

NATIONAL HIGHWAY AUTHORITY

Procurement & Contract Administration Section 28 Mauve Area, G-9/I, Islamabad ☎ 051-9032727, ⋑ 051-9260419

No. 6(466)/DIR-III (P&CA)/NHA/18/205

/3 April, 2018

Director General

Public Procurement Regulatory Authority 1st Floor FBC Building near State Bank, Sector G-5/2, **Islamabad**

Subject: ANNOUNCEMENT OF EVALUATION REPORT (PPRA Rule-35):

Consultancy Services for Design Review and Construction Supervision for Dualization of Rawalpindi-Kahuta Road (28.4 Km) including 4-Lane Bridge over Sihala Railway Pass, Sihala

Bypass and Kahuta Bypass

Reference: PPRA Rule-35

Kindly find attached the duly filled and signed Evaluation Report along with Bid Evaluation Criteria (Annex-I) pertaining to the procurement of subject services in view of above referred PPRA Rule-35 for uploading on PPRA website at the earliest, please.

(Muhammad Azam)

Director (P&CA)

Encl: Evaluation Report along with Annex-I

Copy for kind information to:

- Member (Engineering-Coord), NHA;
- Member (Planning), NHA;
- General Manager (P&CA), NHA;
- S.O. (Tech.) to Chairman, NHA.

EVALUATION REPORT (As Per Rule 35 of PP Rules, 2004)

1.	Name of Procuring Agency:	National Highway Authority
2.	Method of Procurement:	Single Stage Two Envelope Procedure
3.	Title of Procurement:	Consultancy Services for Design Review and Construction Supervision for Dualization of Rawalpindi-Kahuta Road (28.4 Km) including 4-Lane Bridge over Sihala Railway Pass, Sihala Bypass and Kahuta Bypass
4.	Tender Inquiry No.:	6(466)
5.	PPRA Ref. No. (TSE):	TS345341E
6.	Date & Time of Bid Closing:	8 th March, 2018 at 1130 hours local time
7.	Date & Time of Bid Opening:	8 th March, 2018 at 1200 hours local time
8.	No of Bids Received:	Seven (07) Proposals were received
9.	Criteria for Bid Evaluation:	Criteria of Bid Evaluation is attached at Annex-I
10.	Details of Bid(s) Evaluation:	As below

		Marks			Rule/Regulation/SBD**/	
Name of Bidder	Technical (if applicable)	(if of		Evaluated Cost* (PKR)	Policy/ Basis for Rejection / Acceptance as per Rule 35 of PP Rules, 2004.	
1) M/s National Engineering Services Pakistan (Pvt.) Ltd. (NESPAK) in JV with M/s New Vision Engineering Consultant (Pvt.) Ltd.	601	200	801	84,612,350	Top scoring firm in combined evaluation (PPRA Rule 36(b) (ix))	
2) M/s Prime Engineering & Testing Consultants (Pvt.) Ltd. in JV with M/s Associated Consultancy Centre (Pvt.) Ltd. and M/s Babar's Associates	604	193	797	87,600,423	2 nd	
3) M/s EA Consulting (Pvt.) Ltd. in JV with M/s Techno Legal Consultants (Pvt.) Ltd.	578	128	706	132,200,000	3rd	
4) M/s Associated Consulting Engineers — ACE (Pvt.) Ltd. in JV with M/s Engineering General Consultants — EGC (Pvt.) Ltd. and M/s Electra Consultants-Peshawar	547	Financial	Proposal n	ot opened	PPRA Rule 36(b) (v)	
5) M/s PEAS Consulting (Pvt.) Ltd. in JV with M/s Partners in Development	540	Financial Proposal not opened		PPRA Rule 36(b) (v)		

Consultancy Services for Design Review and Construction Supervision for Dualization of Rawalpindi-Kahuta Road (28.4 Km) including 4-Lane Bridge over Sihala Railway Pass, Sihala Bypass and Kahuta Bypass Page 1 of 2



EVALUATION REPORT

(As	<u>Per</u>	Rule	<u>35</u>	<u>of</u>	<u> PP</u>	<u>Rules,</u>	2004)
-							

	Marks				Rule/Regulation/SBD**/	
Name of Bidder	Technical (if applicable)	Financial (if applicable)	(if of (PKR)		Policy/ Basis for Rejection / Acceptance as per Rule 35 of PP Rules, 2004.	
and M/s PAVRON						
6) M/s Indus Associated Consultants (Pvt.) Ltd. 498		Financial Proposal not opened		PPRA Rule 36(b) (v)		
7) M/s Asif Ali & Associates (Pvt.) Ltd. in JV with M/s Engineering Consultancy Services Punjab (Pvt.) Ltd.	469	Financial Proposal not opened		PPRA Rule 36(b) (v)		

^{*} EC is the Evaluated Cost used for evaluation purpose and includes only the cost of competitive component (i.e. Remuneration and Direct Non- Salary Cost) and is exclusive of Provisional Sum, Contingency and Indirect Taxes.

Top Ranked Bidder:

M/s National Engineering Services Pakistan (Pvt.) Ltd. (NESPAK) in JV with M/s New Vision Engineering Consultant (Pvt.) Ltd.

Any other additional / supporting information, the procuring agency may like to share: The Procurement was carried out in line with PPRA Rules & Regulations. The bidding was done on QCBS method with 80:20 Technical to Financial Proposals ratio.

Official Stamp: Genere ** ** **** Genere ** ******* (P&CA)

Natic Shway Authority

** Standard Bidding Documents (ទំនង់).

National Highway Authority



Annex-I
Criteria
FOR
Bid Evaluation

Consultancy Services for Design Review and Construction Supervision for Dualization of Rawalpindi-Kahuta Road (28.4 Km) including 4-Lane Bridge over Sihala Railway Pass, Sihala Bypass and Kahuta Bypass

April, 2018



NATIONAL HIGHWAY AUTHORITY

Procurement & Contract Administration Section 28-Mauve Area, G-9/1, Islamabad Tel: 9032727, Fax: 9260419

Ref: 6(466)/DIR-III (P&CA)/NHA/18/90

2nd March, 2018

All Prospective Consultants

Subject:

Minutes of Pre-Proposal Meeting for:

CConsultancy Services for Design Review and Construction Supervision for Dualization of Rawalpindi-Kahuta Road (28.4 Km) including 4-Lane Bridge over Sihala Railway Pass, Sihala

Bypass and Kahuta Bypass.

Reference: Request for Proposal Notice for subject Services appeared in daily

newspapers on 17th February, 2018

The Minutes of Pre-Proposal Meeting for subject Services being integral part of the Request for Proposal are enclosed herewith for necessary action, please.

> (Muhammad Azam) Director (P&CA)

Enclosure:

Minutes of Pre-Proposal Meeting (01 Page),

Copy for kind information to:

Member (Engg. Coord.), NHA, Islamabad;

Member (Planning), NHA, Islamabad;

General Manager (Planning), NHA, Islamabad;

General Manager (P&CA), NHA, Islamabad.

MINUTES OF PRE-PROPOSAL MEETING HELD ON 23rd February, 2018

Consultancy Services for Design Review and Construction Supervision for Dualization of Rawalpindi-Kahuta Road (28.4 Km) including 4-Lane Bridge over Sihala Railway Pass, Sihala Bypass and Kahuta Bypass

A Pre-Proposal Meeting was held in NHA Auditorium at 1100 hours on 23rd February, 2018 to discuss the Request for Proposal (RFP) for subject services. Following NHA officers and representatives of prospective consultants attended the meeting:

- National Highway Authority
 - Mr. Parkash Lohano ... General Manager (Planning)
 Mr. Zulfiqar Ali Janjua ... General Manager (Design)
 Mr. Muhammad Azam ... Director (P&CA) III
 Mr. Dawood Khan Deputy Director (P&CA) II
- Consultants
 - Mr. Haris Aqil
 Mr. Usman Riaz
 Mr. Shahid Rahman
 Mr. Shahid Rahman
 Mr. Shahid Rahman
 Mr. Shahid Rahman
 - Khawaja Hamid
 M/s Mott MacDonald
 - Mr. Naeem M/s Engineering General Consultants (Pvt.)Ltd.
- 2. The queries submitted during the above mentioned pre-proposal meeting and their clarifications/ replies are summarized below for information of all prospective bidders:

Sr. Queries	Reply
1. Data Sheet Clause 1.7 at page 9 'sub-clause (v) added' state that "The consultant may better not to suggest names of Key Staff already proposed in other Proposals which are being evaluated by NHA or contract (s) awarded recently. This will affect adversely marking of these professionals in evaluation of Technical proposal. Their secured points are liable to be reduced by 50% in their names appear in more than 1 previous proposal in which they are ranked No.1. Also the existing load of work with a firm shall be considered as one of the factor for the considered as one of the factor for the considered as one of the factor for the consideration in the award of the work. This is not realistic in view of series of proposals being invited by NHA and proposing separate staff for every proposal is not possible for almost any consulting firm in the country.	per RFP

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6 (466)

National Highway Authority



REQUEST FOR PROPOSAL

FOR

CONSULTANCY SERVICES FOR

CONSULTANCY SERVICES FOR DESIGN REVIEW AND CONSTRUCTION SUPERVISION FOR DUALIZATION OF RAWALPINDI-KAHUTA ROAD (28.4 Km) INCLUDING 4-LANE BRIDGE OVER SIHALA RAILWAY PASS, SIHALA BYPASS AND KAHUTA BYPASS

(Page 1 to 131)

FEBRUARY, 2018

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GOVERNMENT OF PAKISTAN NATIONAL HIGHWAY AUTHORITY 28-Mauve Area, G-9/1, Post Box No. 1205, ISLAMABAD

Dated	the	
Ref No		

LETTER OF INVITATION

To,

All consultants

Gentlemen!

We extend warm welcome to you and invite you to participate 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 specifically mentioned 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.

Your attention is particularly drawn towards paragraph 1.10, 3.1.1, subparagraph 3.1.2 (d), paragraphs 3.1.3, 3.1.5, 5.2.1 and 6.5 of Instructions to Consultants (Annex A) as well as subparagraphs 1.7 (v), 1.7 (vii), 1.7 (viii), 1.8 (a) and 1.8 (b) in Data Sheet (Annex B) and Note under the Table for check list of Required Forms (in Technical Proposal) to avoid the risks of Disqualification/ Rejection/ loosing marks/ Penalty.

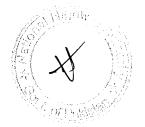
However, the Client at its own discretion reserves the right to EITHER seek clarification on non-compliance of the Instructions and rectify or not the shortcomings only in Technical Proposals (under similar treatment to each consultant), OR not, prior to opening of Financial Proposals (which shall be kept unopened till complete evaluation of Technical Proposals). No alteration in Financial Proposals shall be made except during the negotiations subject to Procurement of Consultancy Services Regulations 2010 as notified by Public Procurement Regulatory Authority.

General Manager (P&CA)

Telephone: +92-51-9032727,

Fax: +92-51-9260419 E-mail: gmpca.nha@gmail.com,

Website: www.nha.gov.pk



ATTACHMENTS

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



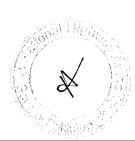
INSTRUCTIONS TO CONSULTANTS

1. **GENERAL**

- 1.1 Desiring consultants are invited to submit a technical and a financial proposal for consulting services required for the assignment named in the attached Data Sheet (Annex B). The proposals could form the basis for future negotiations and ultimately a Contract between the selected Consultant 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 which are elaborated in Appendix A (Terms of Reference) to this RFP.
- 1.3 The assignment shall be implemented in accordance with the phasing indicated in the Data Sheet. (When the assignment includes several phases, continuation of services for the next phase shall be subject to satisfactory performance of the previous phase, as determined by the Client).
- 1.4 The Client (NHA) has been entrusted the duty to implement the Project as Executing Agency by GOP and funds for the project have been approved and provided in the budget for utilization towards the cost of the assignment, and the Client intends to apply part of the funds to eligible payments under the Contract for which this LOI is issued.
- 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 preproposal conference if specified in the Data Sheet. Your representative shall meet the official named in the Data Sheet. Please ensure that the official is advised of the visit in advance to allow adequate time for him 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 It is notified that:

- i. The cost of preparing the proposal and of negotiating the Contract, including visit to the Client, are not reimbursable as a direct cost of the Assignment, and
- ii. The Client is not bound to accept any or all of the proposals submitted.
- 1.8 An invitation to submit proposals has been sent to the firms as listed/stated in the Data Sheet.
- 1.9 In order to avoid conflicts of interest:
 - i. A firm that has been engaged by the Client to provide goods, works, or non-consulting services for a project, or any of its Affiliates, shall be disqualified from providing consulting services resulting from or directly related to those goods, works, or non-consulting services. Conversely, a firm hired to provide consulting services for the preparation or implementation of a project, or any of its Affiliates,



shall be disqualified from subsequently providing goods or works or nonconsulting services resulting from or directly related to the consulting services for such preparation or implementation.; and

- ii. A Consultant (including its Experts and Sub-consultants) or any of its Affiliates shall not be hired for any assignment that, by its nature, may be in conflict with another assignment of the Consultant for the same or for another Client.
- 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 attached Forms/Documents listed in the Data Sheet.
- 2.2 Consultants requiring a clarification of the Documents must notify the Client, in writing, not later than Fourteen (14) 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 indicated in the Data Sheet. The Client shall respond by cable, telex or telefax 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 telefax 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

Desiring consultants will submit a Technical and a Financial Proposal. The proposals shall be written in English language.

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.

The proposals should be bound in the 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. Any proposal found not adhering to these requirements may be **rejected** at the time opening.3.1.2 In the Technical Proposal, the general approach and methodology shall be proposed for carrying out the services covered in the Term of Reference, including such detailed information as deemed relevant together with consultant's appreciation of the Project from provided details and



- a. A detailed overall work programme to be provided with timing of the assignment of each Key Personnel or other staff member assigned to the Project.
- b. An estimate of the total number of person-months and Project duration required.
- c. Clear description of the responsibilities of each Key Personnel within the overall work programme.
- d. The Curriculum Vitae of all Key Personnel and an Affidavit on stamp paper duly attested by Oath Commissioner to the effect that the proposed personnel shall be available for the assignment in the project duration and their present place of duty may also be mentioned. Failure to provide the Affidavit may result in to no further evaluation of the proposal. 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 in this RFP: the name, background, and professional experience of each Key Personnel 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 in evaluation of Technical Proposal. Consultants are required to provide the details of present commitments/ongoing jobs as referred in the Form TECH-9 of Technical Proposal. Further, the basis for considering the past performance is the report from Design Section and Construction Wing of NHA.
- 3.1.3 While preparing the Technical Proposal, consultants are expected to examine all terms and instructions included in the RFP. Failure to provide all requested information shall be at consultant's risk and may result adversely in the scoring of the proposal. The proposal should be prepared as per RFP and any suggestion or review of staff etc. should be clearly spelt out in Form TECH-4. This will be discussed at the time of negotiation meeting as and when called.

Penalty against non-compliance with the maximum page requirement based in the 'CHECKLIST OF REQUIRED FORMS' provided in the Section of Technical Proposal Forms will be one (01) score point per excess page to be deducted from the total technical score. The consultants are instructed to submit the CVs of Key Personnel by truly following the format attached at Form TECH-5. The CV's submitted on format in deviation to that specified are susceptible of scoring low.

- 3.1.4 During preparation of the Technical Proposal, consultants must give particular attention to the following:
 - i. Consultant may utilize the services of expatriate experts but only to the extent for which the requisite expertise is not available with any Pakistani firm. In case of JV, the proposal should state clearly partners will be "Jointly and Severally" responsible for performance under the Contract and One (Representative) partner will be solely responsible for all dealings with the Client on behalf of the JV. 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.
- ii. Subcontracting part of the assignment to the other consultants is discouraged and only individual Specialist Sub-Consultants (having unique expertise which is not available with others) may be included.
- iii. The Key Personnel proposed shall preferably be permanent employees of the firm unless otherwise indicated in the Data Sheet.
- iv. The estimated number of Key Personnel person-months required for the Assignment is stated in the Data Sheet. The proposal should be based on a number of Key Personnel person-months substantially in accordance with the above number. However consultants may propose changes in the light of their experience through particular comments on the TOR.
- v. Proposed personnel should have experience preferably under conditions similar to those prevailing in the area of the Assignment. The minimum required experience of proposed Key Personnel shall be as listed in the Data Sheet.
- vi. No alternative to Key Personnel may be proposed, and only one curriculum vitae (CV) may be submitted for each position.
- vii. If the Data Sheet specifies training as a major component of the Assignment, a detailed description of the proposed methodology, staffing, budget and monitoring is to be provided.
- 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 indicated in the TOR shall be included in the Technical Proposal. A Technical Proposal containing any financial information will be treated as non-responsive resulting in to rejection of the 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 mentioned in the Form FIN-7 and accordingly in Form FIN-1 too.
- 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. The Financial Proposal should be prepared using the formats attached as Forms FIN- 1 to FIN- 7.
- 3.2.3 The Financial Proposal shall also take into account the professional liability as provided under the relevant PEC Bye-Laws and cost of insurances specified in the Data Sheet.
- 3.2.4 Costs may be expressed in currency (s) listed in the Data Sheet.



4. SUBMISSION OF PROPOSALS

- 4.1 Consultants shall submit one original Technical Proposal and one original Financial Proposal and the number of copies of each indicated 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 indicated 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 representative of the consultant. 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 signed 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 and date stated in the Data Sheet. The location for the submission of proposals is indicated 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, consultants shall keep available the Key Personnel 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 Evaluation Procedure and Criteria

- 5.1.1 A quality cum cost based procedure shall be adopted in ranking of the proposals. The technical evaluation shall be carried out first, followed by the financial evaluation. Firms shall be ranked using a combined technical/financial score.
- 5.1.2 The evaluation committee will correct any computational errors in Financial Proposals. When correcting computational errors, in case of discrepancy (i) between a partial (subtotal) amount and the total amount, or (ii) between the amounts derived by multiplying unit price with quantity and the total price or (iii) between words and figures, the formers will prevail. However, 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 and no corrections are made to the Financial Proposal. In case an activity or item is quantified in the Financial Proposal differently from the Technical Proposal, the evaluation committee shall correct the quantification indicated in the Financial Proposal so as to make it consistent with that indicated in the Technical Proposal for further correction by applying the unit price included in the Financial Proposal to the consistent/ corrected quantity. However, the proposals that quote higher than the required input of person-months as per this RFP will not be adjusted. Whereas the proposals quoting lesser than the required input of person-months as per this RFP shall be adjusted as follows. If

unit price for the subject person-month is available, the same shall be applied; and if the unit price for the subject person-months is not available, highest unit price for an activity or item of the same category [international or national (Key Personnel or other Personnel)] as provided in the Financial Proposals shall be applied. The Reimbursable direct cost shall not be adjusted and the same shall be capped for the Assignment.

5.2 Technical Proposal

5.2.1 The evaluation committee appointed by the Client shall carry out its evaluation for the project(s) as listed in Para 1.1, applying the evaluation criteria and point system specified in the Data Sheet. Each responsive proposal shall be attributed a technical score (St). Firms 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 the three top-ranking qualifying consulting firms on the basis of evaluation of Technical Proposals shall be opened in the presence of the representatives of these firms, 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 indicated in the Data Sheet. The total price 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; all errors/discrepancies and deviations from respective Technical Proposals as well as RFP shall be dealt with for subsequent scoring in accordance with procedure and criteria given in Para 5.1.2 herein above. The lowest Financial Proposal (Fm) among all shall be given a financial score (Sf) of 1000 points. The financial scores of the proposals shall be computed as follows:

$$S f = (1000 \text{ x Fm})/F$$

(F = amount of specific Financial Proposal)

5.3.3 Proposals, in the quality cum cost based selection shall finally be ranked according to their combined technical (St) 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) indicated in the Data Sheet:

$$S = St \times T \% + S f \times P\%$$

6. **NEGOTIATION**

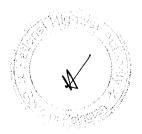
- 6.1 Prior to the expiration of proposal validity, the Client shall notify the successful consultant that submitted the highest ranking proposal in writing, by registered letter, cable telex or facsimile and invite it to negotiate the Contract. The proposed Chief Resident Engineer/ Resident Engineer shall also be invited to attend the negotiations.
- 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 consultant's Technical Proposal including proposed methodology, work plan, staffing and any suggestions which may have been 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, 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 prices (no negotiation of the person-month rates).
- 6.5 Having selected Consultant on the basis of, among other things, an evaluation of proposed Key Personnel, 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 personnel will be actually available. The Client shall not consider substitutions of Key Personnel except in cases of un-expected delays in the starting date or incapacity of Key Personnel for reasons of health. Failure to assure the availability of Key Personnel or substitution (equal or better) as exception only may result in rejection of Consultant's proposal.
- 6.6 The negotiations shall be concluded with a review of the draft form of the contract. The Client and the Consultant shall finalize the contract to conclude negotiations. If negotiations fail, the Client shall invite the consultant 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 consultant (and so on).

7. AWARD OF CONTRACT

- 7.1 The Contract shall be awarded after successful negotiations with the selected Consultant 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.



DATA SHEET

LOI Clause #

1.1 The name of the Assignment is:

Consultancy Services for Design Review and Construction Supervision for Dualization of Rawalpindi-Kahuta Road (28.4 Km) including 4-Lane Bridge over Sihala Railway Pass, Sihala Bypass and Kahuta Bypass

The name of the Client is:

National Highway Authority (NHA)

1.2 The description and the objectives of the assignment are:

As per TOR

- 1.3 Phasing of the Assignment (if any):
 - Nil -
- 1.5 Pre-Proposal Conferences:

Yes√ No	
---------	--

Pre-proposal conference will be held on:

23rd February, 2018 at 1100 Hours in NHA Auditorium, National Highway Authority, 28 Mauve Area, G-9/1, Islamabad.

Name of the official is:

Imtiaz Ahmed Khokhar

(General Manager P&CA)

E-mail: gmpca.nha@gmail.com

1.6 The Client shall provide the following inputs:

As per TOR and Appendix D

- 1.7 Following sub-clauses are added:
 - iii. The supervision of the project shall commence upon undertaking of the construction works by the contractor and shall be notified through issuance of commencement notice to the selected consultant by NHA. Any inordinate delay or cancellation of the construction work for any reason including non-availability of funds shall not entitle the consultants to any financial or legal claims. However when the project shall commence the supervisory consultants shall maintain the right subject to availability of proposed Key Personnel (professional staff) based on which the consultant was selected or if the delay is beyond six months then equally competent Key Personnel with equal or higher qualification and experience shall be pre-requisite for consideration of issuance of commencement notice by NHA. In case the work is delayed or abandoned for any reason whatsoever, the consultant shall not have any legal recourse.

- iv. The consultant shall be responsible to have the whole construction work completed through the contractor in a professional manner so that all items of construction work are completed from one end to the other including paying attention to site clearance of debris or any other leftover material. The trees/shrubs prone to landscape and earth work slopes grassed in ROW. All signs of construction work dispensed with. To achieve this objective consultant may include the price for such incidental or ancillary service which will lead to the final completion of the assignment in the price quoted by the consultant who shall remain liable for making final measurements of the Works and to issue Final Payment Certificate of the Contractor. No separate costs are payable as extra costs for this service. All such costs shall be included in these rates submitted by the consultant in its financial proposal. The consultant has to basically ensure that contractor has completed entire construction work as per Works Contract with particular reference to site clearance before taking over the project on completion.
- v. The consultants may better not to propose names of Key Personnel already proposed in other proposals which are being evaluated by NHA or contract(s) awarded recently. This will affect adversely marking of these Personnel in evaluation of the technical proposal. Their secured points are liable to be reduced by 50% if their names appear in more than one previous proposal in which they are ranked No.1. Further the existing load of work with a firm shall be considered as one of the factors for the consideration in the award of the contract. No CV of any alternate Personnel shall be accepted during evaluation.
- vi. Form TECH-4 is meant for comments on provisions contained in RFP and 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 and award of the contract.
- vii. Consultants may form a Joint Venture (JV) to qualify for the Assignment in which case the contract will be signed between the Client and all members of the JV on the prescribed Form included in Appendix E (copy of Model Agreement) subject to the ranking and successful negotiations. A JV may include at the most four members. 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 JV with a new / less experienced firm by sharing at least 20% of Assignment with them.
- viii. 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 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.
 - ix. Consultant's Head Office Support will be mandatory during Supervision; the firm shall be bound to provide design input required on the Site or advice on contractual matters; the cost for the same must be built in the financial proposal. Responsibility for the team in field will be backed by the Consultant's Head Office; the Head Office will assume full responsibility for the team in field. Any key position that remains vacant for more than one month that was required to be filled for that period, a compensation equivalent to the charge rate of that individual will be imposed. For clarification, the invoice will not include the charge rate of the missing individual and additionally, the charge rate of one month for that individual will be deducted from the invoice. This will be replicated for all missing key personnel. For the 2nd month, the compensation payment will be doubled. For the 3rd month, an additional warning will be issued. If the issue persists in the fourth month, the firm can be penalized by invoking conditions of contract and even to the extent of consideration for blacklisting.

1.8 The invited firms are:

Any firm meeting the following requirements:

- Valid Registration Certificate of Pakistan Engineering Council with relevant Project Profile Codes. Foreign consulting firms shall make JV in accordance with Bye-Law 6(2) and Bye-Law 9 of the Pakistan Engineering Council (Conduct and Practice of Consulting Engineers) Bye-Laws 1986. Failure to provide valid Registration Certificate (license) of the firm (each member in case of JV) by the PEC will entitle the Client to reject the proposal.
- Affidavit in original bearing the subject with project name on stamp paper (b) duly attested by the Oath Commissioner to the effect that the firm has neither been blacklisted nor any contract rescinded in the past for nonfulfillment of contractual obligations (By all partner firms in case of JV). Non submission of the affidavit may be treated as disqualification resulting in to no further evaluation of the proposal.
- Facilities available with the consultant to perform their functions (c) effectively (proper office premises, software, hardware, record keeping etc.)
- (d) Client's satisfaction certificates (Performance Reports) for the last three relevant assignments from the respective Clients. Moreover any adverse report regarding performance of consultant on NHA projects received from NHA's any relevant quarter may become basis for its disqualification from the Assignment above named in clause 1.1.
- (e) Person-months of staff and Project Duration as per TOR.

2.1 The Documents are:

- Letter of Invitation. (i)
- (ii) Instructions to Consultants,
- Data Sheet, (iii)
- (iv) Technical Proposal Forms,
- (v) Financial Proposal Forms,
- (vi) Appendix-A Terms of Reference (including Background information),
- Appendix-B: Person-Months and Activity Schedule, (vii)
- Appendix-C: Client's Requirements from the Consultants, (viii)
- Appendix-D: Personnel, Equipment, Facilities and Other Services to be (ix) provided by the Client, and
- Appendix-E Copy of Model Agreement (Draft Form of Contract & (x) Appendices etc.)

2.2 The address for seeking clarification is:

General Manager (P&CA)

National Highway Authority

28 Mauve Area, G-9/1, Islamabad.

Fax:

Phone: +92-51-9032727 +92-51-93260419

E-mail: gmpca.nha@gmail.com



3.1.4	
iii.	Proposed Key Personnel shall preferably be permanent employees who are employed with the consultants at least six months prior to submission of Proposal.
	Yes No
iv.	The minimum number of person-months of Key Personnel is:
	Total Expatriates: Person-Months (Not used)
	Total Local Experts: 119.50 Person-Months
v.	The minimum required qualification and experience of proposed Key Personnel is given in Appendix – A "Terms of Reference"
vii.	Training is a major component of this Assignment:

- 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.

No √

- ii. The consultants are required to insure their Employees and Professionals for Hospitalization/ Medical, Travel and Accident Cover for the duration of the Contract.
- iii. Other details provided in Para 3.5 of Special Conditions of Contract in Model Agreement (Appendix E).
- 3.2.4 Consultants shall quote the rates of remuneration for local personnel in Pak. Rupees, whereas only the rates of remuneration for expatriate personnel shall be quoted in US dollar currency. The payment however, to the Consultant for both the local as well as the expatriate personnel will be made in Pak Rupees by converting US\$ into Pak. Rupees by applying USD TT/ OD Selling Rate of National Bank of Pakistan on the prevailing date (i.e. the Date of Payment) as per TT/OD Selling Rate from website: http://www.forex.com.pk/ for Inter Bank Rates.

For comparison of the Financial Proposals of consultants the US dollar's component of Financial Proposals will be converted to Pak Rupees as per following exchange rates:

The official source of the Selling (exchange) Rate is: National Bank of Pakistan as per TT/OD Selling Rate from the website: http://www.forex.com.pk/ for Inter Bank Rates.

The date of the exchange rate is: The date of submission of proposals.

4.1 The number of copies of the Proposal required is:

TECHNICAL PROPOSAL:

ONE ORIGINAL AND THREE COPIES WITH CD (SOFT FORM OF COMPLETE TECHNICAL PROPOSAL IN PDF FORM) IN SEALED ENVELOPE

FINANCIAL PROPOSAL:

ONE ORIGINAL WITH CD (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

Email:

gmpca.nha@gmail.com

4.4 The date and time of proposal submission is:

1130 hours on 8th March, 2018

The location for submission of proposal is:

National Highway Authority Auditorium 2nd Floor, 27 Mauve Area, G-9/1, Islamabad

4.5 Validity period of the proposal is:

180 days

The bid shall remain valid upto:

4th September, 2018

Location for Negotiation is:

National Highway Authority Auditorium 2nd Floor, 27 Mauve Area, G-9/1, Islamabad

5.2.1 The evaluation of Technical Proposal shall be based on following criteria:

	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	<u>(70)</u>
(i).	Evidence of Site Visit with	(30)
	Photographs	
(ii).	Clarity of appreciation	(20)
(iii).	Comprehensiveness of appreciation	(20)
2-b	Problem Statement/ Understanding of Objectives	<u>(50)</u>
(i).	Identification of Problems/ Objectives	(30)
(ii).	Components of Proposed Services	(20)
2-c	Methodology	(80)
(i).	Proposed Solutions for this Project	(30)
(ii).	_	(20)
(iii).	Conciseness, clarity and	(30)



	completeness of proposal	
2-d	Suggested changes for improvement in TOR	(10)
2-е	Work Program	<u>(20)</u>
2-f	Staffing Schedule	(20)
3.	Key Personnel	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 70%

* Transfer of knowledge would be in the form of joint venture with new/ less experienced firm(s) by sharing at least 20% of Assignment with them for promoting the consultancy industry in the country.

The percentage distribution of weightage earmarked for evaluation sub-criteria for suitability of Key Personnel are:

a. Design Review Team:

	Description/ Items	Percentage
i.	Academic and General Qualifications	30%
ii.	Professional experience related to the Project	60%
iii.	Status with the firm (Permanent & duration with Firm)	10%

b. Supervision Phase Team:

	Description/Items	Percentage
i.	Academic and General Qualifications	30%
ii.	Professional experience related to the Project	65%
iii.	Status with the firm (Permanent & duration with Firm)	5%

Form of Summary Evaluation and Personnel Evaluation Sheets for Technical Proposal (QCBS) is attached at the end of Data Sheet.

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 are:

After evaluation and approval of Technical Proposals (to be informed later).

5.3.3 The weights given to the Technical and Financial Proposals are:

Technical:

80%

Financial:

20%

6.3 Add following at the end of this Para:

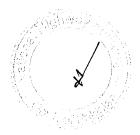
The final person-months of each personnel are subject to adjustment at the stage of contract negotiation in line with demonstrated approach & methodology and need basis.

6.5 Add following at the end of this Para:

The Consultant is bound to replace all the Key Personnel proposed who scored less than 60% marks in the Personnel Evaluation, if the Client so requests. If the Consultant refuses to replace such Key Personnel, the Client reserves the right to reject its proposal and invite the Consultant that received the second highest score in ranking to Contract negotiations.

7.2 The Assignment is expected to commence in:

March, 2018



SUMMARY EVALUATION SHEET FOR TECHNICAL PROPOSAL (QCBS)

EVALUATION CRITERIA		Max.	Firm 1		Firm 2	
EVALUATION CRITERIA			Rating	Score	Rating	Score
I. Experience of the Firm		100				
	General Experience in road Transport Sector	25				
	Specific Experience related to particular Assignment	75				
II. Approach and Methodolo	gy	250				
III. Key Personnel		450				
	Design Review Team	120		1		
	a) Highway Design Engineer/ Team Leader	30				
	b) Structure/ Bridge Engineer	15				
	c) Geotechnical Engineer	15				
	d) Road Safety Engineer	15				
	e) Drainage Engineer	15				
	f) Traffic/Pavement Engineer	15				
	g) Environmental Specialist	15		:		
	Construction Supervision Team	330				
	h) Resident Engineer/ Team Leader	60				
	i) Assistant Resident Engineer/ Highway Engineer – I & II	2x40				
	j) Structure/ Bridges Engineer I & II	2x40				
	k) Road Safety Engineer	40				
	1) Soil/ Material Engineer	40				
	m) Contract Engineer	30		i (
IV. Performance Certification from clients		100				
V. Present Commitments (current engagement and available strength – justification)		50		:		
VI. Transfer of Knowledge (Methodology/ Plans)				:		
The Joint Venture (JV) shall be evaluated in the same manner as a single entity, since they function as one unit.						
one unit	TOTAL	1000			1	<u> </u>

Excellent - 100% Very Good - 90 to 99% Above Average - 80 to 89% Average - 70 to 79% Below Average - 1 to 69% Non-complying - 0% Score: Maximum Weight X rating / 100.

Minimum qualifying score is 70% or 700 marks.



PERSONNEL EVALUATION SHEET

POSITION / AREA OF EXPERTISE	Name	Academic and General Qualification * Weight 30%		Project related Experience Weight 60% for design review but 65% for supervision		Status with the Firm** 10% for design review but 5% for supervision		OVERALL RATING (Sum of Weighted Ratings)	
(Show all experts to be evaluated)		Percentage Rating	Weighted Rating (A)	Percentage Rating	Weighted Rating (B)	Percentage Rating	Weighted Rating (C)	(A+B+C)	
Design Review Team									
a) Highway Design Engineer/ Team Leader	_								
b) Structure/ Bridge Engineer									
c) Geotechnical Engineer	_	_							
d) Road Safety Engineer		_							
e) Drainage Engineer									
f) Traffic/Pavement Engineer									
g) Environmental Specialist									
Construction Supervision Team	_	_							
h) Resident Engineer/ Team Leader									
i) Assistant Resident Engineer/ Highway Engineer – I & II									
j) Structure/ Bridges Engineer I & II									
k) Road Safety Engineer						:			
1) Soil/ Material Engineer									
m) Contract Engineer									

Rating: - Excellent - 100% Non-complying - 0% Very good - 90-99%

Above Average – 80-89%

Average – 60-79%

Below Average – 1-59%

* For Highway Design Engineer/Team Leader, Structure/ Bridge Engineer, Road Safety Engineer, Traffic/ Pavement Engineer, Environmental Specialist, Resident Engineer/ Team Leader, ARE (Highways), Structure/ Bridge Engineer, Soil/ Material Engineer, Contract Engineer: M.Sc. with additional relevant trainings from recognized organizations – 100%; M.Sc. – 90%; B.Sc. with additional courses/ trainings in relevant field – 80%; B.Sc. – 70%.

For **Geotechnical Engineer**, **Drainage Engineer**: M.Sc. with additional relevant trainings from recognized organizations – 100%; M.Sc. – 90%; B.Sc. with additional courses/ trainings in relevant field – 60%; B.Sc. – 50%.

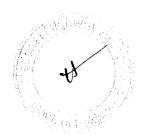
Score = Maximum Weight X rating /100

** These marks for status with the firm shall apply for evaluation of proposed Key Personnel as per following proportion:

Regular employee - 100% First time for this assignment - 0%



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
V	TECH-1	Technical Proposal Submission Form	
V	TECH-1 Attachment	Proof of legal status and eligibility	
"√" If applicable	TECH-1 Attachment	If the Proposal is submitted by a joint venture, attach a letter of intent or a copy of an existing agreement.	
"√" If applicable	TECH-1 Attachment Power of Attorney	No pre-set format/form. In the case of a Joint Venture, several are required: a power of attorney for the authorized representative of each JV member and a Special power of attorney for the representative of the lead member to represent all JV members.	
√	TECH-2	Consultant's Organization and Experience.	As given below
$\sqrt{}$	TECH-2A	A. Consultant's Organization	3
V	TECH-2B	B. Consultant's Experience/ Client's Reference	20
V	TECH-3	Approach Paper on Methodology proposed for Performing the Assignment	50
V	TECH-4	Comments/ Suggestions of Consultant	[See footnote] ¹
V	TECH-4A	A. On the Terms of Reference	n/a
V	TECH-4B	B. On the Counterpart Staff and Facilities	2
V	TECH-5	Format of Curriculum Vitae (CV) for proposed Key Personnel	8 pages each CV
V	ТЕСН-6	Composition of the Team Personnel and the Tasks to be Assigned to each Team Member	n/a
1	TECH-7	Work Plan / Activity Schedule	n/a
V	TECH-8	Work Plan and Time Schedule for Key Personnel	n/a
V	TECH-9	Current Commitments of the Firm	n/a

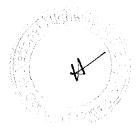
Note: Failure to provide required attachments with Form TECH-1 will entitle the Client to reject the proposal.



The total number of pages for combined forms TECH-3 and TECH-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.

CHECKLIST OF OTHER DOCUMENTS

- 1. Valid Registration Certificate(s) of PEC [subparagraph 1.8(a) of Data Sheet].
- 2. Affidavit in accordance with subparagraph 1.8(b) of Data Sheet.
- 3. Page numbered, signed, stamped, and duly bound proposal (paragraph 3.1.1 of ITC).
- 4. Affidavit in accordance with subparagraph 3.1.2(d) of ITC.
- 5. Technical proposal not to include any financial information (paragraph 3.1.5 of ITC).
- 6. Letter of Intent/ JV Agreement (Form TECH 1).
- 7. Integrity Pact [subparagraph (h) of Form TECH 1].



TECHNICAL 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 Proposals dated [Insert Date]. 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 comprising: {Insert a list with full name and the legal address of each member, and indicate the lead member}. We have attached a copy {insert: "of our letter of intent to form a joint venture" or, if a JV is already formed, "of the JV agreement"} signed by every participating member, which details the likely legal structure of and the confirmation of joint and severable liability of the members of the said joint venture.}]

[AND

{If the Consultant's Proposal includes individual Specialist Sub-consultant, insert the following:

Our Proposal includes: {Insert full name and country of the individual Specialist Subconsultant}]

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 may be sanctioned by the Client in compliance of Rule 19 of the Public Procurement Rules, 2004.
- (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 member or any of the proposed individual Specialist Subconsultant prepared the TOR for this consulting assignment.

A)

- (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 is binding upon us and subject to any modifications resulting from the Contract negotiations.
- (h) In compliance (and, if the award is made to us, in execution) of Contract, we undertake to obey the Integrity Pact (attached herewith duly signed by authorized representative and stamped).
- (i) Our Head Office Support will be mandatory during Supervision; our firm shall be bound to provide design input required on the Site or advice on contractual matters; the cost for the same has been built in our financial proposal. Responsibility for the team in field will be backed by our Head Office; our Head Office will assume full responsibility for the team in field.
- (j) Our firm/ each member of our JV is not participating in any other proposal for this Assignment.

We undertake, if our Proposal is accepted and the Contract is signed, to initiate the Services related to the Assignment 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 is not bound to accept any or all Proposal(s) that the Client receives.

We remain,

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Authorized Signature {In full and initials}:	
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):	

{For a joint venture, either all members shall sign or only the lead member, in which case the power of attorney to sign on behalf of all members shall be attached}



CONSULTANT'S ORGANIZATION

- [1. Provide here a brief description of the background and organization of your Firm, and in case of a joint venture of each member for this Assignment.
 - 2. Include organizational chart, a list of Board of Directors, and beneficial ownership².]



² Beneficial ownership shows all owners and major shareholders of the company, including any person or entity who enjoys the benefit of ownership including, but not limited to power of control and influence of the business transactions, receiving dividends or profit share. This includes direct or indirect ownership of the company (e.g. ownership by close relatives)

CONSULTANT'S EXPERIENCE/ CLIENT'S REFERENCE

Relevant Services Carried Out in the Last Ten Years (by each member in case of JV) and by Specialist Sub-consultant, if any, Which Best Illustrate Qualifications

- [1. Using the format below, provide information on each successfully completed reference assignment for which your firm, either independently or as one of the member of Joint Venture (JV), was largely contracted by indicating the share of the firm itself in the JV.
- 2. Assignments completed by the Consultant's individual Experts working privately or through other consulting firms or that of the Consultant's Specialist Sub-consultant, cannot be claimed as the relevant experience of the Consultant, but can be claimed by the Experts or the Specialist Sub-consultants themselves in their CVs. The Consultant should be prepared to substantiate the claimed experience by presenting copies of relevant documents and references if so requested by the Client.]

Assignment Name:	Country of Assignment:			
Location within Country:		Key Personnel Provided by Your Firm:		
Name of Client:		No of other personnel provided by your Firm:		
Address:		Total No of Person-Months of staff of your Firm:		
Start Date (Month/Year):	Completion Date (Month/Year):	Approx. Value of Services (in Equivalent / Rs.) provided by staff of your Firm		
Name(s) of Member		No. of Person-Months of Key		
Firm(s), in case of JV:	Personnel Provided by member Firm(s), in case of JV			
Name of Senior Staff (Project Manager / Coordinator, Team Leader) involved and functions performed:				
Narrative Description of Proje	ect			
Description of Actual Services Provided by Staff of your Firm				

Consultants' Name:	
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APPROACH PAPER ON METHODOLOGY PROPOSED FOR PERFORMING THE ASSIGNMENT

[In this part of the Technical Proposal, explain understanding of the objectives of the Assignment, approach to the services, methodology for carrying out the activities and obtaining the expected output, and the degree of the detail of such output. You should explain your methodology to complete the project within time and budget.

The approach must be indigenous project specific approach of Consultant and not a generic one or copy of the TOR.

Based on the specific approach, describe Work Plan which is consistent with inputs provided in Forms TECH - 7 and TECH - 8.

In case of JV, the role of each member must be clearly highlighted. Likewise role of Specialist Sub-consultant, if any, along with necessity must be highlighted.]

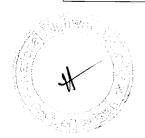


COMMENTS / SUGGESTIONS OF CONSULTANT

[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 TECH-4A and TECH-4B respectively.]

A.	On the T	erms of Reference (TOR)
1.		
2.		
3.		
Etc.		
В.	On the C	ounterpart Staff and Facilities (data & services to be provided by the Client ted in the TOR):
1.		
2.		
3.		
Etc.		
	Note:	1. The Consultant may propose a team of experts to best achieve the scope of service and activities and to deliver outputs <u>as required in TOR</u> . 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).
wiji jiwa		(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.
\mathcal{N}		Page 25 of 121

- (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 PRPOSAL. 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 TECH-4A and the change should not be incorporated in the Proposal. Enumerate each suggestion in Form TECH-4A with incremental cost as a separate attachment to Financial Proposal indicating breakdown into individual remuneration and expenses for each suggestion. Forms FIN-1 to 7 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 PRPOSAL. If Technical Proposal includes financial information, the Proposal will be rejected under Clause-3.1.5 of ITC.



FORMAT OF CURRICULUM VITAE (CV) FOR PROPOSED KEY PERSONNEL AND SPECIALIST SUB-CONSULTANT (IF ANY)

	Proposed Position:
	Name of Firm proposing the Key Personnel:
	Name of Person:
	Profession:
	Date of Birth:
	Years with Firm:
	Nationality & CNIC Number:
•	Membership in Professional Societies:(Membership of PEC is Mandatory)
	Detailed Tasks to be Assigned on the Project:

10. Key Qualifications:

{Give an outline of the person's experience and training most pertinent to tasks on assignment. Describe degree of responsibility held by the person on relevant previous assignments and give dates and locations. Use up to one page}.

11. Education

{Summarize college/university and other specialized education of the person, giving names of institutions, dates attended and degrees obtained}.

12. Employment Record

{Starting with present position, list in reverse order every employment held. List all positions held by the person since graduation, giving dates, names of employing organizations, title of positions held, and location of assignments. For experience in last ten years, also give types of activities performed and client references, where appropriate}.

13. Languages

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

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14. 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 TECH-5 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; and
- (vi) 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:

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 Key Personnel 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.]

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

gnature of Key Personnel or authorized	Date:
presentative of the Firm(s)	Day/Month/Year
name of authorized Representative:	

{Note: copy or scanned signatures are not allowed}



COMPOSITION OF THE TEAM PERSONNEL AND THE TASKS TO BE ASSIGNED TO EACH TEAM MEMBER

1. Key Personnel (and Specialist Sub-consultant, if any)

Name	Position	Task Assignment	Present location	Name of assignment involved and clients names at present

2. Other Personnel

Name	Position	Task Assignment



WORK PLAN/ ACTIVITY SCHEDULE

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



WORK PLAN AND TIME SCHEDULE FOR KEY PERSONNEL (AND SPECIALIST SUB-CONSULTANT, IF ANY)

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	
							***************************************	1000000000					-				

Continuous: Intermittent:	Activities Duration		
		Yours faithfully,	
		Signature(Authorized Representative)	
		Full Name Designation Address	_

CURRENT COMMITMENTS OF THE FIRM [OF EACH MEMBER IN CASE OF JV AND THE SPECIALIST SUB-CONSULTANT, IF ANY]

List must be comprehensive including project from clients other than NHA as well

Name of project	Single or JV	Task assignment	Start date of the project	Expected date of completion



FINANCIAL PROPOSAL FORMS



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 and Local taxes applicable as per law of the land. {Please note that all amounts shall be the same as in Financial Proposal Form FIN-7}.
As indicated and reasoned in Form TECH-4 of our Technical Proposal, in accordance with Note 2 under Form TECH-4 of the RFP, a separate attachment for incremental cost(s) is included/ not included in our Financial Proposal [if attached, strike out "not included" and vice versa]
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 (or the date extended with the written consent of consultant in case of delay in procurement process).
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 initials}:
Address:E-mail:

{For a joint venture, either all members shall sign or only the lead member, in which case the power of attorney to sign on behalf of all members shall be attached.}

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BREAKDOWN OF RATES FOR CONSULTANCY CONTRACT

Name	Position	Basic Salary per Cal. Month	Social Charges (%age of 1)	Overhead (%age of 1+2)	Sub- Total (1+2+3)	Fee (%age of 4)	Rate per Month for project Office	Field Allow. (%age of 1)	Rate per Month for Field Work
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)

Firm:

Notes:

Project:

- Item No. 1 Basic salary shall include actual gross salary before deduction of income tax. Payroll sheet for each proposed personnel should be submitted at the time of negotiations.
- 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 firm to the employee. Breakdown of proposed percentage charges should be submitted and supported {see Form FIN-3}.
- Item No. 3 Overhead shall include general administration cost, rent, clerical staff and business getting expenses, corporate tax including sales tax on services and insurances, etc. Breakdown of proposed percentage charges for overhead should be submitted and supported {see Form FIN-4}.
- Item No. 5 Fee shall include firm's profit and share of salary of partners and directors {if not billed individually for the project} or indicated in overhead costs of the firm.
- Item No. 7 Normally payable only in case of field work under hard and arduous conditions.
 - Note 1 The minimum percentage of item (1) should be preferably 50% of (8).
 - Note 2 The Consultant is to provide appointment letter and affidavit/undertaking duly signed by each of the individual Personnel showing salary rates as above. Further during execution each invoice will also be provided showing that the Personnel have been paid their salaries as per basic rates mentioned therein; failing to which, NHA will take punitive action against the Consultant and shall deduct the deficient amount from its monthly invoice. Moreover it will be considered as a negative mark on the Consultant's performance that will be considered for future projects.
 - Note 3 The Consultant shall provide its audited financial statements of latest three fiscal years, during negotiations, w.r.t. second paragraph under SC 6.2 (b) of the Model Agreement (APPENDIX-E).

AMARIA	Full Name:	
	Signature:	
	Title:	-

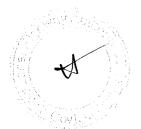
BREAKDOWN OF SOCIAL CHARGES

Sr. No.	Detailed Description	As a %age of Basic Salary



BREAKDOWN OF OVERHEAD COSTS

Sr. No.	Detailed Description	As a %age of Basic Salary and Social Charges



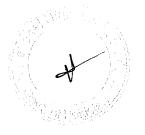
A - ESTIMATED LOCAL CURRENCY SALARY/ REMUNERATION COSTS EQUIVALENT IN US DOLLARS

Sr. No.	Name	Position	Person- Months	Monthly Billing Rate (US \$)	Total Estimated Amount (US \$)
Α.	All Foreign Ex	patriates including Foreigr	Specialist S	Sub-consultant (if an	ny)
			1		
		Sub-Total:			



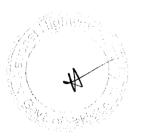
B-I ESTIMATED LOCAL CURRENCY SALARY COSTS/REMUNERATION

Sr. No.	Name	Position	Person- Months	Monthly Billing Rate (Rs.)	Total Estimated Amount (Rs.)
B-I.	All Local Key	Personnel and Specialist S	ub-consultan	at (if any)	
		Sub-Total:			



B-II ESTIMATED LOCAL CURRENCY SALARY COSTS/ REMUNERATION

Sr. No.	Position	Person-Months	Monthly Billing Rate (Rs.)	Total Estimated Amount (Rs.)
B-II. No	on-Key and other Personn	el (Local)		
	Sub Total:			-



DIRECT/ NON-SALARY COSTS FOR DESIGN REVIEW AND SUPERVISION SERVICES

Sr. No.	Nomenclature	Unit	Qty.	Unit Price (Pak. Rs.)	Total Amount (Pak. Rs.)	Remarks
1.	Communication Expenses allocable to the Assignment	P.M	18			Fixed Rate
2.	Printing of Reports and Drawings for the Assignment	P.M	18			-do-
3.	Travel expenses of required Key Personnel between Head Office and Site (as per actual)	P.S	-	-	200,000/-	Reimbursement of actual expenditures upto a maximum limit subject to approval of Project Director for travel(s).
4.	Cost of preparing Construction/ Supplementary Drawings	L.S	As per TOR	-		-
5.	Others not covered above to comply with TOR / RFP requirements*					
	Sub-Total for D					

^{*} Any additional item/ cost quoted against this line item must be supported by solid/ tenable justification(s) detailed in Technical Proposal Submission Form A-4 "Comments on TOR" without indicating financial value therein. The negotiation committee of the Client may negotiate this cost on the basis of justification provided in the form A-4 with the prospective successful bidder in the light of Clause ITC 6.6 of RFP. Moreover, if no justification is given or Client does not agree to the justifications, the Client in both the cases shall not include this cost in the total cost offered by the Consultants for this assignment, particularly in case any amount against this line item is deemed to have been covered in other pay items.



SUMMARY OF COST OF CONSULTANT FOR DESIGN REVIEW AND SUPERVISION SERVICES

Sr. No.	Description	Amount (Pak. Rs.)	Amount (US \$)
1.	Salary Cost		- Not Applicable -
2.	Direct Cost		- Not Applicable -
3.	Sub Total:		- Not Applicable -
4.	Sales Tax @ 16% on item 3 above which shall be kept as Provisional Sum in the Contract Agreement		- Not Applicable -
5.	Contingencies	-	- Not Applicable -
	Grand Total:		- Not Applicable -

- Note: 1- The dues and salaries 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 Consultant in the next evaluation process for selection of consultants with report of such defaults.
 - 2- The grand total is inclusive of all the applicable Federal, Provincial and Local taxes. All these taxes (except the Sales Tax) are required to be built in the quoted rates and not be mentioned separately.
 - 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.
 - 4- Consultant's Head Office Support will be mandatory during Supervision; the firm shall be bound to provide design input required on the Site or advice on contractual matters; the cost for the same is built in the financial proposal. Responsibility for the team in field will be backed by the Consultant's Head Office; the Head Office will assume full responsibility for the team in field.
 - Any key position that remains vacant for more than one month that was required to be filled for that period, a compensation equivalent to the charge rate of that individual will be imposed. For clarification, the invoice will not include the charge rate of the missing individual and additionally, the charge rate of one month for that individual will be deducted from the invoice. This

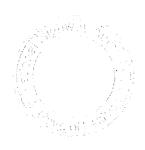
will be replicated for all missing key personnel. For the 2nd month, the compensation payment will be doubled. For the 3rd month, an additional warning will be issued. If the issue persists in the fourth month, the firm can be penalized by invoking conditions of contract and even to the extent of consideration for blacklisting.



APPENDIX - A

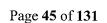
TERMS OF REFERENCE

(Including Description of Services)



Major Contents

- Background
- Project Objectives
- Scope of Services and Expected Deliverables
- Team Composition and Qualification Requirement of Key Personnel and Specialist Sub-consultant.



A. BACKGROUND

- 1. The Rawalpindi - Kahuta road section has been taken up for dualization on the Directives of the Prime Minister Pakistan. The Rawalpindi - Kahuta road is presently a two lane road which starts from G.T road (N-5) interchange near Sowan and passes through Kahuta city traversing further towards Azad Jammu & Kashmir (Rawalakot, Palandri and Kotli). The Rawalpindi - Kahuta road is the shortest route for the traffic coming from Rawalakot, Kotli to Islamabad / Rawalpindi and vice versa. The Punjab Highway Department (Communication & Works) administratively controls and maintains the Rawalpindi - Kahuta road. The existing Rawalpindi - Kahuta road traverses through various populated towns i.e. Humak, Sihala, Miana Thub, Are Syedan, Nathot and Kahuta city. In Sihala, the major constraint on the subject road section is a railway crossing, where traffic remains choked and jammed for hours and local population faces immense difficulty. Besides that, this route also bears heavy traffic due to oil cargo vehicles from G.T road (N-5) Humak road junction to Sihala. There is another impediment near Kahuta, where steep slope and poor geometry is encountered, which is problematic for heavy loaded vehicles. To decrease substantial transportation cost particularly for heavy traffic, transport agricultural products well in time at their destination, provide relief to troubled population of Sihala and others in the vicinity due to railway crossing and poor road condition, dualization of this road is utmost necessity.
- 2. The National Highway Authority (NHA) will be the Executing Agency and the Project Implementation Unit (PIU) under (NHA) will be the Implementation Agency which will be established with the General Manager "GM" (Employer's representative) as the head. NHA requires the services of Design Review and Construction Supervision Consultants to carry out design review, construction supervision & contract administration, implementation and monitoring of Environmental Management Plans where required. In undertaking the design review of the project, the Consultants is to take into account the procurement of the project's civil Works which will be proceeding in parallel with this Consultants' selection process, with the objective that the Consultants' and the civil Works contract(s) can be signed at the same time. Accordingly, the Consultants' review of the designs must reflect the possible contractual impacts arising from recommending substantial changes to the designs, for contracts that would have already been procured. Where in the Consultants' opinion such changes are essential, its recommendations to the Client must reflect the possible risks in terms of contractual claims, delays, or other impacts. Detail of scope of work is given in upcoming articles.

3. BRIEF DESCRIPTION OF ROAD PROJECT

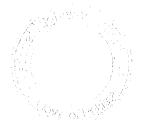
The scope of project is the dualization, rehabilitation and improvement of existing Rawalpindi - Kahuta road. The project road starts just before Kaak-Pul Interchange on Islamabad Expressway and terminates on Azad Pattan road near Tehsil court including Bypasses. Length of the Project road is 28.4 Km including Bypasses at Sihala, Are Syedan and Kahuta. Existing road width varies between (6m~8m). The existing road will be converted to four lane configuration with the provision of two lanes each side by

improvement in existing geometry (where required) as per NHA Standards. The Project also includes improvement in geometry of 01 no existing interchange (loops and ramps requiring improvement), i.e. Kaak-Pul Interchange on Islamabad Expressway.

- 4. The consultancy services would be required for a period of <u>Thirty Two (32)</u> months including twelve (12) months Defects Notification Period and two (02) months for finalizing bills of the Contractor(s). Total input of **119.50 Persons-Months** of Key Personnel and **910 Person-Months** of Non-Key Personnel would be required for the Assignment.
- 5. The Consultants will perform the duties of The Engineer specified in the FIDIC conditions of contract (for Works) and The Engineer may be replaced by the Client as per FIDIC conditions of contract. The Consultants will be required to nominate a Resident Engineer and Assistant Resident Engineer(s) for the contract(s) that will be a full-time resident in the areas or located in the proximity of project areas. In addition to the primary role, the Consultants will assist the Employer in the efficient administration and implementation of the sub-projects, support and strengthen it in its tasks, monitor progress, financial management, social and environmental safeguards and gender mainstreaming in the project. The Consultants will report to the General Manager (GM) appointed by NHA. The Consultants will work under the overall guidance, coordination and directions of the GM.

B. OBJECTIVE

- 6. The overall objectives of these Terms of Reference are to:
 - (i) Ensure that the detailed engineering design is reviewed, and updated if required, in accordance with the specified parameters / standards and best international practices prior to implementation of Works contracts;
 - (ii) Ensure that high quality construction is achieved in time within budget and that all work is carried out in full compliance with the approved engineering designs, technical specifications, agreed work schedule, and within the terms and conditions of all other contract documents and sound engineering practices;
 - (iii) Demonstrate the efficacy of contract administration and supervision by independent external agencies;
 - (iv) Monitor and evaluate the implementation of environmental management plan, resettlement plan and other social safeguard measures to be taken by the Contractor and Employer; and
 - (v) Promote technology transfer and the introduction of modem Contract Administration practices within NHA.



C. SCOPE OF CONSULTANCY SERVICES

7. General Duties and Responsibilities of the Consultants.

- (i) The Consultants will carry out a critical review of the detailed engineering design prior to the commencement of Works to identify anomalies or omissions that constitute inconsistency in the design and completeness of Works. This design review should be completed in one and a half (1.50) months' time and the design review report will be submitted within thirty (30) days. The design report should clearly indicate if any section of the road requires adjustment in the horizontal and vertical alignment, changes to the structures. On completion of the review, the Consultants will prepare a report, setting out all findings and recommendations for correcting any defects or omissions identified. Notwithstanding these, the Consultants will immediately inform the Employer of any defect or omission that may have a substantial impact on the Project at the time the defect or omission is uncovered.
- (ii) Civil Works will be carried out based on the FIDIC Conditions of Contract for Construction. The Consultants will administer the Work's contract(s), make engineering decisions, be responsible for quality assurance, provide general guidance and furnish timely responses to the Contractor(s) in all matters relating to the Works, and ensure that all clauses of the contract agreement between the Works Contractor(s) and PIU are adhered to and respected.
- (iii) The Consultants will advise PIU on all matters relating to the efficient and successful execution of the Works contract(s), and will act at all times to protect the interests of the project and will take all reasonable steps to keep the construction costs to a minimum, consistent with sound economic and engineering practices; and will prepare a "Contract Administration and Construction Supervision Manual" outlining routines and standard operating procedures to be applied in contract administration and construction supervision, based on sound internationally recognized practice.

8. **Design Review**:

The Consultants will review and validate on ground, the detailed Engineering Design including the Design Reports, Design Calculation and Design Drawings. <u>The Consultants is required to complete the design review / vetting, finalize and issue Construction Drawings to the Contractor(s)</u>. Any shortcoming / deficiency in the Detailed Design is required to be identified which shall be incorporated in the Construction Drawings by the supervisory Consultants after due consultation with the original design consultant under intimation to the Client.

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The design consultant shall provide all the Design Documents/ Drawings/ Deliverables alongwith supporting calculations to the Design Review Consultants. The Design Review Consultants shall review the Design Items / Deliverables as mentioned in Terms Of Reference for Detailed Design as well as within this document and shall report his review submission in the form of "Initial Design Review Report" directly to the design consultant with a copy to the Client. Subsequently, the Design Review Consultants will have a meeting with the design consultant to discuss the review comments. In the end, the Design Review Consultants shall prepare a "Final Design Review Report" in which it shall mention the comments which are incorporated along with comments which are not incorporated with justification of the design consultant. Both the consultants (i.e. Design and Design Review consultants) shall share equal design responsibility.

The scope of services of the Design Review Consultant shall include but not limited to the following tasks:

- i. Design Review Consultants will review and ensure that the design meets all the standards and parameters specified in the TOR of Detailed Design, NHA Specifications & Best International practices.
- ii. Design Review Consultants will perform on ground validation of survey by random checking of already established traverse and control points by design consultant. If any ambiguity is observed, it will be corrected in consultation with design consultant and proper intimation shall be made to Client. Provision of Survey Monuments / Bench Marks shall also be verified.
- iii. The Geometric design (horizontal and vertical alignment) prepared by the design consultant should conform to AASHTO standards (A policy on geometric design of highways and streets, latest edition) and as per the TOR of Detailed Design. Design Review Consultants will review the geometric design as per prescribed standards.
- iv. The traffic count, traffic projections and computation of ESALS's based on damaging factors will be validated / reviewed by Design Review Consultants and Pavement design calculations shall be confirmed. The Design Review Consultants shall review and ensure that pavement is most efficient and cost effective; design has been carried on the basis of traffic studies conducted by the design consultant, characteristics of the proposed pavement materials, the calculated loading (ESALs) and proposed design life.
- v. The Consultants shall review the Soil and Material Investigation undertaken by the design consultant with proper ground validation along the alignment and suggest additional testing, if required. The Design Review Consultants shall submit its findings in the Design Review Report. Quarry sites / borrow pits suggested by design consultant will also be validated by Design Review Consultants.



- vi. Design Review Consultants will carry out review of structure design i.e. bridges / flyovers, culverts, underpasses and other structures as per standard codes of AASHTO (LRFD). The Design Review Consultants shall review and ensure that the design parameters, calculations, locations and layout of hydraulic and other structures are on the basis of hydrology report, geotechnical investigations, soil analysis, drainage pattern and Site conditions; ensuring that safe and cost-effective Design is adopted.
- vii. Design Review Consultants will review and ensure that the design of road side drainage and cross-drainage structures have been carried out as per the Site requirements and flow patterns / calculation of surface runoff.
- viii. Design Review Consultants will review and ensure that the design, layout and requirement of retaining walls, breast walls, other retaining structures and slope stability/ slide control measures are as per the geo-technical requirements and Site conditions.
- ix. Design Review Consultants will review and ensure that the requirements for U-turns, underpasses, overhead bridges, exit/ entry, service lanes, etc. have been adequately addressed in the Design.
- x. Design Review Consultants will review hydrology report as prepared by the original design consultant based on rainfall data and flood record including surface runoff and drainage characteristics of the area. The discharge against individual drainage structures will be checked. Stability of road embankment against erosion will also be checked and to check that proper protection works have been provided as per Site need basis both for structure as well as embankment protection. The Design Review Consultants will review and ensure that a cost-effective embankment height has been adopted throughout the alignment based on required capacity of soil, depth of water table and drainage pattern of the surrounding area.
- xi. Design Review/ vetting Consultants will review/ vet on fast track the complete tender documents comprising all the volumes i.e. Bidding Documents, General Specifications, Particular specifications, Special Provisions, Tender Drawings, Engineer Estimate etc. issued to Contractor(s) at tender stage. Any data pertaining to Design shall be taken from design consultant with proper intimation to the Client.
- xii. Design Review Consultants shall carryout the Highway Safety Audit as per international standards after a detailed Site visit. Consultants will ensure that all safety measures are taken without any compromise in the design and recommend improvement/ missing safety measures, if any. Verify that all necessary traffic signs, pavement markings and pavement studs have been provided in the Design as per the requirements. Check that whether the proposed work zone safety requirements are in accordance with the best international practices.



- xiii. Based on the findings of EIA, Design Review Consultants will ensure that the bidding documents include specific provisions to minimize disruptions/damage to the environment and local settlements during construction. Design Review Consultants will review/ vet Environment Management Plan to address implementation and monitoring of parameters listed in the EIA Report during construction and operation.
- xiv. In addition to those mentioned above, the other items / deliverables mentioned in the Detailed Design TOR shall also be reviewed/ vetted.

Deliverables

The list of documents to be submitted by the Consultants for Design Review Stage are hereunder:

S. No.	Description	Quantity
1.	Initial Design Review Report	05 Hard Copies + 01 Soft Copy
2.	Final Design Review Report	05 Hard Copies + 01 Soft Copy

9. Contract Administration & Construction Supervision:

The scope of construction supervision and contract administration services of the Consultants shall include but will not be limited to the following tasks:

- 1) prepare the Pre-Construction meeting agenda, and conduct the Pre-construction meeting, record and distribute the minutes;
- appointvarious members of the Engineer's construction supervision team as the Engineer's Assistants (Resident Engineer/ Assistant Resident Engineers, Material Engineers, Inspectors, etc.) and notify the Contractor and the Employer, and approve the Contractor's Representative;
- verify whether the Performance Security complies with the form provided in the Contract, whether it is in the correct amount and currencies, and notify the Employer accordingly;
- 4) advise the Employer whether to accept the Performance Security;
- 5) if the Contractor does not submit the Performance Security on time, notify and advise the Employer of the appropriate contractual remedies;
- 6) request the Contractor to increase the amount of the Performance Security if the Contract Price increases and monitor the validity of the Performance Security until the issue of the Performance Certificate;
- 7) verify whether the bank guarantee for advance payment is in the form specified under the Contract and in the amount and currencies stated in the Particular Conditions of the Contract;

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- 8) verify whether the bank guarantee for advance payment conforms to the contract requirements and that the guarantee is valid until the entire advance payment is recovered from the Contractor's certificates;
- 9) interpret the specific provisions of the contract related to the Employer's obligation to give possession of the Site, and the Contractor's Work Program, assess the contractual consequences of any specific land acquisition issue and advise the Employer on the appropriate mitigation measures;
- obtain the Parties' confirmation that all conditions in relevant clause of the Conditions of Contract pertaining to possession of Site are fulfilled;
- 11) issue instruction to the Contractor to commence the Works:
- verify whether the form and substance of the evidence of the Contractor's insurances is satisfactory, whether insurance premiums have been paid and the required insurances are effective on the dates required by the Contract;
- verify that the terms of the Contractor's insurance policies fully comply with the requirements of the contract;
- 14) monitor whether the Contractor maintains adequate insurance in the course of performance of the contract, particularly if the Contractor provides insurances for a fixed period which is shorter than the period required under the contract;
- advise the Employer on the appropriate action and contractual remedies in case that the Contractor does not perform its insurance obligations in accordance with contract;
- without relieving the Contractors of their obligations under the contract, review and approve the traffic management and safety plan, and ensure compliance such that the Works are carried out at all times in a safe and secure manner and damage or injury to persons or property is avoided;
- obtain the bench marks and other information from the NHA Design Section as required for commencement of construction activities;
- ensure that the Contractors have all necessary data for setting out and check the Contractors' setting out including staking the right-of-way limits, centerline, and grade and confirm permanent monuments in the construction area;
- 19) ensure that all land and all rights-of-way required for the Project and all Project facilities are made available to the Works Contractor in accordance with the schedule agreed under the related Works contract and all land acquisition and resettlement activities are implemented in compliance with (a) all applicable laws and regulations in Pakistan relating to land acquisition and involuntary resettlement; (b) the Involuntary Resettlement Safeguards; and (c) all measures and requirements set forth in the LARP, and any corrective or preventative actions plan set forth in a Safeguards Monitoring Report;

- 20) carry out the following duties related to environmental management with particular reference to the technical requirements of sound environmental standards on the basis of the Environmental Assessment and Review Framework (EARF), the Initial Environmental Examinations (IEEs), and the Environmental Management Plans during construction: (i) review and endorse site specific Environmental Management Plans (EMPs) for the projects sections, prepared by the Contractors; (ii) ensure that all the environmental mitigation measures required to be implemented are incorporated into the contract documents; (iii) ensure that the Contractors comply with the measures and requirements relevant to the Contractors set forth in each IEE and EMP, and any corrective or preventative actions set out in Environment Monitoring Reports; (iv) conduct environmental monitoring and ensure that the day-to-day construction activities are carried out in an environmentally sound and sustainable manner; (v) prepare and submit semi-annual environmental monitoring reports on the implementation of the 'Environmental management Plan (EMP) to PIU within 14 days after a completion of the monitoring period;
- with respect to the prevention of HIV/AIDs and Human Trafficking, monitor that the Contractors comply and carry out required actions as provided in the respective contract documents, such as awareness and education of laborers and workers;
- ensure that the Contractors do not involve child labor for the execution of the Works contracts in accordance with the provisions of the contract agreement;
- without relieving the Contractors of their obligations under the contract, check and approve the Contractors' Working Drawings, Method Statements and Temporary Works proposals;
- 24) review the Contractor's Work Program and notify the Contractor if the program does not comply with the contract;
- 25) monitor the progress against the Work Program and the cash flow estimate and request revisions, if required;
- 26) report in the Consultants' Monthly Report the work progress against the Contractor's Work Program and the cash flow estimate;
- verify whether the progress charts in the Contractor's Monthly Progress Report reflect the actual progress and correspond to the latest revision of the Work Program and the cash flow estimate, and instruct the Contractor to correct the report, if required;
- 28) if required, determine the Contractor's entitlements to time extensions on the basis of the Contractor's Work Program;
- 29) determine the Employer's entitlement to Delay Damages on the basis of the Work Program and advise the Employer of the relevant contractual remedies if the Contractor's progress is behind schedule;

- verify the Contractor's Monthly Progress Reports and notify the Contractor of any incorrect or inconsistent information;
- 31) conduct regular weekly site meetings and monthly progress review meetings, record and distribute the minutes;
- 32) perform quantity take-offs from drawings to verify BoQ quantities;
- issue regular notices to the Contractors of intended field measurements, measure the Works, compute the quantities for payment, and determine the amounts due to the Contractor within the period specified in the contract;
- 34) carry out any subsequent design changes, and expeditiously issue supplementary drawings, site instructions, variation orders and day work orders to avoid delay to the works and to ensure that the works are executed in accordance with contract;
- establish and maintain throughout the Works contracts a structured system of measurement records, supporting documents and calculations for the payment of all BOQ items, that is transparent for auditing purposes;
- provide all necessary assistance to the Employer and external auditors for conducting regular quarterly audits of the measurement records, supporting documents and calculations for the payment of all BOO items;
- verify the sources of indices or prices for price adjustment, determine a provisional value of an index/reference price until it is published, but, if the index is not published in certain period(s), apply the last available published value;
- establish with the Contractor a standard format for the Contractor's Statement and the Interim Payment Certificates;
- issue the interim certificates to PIU for payment to the Contractors in accordance with the Conditions of Contract, having regard to any contractual provisions for advance payment, variation of price, and exchange rate fluctuation etc. Certify the completion of the Activities/Works or parts thereof and process final payments to the Contractors;
- 40) prepare and maintain the Estimates of Cost of Works to Completion continuously, update the Estimates after each Variation instruction or a Variation Order issue and after each IPC, and present the latest Estimate in the Consultants' Monthly Progress Reports;
- 41) initiate and process variations promptly, when it is necessary for the construction of the Works;
- request the Contractor's technical and cost proposal, as required, consult both parties in all matters in connection to variation work;
- value variations, obtain the Employer's approval of any variation, issue variations under the contract, keep record of all variations issued under the Page 54 of 131

- contract and report the summary of the variations in the Consultants' Monthly Progress Reports;
- discharge fully the Engineer's obligations with respect to approval of materials and workmanship, approval and auditing of the Contractor's Quality Assurance System and the QA Personnel and the compliance testing by the Engineer;
- 45) inspect quarries and borrow pits, and crushing plants, and order tests of materials and ensure adherence to specifications, and approve the sources of materials:
- without relieving the Contractors of their obligations under the contract, monitor the Contractors' laboratory testing, evaluate the Portland cement concrete and bituminous mixture designs prepared by the Contractors, and recommend improvements (if any) to ensure the desired performance, and accord approval thereof;
- 47) carry out independent testing in the field and/or in the laboratory of the "Engineer/Project Manager", and approve or disapprove and certify the works that conform with the specifications and maintain permanent records of results of all the tests made;
- 48) give notice to Contractors of any defects and deficiencies, and issue instructions for the removal and substitution of the improper works, where provided under the contract. If required, order suspension of the Work(s) and/or recommend to PIU other recourse available under the contract;
- when the Works are completed in accordance with the contract, issue a Taking Over Certificate to the Contractor(s);
- undertake an inspection of the Works at the completion of the respective road sections, and certify the Contractor(s)' final accounts;
- obtain the Employer's specific approval before taking any action for determination of extension of time, additional costs and the Contractor's claims for additional time or costs, for all events for which the Employer's express approval is required under the Conditions of Contract;
- assess objectively the Contractor's claims and give professional and objective advise to the Employer, consult both parties before determining an extension of time;
- determine Contractor's claims on the basis of the Contractor's Work Program, the impact of the delay(s) event on the Critical Path and the particulars submitted by the Contractor, and not to act as the Contractor's advisor in this matter;
- 54) prepare standard Daily Diary forms and ensure that all supervision staff maintain daily diaries of Contractor's and its own activities;

- assess minimum construction equipment, plant and machinery requirements, by type and specification, and monitor, keep and regularly update a list of the Contractors' equipment, plant and machinery in order to keep a check on the Contractors' mobilization. Inspect and evaluate the Contractor's establishments including in particular the laboratory facilities to ensure compliance with the terms and conditions of the contract;
- 56) maintain an Events Log starting at beginning of contract;
- assist the parties establish Dispute Board, if required under the Conditions of Contract, provide all necessary information to DB members and attempt to facilitate amicable settlement of the dispute between the Employer and the Contractor;
- establish and maintain an effective documents management system in the Engineer's office, which provides for separate filing of incoming and outgoing correspondence and documents, as well as the filing by subject matter;
- 59) carry out detailed inspections of the Works during the Defects Notification Period and prepare detailed inspection and recommendation reports for the Employer after each inspection;
- ensure that the Contractor(s) provide a safe workplace for their workforce, supervisory personnel and for members of the public requiring access through the Sites in full conformity with Health and Safety regulations;
- ensure that the Contractor(s) comply fully with contractual obligations relating to care of the environment (both specified and legislated) and provide all reports and obtain all permits and permissions required in relation to spoil areas, borrow areas quarries and the like;
- keep and maintain daily records of labor, equipment and weather conditions on the Site along with records of activity, progress and other events happening on the Site and having relevance to the Works;
- ensure the receipt of and maintain as permanent records of all warranties required under terms and conditions of the contract for materials including their source and equipment accepted and incorporated in the project;
- advise PIU on need for effective liaison with local authorities, police, landowners, utility owners, complainants, the public and other organizations affected by the Works in order to minimize or avoid unnecessary delays or disputes;
- 65) maintain consolidated project accounts and assist NHA for settlement of Audit Para's and objections raised, prepare replies related to project, and provide the entire relevant documents/papers/letters etc. to support the replies-until 1 year after completion of Works. The cost to be incurred may be built in the rates;
- 66) develop training programs for NHA staff and develop on the job training on

- innovative construction methods, project management and value engineering;
- 67) prepare revised PC-1 for the project including economic analysis and Environmental Impact Assessment (EIA) on Performa of PC-1 prescribed by Planning Commission;
- provide any other specialist services requested by PIU under conditions to be mutually agreed;
- 69) ensure that the construction methods as proposed by the Contractor for carrying out the Works are satisfactory, inspection of Contractor's construction equipment; and safety of the Works, property, personnel, and general public; the schedule of mitigation measures for adverse environmental impacts; and
- 70) For any laps in quality, quantity, or financial irregularity related to the performance of the Services, the Consultants will indemnify the Client.

D. Staffing

10. 119.50 Persons-Months of Key Personnel and 910 Person-Months of Non-Key Personnel for design review and construction supervision Consultants are required to review the designs and assist in construction supervision/ contract administration, financial management, safeguard compliance and implementation of the above mentioned project. The Consultancy Services would be required for a period of 32 (18+02+12) months including 12 months defects notification period, and two (02) months for finalizing bills of Contractor(s). There will be two "site supervision teams", for the two contract packages. The staffs for each package are expected to mobilize on the date of actual commencement of Works by the Contractor(s). Construction Supervision Team Leader of the Consultants is expected to be full time during construction and be mobilized to the Project Site at least thirty (30) days in advance of the commencement of the Works in order to assist PIU with activities leading up to mobilization of the Contractor(s). Procurement of Consulting Services will be based on Quality and Cost-Based Selection (QCBS) method following PEC Guidelines on the Use of Consultants and as per Procurement of Consulting Service Regulations 2010 as notified by PPRA. The tentative team composition is as below:

11. Key and Non-Key Personnel

Sr. No	Experts	No.	Months	Total	Monthly Rate (Rs.)	Total (Rs.)
I.	Design Review Stage					
Α.	Key Personnel					
1.	Highway Design Engineer/ Team Leader	1	1.50	1.50		
2.	Structure/ Bridge Engineer	1	0.75	0.75		
3.	Geotechnical Engineer	1	0.50	0.50		

Sr. No	Experts	No.	Months	Total	Monthly Rate (Rs.)	Total (Rs.)
4.	Road Safety Engineer	1	0.50	0.50		
5.	Drainage Engineer	1	0.75	0.75		
6.	Traffic/ Pavement Engineer	1	0.75	0.75		
7.	Environmental Specialist	1	0.75	0.75		
	Sub-Total:	7	-	5.50		
II.	Construction Supervision Stage			•		<u> </u>
B.	Key Personnel					
1.	Resident Engineer/Team Leader	1	1+18+2	21	-	
2.	Assistant Resident Engineer/ Highway Engineers – I & II	2	18	36		
3.	Structure/ Bridge Engineers – I & II	2	12	24		
4.	Road Safety Engineer	1	12	12		
5.	Soil/ Material Engineer	1	18	18		
6.	Contract Engineer	1	3	3	-	
	Sub-Total:	8		114		
C.	Non-Key Personnel					
1.	Project Coordinator	1	18	18		
2.	Quantity Surveyor	1	18+2	20		
3.	Chief Surveyor	1	18	18		
4.	Assistant Quantity Surveyors-I & II	2	12	24		
5.	Site Inspectors (Highways)	4	18	72	-	
6.	Site Inspectors (Structures)	4	18	72		-
7.	Material Inspectors	4	18	72		
8.	Surveyors	4	18	72		
9.	Lab Technicians	4	18	72		
10.	Lab./ Survey Helpers	8	18	144		
11.	Cad Operator	1	18	18		
12.	Accountant	1	18+2	20		
13.	Computer Operators	2	18	36		
14.	Office Assistants	2	18	36		
15.	Office Boys/ Watchmen	6+2*	18	144		
16.	Trainee Engineers	4*	18	72		
	Sub-Total:	51		910		
	Grand Total A + B + C:	66	-	1029.50		

^{*} With the approval of Member (Planning).

Total Person-Months of Key Personnel for Design Review	~~	5.50
Total Person-Months of Key Personnel for Construction		
Supervision		114
Total Key Personnel (Person Months)		119.50
Total Non-Key Personnel (Person Months)		910
Total Personnel (Person Months)		1029.50

12. Client's Staff

NHA will designate its own staff and/or fresh Graduates from the engineering/other universities to work with the Consultants for the purposes of on job training for transfer of skills. The Consultants shall employ four (04) Graduate Trainee Engineers/ Management Trainees on the project throughout the duration of the consultancy Agreement. The carry home salary of each Trainee Engineer/ Management Trainee per month to be paid by the Consultants shall not be less than Rs.40,000/- after deducting all type of applicable taxes and Consultant's Overheads.

In addition to above, the Client may also designate its own staff to work with the Consultants for the purpose of on the job training (at no cost to the Consultants).

13. Special Extension for Selected Personnel

Following staff of the Consultants shall be allowed to continue performing Services for a period of two (02) months after completion of Works to finalize the accounts and other outstanding issues of Contract. This period of two (02) person-months for each of the Personnel shall be spread over the calendar months required to finalize the said activities.

S. No.	Description of Personnel	Nos.	Months	Man-months
1.	Resident Engineer/ Team Leader	01	02	02
2.	Quantity Surveyor	01	02	02
3.	Accountant	01	02	02

14. Qualification and Experience of Key Personal

1. Title: The Engineer

Experience:

He/she should have at least 25 years of experience of national/international civil works projects including at least 15 years in a senior role of national/international highway projects. He/she must be registered as Professional Engineer of Pakistan Engineering Council (PEC) and Member of recognized Professional Society. He/she should be fully familiar with FIDIC Conditions of Contract, Pakistan Engineering

Council Standard Bidding Documents, and Public Procurement Rules etc. He/ she must be able to communicate fluently in English language.

Qualification:

Minimum Bachelor's degree in civil engineering preferably Masters in Civil Engineering with specialization in the field of Highway Engineering.

Responsibilities:

As per FIDIC contracts.

Note: The cost of remuneration etc. of The Engineer is presumed to be covered within Overhead cost of the Consultants; However, the Client reserves the right to replace The Engineer, as per its contract with the Contractor for Works, for which the Employer (Client) shall bear the remuneration etc.

Design Review Team

2. Title: Highway Design Engineer / Team Leader

Experience:

Minimum 15 years' preferably 18 years of relevant experience in design of national highway projects of which 5 years minimum and 7 years desirable as Highway Design Engineer in roads and bridge design projects. Must have worked as Team Leader during last seven (07) years on at least two (02) similar projects.

Qualification:

Minimum bachelor's degree in civil engineering preferably Masters in Civil Engineering / Highway Engineering / Transportation Engineering or equivalent.

Responsibilities:

He/she will lead the design review team as coordinator to complete the task in professional manner. The Geometric Design Engineer will verify the detailed design and provide comments. Verify and recommend/provide design plans for road geometry and furniture and road safety appliances. Generally, role of a geometric road design engineer is to decide the placement of the road with respect to surrounding physical environs and give a shape to its configuration with due care for mobility, access management, traffic control and best possible

road safety mechanism embedded in design process. More specifically Geometric Design Engineer/Team Leader (Design) is required but not limited to the following:

- Agree upon the category of road to be developed to make sure relevant design standards are applied and relevant guidelines are followed during the design process. It could be any category ranging from motorway to rural access roads or mountainous roads in rural settings and urban freeways, primary roads, secondary roads, laterals and access roads in case of an urban situation;
- To decide and fix the route alignment as per project requirements;
- Firm up connectivity requirements and linkages;
- Liaise with survey entity to get the topographic details of the route alignment with appropriate details;
- Assess travel demand for the project road alignment;
- Work out road's right of way requirement and spacing for various road components including formation widths, carriageways, lanes, shoulders, medians/horizontal barriers, road side facilities like spacing for NMT, drainage channels, green verges, laybys and other road side facilities etc. Decide upon relevant design standards for cross falls, camber and super elevations;
- Design both horizontal and vertical profile alignments as per given speed and other geometric design criteria to bring upon most direct, cost effective and safe route alignment;
- Locate and firm up position of road crossings and crossings for water channels and cross drainage. Lead the relevant engineering specialists for structure design and positioning of utilities and other crossings;
- Provide design plans for various road segments including links (sections between road crossings) and road crossings. In case of motorways/ expressways only grade separated crossings and interchanges are involved whereas in case of lower order roads multiple choices are available requiring option analysis for selection of relevant form of road crossings;
- Both horizontal design plans and vertical alignments are required to run simultaneously;
- Lead the pavement design engineer during production of design plans;
- Design engineers are encouraged to apply any relevant software available for generation of design plans;
- Provide design plans for road furniture and road safety appliances including traffic control devices, signage and road marking;
- In case of signalized crossings provide separate design plans for installation of signal configuration and relevant plans for signal and other relevant ITS operations;

- Generate typical and standardized design details of various elements as appropriate;
- Produce the design folder in hard and soft formats;
- Be responsible for and respond to third party road safety audit recommendations; and
- Keep liaison with the Client for design review matters.

3. Title: Structure/ Bridge Engineer

Experience:

Minimum fifteen (15) years, preferably twenty (20) years of relevant professional experience of which 8 years minimum and 11 years desirable, as Structure/ Bridge Engineer on major road and bridge projects. He/she shall demonstrate a working knowledge in: (i) the design and construction of bridges and other structures for road projects; (ii) various structural designs and documentations including the design of all required earthworks, retaining walls, drainage and any other required structures; and (iii) supervising the work of field teams in monitoring progress, assessing quality, and certifying construction in accordance with contract conditions.

Qualification:

Minimum bachelor's degree in Civil engineering preferably Masters in Structural Engineering/ Bridge Engineering or equivalent.

Responsibilities:

Structure/ Bridge Engineer will perform duties under the guidance of the Team Leader for both design review. He/she will review the design of all structures and assist the team during construction supervision of the project's bridges and structures and assist in ensuring that the project is implemented in accordance with the required specifications and approved drawings. He/she will set up supervision systems, and train the Consultants' supporting staff in their use. He/she will be responsible for designing especially on cost effective, multi-hazard resistant design, design all the components of bridge structure and structural elements of road component, including detailed structural drawings and specifications and ensure that the project is implemented in accordance with the required specification and approved drawings. He may be asked to assist the Resident Engineer (RE) in the performance of his tasks. The main responsibilities of the position will include but not limited to the following:

- Inspect the site and collect the condition data for the design review and necessary changes if any;
- Assist in preparation of technical details such as specifications and estimates;

- Provide details about existing structures, damages and assessment (if applicable);
- Review the structural design of the Bridge and certify its acceptability;
- Assist in preparing and issuing reports as defined subsequently;
- Assist in inspecting the Works at appropriate intervals during the defects liability period and issuing the defects liability certificate;
- Assist in processing the Contractor's possible claims;
- Providing the Employer with complete records and reports, and recommend the Contractors' as -built drawings for the Works; and
- Assist in the compilation of a Project completion report data, providing details of Project implementation, problems encountered, and solutions adopted, and detailing and explaining any variation in Project costs and implementation schedules from the original estimate.

4. Title: Geotechnical Engineer

Experience:

Minimum eighteen (18) years relevant professional experience of which 10 years minimum and 15 years desirable, as Geotechnical Engineer in design/ design review of roads/structures of National Highway projects with proven credentials in Bridge Designing or related to foundation investigation and design of major structures and embankments.

Qualification:

Minimum bachelor's degree in Civil / Geological Engineering with Master's degree in Geotechnical Engineering or Foundation Engineering or equivalent.

Responsibilities:

Geotechnical Engineer will review the design and any modification and change in design, construction method, and alternate technology of construction and provide oversight during the consultancy design review service. He/she will be responsible for carrying out geotechnical investigations and subsurface explorations for road and structures, stipulate material testing procedures and specifications, identify sources of materials, quarry sites and borrow areas. He/she is also responsible for all design related assignments related to Soil / Geotechnical engineering of the project.

5. Title: Road Safety Engineer

Experience:

Minimum 12 years relevant professional experience of which 6 years minimum, and 9 years desirable, as Road Safety Engineer with proven credential as safety auditor on major Highway projects.

Qualification:

Minimum bachelor's degree in Civil Engineering and preferably Master's in Transportation / Traffic Engineering with additional certification of Safety Auditor.

Responsibilities:

The Road Safety Engineer will Audit the design of road during Design Review from safety aspect to improve the design if required. He/she will review and approve the safety plans of the Contractor(s) and he will approve the plan for safety of the Works and the safety of the traffic diversions and ensure compliance with the regulations. Road Safety Engineer will identify hazardous location(s) and conditions, conduct a highway safety study, collect and analyze preliminary data, identify and collect field data, select and conduct appropriate detailed studies, evaluate study results, determine safety and operational deficiencies, identify potential safety and operational improvement and to select appropriate improvements. The Road safety Auditor will set up the road safety supervision systems, train the associated staff and ensure that the system is in place. He/she shall ensure minimum disruption/ damage to the environment by reviewing the Contractors' work statement/ methodology, including monitoring the impact of construction works on the environment and local settlements and providing information to NHA on the monthly progress reports.

6. Title: Drainage Engineer

Experience:

Minimum 15 years of relevant professional experience of which 10 years minimum, and 13 years desirable as Drainage Engineer on roads and bridges design projects of National Highways/ Expressways/ Motorways.

Qualification:

Minimum bachelor's degree in Civil engineering with Masters in Hydrology/ Hydraulics Engineering or equivalent.

Responsibilities:

Responsibilities of the Drainage Engineer will include, but is not limited to the following:

- He/she will perform his duties under the guidance of the Team Leader.
- Work in the survey and design team and will be responsible for collecting and assessing the hydrological data, finalizing the design discharges for the required drainages, cross drainages, sub surface drainages.
- Provide assistance to the design team in designing the appropriate and cost effective design of drainage structures.
- He/she shall collect relevant field data and estimate the design discharges for various drainages structure for the design purpose.

7. Title: Traffic/ Pavement Engineer

Experience:

Minimum 15 years, preferably 18 years of relevant professional experience of which 6 years minimum, and 9 years desirable, as Traffic/ Pavement Engineer on major road construction projects with a focus on pavement engineering and materials testing. Relevant experience should include: (i) supervising the contractor's compliance with material specifications and testing; (ii) providing input to the design team to source suitable materials; (iii) engineering design of flexible Asphaltic Concrete (AC) pavements, (iv) coordinating and supervising the work of field teams in supervising and certifying construction in accordance with contract conditions including acceptance standards of materials, approval of source supply, establishing QA&QC procedures, setting up laboratories, mix designs and testing procedures.

Qualification:

Minimum Bachelor's degree in Civil Engineering – preferably Masters in Civil Engineering / Highway Engineering / Transportation Engineering/ Traffic Engineering or equivalent

Responsibilities:

He/she will be responsible for designing especially the pavement design, designs for road features and road safety/traffic control features, traffic plans and amenities including detailed drawings and specifications. He/she is also responsible for carrying out Traffic Analysis and Pavement Design of the road. He/she will also validate the traffic survey. He/she should have experience in carrying out cost effective structural pavement design, traffic loading characterization, can assess the pavement performance under different loading conditions. Have practical experience of traffic monitoring; preparation of Traffic plans, Traffic Impact

Analysis, intersection and interchange operation analysis; should have experience in economic analysis of various pavement options.

- ✓ Involved in supervision of asphalt pavement construction of different projects.
- Can review and advice The Engineer for any modification needed for the detailed road pavement design.
- Can propose cost effective and innovative solutions to the problems in pavement construction and maintenance.
- Can carry out visual pavement inspections.
- Can ensure compliance with standards and specifications for pavement design and construction.

1. Title: Environmental Specialist

Experience:

Minimum 15 years of relevant professional experience of which 10 years minimum, and 13 years desirable as Environmental Specialist supervising and monitoring environmental management plans on National Highway road projects and having familiarity with the major donor agencies safeguard policies. Specific experience in a similar position on road projects in accordance with Government of Pakistan and ADB/ World Bank's Environmental Guidelines is preferable.

Qualification:

Bachelor's degree in Environmental Engineering - preferably Masters in Environmental Sciences or equivalent.

Responsibilities:

Responsible for preparing environmental screening checklist and classifying sub projects that have not been yet classified, preparing and obtaining IEEs and Environmental management plans (EMP), ensuring prior clearance, monitoring, course correction, consultations, due diligence and disclosures.

Responsibilities of the Environmental Specialist will include but not limited to the following:

 Assist Team Leader in reviewing the site specific environmental management plan (SSEMP) for each sub-project and ensure its effective implementation;

- Prepare and execute required appropriate actions to mitigate any negative environmental impacts associated with construction activities in collaboration with PIU and all concerned stakeholders;
- Ensure that any environmental impact assessments, if required, fully comply with Guidelines and Safeguards Policy of International Agencies and ensure that all required mitigation measures are identified and acceptable.
- Besides assisting in finalizing the biannual environmental monitoring report, assist the PIU in finalization of environmental part of quarterly progress report, annual progress report and any specific report asked by the PIU.

Construction Supervision Team

8. Title: Resident Engineer / Team Leader

Experience:

Minimum 15 years' preferably 18 years' relevant professional experience of which 8 years minimum and 10 years desirable experience as Resident Engineer on construction projects of National Highways/ Expressways/ Motorways. The candidate should have worked as Team Leader on three (03) similar projects.

Qualification:

Minimum bachelor's degree in Civil engineering preferably Masters in Civil Engineering / Highway Engineering/ Transportation Engineering / Construction Management or equivalent.

Responsibilities:

Overall responsibility for the organization, conduct and delivery of consultancy services and reporting to NHA. The RE / Team Leader will head the Consultants' team and will work directly to manage the project and will maintain liaison with NHA.

Responsibilities of the RE / Team Leader will include, but is not limited to the following:

- Ensure the Project implementation;
- Assume full responsibility for the consulting team and performance of services under the Consultancy Contract;
- Ensure that the consulting team undertakes comprehensive review of the designs and specifications which were prepared by the design consultant;

- Ensure that the consulting team undertakes comprehensive construction supervision and contract administration of the Works;
- Oversee the Consultants activities ensuring compliance to details provided in the construction drawings and strict adherence to construction specifications:
- Oversee and supervise construction of Works in accordance with details provided in the construction drawings ensuring strict adherence to construction specifications;
- Ensure preparation of detailed and quantitative progress reports to support the Contractor's requests for progress payments;
- Keep the Employer informed of technical issues and progress of all Works both by informal and formal meetings and correspondence and assist in any project issue which the Employer may require;
- Ensure implementation of environment and social safeguards requirements;
- Assist the Employer in preparing responses to audit objections and queries of the financiers or other Government Authorities;
- Coordinate with all concerned Employer's organizations on project issues;
- At the end of the construction activities, guide and ensure that the team prepares a comprehensive Construction Completion Report inclusive of "as-built drawings" as appropriate;
- The Resident Engineer will be responsible for quality, cost, scope, time, safety, and environmental control of the subprojects;
- Review and assist in the approval of Contractor's work program, method statements, material sources, preparing and issuing reports as defined subsequently, approving and/or issuing working drawings, approving the setting out of the Works, and instructing the Contractor;
- Certifying work volume and recommending interim certificates for progress payments, maintaining consolidated project accounts, and preparation of financial statements, ensuring minimum disruption/damage to the environment by approval of Contractors' work statement/ methodology;
- Monitoring the impact of construction Works on the environment and local settlements and providing information to the Consultants and NHA on the monthly progress reports;
- Preparing and issuing reports as defined subsequently;
- Approving and/or issuing working drawings, approving the setting out of the Works, and instructing the Contractor;
- Taking measurements and keep measurement records;
- Maintaining records, correspondence, and diaries;

- Certifying work volume and recommending interim certificates for progress payments;
- Maintaining consolidated project accounts, and preparing of financial statements;
- Certifying completion of part or all of the Works;
- Inspecting the Works at appropriate intervals during the defects notification period and issuing the defects notification certificate;
- Processing the Contractor's possible claims;
- Ensuring minimum disruption/damage to the environment by approval of Contractors'
 work statement/ methodology, including monitoring the impact of construction Works
 on the environment and local settlements and providing information to NHA on the
 monthly progress reports;
- Providing the Employer with complete records and reports, and approving the Contractors' as built drawings for the Works; and
- Compile a Project completion report providing details of Project implementation, problems encountered, and solutions adopted, and detailing and explaining any variation in Project costs and implementation schedules from the original estimates.

9. Title: Assistant Resident Engineer (Highways)

Experience:

Minimum 10 years' preferably 15 years' relevant professional experience of supervision of construction projects of National Highways/ Expressways/ Motorways of which 7 years minimum, and 10 years desirable, as Assistant Resident Engineer (Highways).

Qualification:

Minimum bachelor's degree in Civil engineering preferably Masters in Civil engineering/ Highways engineering/ Structural engineering/ Transportation engineering/ Construction Management or equivalent.

Responsibilities:

ARE will be responsible for construction supervision of the road and ensuring that the subject project is implemented in accordance with the required specification and approved drawings. He will be responsible for construction supervision and review and approval of Contractor's bills. ARE will assist the Resident Engineer (RE) in the performance of his tasks. The main responsibilities of the position will include but not limited to the following:

• Inspect the Site and collect the condition data for the design review and necessary changes if any;

- Assist the RE in preparation of technical details such as specifications and estimates;
- Provide details about existing pavement, damages and assessment, if required;
- Assist the RE and recommend approval of Contractor's work program, method statements, material sources, etc.;
- Assist the RE in preparing and issuing reports as defined subsequently;
- Review and recommend approval and/or issuing working drawings, approval of the setting out of the Works, and instruction to the Contractor;
- Taking measurements and keep measurement records;
- Maintaining records, correspondence, and diaries;
- Certifying work volume and recommending interim certificates for progress payments;
- Assist in maintaining consolidated project accounts, and preparing of financial statements;
- Provide feedback to the RE on the certification of completion of part or all of the Works;
- Processing the Contractor's possible claims;
- Ensuring minimum disruption/damage to the environment by approval of Contractors'
 work statement/ methodology, including monitoring the impact of construction works
 on the environment and local settlements and providing information to NHA on the
 monthly progress reports;
- Providing the Employer with complete records and reports, and recommend the Contractors' as built drawings for the Works; and
- Assist in the compilation of a Project completion report data, providing details of Project implementation, problems encountered, and solutions adopted, and detailing and explaining any variation in Project costs and implementation schedules from the original estimates.

10. Title: Structure / Bridge Engineer

Experience:

Minimum 10 years' preferably 15 years' relevant professional experience of supervision of construction projects of National Highways/ Expressways/ Motorways of which 7 years minimum, and 10 years desirable, as Structure / Bridge Engineer.

Qualification:

Minimum bachelor's degree in Civil engineering preferably Masters in Bridge/ Structural Engineering or equivalent.

Responsibilities:

He/she will be responsible for construction supervision of bridges and structural components of the road and ensuring that the subject project is implemented in accordance with the required specification and approved drawings.

He/she will be responsible for construction supervision and review and approval of Contractor's bills. He/she will assist the Resident Engineer (RE) in the performance of his tasks. He/she will be responsible for designing especially on cost effective, multi-hazard resistant design, design the structural elements of roads component and bridges, including detailed structural drawings and specifications. The main responsibilities of the position will include but not limited to the following:

- Inspect the site and collect the condition data for the design review and necessary changes if any;
- Assist in preparation of technical details such as specifications and estimates;
- Provide details about existing structures, damages and assessment;
- Assist and recommend approval of Contractor's work program, method statements, material sources, etc.;
- Assist in preparing and issuing reports as defined subsequently:
- Review and recommend approval and/or issuing working drawings, approval of the setting out of the Works, and instruction to the Contractor;
- Assist in taking measurements and keep measurement records;
- Assist in maintaining records, correspondence, and diaries;
- Assist in certifying work volume and recommending interim certificates for progress payments;
- Provide feedback on the certification of completion of part or all of the Works;
- Providing the Employer with complete records and reports, and recommend the Contractors' as-built drawings for the Works; and
- Assist in the compilation of a Project completion report data, providing details of Project implementation, problems encountered, and solutions adopted, and detailing and explaining any variation in Project costs and implementation schedules from the original estimate.



11. Title: Road Safety Engineer

Experience:

Minimum 12 years relevant professional experience of which 6 years minimum, and 9 years desirable, as Road Safety Engineer with proven credential as safety auditor on major Highway projects.

Qualification:

Minimum bachelor's degree in Civil Engineering preferably Master's in Transportation / Traffic/ Highway Engineering with additional certification of Safety Auditor or equivalent.

Responsibilities:

The Road Safety Engineer will be providing all necessary assistance to the construction supervision team with respect to all safety, health and environmental issues. He will assist in review and approve the safety plans of the Contractor(s) and he will monitor the safety of the works and the safety of the traffic diversions and ensure compliance with the regulations.

Road Safety Engineer will also identify hazardous location(s) and conditions, conduct a highway safety study, collect and analyze preliminary data, identify and collect field data, select and conduct appropriate detailed studies, evaluate study results, determine safety and operational deficiencies, identify potential safety and operational improvement and to select appropriate improvements. He / She will also be responsible for preparing the road safety report of the design.

12. Title: Soil/ Material Engineer

Experience:

Minimum 10 years' preferably 15 years' relevant experience as Material Engineer on construction supervision projects of National Highways/ Expressways/ Motorways of which minimum 5 years experience of asphalt concrete mix design in countries having similar climate condition and/or truck overloading problems like Pakistan.

Qualification:

Minimum Bachelor's degree in Civil engineering or Masters in Geology, preferably Masters in Soil Engineering/ Material Engineering/ Geotechnical Engineering or equivalent.

Responsibilities:

Soil/Material Engineer will perform duties under the guidance of the Team Leader. He/she will assist the Team during construction supervision of the Road, Bridges and structures and assist in ensuring that the subject project is implemented in accordance with the required specification and approved drawings. The Soil/Material Engineer will set up quality control systems, testing procedures, preparation of JMF, train the staff and ensure that the system is in place.

He/she will assist and will be responsible for quality of materials used in construction by performing field and laboratory tests and certifying their acceptance based on recommended specifications for the material, will also identify the sources of material and query sites.

Main responsibilities of the position will include but not limited to the following:

- Stipulate Material Testing Procedures and Specifications;
- Identify sources of materials, quarry sites and borrow areas;
- Confirm the suitability and availability of material in the borrow pits and quarries for pavement;
- If required, identify and evaluate additional sources of materials;
- Undertake field and laboratory testing of the materials to determine their suitability for various components of the Work;
- Prepare mass haul diagram for haulage purposes giving quarry charts indicating the location of selected borrow areas, quarries and the respective estimated quantities;
- Make suitable recommendations regarding making good the borrow and quarry areas after the exploitation of materials for construction of Works;
- Be responsible for Material Testing and specification and certification of material quality;
- Preparation and testing of concrete mixes of different design mix grades using suitable materials (binders, aggregates, sand filler etc.) as identified during Material Investigation to conform to specification applicable in Pakistan; and
- Preparation of JMF.

13. Title: Contract Engineer

Experience:

12 years' relevant professional experience of which 6 years minimum, and 9 years desirable, as Contract Specialist on major road projects based on FIDIC form / conditions of contract.

Proven credentials in contract administration, evaluating Contractor's claims and dispute resolution, preferable experience/track record of an arbitrator, mediator, adjudicator and/or dispute resolution adviser.

Qualification:

Bachelor's degree with a major in Civil Engineering, Law, Contracts, Procurement, or Construction Management preferably M.Sc. in Civil Engineering, Law, Contracts, Procurement or equivalent

Responsibilities:

Responsible for assistance in contract administration of Works contracts, taking timely contractual actions related to cost, time and quality controls and closure of the contracts, and in case of dispute its referral to the adjudication and arbitration as the case may be.

He/she will be responsible for assisting the Team Leader in all the activities pertaining to contract management, early warning of key contractual actions, schedule and document contract management meetings and evaluating/ resolving Contractor's claims and contractual disputes.

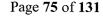
Responsibilities of the Contract Engineer will include, but is not limited to the following:

- Assist Team Leader in coordinating contract management and planning activities for the work packages with Engineering, Project Controls and Construction;
- Assist to organize meetings for negotiating and resolving technical and contractual issues;
- Assist Team Leader in the timely distribution of reports and pertinent contractual information to and from Contractors in accordance with agreed schedule;
- Assist in schedule turnover meetings with Site Personnel, where required;
- Assist to check timesheets for contract conformance (rates, backup and extensions);
- Assist in review Contractors' invoices and prepare Progress Payment Certificates with Cost Control;
- Assist in review Contractors' costs, forecasts and requests for claims:
- Assist in review and issue for approval and post Substantial Performance documents;
- Participate in contract cost review meetings and regular Project progress and assist with preparation of monthly contracts and Project progress reports;
- Assist in procurement and contracts administration and assistance actions such as contracts, solicitations, modifications, delivery schedules, plans and coordination with relevant departments;

- Assist in preparation of procurement and contract documents:
- Assists in the review of procedural aspects of contract actions. Participates in contracts administration sufficient to ensure contract terms and conditions are met and that the Contractor delivers the required services in a timely manner to achieve the objectives of the project;
- Assists in the termination of contracts for the convenience of the Project by a Contractor. The incumbent is responsible for the preparation of all documentation necessary to support and defend termination decisions;
- Recommends actions when the Contractors are not in compliance with contract provisions;
- Coordinate with Contractors to determine and recommend alternative courses of action, such as extension of delivery schedule;
- Conducts contract reviews to evaluate Contractor's performance, and monitors Contractors' activity to assure compliance;
- Monitors such matters as payments, claims, and contractual changes to insure requirements of the contract are met;
- Reviews completed contract file to ensure routine administrative matters are resolved or completed; and
- Support to Team Leader in drafting, for submittal to Employer, any requests for consent to extension of time / variation orders.

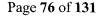
E. Reporting & Documents Requirements

- 15. Reporting Requirements: The Consultants will prepare and submit to PIU five copies of each of the under mentioned reports. The format of these reports shall be mutually agreed with the PIU:
 - (i) Inception Report: The Consultants will submit an Inception Report within one Month after mobilization. This will contain full detail of the Consultants' supervision, & contract administration methodology and staff plan with supporting CVs of professional staff and projected monthly billing.
 - (ii) **Design Review Report:** The Consultants will submit a detailed Design Review Report, under the guidance of Team Leader within two months, indicating any deficiencies / improvements required in the detailed design prepared by the Design consultant. The design review Consultants will ensure that the Construction Drawings carry all details necessary for executing the

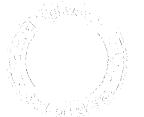


job and shall not result in claims of non BOQ items / additional associated costs.

- (iii) **Monthly Contract Administration Reports:** The Consultants will prepare a narrative progress report, not later than the 10th of each month, summarizing:
 - a. Construction progress during the month and cumulative to date for each individual contract drawing specific attention to any major causes of delay (administrative, technical or financial) with details of remedial action taken or recommended to the Employer.
 - b. A comparison of actual and forecast expenditure both during the month and cumulative to date for each individual contract, and a record of the status of payment of the Contractors' monthly invoices, of all claims for cost or time extensions, and of actions required of PIU to permit unconstrained works implementation. The Consultants will also advise on the final estimated cost for each individual contract and draw attention to any major changes in the project budget including details of remedial action taken or recommended to the Employer.
 - c. Brief on all correspondence exchanged with the Contractors particularly relating to contractual clauses, with financial and time implications.
 - d. Technical appreciation of any design or quality control problems for each individual contract including details of remedial action taken or recommended to the Employer.
 - e. Status of compliance with the Environmental & Resettlement Plans.
- (iv) Annual Management Information Report at the end of each Financial Year: The Consultants will prepare a comprehensive report summarizing all activities under the Services at the end of each Financial Year, and also at other times when considered warranted by either the Consultants or PIU because of delay of the construction Works or because of the occurrence of technical or contractual difficulties. Such reports shall summarize not only activities of the Project Engineer/ Manager but also the progress of the Contractors including all contract variations and change orders, the status of the Contractors claims, and brief descriptions of the technical and contractual problems being encountered and other relevant information for each of the ongoing contracts.
- (v) Interim Contract Completion Reports: The Consultants will prepare completion report for each contract within 30 days of issuance of Taking-over Certificate/Certification of Completion. This report shall summarize the implementation and financial history of the project. The defects list provided to the Contractor and all outstanding claims pending resolution.



- (vi) Final Project Completion Report: The Consultants will prepare a comprehensive final Completion Report within 90 days after Issuance of the Taking Over Certificate of the last Works contract. The Consultants will prepare a comprehensive final Completion Report for the project including each of the contracts and shall summarize the method of construction, as built record showing the location and details of all Works carried out, all defects and certification of the satisfactory correction of such defects for each of the construction contracts, the construction supervision performed, and recommendations for future projects of similar nature to be undertaken by NHA. A safeguards implementation completion (final) report will also be included as appendix to the final project completion report.
- (vii) **Project Documentary Report:** The Consultants has to make documentary of all major activities during constructions as well as that of completed project sections to be submitted towards the end of the project. These should also pertain;
 - a) Laying and compaction of various pavement layers;
 - b) Operation of Asphalt and concrete Plants:
 - c) Quarry sites and laboratory activities;
 - d) Road after completion showing road furniture;
 - e) Various important stages in construction of structures;
 - f) Any other major activity involved requiring specific mention.
- (viii) **Roughness Survey Report:** The roughness surveys will be carried out at substantial completion in coordination with NHA, before the end of the defect liability period. The Consultant is required to submit his findings along with data in this report.
- (ix) **Revised PC-1:** The Consultants shall prepare the revised PC-1 of the project, before completion of the project (if required) by incorporating all changes in the scope of work and, prepare completion report (PC-IV), at the completion of the project. To ensure compliance an amount of two per cent (02%) of construction supervision cost will be withheld from interim (monthly) invoices and released along with the final payment of the Consultants, on completion of this job.
- 16. **Documents & Manuals Required:** The Consultants will prepare following documents to be approved by the Employer for efficient contract administration & construction supervision.
 - a. Contract Administration Manual
 - b. Quality Control & Assurance Manual



- c. Laboratory Manual
- d. Environmental Monitoring Checklist
- e. Safeguard Monitoring Check list

F.

17. Employer's Input and Counterpart Personnel:

- (i) Services, facilities and property to be made available to the Consultants by the Employer: Design Reports, Drawings and related data for the sub-projects will be shared with the Consultants.
- (ii) Professional and support counterpart personnel to be assigned by the Employer to the Consultants' team: The Employer shall establish a functional Project Implementation Unit for support and liaison with the Consultants.

G.

18. Employer will provide the following inputs, project data and reports to facilitate preparation of the Proposals: N/A

H.

19. Miscellaneous

(i) Employer's Staff:

The Employer has planned a Project Implementation Unit (PIU) to implement the Project. The PIU has been established under a General Manager, assisted by Project Director and land acquisition Staff and will be located in the field.

(ii) Facilities:

Facilities for the Consultants: The Construction Contractor shall provide, operate and maintain the following facilities for the exclusive use of the Consultants:

- a. Laboratory and Testing Equipment;
- b. Site Office and Residential Accommodation (adequately furnished);
- c. Site Transport;
- d. Survey Equipment.
- (iii) The Consultants are encouraged to familiarize with Construction Work before submitting their proposals. Draft sample documents regarding EMP, Resettlement, and Environment as per the instruction of the Client.



APPENDIX B

PERSON-MONTHS AND ACTIVITY SCHEDULE [To estimate Consultant's inputs and costs for the Assignment, person-month and activity schedules are to be provided as per enclosed format (Forms TECH-7 and TECH-8). These two schedules should correlate.]



APPENDIX C

CLIENT'S REQUIREMENTS FROM THE CONSULTANTS

- [1 Selecting a Consulting Firm is one of the most important decisions a Client makes. The specific criteria for consideration 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 consultants in the form of proposals (against the RFPs) which should be complete in all respects by 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 statements. It will be policy of evaluators that vague statements and lack of clarity in proposals on specific issues may be made the reason to downgrade the rating.
 - b. Talking to the senior personnel of the consultants.
 - c. Consulting other clients of the consultants.
 - d. Viewing the projects the consultants have accomplished and visiting/ interviewing the users of the projects.
 - e. Visiting the office premises of the consultants and examining systems and method of working as well as, personnel, hardware and software abilities available therein. Seeking information or visits to the sites for backup support and holding meetings with client's representatives.
 - 2. 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 competing consultants.

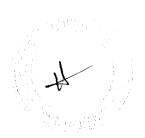
Note:

For Items 1 (b) to 1 (e), inspections can be held any time prior to or after award of the Assignment to the Consultant. If the situation is not found compatible with what is presented during procurement of Consultant or as per Contract, the Consultant will be liable for a suitable punitive action.



APPENDIX D

PERSONNEL, EQUIPMENT, FACILITIES AND OTHER SERVICES TO BE PROVIDED BY THE CLIENT As per TOR

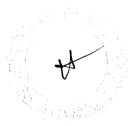


APPENDIX-E

COPY OF MODEL AGREEMENT (To be finalized during Negotiations)

Contract for Engineering Consultancy Services (Time Based)

	Between
_	(NAME OF CLIENT)
	And
	(NAME OF THE CONSULTANTS)
	For
	(BRIEF SCOPE OF SERVICES)
OF_	(NAME OF PROJECT)
	Month and Year



1.	FORM OF CONTRACT		
II.	GENERAL CONDITIONS OF CONTRACT		
1.	GENERAL PROVISIONS		
1.1 1.2 1.3 1.4 1.5 1.6 1.7 1.8 1.9	Definitions Law Governing the Contract Language Notices Location Authorized Representatives Taxes Leader of Joint Venture Relation between the Parties Headings		
2.	COMMENCEMENT, COMPLETION, MODIFICATION, AND TERMINATION OF CONTRACT		
2.1 2.2 2.3 2.4 2.5 2.6 2.7 2.7.1 2.7.2 2.7.3 2.7.4 2.8 2.9 2.9.1 2.9.2 2.9.3 2.9.4 2.9.5	Effectiveness of Contract Termination of Contract for Failure to Become Effective Commencement of Services Expiration of Contract Modification Extension of Time for Completion Force Majeure Definition No Breach of Contract Extension of Time Payments Suspension of Payments by the Client Termination By the Client By the Consultants Cessation of Services Payment upon Termination Disputes about Events of Termination		
3. 3.1 3.1.1 3.1.2 3.2 3.3 3.4 3.5 3.6 3.7 3.8 3.9 3.10	OBLIGATIONS OF THE CONSULTANTS General Standard of Performance Law Governing Services Consultants Not to Benefit from Commissions, Discounts, etc. Confidentiality Liability of the Consultants Other Insurances to be taken out by the Consultants Consultants' Actions Requiring Client's Prior Approval Reporting Obligations Documents Prepared by the Consultants to be the Property of the Client Equipment and Materials Furnished by the Client Accounting, Inspection and Auditing		

CONSULTANTS' PERSONNEL AND SUBCONSULTANTS

4.

4.1 4.2 General Description of Personnel

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4.3 4.4 4.5 4.6	Approval of Personnel Working Hours, Leave, Overtime, etc. Removal and/or Replacement of Personnel Resident Project Manager			
5.	OBLIGATIONS OF THE CLIENT			
5.1 5.1.1 5.1.2 5.1.3 5.2 5.3 5.4 5.5 5.6	Assistance, Coordination and Approvals Assistance Co-ordination Approvals Access to Land Change in the Applicable Law Services and Facilities Payments Counterpart Personnel			
6.	PAYMENTS TO THE CONSULTANTS			
6.1 6.2 6.3 6.4 6.5 6.6	Cost Estimates, Ceiling Amount Remuneration and Reimbursable Direct Costs (Non-salary Costs) Currency of Payment Mode of Billing and Payment Delayed Payments Additional Services Consultants' Entitlement to Suspend Services			
7.	FAIRNESS AND GOOD FAITH			
7.1 7.2	Good Faith Operation of the Contract			
8.	SETTLEMENT OF DISPUTES			
8.1 8.2	Amicable Settlement Dispute Settlement			
9.	INTEGRITY PACT			
10.	THE RIGHTS AND DUTIES OF THE CONSULTANTS			
10.1 10.2 10.3 10.4 10.5	Obligations Indirect payments Royalties Provision of Expert Technical Advice Penalty			
III.	SPECIAL CONDITIONS OF CONTRACT [Details to be finalized by the users]			
IV.	APPENDICES			
	Appendix A- Description of the Services Appendix B- Reporting Requirements Appendix C- Key Personnel and Sub-consultants Appendix D- Breakdown of Contract Prices in Foreign Currency Appendix E- Breakdown of Contract Prices in Local Currency Appendix F- Services and Facilities to be Provided by the Client and Counterpart Personnel to be Made Available to the Consultants by the Client. Appendix G- Integrity Pact			
V.	ALTERNATE TITLE PAGE IN CASE OF JV ALTERNATE FORM OF CONTRACT IN CASE OF JV			

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 (her of(year),	einafter called the between,	ne "Contract") i on	s made on the the	day of one	(month) hand,
(hereinafter called the representatives and					rs, legal hand,
(hereinafter called the representatives and per			on shall inclu	nde the successo	rs, legal

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

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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 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;
- (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;

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- (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 Authorised 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 Authorised Representative 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 Authorised 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 Authorised Representatives specified in the SC.

1.7 Taxes

Unless specified in the SC, the Consultants, Sub-consultants, and their Personnel shall pay such taxes, fees, and other impositions as may be levied under the Applicable Law.



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

1.9 Relation between the Parties

Nothing contained herein shall be construed as establishing a relation of master and servant or of principal and agent as between the Client and the Consultants. The Consultants, subject to this Contract, have complete charge of Personnel and Subconsultants, if any, performing the Services and shall be fully responsible for the Services performed by them or on their behalf hereunder.

1.10 Headings

The headings shall not limit, alter or affect the meaning of this Contract.

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 mutually agreed and 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.

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(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 8 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 8 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 8 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.

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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.

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 paragraphs (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 8 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

3.1.1 Standard of Performance

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.

3.1.2 Law Governing Services

The Consultants shall perform the Services in accordance with the Applicable Law and shall take all practicable steps to ensure that any Sub-consultants, as well as the Personnel of the Consultants and any Sub-consultants, comply with the Applicable Law.



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 Liability of the Consultants

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 mentioned 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.

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3.5 Other Insurances to be Taken out by the Consultants

In addition to the insurance stated in Sub-Clause 3.4 above, the Consultants shall take out and maintain the various insurances as are specified in the SC, at the cost and expense of the Client.

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 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

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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 General

The Consultants shall employ and provide such qualified and experienced Personnel and Sub-consultants as are required to carry out the Services.

4.2 Description of Personnel

- (a) The title, activities of job description and estimated period of engagement in the carrying out of the Services of each of the Consultants' Personnel are described in Appendix C.
- (b) Adjustment with respect to the estimated periods of engagement of various salary grades of the Personnel set forth in Appendix C may be made by the Consultants in accordance with the actual requirements of the Contract to ensure efficient performance of the Services, provided that the aggregate of such adjustments shall not cause payments under this Contract to exceed the ceilings set forth in Sub-Clause 6.1(a) of this Contract.

4.3 Approval of Personnel

The Key Personnel and Sub-consultants listed by title as well as by name in Appendix C are deemed to be approved by the Client. In respect of other Key Personnel which the Consultants propose to use in carrying out of the Services, the Consultants shall submit to the Client for review and approval a copy of their biographical data. If the Client does not object in writing (stating the reasons for the objection) within fourteen (14) calendar days from the date of receipt of such biographical data, such Key Personnel shall be deemed to have been approved by the Client.

4.4 Working Hours, Leave, Overtime, etc.

Working Hours for Key Personnel are set forth in Appendix-C hereto.

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Except for the staff covered under reimbursable direct costs expenditure, the Consultants' remuneration given in Appendix D and Appendix E shall be deemed to cover paid casual leave, sick leave and earned leave. The Client will reimburse overtime payments to eligible Personnel provided by the Consultants, in respect of support staff and work charged staff. Any taking of leave by Personnel shall be subject to the prior approval by the Consultants who shall ensure that absence for leave purposes will not delay the progress and adequate supervision of the Services. Such leave taking of the Authorised Representative of the Consultants at site, if any, shall be preceded by the Client informed in writing.

4.5 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 has committed serious misconduct or has 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 therefor, provide as a replacement a person with qualifications and experience acceptable to the Client.
- Any of the Personnel provided as a replacement under Sub-Clauses (a) and (b) above, the rate of remuneration applicable to such person as well as any reimbursable expenditures (including expenditures due to the number of eligible dependents) the Consultants may wish to claim as a result of such replacement, shall be subject to the prior written approval by the Client. Except as the Client may otherwise agree, (i) the Consultants shall bear all additional travel and other costs arising out of or incidental to any removal and/or replacement, and (ii) the remuneration to be paid for any of the Personnel provided as a replacement shall not exceed the remuneration which would have been payable to the Personnel replaced.

4.6 Resident Engineer

If required by the SC, the Consultants shall ensure that at all times during the Consultants' performance of the Services, a Resident Engineer acceptable to the Client, shall take charge of the performance of such Services



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 relevant to the carrying out of the Services, with various Government and other organisations. Such items shall be returned by the Consultants upon completion of the Services under this Contact;
- (c) issue to officials, agents and representatives of the concerned organisations, all such instructions as may be necessary or appropriate for prompt and effective implementation of the Services;
- (d) provide to the Consultants, Sub-consultants, and Personnel any such other assistance and exemptions as may be specified in the SC;
- (e) assist to obtain permits which may be required for right-of-way, entry upon the lands and properties for the purposes of this Contract.

5.1.2 Co-ordination

The Client shall:

- (a) coordinate 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 organisation named in the SC.
- (b) coordinate 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.

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5.3 Change 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 6.1 (a). Rate in the Appendix-E shall be revised in case of revision in salary made in an organization due to statutory Notification. Such revised rate(s) shall be applicable from the respective date(s) of implementation of such Notification by the concerned organizations for which necessary proof shall be provided to the Client.

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 Sub-Clause 6.1(b) 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.

5.6 Counterpart Personnel

- (a) If so provided in Appendix-F hereto, the Client shall make available to the Consultants, as and when provided in such Appendix-F, and free of charge, such counterpart personnel to be selected by the Client, with the Consultants' advice, as shall be specified in such Appendix-F. Counterpart personnel shall work under the exclusive direction of the Consultants. If any member of the counterpart personnel fails to perform adequately any work assigned to such member by the Consultants which is consistent with the position occupied by such member, the Consultants may request the replacement of such member, and the Client shall not unreasonably refuse to act upon such request.
- (b) If counterpart personnel are not provided by the Client to the Consultants as and when specified in Appendix-F, the Client and the Consultants shall agree on; (i) how the affected part of the Services shall be carried out; and (ii) the

additional payments, if any, to be made by the Client to the Consultants as a result thereof pursuant to Sub-Clause 6.1(c) hereof.

6. PAYMENTS TO THE CONSULTANTS

6.1 Cost Estimates, Ceiling Amount

- (a) An estimate of the cost of Services payable in foreign and local currencies is set forth in Appendices D and E respectively. Except as may be otherwise agreed under Sub-Clause 2.5 and subject to Sub-Clause 6.1 (b), payments under this Contract shall not exceed the ceilings in foreign currency in Appendix D and in local currency in Appendix E, excluding adjustments made under Sub-Clause 6.2(a) of the SC. The Consultants shall notify the Client as soon as cumulative charges incurred for the Services have reached 80% of either of these ceilings.
- (b) Notwithstanding Sub-Clause 6.1(a) hereof, if pursuant to any of the Sub-Clauses 5.3, 5.4 or 6.6 hereof, the Parties shall agree that additional payments in local and/or foreign currency, as the case may be, shall be made to the Consultants in order to cover any necessary additional expenditures relating to remuneration not envisaged in the cost estimates referred to in Sub-Clause 6.1(a) above, and the ceiling or ceilings, as the case may be, set forth in Sub-Clause 6.1(a) above shall be increased by the amount or amounts, as the case may be, of any such additional payments.
- (c) Notwithstanding Sub-Clause 6.1(b) hereof, if pursuant to any of the Sub-Clauses 5.3, 5.4 or 5.6 hereof, the Parties shall agree that additional payments in local and/or foreign currency, as the case may be, shall be made to the Consultants in order to cover any necessary additional expenditures relating to reimbursable direct cost not envisaged in the cost estimates referred to in Sub-Clause 6.1(a) above, the ceiling or ceilings, as the case may be, set forth in Sub-Clause 6.1(b) above shall be increased by the amount or amounts, as the case may be, of any such additional payments.

6.2 Remuneration and Reimbursable Direct Costs (Non-salary Costs)

- (a) Subject to the ceilings specified in Sub-Clause 6.1(a) hereof, the Client shall pay to the Consultants; (i) remuneration as set forth in Sub-Clause 6.2(b); and (ii) reimbursable direct costs expenditure as set forth in Sub-Clause 6.2(c). Remuneration shall be subject to price adjustment as specified in the SC.
- (b) Remuneration for the Personnel shall be determined on the basis of time actually spent by such Personnel in the performance of the Services after the date determined in accordance with Sub-Clause SC 2.3 (including time for necessary travel via the most direct route) at the rates referred to, and subject to such additional provisions as are set forth in the SC.

(c) Reimbursable direct costs (non-salary costs) actually and reasonably incurred by the Consultants in the performance of the Services. The reimbursable direct costs expenditure shall be for the items specified in the SC.

6.3 Currency of Payment

- (a) Foreign currency payment shall be made in the currency or currencies specified as foreign currency or currencies in Appendix D, and local currency payment shall be made in Pakistani Rupees.
- (b) The SC shall specify which items of remuneration and reimbursable expenditures shall be paid, respectively, in foreign and in local currency.

6.4 Mode of Billing and Payment

Billing and payments in respect of the Services shall be made as follows:

- (a) To cover payments due under Sub-Clauses 6.1 and 6.2 of this Contract, the Client shall establish a revolving fund in foreign currency and local currency accounts, each account to be separately and distinctly maintained by the Consultants, and shall deposit into the said accounts, amounts in the currencies specified above as follows:
 - (i) Not later than thirty (30) days following the signing of Contract by both the Parties amounts estimated to be the requirements in the respective currencies for the three (3) months of the Services immediately following the signing of Contract calculated on the basis of the applicable estimates set forth in Appendices D and E.
 - (ii) Not later than the 15th day of each succeeding month, the amount equal to the preceding monthly estimate in accordance with Appendices D and E shall be recouped by the Client in the revolving fund against foreign currency and local currency amounts.

Any bank interest accruing in a revolving fund shall be credited by the Consultants to the Client.

(b) As soon as practicable and preferably within thirty (30) days after the end of each calendar month during the period of the Services, the Consultants shall submit to the Client, in duplicate, itemized statements, accompanied by copies of receipted invoices, vouchers and other appropriate supporting materials, of the amounts payable pursuant to Sub-Clauses 6.3 and 6.4 for such month. Separate monthly statements shall be submitted in respect of amounts payable in foreign currency and in local currency. Monthly statement shall distinguish that portion of the total eligible costs which pertains to remuneration from that portion which pertains to reimbursable direct costs expenditure.

In case of a joint venture, separate monthly statements shall be submitted in respect of amounts payable to each Member of the joint venture of the Consultants.

- (c) The Client shall cause the payment of the Consultants' monthly statements within twenty-eight (28) days for amounts in local currency and within fifty six (56) days for amounts in foreign currency after the receipt by the Client of such statements with supporting documents. Only such portion of a monthly statement that is not satisfactorily supported may be withheld from payment. Should any discrepancy be found to exist between actual payment and costs authorized to be incurred by the Consultants, the Client, after seeking clarification from the Consultants, may add or subtract the difference from any subsequent payments.
- (d) The final payment under this Clause shall be made only after the final report and a final statement, identified as such, shall have been submitted by the Consultants and approved as satisfactory by the Client. The Services shall be deemed completed and finally accepted by the Client and the final report and final statement shall be deemed approved by the Client as satisfactory ninety (90) calendar days after receipt of the final report and final statement by the Client unless the Client, within such ninety (90) days period, gives written notice to the Consultants specifying in detail deficiencies in the Services, the final report or final statement. The Consultants shall thereupon promptly make any necessary corrections, and upon completion of such corrections, the foregoing process shall be repeated. Any amount which the Client has paid or caused to be paid in accordance with this Clause in excess of the amounts actually payable in accordance with the provisions of this Contract shall be reimbursed by the Consultants to the Client within thirty (30) days after receipt by the Consultants of notice thereof. Any such claim by the Client for reimbursement must be made within fifty six (56) days after receipt by the Client of a final report and a final statement approved by the Client in accordance with the above. The Client shall cause the final payment to the Consultants within fifty six (56) days of receipt of final invoice from the Consultants, after completion of Services finally accepted alongwith the final report and statement of the Consultants by the Client.
- (e) All payments under this Contract shall be made to the bank account of the Consultants to be notified later.

6.5 Delayed Payments

If the Client has delayed payments beyond the period stated in paragraph (c) of Sub-Clause 6.4, interest 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, the Consultants, with the prior written authorization of the Client, shall carry out such Additional Services on the basis of the billing rates set out in the Contract. In case for any reasons these rates and prices are determined by both the Parties to be not applicable for said Additional Services, then suitable billing rates and the additional time, shall be agreed upon between the Client and the Consultants.

6.7 Consultants' Entitlement to Suspend Services

If the Client fails to make the payment of any of the Consultants' invoice within twenty-eight (28) days after the expiry of the time stated in paragraph (c) of Sub-Clause 6.4, within which payment is to be made, the Consultants may after giving not less than twenty-eight (28) 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. FAIRNESS AND GOOD FAITH

7.1 Good Faith

The Parties undertake to act in good faith with respect to each other's rights under this Contract and to adopt all reasonable measures to ensure the realization to the objectives of this Contract.

7.2 Operation of the Contract

The Parties recognize that it is impractical in this Contract to provide for every contingency which may arise during the life of the Contract, and the Parties hereby agree that it is their intention that this Contract shall operate fairly as between them, and without detriment to the interest of either of them, and that, if during the term of this Contract either Party believes that this Contract is operating unfairly, the Parties will use their best efforts to agree on such action as may be necessary to remove the

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cause or causes of such unfairness, but no failure to agree on any action pursuant to this Sub-Clause shall give rise to a dispute subject to arbitration in accordance with Clause 8 hereof.

8. SETTLEMENT OF DISPUTES

8.1 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.

8.2 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 Rules made thereunder 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.

9. INTEGRITY PACT

- 9.1 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

Clause No. of GC	Contract
1.1	Definitions
	(p) "Project" means
1.2	Law Governing the Contract
	All 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	Authorised Representatives
	The Authorised Representatives are the following:
	For the Client:
	Telephone :
	Telephone : Facsimile : E.Mail :
1.7	Taxes
	Payment of Taxes will be the responsibility of the Consultants in accordance with Pakistan Tax Laws.
All not	tes should be deleted in final text. All blanks should be filled in.

1.8 Leader of 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

This Contract shall come into effect after issuance of the Letter of Commencement by the Client.

2.2 Termination of Contract for Failure to Become Effective

The time period shall be one hundred twenty (120) days or such other time period as the Parties may agree in writing.

2.3 Commencement of Services

The Consultants shall commence the Services within twenty-one (21) days after receipt of Letter of Commencement, or such other time period as the Parties may agree in writing.

2.4 Expiration of Contract

The	period	of	completion	of	Services	shall	be		days	from	the
Com	nencem	ent I	Date of the Se	ervic	es or such	other 1	erio	d as the Pa	ırties m	ay agre	e in
writii	ng. The	Serv	rices are estin	nated	l to be com	pleted	befo	re		20	

"Completion	of	Services"	means	• • •
•••••	<i></i>			

[Note: In the blank space, the last activity (such as submission of As Built Drawings, Completion Report etc.) which declares the Contract to be completed in all respect, may be stated]

2.7.4 Payments

Following text is added at the end of the para:

"excluding overheads and profits"

3.1.1 Standard of Performance (Final Payment of Construction Works Contract)

If final bill, pertaining to the Construction Works being supervised by the Consultants, is not processed by the Consultants within stipulated time, the Consultants will not be considered for next project consultancy. It will also be taken

as the Consultants' failure to provide satisfactory performance under Rule 19 of the Public Procurement Rules.

All such costs of Consultants for processing the final payment of the Contractor are deemed included in its Financial Proposal. The Consultants have to ensure that the Contractor has completed total work as per Works Contract with particular reference to site clearance before taking over the project on completion.

3.4 Liability of the Consultants

The Consultants shall be held liable for all losses or damages suffered by the Client on account of any misconduct and unsatisfactory performance by the Consultants in performing the Services. The Consultants shall be liable for consequence of errors and omissions on their part and the extent of such liability shall be twice the Remunerations (excluding reimbursable direct/ non-salary costs) under the Contract.

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 which are purchased under this Contract and operated in Pakistan by the Consultants or their Personnel or any Sub-consultants or their Personnel, with a minimum coverage of Pak. Rupees One Hundred Thousand (Rs.100,000).
- (b) Insurance against loss of or damage to equipment purchased in whole or in part with funds provided under this Contract.
- (c) Third Party liability insurance with a minimum coverage of **Pak. Rupees One Million (Rs.1,000,000)**.
- (d) Professional liability insurance, with a minimum coverage of **not less than** twice the Remunerations.

3.6 Consultants' Actions Requiring Client's Prior Approval

- (c) The Consultants shall also clear with the Client, before commitments on any action they propose to take under the following:
 - i) Issuing Variation Orders in respect of:
 - additional quantities of items of Construction Works as determined by the Engineer to be necessary for the execution of Works.
 - any new item of the Works not envisaged in the Construction Works Contract Documents and which is determined by the Engineer to be necessary for the execution of Works.

- any item of Construction Works covered under Provisional Sums.
- ii) Claim from the Contractor for extra payment with full supporting details and Consultants recommendations, if any, for settlement.
- iii) Details of any sub-contracts for Construction Works.
- iv) Any action under terms of Performance Guarantee or Insurance Policy for the Construction Works.
- v) Any action by the Consultants affecting the costs under the following clauses of Conditions of Contract of the Construction Works Contract.
 - Adverse Physical Conditions and Artificial Obstructions
 - Suspension of Works
 - Bonus and Liquidated Damages
 - Certificate of Completion of Works
 - Defects Liability Certificate
 - Forfeiture
 - Special Risks
 - Frustration
 - Any other as per the Conditions of Contract of the Construction Works Contract.
- vi) Final Measurement Statement.
- vii) Release of Retention Money.
- viii) Any change in the ratios of various currencies of payment.

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.

4.2 Description of Personnel

The word "Personnel" in this Sub-Clause is construed to include "Specialist Sub-consultant", if any.

4.4 Working Hours, Leave, Overtime, etc.

The Client shall not reimburse overtime payments to any Personnel provided by the Consultants. The Financial Proposal submitted by the Consultants is deemed to have covered it under Overhead costs of the firm. However, any such provision, if available



in the Works contract of the Contractor will be deemed applicable to the specific Personnel of the Consultants.

4.6 Resident Engineer

[Note: Name and address of the Consultants' Resident Engineer, if applicable will be provided here]

5.1.1 Assistance

	(a)	The Client shall make available within days from the Commencement Date, the documents namely
		This list if warranted shall be supplemented subsequently.
	(d)	Other assistance and exemptions to be provided by the Client are
5.1.2	Coord	lination
		(a) The departments and agencies include
		••••••

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.

6.2 Remuneration and Direct Costs (Non-Salary Costs)

- 6.2(a) Payments for remuneration made in accordance with Sub-Clause 6.2(a) shall be adjusted as follows:
 - (i) Remuneration paid in foreign currency pursuant to the rates set forth in Appendix-D shall be adjusted after every 12 months (and, the first time, with effect from the remuneration earned in the 13th calendar month after the date of the Contract) by applying the following formula:

Rf = Rfo x If/Ifo

where \underline{Rf} is the adjusted remuneration, \underline{Rfo} is the remuneration payable on the basis of the rates set forth in Appendix-D for remuneration payable in foreign currency, \underline{If} is the official index for salaries in the country of the foreign currency for the first month for which the adjustment is supposed to have



effect, and <u>Ifo</u> is the official index for salaries in the country of the foreign currency for the month of the date of the Contract.

- (ii) Remuneration paid in local currency pursuant to the billing rates agreed for each person shall be adjusted in July of every year (and, for the first time, with effect from the remuneration earned in July following submission of financial proposal) by considering the following subject to maximum of prevalent CPI as per given formula plus salary revision due to statutory notification, if applicable pursuant to Sub-Clause 5.3 upon substantiation:
 - annual increment
 - Increase due to promotion
 - Salary revision, if applicable pursuant to Sub-Clause 5.3 or otherwise

OR,

to be computed with the following formula: $RI = RIo \times II/IIo$

Where RI is the adjusted billing rate, RIo is the billing rate payable on the basis of the agreed billing rate in local currency as on July (i.e. the year in which the Consultants submitted its financial proposal to the Client). II is the Combined Consumer Price Index (CPI) "General" for Government employees as published by the Federal Bureau of Statistics, Government of Pakistan for the month of July for which the adjustment is to have effect, and IIo is the Consumer Price Index "General" for Government employees as published by the Federal Bureau of Statistics Government of Pakistan for the month of July (i.e. the Year in which the Consultants submitted its financial proposal to the Client).

[Note: One of the two options given above under (ii) is to be deleted as a result of negotiations before signing the Contract Agreement]

6.2(b) The rates for foreign Personnel set forth in Appendix D, and the rates for local Personnel set forth in Appendix E, after adjustments, if any, pursuant to Sub-Clause 6.2(a) hereof shall be used for billing purposes.

It is understood that the remuneration rates shall cover salary and allowances as the Consultants shall have agreed to pay to the Personnel as well as factors for social charges and overhead based on the Consultants' average cost as represented by the financial statements of Consultants' latest three fiscal years and fee of the Consultants.

The remuneration rates have been agreed upon based on the representations made by the Consultants during finalization of this Contract with respect to the Consultants' costs and charges as referred above as such representations are evidenced by the form "Breakdown of Agreed Fixed Rates in Consultants' Contract" (A model of such form is attached at the end of these SC. The Consultants should be requested to execute this Form at the conclusion of the Contract negotiation when the Parties have agreed on the fixed rates and their breakdown).

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Remuneration for periods of less than one month shall be calculated on hourly basis for the time spent by the Head Office staff or Project Office staff and directly attributable to the Services (one hour being equivalent to 1/170 of a month) and on calendar day basis for time spent by the Site Office staff (one day being equivalent to 1/30th of a month).

6.2(c) Direct Costs (Non Salary Costs)

Direct Non-salary Costs are such incurred non-salary costs which are directly allocable to specific engagements and projects. These costs include but are not limited to the following:

- (i) Provisions for office, light, heat and similar items for working space, costs or rental for furniture, drafting equipment and engineering instrument and automobile expenses identifiable to specific projects for which special facilities other than head office of the firm are arranged.
- (ii) Provision for labour or work charge establishment.
- (iii) Daily and travelling allowances / expenses of employees, partners and principals when away from home / office on business connected with the project.
- (iv) Identifiable communication expenses, such as long distance telephone, telegraph, cable, telex, express charges, and postage other than general correspondence.
- (v) Services directly applicable to the project such as special legal and accounting expenses, computer rental and programming costs, special consultants, borings, laboratory charges, perspectives, renderings, photos, model costs, commercial printing and binding and similar costs which are not applicable to the overhead costs, professional liability insurance cover in accordance with the provisions set out in Sub-Clause 3.4.
- (vi) Identifiable drafting supplies and office supplies and expenses charged to the employers work, as distinguished from such supplies and expenses applicable to several projects.
- (vii) Identifiable reproduction cost applicable to the work such as blue printing, photostating, mimeographing, printing, binding etc.

6.3 Currency of Payment

Remuneration for foreign personnel shall be paid in foreign currency and remuneration for local personnel shall be paid in local currency.

The direct cost expenditures in foreign currency shall be as stated in Appendix-D.

The direct cost expenditures in local currency shall be as stated in Appendix-E

6.4 Mode of Billing and Payments

Sub-Clause GC 6.4 is deleted and substituted as under:

- **6.4.1** The Client shall affect payments to the Consultants in accordance with the payment schedules and in the manner set forth in Appendices-D & E as per NHA accounts procedure.
- 6.4.2 Amounts due to the Consultants shall be paid within thirty (30) calendar days from the date of submission of its invoice. Payments against interim (monthly) invoices shall be made after retaining two per cent (2%) of the payable amounts, in accordance with paragraph 5.5 Revision of PC-I-under TOR; all the amounts so retained shall be released along with the final invoice subject to fulfillment of the condition set in the said paragraph 5.5.

An affidavit or certificate for salary payment of personnel and all other charges will be furnished to the Client by the Consultants.

- 6.4.3 If the item or part of an item of an invoice submitted by the Consultants is disputed or subject to question by the Client, the payment of that part of the invoice which is not contested shall not be withheld on those grounds and the provisions of Clause 6.4.2 shall apply to such remainder and also to the disputed or questioned item to the extent that it shall subsequently be agreed or determined to have been due to the Consultants.
- **6.4.4** The Consultants will be required to submit, as much as are available records of the work carried out under this Contract.

The Client may audit accounts, as much as are available with the Consultants, for the Services provided by the Consultants under this Contract. Should any error be found, this shall be called to the attention of the Consultant and if so it shall be adjusted accordingly.

Advance written notice of not less than seven (7) working days shall be given to the Consultants, by the Client, of such audit which shall be carried out during normal working hours at the place where the records are maintained. Such records shall be kept for a period not less than three (3) years from the completion of the Services or termination of Contract pursuant to provisions hereof, to facilitate any questions arising from the Client's Audit.

6.4.5 Account number for payment (against an Invoice) to the Consultants, is given below:

(in case of JV, account numbers of all Members of JV shall be inserted, one after
the other]
Title of Account:
Account Number:
Branch Code:
Bank:



6.5 Delayed Payments

The compensation on delayed payments for local and foreign currency shall be as follows:

- (i) for foreign currency = Not Applicable
- (ii) for local currency = eight percent (8%) per annum

6.6 Additional Services

The Consultants shall be prepared at any time during the Contract to provide expert technical advice and skill to the Client who may ask and seek such assistance in respect of the Project. The Consultants shall be separately compensated for all such services not covered in the original Services.

10. 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 Negotiation Meeting;
- The Special Conditions of Contract;
- The General Conditions of Contract:
- The Minutes of Pre-proposal Meeting & Addendum(s) if any;
- Scope of Services/Terms of Reference:
- Any other document including Integrity Pact (and JV agreement in case of JV).

11. Royalties

The Consultants shall save harmless and identify 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.

12. Delay Damages

The Consultant shall be liable for delay in providing the Services within the time frame as per the Contract; Failure to comply with the schedule of delivery, due to fault of the Consultants, will attract delay damages which shall be levied @ one twentieth percent (0.05%) per day of the consultancy fee pertaining to the relevant component of the Services beyond the schedule: Provided that the total delay damages shall not exceed ten percent (10%) of the total consultancy fee and that the delay damages may be waived off only if the Consultants catch up the delays by providing

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final delivery within the time frame and there were no adverse affects caused to the Client's or Project's downstream activities.

MODEL FORM

Breakdown of Agreed Fixed Rates in Consultants' Contract

We hereby confirm that we have agreed to pay to the staff members listed, who will be involved in this assignment, the basic salaries and field allowances (if applicable) indicated below):

Name	Position	1 Basic Salary per Working Month/Day/Hour	2 Social Charges (% of 1)	3 Overhead (% of 1&2)	4 Subiotal (Expressed in _	5 Fee (% of 4)	6 Overseas/field Allowance (% of 1) _ (name of curren	7 Agreed Fixed Rate per Working Month/Day/Hour	8 Agreed Fixed Rate (% of 1)
								:	
			 						
	Signature Name: Title:		Date						



IA VEPENDICES

Appendix A

Description of the Services

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

Appendix B

Reporting Requirements

[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 Specialist Sub-consultants

[List under:

- C-1 Title [and names, if already available], activities of job descriptions and working hours of Key Personnel to be assigned to work and staff-months for each.
- C-2 List of approved Specialist 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 hereunder cost estimates in foreign currency:

- 1. (a) Monthly rates for foreign personnel (Key Personnel including Specialist Subconsultant, if any, and other Personnel)
 - (b) Total Remuneration of Staff (on the basis of monthly rates)
- 2. Direct costs (non-salary costs):

Direct Non-salary Costs are such incurred non-salary costs which are directly allocable to specific engagements and projects. These costs include but are not limited to the following:

- (i) Provisions for office, light, heat and similar items for working space, costs or rental for furniture, drafting equipment and engineering instrument and automobile expenses identifiable to specific projects for which special facilities other than head office of the firm are arranged.
- (ii) Provision for labour or work charge establishment.
- (iii) Daily and travelling allowances/expenses of employees, partners and principals when away from home/office on business connected with the project.
- (iv) Identifiable communication expenses, such as long distance telephone, telegraph, cable, telex, express charges, and postage other than general correspondence.
- (v) Services directly applicable to the project such as special legal and accounting expenses, computer rental and programming costs, special consultants, borings, laboratory charges, perspectives, renderings, photos, model costs, commercial printing and binding and similar costs which are not applicable to the overhead costs, professional liability insurance cover in accordance with the provisions set out in Sub-Clause GC 3.4.
- (vi) Identifiable drafting supplies and office supplies and expenses charged to the employers work, as distinguished from such supplies and expenses applicable to several projects.
- (vii) Identifiable reproduction cost applicable to the work such as blue printing, photostating, mimeographing, printing, binding etc.

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(The detail of the cost estimates to be provided on the additional pages).

- 3. Sub-total, remuneration and reimbursable non-salary direct costs = (1 + 2)
- 4. Contingencies, if any
- 5. Total = (3 + 4)]



Appendix E

Breakdown of Contract Price in Local Currency

[List hereunder cost estimates in local currency:

- 1. (a) Monthly rates for local Personnel (Key Personnel including Specialist Subconsultant, if any, and other Personnel);
 - (b) Total Remuneration of staff (on the basis of monthly rates)
- 2. Direct costs (non-salary costs);

Direct Non-salary Costs are such incurred non-salary costs which are directly allocable to specific engagements and projects. These costs include but are not limited to the following:

- (i) Provisions for office, light, heat and similar items for working space, costs or rental for furniture, drafting equipment and engineering instrument and automobile expenses identifiable to specific projects for which special facilities other than head office of the firm are arranged.
- (ii) Provision for labour or work charge establishment.
- (iii) Daily and travelling allowances/expenses of employees, partners and principals when away from home/office on business connected with the project.
- (iv) Identifiable communication expenses, such as long distance telephone, telegraph, cable, telex, express charges, and postage other than general correspondence.
- (v) Services directly applicable to the project such as special legal and accounting expenses, computer rental and programming costs, special consultants, borings, laboratory charges, perspectives, renderings, photos, model costs, commercial printing and binding and similar costs which are not applicable to the overhead costs, professional liability insurance cover in accordance with the provisions set out in Sub-Clause GC3.4.
- (vi) Identifiable drafting supplies and office supplies and expenses charged to the employers work, as distinguished from such supplies and expenses applicable to several projects.
- (vii) Identifiable reproduction cost applicable to the work such as blue printing, photostating, mimeographing, printing, binding etc.

d

(The detail of the cost estimates to be provided on the additional pages).

- 3. Sub-total, remunerations and reimbursable non-salary direct costs = (1 + 2).
- 4. Contingencies, if any
- 5. Total = (3 + 4)

Notes:

- A. Elements of the salary costs and billing rates for the relevant salary grades shall also be included in this Appendix.
- B. Estimate will include the following items as applicable:
 - (1) Remuneration, i.e. staff costs based on monthly billing rates of the staff, and contingencies if any, excluding adjustment of billing rates.
 - (2) Direct non-salary costs, contingencies, if any, excluding adjustment of billing rates for the staff covered under direct costs.
 - Each item shall be specified whether it is payable on the basis of (a) lump sum monthly rate; or (b) reimbursement of actual expenditures.
 - (3) Payments in respect of any cost (i.e. total remuneration, and total Direct non-salary cost) which could exceed the estimates set forth in this Appendix may be chargeable to the contingency amounts provided for in the respective estimates, only if such costs are approved by the Client prior to being incurred].



Appendix F

Services and Facilities to be Provided by the Client

and

Counterpart Personnel to be Made Available to the Consultants by the Client

The Client shall make available the following Services and Facilities:

1. Services and Facilities of the Client

The Client shall make available to the Consultants, Sub-consultants and the Personnel, for the purposes of the Services and free of any charge, the services, facilities and property described in this Clause at the times and in the manner specified hereunder:

	The state of the s
provided to the Personnel	he Client only for the family status accommendate in the Client's colonies, at the following rate Monthly Rent (Rs)

2. <u>Lodge Accommodation</u>

If requested by the Consultants, the Client shall provide lodge accommodation, if available, to all Personnel of the Consultants or the Sub-consultants when on visit to various parts of the Project area or any other station where such facilities or the lodge accommodation of the Client exists (and provided that the Personnel of the Consultants or the Sub-consultants visit that place in connection with the Project) under the same terms and conditions as the Client's staff is entitled.



3.	Counterpart Personnel to be made available to the Consultants

The	Client	shall	make	available	to the	Consultants,	free o	f charge,	the	following
coun	terpart	perso	nnel in	connection	n with	carrying out o	of the S	ervices:		_
	•••••	•••••	• • • • • • • • • • • • • • • • • • • •			•••••	• • • • • • • • • • •			•••••
	•••••	•••••			**********	••••••	• • • • • • • • • • • •			



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:	
induced the procurement of an penefit from Government of Pa	[name of Supplier] hereby declares that it has not obtained or y contract, right, interest, privilege or other obligation or akistan (GoP) or any administrative subdivision or agency or controlled by GoP through any corrupt business practice.
that it has fully declared the broken of given or agreed to give and Pakistan either directly or indirectly affiliate, agent, associate, brokes bubsidiary, any commission, grates consultation fee or otherwise, we have the consultation of the cons	of the foregoing, [name of Supplier] represents and warrants kerage, commission, fees etc. paid or payable to anyone and shall not give or agree to give to anyone within or outside ectly through any natural or juridical person, including its er, consultant, director, promoter, shareholder, sponsor or diffication, bribe, finder's fee or kickback, whether described with the object of obtaining or inducing the procurement of a or other obligation or benefit in whatsoever form from GoP, saly declared pursuant hereto.
and arrangements with all person	it has made and will make full disclosure of all agreements s in respect of or related to the transaction with GoP and has not take any action to circumvent the above declaration,
leclaration, not making full disc lefeat the purpose of this declarating fight, interest, privilege or other of	I responsibility and strict liability for making any false closure, misrepresenting facts or taking any action likely to tion, representation and warranty. It agrees that any contract, obligation or benefit obtained or procured as aforesaid shall, hts and remedies available to GoP under any law, contract or he option of GoP.
ngrees to indemnify GoP for an ousiness practices and further pay the sum of any commission, grat [Supplier] as aforesaid for the page of	emedies exercised by GoP in this regard, [name of Supplier] by loss or damage incurred by it on account of its corrupt by compensation to GoP in an amount equivalent to ten time diffication, bribe, finder's fee or kickback given by [name of the burpose of obtaining or inducing the procurement of any or other obligation or benefit in whatsoever form from GoP.
Name of Buyer: Signature:[Seal]	Name of Seller/Supplier:

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CONTRACT FOR ENGINEERING CONSULTANCY SERVICES

	between
(NAME	OF THE CLIENT)
	and
(NAME OF THE JOINT V	VENTURE OF THE CONSULTANTS)
	for
	(BRIEF SCOPE OF SERVICES)
OF	(NAME OF PROJECT)
	(MAZ OF TROUBET)
——————————————————————————————————————	onth and Year
MAME OF THE JOINT	VENTURE OF THE CONCULT TANTES
(NAME OF THE JOINT (Name of Individu	VENTURE OF THE CONSULTANTS)
(Name of Individu	,
(Name of Individu	

A

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 the Consultants, having represented to the Client that they have the required (b) 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: the General Conditions of Contract; (a) (b) the Special Conditions of Contract; the following Appendices: (c) [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

Appendix A: Description of Services

hereto carrying the title of that Appendix.]

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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
Witness	CLIENT'S NAME
Signature	Signature
Name	Name
Title	Title
	(Seal)

For and on behalf of

NAME OF THE JOINT VENTURE OF THE CONSULTANTS



	Name of Member No. 1
Witness	
Signature	Signature
Name	Name
Title	Title
	(Seal)
	Name of Member No. 2
Witness	
Signature	Signature
Name	Name
Title	Title
	(Seal)
-	Name of Member No. 3
Witness	
Signature	Signature
Name	Name
Title	Title
	(Seal)

