TA)

1. RAY Procurement Guidelines, in development
2. RAY Standard Engineering Details (SED), in development
3. RAY Infrastructure Planning and Design Guidelines, in development.
4. RAY Technical assessment of Infrastructure in Slums, in development

RAY STANDARDS FOR PLANS

GENERAL REQUIREMENTS

Requirements that apply to all plans and drawings

Sheet size

The designer shall select the sheet size more suitable for the drawing and details, to show all necessary detail for designing and constructing the works. The designer shall also consider in use and presentation, so the use of several different sizes should be avoided.

Sheet size standards for RAY are **A1**, **A2**, **A3**, and **A4**, drawings on other size paper will not be accepted. Title block and borders, see example

- 1) Title of drawing
- 2) Name and contract number of Sub-Project
- 3) Name of ULB
- 4) Name of Programme: Rajiv Awas Yojana
- 5) Name of firm or organisation
- 6) Work Reference Number
- 7) Name of designer
- 8) Date
- 9) Revision table with columns Number, date, By, and Remarks
- 10) Scale- Scale shall be included in the title box and a scale bar shall on the drawing
- 11) Sheet number and total number of sheets i.e., Sheet No. 2 of 5.

Sample title block below

Road and Drain Site Plan				
Plan No. _____				
On-Site Slum Infrastructure Works				
..... MUNICIPAL CORPORATION				
RAY Logo		Name of Consultant		
Designed by		Checked by:		Approved by & date:
File name	Scale No.	Revision	Dat e	Sheet No.

Legend

1. Symbols
2. Line types
3. Abbreviations
4. General notes.

The legend may be included on each sheet, but it may be more efficient to have a standard “legend sheet”.

Notes:

Notes necessary to understand the drawings, design, and construction, shall be included on the drawing. However, the drawings and plans should not be cluttered with notes.

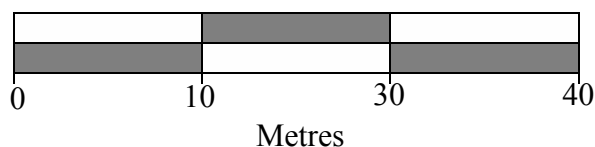
Items that should be noted include:

1. Reference to other relevant plans or drawings;
2. Description of site conditions that may impact construction which are not apparent on the drawings.
Such as areas of flooding, changing subsoil conditions, site access restrictions, etc.;
3. References to specific items;
4. Date of site investigations, i.e. surveys, field measurements, subsoil investigations;
5. Reference to field chain survey/level book;
6. Reference GTS bench marks, location and levels.

Scale

Guidelines for selecting scale(s) of drawings on plans. The design should consider the sheet size and objectives of the drawing when selecting a scale.

1. Town Plans 1:10,000
2. Site Plans 1:1,000 to 1:2,500
3. Details 1:100 or larger, as required to show sufficient details for comprehension of design and functions and to allow the item to be built.
4. Standard scales (based on SI system)- 1:10, 1:20, 1:50, 1:100, 1:250, 1:500, 1:1000, 1:2500, 1:5000, 1:7500, 1:10000, and 1:20000.
5. All scale ratios should be base 10;
6. Scale bar (scale log) for all drawings. See sample below.



Lines

Typically, drawings will be in black and white because colour drawings are too difficult and expensive to reproduce. General criteria for drawings lines:

1. Conventional civil engineering drafting practices;
2. Existing infrastructure – Thin lines (appears lighter);
3. New (or proposed) infrastructure - Thick lines (appears darker);
4. Line styles shall be consistent throughout the plans (thick and thin);
5. Boundary lines;
6. Show limits of construction works;
7. Show linkages to existing infrastructure, even if beyond limits of construction;

Example - A line representing new power supply lines on a site plan will be thicker (appear darker) than the line representing the existing power supply lines on the same site plan. However, the line style will be the same for the existing and new power supply lines.

Symbols

The symbols and patterns used on the plans shall conform to standard engineering practice and be consistent throughout the documents. The symbols with definition shall appear in the plan legend and/or on the Legend Sheet, if provided.

1. North Arrows, on all site plans;
2. Each symbol has a signal meaning, unless notes are provided to make the meaning clear;
3. Flow direction arrows on all water pipelines, drains, and sewers;
4. Have separate symbols or patterns for CC, BT, and WBM roads or label them;

Fonts and Printing

Font type and size shall be of appropriate size for easy reading, and the font type shall be consistent throughout the documents (plans, estimates, bidding documents, etc.) as much as possible.

Suggested font: Arial size 10 to 16.

Colours

Detailed design documents and bidding documents are frequently photocopied by black and white machines, for this reason, all bidding and contract documents including plans shall be printed as black and white. If colour is used the shades used should clearly show up on a black and white photocopy.

Computer Aided Design (CAD)

CAD applications such as AutoCAD can greatly enhance the design and drawing preparation process and have become standard engineering standard practice. The Client will accept plans conforming to RAY standards, but drawn on CAD.

If CAD is used, the following standards apply:

1. AutoCAD 2000 or Later Version as required by the ULB

2. Electronic copies are submitted with paper submissions
3. Plots in black and white with easily distinguishable shades for clear reproductions.

Computerised Engineering Applications

Computerised engineering applications such as EPANET 2, Storm CAD, Water CAD, have become power tools for the design engineer. However, they are no substitute for an experienced and thinking engineer. A programme speeds up calculating and simplifies presentation. So it very important to check the data fed to the computer programme is correct and the outputs have to be check to see it is correct.

Reporting
requirements:

- Input data sources and reliability;
- Computer generated report;
- Computer generated maps and diagrams;
- Designer statement on how the programme was used and limitations in the application.

Annexure E: Standard Contract Document

.....**MUNICIPAL CORPORATION / MUNICIPALITY SECTION 1: FORM**

OF CONTRACT

CONTRACT FOR: *[Insert Title of Consulting Services]*

CONTRACT NUMBER: *[Please insert project number]*

THIS CONTRACT is made

BETWEEN: *[insert Client]* (hereinafter referred to as ‘the Client’)

AND: *[name of Consultant – this should be the lead firm in case of association. In case of JV, all partners should be mentioned]* (hereinafter referred to as ‘the Consultant’)
[Please insert the name of the Consultant’s representative and communication address of the Consul

WHEREAS:

A. the Client requires the Consultant to provide the services as defined in Section 4 (‘the Services MUNICIPAL CORPORATION / MUNICIPALITY) on behalf of the Governor, State of Andhra Pradesh (‘the Client’); and

B. the Consultant has agreed to provide the Services on the terms and conditions set out in Contract.

IT IS HEREBY AGREED as follows:

1. Documents

This Contract comprises the following documents: Section 1: Form of Contract

Section 2: General Conditions

Section 3: Special Conditions

Section 4: Terms of Reference

Section 5: Schedule of Prices

Section 6: Format for invoice

Annexes: Detailed at Special Conditions of Contract, Clause 2.

This Contract constitutes the entire agreement between the Parties in respect of the Consultant’s obligations supersedes all previous communications between the Parties, other than as expressly provided for in Section and/or Section 4.

2. Contract Signature

If the Original Form of Contract is not returned to the Contract Officer (as identified in Section 3) duly compl signed and dated on behalf of the Consultant within 30 days of the date of signature on behalf of the Client, C or participating ULBs will be entitled, at its (their) sole discretion, to declare this Contract void.

No payment will be made to the Consultant under this Contract until a copy of the Form of Contract, signed on behalf of the Consultant, is returned to the Contract Officer.

3. Commencement and Duration of the Services

The Consultant shall start the Services on [*insert start date*] ('the Start Date') and shall complete them by [*i end date*] ('the End Date') unless this Contract is terminated earlier in accordance with its terms and conditions

4. Financial Limit

Payments under this Contract shall not, in any circumstances, exceed [*insert total amount in numbers and*] inclusive of all applicable government taxes – national and state, as applicable ('the Financial Limit').

5. Time is the Essence

Time shall be of the essence as regards the fulfillment by the Consultant of its obligations under this Contract.

6. Quality is of Prime Importance

Quality of outputs by the Consultant shall be of prime importance under this Contract.

For and on behalf of Client

Name:

Date:

For and on behalf of Consultant

Name:

Address:

Phone No.:

Date:

Witness 1

Name:

Date:

Address:

Witness 2

Name:

Date:

Address:

SECTION 2: GENERAL CONDITIONS OF CONTRACT DEFINITIONS AND

INTERPRETATION

1. Definitions

- ‘the Consultant’ means the person(s), partnership(s) or company(ies) with whom this Contract is placed.
- ‘the Consultant’s Representative’ means the person named in Section 3 who is responsible for all contractual aspects of the Contract on behalf of the Consultant.
- ‘the Consultant’s Personnel’ means any person instructed pursuant to this Contract to undertake any of the Consultant’s obligations under this Contract, including the Consultant’s employees, agents and sub-consultants.
- Sub-consultant’ means any natural person, private or government entity, or a combination of the above, to whom any part of the Services is subcontracted by the Consultant.
- Joint Venture” means a Consultant which comprises two or more Partners each of whom will be jointly and severally liable to the Client for all the Consultant’s obligations under the Contract.
- the Client’s Representative’ means any entity appointed by the Client to act on the Client’s behalf with regard to procurement and/or management of this Contract.
- the ‘Equipment’ is defined as a tangible, non-expendable property having an anticipated life of two years or more with a unit acquisition cost of Rs.10,000 or greater. Equipment includes, but is not limited to, computers, other electronic items, furniture, scientific apparatus, machinery, reference material, vehicles, as may be required for the implementation of the Services, which the Consultant cannot reasonably be expected to provide, and which are financed or provided by the Client for use by the Consultant.
- the Financial Limit’ refers to the amount specified in Section 1 and is the maximum amount payable by the Client under this Contract.
- the Services’ means the services set out in the Terms of Reference (Section 4).
- ‘the Software’ means the software designed and developed by the Consultant or the Consultant’s Personnel, and includes the source code and object code along with associated documentation, which is the work product of the development efforts envisaged in the Terms of Reference. It does not include commercial off-the-shelf licensed software (except for the customisation components on such products).
- the Project Officer’ means the person named in Section 3 who is responsible for issuing instructions and dealing with all correspondence in connection with the technical aspects of the Contract.
- the Contract Officer’ means the person named in Section 3 who is responsible for all contractual aspects of the Contract, and to whom invoices should be sent.

- the City Nodal Officer' forMUNICIPAL CORPORATION / MUNICIPALITY means the person named in Section 3 who is responsible for ensuring coordination between the city, the Consultant andMUNICIPAL CORPORATION / MUNICIPALITY in the execution of the Services.
- Contract Documents' means the documents listed in the Contract Agreement, including any amendments thereto.
- Contract Price' means the price payable to the Consultant as specified in the Contract Agreement, subject to such additions and adjustments thereto or deductions there from, as may be made pursuant to the Contract.
- Contract' means the Contract Agreement entered into between the Client and the Consultant, together with the Contract Documents referred to therein, including all attachments, appendices, and all documents incorporated by reference therein.
- 'GCC' means General Conditions of the Contract.
- 'SCC' means the Special Conditions of Contract.
- 'Change in Control' means that the person(s) (including corporate bodies) directly or indirectly in control of the Consultant at the time this Contract is entered into cease to be in control.
- 'Control' means the power of a person to ensure that the affairs of the Consultant are conducted in accordance with the wishes of that person.

2. Interpretation

- 2.1. In the event of any inconsistency between the Form of Contract (Section 1), these General Conditions (Section 2) and the Special Conditions (Section 3), the Special Conditions shall prevail.
- 2.2. Except as expressly provided in Clause 3 the Consultant is not the agent of the Client and has no authority to represent and shall not purport to represent or enter into any commitments on behalf of the Client in any respect.
- 2.3. Nothing in this Contract is intended to make nor shall it make the Client the employer of the Consultant or any of the Consultant's Personnel.
- 2.4. All communications by the Consultant relating to notifications or applications for consents or instructions must be addressed to the Client Contract Officer whose name and address are given in Section 3.

OBLIGATIONS OF THE CONSULTANT

3. Obligations

- 3.1 The Consultant shall perform all its obligations under this Contract (including the provision of the Services) with all necessary skill, diligence, efficiency and economy to satisfy generally accepted professional standards expected from experts.
- 3.2 If the Consultant is a joint venture then each of the joint venture parties shall have joint and several liability in respect of the Consultant's obligations under this Contract.

4. Personnel

- 4.1 All members of the Consultant's Personnel shall be appropriately qualified, experienced and in a suitable physical condition so as to ensure that the Consultant complies with all the Consultant's obligations under this Contract.
- 4.2 No changes or substitutions may be made to members of the Consultant's Personnel identified as key personnel in Section 4 of this Contract without prior written consent of the Client.
- 4.3 If the Client considers any member of the Consultant's Personnel unsuitable, the Consultant shall substitute such member as quickly as reasonably possible without direct or indirect charge to the Client with a replacement acceptable to the Client.
- 4.4 The Consultant is responsible for all acts and omissions of the Consultant's Personnel and for the health, safety and security of such persons and their property.

5. Sub-Consultants

- 5.1 The Consultant shall not sub-contract any of its obligations under this Contract without the prior written consent of the Client.
- 5.2 If, having obtained the Client's consent, the Consultant sub-contracts any of its obligations, the sub contract shall:
- a) provide that payments due to the sub-consultant shall be made within 15 days from receipt of funds from the Client; and
 - b) include rights for the Consultant and obligations for the sub-consultant to ensure that the Client's rights to require replacement of personnel (as set out in Clause 4.3) and the Client's rights and the Consultant's obligations as set out in **Clauses 6 to 11** (inclusive) can be enforced against the sub-consultant.

6. Disclosure of Information

- 6.1 The Consultant and the Consultant's Personnel shall not, without the prior written consent of the Client, disclose to any third party any confidential information obtained during or arising from this Contract (other than in the proper performance of this Contract or as may be required by authority of competent jurisdiction). In addition, no publicity is to be given to this Contract without the prior written consent of the Client.

7. Intellectual Property Rights

- 7.1 Subject to Clause 7.1, all intellectual property rights in material (including but not limited to reports, data, designs whether or not electronically stored, but not including the Software) specially developed by the Consultant or the Consultant's Personnel for the Client or pursuant to the performance of the Services commissioned by the Client, shall be the jointly-owned property ofMUNICIPAL CORPORATION / MUNICIPALITY and the Government of Andhra Pradesh, and are hereby assigned by the Consultant toMUNICIPAL CORPORATION / MUNICIPALITY and the Government of Andhra Pradesh.
- 7.2 The Consultant hereby grants to the Client a world-wide, non-exclusive, irrevocable license to use all Software, including source and object code format.
- ~~7.3 The Consultant undertakes that commercial off-the-shelf licensed software that is not~~

- covered by Clause 7.1 will be procured in the name of the Client or in such a manner that it does not interfere with the enjoyment of rights.
- 7.4 To the extent that it does not interfere with rights granted under Clause 7.1, ownership of intellectual property in Software created by the Consultant or the Consultant's Personnel pursuant to the performance of Services commissioned by the Client shall remain with the Consultant.
- 7.5 For the purpose of Clause 7.1, 'use' shall mean and include reproduction, making of derivatives, adaptations, publications and sub-licensing of all the Software and the intellectual property rights therein, but excludes commercial sub-licensing of the Software or its derivatives and adaptations.

8. Confidentiality

- 8.1 Neither of the Parties shall, without the consent of the other, divulge or suffer or permit its officers, employees, or agents to divulge to any person (other than to any of its or their respective officers or employees who require the same to enable them to properly carry out their duties) any information concerning the operations, contracts, commercial or financial arrangements or affairs of the other Party. Both Parties agree that confidentiality obligations do not apply to:
- i. Information that is already known to third parties without breach of this Contract; and
 - ii. Information that is required to be disclosed by an order of a court of competent jurisdiction or an appropriately empowered public authority, or as a result of an obligation arising under the Right to Information Act or other public disclosure law.

9. Access and Audit

- 9.1 The Consultant shall keep accurate and systematic accounts, files and records ('the Records'). The Records shall clearly identify, among other things, the basis upon which invoices have been calculated and the Consultant shall keep the Records throughout the duration of this Contract and for seven years following its termination.
- 9.2 The Consultant shall upon request provide the Client or its representatives or audit officials unrestricted access to the Records in order that the Records may be inspected and copied. The Consultant shall co-operate fully in providing to the Client or its representatives answers to such enquiries as may be made about the Records.
- 9.3 Where it is found by the Client that any overpayment has been made to the Consultant, the Consultant shall reimburse the Client such amount within 28 days of the date of the Client's written demand.

10. Corruption, Commission and Discounts

- 10.1 The Consultant warrants and represents to the Client that neither the Consultant nor any of the Consultant's Personnel:
- a) has given, offered or agreed to give or accepted, any gift or consideration of any kind as an inducement or reward for doing or forbearing to do or for having done or forborne to do any act in relation to the obtaining or execution of any contract or for showing or forbearing to show favour or disfavour to any person or entity in relation

to any contract; or

- b) has entered into any contract in connection with which commission has been paid or agreed to be paid by or to the Consultant or Consultant's Personnel or on their behalf or to their knowledge unless, before such contract was made, particulars of any such commission and of the terms of any agreement for the payment of such commission were disclosed in writing to the Client, whose written consent was subsequently given to such payment.

10.2 Neither the Consultant nor any of the Consultant's Personnel shall accept for or on their own benefit any trade commission, discount or similar payment or benefit in connection with this Contract.

11. Conflict of Interest

11.1 Neither the Consultant nor any of the Consultant's Personnel shall engage in any personal, business or professional activity which conflicts or could conflict with any of their obligations in relation to this Contract.

11.2 The Consultant and the Consultant's Personnel shall notify the Client immediately of any actual or potential conflict together with recommendations as to how the conflict can be avoided.

12. Insurances

12.1 The Consultant shall maintain professional indemnity insurance cover of an amount not less than the Financial Limit.

12.2 At the request of the Client, or its representatives, the Consultant shall provide evidence showing that such insurance has been taken out and maintained and that current premiums have been paid.

13. Indemnity

Except where arising from the negligence of the Client or Client's employees, the Consultant shall indemnify the Client in respect of any costs or damages howsoever arising out of or related to breach of warranty or representation, contract or statutory duty, or tortious acts or omissions by the Consultant or the Consultant's Personnel or any claims made against the Client by third parties in respect thereof.

14. PRICE AND PAYMENT

14.1 Applicable Provisions and Financial Limit

14.2 Unless different provisions are substituted in Section 3, Clauses 1 to 9 inclusive shall apply in relation to price and payment.

14.3 The components which comprise the Financial Limit are set out in the Schedule of Prices, Section 5. No expenditure may be incurred in excess of the Financial Limit and no virements between components shown in the schedule of prices in Section 5 are permitted without the prior written authority of the Client Contract Officer.

15. Fees

- 15.1 Any fees payable are deemed to cover the cost of salary, overseas inducements, leave allowances, bonuses, profit, taxes, insurances, superannuation, non-working days and all other costs including, but not limited to, clothing, passports, visas and vaccinations, overheads and expenses of whatsoever nature that may be incurred except those otherwise specifically provided for in this Contract.

16. Invoicing Instructions

- 1.16.1 Invoices should be submitted against agreed milestones or as specified at Section Five, Schedule of Payments in duplicate and in accordance with the remainder of Clause 16.
- 16.2 The Client shall unless otherwise expressly provided in Section 3 make payments due by direct credit through the India Bank Clearing Systems. All invoices must contain details of the India bank account to which payments are to be made.
- 16.3 Invoices should include a form of letterhead, the Contract reference number and bear an original signature. They should be numbered sequentially and dated, and marked 'For the attention of the Contract Officer' named in Section 3. The final invoice presented in connection with this Contract should be endorsed 'Final Invoice'.
- 16.4 Unless this Contract is on a milestone payment basis, all invoices should contain details of expenditure in accordance with Section 5 of this Contract.
- 16.5 The Client may request proof of payment in respect of any item and shall be entitled to refuse to meet a claim if this cannot be provided.
- 16.6 Any invoice not presented in accordance with the above may be rejected and in any event shall be liable to query and delay in payment. The Client reserves the right not to pay any amount due in respect of an invoice received by the Client more than 90 days after the day of the Consultant becoming entitled to invoice for the payment to which it relates.

17. Payments

- 17.1 Subject to the Client being satisfied that the Consultant is or has been carrying out their duties, obligations and responsibilities under this Contract, sums duly approved shall be paid within 30 days of receipt of a valid invoice.
- 17.2 If for any reason the Client is dissatisfied with performance of this Contract or there has been a unreasonable delay without clients approval an appropriate sum may be withheld from any payment otherwise due. In such event the Client shall identify the particular Services with which it is dissatisfied together with the reasons for such dissatisfaction, and payment of the amount outstanding will be made upon remedy of any unsatisfactory work or resolution of outstanding queries.
- 17.3 Should the Client determine after paying for a particular Service that the Service has not been completed satisfactorily, the Client may recover, or withhold from further payments, an amount not exceeding that previously charged for that Service until the unsatisfactory Service is remedied to its satisfaction.

18. Taxes and Duties

- 18.1 The Consultant shall be entirely responsible for all taxes, stamp duties, license fees, and other such levies imposed within/outside India.
- 18.2 If any tax exemptions, reductions, allowances or privileges are available to the Consultant in India, the Client shall use its best efforts to enable the Consultant to benefit from any such tax savings to the maximum allowable extent.

FORCE MAJEURE AND TERMINATION

19. Force Majeure

- 19.1 Where the performance by the Consultant of its obligations under this Contract is delayed, hindered or prevented by an event or events beyond the reasonable control of the Consultant and against which an experienced consultant could not reasonably have been expected to take precautions, the Consultant shall promptly notify the Client in writing, specifying the nature of the force majeure event and stating the anticipated delay in the performance of this Contract.
- 19.2 From the date of receipt of notice given in accordance with Clause 19.1, the Client may, at its sole discretion, either suspend this Contract for up to a period of 6 months ('the Suspension Period') or terminate this Contract forthwith.
- 19.3 If by the end of the Suspension Period the Parties have not agreed a further period of suspension or re- instatement of the Contract, this Contract shall terminate automatically.

20. Suspension or Termination without Default of the Consultant

- 20.1 The Client may, at its sole discretion, suspend or terminate this Contract at any time by so notifying the Consultant and giving the reason(s) for such suspension or termination.
- 20.2 Where this Contract has been suspended or terminated pursuant to Clause 20.1, the Consultant shall:
 - a) take such steps as are necessary to terminate the provision of the Services, including suspending or terminating any Sub-Contracts) in a cost-effective, timely and orderly manner; and
 - b) provide to the Client, not more than 60 days after the Client notifies the Consultant of the suspension or termination of this Contract an account in writing, stating:
 - i) any costs due before the date of suspension or termination;
 - ii) any costs incurred by the Consultant after the date of suspension or termination, which the Consultant necessarily incurred in the proper performance of this Contract and which it cannot reasonably be expected to avoid or recover.
- 20.3 Subject to the Client's approval, the Client shall pay such amount to the Consultant within 30 days of receipt from the Consultant of an Invoice in respect of the amount due.

21. Suspension or Termination with Default of the Consultant

- 21.1 The Client may notify the Consultant of the suspension or termination of this Contract where the Services or any part of them are not provided to the satisfaction of the Client, giving the reasons for such dissatisfaction and, in the case of suspension, the action required by the Consultant to remedy that dissatisfaction and the time within which it must be completed.
- 21.2 Where this Contract is suspended under Clause 21.1 and the Consultant subsequently fails to remedy the dissatisfaction, the Client may terminate this Contract forthwith.
- 21.3 The Client may, without prejudice to its other rights, including but not limited to the right to claim for costs and losses incurred terminate this Contract forthwith where:
- a) the Consultant or any member of the Consultant's Personnel, either directly or through their servants or agents, breaches any of their obligations under this Contract; or
 - b) the Consultant or any member of the Consultant's Personnel has committed an offence under the Prevention of Corruption Acts 1988 or the National Security Act 1980 or in breach of Clause 10 of this Contract; or
 - c) the Consultant is an individual or a partnership and at any time:
 - i) becomes bankrupt; or
 - ii) is the subject of a receiving order or administration order; or
 - iii) makes any composition or arrangement with or for the benefit of the Consultant's creditors;or
 - iv) makes any conveyance or assignment for the benefit of the Consultant's creditors; or
 - d) the Consultant is a company and:
 - i) an order is made or a resolution is passed for the winding up of the Consultant; or
 - ii) a receiver or administrator is appointed in respect of the whole or any part of the undertaking of the Consultant.
 - e) the Consultant is a partnership or a company and there is a Change in Control. However, the Contract will continue if the Client states that it has 'no objection' to the continuation of the Contract after the Change in Control.
- 21.4 Where this Contract is terminated in accordance with this Clause, the Consultant shall without prejudice to the Client's other remedies, take any steps necessary to terminate the provision of the Services in a timely and orderly manner but shall not be entitled to any further payment in relation to this Contract.

GENERAL PROVISIONS

22. Variations

22.1 No variation/amendment in the terms or scope of this Contract shall be effective without the prior written consent of both Parties and recorded in writing in the form of a letter entitled '*Contract Amendment No.*'. Without such consent neither Party shall have any liability in respect of work performed outside the Services set out in Section 4.

23. Assignment

23.1 The Consultant shall not, without the prior written consent of the Client, assign or transfer or cause to be assigned or transferred, whether actually or as the result of takeover, merger or other change of identity or character of the Consultant, any of its rights or obligations under this Contract or any part, share or interest therein.

24. Limit of Liability

24.1 Except where there has been misconduct, gross negligence, dishonesty or fraud on behalf of the Consultant or the Consultant's Personnel the Consultant's liability under this Contract shall be subject to the amount of the Financial Limit.

25. Retention of Rights

25.1 **Clauses 6, 7, 8, 9, 13, 26 and 27 of this Section 2 and any relevant** clauses listed under Section 3 shall continue in force following the termination of this Contract

26. Law and Jurisdiction

26.1 This Contract shall be governed by the laws of Republic of India.

27. Amicable Settlement

27.1 This Contract shall constitute the entire Agreement between the Parties, and may not be altered or amended except by the written agreement of the Parties. No duties, obligations, liabilities or warranties other than those expressly provided in this Contract and its attachments shall be applied. Both Parties to this Agreement will make every attempt to resolve in an amicable way all differences concerning the interpretation of this Contract and the execution of the work. Any dispute or disagreement which cannot be resolved by both Parties and any controversy, claim or dispute otherwise arising in connection with this Contract or breach thereof shall be referred to an arbitrator to be agreed between the Parties or, failing such agreement, will be referred to the Client's City Courts.

27.2 The decision of the arbitrator shall be final and binding on both the Parties. The decision / judgment of the arbitrator shall be speaking.

27.3 The place of arbitration shall be as stated in the Special Conditions.

[If there are any modifications to the General Conditions of Contract, the clauses that replace GCC clauses should be inserted here. Additional clauses can also be inserted here, but

care should be taken to ensure that this does not cause interpretation difficulties.]

SECTION 3: SPECIAL CONDITIONS

[Select the appropriate conditions for the specific to the assignment as felt necessary by the ULB]

2. Additional documents to be included in this Contract

The following documents are included in and form part of the Contract:

Annex X. Minutes of the meeting between the Client and the Consultant dated

.....

3. PAYMENT SCHEDULE

The payment schedule is contained at Section 5 on Schedule of Payments *[Any changes should be advised to the Consultant during negotiations.]*

4. MARKING AND DOCUMENTATION

- i) The marking and documentation within and outside the packages shall be: *[insert in detail the markings on the packing and all documentation required; sample below]*

.....MUNICIPAL CORPORATION / MUNICIPALITY Details of
Project Officer as in 1.2 of SCC Standard International Norms for Marking

5. ARBITRATION

The place of arbitration shall be theMunicipality / Municipal Corporation.

SECTION 4: TERMS OF REFERENCE AND CONSULTANTS PERSONNEL SCHEDULE

[Insert from Annexure D in RfP, without payment schedule]

Insert Manning Schedule at the end of the TOR]

SECTION 5: SCHEDULE OF PRICES

1. This is an output based **lump sum contract** and all payments shall be based on specified milestones as shown in the table under **PAYMENT SCHEDULE**. Although this is an output based contract, the consultants are advised to maintain timesheets with details of inputs as well as supporting information with them as they may be asked to produce the same at a later date for project audit purposes. Only one invoice per period, as defined in Clause 17 of the General Conditions of Contract, should be submitted.

TABLE 5 PAYMENT SCHEDULE

Sl. No.	Activity / Report	% of Contract Value to be released
1	Payment for inception report	30 %
2.	Submission of draft DPR and approval in DPR Appraisal committee at State Level	30 %
3.	Submission of Final DPR and approval in CSMC at Central level	30 %
4.	Facilitating the ULB in approval of technical sanction for the project by the competent Authority at ULB/Circle/State level	10 %
TOTAL		100 %

Maximum Contract Value including all Expenses (Financial Limit): *[Please insert value in number and words]*

Note:

The contract value shall be arrived at the time of concluding agreement using a formula as follows.

- i) Approximate Contract Value is equal to multiple of total no. of semi pacca and kacha households with admissible ceiling cost for household (Rs. 4.00 lakhs / Rs. 5.00 lakhs) based on the population of the city. The approximate Contract Value shall be arrived as explained above while concluding the agreement
- ii) Contract Value is inclusive of service tax and other taxes if any. For any work to be done in excess/less of the Quantities given in the financial proposal, necessary approval shall be taken from the Client's Contract Officer in writing before embarking on such work
- iii) If any excess payment is made, the excess amount shall be recovered from the performance guarantee given by the Consultant / from its other contracts

Model Invoice format is attached

Terms of Payment:

- a. Above fee rates are *inclusive* of the anticipated inflationary increase over the duration of the contract.
- b. The payment shall be released within 30 days from receipt of invoice from the Consultant subject to terms and conditions mentioned earlier in this contract.
- c. The cost is inclusive of service taxes, other taxes applicable and IT will be deducted as per norms
- d. *[Any others as felt necessary by both parties]*

Penalty/Liquidated damages: If the consultant does not comply with any of the conditions of the contract like with the time period for submission of the specified outputs at the specified milestones, he may be levied suitable penalty, not exceeding Rs.100/day per each Rs.1 lakh value of unfinished work at each specified milestone beyond the period for completion of the contract, if the delay is due to the fault of the Consultant.

SECTION 6: INVOICE FORMAT

To be given on letter head of the firm

INVOICE

.....MUNICIPAL CORPORATION MUNICIPALITY, For Attention of _____	Invoice No.: Invoice Date: Service Registration No. PAN Number
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Contract For: _____

Contract No.: _____

Period of Consultancy:	Start Date _____	End Date _____
Maximum Contract Value: _____ Total Amount Received _____ Previous Claims made Amount: _____ Date _____ Invoice No. _____ Date Received _____ Amount: _____ Date _____ Invoice No. _____ Date Received _____		

Particulars of current claim made should be mentioned her	Amount	Tax if any
Invoice Total		

PLEASE MAKE PAYMENT TO:

This invoice is in respect of a supply of services to the Client, and is addressed to the Client, purely for payment purposes. I certify that the amounts claimed in this invoice have been wholly and necessarily incurred for the purpose of the engagement and have not been claimed before.

Signature of Consultant

The claim is correct and Services have been received. Please arrange payment:

[Concerned] Municipal Commissioner