

**GOVERNMENT OF KHYBER PAKHTUNKHWA  
IRRIGATION DEPARTMENT**



**TORs/Guidelines for Submission of Proposal  
For**

**Consultancy Services for Design Review and Construction  
Supervision of Fencing and Construction of Bridges on Canal  
of Gomal Zam Dam - South Waziristan**

**Issued to: \_\_\_\_\_**

**GOMAL ZAM IRRIGATION DIVISION, DIKHAN**

**APRIL, 2022**

**TORS & GUIDE LINES FOR FENCING AND CONSTRUCTION OF BRIDGES ON CANAL OF  
GOMAL ZAM DAM - SOUTH WAZIRISTAN**

**INFROMATION TO CONSULTANTS REGARDING FENCING AND CONSTRUCTION OF  
BRIDGES ON CANAL OF GOMAL ZAM DAM - SOUTH WAZIRISTAN**

The Gomal Zam project is located at Khajori Kach on Gomal River in South Waziristan District at a distance of about 60 Km to the west of DI Khan and accessible through a metaled road, which is situated west of the Districts of Tank and DI Khan of the Khyber Pakhtunkhwa province.

The Project is envisaged to provide water to 191000 acres of barren Rod Kohi land of District DI Khan and Tank through a canal network of 370 Km length besides generation of 17.5 MW of Hydel power.

Due to steep terrain in the head reaches, 38 No falls have been provided in the canal from RD 0 to 21180 to cater for slope however the slope of the canal in the concerned reach is still steep resulting in high velocity of water.

Upto date numerous human and animal casualties have occurred due to falling in the canal. The risk of death in case of accidental falling into the canal in the concerned reach is increased due to higher velocity of water which makes it difficult for any person to get out and further increased by the eddies created after the fall structures and energy dissipation friction blocks.

The project " Fencing and Construction of Bridges on Canal of Gomal Zam Dam South Waziristan has been included in the Annual Development Programme to reduce the risk to human lives of local population from the fast flowing water to the canal system. The proposal includes construction of the fast flowing water of the canal system. The proposal included construction of RRM fence on canal system including provision of missing canal crossing for the public at appropriate locations, construction of silt trapping and ejection structure along with revamping of the canal system for ensuring maximum benefit of the irrigation water.

Cost Estimates has been prepared on MRS-2021 with location factor of 1.05 for the project area. The cost of the project is assessed as Rs.650.00 million. Keeping in view the scope and quantum of work involved construction period for the project is proposed as 24 months.



**INSTRUCTIONS REGARDING SUBMISSION OF PROPOSALS**

1. Two copies of the technical and one copy of financial proposals in stippled/fixed binded form are required to be submitted. Proposal should be in a sealed envelope indicating original or copy on each enclosure, as appropriate.
2. The proposals shall be valid for a period of 180-days after the last date of submission, which is extendable on the expiry of above period through mutual agreement.
3. The technical and financial proposals of the consultants will be evaluated according to criteria for procurement of consultancy services of the Government of Khyber Pakhtunkhwa, applying weight-age formula of 80:20 for technical and financial proposals respectively.
4. Financial proposals "Technically Qualified" consulting firm will be considered and opened by competent forum in presence of the competitive firms representatives. The contract agreement will be governed by laws and regulations of the Govt. of Khyber Pakhtunkhwa.
5. Any observation on the TOR and LOI must be brought into the notice of the department before last date of submission of the proposals. No objection will be entertained after the submission of Technical and Financial proposals.
6. The employer reserves the right for any addition alteration or amendment in the TOR of the Project.
7. Consultants shall be responsible for payment of all taxes in vogue time to time by Govt in respect of personnel and other activities with no liability to the client.
8. Originally signed CVs of the proposed personnel having contact number and postal address along with availability certificate of the personnel for the Project shall be annexed in the Technical proposal.
09. Payment for the personnel will be made as per actual time consumed on the Project but not in excess of the provision of man months made in the T.O.R. of consultancy.
10. Payment to the consultants for Geo-technical investigation and other investigation will be made as per actual work done at the site on the unit cost quoted by the consultant.
11. On the satisfactory performance of the services, the payment to the consultants shall be made as per actual inputs, while in case of incomplete assignment; the payment will be made for the work done in accordance with the breakup of the services submitted by the consultants.

**Other Conditions: -**

- 1) Security deposit and income tax/sale tax etc will be deducted as per the prevailing Government rules notified during period of agreement.
- 2) The consultant shall establish Project Manager Office at District Tank in close vicinity of the project.
- 3) Consultants shall appear in Project meetings and site visits and shall also make presentation if so directed by the department for which no TA/DA, boarding, lodging and claim for incidental charges etc, shall be entertained.



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- 4) The consultant except with prior approval of the department shall not sublet the study or any part thereof.
- 5) The consultancy charges shall be inclusive of all costs of topographic survey, subsurface investigations, and construction materials investigations etc.
- 6) The consultants will provide undertaking for the effect that the key staff would not be employed on the other projects during the currency of this agreement. Any violation will liable the contract for termination.
- 7) If the consultant fails to complete any activity or part of activity the client reserve the right to execute the same at the consultant risk & cost.
- 8) If a project or part of project is dropped due to any reason, man months of the consultant key staff and logistics will be curtailed proportionally.
- 9) Consultant shall quote cost/fees for each stage of study separately i.e. Design Review& Construction Supervision,
- 10) As per KPPRA rule ( Para 24.2 standard procedure for selection of Consultant) successful consultant is required to submit performance security in form of Pay order , demand draft or bank guarantee @ 2% of bid cost.
- 11). If the client (Irrigation Department) suffers any lose due to proven Design Review/ Supervision fault by the consultant. The consultant will be liable to punitive action as per invoke PEC/KPPRA.

**EVALUATION CRITERIA OF PROPOSALS**

Proposals of the consultancy firms will be evaluated as under

S.No	Description	Maximum Marks
A	Qualification & Experience of Technical Key Personnel	50
B	Experience of firm in undertaking Projects of Fencing & Construction of Bridges/Crossing facilities on canals of similar nature & complexity	30
C	Work Plan/Manning Schedule & Methodology	20
	<b>Total</b>	<b>100</b>

Note.

- Each page of the proposal must be numbered, sealed & signed by the owner of firm
- Passing marks in each category will be 60%
- Proposals must be stippled binded. Ring binding will not be considered.
- Client reserves the right to make any change in TORs & marking criteria which is commonly applicable to all proposals
- Any observation/clarification required should be brought in notice of the Client / Employer before submission of the proposal during clarification meeting.



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- Proposals shall be submitted in two copies (Marked as Original & Copy)
- Any mis-statement or false information provided in the technical or financial proposal will render the proposal as non-responsive and shall make the firm liable for punitive action under the relevant rules.

**A. Qualification & Experience of Technical Key Personnel**

ii. Marking criteria of Personnel

S.No	Description	Marks	Criteria
1	Qualification	20	B.Sc. Eng. or M.Sc. (16 Years Education)=80%, MS or M.Phil.=90%, Ph.D.=100%
2	Languages	05	Pashto=2 (R W S) Urdu=1.5 (R W S) English=1.5 (R W S)
3	Experience	30	
	General Experience	7.5	Experience after completion of 16 Years education (15 years of general experience will carry full marks)
	Relevant Experience	15	Experience of particular discipline(10 years of general experience will carry full marks)
	Similar Projects	7.5	Full marks for 10 Projects
4	Experience of Local Environment	05	Khyber Pakhtunkhwa=03 Pakistan=02
	<b>Total</b>	<b>60</b>	<b>Will be adjusted to 50</b>

iii. This proforma must be available on top of each CV in addition to the information to be provided as per standard format, Otherwise will not be considered.

1	2	3	4	5	6		
S#	Position	Proposed Personnel	Qualification	Knowledge of Languages	Experience		
7	8	9			General	Relevant	Canal Projects
Working Environ ment/Lo cation	Cell No	Duration with firm					

Note.

- The proposals must contain salary details, last degree, PEC registration certificates of the key staff
- The Personnel & owner of the firm must sign each CV in Original.
- Personnel above the age of 70 will not be eligible

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**B. EXPERIENCE OF FIRM.**

S.No	Description	Maximum Marks
1	Relevant/Specific Experience of Firm (Completed Fencing & Construction of Bridges/Crossing facilities on canals Projects in last 10 Years)	18 Feasibility Study= 25% marks, Detailed Design= 25% Marks, Procurement= 10% Marks Construction supervision= 40% Total= 100%
2	General Experience of Firm (Any completed Project of Canal Structures in last 10 Years)	12 Feasibility Study= 25% marks, Detailed Design= 25% Marks, Procurement= 10% Marks Construction supervision= 40% Marks Total= 100% Marks

**Note**

- Five (05) Projects in each category will entitle the firm for full marks as per details stated below
- Consultancy Services of the Projects with cost less than Rs 100 million (Construction Cost) will not be considered.
- Award & completion documents must be available in support of projects claimed as experience
- Below proforma must be attached for any projects of Sr No 1& 2 in addition to standard format.

1	2	3	4	5	6	7
S#	Name of Project	Location with Province & Country	Client	Address, Phone & Fax No of Client	Handled as: • Single Firm/ : • Lead Firm/ : • Joint Venture : Partner	Cost of Project
8	9	10		11		
Cost of Services	Scope of services • Feasibility • Detailed design • Procurement • Construction Supervision	Scope of Work				



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**UNDERTAKING**

It is hereby certified that the above are true statements based on facts and we take full responsibility for the correctness and accuracy of the information supplied herein to the best of our knowledge and belief. This is also to certify that the owner/partners/directors working solely for the consulting engineering profession. This is further to certify that we are independent consulting engineer and have no interest in any construction and conflicting commercial industrial and business activities which are likely to influence our professional independence and neutrality. We also undertake to fully abide by KPPRA act/rules & the Pakistan Engineering Council (Conduct and Practice of Consulting Engineers) Byelaws 1986 & registered with Khyber Pakhtunkhwa Revenue Authority.

**TERMS OF REFERENCE FOR DESIGN REVIEW & CONSTRUCTION SUPERVISION**

1. Review / Vetting of proposed/approved PC-I and suggest improvement, if any.
2. To carry out condition survey and hydraulic survey.
3. Detailed Design Review.
4. Prepare and submit construction drawings.
5. Periodic review of construction drawings in accordance with latest site situation & requirements as proposed by consultants or client for time to time.
6. Review of Design documents including construction drawings/Plans for any omission/ correction etc. before start of construction activities (if required).
7. Assist the employer in Tendering Process / Bid Evaluation if required.
8. To prepare bid documents for each package, with specific provisions to minimize disruption/damage to the environment and local settlements due to construction.
9. To assist client in pre-qualification of contractors (Any KPPRA rules procurement method decided by the client), if required.
10. To prepare invitations to bid and evaluate bids received, including preparation of evaluation reports.
11. Review and approval of construction schedule submitted by contractor.
12. Supervision of Construction activities of the project in the capacity of Engineer to ensure that the projects including all components are being constructed satisfactorily in accordance with approved drawing, design, specifications and required quality. In case of any variation, a detail report duly supported with document shall be submitted to the Client / Employer for the project, for final decision.
13. Submission of Revised Construction Drawing in accordance with actual site conditions including detail survey for project component / additional project component.



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14. To approve and / or issue working drawings, approve the setting out of the works/components giving instructions to the contractors and processing amendments and variations.
15. To verify and correct the as-built drawings supplied by the Contractor.
16. Supervise and check the setting out of all component structure and general layout of the project.
17. Recommend to the client the source of appropriate construction material, for approval.
18. To approve the contractor's work program schedules, construction implementation plan, method statements, sources of materials, etc.
19. To investigate the suitability of locally available construction materials, and where necessary, locate new quarries and borrow pits and assess the quality and quantity of materials and hauling distance.
20. Coordinate between contractor and employer to implement the project in accordance with the contract agreement.
21. Provide and supervise the material testing in contractor's field laboratory and keep record of respective test report.
22. Provide adequate technical assistance, consultation and advice to the Client / Employer in matters that crop up during execution, may include redesigning and connected issues.
23. Prepare and submit weekly / Monthly Progress Report to the Client / Employer.
24. Participation and Coordination in progress meeting convened at site and in Regional or Divisional office or any other place as and when required.
25. Furnish "Detail Cost Estimate" and make periodic updating of the cost of project along with reasons for increase / decrease of cost of individual items.
26. Revision of PC-I if cost of the project over runs beyond approved cost or if there is a substantial change in the scope of work but the project cost remains within the approved cost.
27. To take/verify measurements and keep appropriate records of these, in computer based form.
28. To maintain a day by day (or as directed by client) project diary, correspondence and other which shall record all events pertaining to the administration of the contract, requests from and orders given to the contractor, and any other information which may at a later date be of assistance in resolving queries arising in connection with execution of the works.
29. The consultants shall certify Interim Payment Certificates (IPC's) and recommend it for payment after detail verification of quantity and quality of work done at site.
30. Provide adequate consultation and advice to the employer on contractual issues / corrigendum (s).
31. Initiation and issuance of variation order after approval of the employer.

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32. To submit duly verified As Built Drawings.
33. The consultants shall provide assistance during the defect liability period and visit the project from time to time for pointing out any defect etc. The same shall be reported to the employer in the form of punch list. Recommend and monitor its rectification, if any.
34. To assist, if required, the client in the court of law, in case of any litigation by the contractor or stakeholder.
35. The Consultants shall submit indemnity bond to the effect that the firm will be responsible for any defect in design or quality of work supervised by the firm. The period of indemnity bond will be the life period of the project.
36. To issue necessary notices to the contractor as may be required under the construction contract.
37. To inspect the works at appropriate intervals during the defects liability period and issuing the defects liability certificate.
38. To recommend to client any liquidated damages to be claimed from the Contractor or other actions which should be taken against the contractor under the construction contract.
39. To certify completion of part or entire works, prepare punch list for payment to the contractors.
40. To order tests of materials and of completed works, and ordering removal of materials or works, which do not comply with specified requirements?
41. To order, if required, the uncovering of completed work and or the removal and substitution of proper materials and / or work.
42. To inspect the works during the maintenance period and issuing the maintenance certificate.
43. To assist in the transfer of the Project from the contractor to client.
44. The Consultant shall provide the list of employees by title & name to the employer for approval.
45. Preparation of construction Schedule, CPM and Cash Flows.

**REPORTING AND DOCUMENTATION FOR**

**REVIEW OF DESIGN& CONSTRUCTION SUPERVISION**

- i. Preparation of draft design review report, draft construction drawing, draft tender documents and specifications (05 copies).
- ii. Preparation final updated detail design review report, construction drawing, tender documents and specifications documents ( 05 copies).
- iii. Preparation of regular monthly progress report (05 copies).

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- iv. Preparation of regular monthly progress report (05 copies).
- v. Preparation and submission of as built drawings in (05 copies).
- vi. All correspondence, surveys, lab test results and construction drawings along with soft copies in binded form.
- vii. Preparation of operation and maintenance manual for the project.
- viii. Preparation of PC-IV for the project (05 copies).
- ix. Preparation of draft revised PC-I Proforma in (05 copies) and final revised PC-I Proforma in required numbers if required as directed by the client.
- x. Preparation and submission of Punch list in deficit liability period.

**MODE OF PAYMENT**

**Review of Design& Construction Supervision (Completion period 24-months)**

- I. Payment will be made to the consultants as per actual physical & personnel inputs regardless of the approval/award of submitted proposals.
- II. No other expenses as Remunerations or Direct cost will be paid to the consultants by the client.
- III. 5% of each running payment shall be withheld by the employer as security deposit, which shall be released on satisfactory completion of services and submission of all reports/documents stipulated in TOR and admittance, thereof by the employer.

**Note:** The mode of payment indicated is tentative subject to alteration and is not to be considered as the cost of any activity but it is progressive payment for the facilitation of the consultants.

**PROFESSIONALS/ KEY PERSONNEL'S REQUIREMENTS**

Consultant Bid Cost will be sum of Key Personnel's & Logistic requirement as per below details. Payment of survey, other investigation & vehicle (Running & maintenance) will be made as per actual inputs & will be adjusted in the end of study

**Man Months**

A. Salary Cost: Key Staff		
A. (Key Staff)		
S No	Position	Man Months
1	Project Manager / Resident Engineer	24
2	Structure Design Engineer	1
3	Contract Engineer	1
5	Geo-Technical Engineer	1
6	Junior Engineer-1	24

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**B. Non Salary Cost:**

S.No.	Position	Man Months
1	Quantity Surveyor	24
2	Field Inspector	48
3	Surveyor	24
4	Survey Helper	48
5	Lab Technician	24
6	Auto CAD Operator	24
7	Computer Operator / Office Assistant	24
8	Naib Qasids/Office Boys/Chowkidar	24
9	Drivers	24

**Indirect Cost**

**a. Machinery and equipment**

S.No	Item Description	Quantity
1	Telephone with Internet	24 Months
2	Desktop Computer	1 No.
3	Printer ( B & W) Laser	2 No.
4	Laptop (Latest generation)	1 No.
5	Repair of Equipment's	L/S

**b. Furniture & Fixtures**

S No	Item Description	Quantity (Nos)
1	Office Table	6
2	Office Revolving Chair	6
3	Visitors Chairs	24
4	Side Rack Wooden	6
5	Steel Almerah	4
6	Computer Table With Chair	2



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<b>c. Commodities &amp; Services</b>		
<b>S No</b>	<b>Item Description</b>	<b>Quantity</b>
1	Traveling Allowances	L/S
2	Project Office i/c Utility Charges	24 months
3	Rent of field vehicle	24 months
4	Supplies & Stationary	L/S
5	POL & Maintenance Charges	24 months
6	Geo Technical Investigation	L/S

**Qualifications and Experience of Consultant's key personnel.**

Consultants will assign adequately qualified key personnel to carry out the implementation of the Project as described in TOR, person-month inputs for which are indicated above. The key personnel should possess the qualifications and experience as indicated against each position.

**1. Project Manager/Resident Engineer**

- ❖ Should have at least a Bachelor Degree in Civil Engineering from a recognized university. Additional qualification will carry extra marks
- ❖ Should be able to lead the team of consultants and assist Gomal Zam Division in timely completion of the services with quality output.
- ❖ Overall experience should be 10-years with 5-years in design related activities and 02-years as Team Leader for the Projects.

**2. Structure Design Engineer**

- ❖ Should have Master degree in Structural Engineering from recognized university.
- ❖ Post Master qualification in related discipline will be given additional weight age.
- ❖ He should have at least overall experience of 10-years with 5-years' experience in exposure to the design related activities.

**3. Contract Engineer**

- ❖ Should have Master degree in Civil Engineering/ Construction Management from recognized university.
- ❖ Post Master qualification in related discipline will be given additional weight age.
- ❖ He should have at least overall experience of 10-years with 5-years' experience in relevant discipline.



**4. Geotechnical Engineer**

- ❖ Should have Master in Civil Engineering/Geotechnical Engineering from recognized university.
- ❖ Post Master qualification in related discipline will be given additional weight age.  
Should have at least overall experience of 10 years with 5-years' experience in exposure to the related activities.

**5. Junior Engineer**

- ❖ Junior Engineer will be a graduate Civil Engineer. He will have at least overall experience of 5 years with 3- years' experience in of professional experience in the similar type of projects.

