

National Highway Authority

ISO 9001:2015 Certified



REQUEST FOR PROPOSAL

FOR

CONSULTANCY SERVICES FOR DESIGN UPDATION OF GUIDE BANKS AND APPROACH ROADS OF THE EXISTING BRIDGE ACROSS RIVER INDUS CONNECTING KALLURKOT D/S OR U/S WITH D.I. KHAN

Tender No. 6(692)

Pages-1 to 129

September, 2026



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**GOVERNMENT OF PAKISTAN
NATIONAL HIGHWAY AUTHORITY
27-Mauve Area, G-9/1,
Post Box No. 1205,
ISLAMABAD**

**Dated the _____
Ref No. _____**

LETTER OF INVITATION (LOI)

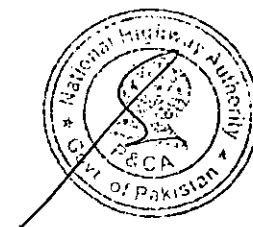
To,

All prospective consultants

Gentlemen!

We extend warm welcome to you and invite you for participating in this project. We hope that you will live up to your reputation and provide us accurate information so that the evaluation is carried out "just and transparent". Please understand that the contents of this RFP, where applicable, shall be deemed part of the contract agreement. An example to this affect can be the contents of your work plan and methodology which you shall be submitting in your technical proposal. Since that is the basis of the selection, therefore, it shall become part of the contract agreement subject to approval/revisions of the same by NHA during the negotiations. Similarly, all other services and the content contributing to services shall be deemed part of the contract agreement unless it is specified for any particular item up-front in your technical proposal which obviously will make your proposal a conditional proposal whereby, authorizing NHA to may or may not consider to evaluate your proposal. Please understand that if no such mention appears up-front (i.e. on front page of technical proposal) then it shall be deemed that the consultant is in 100% agreement to the above. You are also advised to kindly read the RFP thoroughly as it can drastically affect the price structure for various services which may not be appearing directly in the terms of reference. In the end, we appreciate your participation and hope that you will feed a good proposal to merit consideration by NHA.

General Manager (P&CA)
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E-mail : gmpca.nha@gmail.com,
Website: www.nha.gov.pk



ATTACHMENTS

1. Instructions to Consultants
2. Data Sheet
3. Summary Evaluation Sheet
4. Personnel Evaluation Sheet
5. Technical Proposal Forms
6. Financial Proposal Forms
7. Appendix A (Terms of Reference)
8. Appendix B (List of Supporting Documents)
9. Appendix C (Person-Months and Activity Schedule)
10. Appendix D (Client's Requirements from the Consultants)
11. Appendix E (Personnel, Equipment, Facilities and other services to be provided by the Client).
12. Appendix F (Copy of Model Agreement)



INSTRUCTIONS TO CONSULTANTS

1. INTRODUCTION

- 1.1 You are hereby invited to submit a technical and a financial proposal for consulting services required for the assignment named in the attached **Data Sheet** (referred to as "**Data Sheet**" hereafter) annexed with this letter. Your proposal could form the basis for future negotiations and ultimately a Contract between your firm and the Client named in the **Data Sheet**.
- 1.2 A brief description of the assignment and its objectives are given in the **Data Sheet**. Details are provided in the attached RFP for design services provided in the Documents and will become part of agreement subsequently.
- 1.3 The assignment shall be implemented in accordance with the phasing specified in the **Data Sheet**.
- 1.4 The Client has been entrusted the duty to implement the Project as Executing Agency by Government of Pakistan (GoP) and funds for the project shall be arranged by the Client.
- 1.5 To obtain first-hand information on the assignment and on the local conditions, you are encouraged to pay a visit to the Client before submitting a proposal and attend a pre-proposal conference if specified in the **Data Sheet**. Your representative shall meet the named officials on the date and time specified in the **Data Sheet**. Please ensure that these officials are advised of the visit in advance to allow adequate time for them to make appropriate arrangements. You must fully inform yourself of local conditions and take them into account in preparing your proposal.
- 1.6 The Client shall provide the inputs specified in the **Data Sheet**, assist the Consultants in obtaining licenses and permits needed to carry out the services, and make available relevant project data and reports.
- 1.7 Please note that:
 - i. The cost of preparing the proposal and of negotiating the Contract, including a visit to the Client, 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 names of the invited consultants are given in the **Data Sheet**.
- 1.9 We wish to remind you that in order to avoid conflicts of interest:
 - a) Any firm providing goods, works, or services with which you are affiliated or associated is not eligible to participate in bidding for any goods, works, or services (other than the services and any continuation thereof) resulting from or associates with the project of which this assignment forms a part; and
 - b) Any previous or ongoing participation in relation with the project by your firm, its professional staff, its affiliates or associates under a Contract may result in rejection of your proposal. You should clarify your situation in that respect with the Client before preparing the proposal.



- 1.10 A firm may submit its proposal for the Assignment either as an independent Consultant or as a Member of a JV Consultants but participation of a firm occurring in more than one proposal for the Assignment is not allowed. In case a firm participates in more than one proposal, all such proposals shall be **disqualified and rejected**. However, this condition does not apply for individual Specialist Sub-consultant(s).

2. DOCUMENTS

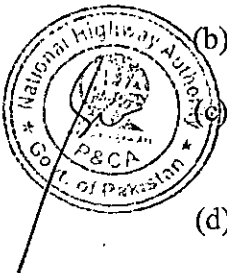
- 2.1 To prepare a proposal, please use the Documents specified in the **Data Sheet**.
- 2.2 Consultants requiring a clarification of the Documents must notify the Client, in writing, not later than twenty-one (21) days before the proposal submission date. Any request for clarification in writing, or by cable, telex or tele-fax shall be sent to the Client's address specified in the **Data Sheet**. The Client shall respond by cable, telex or tele-fax to such requests and copies of the response shall be sent to all invited Consultants.
- 2.3 At any time before the submission of proposals, the Client may, for any reason, whether at its own initiative or in response to a clarification requested by an invited consulting firm, modify the Documents by amendment. The amendment shall be sent in writing or by cable, telex or tele-fax to all invited consulting firms and will be binding on them. The Client may at its discretion extend the deadlines for the submission of proposals.

3. PREPARATION OF PROPOSAL

It will consist of two parts – Technical and Financial

3.1 Technical Proposal

- 3.1.1 The Technical Proposal should be submitted using the format specified and shall include duly signed and stamped forms appended with the RFP. This is a **mandatory requirement** for evaluation of proposals and needs to be filled up carefully.
- 3.1.2 For Technical Proposal, the general approach and methodology which you propose for carrying out the services covered in the TOR, including such detailed information as you deem relevant, together with your appreciation of the Project from provided details and
- (a) A detailed overall work program to be provided with timing of the assignment of each expert or other staff member assigned to the project. This will also provide the Client an opportunity to effectively monitor work progress.
 - (b) Total number of man-months and project duration as per TOR.
 - (c) Clear description of the responsibilities of each expert staff member within the overall work program.
 - (d) The Curriculum Vitae (CV) of all Key Staff members and an affidavit that proposed staff shall be available for the assignment during the project duration and their present place of duty must also be specified. The Consultants are advised to suggest such names that shall be available for the Assignment.



- (e) The technical proposal shall include duly filled in forms provided with this RFP. The name, background, and professional experience of each expert staff member to be assigned to the project, with particular reference to his experience of work of a nature similar to that of the proposed assignment.
 - (f) Current commitments and past performance are the basic criteria of technical proposal. You are required to provide the details of present commitments/on- going jobs as referred in the Form A-10 of technical proposal. Further, the basis for the past performance is the report from Design Section and Construction Wing of the Client.
- 3.1.3 In preparing the technical proposal, you are expected to examine all terms and instructions included in the Documents. Failure to provide all requested information shall be at your own risk and may result adversely in the scoring of your proposal. The proposal should be prepared as per RFP and any suggestion or review of staff etc. should be clearly spelt out in form A-4. This will be discussed at the time of negotiation meeting as and when called.
- 3.1.4 During preparation of the technical proposal, you must give particular attention to the following:
- a. The Firm needs to be registered with Pakistan Engineering Council (PEC).
 - b. If you consider that your firm does not have all the expertise for the assignment you may obtain a full range of experience by associating with other firms or entities. You may also utilize the services of expatriate experts but only to the extent for which the requisite expertise is not available in any Pakistani firm. In case of Joint Venture, the proposal should state clearly partners will be "Jointly and Severally" responsible for performance under the Contract and one (Representative) partner will be responsible for all dealings with the Client on behalf of the Joint Venture. Its "Power of Attorney" on this account is to be enclosed. The representative partner shall retain the responsibility for the performance of obligations and satisfactory completion of the consultancy services. PEC registers a foreign consulting firm for issuing license to provide consultancy services in Pakistan, which is based on formation of JV with the condition that the foreign consulting firm shall provide only that share of consultancy services by the JV for which expertise is not available with Pakistani consulting firms. A copy of JV agreement to be provided at the time of finalizing the contract documents with specific responsibilities and assignments to be looked after by each partner.
 - c. Subcontracting part of the assignment to the other Consultants is not discouraged and Specialist Sub-Consultants may be included.
 - d. The key professional staff proposed shall be permanent employees of the firm unless otherwise specified in the **Data Sheet**. The minimum stay with the firm for such persons is Six months. No alternative to key professional staff may be proposed and only one CV may be submitted for each position. The minimum required experience of proposed Key Staff is specified in the **Data Sheet**.
 - e. The training shall be imparted during the currency of the contract if specified in the **Data Sheet**.



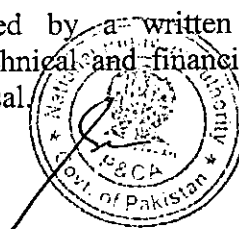
- 3.1.5 The technical proposal shall not include any financial information. The Consultant's comments, if any, on the data, services and facilities to be provided by the Client and specified in the TOR shall be included in the technical proposal.

3.2 Financial Proposal

- 3.2.1 The financial proposal should be submitted using the format specified and enclosed with this RFP. This is a mandatory requirement for evaluation of proposals and needs to be filled up carefully. The total cost is to be specified in the Form A-17 and accordingly also in Form A-11.
- 3.2.2 The financial proposal should list the costs associated with the Assignment. These normally cover remuneration for staff in the field and at headquarters, per diem, housing, transportation for mobilization and demobilization, services and equipment (vehicles, office equipment furniture and supplies), printing of documents, surveys and investigations. These costs should be broken into foreign (if applicable) and local costs. Financial proposal should be prepared using the formats attached as forms A-11 to A-17.
- 3.2.3 The financial proposal shall also take into account the professional liability as provided under the relevant PEC Byelaws and cost of insurances specified in the **Data Sheet**.
- 3.2.4 Costs may be expressed in currency (s) listed in the **Data Sheet**.
- 3.2.5 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 words and figures the formers will prevail. In addition to the above corrections, activities and items described in the Technical Proposals but not priced, in the Financial Proposals shall be assumed to be included in the prices of other activities or items. In case an activity or item is quantified in the Financial Proposal differently from the Technical Proposal, the evaluation committee shall correct the quantification specified in the Financial Proposal so as to make it consistent with that specified in the Technical Proposal.

4. SUBMISSION OF PROPOSALS

- 4.1 You shall submit one original technical proposal and one original financial proposal and the number of copies of each specified in the **Data Sheet**. Each proposal shall be in a separate envelope indicating original or copy, as appropriate. All technical proposals shall be placed in an envelope clearly marked "Technical Proposal" and the financial proposals in the one marked "Financial Proposal". These two envelopes, in turn, shall be sealed in an outer envelope bearing the address and information specified in the **Data Sheet**. The envelope shall be clearly marked, "DO NOT OPEN, EXCEPT IN PRESENCE OF THE EVALUATION COMMITTEE."
- 4.2 In the event of any discrepancy between the copies of the proposal, the original shall govern. The original and each copy of the technical and financial proposals shall be prepared in indelible ink and shall be signed by the authorized Consultant's representative. The representative's authorization shall be confirmed by a written power of attorney accompanying the proposals. All pages of the technical and financial proposals shall be initialed by the person or persons signing the proposal.



- 4.3 The proposal shall contain no interlineations or overwriting except as necessary to correct errors made by the Consultants themselves. Any such corrections shall be initialed by the person or persons signing the proposal.
- 4.4 The completed technical and financial proposals shall be delivered on or before the time, date, and the location specified in the **Data Sheet**.
- 4.5 The proposals shall be valid for the number of days stated in the **Data Sheet** from the date of its submission. During this period, you shall keep available the professional staff proposed for the assignment. The Client shall make its best effort to complete negotiations at the location stated in the **Data Sheet** within this period.

5. PROPOSAL EVALUATION

- 5.1 A Single-Stage-Two-Envelope procedures shall be adopted in ranking of the proposals. The technical evaluation shall be carried out first, followed by the financial evaluation. The Consultants shall be ranked using a combined technical/financial score.

5.2 Technical Proposal

- 5.2.1 The evaluation committee appointed by the Client shall carry out its evaluation for all the projects as listed in Para 1.1, applying the evaluation criteria and point system specified in the **Data Sheet**. Each responsive proposal shall be given a technical score: S_t . The Consultants scoring less than seventy (70) percent points shall be rejected and their financial proposals returned un-opened.

5.3 Financial Proposal

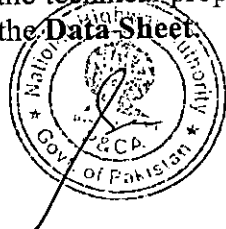
- 5.3.1 The financial proposals of technically qualifying Consultants on the basis of evaluation of technical proposals shall be opened in the presence of the representatives of these Consultants, who shall be invited for the occasion and who care to attend. The Client shall inform the date, time and address for opening of financial proposals as specified in the **Data Sheet**. The total cost and major components of each proposal shall be publicly announced to the attending representatives of the firms.

- 5.3.2 The evaluation committee shall determine whether the financial proposals are complete and without computational errors. The lowest financial proposal (F_m) among all shall be given a financial score: S_f of 1000 points. The financial scores of the proposals shall be computed as follows:

$$S_f = (1000 \times F_m) / F$$

(F = amount of specific financial proposal)

- 5.3.3 Proposals, in the Quality Cum Cost Based Selection (QCBS) shall finally be ranked according to their combined technical (S_t) and financial (S_f) scores using the weights (T- the weight given to the technical proposal, P = the weight given to the financial proposal, and $T+P=1$) stated in the **Data Sheet**.



$$S = S_t \times T \% + S_f \times P \%$$

6. NEGOTIATION

- 6.1 Prior to the expiration of proposal validity, the Client shall notify the successful Consultant who submitted the highest-ranking proposal in writing, by registered letter, cable telex or facsimile and invite it to negotiate the Contract.
- 6.2 Negotiations normally take from two to five days. The aim is to reach agreement on all points and initial a draft contract by the conclusion of negotiations.
- 6.3 Negotiations shall commence with a discussion of your technical proposal. The proposed methodology, work plan, staffing and any suggestions you may have made to improve the TOR. Agreement shall then be reached on the final TOR, the staffing, and the bar charts, which shall indicate activities, staff, and periods in the field and in the home office, staff months, logistics and reporting.
- 6.4 Changes agreed upon shall then be reflected in the financial proposal, using proposed unit rates (no negotiation of the staff month rates).
- 6.5 Having selected Consultants on the basis of, among other things, an evaluation of proposed key professional staff, the Client expects to negotiate a contract on the basis of the staff named in the proposal. Prior to contract negotiations, the Client shall require assurances that the staff members will be actually available. The Client shall not consider substitutions of key staff except in cases of un-expected delays in the starting date or incapacity of key professional staff for reasons of health.
- 6.6 The negotiations shall be concluded with a review of the draft form of the contract. The Client and the Consultants shall finalize the contract to conclude negotiations. If negotiations fail, the Client shall invite the Consultants that received the second highest score in ranking to Contract negotiations. The procedure will continue with the third in case the negotiation process is not successful with the second ranked consultants.

7. AWARD OF CONTRACT

- 7.1 The contract shall be awarded after successful negotiations with the selected Consultants and approved by the competent authority. Upon successful completion of negotiations/ initialing of the draft contract, the Client shall promptly inform the other Consultants that their proposals have not been selected.
- 7.2 The selected Consultant is expected to commence the assignment on the date and at the location specified in the **Data Sheet**.

8. CONFIRMATION OF RECEIPT

- 8.1 Please inform the Client by telex/facsimile courier or any other means:
- That you received the letter of invitation;
 - Whether you will submit a proposal; and
 - If you plan to submit a proposal, when and how you will transmit it.

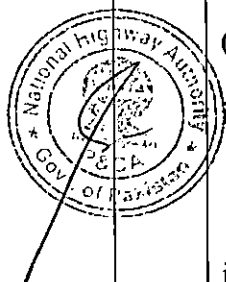


DATA SHEET

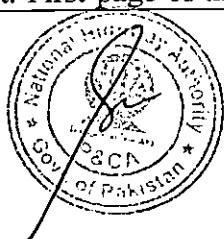
No	DESCRIPTION OF CLAUSE
1.1	The name of Assignment is: <i>“Consultancy Services for Design Updation of Guide Banks and Approach Roads of the Existing Bridge Across River Indus Connecting Kallurkot D/S or U/S with D.I. KHAN”</i> The Client’s Name is: National Highway Authority
1.2	The description and the objectives of the assignment are: As per TOR
1.3	Phasing of the Assignment (if any): Nil The Consultant shall commence the assignment upon signing of Contract Agreement between NHA and the successful Consultant.
1.5	Pre-Proposal Conference: Yes <u> √ </u> No <u> </u> The name(s) and address(es) of the Official(s) is (are): General Manager (P&CA) National Highway Authority 28, Mauve Area, G-9/1 Islamabad Date, Time and Venue for Pre-Proposal Conference: Date: 21st September, 2026 Time: 1100 hours Venue: General Manager (P&CA) National Highway Authority 28, Mauve Area, G-9/1 Islamabad.
1.6	The Client shall provide the following inputs: As per TOR and Appendix E.
1.7	Following sub-clauses are added: iii. Form A-4 is meant for comments on provision contained in RFP and Terms of Reference (TOR) and unless the observations are noted in this particular form, anything written elsewhere on this account including financial implications, if any, shall be considered of no consequence in the evaluation process. iv. Consultants may form a Joint Venture (JV) to qualify for the Assignment in such case the contract will be signed between the Client and all members of the JV on the prescribed Form included in Appendix F (copy of Model Agreement) subject to the ranking and successful negotiations. To promote the consultancy industry in the country, 50 marks (out of 1000 for Evaluation) are allocated for Transfer of Knowledge in the form of association (sub-consultant) with a new/ less experienced firm by sharing upto 7.5% of Assignment with them. v. Except as the Client may otherwise agree, no changes shall be made in the Key Personnel during the Contract period. If, for any reason beyond the reasonable control of the



	Consultants, it becomes necessary to replace any of the Key Personnel, then the Consultants at the written instructions of Client shall provide as a replacement with equivalent or better qualification. vi. The Consultants shall clear all payable dues and salaries of its staff in time and not later than 10th of the following month positively. In case of failure to do so Client shall intervene and pay these dues and salaries of the concerned Personnel on behalf of the Consultants and recover from the invoice of the Consultants the actual charges paid plus a penalty of 1% of this amount. This will also be accounted adversely in making assessment of the Consultants in the next evaluation process, if such defaults are reported by any section of the NHA. vii. The payment to the sub-consultant shall be the responsibility of the Lead firm as per the agreed services. Detail/Proof of the payment to the sub-consultant will be submitted along with the relevant invoice (s).
1.8	The Invited Consultants/ <u>Eligible Consultants</u> are: <u>Any firm meeting the following requirements:</u> <u>Eligibility of Consultants:</u> <u>(I) Technical Proposal:</u> i. For Single Entity, Valid Registration Certificate of Pakistan Engineering Council with Project Profile Code of 1215 (ii) (<i>Highways/ Bridges/Tunnels as applicable</i>). In case of JV, experts proposed by each consultant should have relevant project profile code of 1215 (ii.) (Highways/ Bridges/Tunnels) as applicable. In case of formation of JV with foreign consultant in such case foreign consulting firms shall make JV in accordance with Byelaw 6(2) and Byelaw 9 of the Pakistan Engineering Council (Conduct and Practice of Consulting Engineers) Bye-Laws 1986. Failure to provide Registration Certificate (license) of the firms/ Relevant registration documents/receipts (in case of foreign consulting firm) (each member in case of JV) by the PEC will <u>entitle the Client to reject proposal</u>. ii. All JV partners/firms must be registered and on Active Taxpayer list (ATL) of Federal Board of Revenue (FBR). Proof along with valid NTN No. shall be provided. iii. In case of JV members, Letter of Intent to form JV on Lead firm's letter head is required in original (<i>scanned copy is not acceptable</i>). <i>The specimen is attached at <u>Annexure-A</u></i> iv. TECHNICAL PROPOSAL FORMS A-1 to A-10 duly completed as per Instructions to Consultants/ Data Sheet and requirements of TOR (To be attached with Technical Proposal except Form A-4, which can be submitted with or without comments) v. Lists of facilities available with the Consultant to perform their functions effectively (software, hardware, etc.). In case of JV, the same will be provided by the lead firm only. <u>(II) Financial Proposal:</u> i. FINANCIAL PROPOSAL FORMS A-11 to A-17 and PROPOSAL SECURING DECLARATION duly completed as per Instructions to Consultants/ Data Sheet and requirements of TOR (To be attached with Financial Proposal). <i>Scanned financial proposal shall be rejected.</i> ii. While engaging in Public Procurement contracts worth Rs. 50 million and above, each Consultant (lead and their JV Members) shall provide duly filled Performa of "Declaration of Ultimate Beneficial Owners Information for Public Procurement Contracts", in their Financial Proposals, which is attached as Annexure-I at the end of



	this RFP. (III) The proposals (technical + financial) should be bound in hard book binding form to deny the possibility of removal or addition of page(s). All the pages of proposals must be signed and stamped in original by authorized representative of the firm/JV. All the pages must be numbered starting from first page to last. At the time of proposal submission/ opening, page numbering, signing and stamping of proposals will be checked by Committee Members. If any minor discrepancy is found, then same shall be asked by the Committee members to the Authorized Representative of firms to correct it in front of all committee members. In the absence of authorized representative, the concerned firm will be announced dis-qualified/ non-responsive. Note: If the financial proposal of the Consultant is found non-responsive, then for evaluation purpose, financial score of the Consultant shall be given as zero.
2.1	The Documents are: (a) Letter of Invitation (LOI). (b) Instructions to Consultants (ITC). (c) Data Sheet. (d) Technical Proposal Forms. (e) Financial Proposal Forms (f) Appendix – A: TOR and Background Information. (g) Appendix – B: List of Supporting Documents (h) Appendix – C: Man-Months and Activity Schedule (i) Appendix – D: Client's Requirements from the Consultant. (j) Appendix – E: Personnel Equipment, Facilities and Other Services to be provided by the Client. (k) Appendix – F: Copy of Model Agreement/ Draft Form of Contract & Appendices etc. (l) Form of Contract (<i>For Consultants to perform services as a Joint Venture</i>)
2.2	The words "Twenty-one (21)" is deleted in its entirety and replaced with "Ten (10)". The information will be shared through email or courier. The address for seeking clarification is: General Manager (P&CA) National Highway Authority 28, Mauve Area, G-9/1, Islamabad E-mail: gmpca.nha@gmail.com,
2.3	Add following clause: "The information will be shared to all prospective consultants through uploading on NHA website/ PPRA Website or publishing on Newspapers whatever the case".
3.1.4	Add following at the end of Sub – Para 3.1.4 (b): Clearly mention the percentage and detail of share as well of each JV partner in the JV agreement. First page of the JV agreement must be on Stamp Paper of minimum Rs.



100 duly attested by the Oath Commissioner.

(c) The same sub-consultant may participate in several proposals

Yes ___ No ☒

Add following at the end of Sub-Para 3.1.4 (c)

The term associates, if used in the proposal or otherwise shall not be considered as an alternative of JV member. Any personnel proposed for the Assignment but belonging to the so-called associates (Sub-consultants) shall not be marked in evaluation of technical proposal like in case of Sub-consultants (except individual Specialist Sub-consultants having unique expertise which is rarely available OR an expatriate Personnel) who are not supposed to contribute in qualification of their main consultants.

(d) The estimated number of key professional staff months is: 16

Proposed key staff shall be permanent employees who are employed with the consultants at least six months prior to submission of Proposal.

Yes ☒ No ___

Bidder shall submit evidence of their permanent employment by submitting an attested photocopy of appointment letter/ Salary Slip of each expert otherwise zero marks will be allocated for "status with firm [Clause 5.2 sub-criteria- 3 (iii)]".

Add following at the end of Sub-Para 3.1.4 (d)

The minimum required experience of proposed Key Personnel is given below:

FOR KEY PERSONNEL

**Team Leader
/Senior
Structural
Engineer**

Education: Preferably M.Sc. (Structural Engineering) or minimum B.Sc. (Civil Engineering).

Experience: Preferably twenty (20) years' design experience as Team Leader/ Highway Engineer on National Highways/ Roads Projects.

Rating: P.hd/M.Sc. with relevant training - 100%; M.Sc. without relevant training - 90%; B.Sc. with relevant training - 80%; B.Sc. without relevant training - 70%.

**Sr. Structural
Engineer/
Bridge
Engineer**

Education: M.Sc. (Structural Engineering) or minimum B.Sc. (Civil Engineering).

Experience: Preferably fifteen (15) years' relevant experience as Senior Structural Engineer on National Highways Projects].

Rating: M.Sc. with relevant training - 100%; M.Sc. without relevant training - 90%; B.Sc. with relevant training - 80%; B.Sc. without relevant training - 70%.

**Pavement
Engineer**

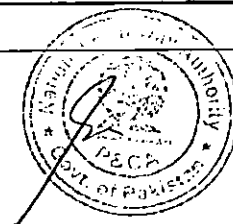
Education: Preferably M.Sc. (Transportation Engineering) or minimum B.Sc. (Civil Engineering).

Experience: Preferably fifteen (15) years' design experience as Pavement Engineer on Highways/ Roads Projects.

Rating: M.Sc. with relevant trainings/ courses/ workshops - 100%; M.Sc. without relevant trainings/ courses/ workshops - 90%; B.Sc. with relevant trainings/ courses/ workshops - 80%; B.Sc. without relevant trainings/ courses/ workshops - 70%.



Geometric/ Highway Engineer	Education: Preferably M.Sc. in (Transportation Engineering /Highway Engineering) or minimum B.Sc. (Civil Engineering). Experience: Preferably fifteen (15) years' design experience as Highway Engineer on Highways/ Roads Projects. Rating: M.Sc. with relevant training - 100%; M.Sc. without relevant training - 90%; B.Sc. with relevant training - 80%; B.Sc. without relevant training - 70%.
Geotechnical Engineer	Education: Preferably M.Sc. (Soil Mechanics/ Geo-Tech Engineering) or minimum B.Sc. (Civil Engineering/ M.Sc Engineering Geology). Experience: Preferably fifteen (15) years' relevant experience [proven ten (10) years' design experience as Senior Geotechnical Engineer on major Highway Projects].
Traffic/ Transport Economist	Education: Preferably M.Sc. Transport Economist/ M.Sc. (Transportation Engineering) / M.Sc. Economics with Diploma in Transport Economist or minimum B.Sc. (Transportation Engineering) or M.Sc. Economics. Experience: Preferably ten (10) years' design experience as Transport Economist on National Highways/ Roads Projects]. Rating: M.Sc. with relevant training - 100%; M.Sc. without relevant training - 90%; B.Sc. (Transportation Engineering)/M.Sc. Economics with relevant training - 80%; B.Sc.(Transportation Engineering) or M.Sc. Economics without relevant training - 70%.
Financial Economic Analyst	Minimum M.Sc. Economics MBA/M.Com (Finance) ICMA/ ACCA OR Certificate of Chartered Accountancy with minimum ten (10) years' relevant experience [proven five (05) years' experience as Chartered Accountant on mega infrastructure projects preferably Highway Projects. OR Certified Financial Analyst with minimum seven (07) years' relevant experience [proven three (03) years' experience as Certified Financial Analyst on mega infrastructure projects preferably Highway Projects]-
<u>Note: The Consultants are advised to submit updated CV's strictly in compliance with the format of CVs given in Technical Proposal Form A-5. CVs submitted without regard to the said format may score low.</u> <u>For Master's and PhD Qualification, the Consultants are advised to strictly mention the field of specialization of the proposed individuals.</u> e. Training is an important feature of this Assignment: Yes _____ No ☒ If Yes, details of training are given in TOR	
3.2.3	Professional liability, insurances (description or reference to appropriate documentation): i. The Consultants shall be responsible for Professional Indemnity Bond of the required amount at their own cost. This bond shall be in the joint name of Consultant and the Client.



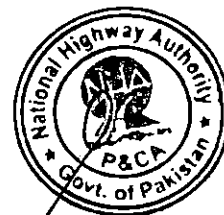
	ii. The Consultants are required to insure their Employees and Professionals for Hospitalization/ Medical, Travel and Accident Cover for the duration of the Contract. The details provided in Para 3.5 of Special Conditions of Contract in Model Contract.																														
3.2.4	The currency of cost shall be expressed in Pak. Rupees.																														
4.1	The number of copies of the Proposal required is: TECHNICAL PROPOSAL: ONE ORIGINAL AND THREE COPIES WITH USB (SOFT FORM OF COMPLETE TECHNICAL PROPOSAL IN PDF FORM) IN SEALED ENVELOPE FINANCIAL PROPOSAL: ONE ORIGINAL WITH USB (SOFT FORM OF COMPLETE FINANCIAL PROPOSAL IN PDF AS WELL AS MS WORD/ EXCEL FORMS) IN SEALED ENVELOPE The address for writing on the proposal is: General Manager (P&CA) National Highway Authority 28, Mauve Area G-9/1 Islamabad Telephone: +92-51-9032727, Facsimile: +92-51-9260419																														
4.4	The date and time of proposal submission is: Date: 8th October, 2026 Time: 1130 hours Location of Submission: General Manager (P&CA) National Highway Authority 28-Mauve Area G-9/1 Islamabad																														
4.5	Validity period of the proposal is: 270 days (Proposal shall be valid for 270 days after the date of submission of proposal). The location for negotiation of proposal is: General Manager (P&CA) National Highway Authority 28-Mauve Area G-9/1 Islamabad Telephone: +92-51-9032727 Facsimile: +92-51-9260419																														
5.2	The evaluation of technical proposal shall be based on following criteria: <table><thead><tr><th>Sr. No.</th><th>Description / Items</th><th>Points</th></tr></thead><tbody><tr><td>1.</td><td>Experience of the Firm</td><td>100</td></tr><tr><td></td><td>1-a) General Experience in road Transport Sector *</td><td>(25)</td></tr><tr><td></td><td>1-b) Specific Experience related to particular Assignment*</td><td>(75)</td></tr><tr><td>2.</td><td>Approach & Methodology</td><td>250</td></tr><tr><td></td><td>2-a Appreciation of the Project</td><td>(70)</td></tr><tr><td></td><td>(i). Evidence of Site Visit with Photographs</td><td>(30)</td></tr><tr><td></td><td>(ii). Clarity of appreciation</td><td>(20)</td></tr><tr><td></td><td>(iii). Comprehensiveness of appreciation</td><td>(20)</td></tr><tr><td></td><td>2-b Problem Statement/ Understanding of Objectives</td><td>(50)</td></tr></tbody></table>	Sr. No.	Description / Items	Points	1.	Experience of the Firm	100		1-a) General Experience in road Transport Sector *	(25)		1-b) Specific Experience related to particular Assignment*	(75)	2.	Approach & Methodology	250		2-a Appreciation of the Project	(70)		(i). Evidence of Site Visit with Photographs	(30)		(ii). Clarity of appreciation	(20)		(iii). Comprehensiveness of appreciation	(20)		2-b Problem Statement/ Understanding of Objectives	(50)
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	(ii). Clarity of appreciation	(20)																													
	(iii). Comprehensiveness of appreciation	(20)																													
	2-b Problem Statement/ Understanding of Objectives	(50)																													



	(i).	Identification of Problems/ Objectives	(30)
	(ii).	Components of Proposed Services	(20)
	2-c	Methodology	(80)
	(i).	Proposed Solutions for this Project	(30)
	(ii).	Quality of Methodology	(20)
	(iii).	Conciseness, clarity and completeness of proposal**	(30)
	2-d	Suggested changes for improvement in TOR	(10)
	2-e	Work Program	(20)
	2-f	Staffing Schedule	(20)
3.		Key Staff***	450
4.		Performance Certification from clients****	100
5.		Present Commitments (current engagement and available strength – justification)	50
6.		Transfer of Knowledge (Methodology/ Plans) *****	50
		Total Points:	1000
		Minimum qualifying technical score:	700
	*	General Experience: Maximum fifteen (15) best projects completed, indicating their worth, person man-months of key personnel and duration of the project shall be provided under general experience for consideration in evaluation. Specific Experience: Maximum ten (10) projects completed in the last ten 10 years indicating their worth, person man-months of key personnel and duration of the project shall be provided under specific experience for consideration in evaluation. Note: Any project mentioned completed under Form A-2 (<i>Specific Experience</i>) will not be considered for evaluation unless Assignment Completion Certificate/ substantially completed with satisfactory remarks by the client's representative, is attached. The Client NHA reserves the right to verify the Performance/ Assignment Completion Certificates. For verification of international experiences/ projects, the functional email address of specific client must be provided by the Consultant.	
	**	Conciseness and clarity contain 10 marks and 20 marks will be for the completeness of the proposals which includes but not limited to hard binding, sequential page numbering, signing and stamping of each page of proposal.	
	***	Firm affidavit for presence of personnel carries 25 marks out of 450 marks (complete in all respect as per specimen annexed at Annex-C placed in Technical Proposal Forms).	
	****	Authentic Performance/ Client Satisfaction Certificates (with proper Letter Reference No., Issued date, Sign/Stamp) shall be provided for assigning score in evaluation (at least for the three projects/ assignments, competed in the last five (05) years prior to date of submission of proposal) indicating the Title of project, Staff-Months of Key Personnel provided by the firm & completion date. The Client NHA reserves the right to verify the Performance/ Assignment Completion Certificates. The Client NHA also reserves the right to verify/ inquire about the performance of the consultants on its ongoing projects. (Note: Scoring of Marks will be affected, if any adverse performance rating of consultant, is reported by any section of NHA) 25 out of 100 marks will be allocated for provision of affidavit on stamp paper duly attested by the Oath Commissioner to the effect that the firm has neither been blacklisted nor any contract rescinded in the past for non-fulfillment of contractual obligations (complete in all respect as per specimen annexed at Annex-B placed in Technical Proposal Forms).	



	***** Transfer of knowledge would be in the form of association with new/ less experienced firm(s) by sharing upto maximum 7.5% of Assignment viz-a-viz input with them for promoting the consultancy industry in the country. The nomenclature of new/less experience firm be nominated as sub-consultant, whose name will be stated in their proposal. <i>Criteria for New firm is as under:</i> i) is the one which has not carried out more than three (3) projects. ii) The new /less experienced firm(s) after having executed three relevant projects be promoted to an independent regular firm. The new company will not be overburden with more than two projects simultaneously having overlapping effect. iii) The new firm must be registered with Pakistan Engineering Council (PEC) but the requirement of the specific PEC profile code is mandatory for the input he is likely to render. The points earmarked for evaluation sub-criteria (3) for suitability of Key Staff are: <table><tr><th>Sr. No.</th><th>Description / Items</th><th>Points (%)</th></tr><tr><td>i.</td><td>Academic and General Qualifications</td><td>30</td></tr><tr><td>ii.</td><td>Professional experience related to the Project</td><td>60</td></tr><tr><td>iii.</td><td>Status with the firm (Permanent & duration with Firm as per Data Sheet Clause 3.1.4 (d)</td><td>10</td></tr><tr><td colspan="2">Total Points:</td><td>100</td></tr></table>	Sr. No.	Description / Items	Points (%)	i.	Academic and General Qualifications	30	ii.	Professional experience related to the Project	60	iii.	Status with the firm (Permanent & duration with Firm as per Data Sheet Clause 3.1.4 (d)	10	Total Points:		100
Sr. No.	Description / Items	Points (%)														
i.	Academic and General Qualifications	30														
ii.	Professional experience related to the Project	60														
iii.	Status with the firm (Permanent & duration with Firm as per Data Sheet Clause 3.1.4 (d)	10														
Total Points:		100														
5.3.1	Following is added: The words “three top-ranking qualifying consulting firms” is deleted in its entirety and replaced with the words “qualifying consultants” The date, time, and address of the financial proposal opening shall be informed after evaluation and approval of technical proposals, accordingly.															
5.3.3	The weights given to the Technical and Financial Proposals are: Technical (T%): 80% Financial (P%): 20%															
6.1	Add following at the end of this Para: Negotiation meeting will be called if required by the client.															
7.2	The assignment is expected to commence in February 2026															
8	The Clause is deleted in its entirety															



SUMMARY EVALUATION SHEET FOR FULL TECHNICAL PROPOSALS (QCBS)

EVALUATION CRITERIA	Max. Weightage	Firm 1		Firm 2	
		Rating	Score	Rating	Score
1. Firms Experience	100				
General Experience in road Transport Sector	25				
Specific Experience related to particular Assignment	75				
2. Approach and Methodology	250				
2-a. <u>Appreciation of the Project</u>	70				
(i) Evidence of Site Visit with Photographs	(30)				
(ii) Clarity of appreciation	(20)				
(iii) Comprehensiveness of appreciation	(20)				
2-b. <u>Problem Statement/ understanding of objectives</u>	50				
(i) Identification of Problems/ Objectives	(30)				
(ii) Components of Proposed Services	(20)				
2-c. <u>Methodology</u>	80				
(i) Proposed Solutions for this Project	(30)				
(ii) Quality of Methodology	(20)				
(iii) Conciseness, clarity and completeness of proposal	(30)				
2-d. Suggested Changes for Improvement in TOR	10				
2-e. Work Program	20				
2-f. Staffing Schedule	20				
3. Key Personnel	450				
Firm affidavit for presence of personnel	25				
i. Team Leader/ Senior Structural Engineer	100				
ii. Senior Structural Engineer / Bridge Engineer	70				
iii. Pavement Engineer	60				
iv. Geometric /Highway Engineers	60				
v. Geotechnical Engineer	55				
vi. Traffic /Transport Economist	40				
vii. Financial Economic Analyst	40				
4. Performance Certification from clients	75				
Affidavit on stamp paper duly attested by the Oath Commissioner regarding non-blacklisting	25				
5. Present Commitments (current engagement and available strength – justification)	50				
6. Transfer of Knowledge (Methodology/ Plans)	50				
TOTAL:	1000				

Excellent - 100% Very Good - 90-99% Above Average – 80-89% Average – 70-79% Below Average – 1-69% Non-complying – 0%,
 Score: Maximum Weightage rating / 100. Minimum qualifying score is 70% or 700 marks.

PERSONNEL EVALUATION SHEET

POSITION / AREA OF EXPERTISE	Name	Academic and General Qualification Weightage 30%		Project related Experience Weightage 60%		Status with the Firm 10%		OVERALL RATING (Sum of Weighted Ratings)
		Percentage Rating	Weighted Rating (A)	Percentage Rating	Weighted Rating (B)	Percentage Rating	Weighted Rating (C)	(A+B+C)
(Show all experts to be evaluated)								
i. Team Leader/ Senior Structural Engineer								
ii. Senior Structural Engineer / Bridge Engineer]								
iii. Pavement Engineer								
iv Geometric /Highway Engineers								
v. Geotechnical Engineer								
vi. Traffic /Transport Economist								
vii. Financial Economic Analyst								

Rating: - Excellent - 100% Very good – 90-99% Above Average – 80-89% Average – 70-79% Below Average – 1-69% Non-complying - 0%

Score: Maximum Weightage X rating / 100. Minimum qualifying score is 70%.

Note: Bidder shall submit evidence of their permanent employment by submitting an attested photocopy of appointment letter/ Salary Slip of each expert otherwise zero marks will be allocated for “status with firm [Clause 5.2 sub-criteria- 3 (iii)]”.



TECHNICAL PROPOSAL FORMS



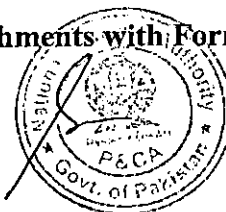
Technical Proposal – Forms

{Notes to Consultant shown in brackets throughout this Section provide guidance to the Consultant to prepare the Technical Proposal; they should not appear on the Proposals to be submitted.}

Checklist of Required Forms (subparagraph 3.1.3 of ITC)

Required, (√)	FORM	DESCRIPTION	Page Limit
√	A-1	Technical Proposal Submission Form	
√	A-1 Attachment	Proof of legal status and eligibility	
“√” If applicable	A-1 Attachment	If the Proposal is submitted by a joint venture, attach a letter of intent.	
“√” If applicable	A-1 Attachment Power of Attorney	Power of attorney for the authorized representative of the lead firm as per instructions given in specimen of letter of intent (Annexure-D).	
√	A-2	Consultant's Organization and Experience.	As given below
		A. Consultant's Organization	3
		B. Consultant's Experience/ Client's Reference (excluding certificates)	20
		C. Client's Satisfaction Certificate alongwith details	10
√	A-3	Approach Paper on Methodology proposed for Performing the Assignment	50
√	A-4	Comments/ Suggestions of Consultant	[See footnote] ¹
		A. On the Terms of Reference	n/a
		B. On the Counterpart Staff and Facilities	2
√	A-5	Format of Curriculum Vitae (CV) for proposed Key Personnel	8 pages each CV
√	A-6	Completion and Submission of Reports as per TOR	n/a
√	A-7	Composition of the Team Personnel and the Tasks to be Assigned to each Team Member	n/a
√	A-8	Work Plan /Activity Schedule	n/a
√	A-9	Work Plan and Time Schedule for Key Personnel (<i>Man-months of staff and Project Duration as per TOR.</i>)	n/a
√	A-10	Current Commitments of the Firm	n/a

Note: Failure to provide required attachments with Form A-1 will entitle the Client to reject the proposal



¹ The total number of pages for combined forms A-3 and A-4 should not exceed 50. A page is defined as one printed side of A4 or letter-size paper with font size of 10 or more. In case of non-compliance, scoring for proposal clarity and presentation will be reduced.

TECHNICAL PROPOSAL SUBMISSION FORM

(To be required from lead firm only)

{Location, Date}

To: [Name and address of Client]

Dear Sirs:

We, the undersigned, offer to provide the ... [NAME OF THE PROJECT] in accordance with your Request for Proposals. We are hereby submitting our Proposal, which includes this Technical Proposal and a Financial Proposal sealed in a separate envelope.

(If the Consultant is a joint venture, insert the following):

We are submitting our Proposal in a joint venture with: (Insert a list with full name and the legal address of each member and indicate the lead member). We have attached a copy of our letter of intent to form a joint venture, which details the likely legal structure of and the confirmation of joint and severable liability of the members of the said joint venture.

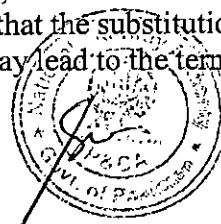
OR

(If the Consultant's Proposal includes Sub-consultants, insert the following):

We are submitting our Proposal with the following firm(s) as Sub-consultants: (Insert a list with full name and country of each Sub-consultant.)

We hereby declare that:

- (a) All the information and statements made in this Proposal are true and we accept that any misinterpretation or misrepresentation contained in this Proposal may lead to our disqualification and/or imposition of any sanction by the client.
- (b) Our Proposal shall be valid and remain binding upon us for the period of time specified in the Data Sheet, Clause 4.5.
- (c) We have no conflict of interest in accordance with ITC Clause 1.9.
- (d) We meet the eligibility requirements as stated in Data Sheet Clause 1.8.
- (e) Neither we, nor our JV Partner(s)/sub-consultant(s) or any of the proposed experts prepared the TOR for this consulting assignment.
- (f) Within the time limit stated in the Data Sheet, Clause 4.5, we undertake to negotiate a Contract on the basis of the proposed Key Personnel. We accept that the substitution of Key Personnel for reasons other than those stated in ITC, Clause 6.5 may lead to the termination of Contract negotiations.



- (g) Our Proposal and any modifications resulting from the Contract negotiations is binding upon us.
- (h). Our firm/ each member of our JV is not participating in any other proposal for this Project.

We undertake, if our Proposal is accepted and the Contract is signed, to initiate the Services related to the Project not later than the date mentioned in Data Sheet 4.5 (*or the date extended with the written consent of Consultant in case of delay in procurement process*)

We understand that the Client reserves the right to reject all proposals as per PPRA Rules.

We remain,

Yours sincerely,

Signature of Authorized Representative* of the Lead Firm:

{In full} _____ {and initial} _____

Name and Title of Signatory: _____

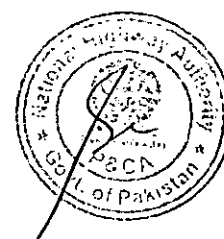
Name of Consultant (Firm's name or JV's name): _____

In the capacity of: _____

Address: _____

Contact information (phone and e-mail): _____

** The above signatory or his authorized representative should attend the proposal submission and opening with authority to sign and stamp any missing pages of proposal in line with instructions given in clause 1.8 of the Data Sheet. The specimen of authorization for submission is given at Annexure-D.*



Form A-2**CLIENT'S REFERENCE**

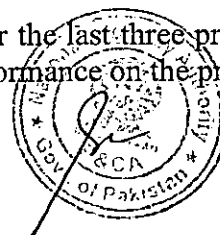
- **A. Detail about consultant(s) Organization.**
- Hierarchy/ organizational chart, Office address, Employees details, etc.,
- **B. Relevant Services (as per RFP notice) carried out in the last ten years (10) which best illustrate qualifications**
- General experience in road Transport Sector; maximum fifteen (15) best projects completed. (to be provided in tabular form showing cost, duration, man-months and brief description of services performed)
 - Specific experience (maximum ten (10) projects completed in the last ten (10) years, related to particular assignment, should be given on following format:

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

Assignment Name:		Country:
Location within Country:		Professional Staff Provided by Your Firm:
Name of Client: Email Address:		No. of Staff:
Address:		No. of Staff Months:
Start Date (Month/Year):	Completion Date (Month/Year):	Approx. Value of Services (in Current US\$/Rs.)
Name of Associated Firm (s), if any:		No. of Months of Professional Staff Provided by Associated Firm(s)
Name of Senior Staff (Project Director/Coordinator, Team Leader) involved and functions performed:		
Narrative Description of Project		
Description of Actual Services Provided by Your Staff		

- **C. Performance/ Client Satisfaction Certificates (at least for the last three projects/assignments completed in the last five years) clearly mentioning the performance on the project.**

Consultants' Name: _____



Form A-3**APPROACH PAPER ON METHODOLOGY PROPOSED FOR PERFORMING THE
ASSIGNMENT**

(Form TECH-3: a description of the approach and methodology for performing the assignment, including a detailed description of the proposed methodology, work programme, site visit detail and so forth along with training, if the Terms of Reference specify training as a specific component of the assignment.)



Form A-4 (A and B)**COMMENTS/SUGGESTIONS OF CONSULTANT**

[Provide here comments and suggestions on the Terms of Reference that could improve the quality/ effectiveness of the Assignment; and on requirements for counterpart staff and facilities, which are provided by the Client, including: administrative support, office space, local transportation, equipment, data, etc., separately under Forms Form-4A and Form-4B respectively.]

A. On the Terms of Reference (TOR)

1.

2.

Etc.,

B. On the data, services and facilities to be provided by the Client specified in the TOR.

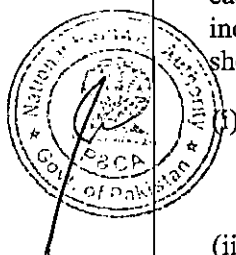
1.

2.

Etc.

Note:

1. The Consultant may propose a team of experts to best achieve the scope of service and activities and to deliver outputs as required in TOR. Proposed changes in position/individual inputs should be indicated and reasoned in the Technical Proposal but incorporated only in the Financial Proposals (showing excess/saving, in datum Price as worked out with the person months indicated in the RFP, which must be clearly bifurcated and marked red at each place for acceptance or otherwise by the Client at its prerogative during negotiations).
 - (i) The Proposal may assign person-month inputs differently from TOR. However, Key Personnel input totals in the Proposal should not be less than the minimum totals of person-months inputs mentioned in Data Sheet Sub-Clause-3.1.4 respectively.
 - (ii) The Proposal may include additional expert position/s. However, additional expert will be considered Non Key Personnel for the purpose of proposal evaluation.
 - (iii) If the Proposal drops or replaces a Key Personnel position with a different one, the original position will receive zero score in the technical evaluation and the new position added in the Proposal will be considered Non Key and will not be evaluated.
 - (iv) **DO NOT INCLUDE EXCESS/SAVING INFORMATION IN TECHNICAL PROPOSAL.** If Technical Proposal includes financial information, the Proposal will be rejected under Clause-3.1.5 of ITC.
2. When the Consultant suggests a change in scope of service, activities or output, the Consultant must describe the details in Form-4A and the change should not be incorporated in the Proposal. Enumerate each suggestion in Form-4A with incremental cost as a separate attachment to Financial Proposal indicating breakdown into individual remuneration and expenses for each suggestion. Forms A-11 to 17 should be prepared without incorporating the changes.
 - (i) If Financial Proposal provides no separate attachment about incremental cost to a suggestion, the suggestion will be considered at no additional cost to the Client and no negotiations for an incremental cost shall be done;
 - (ii) **DO NOT INCLUDE INCREMENTAL COST INFORMATION IN TECHNICAL PROPOSAL.** If Technical Proposal includes financial information, the Proposal will be rejected under Clause-3.1.5 of ITC.



Form A-5**FORMAT OF CURRICULUM VITAE (CV) FOR PROPOSED KEY STAFF**

1. Proposed Position: _____
2. Name of Firm: _____
3. Name of Staff: _____
4. Profession: _____
5. Date of Birth: _____
6. Years with Firm: _____
7. Nationality: _____
8. N.I.C Number: _____ (Attached Copy)
9. Cell Number: _____
10. Membership in Professional Societies: _____
[for Local Experts: Valid Membership Certificate of PEC is Mandatory for Engineers. Copy of online updated PEC/relevant council details, as per Membership Number will be attached]
11. Detailed Tasks Assigned on the Project: _____

◆ **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 up to one page].

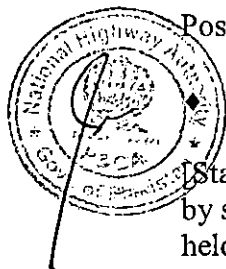
For Master's and PhD Qualification, the Consultants are advised to strictly mention the field of specialization of the proposed individuals.

◆ **Education**

[Summarize college/university and other specialized education of staff member, giving names of institutions, dates attended and degrees obtained. Mention majors/research work carried out during Post Graduation].

◆ **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 organizations, title of positions held and location of assignments. For experience, also give types of activities performed and Client references, where appropriate].



◆ Languages

[Indicate proficiency in speaking, reading and writing of each language: excellent, good, fair, or poor].

◆ Certification

I, the undersigned, certify to the best of my knowledge and belief that

- (i) This CV correctly describes my qualifications and experience.
- (ii) I am not a current employee of the Executing or the Implementing Agency.
- (iii) In the absence of medical incapacity, I will undertake this assignment for the duration and in terms of the inputs specified for me in Form A-9 provided team mobilization takes place within the validity of this proposal.
- (iv) I was not part of the team who wrote the terms of reference for this consulting services assignment
- (v) I am not currently debarred by any department/organization/ (semi-autonomous/ autonomous) bodies or such like institutions in Pakistan.
- (vi) I certify that I have been informed by the firm that it is including my CV in the Proposal for the {name of project and contract}. I confirm that I will be available to carry out the assignment for which my CV has been submitted in accordance with the implementation arrangements and schedule set out in the Proposal.

If CV is signed by the firm's authorized representative:

- (vii) I, as the authorized representative of the firm submitting this Proposal for the {name of project and contract}, certify that I have obtained the consent of the named expert to submit his/her CV, and that s/he will be available to carry out the assignment in accordance with the implementation arrangements and schedule set out in the Proposal, and confirm his/her compliance with paras (i) to (v) above.
- (viii) Latest colored attested photograph stapled attached with the CV.

I understand that any willful misstatement described herein may lead to my disqualification or dismissal, if engaged.

Signature of candidate/ authorized
representative of the Lead firm

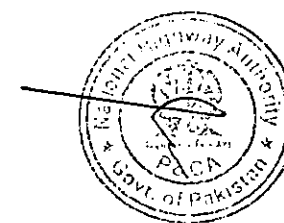
Date: _____
Day/Month/Year

Note: copy or scanned signatures are not allowed



Form A-6**COMPLETION AND SUBMISSION OF REPORTS AS PER TOR**

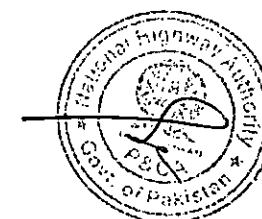
Reports		Date
1.		
2.		
3.		
4.		
5.		
6.		
7.		
8.		
9.		



Form A-7**COMPOSITION OF THE TEAM PERSONNEL AND THE TASKS TO BE ASSIGNED TO EACH TEAM MEMBER**

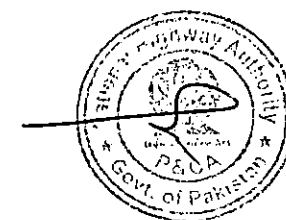
1. Technical/Managerial Staff

NAME	POSITION	Tasks Assignment	Present location	Name of assignment involved and clients name



Form A-8**WORK PLAN /ACTIVITY SCHEDULE**

Items of Work/Activities	Monthly Program from date of assignment (in the form of a Bar Chart)														
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15



Form A-9

WORK PLAN AND TIME SCHEDULE FOR KEY PERSONNEL

Name	Position	Months (in the form of a Bar Chart)															Number of Months
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	

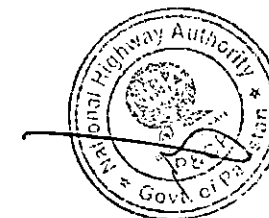
Full Time: _____

Part Time: _____

Activities Duration _____

Yours faithfully,

 Signature _____
 (Authorized Representative)

 Full Name _____
 Designation _____
 Address _____


Form A-10**CURRENT COMMITMENTS OF THE FIRM**

(In case of JOINT VENTURE (JV), same will be provided by each member in the JV)

(Current engagement and available Strength-Justification)

(List MUST be comprehensive including projects from clients other than NHA as well)

Name of project	Single or JV/Role	Task Assignment	Start date of the project	Expected date of completion	Current Engagement (Manpower)	Available Strength (Manpower)

Total Manpower of the Consultant: _____

Justification of current engagement and available strength: _____

Note: If the consultant provides misrepresentation or misinterpretation of facts then, the Client has right to reject the proposal at any stage.

Annex-A

Specimen
(On Lead Firm's letterhead)

LETTER OF INTENTION

Subject: Technical and Financial Proposals for Consultancy Services for (Name of Project)

This Joint Venture (JV) is made among following parties;

- 1) M/s _____ as Lead Firm having ____% share.
- 2) M/s _____ as JV Partner having ____% share.
- 3) M/s _____ as JV Partner having ____% share.
- 4) M/s _____ as JV Partner having ____% share.

The above firms are jointly and severally liable to the Client for preparation of Technical and Financial Proposals for Consultancy Services for "[NAME OF THE PROJECT]" (hereinafter called "The Project").

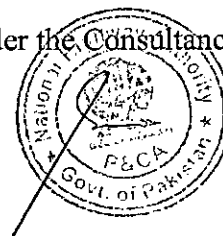
The Firms hereto confirm the understanding as follows:

1. Objective

It is hereby agreed to form a Joint Venture for preparation of Technical and Financial Proposals for Consultancy Services for "The Project" to be submitted to National Highway Authority, Islamabad (hereinafter called "The Client").

The Parties intend to do the following:

- a. Prepare and submit a mutually agreed Technical and Financial Proposals for the Project;
- b. Agree to propose suitable staffing with high level of competence to form a competitive team for the Project.
- c. Enter into the mutually agreed Consultancy Contract Agreement with the Client, if the project is awarded.
- d. Perform all the services to be undertaken for the Project under the Consultancy Contract Agreement if signed.



2. The authorized representative of JV shall be M/s..... for the future official correspondence with the client on behalf of JV.
3. This letter of intension shall remain valid till the bid validity/ extended bid validity period.

For and on behalf of

.....

Sign & Seal of the Lead Firm

.....

(Authorized Representative of the Firm)*

.....

Sign & Seal of the Firm

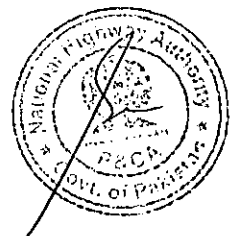
JV Members (1,2,3 etc.)

.....

(Authorized Representative of the Firm)*

** Authorized Representative to sign the Letter of Intention can be;*

- *For Sole Proprietor firm; Owner of the Firm, otherwise Owner may authorize any person. (Provided Authorization Letter be submitted)*
- *For Partnership firm; Director of the Firm; otherwise, authorized personnel (provided Authorization Letter be submitted).*
- *For Private Limited firm; Director of the Firm, otherwise, authorized personnel (provided Authorization Letter be submitted).*
- *For Public Private Limited firm; Director of the Firm, otherwise, authorized personnel (provided Authorization Letter be submitted).*



Annex-B**AFFIDAVIT**
(Regarding Blacklisting)Subject: [NAME OF THE PROJECT]

I, the undersigned, do solemnly declare that M/s [NAME OF THE FIRM] has neither been blacklisted nor any contract rescinded in the past for non-fulfillment of contractual obligations.

Signature of Authorized
Representative of the firm(s)

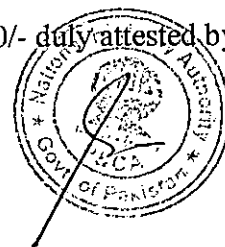
Date: _____
Day/Month/Year

(Seal)

Attested by
the Oath
Commissioner

Note:

- The Affidavit is to be submitted on Stamp Paper of minimum Rs. 30/- duly attested by the Oath Commissioner.
- In case of Single Entity, to be provided by the firm.
- In case of JV, to be provided by all the JV members



Annex-C

UNDERTAKING
(Regarding Personnel Availability)

Subject: [NAME OF THE PROJECT]

I, the undersigned, do solemnly declare that the proposed personnel shall be available for the subject assignment in the project duration as per the terms and condition specified in the Request for Proposal (RFP).

Signature of Authorized
Representative of the Lead firm

Date: _____
Day/Month/Year

(Seal)

Attested by
the Oath
Commissioner

Note: The Affidavit, on Stamp Paper of minimum Rs. 30/- duly attested by the Oath Commissioner, is to be submitted by the Lead firm only.



Annex-D

General Manager (P&CA)
National Highway Authority,
Islamabad, **Pakistan**

Power of Attorney
(Regarding submission of proposal)

Subject: [NAME OF THE PROJECT]

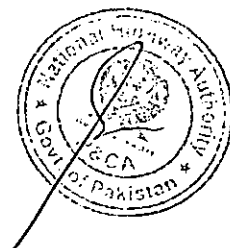
Dear Sir,

I, the undersigned, authorize Mr. _____ S/o Mr. _____ having CNIC No. _____ to attend the submission and Opening of Proposals on behalf of all JV members. *(Insert name of sole consultant in case of single entity else name of all JV members).* He is authorized to attend, submit, sign and stamp any missing pages of the proposal (Technical and Financial) for above-mentioned project on... *(Insert date).*

Signature: _____ Initial _____ Date: _____
Authorized Representative
[Name & Designation]

Signature: _____
Name: _____
[Designation (CEO/MD/Sole Propertier)]
[Consultant Name]

If more than one owner or Board of Directors, then the consultant may add other names as per requirements.



Annex-E

General Manager (P&CA)
National Highway Authority,
Islamabad, **Pakistan**

POWER OF ATTORNEY

(To sign the Contract Agreement which will be submitted by successful consultant at the time of signing of contract)

Subject: [NAME OF THE PROJECT]

Dear Sir,

I/We, the undersigned, authorize Mr. _____ S/o Mr. _____ having CNIC No. _____ of *[Name of the Lead Firm]* to sign the Contract Agreement of the project [NAME OF THE PROJECT] on behalf of *[CONSULTANT NAME]*. Furthermore, Mr. _____, *[Lead Firm]* is the authorized representative as per General Conditions of Contract and Special Condition of Contract (Clause 1.6) for execution of the Contract.

Signature: _____ Initial _____

Date: _____
Day/Month/Year

Authorized Representative [Lead Firm]

[Name & Designation]

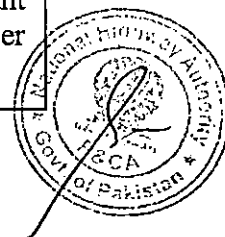
Signature: _____

Name: _____

[Designation (CEO/MD/Sole Propertier)]

[Consultant Name]

If more than one owner or Board of Directors, then the consultant may add other names as per requirements.



FINANCIAL PROPOSAL FORMS



Form A-11

FINANCIAL PROPOSAL SUBMISSION FORM

{Location, Date}

To: [Name and address of Client]

Dear Sirs:

We, the undersigned, offer to provide the consulting services for [**Insert the Project Name**] in accordance with your Request for Proposal dated [Insert Date] and our Technical Proposal.

Our attached Financial Proposal is for the amount of {Insert amount in words and figures}, *including all Federal, Provincial & local taxes applicable as per law of the land*. {Please note that all amounts shall be the same as in Financial Proposal Form A-17}.

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. before the date indicated in Clause 4.5 of the Data Sheet.

We confirm that we have no condition to state that may have financial implications over and above the amount quoted above.

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

We remain,

Yours sincerely,

Authorized Signature* {In full} _____ {and initial} _____

Name and Title of Signatory: _____

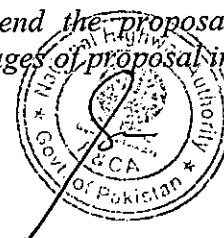
Name of Consultant (Firm's name or JV's name): _____

In the capacity of: _____

Address: _____

Contact information (phone and e-mail): _____

* The above signatory or his authorized representative should attend the proposal submission and opening with authority to sign and stamp any missing pages of proposal in line with instructions given in clause 1.8 of the Data Sheet.



Form A-12**BREAKDOWN OF RATES FOR CONSULTANCY CONTRACT**

Project: _____ Consultant: _____

Name	Position	Name of the Firm	Basic Salary per Cal. Month	Social Charges (%age of 1)	Basic Salary+ Social Charges (1+2)	Over head (%age of 3)	Sub-Total (3+4)	Fee (%age of 5)	Rate per Month for project Office (5+6)	Field Allow. (%age of 1)	Rate per Month for Field Work (7+8)	Rate to be used in Financial Proposal
			(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)

Notes:

Item No. 1 Basic salary shall include actual gross salary before deduction of taxes. **Furthermore, basic salary should at least meet the minimum wages (for support staff) as per Federal Labor Law or Provisional Labor law, whichever the case and the individual staff shall be paid their salaries as per basic rates specified herein above.**

Item No. 2 Social charges shall include Client's contribution to social security, paid vacation, average sick leave and other standard benefits paid by the company to the employee. Breakdown of proposed percentage charges should be submitted and supported (see Form A-13).

Item No. 4 Overhead shall include general administration cost, rent, clerical and junior professional staff and business getting expenses, etc. Breakdown of proposed percentage charges for overhead should be submitted and supported (see Form A-14).

Item No. 6 Fee shall include company profit and share of salary of partners and directors (if not billed individually for the project) or specified in overhead costs of the Company.

Item No. 8 Normally payable only in case of field work under hard and arduous conditions.

Note 1 The consultant is to provide appointment letter and affidavit/undertaking duly signed by each of the individual staff members showing salary rates as above to the project authorities. Further during execution each invoice will also be provided showing that the staff have been paid their salaries as per basic rates specified therein. Failing to which, the Client will take punitive action against the consultant and shall deduct the deficient amount from his monthly invoice. Moreover, it will be considered as a negative mark on his performance that will be considered for future projects.



Full Name: _____

Signature: _____

Title: _____

Form A-13

BREAKDOWN OF SOCIAL CHARGES

[illegible]

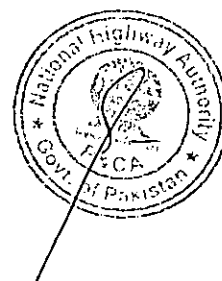
***Note:** Each Firm shall use its own social charges (%age) for calculating salaries of its staff i.e. 'Rate to be used in Financial Proposal' in Form A-12.



Form A-14**BREAKDOWN OF OVERHEAD COSTS**

Sr.No.	Detailed Description	As a %age of Basic Salary and Social Charges*		
		Firm-1	Firm-2	Firm-3.....

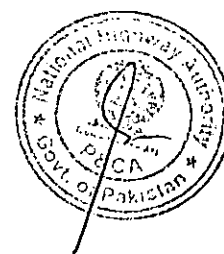
***Note:** Each Firm shall use its own overhead charges (%age) for calculating salaries of its staff i.e. 'Rate to be used in Financial Proposal' in Form A-12.



**A - ESTIMATED LOCAL CURRENCY SALARY/ REMUNERATION COSTS
EQUIVALENT IN US DOLLARS**

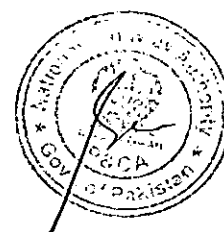
[Refer also to Notes under Form A-4]

Sr. No.	Name	Position	Person-Months	Monthly Billing Rate (US \$)	Total Estimated Amount (US \$)
A. All Foreign Expatriates including Foreign Specialist Sub-consultant (if any)					
Sub-Total:					



ESTIMATED LOCAL CURRENCY SALARY COSTS/REMUNERATION**KEY EXPERTS**

Sr. No.	Position	No. of persons	Individual Man Months	Monthly Billing Rate	Total Estimated Amount (Rs.)
Key Experts					
1	Team Leader/ Senior Structural Engineer	1	5.00		
2	Senior Structural Engineer / Bridge Engineer	1	4.00		
3	Pavement Engineer	1	2.00		
4	Geometric /Highway Engineer	1	2.00		
5	Geotechnical Engineer	1	1.00		
6	Traffic /Transport Economist	1	1.00		
7	Financial Economic Analyst	1	1.00		
	Sub-Total:				

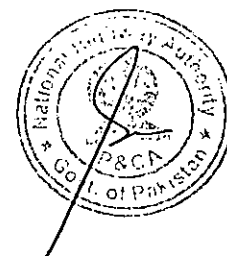


ESTIMATED LOCAL CURRENCY SALARY COSTS/REMUNERATION**NON-KEY / SUPPORT STAFF**

Sr. No.	Position	No. of persons	Individual Man Months	Monthly Billing Rate	Total Estimated Amount (Rs.)
1	Quantity Surveyor	2	5.00		
2	CAD Operators	2	5.00		
3	Computer Operators	2	5.00		
4	Trainee Engineer (Design Section)	2	5.00		
5	Helpers	2	5.00		
6	Peon	2	5.00		
Sub-Total:					

Note: The Consultants are required to quote the rates of Non-Key/Support Staff given in the TOR in above table keeping in view the latest/prevaling notification for minimum wages (i.e., Basic salary) issued by the concerned Labor and Manpower department/Ministry. The Consultant(s) may propose Non-Key/ Support Staff Person-Months in addition to those given in TOR; however, in such a case tenable reason must be given in the Technical Proposal Submission Form A-4 "Comments on TOR". The Client's negotiation committee will deliberate on the requirement of additional staff during negotiation meeting. It is also to be noted that the Client is not bound to agree to the reasons given in Form A-4.

Non-Key /Support Staff (To be Nominated) may be proposed by successful consultant at the time of Negotiations/ signing of contract agreement .

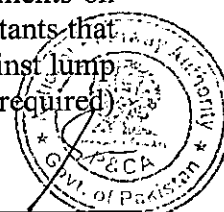


Form A-16

DIRECT (NON-SALARY) COSTS

Sr. No.	Nomenclature	Unit	Qty.	Unit Price (Rs.)	Total Amount (Rs.)
1.	Rent for Office Accommodation	L.S	-	-	
2.	Office Utilities Cost	L.S	-	-	
3.	Rental of furniture / furnishings	L.S	-	-	
4.	Cost (rentals) of Office / Other Equipment i. Computers & Accessories ii. Photocopy Machines iii. Communication Equipment iv. Drafting /Engineering Equipment v. Transport Vehicles vi. Site Visits and Meetings in Islamabad during currency of project & Construction Works.	L.S	-	-	
5.	Communication Expenses	L.S			
6.	Drafting / Reproduction of Reports	L.S			
7.	Hydraulic Model Study	P.S			11,500,000
8.	Detailed Topographic Survey (approach Roads on Both sides) including Monumentation, GCPs, Inventory of Structures and others references Points, Stakeout of alignment including Report & Drawing Production, Instrument Rental Charges, Surveyor (s) & Survey Helpers Salary etc. (Complete in all respects).	L.S	-		
9.	Hydrology /Hydraulic Study including Purchase of requisite Data, Report writing, Salary of Hydrologist/Hydraulic/Drainage Engineer (Complete in all aspects)	L.S			
10.	Riverine Survey (Complete in all aspects)	L.S	-		
11.	Traffic & Axle Load Survey including equipment report writing & Salary of Traffic Engineer & Enumerator as well Maintenance and Protection of Traffic (MPT) Plans and all traffic diversion plans (Complete in all respects).	L.S			
12.	Others not covered above to comply with ToR requirement*	L.S			
Total					

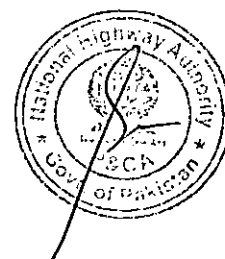
NOTE:* Any additional item/ cost quoted against this line item must have provided solid/ tenable justification(s) detailed in Technical Proposal Submission Form A-4 "Comments on TOR" without indicating financial value therein. It is also to be noted by the Consultants that the Client is not bound to agree to the reasons given in Form A-4. * Cost quoted against lump sum items (mentioned in above table) is all inclusive and remuneration of staff (if required) shall not be charged separately.



SUMMARY OF COST

Sr. No.	Description	Amount (Rs.)
1.	Salary Cost/Remuneration	
2.	Direct (Non-Salary) Cost	
3.	Sub Total (1+2):	
4.	Sales Tax @18% (As Applicable) which shall be kept as provisional Sum in the Contract Agreement	
	Grand Total ⁽¹⁾:	

- Note:
- 1- This cost is supposed to be built up in bid price and if anything is left blank it shall be deemed to be included in the cost. For evaluation purpose, only competitive cost shall be considered for calculation of financial score.
 - 2- The dues and salaries (as per basic rate) of staff are payable by the consultant in time and not later than 10th of the following month positively. In case of failure to do so Client shall intervene and pay these dues and salaries of the concerned Personnel and recover from the invoice of the consultant at actual charges paid plus 1% of the amount. This will also be accounted for adversely in making assessment of the Consultants in the next evaluation process for selection of consultants with report of such defaults.
 - 3- Any Omission or arithmetical error made by the consultants in entering the amount against item 4 above shall also be rectified during evaluation of the Financial Proposal. Deduction of GST will be as per prevailing rules and regulations.
 - 4- The grand total is inclusive of all the applicable Federal, Provincial and Local taxes. All these taxes are required to be built in the quoted rates and GST is to be mentioned separately.



1. PROPOSAL SECURING DECLARATION

[The Consultant shall fill in this Form in accordance with the instructions indicated.]

Date: *[insert date (as day, month and year)]*

Proposal No.: *[insert number of Proposal process]*

Alternative No.: *[insert identification No if this is a Proposal for an alternative]*

To: *[insert complete name of Procuring Agency]*

We, the undersigned, declare that:

We understand that, according to your conditions, Proposals must be supported by a Proposal Securing Declaration.

We accept that we will automatically be suspended from being eligible for Bidding in any contract with the Procuring Agency for the period of time as determined by the Authority if we are in breach of our obligation(s) under the Proposal conditions, because we:

- (a) have withdrawn or modified our Proposal during the period of Proposal Validity specified in the Form of Proposal;
- (b) Disagreement to arithmetical correction made to the Proposal price; or having been notified of the acceptance of our Proposal by the Procuring Agency during the period of Proposal Validity, (i) failure to sign the contract if required by Procuring Agency to do so or (ii) fail or refuse to furnish the Performance Security or to comply with any other condition precedent to signing the contract specified in the SRFP Documents.

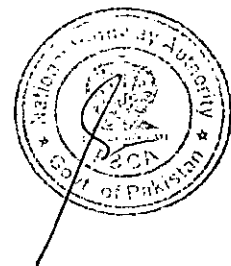
We understand this Proposal Securing Declaration shall expire if we are not the successful Service Provider, upon the earlier of (i) our receipt of your notification to us of the name of the successful Service provider; or (ii) twenty-eight (28) days after the expiration of our Proposal.

Signed: *[insert signature of person whose name and capacity are shown]* In the capacity of *[insert legal capacity of person signing the Proposal Securing Declaration]*

Name: *[insert complete name of person signing the Proposal Securing Declaration]*

Duly authorized to sign the Proposal for and on behalf of: *[insert complete name of Service Provider]*

Dated on _____ day of _____, _____ *[insert date of signing]*
Corporate Seal (where appropriate)



APPENDIX-A

TERMS OF REFERENCE

(TOR)



CHAPTER NO. 1

INTRODUCTION

1.1 BACKGROUND:

- NHA forwarded the Original PC-I Original PC-I (Complete Project including Bridge, Guide banks and approach roads) in February-2017 to MoC amounting to Rs. 7.085 Billion.
- CDWP approved the project at a cost of Rs. 2.985 Billion and made the following decision in its meeting held on September 19, 2017:

"The CDWP reconsidered its earlier decision of 6-7-2017 and approved the project with the cost of bridge portion and river training works / guide bunds with directions that Governments of Punjab and Khyber Pakhtunkhwa will take up the matter of construction of approach roads through their respective ADIs'."

- The Bridge portion was completed in August 2021.
- The Construction of Guide Banks was technically not feasible without the prior construction of approach roads, as both are interdependent.
- Since 2018, NHA site authorities have maintained extensive liaison with the Provincial Governments to facilitate construction of approach roads, enabling the simultaneous tendering of guide banks by NHA.
- In 2024, the Government of Khyber Pakhtunkhwa agreed to commence construction of the approach roads under its jurisdiction.
- However, the Government of Punjab did not respond or commence construction of the approach roads up to 2025.
- The update the design of the guide banks in accordance with Planning Commission guidelines, NHA sought recommendations from the IRI regarding river morphology.
- As per Planning Commission rules, any study older than three years must be updated before proceedings.
- IRI informed that a Departmental Expert Committee was convened on the April 29, 2025, which unanimously concluded that a new Hydraulic Model Study is imperative, as reiterated below:

"The Departmental Expert Committee member unanimously suggested that a fresh model study is required as the river morphology has significantly changed after elapsing of about 08-years"

Design updation of Guide Banks and Approach Roads of the Existing Bridge Across River Indus connecting Kallur
Kot down-stream/up-stream with D.I.



1.2 NEED ASSESSMENT:

- The project will facilitate construction material, agricultural product, and industrial products, in the Surrounding areas.
- Resolve the traffic congestion in the vicinity.
- Environmental and health conditions may be improved.
- Vehicle Operating Cost may be reduced.
- Massive impact of the project on land use will surely help in the progress of area and local people, as employment and business will be generated in vicinity by the implementation of the project.

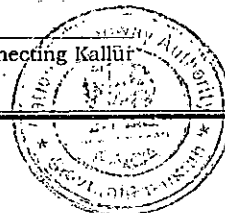
PROJECT DEFINITION:

DESIGN UPDATION OF GUIDE BANKS AND APPROACH ROADS OF THE EXISTING BRIDGE ACROSS RIVER INDUS CONNECTING KALLUR KOT DOWN-STREAM/UP-STREAM WITH D.I.

Project Activities

- The consultant will carry out Techno Economic Feasibility Study Report (Technical, Economic, Financial, Environmental. Social and etc.)
- Detailed Design.
- Preparation of PC-I
- Will assist in Preparation of Revised PC-I's (if required) upto approval.
- Traffic Study.
- Economic Analysis.
- Hydrological Study.
- Environmental Impact Assessment (EIA) Study Report along with NOC.
- Prepare Traffic Diversion Plan (if required)
- Prepare Land Acquisition & Utility Folders (if required).
- Initially the consultant will present a report to NHA regarding Feasibility Study after recommendation from NHA, will proceed further.
- Consultant will calculate Escalation as per Planning Commission guidelines & FIDIC. Accordingly, both cost estimates will be presented to NHA.
- In contract agreement regarding Bill-07 that the vehicle purchasing clause will be introduced in such a way that while purchasing of vehicles and transfer of these vehicles will be in the name of NHA, is the responsibility of contractor along with payment of Tax's upto completion of project.
- Consultant will ensure in the bill-7 that the vehicles will be purchased and registered through the relevant authority by the contractor in favor of NHA and payment of Tax's will rest on part of contractor upto completion of project.
- Preparation of tender drawing & document along with detail BOQ.
- Propose a proper road safety plan to ease out the road commuters.

Design updation of Guide Banks and Approach Roads of the Existing Bridge Across River Indus connecting Kallur Kot down-stream/up-stream with D.I.



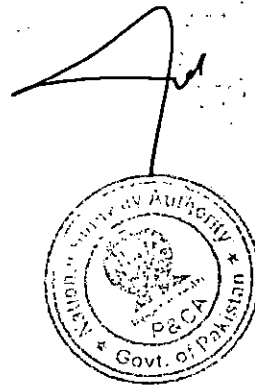
- Coordination with provincial departments, regional NHA office, KPHA and other related departments.
 - Toll plaza (if required) along with Solar and conventional arrangements.
- Social-Economic Impact Assesment: The consultant shall conduct a comprehensive impact analysis, focusing on Annual and Quarter-wise **direct employment** (during construction and operation period) and **indirect employment** (jobs creation in supply chain/road related sectors/industries such as Cement, Steel, Bitumen, Aggregate, Gasoline and others etc.)

1.3 PROJECT OBJECTIVES:

- This section is intended to provide safer, quicker and more efficient passage.
- Vehicle operating cost will be reduced & travel time will be saved.
- Job opportunities will be created for local people of surrounding areas.

1.4 TECHNICAL PARAMETERS (As per practice): -

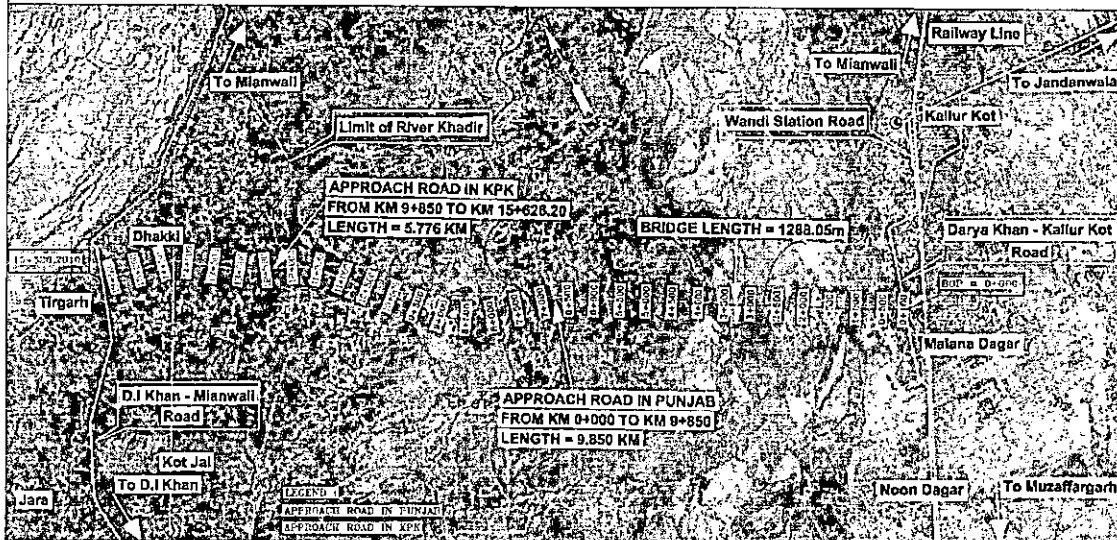
Carriageway Width	Two lanes each of 3.65 m for approach Roads
Bridge	4-lane
Shoulder Width	Inner 1m (if applicable) for dual carriageway Outer 3 m- 2.5 m paved 0.5 m rounding
Median	Varies as per requirement. Minimum NJ Barrier on Bridge
Maximum Super elevation	6%
Design Speed	80-100 Km/h



CHAPTER NO. 2

DESCRIPTION OF PROJECT

2.1 LOCATION OF PROJECT:



The project under consideration is located in Punjab province.

2.2 PROJECT WORKS

The Scope of Work provided by Design section for assignment has been defined in the TOR. Main Scope of work is given as under but not limited to the following: -

Design updation through fresh Hydraulic Model Study by IRI for Guide Banks and Approach Roads along with Existing Bridge (If Suggested by IRI) for Construction of 4-Lane Bridge, Approach Roads (2-lane), Across River Indus connecting Kallur Kot with D.I. Khan

The detail of scope of work is given in chapter 3 of TOR.

The Consultant may be required to prepare and give detailed Presentations at different forums as, when & where required.

2.3 TIME PERIOD:

The services specified in the TOR shall be completed and all relevant reports submitted in the form and format acceptable to the Employer, within 04 months from the date of signing of Contract Agreement.

Design updation of Guide Banks and Approach Roads of the Existing Bridge Across River Indus connecting Kallur Kot down-stream/up-stream with D.I.



2.4 FINANCIAL ARRANGEMENT:

The project (Design upation through fresh Hydraulic Model Study by IRI) will be financed through RMA funds of NHA. However, the funds shall be reimbursed to the RMA, once the project is included and funds allocated in the PSDP.



Design upation of Guide Banks and Approach Roads of the Existing Bridge Across River Indus connecting Kallur Kot down-stream/up-stream with D.I.

Ministry of Communications
National Highway Authority

TERMS OF REFERENCE

OF

**CONSULTANCY SERVICES FOR DESIGN UPDATION OF
GUIDE BANKS AND APPROACH ROADS OF THE
EXISTING BRIDGE ACROSS RIVER INDUS CONNECTING
KALLUR KOT D/S OR U/S WITH D. I. KHAN**



July-2026

CHAPTER - 3

3. The Chapter augments & elaborates the scope of services outlined in the preceding Chapter(s). The following table presents an overall summary of the services / deliverables for which the Consultant is required to coordinate with the Design Section of NHA.

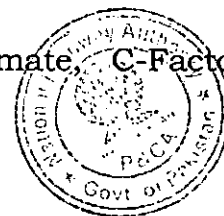
SEQUENCE OF ACTIVITIES**PHASE-I**

- i. Comments on Terms of Reference (ToR).
- ii. Data Collection/Co-ordination with local Departments, including Irrigation Department.
- iii. Detailed Topographic Survey (Approach Roads Both Sides).
- iv. Riverine Survey.
- v. Hydraulic Model Study (To be performed by IRI)
- vi. Hydrology and Hydraulic Study Report.

Note: Phase-II will be undertaken after the receipt of the Hydraulic Model Study Report by Irrigation Research institute (IRI). Commencement letter for both phases shall be issued separately.

PHASE-II

- vii. Updation of Pavement Design Report.
- viii. Updation of Geometric Design Report.
- ix. Design Updation of Guide Banks.
- x. Design Updation of Existing Bridge (If required by IRI).
- xi. Traffic and Axle Load Survey Report
- xii. Design of Approach Roads (Both Sides).
- xiii. Construction Machinery Report.
- xiv. Preparation of Revised PC-I.
- xv. Tender Documents, BOQ, Engineer's Estimate, C-Factor, Special Provision, etc.



3.1 CORRECTNESS OF DESIGN & CO-ORDINATION ENGINEER

Consultant is entrusted with the Scope of Work outlined above. It is required that the consultant should undertake the job in a professional manner to the best of his ability and resources. NHA as Client may offer comments through in-house review.

Any comments offered by the Client do not absolve the consultant from its obligation to develop correct and cost effective engineering solutions for the Projects. NHA reserves the right to take punitive actions as required at appropriate forum even during construction stage.

The consultant is required to deploy a qualified co-ordination engineer at the Project site. He will have at least an experience of 15 years in the relevant field. In case of any design ambiguities, he will liaison with the Design engineer for correcting deficiencies. His boarding and lodging shall be the responsibility of the Design Consultant. It is obligation of the Consultant to provide complete support to the Construction team even if he does not have the supervision.

3.2 Kick of Meeting:

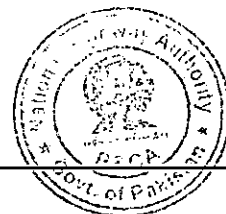
Kick-off meeting will be held wherein Consultant will present to NHA the approach & methodology for carrying out services and the corresponding timelines etc.

3.3 Road Design Standards

Following design standards and Codes Shall be followed:

The project will be two lane divided carriageway with:

Carriageway Width	Two lanes each of 3.65 m for approach Roads
Bridge	4-lane
Shoulder Width	Inner 1m (if applicable) for dual carriageway Outer 3 m- 2.5 m paved 0.5 m rounding
Cross falls normal	Carriageway 2% Shoulder 4%
Median	Varies as per requirement. Minimum NJ Barrier on Bridge
Maximum Super elevation	6%
Geometric Design Standards	"A Policy on Geometric Design of Highway & Streets Latest Edition"
Classification of Highway	Rural Highway
Design Speed	80-100 Km/h
Design Vehicle	6- Axle Trailer (1.22+222)



Terms of Reference

Consultancy Services for Design updation of Guide Banks and Approach Roads of the existing Bridge across River Indus connecting Kallur Kot D/S or U/S with D. I. Khan

Maximum Grade	3%
Minimum Grade	0.5% in cut and 0.3 % in fill
Drainage	Curb and Gutter and Chutes for controlled drainage.

3.4 Other Design Parameters

Geometric Design	<i>A Policy on Geometric Design of Highways and Streets</i> by AASHTO (preferably latest published version). Roller Coaster profile will not be acceptable at all.
Pavement Design	<i>AASHTO Guide for Design of Pavement Structures - 1993</i>
Roadside Design	<i>AASHTO Roadside Design Guide</i> (preferably latest published version)
Lighting	<i>Roadway lighting design guide</i> by AASHTO (preferably latest published version)
Structural Design	Refer to Clause # 4.3.12 of TOR
Drainage Design	<i>Highway Drainage Guidelines</i> by AASHTO (preferably latest published version)
Design of Traffic Control Devices, Work Zone Safety, and preparation of 'Maintenance & Protection of Traffic (MPT) Plans'	<i>Manual of Uniform Traffic Control Devices (MUTCD)</i> by FHWA USA (preferably latest published version) with due consideration to the requirements of NHA
For testing and specifications of materials, following codes and standards will be followed:	ASTM, AASHTO, NHA General Specifications etc.
Capacity Analysis and Level of Service analysis	<i>Highway Capacity Manual</i> (preferably latest published version)
Engineer's Estimate	As per prevailing CSR of NHA

3.5 Standards for Structures

Following codes, standards and loads will be adopted for analysis and design of structures:

- **AASHTO-(LRFD) – Latest Edition:**

For analysis and design for all loads and load combinations.

* All load factors have to be used as recommended by AASHTO LRFD. Only the Vehicular Live Load to be compared between AASHTO LRFD and WPHBC so as to arrive at the conservative loading.

- **Pakistan Highway Code of Practice for Bridges 1967: -**
For vehicular loads, their spacing.
- **Pakistan Building Code (PBC):**
For seismic zoning in addition to the revised seismic risk map of Pakistan.
- **ASTM:**
For material specifications & testing.
- **ACI:**
For analysis, design and detailing, only in case such details are not specified in AASHTO.
- **Vehicles Live Load :**
The Consultant shall carryout analysis based on both the Codes as mentioned below at Serial A & B and recommend the most conservative Code based on analysis results and subsequently follow the results of the conservative system for performing the detailed design.

A. WEST PAKISTAN CODE OF PRACTICE FOR HIGHWAY BRIDGES 1967 (WPCHB)

- **Class AA Loading:**

The 70-Ton tracked military vehicle to be placed in accordance with WPCHB to give maximum stresses. Modifying factors to be applied in consultation with Client to cater for overloading.

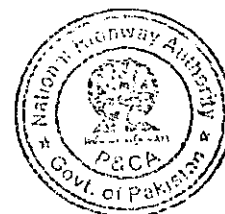
- **Class A Loading:**

The 54.5 Ton train of trailers (with different axle loads) to be placed in accordance with WPCHB to give maximum stresses. Modifying factors to be applied in consultation with Client to cater for overloading.

B. AASHTO LRFD

- **HL -93 Loading**

- **Load Calibration Factor:**



Live Load Modifying factors to be applied in consultation with Client to cater for overloading.

- **Check Deck Slab for Punching Shear:**

The Compressive Strength of Deck Concrete should not be less than 4000 Psi and the thickness of Deck slab should not be less than 200 mm.

- **Other Loads**

- **Side-walk Live Load**

A load of 5 KN/m² (100 psf) of walkway between side barrier / railing and shoulder, applied continuously or discontinuously over both lengths and width of structure in order to produce maximum stresses in the member under consideration.

- **Horizontal Live Load on Railing / Posts of Side Barrier**

These depend upon the configuration of the railing / posts / barrier system. The position and the magnitude of the horizontal loads are taken according to AASHTO LRFD.

- **Impact Load**

Impact loading on the bridge superstructure is taken in accordance with AASHTO LRFD.

- **Wind Loads**

Wind loads are taken in accordance with the provision of AASHTO LRFD.

- **Seismic Design**

Earthquake forces are calculated according to AASHTO LRFD, keeping in view the zoning as specified in prevailing version of PBC.

3.6 Detailed Scope of Services:

Task 1:	Data Collection & Co-ordination with local/Irrigation Departments
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Outcome:	Consultant get hold of relevant information, SOP Maps, Satellite imageries and liaison with local departments.
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3.6.1 Data Collection & Co-ordination with local / Irrigation Departments

The consultant will coordinate with all concerned departments, as well as field authorities of NHA and accordingly collect any data pertaining to this project. The data shall be shared with NHA in "Collection of Data & Coordination Report"

and duly referred in the submissions made later on to NHA in order to avoid any disparity.

The consultant will also collect requirements and development Plans etc. (if any) of all the concerned agencies/organizations/departments/ stakeholders through extensive & close coordination. These plans will be required to be considered in carrying out studies under this contract. This is an essential requirement and must be given due importance by the consultant.

The Consultant shall closely coordinate with the Irrigation Research Institute during and before commencement of the Riverine Survey so as to minimize any deficiencies/observations.

The Consultant shall attend to all the observations of the IRI till the execution of Hydraulic Model Study and shall coordinate extensively for early furnishing of the Model Study Report.

Full payment against this task shall be released upon receipt of the Final Hydraulic Model Study Report.

The Consultant will prepare and submit a comprehensive "Collection of Data & Coordination Report" after receipt of the Model Study Report.

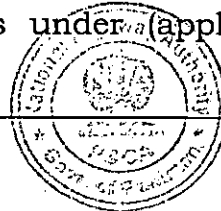
3.7 Detailed Topographic Survey (Pre-requisites)

Task 2: Detailed Topographic Survey

Outcome: Submit Draft and Final Topographic Plans

Topographic Survey clearly indicating all buildings, utilities, pipelines, existing bridges (if any), approaches and all other manmade structures. The approximate outlines of the river, direction of flow, angle of skew and reference to position of the bench mark used as datum shall also be clearly shown. In addition, the lines showing the location of Cross Sections and Longitudinal Sections shall also be shown. In order to indicate the dominant course, the course of the river or the stream over a five (5) year period should be shown.

Even with the availability of DEM, the requirement of topographic survey cannot be over ruled as it will be required for taking Cross-sections, centerlines, road edges, underground utilities, overhead transmission lines, Ground Control Points (GCPs), Inventory of Structures, Bench Marks and Monuments and other reference points which cannot be obtained from Satellite Imagery/DEM. The Consultant is required to carry out detailed topographic survey of the identified route and shall include the cost of survey activities in his financial proposal. The detailed TOR for topographic survey is given as under (applicable as per requirement):



The consultant should use the latest technology for the topographic surveys, which include as many Dual Frequency Global Positioning System (DFGPS) for establishment of highly accurate control points. In case the consultant does not have the requisite number of DFGPS, he is advised to hire services of professional survey companies having the required expertise. The DFGPS shall be simultaneously used for enough duration to develop accurate control points.

The Survey Company mobilizing to the site must comply with the requirement of the recent "Surveying & Mapping Act 2014". Before mobilizing to site for Survey, the Consultant shall submit to the Client detailed topographic survey program with actual human resources *planned to be deployed*. The consultant shall specify *the time line of survey program*. Total number of equipment with models and *calibration certificates not more than 6 months old* shall be produced. The *name and qualifications of surveyors* shall also be submitted.

NHA reserves the right to interview the surveyor if required. Upon request, the consultant should change the surveyor. *If consultant wants to outsource the Survey work, the Consultant* will ensure that the survey firm is not black listed and has sufficient resources and complies with the Surveying and Mapping Act 2014 with info to Design Section.

3.7.1 Survey Monuments

Permanent Ground Monument made of Concrete 1:4:8 with 75 mm steel nail embedded at center. The type and dimensions of Survey monuments to be installed at site is shown here. Using spray paint and a stencil, the monument number shall be painted.

Besides start and at the end, it is required that these markers shall be fixed in the traverse line at an interval of about 300 to 400 meters. These shall be fixed at such locations that these are least susceptible to disturbance and damage. The consultant shall fill out a Performa for each traverse station showing picture, sketch and reference with permanent ground features. If sub-standard monuments are used, then NHA will deduct the necessary amount from consultant's due payments.

3.7.2 Control for Traverse

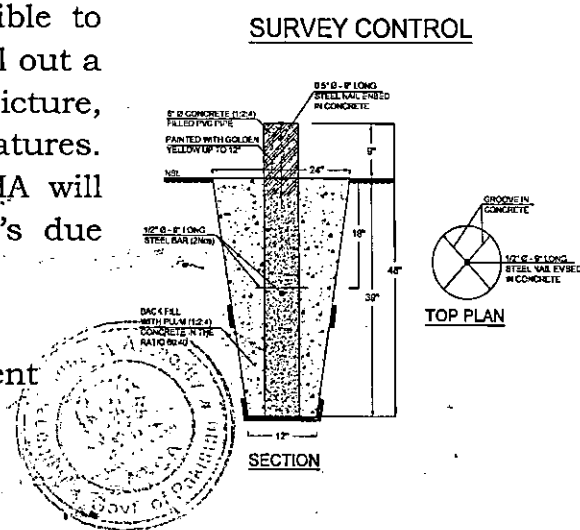
Projection: UTM or other with the approval of client

Datum: WGS84 Vertical Datum: MSL

3.7.3 Horizontal Control

Precise Primary Controls (ITRF CONTROLS)

Minimum (2) DFGPS Primary Controls at start and end of the Project or as many as may be required such that the distance between these points shall not be



more than 100 km. Minimum observation time shall be at least ten (10) hours for each of these points. These points shall be validated/verified with International Fixed Stations in WGS84/ITRF reference frames for an average ambiguity resolution of 50% or better for a reliable network solution.

3.7.4 Primary Controls

DFGPS Primary Controls shall be established at a maximum distance of 10 km with one base and one rover using leapfrog method, by applying adjustments to create network. Minimum observation time shall be at least two (2) hours for each of these points, which may be used for Total station if needed for topographic survey.

3.7.5 Secondary Controls

DFGPS Secondary Controls shall be established at a maximum distance of 333 meters with one base and two rovers at alternate sides of Alignment (to form triangular network) using leap frog method, by applying adjustments to create network. Minimum observation time shall be at least 45 minutes for each of these points.

3.7.6 Vertical Control

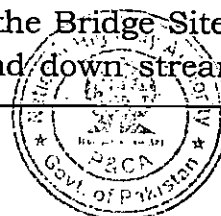
Vertical Control shall be established using MSL from first order SOP Bench Marks with double run leveling. Digital level with an accuracy of 0.3 mm or less and single section 2m/3m staff or invar staff with change plate on bottom shall be used. The maximum distance between the two successive reading points shall not be more than 50m. All horizontal control points are connected with monuments made for Horizontal primary and secondary controls with double run level to control the height as mentioned above.

3.7.7 Monuments for Horizontal and Vertical Controls

The monuments for controls shall be as per NHA specifications. The ITRF Controls and Primary Controls shall be tied with two permanent points as per NHA Specifications

3.7.8 Topographic survey (scale 1:1000); including on ground features, buildings, Utilities and Crossing Roads

- a. Topographic Survey will be performed within the ROW Limits. At important control section, if the large-scale structures are proposed to be built on the sections, the survey range can be extended reasonably, if necessary. Enough Spot Levels (points) shall be taken to create a topographic map in the scale of 1:1000.
- b. The Consultant is required to observe 10 cross-sections across the flow channels to Bank. Three cross-sections at the Bridge Site (one center-line and other two adjacent to centerline up and down stream of the bridge).



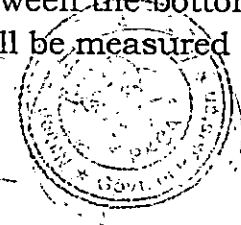
The BM upon which the Model study survey was done should be incorporated in the traverse/level circuit.

3.7.9 Centerline Points (stake) and Measurement of elevation of route stake

- a. The distance between the centerline points shall be 25m in general, in case of the pond the stake is fixed on the bank of the inclination and waterline.
- b. The distance between the stakes is 5m-8m on the section of roads which have retaining walls.
- c. The distance between the stakes is 10m on the interchange slip road whose radius is less than 60m.
- d. The distance between the stakes is 5m for the 10m before and after the chainage of the abutment for a total distance of 20m.
- e. Minimum three longitudinal sections (parallel to Alignment) including the center axis, the left and right edge lines of the bridge shall be measured. For the places where the topography is changed and bridge pier and abutment, more stakes shall be established.
- f. For the culverts, the chainage and elevation of the crossing point shall be measured; the longitudinal section of the water channel 50m upstream and downstream of the crossing point shall also be measured.
- g. The stakes are placed on the edges of the crossed roads. The stakes should be fixed on the crossing points. There is also a need to collect the coordinates, elevation, angle, width and road level of the crossing points (50m around the crossing point). The coordinates, elevation, and angle of left, middle and right lines of the important crossed roads should be collected (100m around the crossing point).
- h. The position of 10KV high-tension pole (tower) around the route within 100m, and the power line's lowest elevation on the crossing point
- i. The stake's elevation shall be measured one by one.
- j. It is necessary to establish more stakes in case there is any pipeline or building crossing the alignment; the height difference between the bottom elevation of such pipeline or building and the ground shall be measured

3.7.10 Cross section Points

- 5 The cross section should be measured one by one.
- 6 The cross section should be measured at 25m interval
- 7 The cross section shall be measured to the ROW limit.
- 8 For the alignment sections with proposed retaining wall, the cross section shall be measured at 5m interval.



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- 9 For the bridge pier, the measuring range of the cross section is 10m at both left and right sides of the centre; whereas for the bridge abutment, the measuring range is till the ROW limits.

3.7.11 Interchanges (1:1000) Map (if any)

Extraction of features shall be done & points shall be taken beyond the ROW of 100 m and inside the minimum Region defined for Interchanges to create 1:1000 map. The minimum length of existing road to be included in topographic survey (for interchange ramps merging) should not be less than 350 m.

3.7.12 Survey corridor

The detailed topographic survey in normal circumstances shall be carried out in a corridor of 100 m. At locations of crossing rivers the detail of survey extent is given in respective sections.

3.7.13 Mapping (Unit of Measurement)

Metric units shall be used throughout.

3.7.14 Scale

Besides soft copy, mapping of drawings shall be plotted to a scale of 1:1000.

3.7.15 Details to be shown

All natural or manmade erections above ground need to be depicted in the topographic survey. Enough points should be recorded, so that its clear picture including identification, size and elevation is available for the designer. The consultant should also depict underground utilities with markers available at site. Intelligent nomenclature need to be adopted to describe the feature. The information should be available in CAD software in layer format with fully defined attributes.

Buildings/Structures

1. The plinth line of all permanent buildings.
2. Construction type of building (whether brick (B), semi-concrete (SC), concrete (C). double storey (D) etc.).
3. Ruins or partially demolished buildings or foundations – by the wall and masonry visible at the time of the survey.
4. Names and type of usage of all buildings, schools etc.
5. Buildings under construction.

Roads, Tracks and Footpaths

1. Kerb line or edge of surfacing to carriageways, and along the edge line markings.
2. Tracks.
3. Pedestrian bridges and footpaths.



4. Traffic islands (similar to kerb line).
5. Destination of road for junctions' level.
6. Bridges (over railway, river, etc.)
7. Levels over railway line in case of at grade or grade separated crossings.
8. In case of power transmission lines crossing alignment, level of electric wire with respect to survey control shall be recorded.

Industrial

1. Name and type of industry, Boundary wall and building structure inside.
2. Tanks (indicate type of material stored e.g. fuel, gas, water, etc.).
3. Sewage disposal works details.
4. Chimneys (substantial).

Road Furniture (In case of existing road)

1. Km post (value to be noted).
2. Bus stop facilities.
3. Traffic signal posts and controllers.
5. Guardrails.
6. Road signs.

Boundary Features

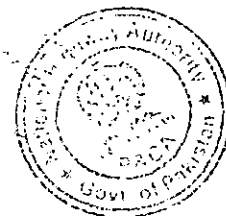
1. Fences
2. Gates
3. Boundary stones located/used for fieldwork
4. Walls
5. Burial grounds
6. Historical areas

Railways

1. Gauge faces of railway running rails with elevations of rail top
2. Level crossings
3. Platforms
4. Bridges (over road, river, etc.)
5. Station building
6. Telegraph poles (indicate the reference numbers)

Survey

1. Survey Department Trigonometric Stations
2. Permanent Ground Markers (IP's, RM's, TBM's, etc.)
3. Survey Department Benchmarks used (Indicate reference number and level).



Woods, Trees & Recreation Areas

1. Playing field
2. Land-use and vegetation, etc.
3. In case of trees in the survey corridor, the surveyor has to assign a code defining the girth of the tree. Trees with varying girth as specified in the CSR for payment shall be in respective layers.

Slopes and Earthworks

1. Cutting and embankments with any protection work done
2. Terraced slopes
3. Borrow pits / Quarries
4. Retaining wall
5. Rock outcrops
6. Mining tips
7. Indicate date of survey if on-going earthworks is present and mark the affected area

Services and Utilities

1. Transformers (boundary fences only)
2. Electricity sub-stations and switch boxes (boundary fences only)
3. Pylon lines (indicate levels at lowest point at sag and at pylon towers)
4. Pylon bases
5. Pylon reference numbers and voltage of transmission
6. Radio, TV station masts or towers
7. Telecom poles
8. Electricity poles
9. Water mains pipes and stop valves (Indicate diameter of pipe)
10. Manholes (circular and square)

Water & Drainage

1. Lakes
2. Ponds or mining pools
3. Reservoirs
4. Rivers (name to be indicated)
5. Streams
6. Ditches (width to be indicated)
7. Canals
8. Wells (diameter or width to be indicated)
9. Swamps
10. Lined drains (width, depth and type to be indicate)
11. Water towers
12. Culverts



Handwritten signature or initials.

13. Waterfalls
14. Jetties (if any)
15. The top of banks of all water features over 1.0 meter wide shall be detailed and the bottom of banks as indicated by the water level at the time of the survey. The direction of flow of all river, streams and watercourses shall be indicated.
16. Slopes with height greater than 1.0 meter of too sharp gradient to be shown by contours, including river and stream banks are to be shown on conventional markings and the top and bottom of slopes are to be shown as dotted lines.
17. Slope conventions shall be drawn as near as possible to indicate the actual shape of the slope face, i.e., all berms and terraces shall be detailed.

Any other features not listed, which are requested by the Client shall also be shown

Bridge details

The bridge details shall be shown on a separate drawing for each bridge. The bridge observations in form of coordinates shall include the following:

- a) The coordinates and levels of the four corners of the bridge (points shall be on the adjacent road surface), the two edges of the piers, abutment and wing walls.
- b) The coordinates and levels of the bridge deck to the intermediate piers (if any) of the bridge.
- b)c) The clearance details in case of adjacent railway bridges.
- c)d) Skew angle of the bridge from its centerline.
- d)e) Length, width and type of construction of bridge.
- e)f) The type and location of services adjacent to the bridge.
- f)g) The coordinates and levels of the centerline and the road on the bridge at approximate intervals of 5 m.
- h) The cross-sectional clearance envelope at the two sides of an overpass ridge (with respect to the road centerline passing underneath) showing all the relevant levels, offsets and skew angle.

Culvert details

Details of each culvert are to be shown on the survey plans and a separate sheet (annexure-c) tabulation of the following information is to be submitted with the plans:-

- a) Type of culvert and diameter.

- b) Chainage of culvert at the road centerline.
- c) Skew angle of the culvert from the centerline.
- d) Length of culvert from each side of the centerline.
- e) Invert levels of the inlet and outlet.
- f) A sketch of the inlet and outlet structures including all visible dimensions to a scale of 1:200.

For major culverts (dia. > 2.0m) the outlet structures are to be properly measured enough points shall be recorded so that the culvert can be modeled in CAD.

In case alignment runs along the existing road, sufficient points should be taken across the existing road to fully define the cross-section. Below are minimum points shown for the existing road way cross-section. For the existing carriageway, the width of carriageway, inner and outer shoulders should be clearly identified and coded.

Existing Road/embankment



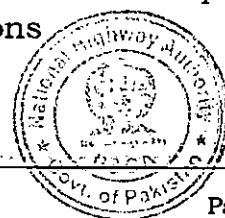
Details of junctions and existing roads

The Surveyor shall survey all junctions to enable the designer to design the junction properly. A corridor width of 70m and shall be taken for a distance of not less than 150 meters up and down the proposed intersection of the road or as required by the client.

All paved roads, main roads and footpaths or tracks having the width greater than 2m shall have a minimum of two (2) points defining both edges of the carriageways. Consecutive points along the road feature shall not exceed 20m in rural areas and 10m in urban or built-up areas. More points are generally needed to define curved feature such as slip roads, islands, etc.

Levels of the road centerline shall be recorded for paved roads having widths greater than 6.0m. The main destination of the road from the junction shall be recorded by the Surveyor.

Where necessary to survey along an existing road, the Surveyor shall follow the marked changes along the centerline. In addition to the road edges consecutive points along the edges of the carriageway (i.e. along the edge line marking on both sides) shall be picked up and shall not exceed 10 m. More points are generally to define super-elevation changes at curve sections



3.7.16 Digital Ground Models (DGM)

The product of the filed survey data, after processing shall be DGM. The accuracy of DGM shall depend upon the accuracy of the digital data collected in the field. Before processing the data, it is important to run the data filtration. All data points with incorrect x, y or z values shall be removed. It is also important as well to properly identify the break lines like road, nullah edge with natural faults. Void areas like buildings shall also be marked. The topography shall be fully labeled for every object recorded.

All survey feature lines will herein be referred as 'strings'. The data shall be presented by the Surveyor in a form suitable for input to the software to be used for generation of DGM. Using the recorded data in x, y, z format on data logger, the ground surface over the required area shall be simulated by strings of coordinated information along characteristic lines on the terrain. The models shall consist of three dimensional (3D) contour strings.

The existing road surface over the required area shall be simulated by 3D strings of coordinated information along characteristic lines on the existing carriageway. Any other strings that do not affect the accuracy of the ground surface may be assigned a null level.

The Surveyor shall obtain prior approval from the Client for any strings that are to be digitized but that do not absolve the Surveyor from the subsequent accuracy and definition of the model.

TIN (Triangular irregular network) shall be developed by using software. Using TIN, Contour generation shall be done. Since the NHA uses Eagle Point for vetting, same shall be used by the consultant.

3.7.17 Grid

The coordinates of the DGM shall be referred to the grid system as described in the Section 3.1.2. The coordinates of the DGM shall be in Easting, Northing and elevations.

3.7.18 String Labeling

The ground features including break lines shall be labeled with the exact description shown under AUTOCAD LAYER NAME. Any additional labels may be considered and the Surveyor shall submit the list for approval prior to their usage in the DGM.

3.7.19 Property Model

This model shall be stimulated by a series of 3D null level strings and text strings and includes the following:-



- a) Strings of land lots (null level strings)
- b) Land use and type (Text Strings)

Attributes to land type and use shall be appended to in the AutoCAD format. Such information shall be used by the Surveyor when preparing Land Utility folders at the end.

3.7.20 Contours

After digital data collection of survey points at site, the contour generation shall be done by using computer software. The interval shall be 1 m. The smoothness factor to be defined in the software should be such that it should not distort the ground contour representation. The contours should be well labeled.

During data collection, break lines on the ground should be very well picked that affects the contour generation.

If in the project, where steep slopes are likely to be encountered, the surveyor is required to use the laser equipped total stations that does not require and prism to record the co-ordinates.

Contours shall be shown by continuous lines with a thicker line for every fifth contour (Prominent Contour). Contour and spot heights shall be differentiated from other detail. The value of each contour shall be indicated along the contours at intervals not exceeding 200 mm and / or the edges of the Mapping area.

Where because of undergrowth, on-going earthworks, swampy areas, or other obstructions, the ground surface is obscured, or access is restricted, and provided the Client prior agreement is obtained, contour can be shown by broken lines to indicate that their accuracy cannot be guaranteed.

3.7.21 Longitudinal Profile and Cross-Section

The longitudinal profile plan shall be plotted in A1/A3 size (as requested by Client) to a scale of 1:1000 Horizontal and 1:100 Vertical with chainage interval of 25 m unless otherwise specified or instructed by the Client. The cross sectional plan of the existing road shall be plotted in A1 size to a scale of 1:200 both horizontal and vertical with 25 m interval. The plan shall show the chainage interval as specified and the existing ground profile and all the existing features.

3.7.22 Original Drawings & Preliminary Copies

Preliminary copies shall be submitted in the form of stable based paper. Every sheet of the drawings shall be marked as preliminary copy, until the final approved copy which shall be marked as "Final Tender Drawings". Each

drawing shall be stamped and signed by the Designer.

3.7.23 Soft Submission of Data and Drawings

The Surveyor shall supply the digital ground model data, All Drawings, Reports suitable for input to the computer specification acceptable to Client. The data shall be supplied as specified below in order to preference:

The CD-R and hard copy shall be supplied with an index scheduling the contents and referencing and shall remain the property of the Client.

3.7.24 Field Books and Record

All field books and computer data must be properly kept and shall record truthfully all the survey work carried out. The Surveyor shall do all workings in proper books, adequately in good style and according to best practice. All field books shall be done in ink. Unsatisfactory works and errors shall be struck off and there shall be no superimposed writing or erasure.

Client's Representative may check the field books now and then to ensure that a high standard of work is maintained. He may request the Surveyor to carry out some spot checks if he has reasonable doubt on the accuracy of the survey work. The Surveyor shall comply with such requests unless he can prove to the client's representative for his satisfaction that such checks are unnecessary.

All field books and computer data shall be certified by the qualified surveyor.

The Surveyor shall submit the required number of copies of Final Survey Report on completion of all survey works in a format as approved by the client. All photographs for all the copies shall be original copies and any diagrams or plans presented together with the report shall be in a clean and neat form and in scanned soft format.

3.8 Riverine Survey

Task 3: RIVERINE SURVEY

Outcomes: Riverine Survey along with Report and Drawings

Hydraulic Model Study is required to be carried out at IRI, Nandipur, and Punjab Irrigation Department. Following are the requirements of the Riverine Survey (not limited to):

- *River Survey 7 miles upstream and 3 miles downstream from the existing problematic site.*
- *Cross Sectional layout plan on A₀ – size survey sheet at suitable scale.*
- *The river X-sections must be 2000 feet apart from high bank to high bank* or extended up-to 2010 flood limits in case of no high bank in study reach.*

- Detailed drawing of existing flood work / hydraulic structures falling in the study reach (if any).
- Detailed drawing & location of existing bridge with respect to their alignments and orientation (if any).
- Location of abadies, local infrastructure should be clearly marked on the survey plan.
- The Hydrograph of Indus River in the study reaches.
- The known water levels at two locations against different discharges to simulate the proto-model conditions of River Indus during model study.
- D_{50} (average particle size) particularly in the study reach.

The Riverine Survey will be forwarded to IRI for conducting the model study. The Consultant shall be the focal person to coordinate with IRI for model study at Nandipur. In case the base run by IRI shows any discrepancy in the Riverine Survey submitted by the Consultant for the execution of Hydraulic Model Study, the penalty shall be invoked against the Consultant by NHA.

The Consultant shall closely coordinate with the Irrigation Research Institute during and before commencement of the Riverine Survey so as to minimize any deficiencies/observations.

Payment of the Hydraulic Model Study shall be released to IRI by the client.

**Between high bank to high bank.*

3.9 Hydrology and Hydraulic Study

Task 4: Hydrology and Hydraulic Study.

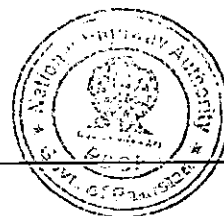
Outcome: Hydrology Report.

The hydrologic analysis performed on Project shall be compiled in a hydrologic report. The Report shall consist of two sections; a data section, where the hydrological background information shall be recorded. Other part shall be an analysis section, where the design computations shall be recorded.

The following items shall be used as a checklist of the data that shall be included in the hydrological report. The comprehensiveness of the report shall depend upon the nature of the valley, or flood plain to be traversed, the cost of proposed drainage structures, and class of highway.

1. Hydrological Data

Data shall comprise of following items:



a) Topographic Maps

Maps are required to show the proposed highway alignment in relation to the drainage characteristics of the area being traversed. The available maps in this regard are Survey of Pakistan maps of 1:50000 scale. Proper catchment areas shall be marked for rivers & nullas. Same shall be made part of the reports.

b) Satellite Imagery

The satellite imagery shall be used for upstream and downstream to identify the land use and drainage characteristics. Photographs shall be taken for all crossings whose design flow exceeds 20 m³/s. Same shall be made part of the report. These photographs shall be of sufficient quality to enable the engineer to estimate channel roughness characteristics, nature & extent of vegetation cover, and land use. These pictures may be placed in the text or referenced in the text and compiled at the end of the Report.

c) Land Use

Using the topographic maps, satellite imagery and site visits, the engineer shall comment on the nature of the land use in the affected water sheds. Similarly engineer shall comment on the nature of vegetation and soil characteristics of the basins. Individual types of land use, vegetation, and soil classifications shall be indicated as percentages of basin area. The extent of anticipated changes within any of these areas shall also be indicated.

d) Water Use

Engineer shall comment on the use of the water within the affected drainage basins. If reservoirs are within the watersheds, the operational procedures of these reservoirs shall be described. Condition of bunds of reservoir if made by locals shall also be commented upon.

e) Rainfall Data

Rainfall data for the Project area, obtained from Meteorological department shall be made part of the report. The data shall consist of a brief description, the length of record, the accuracy, and the source (if other than Met department). Data collection shall be responsibility of the Consultant including paying any required fee from any source.

f) River Discharge Data

In case a major river is encountered, its maximum discharge shall be obtained from the relevant department. Consultant to confirm the maximum discharge. The Govt. of Sindh should be contacted for the collection of the Flood Data.

g) High Water Marks

Often high water marks can be used to estimate peak flows within a basin. Whenever possible the Engineer shall prepare a brief flood history. This

statement shall include the dates of occurrence of the flooding and the elevations of high water marks. If possible photographs of such marks shall be included in the report.

2. Hydrologic Analysis

Hydrologic analysis shall comprise of following steps:

a) Drainage Area

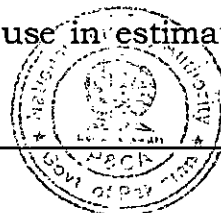
This exercise is done usually on the topographic maps. A field inspection of drainage basins is highly desired. If available, DEM model with satellite imagery can be used to simulate the drainage pattern of the area. In the field inspection, in hydrologist shall record manmade features, such as agriculture terraces and dikes, which will intercept all of the runoff from the drainage area. These may include roadway/railway embankments. Once the boundaries of the contributing areas have been established, they shall be delineated on a base map and the areas determined. This is commonly using a scanned map in CAD software.

b) Watershed Parameters

Drainage basin characteristics shall be determined in the field or from available maps. The list of parameters below is based on the information needed by the various models used in the hydrological analysis. Some parameters will be inserted directly into a particular formula and others will be used in comparing one watershed to another for use in transferring data.

- a. Basin Length
- b. Basin Slope
- c. Percent Impervious
- d. Infiltration
- e. Detention Depression Storage
- f. Drainage Basin Roughness coefficient
- g. Channel or conduit slope
- h. Channel or Conduit Cross-section
- i. Channel or Conduit Roughness
- c) Flood Models

Listed below are several methods for use in estimating peak runoff from drainage areas.



- j. Rational Equation: To be used for areas less than 50 ha
- k. Gumbel Distribution: Areas greater than 100 ha with gauging station data at the site.
- l. Indirect Estimates: Areas greater than 100 ha with gauging station data from neighboring watersheds.
- m. Regression Equation: Areas greater than 100 ha with rainfall data.

Whether on of above methods or any other method is chosen to estimate the watershed runoff, the Engineer shall include in the hydrology report a copy of sample computation and any reference used.

The recurrence intervals for use with hydrologic computation shall be as follows:

Expressway	100 years (1 percent)
Arterials	50 years (2 percent)
Collectors	50 years (2 percent)

d) Rainfall Intensity

The rainfall intensity value used in the Rational Equation is based on the amount of rainfall that occurs, the time it takes for that rainfall to occur, and the recurrence interval associated with each design class. Statistical approach shall be used to develop IDF curves. Detailed calculations and IDF curves shall be made part of the Report.

3.10 Updation of Pavement Design

Task 5: Updation of Pavement Design

Outcome: Pavement Design Report

Consultant will submit Pavement Design Report complete in all respect based on finalized traffic & Axle Load study. Consultant is required to support the proposed design CBR of Subgrade with necessary soil testing of borrow area / existing cut material. The Pavement Design Report will include complete process of ESALs determination starting from AADT. Consultant shall ensure the necessary provision of surface and sub-surface drainage design to have safe embankment / subgrade and pavement. In case existing pavement / road is being utilized, necessary evaluation will be carried out and accordingly rehab strategy will be devised by Consultant as per AASHTO Guide for Design of Pavement Structure -1993

Pavement will be designed for a period of 10 years design life. Each input to design should be duly calculated / justified through proper referencing and supporting document in the Report. Analysis on Axle Load data and tyre pressure data shall also be used in the process of new pavement design or pavement rehabilitation design. The new pavement design or pavement

rehabilitation design shall be carried out by the consultant on the basis of AASHTO Guide for Design of Pavement Structure -1993. In addition, new pavement design or pavement rehabilitation design shall also be validated through Mechanistic-Empirical approach using KENPAVE software. Shell Model may be used under KENLAYER analysis. All calculations and data shall be attached in the report in hard and soft form (editable).

3.11- Updation of Geometric Design

Task 6: Updation of Geometric Design

Outcome: Geometric Design Report

The geometric design will be carried out by the consultant followed by preparation of plan & profile drawings. The drawings will become a part of Design Drawings. A comprehensive Geometric Design Report will be submitted. Geometric improvement of the existing road / alignment (if applicable) will also be considered.

3.12 Design Updation of Guide Banks

Task 7: Design Updation of Guide Banks

Outcome: Design Report along with Drawings

The design drawings of the Guide Banks have already been prepared and are currently available, and will be provided to the Consultant for reference purpose. However, it is imperative that the Consultant thoroughly review and, where necessary, update the existing design in light of the findings and recommendations resulting from the fresh Hydraulic Model Study; also, the sanctity and responsibility of the Design shall lie with the Consultant. The purpose of this exercise is to ensure that the Guide Banks are technically sound, economic, hydraulically efficient, and capable of withstanding the river's flow conditions during various flood events. The updated design must reflect any adjustments required due to changes in flow patterns, water levels, or scour characteristics identified through the Model Study. The Consultant shall ensure that all design modifications are in full compliance with relevant codes, standards, and best engineering practices.

3.13 Design Updation of Existing Bridge (If Required by IRI)

Task 8: Design Updation of Existing Bridge (If Required by IRI)

Outcome: Design Report along with Drawings

The bridge has already been constructed, it is essential to recognize that the ongoing Fresh Hydraulic Model Study may reveal certain hydrological or



structural considerations. In the event that the results of this Model Study indicate the necessity for modifications or enhancements to the existing bridge design (related to hydraulic performance, structural stability, or river flow dynamics, etc.), the Consultant shall revisit and revise the design of existing bridge accordingly, incorporating the modifications proposed in Model Study by IRI, and shall bear the full responsibility of the Design.

The Consultant must carry out a comprehensive review of the Model Study outcomes, identify the implications for the constructed bridge, and incorporate any required design modifications. Following this, the Consultant shall prepare and submit a detailed Revised Design Report clearly explaining the nature and rationale of the proposed changes. Additionally, corresponding Design Drawings must be provided to reflect the updated design. All such updates shall adapt applicable codes, standards, and best engineering practices, ensuring the long-term safety and functionality of the bridge structure.



3.14 Traffic Survey and Axle Load Survey or Collection of data from nearby weigh station**Task 9: Traffic and Axle Load Survey Report****Outcomes: Traffic and Axle Load Survey Report**

The consultant will submit the proposed Traffic Survey Program to NHA, wherein enough points for traffic study should be proposed in order to have best possible estimation of volume as well as classification of anticipated traffic and carry out reliable analysis.

3.9.1 Traffic Count & O-D Survey

The consultant will carry out minimum three (3) days classified 24-hr traffic volumes counts, O&D Survey, journey / travel time survey, tyre pressure survey etc. Generated / diverted traffic volumes will be worked out. Origin-Destination Surveys will be carried out as and where required. Weekly and monthly correction factors will be worked out to arrive at Annual Average Daily Traffic (AADT). Growth factors will be worked out based on which the traffic will be forecasted.

The classified traffic count shall include following classifications:

- Non-motorized traffic Animal drawn, bicycle
- Motorized traffic M/cycle, Car / Pickup / Jeep,
Minibus/wagon, Bus, 2-Axle, 3- Axle, 4-
Axle, 5-Axle, 6-Axle, Tractor trolley

For truck traffic, axle configurations of NTRC (Axle Load Study on National Highways 1995) should be used.

The traffic count shall be done with hourly classification. In peak hour, 15-minute interval count shall be done to ascertain PHF.

As an evidence of Traffic Count Activity, the Consultant is required to submit Geo-Tagged Photographs along with Date and Time Stamp of the Traffic Count Locations. Also, the Consultant will submit the originally filled Traffic Count Survey Forms duly stamped and signed by the Traffic Enumerators as well as the Traffic Engineer of the Consultant, failing to which the report shall not be acceptable.

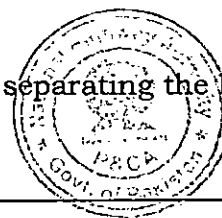
3.9.2 Axle Load Survey

Consultant shall use latest NTRC axle load factors to be used in the pavement design. Factors shall also be annexed in the final report.

3.9.3 Traffic Diversion Plans (If Required Any)

Traffic Diversion Plans shall be provided for the following situations:

- a. At toll plazas (If required)
- b. At Intersections and interchanges
- c. In urban areas including methodology for separating the local and through traffic.
- d. On at-grade railway crossings.



- e. At places where underground constructions like construction of box culverts and underpasses.
- f. At places where overhead bridge construction is likely to take place.

Consultant shall fully define the methodology for construction sequence, diverting traffic and maintaining the diversion roads.

3.15 Design of Approach Roads (Both Sides)

Task 10: Design of Approach Roads (Both Sides).

Outcome: Design Report along with Drawings

The design drawings of the approach roads are readily available and will be provided to the Consultant for reference purposes only. The Consultant shall undertake the design of these approach roads, taking into account the findings of the Fresh Hydraulic Model Study and any hydrological, structural, or environmental factors that may affect their layout and performance.

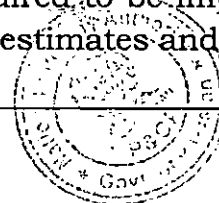
This will include reviewing available data such as topographical surveys and geotechnical investigations, assessing hydraulic performance, drainage, flood levels, and river flow dynamics, and developing the alignment, cross-section, and structural elements of the approach roads, including embankments, retaining structures, drainage and protection works, and connections to existing road networks. The Consultant shall prepare a comprehensive Design Report explaining the basis, methodology, and rationale of the proposed design and produce all required Design Drawings, specifications, and bills of quantities to facilitate construction, ensuring compliance with applicable codes, standards, and best engineering practices to guarantee the long-term safety, stability, and functionality of the approach roads, also, the Consultant shall bear full responsibility of the Design.

3.16 Construction of Machinery Report

Task 11: Construction Machinery Report

Outcome: Construction Machinery Report

A detailed report on construction resource shall be prepared. It will include, based on the construction duration, the amount and type of construction machinery required. Based on the Construction plan developed in Primavera/Microsoft Project, the resource allocation/ the Cash flow required shall be stated. Computations and assumptions for productions shall be attached in the report. The cost of any equipment required to be imported shall be reflected in the foreign currency portions of the cost estimates and PC-I.



The report shall be forwarded by the concerned General Manager to the Procurement and Contract Administration Section of NHA along with the Contract Documents for use during Bidding of the Project.

3.17 Formulation of Revised PC-I

Task 12: Formulation of Revised PC-I

Outcome: Submission of PC-I

The consultant shall prepare the Revised PC-I including economic analysis on prescribed Performa of PC-I by Planning Commission. The Revised PC-I shall be formulated with the active consultation of NHA Project Site Authorities. If acquisition for land or structures is involved, then PC-I for land will also be prepared and requisite number of copies submitted to NHA.

3.18 Tender Documents

Task 13: Tender Documents

Outcome: Submission of Tender Documents

TENDER DOCUMENTS

Tender Documents shall comprise of the following:-

a. Volume-I

- Instructions to Bidders.
- Conditions of Contract (Part-I) (General Conditions)
- Conditions of Contract (Part-II), (Conditions of Particular Application).
- Conditions of Contract (Part-III), (Supplementary Conditions)
- Forms and Appendices

b. Volume-II

- General Specifications.

c. Volume-III

- Particular Specifications, Special Provisions and Bills of Quantities.

d. Volume-IV

- Drawings as per the following detail:
 - o Title Sheet
 - o Sheet Index
 - o Key & Location Plan with Coordinates and alignment with stationing (if any)

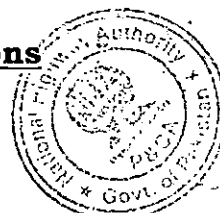
- Sheet of Legends & Symbols
- Traverse, Bench Mark and Design alignment data including curve data (if any)
- Typical Cross-Sections with locations of applications (if any)
- Super-elevation details and Linear Plan (if any)
- Intersection Details (if any)
- Drainage plan for surface runoff and urban areas (if any)
- Mass Haul Diagram
- Plan and Profile Drawings
- General Notes for Structural Drawings
- Drawings for Small drainage structures (if any)
- Drawings for Large structures (if any)
- Drawings for Earth retaining structures (if any)
- Horticulture and Landscaping details (if any)
- Miscellaneous Details/ Ancillary Works including training works. (if any)
- Detail drawing folders of Utilities/Infrastructure for Land Acquisition and removal of all utilities/ infrastructure etc., having all the requisite information in the form of GIS corridor maps.
- Highway and Bridge Drainage Design. (if any)
- Design for provision of Ducts/crossings of future utilities like OFC, pipelines, etc. (if any)
- Detailed Design calculations for all the relevant structures in hard copies design calculations for all the relevant structures (Excel sheets, models, hard copies) (if any)

NHA has standardised Volume-I (Part-I) and Volume-II. Consultants shall study and adopt these documents after careful scrutiny and modification wherever required.

e. Contract Conditions (Legal Part)

NHA has prepared Standard Tender Documents sections on instructions to Bidders. Conditions of Contract, Bid Forms etc. and has used them for similar project in the past. Consultant shall study these standardised contract conditions and amend them in accordance with the requirements of this project. The Special Conditions of Contract can be added pertaining to the project as supplement to the General Conditions of Contract.

f. Technical and Particular Specifications



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The consultants shall study the NHA Specifications and prepare particular specification for the project for specified items not covered in the General Specifications.

g. Bill of Quantities

Consultant shall prepare comprehensive Bill of Quantities to be calculated to accuracy of $\pm 5\%$ encompassing all the items of work, properly cross referenced to the Technical Specifications. Standard format of Bill of Quantities shall be adopted.

h. Engineer's Estimate

Consultant shall prepare the Engineer's Estimate of the project based on the detailed design, drawings and final Bill of Quantities, using latest prevailing NHA Schedule of Rates. For items not specified in NHA CSR, rate analysis shall be provided based upon market price.

For review of Engineer's Estimate, the Consultant shall provide the following:

- Backup calculations / Measurement Sheets of the Engineer's Estimate in soft editable format.
- Earthwork Cross-Sections generated at every 25m interval. Same shall be submitted in a separate folder titled "Cross-Sections" for verification of the earthwork quantities.
- The Consultant shall also submit a "Project Data Sheet" showing the location and dimensions of bridges, culverts, subways, underpasses, cattle creeps, retaining & breast walls, traffic & road signs, slope stability works etc.

a. Certificate of Technical Sanction

The consultant may be required to submit a Certificate for Technical Sanction, wherein soundness of design, amount of estimate, basis of estimate etc. will be certified. NHA reserves the right modify the specimen format. Latest copy of specimen may be obtained from NHA at the time of Technical Sanction.



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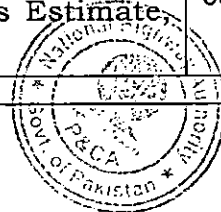
MODE OF PAYMENT**TASKS:**

Sr. #	Task. #	Activity	%age of "A"
Phase-I			
1.	Task 1	Data Collection/Co-ordination with local Departments, including Irrigation Department.	10%
2.	Task 2	Detailed Topographic Survey (Approach Roads on Both Sides) including Monumentation, GCPs, Inventory of Structures and other reference points, Stakeout of alignment including Report & Drawing Production, Instrument Rental Charges, Chief Surveyor, Surveyor(s) & Survey Helpers Salary etc. (complete in all aspects)	L.S.
3.	Task-3	Riverine Survey including Monumentation, GCPs, Inventory of Structures and other reference points, Stakeout of alignment including Report & Drawing Production, Instrument Rental Charges, Chief Surveyor, Surveyor(s) & Survey Helpers Salary etc. (complete in all aspects)	L.S
4.	L.S	Hydraulic Model Study (To be performed by IRI)	Rs. 11,500,000
5.	Task-4	Hydrology and Hydraulic Study Report including Purchase of requisite Data, Report writing, Salary of Hydrologist / Hydraulic / Drainage Engineer etc. (Complete in all aspects)	L.S
Note: Phase-II will be undertaken after the receipt of the Hydraulic Model Study Report by Irrigation Research institute (IRI). Commencement letter for both phases shall be issued separately.			
6.	Task-5	Updation of Pavement Design Report.	5%
7.	Task-6	Updation of Geometric Design Report	5%
8.	Task-7	Design Updation of Guide Banks.	20%
9.	Task-8	Design Updation of Existing Bridge (if required by IRI)	10%
10.	Task-9	Traffic and Axle Load Survey Report	LS
11.	Task-10	Design of Approach Roads (Both Sides)	10%
12.	Task-11	Construction Machinery Report	5%
13.	Task-12	Preparation of Revised PC-I	15%
14.	Task-13	Tender Documents, BOQ, Engineer's Estimate, C-Factor, Special Provision, etc.	20%

3.20**DELIVERABLES (Breakdown)**

The list of documents to be submitted by the Consultant is hereunder:

Sr. #	Task. #	Activity	Submissions
Phase-I			
1.	Task 1	Data Collection/Co-ordination with local Departments, including Irrigation Department.	03 Hard+ 01soft copy
2.	Task 2	Detailed Topographic Survey (Approach Roads on Both Sides) including Monumentation, GCPs, Inventory of Structures and other reference points, Stakeout of alignment including Report & Drawing Production, Instrument Rental Charges, Chief Surveyor, Surveyor(s) & Survey Helpers Salary etc. (complete in all aspects)	03 Hard+ 01soft copy
3.	Task-3	Riverine Survey including Monumentation, GCPs, Inventory of Structures and other reference points, Stakeout of alignment including Report & Drawing Production, Instrument Rental Charges, Chief Surveyor, Surveyor(s) & Survey Helpers Salary etc. (complete in all aspects)	03 Hard+ 01soft copy
4.	-	Hydraulic Model Study (To be performed by IRI)	-
5.	Task-4	Hydrology and Hydraulic Study Report including Purchase of requisite Data, Report writing, Salary of Hydrologist / Hydraulic / Drainage Engineer etc. (Complete in all aspects)	03 Hard+ 01soft copy
Note: Phase-II will be undertaken after the receipt of the Hydraulic Model Study Report by Irrigation Research institute (IRI). Commencement letter for both phases shall be issued separately.			
6.	Task-5	Updation of Pavement Design Report.	03 Hard+ 01soft copy
7.	Task-6	Updation of Geometric Design Report	03 Hard+ 01soft copy
8.	Task-7	Design Updation of Guide Banks.	03 Hard+ 01soft copy
9.	Task-8	Design Updation of Existing Bridge (if required by IRI)	03 Hard+ 01soft copy
10.	Task-9	Traffic and Axle Load Survey Report	03 Hard+ 01soft copy
11.	Task-10	Design of Approach Roads (Both Sides)	03 Hard+ 01soft copy
12.	Task-11	Construction Machinery Report	03 Hard+ 01soft copy
13.	Task-12	Preparation of Revised PC-I	08 Hard+ 01 soft copy
14.	Task-13	Tender Documents, BOQ, Engineer's Estimate, C-Factor, Special Provision, etc.	03 Hard+ 01soft copy

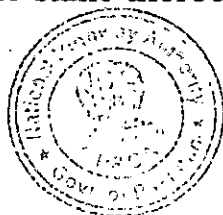


3.21**MAN MONTHS**

Sr. No.	Position	Nos.	Months	Total Man Months
KEY EXPERTS				
1.	Team Leader / Senior Structural Engineer	1	5	5
2.	Senior Structural Engineer	1	4	4
3.	Pavement Engineer	1	2	2
4.	Geometric / Highway Engineer	1	2	2
5.	Geotechnical Engineer	1	1	1
6.	Traffic / Transport Economist	1	1	1
7.	Financial Economic Analyst	1	1	1
NON KEY STAFF				
8.	Quantity Surveyor	2	5	10
9.	CAD Operator	2	5	10
10.	Computer Operators	2	5	10
11.	Trainee Engineer	2	5	10
12.	Helpers	2	5	10
13.	Peon	2	5	10

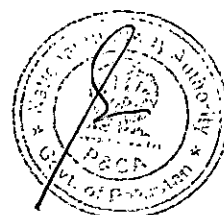
3.22 IMPORTANT POINTS FOR THE CONSULTANT:

1. Man months shall be distributed as per the phases. Time duration for Phase-I and Phase-II (design updation) are collectively 04 months.
2. The payment of Riverine Survey shall be released in two phases:
 - i. Upon submission of Riverine Survey – 50%
 - ii. Upon Successful Base Run by IRI – 50%
3. The Consultant shall develop active liaison with the NHA site authorities, IRI, and any other Government Forums like Ministry of Communications, Ministry of IPC, etc., requiring status/compliance or coordination.
4. Progress report shall be shared with NHA on fortnightly basis from the commencement of the contract.
5. The Consultancy Cost for the tasks mentioned in the ToR shall remain the same thorough out the project.



APPENDIX B**(List of Supporting Documents)**

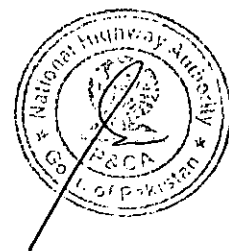
S. No	Description	Page No
1.	Valid Registration Certificate of Pakistan Engineering Council with Project Profile Code of 1215. <u>In case of JV member, experts proposed by each consultant should have relevant project profile code of 1215 (ii) Highways/ Bridges.</u> In case of formation of JV with foreign consultant, in such case foreign consulting firms shall make JV in accordance with Byelaw 6(2) and Byelaw 9 of the Pakistan Engineering Council (Conduct and Practice of Consulting Engineers) Bye-Laws 1986. <u>Failure to comply with the above will result in rejection of proposal.</u>	
2.	Audit Reports (minimum 03 Nos) of the firm(s) during last five years, prepared by registered Chartered Accountant (signed/stamped) appearing on list of firms on ICAP directory (To be attached with Technical Proposal). (Refer Annexure-II at the end of RFP).	
3.	Lists of facilities available with the Consultant to perform their functions effectively (software, hardware, etc.). In case of JV, the same will be provided by the lead firm only.	
4.	Client's satisfaction certificates (Performance Reports) for the last three relevant assignments from the respective Clients.	
5.	Affidavit on stamp paper duly attested by the Oath Commissioner to the effect that the firm has neither been blacklisted nor any contract rescinded in the past for non-fulfillment of contractual obligations	
6.	Firm affidavit for availability of personnel.	
7.	Letter of Intention on lead firm's letter head along with original letter of intention of all JV members.	
8.	Power of attorney or authorization letter of authorized person of the lead firm.	
9.	Declaration of inclusion of new/ less experienced firm(s) in association (as sub-consultant) by sharing upto 7.5% of Assignment with them for promoting the consultancy industry in the country.	
10.	While engaging in Public Procurement contracts worth Rs. 50 million and above , each Consultant (lead and their JV Members) shall provide duly filled Performa of "Declaration of Ultimate Beneficial Owners Information for Public Procurement Contracts", in their Financial Proposals, which is attached as Annexure-I at the end of this RFP.	
11.	Any other document.	



APPENDIX C

MAN-MONTH AND ACTIVITY SCHEDULE

To estimate Consultant's inputs and costs for the assignment, man-month and activity schedules are to be provided as per enclosed format (Forms A7 and A8). These two schedules should correlate.



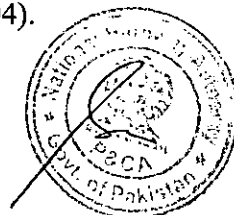
APPENDIX D

CLIENT'S REQUIREMENTS FROM THE CONSULTANTS

CLIENT'S REQUIREMENTS FROM THE CONSULTANTS

Some important requirements are:

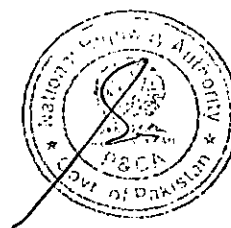
1. Selecting a Consulting Engineer is one of the most important decisions an owner or Client makes. The most important standards for this are technical competence, managerial ability, professional integrity and fairness of fee structure. The Client will seek information on all these aspects by:
 - a. Obtaining comprehensive written information from the Consultant in form of RFPs and should be completed in full providing all details as correctly known as possible. It has been experienced that some Consultants try to hide their deficiencies viz-a-viz the requirements of TOR by making unclear and vague statement. It will be policy of evaluators that vague statement and lack of clarity in proposals on specific issues may be reason to downgrade the rating.
 - b. Talking to the senior personnel of the Consultants.
 - c. Consulting their Clients.
 - d. Viewing the projects that they have accomplished and visit the users.
 - e. Visiting the premises of the Consultant and examining systems and method of works as well as hardware and software abilities available. **Senior Management (minimum Director level) shall regularly visit the site at least once a month and hold meeting with the Client's representative.**
 - f. The approach and methodology proposed including work plan, activity and man-month schedule should be meaningful and fully coordinated to judge the understanding of the proposed assignment by the Consultant.
2. For Items (b) to (e), the inspection can be held any time prior to or after award of work to the Consultants. During the inspection if the scenario found is not compatible with what is presented during presentations or as per Contract, the Consultant is liable for action debarring for two (2) years for future projects which may or may not include black listing action (in accordance with Rule 19 of the Public Procurement Rules, 2004).



APPENDIX E

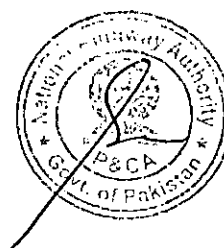
PERSONNEL, EQUIPMENT, FACILITIES AND OTHERS SERVICES TO BE PROVIDED BY THE CLIENT.

AS PER TOR



APPENDIX-F

COPY OF MODEL AGREEMENT (To be finalized during Negotiations)



**Contract for Engineering Consultancy Services
(Lump Sum)**

Between

(NATIONAL HIGHWAY AUTHORITY)

And

(NAME OF THE CONSULTANTS)

FOR

***Consultancy Services for Design Updation of Guide Banks and Approach Roads of the
Existing Bridge Across River Indus Connecting Kallurkot D/S or U/S with D.I. KHAN***

Month and Year



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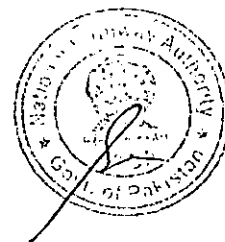
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[Details to be finalized by the users]

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Appendix A-Description of the Services

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Appendix D-Breakdown of Contract Price in Foreign Currency

Appendix E-Breakdown of Contract Price in Local Currency



Appendix F-Services and Facilities to be Provided by the Client
Appendix G-Integrity Pact
Appendix H-Minutes of Pre-Proposal Meeting along with addendum

**V ALTERNATE TITLE PAGE IN CASE OF JV
ALTERNATE FORM OF CONTRACT IN CASE OF JV**

Sample



FORM OF CONTRACT

- [Notes: 1. Use this Form of Contract when the Consultants perform Services as Sole Consultants.
2. In case the Consultants perform Services as a Member of the joint venture, use the Form included at the end.
3. All notes should be deleted in the final text.]

This CONTRACT (hereinafter called the "Contract") is made on the ___ day of ___ month) of ___ (year), between, on the one hand _____ (Hereinafter called the "Client" which expression shall include the successors, legal representatives and permitted assigns) and, on the other hand, _____ (hereinafter called the "Consultants" which expression shall include the successors, legal representatives and permitted assigns).

WHEREAS

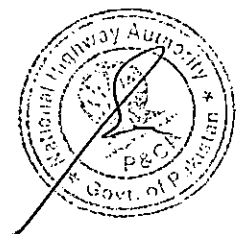
- (a) the Client has requested the Consultants to provide certain consulting services as defined in the General Conditions of Contract attached to this Contract (hereinafter called the "Services"); and
- (b) the Consultants, having represented to the Client that they have the required professional skills, and personnel and technical resources, have agreed to provide the Services on the terms and conditions set forth in this Contract;

NOW THEREFORE the Parties hereby agree as follows:

1. The following documents attached hereto shall be deemed to form an integral part of this Contract:
- (a) the General Conditions of Contract;
- (b) the Special Conditions of Contract;
- (c) the following Appendices:

[Note: If any of these Appendices are not used, the words "Not Used" should be inserted below/next to the title of the Appendix and on the sheet attached hereto carrying the title of that Appendix.]

Appendix A: Description of the Services
 Appendix B: Reporting Requirements
 Appendix C: Key Personnel and Sub consultants
 Appendix D: Breakdown of Contract Price in Foreign Currency
 Appendix E: Breakdown of Contract Price in Local Currency
 Appendix F: Services & Facilities to be Provided by the Client
 Appendix G: Integrity Pact (for Services above Rs.10 million)



2. The mutual rights and obligations of the Client and the Consultants shall be as set forth in the Contract, in particular:
- (a) the Consultants shall carry out the Services in accordance with the provisions of the Contract; and
 - (b) the Client shall make payments to the Consultants in accordance with the provisions of the Contract.

IN WITNESS WHEREOF, the Parties hereto have caused this Contract to be signed in their respective names in two identical counterparts, each of which shall be deemed as the original, as of the day, month and year first above written.

For and on behalf of

Witness

(CLIENT)

Signatures _____ Signatures _____

Name _____ Name _____

Title _____ Title _____

(Seal)

For and on behalf of

Witness

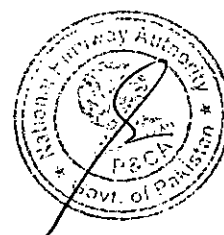
(CONSULTANTS)

Signatures _____ Signatures _____

Name _____ Name _____

Title _____ Title _____

(Seal)



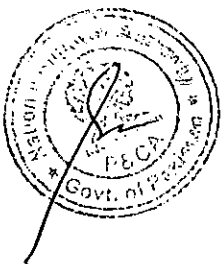
II. GENERAL CONDITIONS OF CONTRACT

1. GENERAL PROVISIONS

1.1 Definitions

Unless the context otherwise requires, the following terms whenever used in this Contract have the following meanings:

- (a) "Applicable Law" means the laws and any other instruments having the force of law in the Islamic Republic of Pakistan, as those may be issued and in force from time to time;
- (b) "Contract" means the Contract signed by the Parties, to which these General Conditions of Contract (GC) are attached, together with all the documents listed in Clause 1 of such signed Contract;
- (c) "Contract Price" means the price to be paid for the performance of the Services, in accordance with Clause 6;
- (d) "Effective Date" means the date on which this Contract comes into force and effect pursuant to Sub-Clause 2.1;
- (e) "GC" means these General Conditions of Contract;
- (f) "Government" means the Government of the Islamic Republic of Pakistan and/or Provincial Government(s);
- (g) "Foreign Currency" means currency other than the currency of Islamic Republic of Pakistan.;
- (h) "Local Currency" means the currency of the Islamic Republic of Pakistan;
- (i) "Member" in case the Consultants consist of a joint venture of more than one entity, means any of the entities, and "Members" means all of these entities;
- (j) "Party" means the Client or the Consultants, as the case may be, and "Parties" means both of them;
- (k) "Personnel" means persons hired by the Consultants or by any Sub consultant as employees and assigned to the performance of the Services or any part thereof;
- (l) "SC" means the Special Conditions of Contract by which the GC are amended or supplemented;
- (m) "Services" means the work to be performed by the Consultants pursuant to this Contract, as described in Appendix A;



- (n) "Sub consultant" means any entity to which the Consultants subcontract any part of the Services in accordance with the provisions of Sub-Clause 3.6;
- (o) "Third Party" means any person or entity other than the Client, the Consultants or a Sub consultant; and
- (p) "Project" means the work specified in SC for which engineering consultancy services are desired.

1.2 Law Governing the Contract

This Contract, its meaning and interpretation, and the relation between the Parties shall be governed by the Applicable Law.

1.3 Language

This Contract has been executed in the English language which shall be the binding and controlling language for all matters relating to the meaning or interpretation of this Contract. All the reports and communications shall be in the English language.

1.4 Notices

Any notice, request, or consent made pursuant to this Contract shall be in writing and shall be deemed to have been made when delivered in person to an Authorized Representative of the Party to whom the communication is addressed, or when sent by registered mail, telex, or facsimile to such Party at the address of the Authorized Representatives specified under Sub-Clause SC 1.6. A Party may change its address for notice hereunder by giving the other Party notice of such change.

1.5 Location

The Services shall be performed at such locations as are specified in Appendix A and, where the location of a particular task is not so specified, at such locations as mutually agreed by the Parties.

1.6 Authorized Representatives

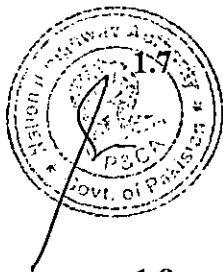
Any action required or permitted to be taken, and any document required or permitted to be executed, under this Contract by the Client or the Consultants shall be taken or executed by the Authorized Representatives specified in the SC.

1.7 Taxes and Duties

Unless specified in the SC, the Consultants, Sub consultants, and their Personnel shall pay such taxes, duties, fees, and other impositions as may be levied under the Applicable Law, the amount of which is deemed to have been included in the Contract Price.

1.8 Leader of Joint Venture

In case the Consultants consist of a joint venture of more than one entity, the Consultants shall be jointly and severally bound to the Client for fulfillment of the terms of the Contract and



designate the Member named in the SC to act as leader of the Joint Venture, for the purpose of receiving instructions from the Client.

2. COMMENCEMENT, COMPLETION, MODIFICATION, AND TERMINATION OF CONTRACT

2.1 Effectiveness of Contract

This Contract shall come into force and effect on the date (the "Effective Date") of the Client's notice to the Consultants instructing the Consultants to begin carrying out the Services. This notice shall confirm that the effectiveness conditions, if any, listed in the SC have been met.

2.2 Termination of Contract for Failure to Become Effective

If this Contract has not become effective within such time period after the date of the Contract signed by the Parties as shall be specified in the SC, either Party may, by not less than twenty eight (28) days written notice to the other Party, declare this Contract to be null and void, and in the event of such a declaration by either Party, neither Party shall have any claim against the other Party except for the work (if any) already done or costs already incurred by a Party at the request of the other Party.

2.3 Commencement of Services

The Consultants shall begin carrying out the Services at the end of such time period after the Effective Date as shall be specified in the SC.

2.4 Expiration of Contract

Unless terminated earlier pursuant to Sub-Clause 2.9, this Contract shall expire when, pursuant to the provisions hereof, the Services have been completed and the payments of remunerations including the direct costs if any, have been made. The Services shall be completed within a period as is specified in the SC, or such extended time as may be allowed under Sub-Clause 2.6.

The term "Completion of Services" is as specified in the SC.

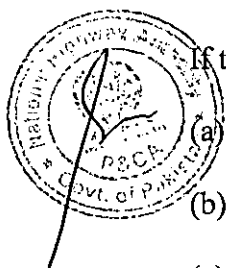
2.5 Modification

Modification of the terms and conditions of this Contract, including any modification of the scope of the Services or of the Contract Price, may only be made in writing, which shall be signed by both the Parties.

2.6 Extension of Time for Completion

If the scope or duration of the Services is increased:

- (a) the Consultants shall inform the Client of the circumstances and probable effects;
- (b) the increase shall be regarded as Additional Services; and
- (c) the Client shall extend the time for Completion of the Services accordingly.



2.7 Force Majeure

2.7.1 Definition

- (a) For the purposes of this Contract, "Force Majeure" means an event which is beyond the reasonable control of a Party and which makes a Party's performance of its obligations under the Contract impossible or so impractical as to be considered impossible under the circumstances, and includes, but is not limited to, war, riots, civil disorder, earthquake, fire, explosion, storm, flood or other adverse weather conditions, strikes, lockouts or other industrial actions (except where such strikes, lockouts or other industrial actions are within the power of the Party invoking Force Majeure to prevent), confiscation or any other action by government agencies.
- (b) Force Majeure shall not include (i) any event which is caused by the negligence or intentional action of a Party or such Party's Sub consultants or agents or employees, nor (ii) any event which a diligent Party could reasonably have been expected to both (A) take into account at the time of the conclusion of this Contract and (B) avoid or overcome in the carrying out of its obligations hereunder.
- (c) Force Majeure shall not include insufficiency of funds or failure to make any payment required hereunder.

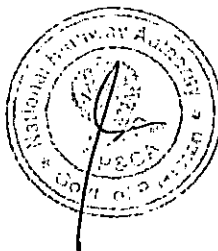
2.7.2 No Breach of Contract

The failure of a Party to fulfill any of its obligations under the Contract shall not be considered to be a breach of, or default under this Contract insofar as such inability arises from an event of Force Majeure, provided that the Party affected by such an event; (a) has taken all reasonable precautions, due care and reasonable alternative measures in order to carry out the terms and conditions of this Contract; and (b) has informed the other Party in writing not later than fifteen (15) days following the occurrence of such an event.

2.7.3 Extension of Time

Any period within which a Party shall, pursuant to this Contract, complete any action or task, shall be extended for a period equal to the time during which such Party was unable to perform such action as a result of Force Majeure.

2.7.4 Payments



During the period of their inability to perform the Services as a result of an event of Force Majeure, the Consultants shall be entitled to continue to be paid under the terms of this Contract, as well as to be reimbursed for additional costs reasonably and necessarily incurred by them during such period for the purpose of the Services and in reactivating the Services after the end of such period.

2.8 Suspension of Payments by the Client

The Client may, by written notice of suspension to the Consultants, suspend all payments to the Consultants hereunder if the Consultants fail to perform any of their obligations under this Contract, including the carrying out of the Services, provided that such notice of suspension

(i) shall specify the nature of the failure, and (ii) shall request the Consultants to remedy such failure within a period not exceeding thirty (30) days after receipt by the Consultants of such notice of suspension.

2.9 Termination

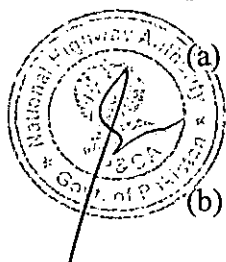
2.9.1 By the Client

The Client may terminate this Contract, by not less than thirty (30) days written notice of termination to the Consultants, to be given after the occurrence of any of the events specified in paragraphs (a) through (e) of this Sub-Clause 2.9.1 and sixty (60) days' in the case of the event referred to in paragraph (f):

- (a) if the Consultants do not remedy a failure in the performance of their obligations under the Contract, within thirty (30) days after being notified or within any further period as the Client may have subsequently approved in writing;
- (b) if the Consultants become (or, if the Consultants consist of more than one entity, if any of their Members becomes) insolvent or bankrupt or enter into any agreements with their creditors for relief of debt or take advantage of any law for the benefit of debtors or go into liquidation or receivership whether compulsory or voluntary;
- (c) if the Consultants fail to comply with any final decision reached as a result of arbitration proceedings pursuant to Clause 7 hereof;
- (d) if the Consultants submit to the Client a statement which has a material effect on the rights, obligations or interests of the Client and which the Consultants know to be false;
- (e) if, as the result of Force Majeure, the Consultants are unable to perform a material portion of the Services for a period of not less than sixty (60) days;
- (f) if the Client, in its sole discretion, decides to terminate this Contract.

2.9.2 By the Consultants

The Consultants may terminate this Contract, by not less than thirty (30) days written notice to the Client, such notice to be given after the occurrence of any of the events specified in paragraphs (a) through (d) of this Sub-Clause 2.9.2:



- (a) if the Client fails to pay any monies due to the Consultants pursuant to this Contract and not subject to dispute pursuant to Clause 7 within forty-five (45) days after receiving written notice from the Consultants that such payment is overdue;
- (b) if the Client is in material breach of its obligations pursuant to this Contract and has not remedied the same within forty-five (45) days (or such longer period as the Consultants may have subsequently approved in writing) following the receipt by the Client of the Consultants' notice specifying such breach;
- (c) if, as a result of Force Majeure, the Consultants are unable to perform a material portion of the Services for a period of not less than sixty (60) days;

- (d) if the Client fails to comply with any final decision reached as a result of arbitration proceedings pursuant to Clause 7 hereof.

2.9.3 Cessation of Services

Upon receipt of notice of termination under Sub-Clause 2.9.1, or giving of notice of termination under Sub-Clause 2.9.2, the Consultants shall take all necessary steps to bring the Services to a close in a prompt and orderly manner and shall make every reasonable effort to keep expenditures for this purpose to a minimum. With respect to documents prepared by the Consultants, and equipment and materials furnished by the Client, the Consultants shall proceed as provided, respectively, by Sub-Clauses 3.8 or 3.9.

2.9.4 Payment upon Termination

Upon termination of this Contract pursuant to Sub-Clauses 2.9.1 or 2.9.2, the Client shall make the following payments to the Consultants:

- (a) Remuneration and reimbursable direct costs expenditure pursuant to Clause 6 for Services satisfactorily performed prior to the effective date of termination. Effective date of termination for purposes of this Sub-Clause means the date when the prescribed notice period would expire;
- (b) except in the case of termination pursuant to paragraphs (a) through (d) of Sub-Clause 2.9.1, reimbursement of any reasonable cost incidental to the prompt and orderly termination of the Contract, including the cost of the return travel of the Personnel, according to Consultants Traveling Allowance Rules.

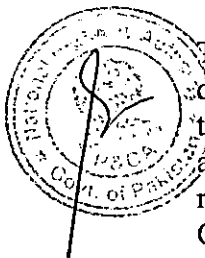
In order to compute the remuneration for the part of the Services satisfactorily performed prior to the effective date of termination, the respective remunerations shall be proportioned.

2.9.5 Disputes about Events of Termination

If either Party disputes whether an event specified in paragraphs (a) through (e) of Sub-Clause 2.9.1 or in paragraph (a) through (d) of Sub-Clause 2.9.2 hereof has occurred, such Party may, within forty-five (45) days after receipt of notice of termination from the other Party, refer the matter to arbitration pursuant to Clause 7 hereof, and this Contract shall not be terminated on account of such event except in accordance with the terms of any resulting arbitral award.

3. OBLIGATIONS OF THE CONSULTANTS

3.1 General



The Consultants shall perform the Services and carry out their obligations with all due diligence, efficiency, and economy, in accordance with generally accepted professional techniques and practices, and shall observe sound management practices, and employ appropriate advanced technology and safe methods. The Consultants shall always act, in respect of any matter relating to this Contract or to the Services, as faithful advisers to the Client, and shall at all times support and safeguard the Client's legitimate interests in any dealings with Sub consultants or third parties.

3.2 Consultants Not to Benefit from Commissions, Discounts, etc.

The remuneration of the Consultants pursuant to Clause 6 shall constitute the Consultants' sole remuneration in connection with this Contract or the Services, and the Consultants shall not accept for their own benefit any trade commission, discount, or similar payment in connection with activities pursuant to this Contract or to the Services or in the discharge of their obligations under the Contract, and the Consultants shall use their best efforts to ensure that the Personnel, any Sub consultants, and agents of either of them similarly shall not receive any such additional remuneration.

3.3 Confidentiality

The Consultants, their Sub consultants, and the Personnel of either of them shall not, either during the term or after the expiration of this Contract, disclose any proprietary or confidential information relating to the Project, the Services, this Contract, or the Client's business or operations without the prior written consent of the Client.

3.4 Professional Liability

The Consultants are liable for the consequence of errors and omissions on their part or on the part of their employees in so far as the design of the Project is concerned to the extent and with the limitations as specified herein below.

If the Client suffers any losses or damages as a result of proven faults, errors or omissions in the design of a project, the Consultants shall make good such losses or damages, subject to the conditions that the maximum liability as aforesaid shall not exceed twice the total remuneration of the Consultants for design phase in accordance with the terms of the Contract.

The liability of the Consultants expires after one (1) year from the stipulated date of completion of construction or after three (3) years from the date of final completion of the design whichever is earlier.

The Consultants may, to protect themselves, insure themselves against their liabilities but this is not obligatory. The extent of the insurance shall be up to the limit specified in second para above. The Consultants shall procure the necessary cover before commencing the Services and the cost of procuring such cover shall be borne by the Consultants up to a limit of one percent of the total remuneration of the Consultants for the design phase for every year of keeping such cover effective.

The Consultants shall, at the request of the Client, indemnify the Client against any or all risks arising out of the furnishing of professional services by the Consultants to the Client, not covered by the provisions contained in the first para above and exceeding the limits set forth in second para above provided the actual cost of procuring such indemnity as well as costs exceeding the limits set forth in fourth para above shall be borne by the Client.



3.5 Other Insurance to be taken out by the Consultants

The Consultants (a) shall take out and maintain, and shall cause any Sub consultants to take out and maintain, at their (or the Sub consultants', as the case may be) own cost but on terms and conditions approved by the Client, insurance against the risks, and for the coverage, as are specified in the SC; and (b) at the Client's request, shall provide evidence to the Client showing that such insurance has been taken out and maintained and that the current premiums have been paid.

3.6 Consultants' Actions Requiring Client's Prior Approval

The Consultants shall obtain the Client's prior approval in writing before taking any of the following actions:

- (a) Appointing such Personnel as are listed in Appendix-C merely by title but not by name;
- (b) entering into a subcontract for the performance of any part of the Services, it being understood (i) that the selection of Sub consultants and the terms and conditions of the subcontract shall have been approved in writing by the Client prior to the execution of the subcontract, and (ii) that the Consultants shall remain fully liable for the performance of the Services by the Sub consultants and its Personnel pursuant to this Contract;
- (c) any other action that may be specified in the SC.

3.7 Reporting Obligations

The Consultants shall submit to the Client the reports and documents specified in Appendix B in the form, in the numbers, and within the periods set forth in the said Appendix.

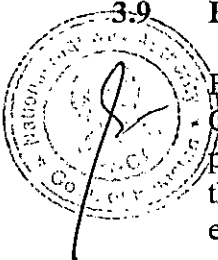
3.8 Documents Prepared by the Consultants to be the Property of the Client

All plans, drawings, specifications, reports, and other documents and software prepared by the Consultants in accordance with Sub-Clause 3.7 shall become and remain the property of the Client, and the Consultants shall, not later than upon termination or expiration of this Contract, deliver (if not already delivered) all such documents and software to the Client, together with a detailed inventory thereof. The Consultants may retain a copy of such documents and software.

Restriction(s) about the future use of these documents is specified in the SC.

3.9 Equipment and Materials Furnished by the Client

Equipment and materials made available to the Consultants by the Client or purchased by the Consultants with funds provided exclusively for this purpose by the Client, shall be the property of the Client and shall be marked accordingly. Upon termination or expiration of this Contract, the Consultants shall make available to the Client an inventory of such equipment and materials and shall dispose of such equipment and materials in accordance with the Client's instructions or afford salvage value of the same. While in possession of such equipment and materials, the Consultants, unless otherwise instructed by the Client in writing,



shall insure them at the expense of the Client in an amount equal to their full replacement value.

3.10 Accounting, Inspection and Auditing

The Consultants (i) shall keep accurate and systematic accounts and records in respect of the Services hereunder, in accordance with internationally accepted accounting principles and in such form and detail as will clearly identify all relevant time charges, and cost, and the basis thereof, and (ii) shall permit the Client or its designated representatives periodically, and up to one year from the expiration or termination of this Contract, to inspect the same and make copies thereof as well as to have them audited by auditors appointed by the Client.

4. CONSULTANTS' PERSONNEL AND SUBCONSULTANTS

4.1 Description of Personnel

The titles, agreed job descriptions, minimum qualifications, and estimated periods of engagement in the carrying out of the Services of the Consultants' Key Personnel are described in Appendix C. The Key Personnel and Sub consultants listed by title and/or by name, as the case may be, in Appendix C are deemed to be approved by the Client.

4.2 Removal and/or Replacement of Personnel

- (a) Except as the Client may otherwise agree, no changes shall be made in the Key Personnel. If, for any reason beyond the reasonable control of the Consultants, it becomes necessary to replace any of the Key Personnel, the Consultants shall provide as a replacement a person of equivalent or better qualifications;
- (b) If the Client, (i) finds that any of the Personnel have committed serious misconduct or have been charged with having committed a criminal action; or (ii) has reasonable cause to be dissatisfied with the performance of any of the Personnel, then the Consultants shall, at the Client's written request specifying the grounds therefore, provide as a replacement a person with qualifications and experience acceptable to the Client.
- (c) Except as the Client may otherwise agree, the Consultants shall; (i) bear all the additional travel and other costs arising out of or incidental to any removal and/or replacement; and (ii) bear any additional remuneration, to be paid for any of the Personnel provided as a replacement to that of the Personnel being replaced.

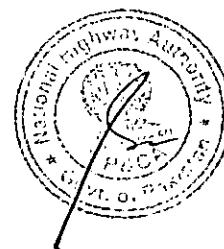
5. OBLIGATIONS OF THE CLIENT

5.1 Assistance, Coordination and Approvals

5.1.1 Assistance

The Client shall use its best efforts to ensure that the Client shall:

- (a) provide at no cost to the Consultants, Sub consultants and Personnel such documents prepared by the Client or other consulting engineers appointed by the Client as shall be necessary to enable the Consultants, Sub consultants or Personnel to perform the



Services. The documents and the time within which such documents shall be made available, are as specified in the SC;

- (b) Assist to obtain the existing data pertaining or relevant to the carrying out of the Services, with various Government and other organizations. Such items unless paid for by the Consultants without reimbursement by the Client, shall be returned by the Consultants upon completion of the Services under this Contract;
- (c) issue to officials, agents and representatives of the concerned organizations, all such instructions as may be necessary or appropriate for prompt and effective implementation of the Services;
- (d) Assist to obtain permits which may be required for right-of-way, entry upon the lands and properties for the purposes of this Contract;
- (e) Provide to the Consultants, Sub consultants, and Personnel any such other assistance and exemptions as may be specified in the SC.

5.1.2 Co-ordination

The Client shall:

- (a) co-ordinate and get or expedite any necessary approval and clearances relating to the work from any Government or Semi-Government Agency, Department or Authority, and other concerned organization named in the SC.
- (b) Co-ordinate with any other consultants employed by him.

5.1.3 Approvals

The Client shall accord approval of the documents within such time as specified in the SC, whenever these are applied for by the Consultants.

5.2 Access to Land

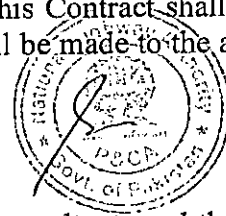
The Client warrants that the Consultants shall have, free of charge, unimpeded access to all land of which access is required for the performance of the Services.

5.3 Changes in the Applicable Law

If, after the date of this Contract, there is any change in the Applicable Law which increases or decreases the cost of the Services rendered by the Consultants, then the remunerations and direct costs otherwise payable to the Consultants under this Contract shall be increased or decreased accordingly, and corresponding adjustment shall be made to the amounts referred to in Sub-Clause 6.2 (a) or (b), as the case may be.

5.4 Services and Facilities

The Client shall make available to the Consultants, Sub consultants and the Personnel, for the purpose of the Services and free of any charge, the services, facilities and property described in Appendix F at the times and in the manner specified in said Appendix F,



provided that if such services, facilities and property shall not be made available to the Consultants as and when so specified, the Parties shall agree on; (i) any time extension that it may be appropriate to grant to the Consultants for the performance of the Services; (ii) the manner in which the Consultants shall procure any such services, facilities and property from other sources; and (iii) the additional payments, if any, to be made to the Consultants as a result thereof pursuant to Clause 6 hereinafter.

5.5 Payments

In consideration of the Services performed by the Consultants under this Contract, the Client shall make to the Consultants such payments and in such manner as is provided by Clause 6 of this Contract.

6. PAYMENTS TO THE CONSULTANTS

6.1 Lump Sum Remuneration

The Consultants' total remuneration shall not exceed the Contract Price and shall be a fixed lump sum including all staff costs, incurred by the Consultants in carrying out the Services described in Appendix A. Other reimbursable direct costs expenditure, if any, is specified in the SC. Except as provided in Sub-Clause 5.3, the Contract Price may only be increased above the amounts stated in Sub-Clause 6.2 if the Parties have agreed to additional payments in accordance with Sub-Clauses 2.5, 2.6, 5.4 or 6.6.

6.2 Contract Price

- (a) Foreign currency payment shall be made in the currency or currencies specified as foreign currency or currencies in the SC, and local currency payment shall be made in Pakistani Rupees.
- (b) The SC shall specify the breakup of remuneration to be paid, respectively, in foreign and in local currencies.

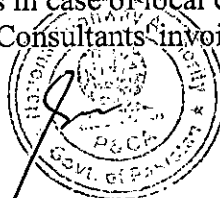
6.3 Terms and Conditions of Payment

Payment will be made to the account of the Consultants and according to the payment schedule stated in the SC. Payments shall be made after the conditions listed in the SC for such payments have been met, and the Consultants have submitted an invoice to the Client specifying the amount due.

6.4 Period of Payment

- (a) Advance payment to the Consultants shall be affected within the period specified in the SC, after signing of the Contract Agreement between the Parties.
- (b) Any other amount due to the Consultants shall be paid by the Client to the Consultants within twenty-eight (28) days in case of local currency and fifty-six (56) days in case of foreign currency after the Consultants' invoice has been delivered to the Client.

6.5 Delayed Payments



If the Client has delayed payments beyond the period stated in paragraph (b) of Sub-Clause 6.4, financing charges shall be paid to the Consultants for each day of delay at the rate specified in the SC.

6.6 Additional Services

Additional Services means:

- (a) Services as approved by the Client outside the Scope of Services described in Appendix A;
- (b) Services to be performed during the period extended pursuant to Sub-Clause 2.6, beyond the original schedule time for completion of the Services; and
- (c) any re-doing of any part of the Services as a result of Client's instructions.

If, in the opinion of the Client, it is necessary to perform Additional Services during the currency of the Contract for the purpose of the Project, such Additional Services shall be performed with the prior concurrence of both the Parties. The Consultants shall inform the Client of the additional time (if any), and the additional remuneration and reimbursable direct costs expenditure for such Additional Services. If there is no disagreement by the Client within two weeks of this intimation, such additional time, remuneration and reimbursable direct costs expenditure shall be deemed to become part of the Contract. Such remuneration and reimbursable direct costs expenditure shall be determined on the basis of rates provided in Appendices D and E, in case the Additional Services are performed during the scheduled period of the Services, otherwise remuneration for Additional Services shall be determined on the basis of Consultants' billing rates prevailing at the time of performing the Additional Services.

6.7 Consultants' Entitlement to Suspend Services

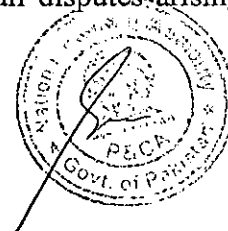
If the Client fails to make the payment of any of the Consultants' invoice (excluding the advance payment), within twenty-eight (28) days after the expiry of the time stated in paragraph (b) of Sub-Clause 6.4, within which payment is to be made, the Consultants may after giving not less than fourteen (14) days' prior notice to the Client, suspend the Services or reduce the rate of carrying out the Services, unless and until the Consultants have received the payment.

This action will not prejudice the Consultants entitlement to financing charges under Sub-Clause 6.5.

7. SETTLEMENT OF DISPUTES

7.1 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.



7.2 Dispute Settlement

Any dispute between the Parties as to matters arising pursuant to this Contract which cannot be settled amicably within thirty (30) days after receipt by one Party of the other Party's request for such amicable settlement may be submitted by either Party for settlement in accordance with the provisions of the Arbitration Act, 1940 (Act No x of 1940) and of the Rules made there under and any statutory modifications thereto.

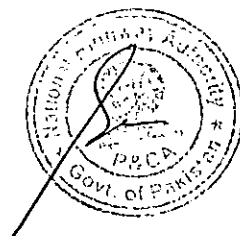
Services under the Contract shall, if reasonably possible, continue during the arbitration proceedings and no payment due to or by the Client shall be withheld on account of such proceedings.

8. INTEGRITY PACT

8.1 If the Consultant or any of his Sub consultants, agents or servants is found to have violated or involved in violation of the Integrity Pact signed by the Consultant as Appendix-G to this Form of Contract, then the Client shall be entitled to:

- (a) recover from the Consultant an amount equivalent to ten times the sum of any commission, gratification, bribe, finder's fee or kickback given by the Consultant or any of his Sub consultant, agents or servants;
- (b) terminate the Contract; and
- (c) Recover from the Consultant any loss or damage to the Client as a result of such termination or of any other corrupt business practices of the Consultant or any of his Sub consultant, agents or servants.

On termination of the Contract under Sub-Para (b) of this Sub-Clause, the Consultant shall proceed in accordance with Sub-Clause 2.9.3. Payment upon such termination shall be made under Sub-Clause 2.9.4 (a) after having deducted the amounts due to the Client under Sub-Para (a) and (c) of this Sub-Clause.



III. SPECIAL CONDITIONS OF CONTRACT

No. Amendments of, and Supplements to, Clauses in the General Conditions of contract of GC Clause.

1.1 Definitions

(p) "Project means "Design Updation of Guide Banks and Approach Roads of the Existing Bridge Across River Indus Connecting Kallurkot D/S or U/S with D.I. KHAN ."

1.2 Law Governing the Contract

The Consultants personnel shall at all times endeavor to observe and respect all laws, rules, regulations and customs prevailing within the Islamic Republic of Pakistan.

1.6 Authorized Representatives

The Authorized Representatives are the following:

For the Client:

General Manager (Design)

National Highway Authority

Plot No. 28, Mauve Area, G-9/1 P.O. Box 1205,
Islamabad.

Telephone: (+92) 51-9032901

For the Consultants: (To be Finalized during Contract Negotiation)

____ (Name of Project Manager)
____ (Project)
____ (Address)

Telephone : _____
Facsimile : _____
E-Mails : _____

1.7 Taxes and Duties

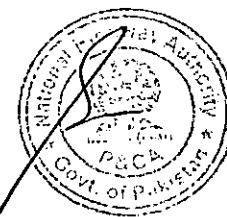
Payment of Taxes will be the responsibility of the Consultants in accordance with Pakistan Tax Laws.

[All notes should be deleted in final text. All blanks should be filled in.]

1.8 Leader of the Joint Venture

The leader of the Joint Venture is..... (Name of the Member of the Joint Venture).

[Note: If the Consultants do not consist of more than one entity, the Sub-Clause 1.8 should be deleted.]



2.1 Effectiveness of Contract

The date on which this Contract shall come into effect is the date when the Contract is signed by both the Parties.

2.2 Termination of Contract for Failure to Become Effective

The time period shall be thirty (30) days, or such other period as the Parties may agree in writing.

2.3 Commencement of Services

The Consultant shall commence the services immediately after signing of the Contract Agreement or such other time as the Parties may agree in writing.

2.4 Expiration of Contract

The services specified in the TOR shall be completed and all relevant reports submitted in the form and format acceptable to the Employer, within **Four (04)** Months from the date of signing of Contract Agreement or such other period as the Parties may agree in writing.

2.7.4 Payments

Following text is added at the end of the Para:

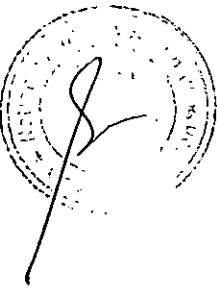
“Excluding overheads and profits.”

3.4 Professional Liability

Professional indemnity bond for twice the remuneration in the joint name of Client and Consultants shall be provided as per last paragraph of GC 3.4 within 30 days after the issuance of Letter of Acceptance. The Consultants is to cover this cost in its overheads.

3.5 Insurance to be taken out by the Consultants

The risks and the coverages shall be as follows:

- 
- (a) Third Party motor vehicle liability insurance in respect of motor vehicles operated in Pakistan by the Consultants or their Personnel or any Sub-consultants or their Personnel, with a minimum coverage of Rs. 100,000/-.
 - (b) Insurance against loss of or damage to equipment purchased in whole or in part with funds provided under the Contract.
 - (c) The Consultants are required to insure their Employees and Professionals for Hospitalization/ Medical, Travel and Accident Cover for the duration of the Contract.

3.7 Reporting Obligations

Moreover, along with the hard copies “contractor/ consultant” etc. must provide duly certified Soft/ scanned copies of the all the documents prepared/ used/ referred etc. during the contract

period. The soft/ scanned copies shall be stored in the appropriate storage media like external hard disk in a secure and structured manner. The scanned copies must have proper file names/ titles etc in appropriate folders for quick retrieval. The soft/ scanned copies provided by the contractor/ consultant must have third party certification and traceability.

3.8 Documents Prepared by the Consultants to be the Property of the Client

The Client and the Consultants shall not use these documents for purposes unrelated to this Contract without the prior written approval of the other Party.

5.1.1 Assistance

- (a) The Client shall make available within 14 days from the Commencement Date, the documents namely: to be inserted as and when required.

5.1.2 Coordination

- (a) The departments and agencies include as per requirement from time to time.

5.1.3 Approvals

The Client shall accord approval of the documents immediately but not later than fourteen (14) days from the date of their submission by the Consultants.

6.1 Lump Sum Remuneration

[Note: In case there are other expenditures in respect of which reimbursement is allowed in addition to the lump sum remuneration, details of such reimbursable direct costs expenditure which may include Sub consultants' costs, printing, communications, travel, accommodation etc., may be indicated herein. Each item shall be specified whether it is payable on the basis of (a) lump sum monthly rate; or (b) reimbursement of actual expenditures.]

6.2 Contract Price

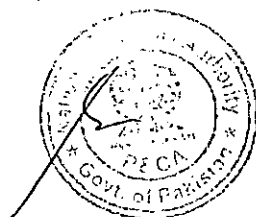
- (a) The amount in foreign currency is.....
The amount in local currency is Pakistani Rupees.....
- (b) The breakup of foreign and local currencies shall be as under:
- For Planning and Designing, total foreign currency comprising.... (Name the currency/currencies) is and total Pak Rs. is

6.3 Terms and Conditions of Payment

A lump sum amount in local currencies against services referred under SC 6.2 shall be paid to the Consultants for the Services to be completed within the period specified in SC 2.4.

Payments shall be made according to the following schedule:

AS PER TOR



6.4 Period of Payment

- (a) The time period for advance payment shall be() days after signing of Contract Agreement by both the Parties. (Fill in the time period e.g., thirty (30) days).

6.5 Delayed Payments

Financing charges are as under:

- (ii) for local currency = Eight percent (08%) per annum.

6.6 Additional Services

The Consultants shall be prepared at any time during the project to provide expert technical advice and skill to the Client who may ask and need such assistance on any phase or specific feature of the Project. The Consultants will be separately compensated for all such services not covered in the original Services.

9. Priority of Documents

Following is to indicate priority of documents forming part of this Contract to resolve an ambiguity or non-clarity in the provision:

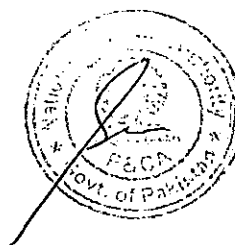
- ✓ Contract Agreement;
- ✓ Minutes of Contract Negotiation Meeting;
- ✓ The Special Conditions of Contract;
- ✓ The General Conditions of Contract;
- ✓ Minutes of Pre-Proposal Meeting and Addenda;
- ✓ Scope of Services/ Terms of Reference;
- ✓ Other documents including Integrity Pact and JV agreement (if any).

10. Royalties

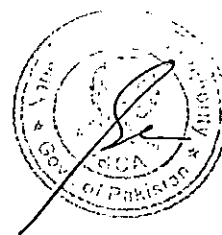
The Consultants shall save harmless and indemnify the Client from and against all claims and proceedings on account of or for infringement of any patent right, design, trademark or name or other protected rights in respect to any patented designs, features or equipment they may use for carrying out the Services, and shall pay all royalties etc. thereto.

11. Penalty

If the Consultants fails to comply with the time to completion as given in the Contract, the Client will impose a penalty at the rate of 0.05% of the fee for incomplete portion of work as per Appendix-E for each day of delay up to a maximum of 10% of the same amount.



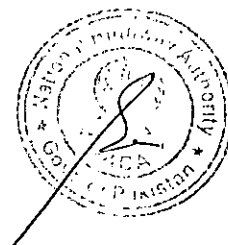
IV APPENDICES



Appendix A

Description of the Services

[Give detailed descriptions of the Services to be provided, dates for completion of various tasks, place of performance for different tasks, specific tasks to be approved by Client, etc.]

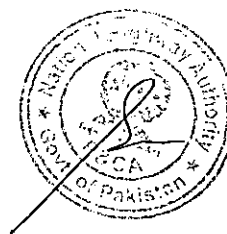


Appendix B

Reporting Requirements

Pursuant to Sub-Clause GC-3.7, the Consultants shall submit the following reports:

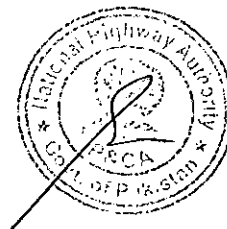
[List format, frequency, and contents of reports; persons to receive them; dates of submission and the number of copies of each submittal; etc. If no reports are to be submitted, state here "Not applicable".]



Appendix C

Key Personnel and Sub consultants

- [List under:
- C-1 Title [and names, if already available], activities of job descriptions of key Personnel to be assigned to work and staff-months for each.
 - C-2 List of approved Sub consultants (if already available); same information with respect to their Personnel as in C-1.]



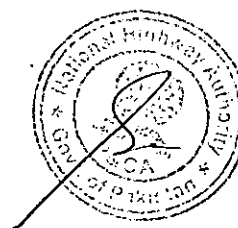
Appendix D**Breakdown of Contract Price in Foreign Currency**

[List here the elements of cost used to arrive at the breakdown of the Contract Price-foreign currency portion:

1. Remuneration for various items on the basis of rates as mutually agreed.
2. Other reimbursable direct costs expenditure.
3. Total, remuneration and reimbursable direct costs expenditure = (1 + 2)

Note:

This appendix will exclusively be used for determining remuneration for Additional Services in accordance with Sub-Clause GC 6.6.]



Appendix E

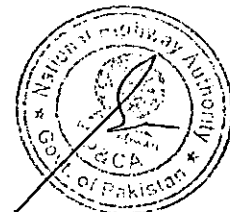
Breakdown of Contract Price in Local Currency

[List here the elements of cost used to arrive at the breakdown of the Contract Price-local currency portion:

1. Remuneration for various items on the basis of rates as mutually agreed.
2. Other reimbursable direct costs expenditure related to:
 - (a) Support staff, and work charged staff;
 - (b) Office expenditures related to:
 - (i) rentals;
 - (ii) furnishing and equipment;
 - (iii) operation and maintenance of office, office equipment and furniture, office supplies.
 - (c) Transport including running and maintenance, and other associated costs;
 - (d) Traveling etc.
 - (e) Other costs
3. Total, remuneration and reimbursable direct costs expenditure = (1 + 2).

Note:

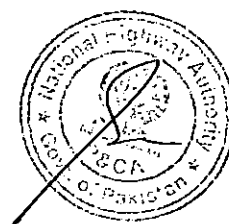
1. *Each item of reimbursable direct costs expenditure shall be specified whether it is payable on the basis of (a) lump sum monthly rate; or (b) reimbursement of actual expenditures.*
2. *This appendix will exclusively be used for determining remuneration for Additional Services in accordance with Sub-Clause GC 6.6.]*



Appendix F

Services and Facilities to be provided by the Client

As Per TOR



**Appendix G
(INTEGRITY PACT)**

**Declaration of Fees, Commission and Brokerage etc.
Payable by the Suppliers of Goods, Services & Works in
Contracts Worth Rs.10.00 million or More**

Contract No. _____ Dated: _____ Contract Value: _____

Contract Title: [name of Supplier] hereby declares that it has not obtained or induced the procurement of any contract, right, interest, privilege or other obligation or benefit from Government of Pakistan (GOP) or any administrative subdivision or agency thereof or any other entity owned or controlled by GOP through any corrupt business practice. Without limiting the generality of the foregoing, [name of Supplier] represents and warrants that it has fully declared the brokerage, commission, fees etc. paid or payable to anyone and not given or agreed to give and shall not give or agree to give to anyone within or outside Pakistan either directly or indirectly through any natural or juridical person, including its affiliate, agent, associate, broker, consultant, director, promoter, shareholder, sponsor or subsidiary, any commission, gratification, bribe, finder's fee or kickback, whether described as consultation fee or otherwise, with the object of obtaining or inducing the procurement of a contract, right, interest, privilege or other obligation or benefit in whatsoever form from GOP, except that which has been expressly declared pursuant hereto.

[name of Supplier] certifies that it has made and will make full disclosure of all agreements and arrangements with all persons in respect of or related to the transaction with GOP and has not taken any action or will not take any action to circumvent the above declaration, representation or warranty.

[name of Supplier] accepts full responsibility and strict liability for making any false declaration, not making full disclosure, misrepresenting facts or taking any action likely to defeat the purpose of this declaration, representation and warranty. It agrees that any contract, right, interest, privilege or other obligation or benefit obtained or procured as aforesaid shall, without prejudice to any other rights and remedies available to GOP under any law, contract or other instrument, be voidable at the option of GOP.

Notwithstanding any rights and remedies exercised by GOP in this regard, [name of Supplier] agrees to indemnify GOP for any loss or damage incurred by it on account of its corrupt business practices and further pay compensation to GOP in an amount equivalent to ten times the sum of any commission, gratification, bribe, finder's fee or kickback given by [name of Supplier] as aforesaid for the purpose of obtaining or inducing the procurement of any contract, right, interest, privilege or other obligation or benefit in whatsoever form from GOP.

Name of Buyer: National Highway Authority

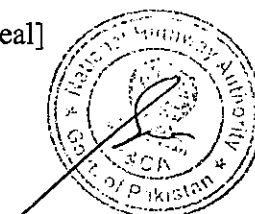
Name of Seller/Supplier:

Signature:

Signature:

[Seal]

[Seal]



CONTRACT FOR ENGINEERING CONSULTANCY SERVICES

Between

(NAME OF THE CLIENT)

And

(NAME OF THE JOINT VENTURE OF THE CONSULTANTS)

For

(BRIEF SCOPE OF SERVICES)

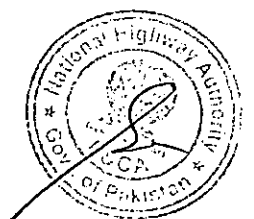
OF _____
(NAME OF PROJECT)

Month and Year

(NAME OF THE JOINT VENTURE OF THE CONSULTANTS)

(Name of Individual Consultants)

(Name of Individual Consultants)



FORM OF CONTRACT

[Note: Use this Form of Contract when the Consultants perform Services as a Joint Venture.]

This CONTRACT (hereinafter called the "Contract") is made on the _____ day of ____ (month) of ____ (year), between, on the one hand, _____

(Hereinafter called the "Client" which expression shall include the successors, legal representatives and permitted assigns) and, on the other hand, a joint venture consisting of the following entities, each of which will be jointly and severally liable to the Client for all the Consultants' obligations under this Contract, namely:

(Hereinafter collectively called the "Consultants" which expression shall include its successors, legal representatives and permitted assigns).

WHEREAS

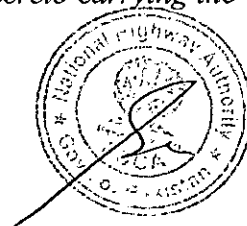
- (a) the Client has requested the Consultants to provide certain consulting services as defined in the General Conditions of Contract attached to this Contract (hereinafter called the "Services"); and
- (b) the Consultants, having represented to the Client that they have the required professional skills, and personnel and technical resources, have agreed to provide the Services on the terms and conditions set forth in this Contract;

NOW THEREFORE the Parties hereby agree as follows:

1. The following documents attached hereto shall be deemed to form an integral part of this Contract:
 - (a) the General Conditions of Contract;
 - (b) the Special Conditions of Contract;
 - (c) the following Appendices:

[Note: If any of these Appendices are not used, the words "Not Used" should be inserted below next to the title of the Appendix and on the sheet attached hereto carrying the title of that Appendix.]

- Appendix A: Description of Services
- Appendix B: Reporting Requirements
- Appendix C: Key Personnel and Sub-consultants
- Appendix D: Breakdown of Contract Price in Foreign Currency
- Appendix E: Breakdown of Contract Price in Local Currency
- Appendix F: Services & Facilities to be Provided by the Client and Counterpart Personnel to be Made Available to the Consultants by the Client.
- Appendix G: Integrity Pact (for Services above Rs. 10 Million)



2. The mutual rights and obligations of the Client and the Consultants shall be as set forth in the Contract, in particular:
- (a) The Consultants shall carry out the Services in accordance with the provisions of the Contract; and
 - (b) The Client shall make payments to the Consultants in accordance with the provisions of the Contract.

IN WITNESS WHEREOF, the Parties hereto have caused this Contract to be signed in their respective names in two identical parts each of which shall be deemed as the original, as of the day, month and year first above written.

For and on behalf of

CLIENT'S NAME

Witness

Signature _____

Name _____

Title _____

Signature _____

Name _____

Title _____

(Seal)

For and on behalf of

NAME OF THE JOINT VENTURE OF THE CONSULTANTS

Name of Member No. 1

Witness

Signature _____

Name _____

Title _____

Signature _____

Name _____

Title _____

(Seal)

Name of Member No. 2

Witness

Signature _____

Name _____

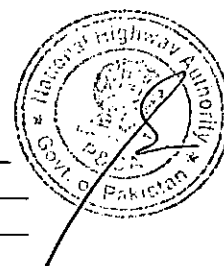
Title _____

Signature _____

Name _____

Title _____

(Seal)

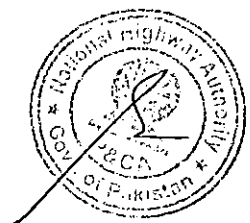


Name of Member No. 3

Witness

Signature _____
Name _____
Title _____

Signature _____
Name _____
Title _____
(Seal)



Declaration of Ultimate Beneficial Owners Information for Public Procurement Contracts**(For contracts worth Rs. 50 million and above)**

1. Name
2. Fathers Name/Spouse's Name
3. CINIC/NICOP/Passport No.
4. Nationality
5. Residential address
6. Email Address
7. Date on which shareholding, control or interest acquired in the business.
8. In case of indirect shareholding, control or interest being exercised through intermediary companies entries or other legal person or legal arrangements in the chain of ownership or control, following additional particulars to be provided:

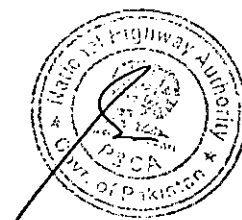
1	2	3	4	5	6	7	8	9	10
Name	Legal form (company/ Limited Liability Partnership/ Association of Persons/Single Member Company/ partnership Firm/ Trust/ Any other individual, body corporate (to be specified)	Date of incorporation/registration	Name of registering authority	Business Address	Country	Email Address	Percentage of shareholding, control or interest of BO in the Legal person or legal arrangement	Percentage of shareholding, control or interest of legal person or legal arrangement in the company	Identify of natural person who ultimately owns or controls the legal person or arrangement

9. Information about Board of Directors (Details Shall be provided regarding number of shares in the capital of the company as set opposite respective names).

1	2	3	4	5	6	7	8
Name and surname (in Block Letters)	CINIC No.(in case of foreigner, Passport No.)	Father's/ Husband's Name in full	Current Nationality	Any other Nationality (ies)	Occupation	Residential address in full or the registered/ principal office address for a subscribers other than natural person	Number of share taken by cash subscriber (in figures and words)
			Total Number of shares taken (in figures and words)				

10. Any other information incidental to or relevant to Beneficial owner(s)

Name and signature
(Person authorized to issue notice on behalf of the company)



REQUIREMENTS OF AUDIT REPORTS

Sr. No.	Types of Organization	Minimum requirement of auditors	Basis of Preparation of Audit Reports	Basis of preparation of Financial Statements
1.	Corporate entities (duly registered with Securities and Exchange Commission of Pakistan)	Licensed Chartered Accountant Firms (Minimum Partnership Firm with international affiliation) enlisted and appearing on the list of firms in ICAP directory as at the finalization of procurement.	International auditing standards as applicable in Pakistan.	i. Companies Ordinance 1984 or Companies Act 2017 (Whichever is applicable). ii. International accounting and financial reporting standards as applicable in Pakistan at the time of issuance of the reports.
2.	Partnership Firm/ AOPs/ Joint Ventures	Licensed Chartered Accountant Firms (Minimum Partnership Firm) enlisted and appearing on the list of firms in ICAP directory as at the finalization of procurement.		International accounting and financial reporting standards as applicable in Pakistan at the time of issuance of the reports.
3.	Individuals/ Sole Proprietorship	Licensed Cost & Management Accountant Firms enlisted and appearing on the list of firms in ICMAP directory as at the finalization of procurement for organization of net worth up to 10 million only. In all other cases Licensed Chartered Accountant Firms enlisted and appearing on the list of firms in ICAP directory as at the finalization of procurement.		Consistent and acceptable Accounting policies.

