

RFP for Consultancy services for Preparation of DPR for the “Construction of Bridge at Km 186/10 of Madanapalli Naidupeta Road NH 71” (4th Call)

**Ministry of Road Transport and Highways
GOVERNMENT OF Andhra Pradesh
ROADS & BUILDINGS DEPARTMENT
NATIONAL HIGHWAYS**

**RFP for Consultancy services for Preparation of DPR for the
“Construction of Bridge at Km 186/10 of Madanapalli
Naidupeta Road NH 71” (4th Call)**

REQUEST FOR PROPOSAL

Office of the Superintending Engineer, (R&B) NH Circle, Ananthapuramu
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**REQUEST FOR PROPOSAL (RFP)
PROJECT PREPARATION CONSULTANTS**

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Ministry of Road Transport and Highways
GOVERNMENT OF Andhra Pradesh
ROADS & BUILDINGS DEPARTMENT
NATIONAL HIGHWAYS

TENDER NOTIFICATION

- I. The Roads & Buildings Department, NH Wing, Govt. of AP, has invites bids for the following work from reputed Consultants for selection on QCBS mode.

RFP for Consultancy services for Preparation of DPR for the "Construction of Bridge at Km 186/10 of Madanapalli Naidupeta Road NH 71" (4th Call)

- II. Interested applicants may access bidding documents from the e-procurement portal <http://eprocure.gov.in> from onwards.
- III. The last date for submission of Technical & Financial bid is **16.07.2018** up to 3.00 P.M.
- IV. Opening of Technical Bid is on **17.07.2018** at 3.00 P.M.

*** Please note henceforth, any changes in the schedule will not be published through News papers and further changes will updated only on e-portal Website.**

Sl. No.	Event Description	Date
1.	Invitation of <i>RFP</i> (NIT)	S.E/R&B/NH ATP NIT. No:06/SE,NH,ATP/AEE2/2018-19, Dated: 04.06.2018
2.	Bid submission start date	12.06.2018 at 15.00 hrs
3.	Pre-BID Conference at Engineer-In-Chief (R&B), NH & CRF,A.P,Vijayawada	27.06.2018 at 15:00 Hrs IST
4.	BID Due Date	16.07.2018 up to 15.00 Hrs IST
5.	Submission of original Bid Documents	16.07.2018 up to 15.00 Hrs IST
6.	Opening of BIDs	17.07.2018 @ 15.00 Hrs IST

Superintending Engineer,
(R&B) NH Circle, Ananthapuramu.

Request for Proposal

Project Preparation Consultants

SECTION 1. LETTER OF INVITATION

To,

**The Superintending Engineer,
(R&B) National Highway Circle,
Ananthapuramu.**

(Date)

(Name and address of Consultant)

Dear Sir,

The Roads & Buildings Department, NH Wing, Govt. of AP, is desirous of obtaining Consulting services for preparation of Detailed Project Report for **RFP for Consultancy services for Preparation of DPR for the "Construction of Bridge at Km 186/10 of Madanapalli Naidupeta Road NH 71" (4th Call)**

- **The objectives and description of the services are:**
- **Prepare Detailed Engineering Project Report**

You are now invited to submit a proposal for the services required for the above project.

The enclosed RFP contains the following documents:

Section 2	Information to Consultants
Section 3	Technical Proposal - Standard Forms
Section 4	Financial Proposal - Standard Forms
Section 5	Terms of Reference
Section 6	Enclosures

Yours faithfully,

The Roads & Buildings Department, NH Wing, Govt. of AP,

Superintending Engineer,
(R&B) NH Circle, Ananthapuramu

SECTION- 2. INFORMATION TO CONSULTANTS

1. INTRODUCTION

The Roads & Buildings Department, NH Wing, Govt. of AP, is desirous of obtaining Consulting services for preparation of Detailed Project Report (DPR) for RFP for Consultancy services for Preparation of DPR for the “Construction of Bridge at Km 186/10 of Madanapalli Naidupeta Road NH 71” (4th Call)

The objectives and description of the services are:

- **Prepare Detailed Engineering Project Report and Tender Documents suitable for National Competitive Bidding/ RFP and assist with establishment of one or more construction contracts as required.**

The Engineer-In-Chief (R&B) NH & CRF, AP will select a consulting firm based on evaluation criteria mentioned in this document.

1.2 The consultants are invited to submit a Technical Proposal and a Financial Proposal, for Consulting services for preparation of Detailed Project Report (DPR) for RFP for Consultancy services for Preparation of DPR for the “Construction of Bridge at Km 186/10 of Madanapalli Naidupeta Road NH 71” (4th Call)

The Proposal will be the basis for contract negotiations and ultimately, signing of a contract with the selected consulting firm.

- 1.3 The Assignment shall be implemented in accordance with the phasing indicated in the Data Sheet. When the Assignment includes several phases, continuation of services for the next phase shall be subject to satisfactory performance of the previous phase, as determined by the Client.
- 1.4 The agency must familiarise themselves with local conditions and take them into account in preparing the Proposal.
- 1.5 The Client will provide the inputs specified in the Data sheet and make available relevant project data and reports.
- 1.6 Preference will be given to the consultants who has already / are ready to set up an office including design office in Vijayawada.
- 1.7 Please note that (i) the costs of preparing the proposal and of negotiating the contract, including a visit to the Project site, are not reimbursable as a direct cost of the Assignment, and (ii) the Client is not bound to accept any of the Proposals submitted.
- 1.8 The firm which has been engaged by the E-In-C (R&B) NH & CRF, AP to provide consultancy services for this project shall be disqualified from providing goods or works or services related to assignments for the same project to any other promoters. Consultants should clarify their situation in that respect with the Client before preparing the Proposal.

- 1.9 It is **The Roads & Buildings Department, NH Wing, Govt. of AP**'S policy to require that Consultants (including their affiliates /associates / partners) to observe the highest standard of ethics during the selection and execution of such contracts. In pursuance of this policy, **The Roads & Buildings Department, NH Wing, Govt. of AP**:-
- (a) will reject a proposal for award if it determines that the firm recommended for award has engaged in corrupt or fraudulent activities in competing for the contract in question.
 - (b) will cancel the firm's contract if it at any time determines that corrupt or fraudulent practices were engaged in by the representatives of the Consultants or their associates during the selection process or the execution of that contract.
 - (c) will declare a firm ineligible, either indefinitely or for a stated period of time, to be awarded a **The Roads & Buildings Department, NH Wing, Govt. of AP** financed contract if it at any time determines that the firm has engaged in corrupt or fraudulent practices in competing for, or in executing a (R&B) Department, NH Wing - financed contract; and
 - (d) will have the right to require that, in contract financed by **The Roads & Buildings Department, NH Wing, Govt. of AP**, a provision be included requiring **The Roads & Buildings Department, NH Wing, Govt. of AP** to inspect their accounts and records relating to the performance of this contract and to have the same audited by auditors appointed by **The Roads & Buildings Department, NH Wing, Govt. of AP**.

For the purposes of above:

- (i) "corrupt practice" means the offering, giving, receiving, or soliciting of anything of value to influence the action of a **The Roads & Buildings Department, NH Wing, Govt. of AP** official in the selection process or in contract execution; and
 - (ii) "fraudulent practice" means a misrepresentation of facts in order to influence a selection process or the execution of a contract to the detriment of **The Roads & Buildings Department, NH Wing, Govt. of AP** and includes collusive practices among consultants (prior to or after submission of proposals) designed to establish prices at artificial, non-competitive levels and to deprive **The Roads & Buildings Department, NH Wing, Govt. of AP** of the benefits of free and open competition.
- 1.10 Consultants shall not be under a declaration of ineligibility for corrupt and fraudulent practices issued by any clients in India or abroad, in accordance with the above sub para 1.9(c).

1.11 Joint Venture are not allowed.

1.12 EMD / PROCESSING FEE

The applicant shall furnish as part of its Proposal, a Bid Security of Rs 2,00,000/- (Rupees two lakhs only) in the form of a Bank Guarantee issued by one of the Nationalized/Scheduled Banks in India in favour of the **Superintending Engineer (R&B) NH Circle, Ananthapuramu payable at Ananthapuramu** (the "Bid

Security") **valid for a minimum period of 120 days (i.e.30 days beyond the validity of the bid) from the last date of submission of proposals.** This Bid Security is returnable not later than 30 (thirty) days from the date of Opening of the Financial proposals except in case of the two highest ranked Applicants. Bid Security of the Selected Applicant and the Second ranked Team shall be returned, upon the Selected Applicant signing the Agreement.

Document fee: The fee for the document amounting to Rs. 5000/- (Rupees Five thousand only) towards fee for RFP document (non-refundable), in the form of Demand Draft issued from a scheduled Bank in India in favour of **"Regional Pay & Accounts Officer, National Highways, Hyderabad payable.** GST at 18.0 % on Rs 5,000/- i.e Rs.900/- shall be paid in the form of Demand Draft obtained from a Nationalised/Scheduled Bank in favour of **"Regional Pay & Accounts Officer, National Highways, Hyderabad payable at Hyderabad.** must be furnished in a separate envelope while submitting the proposal.

1.12.1 **Processing Fee** amount will have to be submitted by the bidder/contractor taking into account the following conditions:

- a) **Processing Fee** will be accepted only in the form of electronic cash (and not through Demand Draft or Bank Guarantee) and will be maintained in the Govt.'s central pooling account at ICICI Bank until the contract is closed.
- b) The entire **Processing Fee** amount for a particular tender has to be paid in a single transaction
- c) Tender processing fee amount will not be reimbursed.

For details on e-Payment services refer to e-procurement portal for more details on the process.

1.12.2 The Tenderer shall furnish, as part of his tender, earnest money deposit in the amount as mentioned in Clauses (1.12) for this particular work. Any tender not accompanied by an acceptable earnest money deposit and not secured as indicated in Clauses (1.12) shall be rejected by the Employer as non-responsive.

1.12.3 The earnest money deposit of unsuccessful Tenderers will be returned within 30 days of the end of the tender validity period. Based on the instructions of Tender Accepting Authority (TAA) the EMD amount of the **unsuccessful bidders will be refunded to the respective Bank A/C's of the bidder /contractor.**

1.12.4 The earnest money deposit of the successful Tenderer will be discharged when the **Tenderer has signed the Agreement and furnished the required Performance Security.**

1.12.5 The earnest money deposit may be forfeited:

- (a) If the Tenderer withdraws the Tender after tender opening during the period of tender

validity;

(b) In the case of a successful Tenderer, if the Tenderer fails within the specified time limit to

- (i) Sign the Agreement; or
- (ii) Furnish the required Security deposit .

2. MODIFICATION AND WITHDRAWAL OF TENDERS

- 2.1 Tender has all the time to modify and correct or upload any relevant document in the portal before submission on e-portal.
- 2.2 Tender can be withdrawn only before Bid submission date and time, as published in the e-procurement portal.
- 2.3 No Tender may be modified after the deadline for submission of Tenders.
- 2.4 Tenderers may only offer discounts to, or otherwise modify the prices of their Tenders by submitting Tender modifications in accordance with this clause, or included in the original Tender submission if available on e-portal.

3. PREPARATION OF PROPOSAL

- 3.1 Consultants are requested to submit a Proposal (para 1.2) written in the language(s) specified in the data sheet.

Technical Proposal

- 3.2 In preparing the Technical Proposal, Consultants are expected to examine the documents comprising this RFP in detail. Material deficiencies in providing the information requested may result in rejection of a Proposal.
- 3.3 While preparing the Technical Proposal, consultants must give particular attention to the following:

- (i)
 - (a) **The firm must have completed preparation of DPR for at least two (2) Major Bridges each costing not less than Rs.40.00 crores in last five years will be considered for qualification.**
 - (b) **Achieved in at least any two financial years an average annual financial turnover of Rs.2.00 Crores in last 5 years .**
 - (c) **Certificates of proof shall be enclosed for the above.**

Note: (1) Consultants should give details of the experience of the firm considering the completed and the on-going highway assignments along with experience certificates from clients. This list of the completed works should also include those assignments which are substantially (90% of Contract value) completed. No Qualification/Experience etc. shall be considered without proof of experience.

(2) For experience in any past Consultancy assignment experience certificate (duly certified by the officer not below the rank of the Executive Engineer) from the client shall be accepted. In the

absence of experience certificate from the client, proportion of payment received towards Consultancy work duly certified by statutory body like Chartered Accountant or Independent Auditors who are competent to do as recognized by the State concerned shall be accepted.

*** Annual Turnover should be duly certified by statutory body like Chartered Accountant or Independent Auditors who are competent to do so as recognized by the States concerned.

- (ii) The Proposal should be based on the number of professional staff-months estimated by the firm.
- (iii) It is desirable that the majority of the key professional staff proposed be permanent employees of the consultancy firm and shall be working with the firm at least for the last 2 years. In case (R&B) Department, NH Wing requires, consultants must be in a position to provide proof in this respect. Submission of false information may become sufficient cause to debar the consultants from participating in the future tenders of (R&B) Department, NH Wing.
- (iv) Proposed professional staff must have at least the experience indicated in the Data Sheet, preferably under conditions similar to those prevailing in India.
- (v) Alternative professional staff shall not be proposed and only one curriculum vitae (CV) be submitted for each key staff position.
- (vi) Reports to be issued by the consultants as part of this assignment must be in the language(s) specified in the Data Sheet. It is desirable that the firm's personnel have a working knowledge of English.

3.4 The Technical Proposal should provide the information using the forms in Section 4 and give the following:

- (i) A brief description of the firm's organisation and a list of recent experience on assignments (**Section 4B and 4I**) of a similar nature.
- (ii) Any comments or suggestions on the Terms of Reference and the data, services and facilities to be provided by the Client (**Section 4C**), and a description of the methodology (work plan) by which the firm proposes to execute the services, illustrated, as appropriate, with bar charts of activities and graphics, or the Program Evaluation Review Technique (PERT) type (**Section 4D**).
- (iii) The composition of the proposed staff team, the tasks that would be assigned to each staff team member, and their timing (**Section 4E**).
- (iv) CVs recently signed by the proposed professional staff and the authorised representative submitting the proposal (**Section 4F**), Key information should include number of Years working for the firm/entity, and degree of responsibility held in various assignments during the last ten (10) years.
- (v) Estimates of the total staff effort (professional and support staff, staff time) to be provided to carry out the Assignment supported by bar chart diagrams showing the time proposed for each key staff team member (**Sections 4G, 4H**).

- (vi) Names of specific sub-consultants, consulting firms to carry out reconnaissance survey, topographic survey, total station survey, Benkelman Beam Study, CBR, Traffic survey, Axle load survey etc. be indicated.
 - (vii) Names of technical software to be specifically used for detailed designs and drawings.
 - (viii) Any additional information requested in the Data Sheet.
- 3.5 The Technical Proposal shall not include any financial information.
- 3.5.1 The Ministry has developed “INFRACON” (www.infracon.nic.in) which is comprehensive National Portal for Infrastructure Consultancy firms & Key Personnel. This portal enables the consultancy firms and key personnel to register themselves and upload their credentials public domain. The portal has the facility to host Firms & personnel credentials online with option to link to Aadhar & Digilocker for data validity and purity. Technical proposals would be received through INFRACON. It is mandatory for the Consultants to register on INFRACON portal.

Financial Proposal

- 3.6 The financial proposal shall be a lump sum quote inclusive ***of Fees, Expenses such as Local Transport, Staff Travel, Office Rental, equipment, all other expenses etc., and Service taxes as applicable*** which will be the ceiling contract price. However, the break-up of costs for arriving at the lump sum contract price shall be submitted by the successful bidder before executing the agreement and same shall be a part of agreement.
- 3.7 In preparing the Financial Proposal, consultants are expected to take into account the requirements and conditions of the RFP document. The lump sum fee shall be all inclusive, containing all costs associated with the Assignment, including (a) remuneration for staff (foreign and local, in the field and at headquarters), and (b) reimbursable such as subsistence (per diem, housing), transportation (international and local, for mobilisation and demobilisation), services and equipment (vehicles, office equipment, furniture, and supplies), office rent, insurance, printing of documents and surveys, all taxes, duties, levies and other impositions imposed under the applicable law, on the consultants, and their personnel unless the Data Sheet specifies otherwise.
- 3.8 **Deleted.**
- 3.9 Commissions and gratuities, if any, paid or to be paid by Consultants and related to the Assignment will be specified in the Financial Proposal submission form.
- 3.10 Costs must be expressed, and will be paid, in the currency mentioned in the data sheet.
- 3.11 The Data Sheet shows for how many days after the submission date the proposals must remain valid. During this period, you are expected to keep available the professional staff proposed for the assignment. The Client will make its best effort to complete negotiations within this period. If the Proposal validity period is extended, the consultants have the right not to maintain their Proposals.
- 3.12 An agreement in usual format shall be drawn up and entered into with the successful bidder for the consultancy work entrusted to him on negotiated terms and conditions within the stipulated time as per LOI.

4. SUBMISSION OF BID

4.1 Sealing and Marking of Bids

The Bidder shall submit the bids separately i.e., "Technical" and "Financial" electronically online on e-portal.

4.2 Deadline for Submission of Bids

The last date for submission of bids electronically **on e-portal** on or before the time and date stated in the Data Sheet.

4.3 Late Bids

Not possible

4.4 Bid Opening

- i) If the office happens to be closed on the date of receipt of the tenders as specified, the tenders will be opened on the next working day at the same time and venue.
- ii) Tenders will be opened at prescribed time and date in the e-procurement portal, in the presence of the Tenderers who wish to attend at the Office of the Superintending Engineer, (R&B, and submit the copy of the necessary relevant original documents at the time of opening of technical bid.
- iii) Evaluation of the Eligibility of bidders shall be done independently. The Financial bid of only those who are assessed to be eligible shall be opened on a subsequent date will be notified. Only Eligible bidders shall be invited to be present for the 'Financial Bid' opening.

5. PROPOSAL EVALUATION

General

- 5.1 Consultants shall not contact the Client on any matter relating to their Proposal from the time of opening of the Technical Proposal till the contract is awarded. If a firm wishes to bring additional information to the notice of the client, it should do so in writing at the address indicated in the Data Sheet. Any effort by the firm to influence the Client in the Client's Proposal evaluation, Proposal comparison or contract award decisions may result in the rejection of the consultant's Proposal.
- 5.2 Evaluators of Technical Proposals shall have no access to the Financial Proposals until the technical evaluation, including any Board reviews and no objection, is concluded.
- 5.3 The technical proposals submitted by the applicants will be evaluated on a maximum of 100 marks. **Against this marking, the financial bids of those securing a minimum of 75 marks out of 100 shall only be opened.**

Evaluation of Technical Proposals

- 5.4 The Technical bids of only the firms satisfying the following criteria will be evaluated further:
(a) The firm must have completed preparation of DPR for at least two (2) Major Bridges each costing not less than Rs.40.00crores in last five years will be considered for qualification. b) Achieved in at least any two financial years an average annual financial turnover of Rs.2.00 Crores in last 5 years. c) Certificates of proof shall be enclosed for the above.

Note: (1) Consultants should give details of the experience of the firm considering the completed and the on-going highway assignments along with experience certificates from clients. This list of the completed works should also include those assignments which are substantially (90% of Contract value) completed. No Qualification/Experience etc. shall be considered without proof of experience.

(2) For experience in any past Consultancy assignment experience certificate (duly certified by the officer not below the rank of the Executive Engineer) from the client shall be accepted. In the absence of experience certificate from the client, proportion of payment received towards Consultancy work duly certified by statutory body like Chartered Accountant or Independent Auditors who are competent to do as recognized by the State concerned shall be accepted.

*** Annual Turnover should be duly certified by statutory body like Chartered Accountant or

Independent Auditors who are competent to do so as recognized by the States concerned.

The (R&B) Department, NH Wing will carry out the evaluation of proposals of only the consulting firms who satisfy the above criteria on the basis of their responsiveness to the Terms of Reference, applying the evaluation criteria and marking system specified in the Data Sheet. Each responsive proposal will be given a technical score (St). A proposal to be considered unsuitable shall be rejected at this stage if it does not respond to important aspects of the Terms of Reference or if it fails to achieve the minimum technical score indicated in the Data Sheet.

Evaluation of Financial Proposals

- 5.4 The client shall notify those Consultants whose Proposals did not meet the minimum qualifying mark or were considered non responsive to the RFP and TOR, that their Financial Proposals will be returned unopened after completing the selection process. The Client shall simultaneously notify in writing Consultants that have secured the minimum qualifying mark, the date, time and location for opening the Financial Proposals. The opening date should allow Consultants sufficient time to make arrangements for attending the opening. Consultants' attendance at the opening of Financial Proposals is optional.
- 5.5 Financial Proposals shall be opened publicly in the presence of the Consultants' representatives who choose to attend. The name of the Consultants, and the technical scores of the Consultants shall be read aloud. The Financial Proposal of the Consultants who met the minimum qualifying mark will then be inspected to confirm that it is in order. These Financial Proposals shall be then opened, and the total prices read aloud and recorded.
- 5.6 The Evaluation Committee will correct any computational errors. When correcting computational errors, in case of discrepancy between a partial amount and the total amount, or between word and figures the formers will prevail. In addition to the above corrections, activities and items described in the Technical Proposal but not priced, shall be assumed to be included in the prices of other activities or items. In case an activity or line item is quantified in the Financial Proposal differently from the Technical Proposal, the Evaluation Committee shall correct the quantification indicated in the Financial Proposal so as to make it consistent with that indicated in the Technical Proposal, apply the relevant unit price included in the Financial Proposal to the corrected quantity and correct the total Proposal cost. Prices shall be converted to a single currency using the selling rates of exchange, source and date indicated in the Data Sheet.
- 5.7 The proposal is evaluated on "Quality and Cost Based Selection" (QCBS) Procedure. In QCBS, the lowest evaluated Financial Proposal (Fm) will be given the maximum financial score (Sf) of 100 points. The financial scores (Sf) of the other Financial Proposals will be computed as indicated in the Data Sheet. Proposals will be ranked according to their combined technical (St) and financial (Sf) scores using the weights (T = the weight given to the Technical Proposal; P = the weight given to the Financial Proposal; T + P = 1) indicated in the Data Sheet: $S = St \times T\% + Sf \times P\%$. The firm achieving the highest combined technical and financial score will be invited for negotiations.

6. NEGOTIATIONS

- 6.1 Negotiations will be held at the address indicated in the data sheet. The aim is to reach agreement on all points and sign a contract.
- 6.2 Negotiations will include a discussion on the Technical Proposal, the proposed methodology (work plan), staffing and any suggestions made by the firm to improve the Terms of Reference. The Client and firm will then work out agreed final Terms of Reference, staffing, and bar charts indicating activities, staff, periods in the field and in the home office, logistics and reporting. The agreed work plan and final Terms of Reference will then be incorporated and form part of the contract. Special attention will be paid to optimising the required outputs from the firm within the available budget and to clearly defining the inputs required from the Client to ensure satisfactory implementation of the Assignment.
- 6.3 The financial negotiations will include a clarification of the firm's tax liability in India (if any), and how it will be reflected in the contract; and will reflect in the agreed technical modifications in the cost of the services.
- 6.4 The Client expects to negotiate a contract on the basis of the experts named in the Proposal. Before contract negotiations, the (R&B) Department, NH Wing will require assurances that the experts will be actually available. (R&B) Department, NH Wing will not consider substitutions during contract negotiations unless both parties agree that undue delay in the selection process makes such substitution unavoidable or that such changes are critical to meet the objectives of the assignment. **If this is not the case and if it is established that key staff was offered in the proposal without confirming their availability, the firm may be disqualified.**
- 6.5 The negotiations will conclude with a review of the draft form of the contract. To complete negotiations, the (R&B) Department, NH Wing and the firm will initial the agreed contract.

7. AWARD OF CONTRACT

- 7.1 The contract will be awarded following negotiations with the successful firm. The successful consulting firm is expected to commence the assignment by the date specified in the data sheet.

8. PERFORMANCE GUARANTEE & PERFORMANCE CLAUSE

Performance Guarantee:

Performance Guarantee for an amount equivalent to **10%** of the contract amount of the successful bidder (Consultancy fee towards project management & construction supervision) is to be given to (R&B) Department, NH Wing towards Performance of the successful consulting firm. This Performance Guarantee shall be in the form of Bank Guarantee issued by a Nationalised Bank in the format to be approved by (R&B) Department, NH Wing and shall be submitted at the time executing the agreement which shall be valid for 12 months from the date of agreement.

8.2 Performance Clause:

Consultants shall be expected to fully comply with all the provisions of the 'Terms of Reference', and shall be fully responsible for preparation of DPR as per TOR, keeping up the time schedule. Non-compliance of the provisions of the Contract Agreement and other schedules by the consultant, non-adherence to the provision of ToR and non-adherence to the time schedule prescribed under **ToR** shall amount to non-performance.

- 8.3 In the event of non-performance by the Consultant, (R&B) Department, NH Wing will retain the

right to encash the Performance Guarantee.

9.0 Settlement of Disputes

9.1 Amicable Settlement

The Parties shall use their best efforts to settle amicably all disputes arising out of or in connection with this Contract or its interpretation.

9.2 Dispute Settlement

On any dispute, controversy, interpretation or claim matter arising out of or relating to this contract, or the breach, termination or invalidity between Client and Consultants thereof, the decision of Engineer-In-Chief (R&B) NH & CRF shall be final & binding.

9. DATA SHEET
Information to Consultants

1.1 Name of the Client:

The Roads & Buildings Department, NH Wing, Govt. of AP
Client Details:

The client's address is :

**The Engineer In- Chief,
(R&B) NH & CRF, Vijayawada, A.P,
Email: cenhcrfap@gmail**

Any Clarification, information, submission of proposal and/or all correspondence to be sent to the above address.

1.2 Proposal Requirements

The proposal (Technical and Financial Proposal) shall be made separately through e-portal. Hard copy in sealed cover containing only technical proposal shall be submitted to. This is in addition to the submission to be made through e-portal. Hard copy of the financial proposal shall not be submitted as a part of proposal submission to the client.

1.3 Assignment Phasing:

The work shall be completed:

Phase I Detailed Project Report, Tender Documents on EPC

1.4 Deleted

1.5 No inputs will be provided by the client except for available relevant data and reports from respective PWD divisions.

3.1 The language(s) to submit proposals is: English

Reports which are part of the assignment must be written in the following language: English

3.2 The minimum required experience of proposed key staff in Civil Engineering, Highway / Bridges field is:

Key Professional Staff

Key personnel for the study shall include but not limited to the following:

1.Sr. Bridge Engineer cum Team Leader	-	15 years
2.Quantity Surveyor	-	10 years
3.Pavement, Soils and Materials Engineer,	-	10 years
4.Geotechnical Engineer	-	10 years

Professional support staff : 7 years

Key Professional Staff

1. Senior Bridge Engineer cum Team leader:

This is the senior most position and the expert engaged as the team leader shall be responsible for Investigation, Preparation of feasibility report, viability Report, Detailed Project Report, Preparation of Tender documents, concession agreement and Tender Assistance.. This position requires Senior Engineer who shall be graduate in Civil Engineering with minimum experience of **15 years** in Bridge Engineering. Should have handled at least two major Bridge projects as Team Leader in preparation of DPR.

2. Geotechnical Engineer

shall be graduates / Post graduates in relevant fields and shall have minimum 10 years experience in relevant fields.

3. Quantity Surveyor

shall be graduates / Post graduates in relevant fields and shall have minimum 10 years experience in relevant fields.

4.Pavement, Soil & Material Engineer

shall be graduates / Post graduates in relevant fields and shall have minimum 10 years experience in relevant fields.

Professional support staff:

Shall be graduates in Civil Engineering & CAD Engineer and shall have minimum 7years experience in relevant fields.

3.4 The Technical Proposal should include:

- 1) Details of back up facilities available with them in respect of surveying facilities, computer facilities and drafting assignments
- 2) A list of concurrent commitments and also indicate availability of their staff with relevant experience, who could be mobilised by them at short notice, which will allow him to

complete the assignment within a short period. The following details should be given:

- a) Name of assignment
- b) Date of entering in to the assignment
- c) No. of man months required to complete it
- d) Is any of the key staff whose CV is enclosed working on the assignment

All these should be substantiated by relevant details. No change of key personnel is permitted without prior written permission of (R&B) Department, NH Wing. Such changes may be permitted for valid reasons subject to satisfactory replacement.

- 3) The Composition of the proposed staff team, the task assigned to them and their timings.
- 4) Details to demonstrate capacity to mobilise resources properly so as to complete the assignment in time.

3.8 Taxes: All taxes shall be included in the offer.

3.10 The currency in which the proposals can be expressed and contract payments will be made is: **Indian Rupees.**

All the quotations should be made in Indian Rupees only with no escalation charge and the price bid should contain no conditions. Otherwise, the offer may, at the discretion of (R&B) Department, NH Wing, be rejected.

3.11 Proposals must remain valid for **90** days after the submission date i.e., .

4. The date, time, and address of the opening of the technical proposal are:
17.07.2018 at 3.00 P.M, at the O/O Engineer-In- Chief(R&B),NH & CRF, Vijayawada

5. The address to bring information to the client is:

**The Engineer In- Chief,
(R&B) NH & CRF,Vijayawada,A.P,
Email: cenhcrfap@gmail**

- 5.3 The Technical bids of firms satisfying 3.3 of section II and having the minimum experience as per 3.3(i) (refer 5.4) will only be considered for evaluation and the following evaluation criteria is stipulated for pre-qualification.

The marks given to technical evaluation criteria are:

1. Firm's relevant experience	15
2. Site visit and Site Appreciation Report	10
3. Equipment and software proposed to be used	05
4. Qualification and relevant experience of the key personnel	50
5. Task assignment, manning schedule, work plan & approach methodology	15
6. Setting up of local office Vijayawada	03
7. Performance of consultants in (R&B) Department, NH Wing.	02

Only those applicants who score at least 75 marks will be deemed as qualified for opening of Financial Proposal. The marks obtained by each of the qualified consultants after technical evaluation (St) is recorded.

The formula for determining the financial scores is the following:

$S_f = 100 \times F_m / F$, in which

S_f is the financial score,

F_m is the lowest price and

F is the price of the proposal under consideration.

The weights given to the Technical and Financial Proposals are:

$T = 0.80$ and $P = 0.20$

- 6.1 The address for negotiations is:

The Engineer-In-Chief,
(R&B) NH & CRF, IbrahimPatnam,
Vijayawada

- 7.1 The Assignment is expected to commence during -----.

SECTION 3

TERMS OF REFERENCE

1. BACKGROUND
2. THE PROPOSED STUDY
3. DETAILED SCOPE OF SERVICES
4. REPORTS , TIME SCHEDULE & PAYMENT SCHEDULE
5. SPECIFIC RESPONSIBILITIES OF THE CONSULTANT
6. OBLIGATIONS OF CLIENT

Roads & Buildings Department, NH Wing

Consultancy services for preparation of Detailed Project Report (DPR) for “RFP for Consultancy services for Preparation of DPR for the “Construction of Bridge at Km 186/10 of Madanapalli Naidupeta Road NH 71” (4th Call)

.”

TERMS OF REFERENCE

1. BACKGROUND

Public works, ports and inland water transport department [national highways], is desirous of obtaining Consultancy services for preparation of **RFP for Consultancy services for Preparation of DPR for the “Construction of Bridge at Km 186/10 of Madanapalli Naidupeta Road NH 71” (4th Call)**

The present Terms of Reference concerns Consultancy services for preparation of Detailed Project Report (DPR) for “Construction of Bridge at Km 186/10 of Madanapalli- Naidupeta Road NH 71 (4th Call)” The above works will hereafter be referred to as "The Project ".

1.1 The Project consist of

Consultancy services for preparation of Detailed Project Report (DPR) for “**Construction of Bridge at Km 186/10 of Madanapalli- Naidupeta Road NH 71 (4th Call)**”

The studies would be in:

- Phase 2 - Would comprise detailed engineering including economic viability etc., preparation of DPR and tender documents.

22. THE PROPOSED STUDY

2.1 Objectives

The main objectives of the study shall be Site Selection, Traffic Study, Geotechnical Studies, Hydraulic Studies, design of bridge component, approaches and protective works, Environmental Impact Studies, Cost Estimates, Tender documents etc., Specifically the following works are intended to be carried out on the Project Road:

- (a) Provision of traffic control devices where appropriate.
- (b) Marking out entire ROW on village revenue maps showing survey numbers all along the road.
- (c) Propose a detailed alignment along with land acquisition proposal, if required.
- (d) Prepare viability report for taking up on EPC basis, relevant Tender documents, etc.,
- (e) Utility shifting such as Tree, water supply lines, Electrical OFC / Telephone lines

etc.,

- (f) In case of Land Acquisition requirement for Improvement of project, consultant has to prepare document required for 4(1) notification of Land Acquisition as per state Govt. requirement and assist during joint measurement.

The Consultant shall at all times ensure a high level of co-ordination of engineering, social and environmental inputs. The Consultant shall prepare an Environmental Assessment Report. The report will be revised in consideration of the comments of the Client.

In **Phase 2**, detailed engineering design shall be carried out on the Project Bridge in accordance with the recommendations, as agreed with (R&B) Department, NH Wing. Tender documents as required for the implementation of the project by contract EPC shall be prepared estimating construction equipment and construction programme. A detailed report on construction work programme and construction schedule shall be prepared. Assistance to (R&B) Department, NH Wing in the procurement of the works contract by Domestic Competitive Bidding will also form part of Phase 2. Assistance to procure concessionaire if viable to take up on EPC basis.

Carry out detailed Engineering design and provide tender documents for Construction Contract EPC as a separate package for this bridge.

Through all the project phases (R&B) Department, NH Wing will expect the Consultant to illustrate in his proposed methodology the interest and commitment to utilize the latest national and international developments in highway design and construction techniques in order to promote fast, efficient and sound completion of the works. It is the intention of (R&B) Department, NH Wing to be among the forerunners in applying modern road construction techniques, and (R&B) Department, NH Wing will duly consider this aspect when evaluating the Technical Proposals.

Detailed justifications are to be provided wherever deviations from IRC are contemplated.

2.2 Description of Assignment

The Consultant's services shall consist of two main parts - Feasibility Study, Detailed Engineering Design, and the study shall be carried out in two Phases:

Phase 2 : Detailed Engineering Design, preparation of Detailed Project Report including EPC Documents etc.

3. DETAILED SCOPE OF SERVICES

3.1 General

The Consultant shall perform all necessary planning, engineering and economic analysis, field investigations and related works as described herein with due care and diligence to attain the objectives of the study.

In the conduct of his work, the Consultant shall contact the (R&B) Department, NH Wing and other Government Departments and agencies responsible for planning and rural development, in Andhra Pradesh.

The (R&B) Department, NH Wing will provide the Consultant with available reports, data and services appropriate to achieving the objectives of the study. The Consultant shall be responsible, however, for the analysis and interpretation of all data received, undertake other studies to validate the data and give conclusions and recommendations derived from these data.

As soon as possible, after being awarded the Contract, the Consultant shall support (R&B) Department, NH Wing in preparing the timetable required for the technical and financial implementation of the project.

3.2 Phase 1: Technical Study.

Within the scope of this study, the Consultant shall conduct all necessary Reconnaissance Survey, topographical surveys, hydrological/ hydraulic studies, soils, sub-soils and materials surveys, traffic surveys, and all other field and laboratory investigations required for the Project Bridge.

The Consultant shall collect all available relevant data and information for finalising a suitable and viable alignment and concerning road and bridge inventories, historic traffic data, socio-economic data, climate, geology, materials, traffic accidents, social and environmental data, utilities.

The Feasibility Study shall comprise but not limited to the following:

- 1 Executive Summary
- 2 Study Methodology
- 3 Traffic Survey and Analysis
- 4 Project Description
- 5 Survey and investigations
- 6 Preliminary design
- 7 Cost Estimate
- 8 Initial alternatives in concerned with authority or If defined alignment by the authority
- 9 Utility shifting such as Tree, water supply lines, Electrical OFC / Telephone lines etc.,
- 10 Land Acquisition.

3.2.1 Reconnaissance Survey

The Consultant shall carry out a reconnaissance survey, ideally before he submits his proposal, but at least in advance of submission of his Inception Report.

The reconnaissance survey shall cover the area through which approaches and bridges alignment would be fixed and shall form the basis for identification of the extent of the field surveys. The following are to be done before detailed survey:

- a) Reconnaissance Survey
- b) Preparation of alignment option using Topo-sheets.
- c) Consultant shall fix the alignment and GAD of bridges in consultation with (R&B) Department, NH Wing.

Based on the above, the Consultant shall plan his field surveys, and subject to the approval of (R&B) Department, NH Wing, initiate these. Provisions should be made in agreements with field survey sub-consultants, if such are to be utilised, to incorporate minor adjustments as found required during the execution of the Services, i.e. when detailed surveys are carried out. Such additional work shall only be initiated in agreement with (R&B) Department, NH Wing.

3.2.2 Topographic Surveys

The Consultant shall carry out a topographic survey for the bridge. The survey may be initiated in Phase 1 based on the Reconnaissance Survey **adopting LIDAR or Similar technology** for the suggested alignment.

The survey shall be carried out using Total Station and shall produce three-dimensional data. The data required is for an area of minimum 100 mt radius on all four sides of the bridges and 50 mts on either side of the road length of approaches.

The survey shall be based on a closed traverse, which, if possible, shall be tied up to permanent control points. Benchmarks shall, if at all possible, be tied up to permanent points.

The following accuracy shall be applicable to the topography survey:

Survey of Concrete Control Pillars:

- (i) Traverse (co-ordinate close): Fractional misclosure of 1/10,000 or better
- (ii) Levelling: Limit of accuracy to be $10 \text{ mm} \cdot (K)^{1/2}$ - (where K is the circuit distance levelled in kilometres)

Other Surveys:

- (i) Traverse (co-ordinate close): Fractional misclosure of 1/5,000 or better-
- (ii) Levelling: Limit of accuracy to be $20 \text{ mm} \cdot (K)^{1/2}$ - (where K is the circuit distance levelled in kilometres).

Point intervals shall be not more than 100 m on level or nearly level reaches and 50 m on other ground. Additional points shall be levelled to describe sudden changes in elevation.

Following land features shall be captured and presented in drawings. All the notations / symbols (Legends) shall be as agreed with the Client in advance of the execution.

- Trees (position, species and girth measured 1.2 m from ground level) (F): Tree Species.
- Building fronts or outlines where they encroach within the corridor 25 m on either end (to be classified by construction type). (F)
- Electric transformers, mast, tower, etc.
- All telephone lines, OFC lines, Private OFC lines, Water Pipes above and below the ground

belonging to Towns, Villages, Zilla Panchayats and other bodies, Electricity lines. For this purpose, it is the responsibility of Consultant to get details from concerned authorities.

The width of the survey corridor will be increased to collect data such as existing road junctions and stream beds, where the adjoining road/ stream bed will be surveyed for a distance of 100 m to a width of 50 m from centreline on either side. Building outlines will be surveyed where they encroach into the ROW as defined in the data sheet.

The items to be picked up during the survey will include, and not be limited to, the following:

Levels along the alignment shall be **taken at every 50m intervals** and at all intermediate breaks along the centre line of the alignment. The interval will reduce to 25m in built up areas and Rolling Terrain. Spot levels shall be recorded at critical points.

River/Channel cross-sections shall be taken at every **100m interval** up to a distance of **500m** on u/s and d/s from the centreline of bridge and as per the latest IRC codes for bridges of MoRTH.

Cross sections shall be taken at intervals of 50m, reduced to 25m on curves / Rolling Terrain / Ghat Section.. Cross sections shall also be taken at the centre line of all streams for approach road.

3.2.3 *Inventory*

A new inventory shall be established so that the following information is available.

- Trees No., Name of species and girth to be given
- Land use (agriculture, barren, built-up, village, urban) in ROW and adjoining area.
- Utility lines, incl. type and location, each utility type to be marked out and shown Including presence of **underground** utility services.

The inventory shall be presented in tabular format giving chainages and lengths of registered features.

3.2.4 *Hydrology and Drainage Investigations*

The Consultant shall conduct and provide a complete description of the features of the area.

Such features shall at least include as per the latest IRC codes of MoRTH:

- a) Information about soils vegetation and drainage pattern along the Bridge flooding of flat areas, etc.;
- b) All necessary hydrological and other data for storm water and sub-surface drainage systems design;
- c) Characteristics of water crossings and hydrological structures
- d) Fixing of Designs, Discharge, HFL, Freeboard etc.,
- e) Scour Depth
- f) Bed Slope
- g) Linear water way and regime width.
- h) **Afflux calculation**

3.2.5 Soils Investigations

Test pits shall be dig along the alignment for approaches. The minimum distance within such sections shall be 100mts to 200 mts, but closer intervals shall be used where swelling soils and other unsuitable soils appear to be present. Test pits shall be 1.5m x 1.5m and shall be dug to 1.5m depth. The soil strata shall be recorded, and samples taken at 1.0m depth shall be tested as follows:

- Atterberg Limits and grain size
- In situ density and moisture content
- Laboratory CBR (4 day soaked at three energy levels)
- Swelling index

Subsoil borehole investigations shall be made as per relevant Indian Standards and latest codes for proposed new or reconstructed bridges. A staged programme may be given allowing for exploratory borings only in Phase 1, and subsequent infill borings at additional pier and embankment locations early in Phase 2.

Sub-surface exploration for Bridge foundation works should be conformity with the clause no.2411.2 of MORT&H (Fifth Revision).

The total number of boreholes shall be decided based on the length of bridge as follows:

Length of Bridge	Borehole Locations
15 m or less	At both abutments
15 m to 30 m	At both abutments and one pier location.
Longer than 30 m	At both abutments, and at each pier locations

NOTE:- Since there is a standing water of 30 Mtrs from abutment to abutment, the necessity of Boring upto hard rock (1 metre inside) shall be done at each bore location. The agency shall make all necessary arrangements for the successful investigation in standing water.

3.2.6 Materials Investigation

The Consultant shall identify sources of suitable materials for the works including embankment fill, unbound pavement materials, aggregates, sand, quarry products, cement, bitumen, steel and water in sufficient quantity and quality to meet the requirements of the Project. He shall present test reports and sketches/maps showing locations of material sources. Tests on materials should be planned to document the quality as required by MoRTH Bridge / Road specifications.

The following tests are likely to be required:

For Fill and Subbase Material (soil):

- Atterberg Limits and Particle Size analysis
- Compaction characteristics
- CBR value (4 day soaked at three energy levels)
- Swelling index
- Soil all parameter test like L.L.P.L.S.L & Clearly

For Stone aggregate:

- Flakiness
- Aggregate impact value (or Los Angeles Abrasion Value)
- Soundness

- Stripping Test for assessing adhesion with bitumen (For stone to asphaltic materials only)

3.2.7 *Traffic Analysis*

The Consultant shall determine the type total traffic volume on bridge and volume of divertable traffic for the Bridge by analysing all existing statistical data, and by conducting and analysing traffic counts and origin - destination studies. Other field traffic investigations shall be undertaken by the Consultant as required.

The findings of the recent (R&B) Department, NH Wing / NHAI may be utilised in this study, if suitably updated.

The Consultant shall determine appropriate growth rates per vehicle group (i.e. Cars, buses light and heavy commercial vehicles) using appropriate methods. Slow moving traffic shall also be registered.

Based on the above analysis, the Consultant shall provide:

- a) detailed annual traffic forecasts for a period of 15 years after the completion of the Bridge, and
- b) more general projections of future traffic for the following 15 years.
All traffic forecasts shall be given at two growth rates, namely low and high, for the above traffic groups.

3.2.8 *Preliminary Design*

Based on the surveys, Hydrological and geotechnical investigations, the Consultant shall develop all possible preliminary designs.

The Consultant shall carry out the following activities:

- i) Analyse all data collected and all available field survey data.
- ii) Prepare preliminary designs for:
 - General arrangement Drawing of Bridges
 - Alignment for design of Approaches.This will inter alia include:
Definition of geometric design criteria and typical cross sections.
New bridge design and approaches shall be in accordance with relevant IRC / MORTH.

3.2.9 (i) *Cost Estimates*

The Consultant shall prepare preliminary estimates of quantities with an accuracy of +/- 10% of the works under Phase 1 of the services. The estimates shall be prepared, showing separately the quantity required and estimated cost of each item.

Preliminary cost estimates with an accuracy of +/- 10% shall be based on locally derived unit prices (National Highway Schedule of rates applicable to the state of Andhra Pradesh), but shall consider actual lead distances for materials, as appropriate for the previously estimated quantities. The estimates will also indicate tax and duty components of the costs of works, and provision shall be made for unforeseen contingencies and for costs of consultant's fees and project administration. All cost estimates shall be expressed in Indian Rupees at current NHSR.

(ii) *Economic Costs*

The Consultant shall identify current bridge user and bridge maintenance costs and shall produce valid current estimates of such costs for the bridge Project in its present and improved state. In determining the economic costs for all factors in the project, the Consultant shall ensure that costs are net of all taxes and duties, or any other transfer payments to Government and shadow priced where appropriate to reflect the true scarcity value of the resources being used.

(iii) *Economic Benefits*

Economic benefits shall be expressed primarily in terms of.

- a) savings in vehicle operating costs (reduction in fuel consumption etc.);
- b) savings in bridge maintenance expenditure;
- a) value of time savings (savings resulting from reduction in journey times);
- d) reduction in accident costs, if any.

3.2.11 *Utility Lines & Permission*

Shifting of utility lines, forest & environment permission

All details of utility lines should be captured as detailed in 3.2.2 and 3.2.3. For each utility, applications on behalf of (R&B) Department, NH Wing in relevant forms with shifting fee should be filed with relevant authorities' local offices. Similarly, for tree cutting, application with details and annexures shall be filed with local RFO along with fees. All such fees shall be reimbursed on actuals.

3.2.12 *Land Acquisition*

All lands required for temporarily or permanent acquisition for the road shall be clearly marked on Revenue (Village) Survey Maps with Survey numbers, Part numbers, Structure details, Khata holder so that land acquisition can be speedily proceeded with. **Consultants may specifically note this.**

3.3 Phase 2: Detailed Engineering Design, Tender Documents and assistance with Tendering, Tender Evaluation and Contract Negotiations

3.3.1 General

The Consultant shall provide detailed engineering design for the Projects together with cost estimates, prequalification and bidding documents prepared on the basis of the findings of the Feasibility Study, all as agreed with (R&B) Department, NH Wing. The Tender Documents shall be suitable for calling tenders by Engineering procurement contract (EPC) Basis and be in such detail as to enable the works to be satisfactorily implemented by contract. The consultant shall detail out diversion plans, sections to be completed and handed over at what intervals. The borrow areas, borrow pits, quarries, quantity and quality of each material available be detailed out. The detailed project report shall comprise of but not limited to following;

- 1 Site Selection
- 2 Topographical Survey
- 3 Hydrological data and water way fixation.
- 4 Environmental impact assessment
- 5 Detailed designs
- 6 Bridge Element – foundation, substructure, super structures, bearing, expansion joints etc.,
- 7 Approaches
- 8 Protective Works
- 9 Materials and resources
- 10 Estimate
- 11 Drawings – General Alignment Drawing, structural drawings of bridge components. At approaches drawings etc.,
- 12 Economic viable analysis
- 13 Quality Assurance system
- 14 Maintenance manual where required
- 15 Tender documents

3.3.2 Detailed Engineering Design

The Consultant shall carry out detailed engineering design of the Projects (Bridges) using technically and economically sound engineering practices. While performing the detailed engineering design, the Consultant shall inter alia carry out:

- i) Supplementary field surveys, as described under Phase 1.
- ii) Detailed horizontal and vertical alignment and cross sections, including super elevation over proposed pavement for approaches. The Consultant shall identify road sections subject to flooding and provide design for raising such sections
- iii) Detailed Designs of Bridges along with approaches.

3.3.3 Technical Specifications

The Consultant shall develop technical specifications for the recommended project including specifications for materials and methods of work, including e.g. specifications for pavement sub-base, base and surface materials, materials for structures, concrete and concrete mix materials. The Consultant will take into account of / Ministry of Surface Transport Road IRC / Works Specifications, make modifications where appropriate, based on careful assessment of locally available materials and will determine the technically acceptable and the most cost-effective technical specifications and construction/improvement methods.

3.3.4 Cost Estimates

The Consultant shall develop cost estimates based on Bill Of Quantities (BOQ) within a level of accuracy of plus/minus 10 percent of true cost. The base prices shall be based on National Highways Schedule of Rates applicable to the state of Andhra Pradesh updated to current SSR, NH. If necessary the cost estimate should be recast to the relevant NH, SOR. And for the bridges, National Highways Schedule of Rates Category I/Category II, as applicable, should be adopted. Provision shall be made for items such as relocation of utilities, compensation for property, land and crops, shoulder improvement, drainage structures, pavement markings, treatment of road junctions and road sections passing through villages/towns, slope protection, carriageway protection and traffic signs, construction of temporary diversion of roads wherever needed.

3.3.5 Project Reports and Drawings

The Consultant shall prepare the following:

- i) Comprehensive plan and profile drawings on A1 paper to the scale of 1:1,000 and longitudinal profiles 1:1000 / 1:100 for Bridge proper and indicating relevant landmarks, reference points, bench mark locations.
- ii) General Arrangement Drawings (GAD) , Good for construction drawings of foundation, substructure, superstructure, approaches, retaining walls, pitching, apron, curtain and cut off wall etc., for Bridge Project.
- iii) Bill of Quantities, cost estimates and updated economic evaluation for the Bridge.
- iv) Reports of all field investigations, traffic and other data collected during the study.
- v) The results of the study shall be presented in the form of;
 - Main Report comprising i.e., the methodology adopted for improvements, design, cost estimation and project evaluation.
 - Soils and Materials Report.
 - Drawings as described above
 - Data collected.

The consultant shall assist PWD/NH Andhra Pradesh in getting DPR/Estimates/design approved by MORTH and he shall visit MORTH office whenever necessary.

3.3.6 Tender and Contract Documents

Tender Documents

The Tender documents shall be EPC Contract basis.

Necessary amendments shall be made in order to provide for maintenance of the Project Road for necessary period after defects liability period on completion of the Works.

The Consultant shall prepare three (3) sets of both types of tender documents for approval, which shall consist of the following sections:

- a) EPC Contract Procurement:
 1. Invitation to Tender.
 2. Instructions to Tenderer.
 3. General Conditions and special conditions of Contract.
 4. Forms of Tender, Appendix to Tender, and Tender Guarantee and RFP.
 5. Bills of Quantities.

6. Forms of Performance Guarantee, and of Bank Guarantee for Advance Mobilisation Payment.
7. Technical Specifications for the execution of the works.
8. Drawings.
9. Performance based maintenance criteria and intervention requirements for the maintenance period.
10. Schedules

The tender and contract documents shall, after approval by the (R&B) Department, NH Wing, be submitted in required sets.

The Consultant shall assist (R&B) Department, NH Wing in evaluating the tenders on EPC basis for the selection of a contractor for the works and shall assist in the contract negotiations.

3.3.7 Site visit and verification of information.

Applicants are encouraged to submit their respective Proposals after visiting the Project site and ascertaining for themselves the site conditions, traffic, location, surroundings, climate, access to the site, availability of drawings and other data with the Authority. Applicable Laws and regulations or any other matter considered relevant by them.

4. REPORTS, TIME SCHEDULE AND PAYMENT SCHEDULE

4.1 Reports

The Consultant shall submit Phase I reports both in hard and soft copies in English and in MS-WORD/MS-EXCEL/MS-ACCESS format and presented on metric A-4 sized paper. Each of the reports will be presented to a Board Committee as an audio-visual presentation.

Phase 1: Technical Study

- (a) Inception Report - 4 copies to be submitted.

This shall summarise

- the initial findings of the Consultant based on his Reconnaissance Survey. Give defined proposals
- covering the methodologies
- for preliminary engineering study
- for the detailed work plan to conduct the Phase 1 study

This shall incorporate all revisions deemed necessary arising from comments received from the (R&B) Department, NH Wing. Ten (8) copies to be submitted along with the soft copy.

Phase 2: Detailed Engineering Design, Detailed Project Report.

(b) Final Project Report.

This shall incorporate all revisions deemed necessary arising from comments received from the (R&B) Department, NH Wing – Eight (8) copies to be submitted along with soft copy.

(c) Final Tender Documents

Final tender documents incorporating all revisions deemed necessary arising from comments received from the (R&B) Department, NH Wing and in the manner required by (R&B) Department, NH Wing, Eight (8) copies to be submitted along with the soft copy and additional copies to be submitted if demanded by (R&B) Department, NH Wing along with soft copy.

(e) All Applications with Annexures filled in with all details for utility shifting, land acquisition, tree cutting permission and other statutory permissions shall be submitted along with soft copy.

(f) The Consultant shall assist (R&B) Department, NH Wing in uploading the tender documents on e-portal.

All reports and documents relevant to the project, maps, field survey notes/calculations, Investigation reports, Survey Data, computer programmes etc., shall become the property of the (R&B) Department, NH Wing. The Consultant shall provide the originals and soft copies of maps, plans and all drawings with final tender documents.

4.2 Time Schedule

The following maximum time schedule shall be in weeks observed in carrying out the study for the road construction works:

a)	Commencement of the Services:	0W
b)	Inception Report:	2W
c)	Progress Report:	3W
d)	Alignment Report:	6W
e)	GAD:	7W
f)	Draft Tender documents	10W
h)	Final Project Report:	11W
i)	Final Tender documents	12W

4.3 PAYMENT SCHEDULE- Design & Engineering

PART-1

1)	On Inception report	-	25%
2)	On Submission of Alignment Plan	-	15%
3)	On submission of GAD,	-	25%
4)	On submission of draft Tender documents	-	15%
5)	On approval and submission of final DPR.	-	15%
6)	On submission of final Tender documents, after Completing Tender assistance & uploading the tender documents on e-portal	-	05%

PART-2 Geotechnical Investigations

1)	On Mobilization (Against Bank Guarantee)	-	25%
2)	On completion of 15 to 20 No's bore holes	-	40%
3)	On Completion of all bore holes,	-	25%
4)	On Submission of Final Report.	-	10%

4.4 Key Professional Staff

Key personnel for the study shall include but not limited to the following:

- | | | |
|---|---|-----------------|
| • Sr. Bridge Engineer cum Team Leader | - | 3.0 Man months, |
| • Quantity Surveyor | - | 0.5Man Months, |
| • Pavement, Soils and Materials Engineer, | - | 1.0 Man Months, |
| • Geotechnical Engineer | - | 2 Man. Months, |

Minimum qualifications required as per 3.2

CV's of the proposed Key Personnel are required to be submitted in required format signed by authorised representation of firm and the concerned person.

5. SPECIFIC RESPONSIBILITIES OF THE CONSULTANT

The consultant shall be fully responsible for collecting data and information from Government agencies after paying any necessary charges. All information, data and reports obtained from the Government agencies in the execution of the services shall be properly reviewed and analysed by the Consultant. The responsibility for the correctness of using such data shall rest with the Consultant. All such information, data and reports shall be treated as confidential.

The Consultant shall be responsible for arranging necessary living accommodation, office facilities, transportation, equipment supplies, surveys, investigations, testing, secretarial services and all other input required for the purpose of the services.

The Consultant shall make his own arrangements for document reproduction, printing and reproduction of all study reports during the course of the study.

6. OBLIGATIONS OF THE CLIENT

6.1 Documents

The (R&B) Department, NH Wing shall provide the Consultant with copies of all data and reports available and considered relevant to the execution of the Consultant's work.

6.2 Liaison and Access

The (R&B) Department, NH Wing shall provide liaison with other Government agencies and Departments for the introduction of the Consultant. The Consultant shall be given unhindered access to the relevant agencies in order to carry out the study.

SECTION 4.

TECHNICAL PROPOSAL – SUBMITTALS REQUIRED

- 4A. Technical proposal submission form
- 4B. Firm's references
- 4C. Firm's comments and suggestions on the Terms of Reference and on data, services, and facilities to be provided by the Client
- 4D. Approach paper on methodology and work plan for performing the assignment
- 4E. Composition of the team and task(s) of each team member
- 4F. Curriculum vitae of proposed professional staff
- 4G. Time schedule for professional personnel
- 4H. Activity (work) schedule
- 4I. SUMMARY SHEET - Relevant Project Experience (Last Five Years)

4A. TECHNICAL PROPOSAL SUBMISSION FORM

[Location, Date]

From:
[Name and Address of Firm]

To:
Engineer- In –Chief(R&B)
(R&B),NH & CRF,Vjayawada

Sir,

Subject: RFP for Consultancy services for Preparation of DPR for the "Construction of Bridge at Km 186/10 of Madanapalli Naidupeta Road NH 71" (4th Call)

- Technical Proposal

We, the undersigned, offer to provide the consulting services for the above in accordance with your Request for Proposal dated [Date], and our Proposal. We are hereby submitting our Proposal, which includes this Technical Proposal.

If negotiations are held during the period of validity of the Proposal, i.e., before [Date] we undertake to negotiate on the basis of the proposed staff. Our Proposal is binding upon us and subject to the modifications resulting from contract negotiations.

We understand you are not bound to accept any Proposal you receive.

We remain,

Yours sincerely,

Authorized Signature:
Name and Title of Signatory:
Name of Firm:

Address:

4B. FIRM'S REFERENCES

Relevant Services carried out in the last Five Years
that best illustrate qualifications

Using the format below, provide information on each reference assignment for which your firm/entity, either individually as a corporate entity or as one of the major companies within an association, was legally contracted.

Assignment Name:		Country:
		Professional Staff Provided by your Firm/Entity (profiles):
		No of Staff:
		No of Staff Months: Duration of Assignment:
Name of the Client:		
Address:		
Start Date (Month/Year):	Completion Date (Month/Year):	Aprox Value of Services in Rs. Million:
Name of the Associated Consultants if any		Number of Months of Prof. Staff provided by Associated Consultants:
Name of Senior Staff involved and functions performed		
Narrative description of the project		
Description of Actual Services provided by your Staff:		

Name of Firm:.....

*Note:

1. Completed projects only will be considered for experience and the ongoing projects will be considered if 80% of the work (substantially) completed.
2. The certificates from the clients shall be enclosed as proof of experience
3. In case the agency has experience as Joint Venture partner, the percentage participation and role of the agency (along with copy of MOU) shall be submitted.
4. **Separate list of the projects with proof shall be enclosed for considering the criteria mentioned in 3.3(i) under Section 2 - “preparation of proposal”.**

4C. CONSULTANT'S COMMENTS AND SUGGESTIONS ON THE TERMS OF REFERENCE AND ON DATA, SERVICES, AND FACILITIES TO BE PROVIDED BY THE CLIENT

On the Terms of Reference:

- 1.
- 2.
- 3.
- 4.
- 5.

On the data, services, and facilities to be provided by the Client

- 1.
- 2.
- 3.
- 4.
- 5.

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4D. APPROACH PAPER ON METHODOLOGY AND WORK PLAN FOR PERFORMING THE ASSIGNMENT

CONSULTING FIRM'S NAME:

Please structure this text in a manner corresponding to the Scope of Work, as given in the Terms of Reference.

4E. COMPOSITION OF THE TEAM PERSONNEL, AND TASK(S) OF EACH TEAM MEMBER

1. Technical/ Managerial Staff

Sl. No.	Name	Position	Task
1.			
2.			
3.			
4.			

2. Support Staff

Sl. No.	Name	Position	Task
1.			
2.			
3.			
4.			

4F. FORMAT OF CURRICULUM VITAE (CV) FOR PROPOSED PROFESSIONAL STAFF

Proposed Position:

Name of Firm: _____

Name of Staff:

Profession:

Date of Birth:

Years with Firm/Entity: _____ Nationality: _____

Membership in Professional Societies: _____

Detailed Tasks Assigned: _____

Key Qualifications:

[Give an outline of staff member's experience and training most pertinent to tasks on assignment. Describe degree of responsibility held by staff member on relevant previous assignments and give dates and locations. Use about half a page]

Education:

[Summarise college/university and other specialised education of staff member, giving names of schools, dates attended, and degrees obtained. Use about one quarter of a page.]

Employment Record:

[Starting with present position, list in reverse order every employment held. List all positions held by staff member since graduation, giving dates, names of employing organisations, titles of positions held, and locations of assignments. For experience in last ten years, also give types of activities performed and client references. where appropriate. Use about three-quarters of a page.]

Languages:

[For each language indicate proficiency: excellent, good, fair, or poor; in speaking, reading, and writing]

Certification:

I, the undersigned, certify that to the best of my knowledge and belief, these data correctly describe me, my qualifications, and my experience. I also undertake that I am available for this project during entire duration.

Date: _____

[Signature of staff member]

Day / Month / Year

Full name of staff member: _____

I hereby give an undertaking to the effect that the above mentioned staff would be available for (R&B) Department, NH Wing during the period of consulting service.

Date: _____

[Signature of authorised representative of the Firm]

Day / Month / Year

Full name of authorised representative of firm_____.

4 G. TIME SCHEDULE FOR PROFESSIONAL PERSONNEL

Sl.No.	Name	Position	Reports Due/ Activities	Weeks (in the form of a Bar Chart)													
				1	2	3	4	5	6	7	8	9	10	--	--	Number of Weeks	
1																Subtotal (1)	
2																Subtotal (2)	
3																Subtotal (3)	
4																Subtotal (4)	

Full-time: _____
 Reports Due: _____
 Activities Duration: _____

Part-time: _____

Signature: _____
 (Authorised Representative)

Full Name: _____

Title: _____

Address: _____

4H. ACTIVITY (WORK) SCHEDULE

A. Field Investigation and Study Items:

Sl. No.	Item of Activity (Work)	Weekwise Program (in form of Bar Chart) [1 st , 2 nd , etc. are months from the start of assignment]											
		1 st	2 nd	3 rd	4 th	5 th	6 th	7 th	8 th	9 th	10 th	--- th	---- th

B. Completion and Submission of Reports

Reports:	
1. Inception Report*	
2. Feasibility Report (a) Draft Report (b) Final Feasibility Report	
3. Draft Project Report and Draft Tender Documents	
4. Final Project Report and Final Tender Documents	

*Modify as required for the assignment

4I. SUMMARY SHEET - Relevant Project Experience (Last five years)

Project Name	Name of the Employer	Description of the work	Prime / sub-consultant	Value of Contract for applicant	Date of issue of work order	Stipulated period of completion	Actual date of completion (*)	Length of Road (km)				Length (m) / No. of Bridges and CD structures included			Remarks to explain any delay in completion of work
								Feasibility study	Detailed design	Detailed Engineering & Viability report on BOT/BOO T projects	Construction Supervision	Feasibility study	Detailed design	Construction Supervision	

*Attach certified proof

Note:- Separate list of works to be considered for the requirements as per clause 3.3(i) of Section 2, shall be submitted.

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SECTION - 5.

FINANCIAL PROPOSAL – SUBMITTALS REQUIRED

5A. Financial proposal submission form.

5B. Summary of costs

5C. Breakdown of price per Phase

5A. FINANCIAL PROPOSAL SUBMISSION FORM

[Location, Date]

FROM : (Name of Firm)

TO : (Name and Address of Client)

Dear sirs,

Subject: Hiring of Consultants' Services for _____
_____ Financial Proposal.

We, the undersigned, offer to provide the consultancy services for the above in accordance with your Request for Proposal dated [Date], and our Proposal (technical and financial proposals). Our attached financial proposal is for the sum of

[Amount in words and figures].

This amount is exclusive of the service tax, which we have estimated at

[Amounts(s) in words and figures].

Our financial proposal shall be binding upon us subject to the modifications resulting from contract negotiations, up to expiration of the validity period of the Proposal, i.e., [Date].

We undertake that, in competing for (and, if the award is made to us, in executing) the above contract, we will strictly observe the laws against fraud and corruption in force in India namely "Prevention of Corruption Act 1988".

Commissions and gratuities, if any, paid or to be paid by us to agents relating to this Proposal and contract execution, if we are awarded the contract, are listed below;

Name and Address Of Agents	Amount and Currency	Purpose of Commission or Gratuity
_____	_____	_____
_____	_____	_____

We understand you are not bound to accept any Proposal you receive.

We remain,

Yours sincerely,

Authorised Signature:
Name and Title of Signatory:
Name of the Firm:
Address:

5B. SUMMARY OF COSTS

Phase	Description	Fees	Expenses	Service Tax	Total
I	Feasibility Report etc.				
II	Detailed Project Report, Tender Documents etc.				
Total					

The cost of the services, including taxes, as given above represents the full payment for the services, and payments are to be made as agreed during negotiations. The break-up of the cost as given in format 5C is to facilitate assessment of the reasonableness of the proposal during negotiations, which will proceed as described in Clause 6 of Information to Consultants.

In case the Client decides that the assignment is to be stopped after a particular activity, the consultant shall not be paid for the future activities.

It may be noted that all payments will be made in **Indian Rupees**.

5C. BREAKDOWN OF COSTS

Phase 1. Feasibility Report Preparation

I.Fees

Sl.No.	Team member	Name	Fee per month	Input Months	Total
	Key Professional Staff				
1	Senior Bridge Engineer cum Team Leader				
2	Geo Technical Engineer				
3	Pavement, Soils & Materials Engineer				
4	.Quantity Surveyor				
	Professional Support Staff (*) (indicate numbers also)				
	CAD Engineers				
Etc.					
	Other Staff				
1	Office Manager				
2	Steno cum Typist				
3	Office Boy				
Etc.					

(*) The above positions are only indicative

II Expenses

Surveys and Investigation: (detail each as required)

Sl. No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)
	Topographic				
	Traffic				
	Geotechnical				
	Hydrological				
	Materials				
	Environmental				

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Reports and documents printing:

(Detail according to the reports and documentation envisaged in each phase)

Sl. No.	Description	No. of Volumes	No. of Copies	Rate per copy (Rs.)	Amount (Rs.)
	Inception Report				
	Alignment Plan				
	GAD				
	Final DPR				
	Tender documents				

Other Expenses

Sl. No.	Type of Expense (Detail as required)	
1.	Staff per diem and accommodation	
2.	Staff Travel	
3.	Local Transport	
4.	Office Rental	
5.	Office Equipment	
6.	Other expenses	
	Total expenses	

Phase II. Project Report, viability report and Tender Document Preparation

I Fees

Sl.No.	Team member	Name	Fee per month	Input Months	Total
A	Key Professional Staff				
1	Senior Bridge Engineer cum Team Leader				
2	Geo Technical Engineer				
3	Pavement, Soils & Materials Engineer				
4	.Quantity Surveyor				
B	Professional Support Staff (*) (indicate numbers also)				
	CAD Engineers				
Etc.					
C	Other Staff				
1	Office Manager				
2	Steno cum Typist				
3	Office Boy				
Etc.					

(*) The above positions are only indicative

II Expenses

Surveys and Investigation: (detail each as required)

Sl. No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)
	Topographic				
	Traffic				
	Geotechnical				
	Hydrological				
	Materials				
	Environmental				

RFP for Consultancy services for Preparation of DPR for the "Construction of Bridge at Km 186/10 of Madanapalli Naidupeta Road NH 71" (4th Call)

Reports and documents printing :

(Detail according to the reports and documentation envisaged in each phase)

Sl. No.	Description	No. of Volumes	No. of Copies	Rate per copy (Rs.)	Amount (Rs.)
1	Monthly Progress Report				
2	Draft Project Report				
3	Final Report				
4	Final Tender Document				

Other Expenses

Sl. No.	Type of Expense (Detail as required)	
1.	Staff per diem and accommodation	
2.	Staff Travel	
3.	Local Transport	
4.	Office Rental	
5.	Office Equipment	
6.	Other expenses	
	Total expenses	

SECTION 6

ENCLOSURES

SUPPLEMENT II

Sl. No.1	Clause No. of TOR	Additional points
1.	4.1	For stand alone bridge projects the scope of work shall include detailed design of approach road extending at least up to 2 km on either side of the bridge
	4.11.4.2(6)	<p>Model Studies for Bridges</p> <ol style="list-style-type: none"> 1. Objective Physical/Mathematical Model study for detailed Hydraulic/Hydrologic investigations regarding the proposed bridge for hydraulic design of the bridge and assessment and hydraulic design of required river training works. 2. Methodology Physical/Mathematical Model study shall be carried out at a reputed/recognized institution. The consultant will be responsible for identifying the institution, supplying Information/Documents/Data required for modal studies as indicated in para 4 below and coordinating the model study with the institution concerned 3. Scope of Work <p>3.1 Physical Model study Physical modeling with appropriate model scale for Hydraulic and Hydrologic Investigations to:</p> <ol style="list-style-type: none"> (i) Finalize span arrangement causing uniformity in flow distribution, and work out the alignment and orientation of river training works and bridge axis. (ii) Provide information on estimated/observed maximum depth of scour. (iii) Provide information on required river training works for proposed bridge. (iv) Provide hydraulic design for the bridge and the required river training works. (v) Quantity the general direction of river course through bridge, afflux, extent and magnitude of floor, effect of backwater, if any, aggradations/degradation of bed, evidence of scour etc. shall be used to augment the available hydrological data. The presence of flood control/irrigation structures, if affecting the hydraulic characteristics like causing obliquity, concentration of flow, scour, silting of bed, change in flow levels, bed levels etc. shall be studied and

		<p>considered in Hydraulic design of proposed bridge. The details of any planned work in the immediate future that may affect the river hydraulics shall be studied and considered.</p> <p>3.2 Mathematical Model study Mathematical modeling for detailed Hydraulic/Hydrologic investigations regarding the proposed new bridge to:</p> <ul style="list-style-type: none"> (i) Finalize the site/location of the proposed new bridge based on mathematical modeling. (ii) Provide information on estimated/observed maximum depth of scour. (iii) Provide information on required river training works for proposed bridge. (iv) Provide hydraulic design for the bridge and the required river training works. (v) Quantify the general direction of river course through bridge, afflux, extent and magnitude of floor, effect of backwater, if any, aggradations/degradation of bed, evidence of scour etc. shall be used to augment the available hydrological data. The presence of flood control/Irrigation structures, if affecting the hydraulic characteristics like causing obliquity, concentration of flow, scour, silting of bed, change in flow levels, bed design of proposed bridge. The details of any planned work in the immediate future that may affect the river hydraulics shall be studied and considered. <p>4. Information /Documents/Data required for physical /Mathematical Model study</p> <ul style="list-style-type: none"> (i) Plan layouts showing the location of the proposed bridge as well as the existing bridges/barrages etc., in the vicinity of the proposed bridge with the chainages with respect to a standard reference marked on it. (ii) High flood discharges and corresponding flood levels at the locations of the existing bridges in the vicinity of the proposed bridge. (iii) General arrangement drawing (GAD) of the existing bridges showing number of spans, pier and well dimensions, founding levels, maximum scour level, the design discharge and the HFL, guide bound
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		<p>details. On this, the plan form of the river course with the bridge alignment may also be shown as far as possible.</p> <p>(iv) General arrangement drawing(GAD) of the proposed new bridge showing number of spans, pier and foundation dimensions. On this, the plan form of the river course with the bridge alignment may also be shown as far as possible.</p> <p>(v) River cross sections at 500m longitudinal spacing (maximum) up to a distance of 2 times the bridge total length on the upstream side and up to a distance equal to the bridge total length on the downstream with right bank, and left bank clearly marked on it. At least one cross section to be provided at the location of the proposed bridge. At each cross section, the bed levels to be taken at a maximum lateral distance of 8m in flow section and at 25m in non flow section respectively. The abrupt variations in the bed levels to be captured by taking measurement at closer locations both in longitudinal as well as lateral directions.</p> <p>(vi) The cross sections as far as possible, from high bank to high bank.</p> <p>(vii) The longitudinal profile of the river along the length of the proposed alignment.</p> <p>(viii) Size distribution of the river bed material and the bore log data at different locations at the site of the proposed bridge.</p> <p>(ix) The series of annual peak flood of the river for at least 15 years period.</p>
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BANK GUARANTEE FORMAT FOR BID SECURITY

(To be stamped in accordance with Stamp Act if any, of the country of issuing bank)

Ref.: Tender No. _____, dated _____

Bank Guarantee:

Date:

To

**The Superintending Engineer,
(R&B) NH Circle, Ananthapuramu.**

WHEREAS, _____ (Name of Bidder) __ (hereinafter called "the bidder") has submitted his bid dated _____ (date) for the Tender No. _____, dated _____ (hereinafter called "the Bid").

KNOW ALL MEN by these presents that We, _____ [Name of Bank] of _____ [Name of Country] having our registered office at _____ (hereinafter called "the Bank") are bound unto

_____ [Name of Employer] (hereinafter called "the Employer") in the sum of Rs. _____ (Rupees _____ Lakhs Only) for which payment

will and truly to be made to the said Employer the Bank binds himself, his successors and assigns by these presents.

SEALED with the Common Seal of the said Bank this _____ day of _____ 2018.

THE CONDITIONS of this obligation are:

1. If the Bidder withdraws his Bid during the period of bid validity specified in the Bid document; or

2. If the Bidder does not accept the correction of arithmetical errors of his Bid Price in accordance

with the Instructions to Bidder; or

3. If the Bidder having been notified of the acceptance of his Bid by the Employer during the period

of bid validity,

a. fails or refuses to execute the Form of Agreement in accordance with the Instructions to Bidders, if required; or

b. fails or refuses to furnish the Performance Security, in accordance with the Instructions to

Bidders,

we undertake to pay the Employer up to the above amount upon receipt of his first written demand,

without the Employer having to substantiate his demand, provided that in his demand the Employer

will note that the amount claimed by him is due to him owing to the occurrence of one or any of the

conditions, specifying the occurred condition or conditions.

This Guarantee will remain in force up to(Date)

after the deadline for submission of bids as such deadline is stated in the Instructions to Bidders or

as it may be extended by the Employer, notice of which extension(s) to the Bank is hereby waived.

Any demand in respect of this Guarantee should reach the Bank not later than the above date.

Notwithstanding anything contained herein before, our liability under this guarantee is restricted to

Rs. _____ (Rs. _____) and the guarantee shall remain valid till _____. Unless a claim or a demand in writing is made upon us on or before _____ all

our liability under this guarantee shall cease.

DATE _____

SIGNATURE OF THE BANK _____

SEAL OF THE BANK _____

SIGNATURE OF THE WITNESS _____

Name and Address of the Witness _____

The bank guarantee shall be issued by a bank (Nationalized/Scheduled) located in India