

TERMS OF REFERENCE

CONSULTANCY SERVICES FOR PREPARATION OF DPR AND TENDER DOCUMENTS FOR THREE WORKS, i.e., (i) 01 NO. BRIDGE (HLB) IN KM 52/4-6 OF JAMMALAMADUGU KADIRI ROAD, (ii) WIDENING AND STRENGTHENING OF JAMMALAMADUGU KADIRI ROAD FROM KM 52/3 TO 55/8 & (iii) ISSUE OF GOOD FOR CONSTRUCTION DRAWINGS FOR REJUVENATION OF R&B INTERNAL ROADS IN PULIVENDULA.

Tender Notice No: APUIAML/SC/PLVD/2021-22/01

June, 2021

ANDHRA PRADESH URBAN INFRASTRUCTURE ASSET MANAGEMENT LIMITED, VIJAYAWADA

Terms of Reference	Consultancy Services for Preparation of DPR for Development of 01 No. Bridge (HLB) in Km 52/4-6 of Jammalamadugu Kadiri Road & Widening and Strengthening of Jammalamadugu Kadiri Road from Km 54/0 To 55/8 in Pulivendula & preparation of GFC drawings for R&B internal roads
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I. INTRODUCTION

GoAP envisages to develop few 'Model Towns' in the state; APUIAML is assisting the government in this initiative. In this regard, APUIAML has entered into an agreement with Pulivendula Area Development Agency (PADA) for the project 'Development of Pulivendula as Model Town' for provision of provision of End-to-End services, in phased manner. As a part of the project the initial milestone submissions for APUIAML are (i) Integrated Infrastructure MasterPlan (IIMP), (ii) Draft DPRs, (iii) Final DPRs and (iv) Tender Documents for all identified sectors/sub projects.

Subsequently GoAP has issued Administrative Sanction for various projects through GO RT No. 260 to 267 dated 21-12-2020. Later GO RT No. 261 is amended with GO RT No. 61 dated 22-04-2021 with two additional works as cited below for which DPRs have to be prepared (i) 'Development of 01 No. Bridge (HLB) in Km 52/4-6 of Jammalamadugu Kadiri Road' (ii) 'Widening and Strengthening of Jammalamadugu Kadiri Road from Km 54/0 To 55/8 in Pulivendula' and (iii) Issue of Good for Construction Drawings (GFC) for Rejuvenation of R&B Internal Roads in Pulivendula. These projects were not listed earlier in the Master Plan stage and APUIAML was requested to take up on priority along with other projects presented to the Honorable CM, GoAP through PADA. As a part of the milestone submissions for the said projects, it is required to prepare DPR, and Tender Documents for 'Development of 01 No. Bridge (HLB) in Km 52/4-6 of Jammalamadugu Kadiri Road, Widening and Strengthening of Jammalamadugu Kadiri Road from Km 54/0 To 55/8 in Pulivendula and Issue of GFC for Rejuvenation of R&B Internal Roads in Pulivendula as a necessary component. In this regard, APUIAML desires to engage competent consultant for delivery of the same.

II. INSTRUCTIONS TO FIRMS

- a) The consultants need to submit their quotes in sealed envelopes at the following address on or before 17:00 HRS, IST, 12.06.2021. The subject on the envelope should be – **“Financial Proposal - Provision of Consultancy Services for Preparation of DPR, tender documents and GFC drawings for (i) Development of 01 No. Bridge (HLB) in Km 52/4-6 of Jammalamadugu Kadiri Road, (ii) Widening and Strengthening of Jammalamadugu Kadiri Road from Km 54/0 To 55/8 in Pulivendula and (iv) Issue of Good for Construction Drawings (GFC) for Rejuvenation of R&B internal Roads in pulivendula”**, to the following address:

Domain Head – Urban Infra Development
Andhra Pradesh Urban Infrastructure Asset Management Limited

Terms of Reference

Consultancy Services for Preparation of DPR for Development of 01 No. Bridge (HLB) in Km 52/4-6 of Jammalamadugu Kadiri Road & Widening and Strengthening of Jammalamadugu Kadiri Road from Km 54/0 To 55/8 in Pulivendula & preparation of GFC drawings for R&B internal roads

(APUIAML), 4th Floor, NTR Administrative Block, PNBS, Vijayawada - 520013

- b) The financial proposal should be submitted on consultant's letterhead duly signed by the competent authority and shall have the following contact information: (i) Contact Person Name (ii) Contact Mobile No (iii) Contact email ID (iv) Contact Address
- c) For further clarifications, the agencies may contact Mr. Santosh Kumar Alishala on 8897518289, santosh.alishala@apurban.in
- d) This document is available on the website – www.apurban.com

III. SCOPE OF WORK & DELIVERABLES

Study Area: Within the Jurisdiction of Pulivendula Municipality as given below:

Work No:01: Development of 01 No. Bridge (HLB) in Km 52/4-6 of Jammalamadugu Kadiri Road

Bridge Location (HLB): Coordinates: 14°46'78.02"N, 78°22'80.35"E on Google Earth (Blue line marked in the below image)

Scope: The scope of services of the consultant encompasses carrying out required surveys which are needed for preparation of DPRs (alignment drawing (GAD), technical feasibility, Detailed design of structural components of bridges, its approaches, detailed / technical specification, detailed measurement, BOQ, Analysis of Rates as per applicable SSR, bid documents etc. including Utility Shifting. approval from relevant authorities, if required).

**A. Submission of Draft DPR**

- a. Data collection from R&B such as existing maps, designs or any other data pertaining to the Project
- b. Hydrological data: All Hydrological data records shall be collected for irrigation channels etc. as per IRC specification or relevant department. Identification and finalization of scope of surveys and investigations
- c. To conduct all required traffic/topographical/ hydrological/ geotechnical surveys as per the need of the Project.
- d. Preparation of GAD, detailed engineering plans, cross sections, structural designs, geometric designs, drawings and estimates and get approval from relevant authorities.

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e. Design of Bridges

- i.*** The Consultant shall prepare General Arrangement Drawing (GAD) of bridges and its approaches showing the salient features of the bridges and structures proposed to be constructed along the road sections covered under the scope of work. These salient features such as Alignment, overall length, span arrangement, cross section, deck level, founding level, type of bridge, number lanes and other components such as superstructure, substructure, foundation, bearing, expansion joint, return wall etc. considering suitable earthquake Zone etc shall be finalized based upon aesthetics and geotechnical studies, cost effectiveness and ease of construction. The GAD shall be supplemented by Preliminary designs only to assess the cost of bridges. In respect of span arrangement, navigational requirements of Inland water ways authority (IWWA), type of bridge, MOC and its approaches (like RCC retaining wall/RES/natural earth slope etc) with alternatives with cost-benefit implications should be submitted to enable client to approve the best alternative.
- ii.*** Hydrological calculations, flow through canal/channel/river/vanka based on standard methods and Gad, Span etc..to be decided based on flow. All calculations have to be submitted to APUIAML in editable soft copies along with analysis. Upon the approval of GAD by client/Irrigation/IWWA/R&B, detailed designs of bridges are to be submitted by the consultants, which shall be designed for loading as per IRC / relevant codes. Aesthetic appeal of bridge is also essential along with the structural designs.
- iii.*** The consultants shall furnish the detailed design in limit state method or working stress method or any suitable method suggested by the technical sanctioning authority and working drawing for suitable protection works, if any
- iv.*** All relevant design parameter shall be incorporated.
- v.*** Design of Approach Roads, Pavement with its Junctions, horizontal & vertical alignment as per the standard norms. The provision of appropriate markings and signs shall be made, wherever the Existing site conditions do not permit the adherence to the site distance requirement as per the standard norms.
- vi.*** The Consultant shall prepare for the most appropriate design option establish on life cycle costing and techno- economic considerations taking design period as per standards.
- vii.*** Estimation of Quantities and Project Costs: The consultant shall prepare detailed estimates for quantities considering designs and project cost including the cost of environmental and social safeguards proposed based on MORTH Standard Data Book/ latest APSOR. The estimation of quantity shall

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be based on detailed design of various components of the projects. Non SOR items in detailed estimate, shall be supported with 3 market quotations as per satisfaction of R&B.

- viii.* Proof checking of the designs shall be responsibility of the Consultant, however the payment for the same shall be made by APUIAML directly to the proof checking agency. The consultant is required to submit the reports, designs and interact with the proof checking agency and is required to complete the activity.
- ix.* Design and construction / construction methodology should consider the existing bridge adjacent to the proposed new bridge. Existing bridge location map, coordinates, Pics are enclosed in the document. Persons / agencies quoting for the project are encouraged to visit the site before quoting.
- x.* The Consultant can consider the option of construction of new bridge in the same alignment of existing bridge also by demolition of existing Bridge.

f. Indicative contents of the Draft DPR

i. Volume-I, Main Report :

a) The report will present the executive summary, project background, surveys and investigations, analysis and interpretation of survey an investigation data with maps, charts and diagrams showing locations and details of existing features and the essential features of improvement. The basic data obtained from the field studies and investigations and input data used for the preliminary design shall be submitted in separate volume as an Appendix to Main Report. The Report shall also include the project clearances from various concerned Govt. agencies that matter for project implementation.

ii. Volume- II, Design Report :

a) This volume shall contain design calculations, supported by computer printout of calculations wherever applicable. The Report shall clearly bring out the various features of design standards adopted for the study. The design report deal with the design of bridges based on sub-soilexploration report including the complete details of boring done, analysis and interpretation of data and the selection of design parameters shall be included as an Appendix to the Design Report.

b) The detailed design for all features should be carried out as per relevant codes. However, there may be situations wherein it has not been possible to strictly adhere to the design standards due to existing site conditions, restrictions and other considerations, the report should clearly bring out the details of these aspects and standards adopted. Consultant shall also include the launching or erection scheme (including design) for

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construction of bridge.

c) All the designs must be as per applicable IS/ IRC codes and MoRTH Guidelines

iii. Volume- III, Cost Estimates

a) This volume will present the analysis of rates for all items of works including rate analysis as per applicable SSR. The details of unit rate of materials at source, carriage charges, any other applicable charges. labour rates, machine charges as considered in arriving at unit rates will be included in this volume. Shall provide the detailed Bill of Quantities for all items of works including the Special specifications for the works, which are not covered in MORTH.

iv. Volume-IV, Drawing Volume

a) GAD of Main Bridge, details working/Structural drawings of bridge superstructure / sub structure/bearing (including reinforcement schedule) etc. required for construction

b) Drawings for Road signages, approaches, Marking and other Facilities.

v. Volume-V, Draft Civil Work Bid Documents:

a) As per R&B Standards the consultant shall submit the bid documents

B. Final Detailed Project Report (DPR)

- a. To incorporate the suggestions / changes (for all volumes of Draft DPR) as suggested by the client for Draft DPR
- b. Preparation of Final DPR for finalised project components based on Technical Section
- c. *Discussion with concerned department, making Presentations and obtain technical sanction*

C. Tender Document and Bid Process Management

- a. Preparation of technical specifications
- b. Finalization of general and special conditions of contract as applicable
- c. Preparation of BOQ
- d. Finalization of entire tender document
- e. Assisting in pre bid meeting
- f. Assisting R&B in issuing pre bid minutes/ clarifications
- g. Tender evaluation
- h. Recommendation on selection of contractor

Terms of Reference

Consultancy Services for Preparation of DPR for Development of 01 No. Bridge (HLB) in Km 52/4-6 of Jammalamadugu Kadiri Road & Widening and Strengthening of Jammalamadugu Kadiri Road from Km 54/0 To 55/8 in Pulivendula & preparation of GFC drawings for R&B internal roads

D. Issue of Good for Construction (GFC) Drawings to Contractor

- Discussion with concerned department officials
- Preparation of Good for Construction (GFC) drawings
- Approval for GFC drawings from the concerned department
- To share all the soft and hard copies 4 sets) in editable formats including drawings & CAD files in original formats.

2. Widening and Strengthening of Jammalamadugu Kadiri Road from Km 54/0 To 55/8 in Pulivendula**Road Location:**

Chainage: from km 54/0 to 55/80 Jammalamadugu Kadiri Road marked on Google Earth (Blue line marked is proposed span, which will be connected to the existing road)

Scope:

The scope of services of the consultant encompasses carrying out required surveys which are needed for preparation of DPRs (alignment drawing (GAD), technical feasibility, Detailed design of structural components of bridges, its approaches, detailed / technical specification, detailed measurement, BOQ, Analysis of Rates as per applicable SSR, bid documents etc. including Utility Shifting. approval from relevant authorities, if required).



- To incorporate the suggestions / changes as suggested by the client for Vol-V of Final DPR.

A. Draft Detailed Project Report (DPR)

The scope of services of the consultant under this section includes but not limited to the following

- Site visits, stakeholders' consultations with relevant departments.
 - Confirmation of existing data by doing site visits and arrive at the proposals
 - Conduct Topography survey and to take levels at 20m chainage for the total length of road
 - Peg marking on the ground at 25m interval at the end of RoW for Land acquisition purposes
- Preparation of typical cross sections for various widths considering the following (but not limited to)
 - Street Design for identified corridors
 - Junction Improvement Designs/Plans
 - Road markings & Signage

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- Street Lighting
 - Street Furniture & Space making
 - Drainage
 - Cross Drainage Works / Crossings / Culverts
- e. Finalisation of proposals and Design Criteria
 - f. Consultants have to work on the final selected option by client for detailed designs & engineering
 - g. Shall incorporate the comments with respect to each proposed component
 - h. Preparation of detailed costing for the same which includes rate analysis and cost estimates based on SOR and market rates.
 - i. Preparation of L section (profile section) of road
 - j. Interact with various vendors and obtain quotations for non SOR items
 - k. Preparation of drawings

B. Final Detailed Project Report (DPR)

- a. To incorporate the suggestions / changes as suggested by the client during Draft DPR
- b. Preparation of Final DPR for finalised project components
- c. Discussion with concerned department and obtain technical sanction
- d. Submit Final DPR duly considering technical sanction (incorporating all volumes as mentioned in Draft DPR stage)

C. Tender Document

- a. Preparation of technical specifications for finalised project component.
- b. Preparation of tender documents.
- c. Preparation of tender drawings

D. Issue of Good for Construction (GFC) Drawings to Contractor

- a. Discussion with concerned department officials
- b. Preparation of Good for Construction (GFC) drawings
- c. Approval for GFC drawings from the concerned department
- d. To share all the soft and hard copies 4 sets) in editable formats including drawings & CAD files in original formats.

Terms of Reference

Consultancy Services for Preparation of DPR for Development of 01 No. Bridge (HLB) in Km 52/4-6 of Jammalamadugu Kadiri Road & Widening and Strengthening of Jammalamadugu Kadiri Road from Km 54/0 To 55/8 in Pulivendula & preparation of GFC drawings for R&B internal roads

3. Design & Issue of Good for Construction (GFC) Drawings for Rejuvenation of R&B Internal Roads in Pulivendula

- Design of Drainage and Estimates after Discussion with concerned department officials
- Preparation of Good for Construction (GFC) drawings and get the clearance from R&B for construction purpose.
- Supervision during the project and suggest modifications on site conditions to the Project Manager, APUIAML
- To share all the soft and hard copies in editable formats including drawings & CAD files in original formats.

IV. MILESTONES & TIMELINES: (for s.no 1 & 2 projects)

#	Activity	Timelines
1	Draft Detailed Project Report	T + 15 days
2	Final Detailed Project Report	07 days from approval of Draft DPR from Government
3	Issue of Tender Notice	15 days from receipt of directions from APUIAML for issuance of tender
4	Issue of Good for Construction (GFC) Drawings for Other Projects under R&B in Pulivendula	45 days from receipt of directions from APUIAML for issuance of tender

Note – T is the start date of the Assignment

V. PAYMENT TERMS:

For each of the Project mentioned above, the break up fee payable based on completed milestone is as given below:

#	Project Name	% of quoted fee	Milestone 1-	Milestone 2	Milestone 3	Total
			Draft Detailed Project Report	Detailed Project Report	Issue of Tender Notice & GFC Drawings	
1	Development of 01 No. Bridge (HLB) in Km 52/4-6 of Jammalamadugu Kadiri Road	45%	50%	30%	20%	100%
2	Widening and strengthening of Jammalamadugu Kadiri	45%	50%	30%	20%	100%

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	Road from Km 54/0 To 55/8 in Pulivendula					
3	Issue of Good for Construction (GFC) Drawings for Rejuvenation of R&B Internal Roads in Pulivendula	10%	completed	completed	100%	100%

VI. GENERAL TERMS & CONDITIONS:

- a. All reports and relevant data and information such as maps, diagrams, plans, databases, other documents and software, supporting records or material compiled or prepared by the Consultant for the Client in the course of the Services shall be confidential and become and remain the absolute property of APUIAML. The Consultant shall, not later than upon termination or expiration of this Assignment/Contract, deliver all such documents to the APUIAML, together with a detailed inventory thereof. The Consultant may retain a copy of such documents, data and/or software but shall not use the same for purposes unrelated to this Contract without prior written approval of the Client.
- b. Upon short notice, at all times, the consultant (along with working team) shall be available for site visits, site markings during execution, to discuss with /make presentations to APUIAML/GoAP.
- c. Each of the milestones submitted by the Consultant is to be approved by GoAP. Only after such approval/s from GoAP is/are obtained shall the work for subsequent milestones/stages be commenced. Payments shall be made accordingly.
- d. Payment to the consultant shall be made by APUIAML upon receipt of the fee for the concerned milestone by APUIAML and thereafter only the payment will be released to the consultant by APUIAML.
- e. At any stage after commencement of the assignment, APUIAML, owing to such situations where (i) APUIAML is instructed to act as per GoAP directions or (ii) externalities impact the progressing of the assignment (including acts of nature etc.), reserves right to modify the projects/components of the package (i.e., addition of a new projects/components of similar nature into the package or deletion of a projects/components from the package), on mutual consent. In such events, the payments shall be made accordingly on pro rata basis based the stage of working or completed part of the work only.
- f. All payments made to consultants / agencies will be subject to 5% retention money of the total money from the invoices of the Consultant which will be released on successful completion of the final milestone. This shall be applicable only for a minimum contract value of Rs.25 lakhs.

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FORMAT FOR FINANCIAL PROPOSAL

[On the Letter head of the Firm]

Date:

To

Chief Executive officer,
Andhra Pradesh Urban Infrastructure Asset Management Limited (APUIAML),
4thFloor, NTR Administrative Block, Pandit Nehru Bus Station,
Vijayawada-520013, Andhra Pradesh

Sub: FINANCIAL PROPOSAL FOR Consultancy Services for Preparation of DPR for (i) Development of 01 No. Bridge (HLB) in Km 52/4-6 of Jammalamadugu Kadiri Road, (ii) Widening and Strengthening of Jammalamadugu Kadiri Road from Km 54/0 To 55/8 in Pulivendula” and (iii) “Issue of Good for Construction Drawings (GFC) for Rejuvenation of R&B internal Roads in Pulivendula.”

Sir:

For providing consultancy services for the subject assignment, we hereby submit the following Professional Fee quotation to the APUIAML.

We quote our proposal in terms of Lumpsum Fee of

In figures: _____

In words: _____

And this is inclusive of transport, printing and stationery and all other expenses except applicable taxes towards our Professional fee for the subject assignment to be paid as per payment schedule specified in this TOR.

We shall abide by the above quote, terms and conditions of this TOR, if APUIAML selects us as the Consultant for this particular assignment. We also understand that, in case any difference between the quoted amount in words and figures, the quote in words will be taken as final.

We agree that this offer shall remain valid for a period of one hundred and eighty (180 days) from the Proposal Due Date or such further period as may be mutually agreed upon.

Yours faithfully,

(Signature of Authorised Signatory)

(Name, Title, Address, Date)

Note: The financial proposal to be submitted strictly as per the above format. Noncompliance to the above format shall disqualify the firm’s proposal