

INTEGRATED FLOOD RESILIENCE ADAPTATION PROJECT – IFRAP

GOVERNMENT OF BALUCHISTAN, PAKISTAN



Rehabilitation of Dera Allah Yar to Hairdeen road via

Sohbatpur, Balochistan

BIDDING DOCUMENTS

**FOR SUBMISSION OF TECHNICAL AND FINANCIAL
PROPOSALS**

**VOLUME – III
BILL OF QUANTITIES / SCHEDULE OF PRICES**

July 2026

BIDDING DOCUMENTS
FOR SUBMISSION OF TECHNICAL AND FINANCIAL
PROPOSALS RELATED TO

Contract Scheme: Rehabilitation of Dera Allah Yar to Hairdeen road via
Sohbatpur (Phase-I) from RD (16+550 to RD 38+000),
District Sohbatpur. (Length 21.45 Km)

Reference No: PK-PIU-IFRAP-CIR-551865-CW-RFB

Project: Rehabilitation of Dera Allah Yar to Hairdeen road via
Sohbatpur (Phase-I) from RD (16+550 to RD 38+000),
District Sohbatpur. (Length 21.45 Km)

Employer: Project Implementation Unit (PIU)
Integrated Flood Resilience Adaptation Project (IFRAP)

Country: Pakistan

Issued on: _____

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Bill of Quantities (BOQ)

PREAMBLE

1. The Bill of Quantities shall be read in conjunction with the Instructions to Bidders, General and Special Conditions of Contract, Technical Specifications, and Drawings.
2. The quantities given in the Bill of Quantities are estimated and provisional and are given to provide a common basis for bidding. The basis of payment will be the actual quantities of work ordered and carried out, as measured by the Contractor and verified by the Engineer and valued at the rates and prices bid in the priced Bill of Quantities, where applicable, and otherwise at such rates and prices as the Engineer may fix within the terms of the Contract.
3. The rates and prices bid in the priced Bill of Quantities shall, except insofar as it is otherwise provided under the Contract, include all Constructional Plant, labour, supervision, materials, erection, maintenance, insurance, profit, taxes, and duties, together with all general risks, liabilities, and obligations set out or implied in the Contract.

The unit prices in this programme shall cover inter alia:

- costs of labour, used materials and equipment of the Contractor,
- costs of workers' camp, local transport to site and back, travel allowances to workers for trips home,
- costs of transport of materials and equipment of the Contractor to site,
- costs of possible rent of machinery, equipment, and vehicles,
- costs of unloading, transshipment, storage, keeping, local deliveries of materials to places of use, equipment, and plant of the Contractor,
- taxes, custom duties, and levies related to the works pursuant to the contract provisions,
- cost of performance guarantee,
- insurance costs: for workers (health insurance included), for plants, structures and third parties pursuant to the relevant contract provisions,
- costs of electricity, water, heating, gas, telephone, fax during works,
- costs of waste disposal in city dump area,
- costs of construction and maintenance of temporary structures (stocks, workshops, worker's camp, offices for the Contractor, the Engineer, Employer, Consultant Supervision of the EMP and other) that are needed for smooth execution of the works under this contract,
- costs of laying and maintaining any temporary installations on the site, needed for the execution of works,
- costs of starting the operation,
- costs of "hard fence" for the site, if necessary,
- costs of working conditions for the Engineer and his team,
- costs of temporary dumping of key material,
- cost of any diversion roads and traffic control and maintenance of diversion roads,
- cost of cleaning up the site on completion,
- cost of the Environmental Management Plan implementation,

- other costs ensuing from the contract documents,
 - other direct and indirect costs for full completion, maintenance in the construction period and start of operation,
 - itemized unit rates shall include geodetic works if they are not specified as a separate item in the Bill of Quantities.
4. A rate or price shall be entered against each item in the priced Bill of Quantities, whether quantities are stated or not. The cost of Items against which the Contractor has failed to enter a rate or price shall be deemed to be covered by other rates and prices entered in the Bill of Quantities.
 5. The Contractor shall not have the right to unit price adjustment on the basis of eventual difference between quantities of works stated in the Bill of Quantities and actually completed quantities, except in the case defined under the Particular Conditions of Contract.
 6. The whole cost of complying with the provisions of the Contract shall be included in the Items provided in the priced Bill of Quantities, and where no Items are provided, the cost shall be deemed to be distributed among the rates and prices entered for the related Items of Work.
 7. General conditions and descriptions of work and materials are not necessarily repeated nor summarized in the Bill of Quantities. References to the relevant sections of the Contract documentation shall be made before entering prices against each item in the priced Bill of Quantities.
 8. A Daywork Schedule should be included if the probability of unforeseen work, outside the items included in the Bill of Quantities, is relatively high. To facilitate checking by the Employer of the realism of rates quoted by the bidders, the Daywork Schedule should normally comprise:
 - (a) a list of the various classes of labour, materials, and Contractor's Equipment for which basic Daywork rates or prices are to be inserted by the bidder, together with a statement of the conditions under which the Contractor will be paid for work executed on a Daywork basis; and
 - (b) a percentage to be entered by the bidder against each basic Daywork Subtotal amount for labour, materials, and Plant representing the Contractor's profit, overheads, supervision, and other charges.
 9. Provisional Sums included and so designated in the Bill of Quantities shall be expended in whole or in part at the direction and discretion of the Engineer and previously approved by the Employer in accordance with the Conditions of Contract.
 10. The method of measurement of completed work for payment shall be in accordance with Technical Specifications. All items of work indicated in the Bill of Quantities shall be valued by measuring net, in the units of the Bill of Quantities such actual quantities of the Permanent Works as have been executed strictly in accordance with the Bidding Documents or further instructions issued in writing by the Engineer. No works shall be valued which have been executed in excess of the dimensions shown on the Drawings or ordered by the Engineer. In particular, no allowances shall be made in the measurement or any excavation for working space, temporary works or

- the temporary works or the operation of construction plant and such allowance shall be deemed to be included in the Bid Price.
11. In general, excavation shall be measured net. The Contractor is to allow for bulking, intermediate storage, double handling and backfill with compaction to lines and levels given on the drawings, and disposal of excess material. The rates for timbering or other measures to maintain the stability of the excavations and for keeping excavations free of water.
 12. Proper drainage on the site must be maintained during construction and the Contractor shall be held responsible for any flood damage to life and properties due to his work in this Contract. The Contractor shall allow in his rate, inter alia, for all costs to maintain or divert flow in ditches, open channels and water sources during construction and other drainage work. No claims for additional payment will be considered in this regard.
 13. The contractor shall be deemed to have allowed in his rates, inter alia for the following:
 - Maintaining the road signs in areas of works for times other than designated working periods,
 - Construction and maintenance of any diversion or access roads and all costs incurred in the passing or traffic through the site.
 - All charges and/or transport costs relating to extraction, preparation and haulage of Materials,
 - The eventual removal of the Contractor's site and reinstatement of such areas on completion of the contract,
 - Protection of the work from water from any source,
 - Provision and preservation of survey beacons,
 - Provision of all samples and test certificates,
 - Provision of all water supply, sanitation and services including electricity,
 - Providing and mixing water to earthworks and pavement operations in dry weather to achieve the optimum moisture content,
 - Scarification of surfaces and drying the earthworks and pavements to reduce the moisture content to the optimum and compaction or re-compaction subsequently and repeating any such operation whenever necessary. All earthworks, for culverts, bridges and other structures, whereas not explicitly itemized, are deemed to be included in the costs for the structures as entered by the contractor in the Bill of Quantities.
 - Costs of material sampling and testing and re-testing where required, and test certificates.
 - Marking, signalling as appropriate of all equipment and facilities on site to provide safety in accordance with rules and regulations,
 - Scaffolding and shuttering to substructure and superstructures,
 - Protective coating, waterproofing and insulation of structures and culverts, as shown on the drawings, if not explicitly itemized,
 - Elaboration and provision of detailed execution drawings for structure works, subject to approval of the Engineer.
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14. The Contractor shall be responsible for acquiring required qualities of bituminous Binder for asphalt concrete and bituminous Emulsion for prime and tack coat for the project from within Serbia or if necessary, from other countries and shall meet the required specifications as outlined in the Contract Documents. Contractor's unit prices for bituminous works shall include all costs for acquiring bitumen and paraffin from abroad if necessary.
15. Any arithmetic errors in computation or summation will be corrected by the Employer as follows:
 - (a) where there is a discrepancy between amounts in figures and in words, the amount in words will govern; and
 - (b) where there is a discrepancy between the unit rate and the total amount derived from the multiplication of the unit price and the quantity, the unit rate as quoted will govern, unless in the opinion of the Employer, there is an obviously gross misplacement of the decimal point in the unit price, in which event the total amount as quoted will govern and the unit rate will be corrected.
16. Rock is defined as all materials that, in the opinion of the Engineer, require blasting, or the use of metal wedges and sledgehammers, or the use of compressed air drilling for their removal, and that cannot be extracted by ripping with a tractor of at least 150 brake hp with a single, rear-mounted, heavy-duty ripper.
17. The bid price is inclusive of all Environmental, Health and Safety management and compliance cost.

Work Items

1. Bill of Quantities (BOQs) are attached.
 2. Bidders shall Price the Bill of Quantities in Pakistani Rupees (PKR) Only.
- The following units of measurement and abbreviations are recommended for use (unless other national units are mandatory in the country of the Employer).

Unit	Abbreviation	Unit	Abbreviation
cubic meter	m ³ or cu m	millimetre	mm
hectare	ha	month	mon
hour	h	number	nr
kilogram	kg	square meter	m ² or sq m
lump sum	sum	square millimetre	mm ² or sq mm
meter	m	week	wk
metric ton (1,000 kg)	t		

Appendix to Bid Schedule of Adjustment

The formulae for price adjustment shall be of the following general type:

$$P_n = a + b \frac{L_n}{L_o} + c \frac{E_n}{E_o} + d \frac{M_n}{M_o} + \dots$$

where:

“ P_n ” is the adjustment multiplier to be applied to the estimated contract value in the relevant currency of the work carried out in period “ n ”, this period being a month unless otherwise stated in the Contract Data;

“ a ” is a fixed coefficient, stated in the relevant table of adjustment data, representing the non-adjustable portion in contractual payments;

“ b ”, “ c ”, “ d ”, ... are coefficients representing the estimated proportion of each cost element related to the execution of the Works as stated in the relevant table of adjustment data; such tabulated cost elements may be indicative of resources such as labor, equipment and materials;

“ L_n ”, “ E_n ”, “ M_n ”, ... are the current cost indices or reference prices for period “ n ”, expressed in the relevant currency of payment, each of which is applicable to the relevant tabulated cost element on the date 28 days prior to the last day of the period (to which the particular Payment Certificate relates); and

“ L_o ”, “ E_o ”, “ M_o ”, ... are the base cost indices or reference prices, expressed in the relevant currency of payment, each of which is applicable to the relevant tabulated cost element on the Base Date, i.e, 28 days prior to the bid submission date.

The cost indices or reference prices stated in the Table of Adjustment Data shall be used. If their source is in doubt, it shall be determined by the Engineer. For this purpose, reference shall be made to the values of the indices at stated dates (quoted in the fourth and fifth columns respectively of the table).

Schedule of Adjustment

The source of indices and the weightages or coefficients for use in the adjustment formula as per PEC standard procedure and formula for price adjustment (second edition), May 2022 shall be as follows: -

Sr. No.	Description	Unit	Weightages	Applicable Index
1	2	3	4	5
(i)	Fixed Portion	-	0.45	-
(ii)	High Speed Diesel [for all types of fuel]	Litre	--to be proposed by bidder (Acceptable range 0.05 – 0.15)	Monthly Statistical Bulletin, Pakistan Bureau of Statistics / Pakistan State Oil
(iii)	Labour Unskilled	Day (Per Day)	--to be proposed by Bidder (Acceptable range 0.03 – 0.06)	Monthly Statistical Bulletin of Pakistan published by Federal Bureau of Statistics (D.M Jamali)
(iv)	Cement (Ordinary Portland Cement) [for all types of Cement]	Per Bag	--to be proposed by bidder— (Acceptable range 0.03 – 0.08)	Monthly Statistical Bulletin of Pakistan published by Federal Bureau of Statistics (D.M Jamali)
(v)	Iron Bar (M.S. Bar) 60 Psi'' [for all types of Steel elements]	Metric Ton	--to be proposed by bidder— (Acceptable range 0.05 – 0.10)	Monthly Statistical Bulletin of Pakistan published by Federal Bureau of Statistics (D.M Jamali)
(vi)	Bitumen (Penetration Grade 60-70/ 80-100)	Ton	--to be proposed by bidder (Acceptable range 0.10 – 0.20)	Ex-Price of National Refinery Limited (NRL)
(vii)	Aggregate No.4 (4.75mm) Retain	Cu.m	--to be proposed by bidder (Acceptable range 0.06 – 0.15)	Monthly Statistical Bulletin of Pakistan published by Federal Bureau of Statistics (D.M Jamali)
	Total Adjustable (ii to vii) = 0.55			
	<i>The sum of the proposed weightages for items (ii) through (vii) shall equal 0.55. When added to the fixed portion of 0.45 (item i), the total sum of all weightages shall be 1.00. Any bid proposing weightages that do not satisfy this requirement may be rejected as non-responsive, provided that the error constitutes a material deviation from the bidding document requirements.</i>			
	Total		1.000	

Notes:

1. Base prices of Specified Materials shall be as actually prevailing on the Base Date. "Base Date" means the date 28 days prior to the deadline for bid submission, as per GCC 1.1.3.1.
2. The basic prices are meant to be ex-factory prices and inclusive of all kinds of taxes and duties that can be levied at source.
3. Adjustment of increase/decrease shall only be admissible for the materials (elements representing relevant category) listed above.
4. Value of work done for escalation purpose shall be the value of permanent works on a monthly basis (excluding Bill for General Items & Provisional Sums).
5. All amounts in Pak Rupees only.
6. The sum of weightages proposed by the bidder for **(ii) to (vi) must equal 0.50. Any deviation will be adjusted to ensure the total equals 0.50.**
7. If weightages proposed by the bidder exceed the limit/acceptable range specified above, it shall not be a cause of bid rejection; however, the coefficients will be finalized before contract award after justification by the bidder.
8. Price adjustment shall be applicable during the Actual Project Duration, including any approved extension of time, unless the extension was caused solely by the Contractor's default

BILL OF QUANTITIES

Name of Work:

Contract Scheme: Rehabilitation of Dera Allah Yar to Hairdeen road via Sohbatpur (Phase-I) from RD (16+550 to RD 38+000), District Sohbatpur. (Length 21.45 Km)”

SUMMARY

Bill No	Bill	Amount
1.	Earthwork	
2.	Sub-base & Base	
3.	Surfacing Courses and Pavement	
4.	Structures (Box Culverts)	
5.	Drainage and erosion works	
6.	Ancillary Works	
7.	General Items	104,573,766
8.	ESMP Budget	13,134,174
Total		

Bid Price in Words _____

Contractor's Signature _____

Bill of Quantities

BILL NO. 1: EARTH WORK					
ITEM NO.	DESCRIPTION	UNIT	QUANTITY	RATE (RS)	AMOUNT (RS)
101	Clearing and Grubbing	SM	90,485		
104	Compaction of Natural Ground	SM	90,485		
106c	Excavate Surplus Common Material, complete in all respect	CM	36,846		
108a	Formation of Embankment from Roadway Excavation in Common Material	CM	18,646		
108d	Formation of Embankment from Structural in Common Material	CM	1,298		
107d	Granular Backfill	CM	625		
108c	Formation of Embankment from Borrow Excavation in Common Material	CM	371		
109a	Subgrade Preparation in Earth Cut	SM	1,028		
110	Improved Sub Grade	CM	95,145		
TOTAL BILL NO. 1: EARTH WORKS (RS)					

BILL NO. 2: SUB BASE & BASE COURSE					
ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE (RS)	AMOUNT (RS)
201	Granular Subbase	CM	49,225		
202	Aggregate Base	CM	35,289		
203b	Asphaltic Base Course Plant mix (Class B)	CM	13,573		
209a	Breaking of Existing Road Pavement Structure	CM	8,257		
SP/50 9h	Capping layer (150mm) uniformly graded crushed granular fill with soaked CBR $\geq$ 30	CM	18,934		
TOTAL BILL NO. 2: SUB BASE AND BASE COURSE (RS)					

BILL NO. 3: SURFACE COURSE AND PAVEMENT					
ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE (RS)	AMOUNT (RS)
302a	Cutback Asphalt Bituminous Prime Coat	SM	171,016		
303a	Cutback Asphalt Bituminous Tack Coat	SM	167,397		
305b	Asphalt Concrete for Wearing Course (Class B)	CM	8,325		
BILL NO. 3: SURFACE COURSE & PAVEMENTS (RS)					

BILL NO. 4: STRUCTURES (BOX CULVERTS)					
ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE (RS)	AMOUNT (RS)
107a	Structural Excavation in Common material	CM	12,677		
107d	Granular Backfill	CM	6,293		
401a1 ii	Concrete Class A-1 on ground	CM	270		
401a3	Concrete class "A3"	CM	3,764		
401f	Lean Concrete	CM	320		
404b	Reinforcement as per AASHTO M-31 Grade-60	Ton	732		
406a	Pre-moulded joint filler as per drawings & specification	SM	104		
406di	PVC Water Stops as per drawings & specification	M	770		
509d	Grouted Rip Rap Class "A"	CM	150		
510	Dismantling of Structure and Obstructions	CM	760		
TOTAL BILL NO. 4: STRUCTURES (BOX CULVERTS)					

BILL NO. 5: DRAINAGE AND EROSION WORKS					
ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE (RS)	AMOUNT (RS)
	RCC Drain				
107a	Structural Excavation in Common Material	CM	2200.00		
107d	Granular Backfill	CM	1100.00		
401a1 ii	Concrete Class A-1 on ground	CM	330		
401a3	Concrete class "A3"	CM	561.00		
401f	Lean Concrete	CM	132.00		
404b	Steel Reinforcement as per AASHTO M-31 G-60	TON	75		
406di	PVC Water Stops as per drawings & specification	M	1,000		
itemS P-28- 51b	Providing and fixing iron grating in opening with flat iron 2"x3/8" frame and 3/4" M.S. square or round bars placed at 4" c/c including two coats of black Japan paint. Size 150mm x 300mm	Each	112		
	Embankment Protection				
509d	Grouted Rip Rap Class A"	CM	3785.40		
TOTAL BILL NO. 5: STRUCTURES: DRAINAGE AND EROSION WORKS (RS)					

BILL NO. 6: ANCILLARY WORKS					
ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE (RS)	AMOUNT (RS)
607avi	Traffic Sign Cat 1iii-120cm Digital Printing Sign Board In High Intensity Reflective Sheet Laminated on 1.8mm thick G.I. sheet with G.I. pipe Dia 3" And Thickness 8 Gauge	Each	12		
607bvi	Traffic Sign Cat 2iii-120cm Digital Printing Sign Board In High Intensity Reflective Sheet Laminated on 1.8mm Thick G.I Sheet With G.I Pipe Dia 3" And Thickness 8 Gauge	Each	24		
607di	Traffic sign cat 3b sign board in high in tensity Reflective sheet laminated on 1.8mm thick G.I Sheet With G.I Pipe Dia 4" And Thickness 8 Gauge	Each	2		
607cii	Traffic sign cat 3a digital printing sign boarding High In Tensity Reflective Sheet Laminated On 1.8 Mm Thick G.I Sheet With G.I Pipe Dia 3" And Thickness 8 Gauge	Each	1		
608h2	Pavement Marking in Reflective TP for Line of 15 cm Width	M	8,483		
608i2	Pavement Marking in Reflective TP for Line of 20 cm Width	M	45,242		
608j2	Pavement Marking In Reflective Tp Paint For 4 M Arrows	Each	9		
609di	Reflectorized Pavement Plastic Pavement Studs (Raised Profile Double) 100mmx100mm	Each	8,483		
SP	Gantry Sign Board	Each	1		
610c	Kilometer Post	Each	21		
TOTAL BILL NO. 6: ANCILLARY WORKS (RS)					

BILL NO 07 (GENERAL ITEMS)					
ITEM NO	DESCRIPTION	UNIT	QUANTITY	RATE (RS)	AMOUNT (RS)
701	SURVEYING FACILITIES				
701a	Provide Survey Instruments	PS	1		4,000,000
701b	Maintain, Survey Instruments & Provide Survey Team including 2 Nos Survey Helpers	Month	24		3,000,000
702	Material Testing Facilities				
702a	Provide Material Testing Laboratory (Rental)	Month	24		2,400,000
702b	Furnish & Equip Material Testing Laboratory	PS	1		5,500,000
702c	Maintain Office Testing Laboratory Including 2 No's Laboratory Helpers (Monthly Basis)	Month	24		2,400,000
703	Office & Residential Facilities For Employer/Employer's Representative				
703a	Provide offices to employer & employer's representative (Rental)	Month	24		3,600,000
703b	Furnish & equip office for the employer & employer's representative	PS	1		2,400,000
703c	Maintain office for the employer & employer's representative	Month	24		3,600,000
704	Office & Residential Facilities For Engineer's Representative				
704a	Provide office to engineer's representative (Rental)	Month	24		3,600,000
704b	Furnish & equip office for the engineer's representative	PS	1		2,400,000
704c	Maintain office for the engineer's representative	Month	24		3,600,000
706	Site Transportation				
706a	Provide Transportation For Employer				
i	2 No's Toyota Double Cabin 4wd Or Equivalent On Rental Basis Including Driver (Monthly Basis)	Month	42		15,330,000
i	1nos suzuki cultus 1000 cc or equivalent (rental basis)	Month	21		2,520,000
706b	Provide Transportation For Engineer's Representative				

i	1 No. Toyota Single Cabin 4wd Or Equivalent On Rental Basis Including Driver (Monthly Basis)	Month	21		4,200,000
ii	1 No. suzuki cultus 1000 cc or equivalent (rental basis)	Month	21		2,520,000
iii	1 No. Suzuki bolan with ac 800 cc or equivalent	Month	21		1,974,000
706c	Running & maintenance of transportation of employer & engineer's representative / assistant	Month	120		15,609,766
707	Employ Trainee Engineers / Interns/ HR. Each Including Boarding and Lodges (need basis)	man Month	216		25,920,000
TOTAL BILL NO. 7: GENERAL ITEMS (RS):					104,573,766

Environmental & Social Management Budget (Pre-Defined)

Sr. No.	Environmental components	Description	Estimated Cost (PKR)
1	Environmental mitigation options	Waste management (Solid/hazardous)	578,947
		Erosion control (drainage, fences for silt)	451,579
		Noise and vibration control	316,105
		Plantation on both sides of the road	677,368
		Water sprinkling (water trucks/boozers, spraying) for dust suppression	282,237
		Sub Total	2,291,763
2	Social mitigation options	Community consultation & grievance redress	282,237
		Livelihood restoration (temporary loss of income)	282,237
		HSE cost (PPEs, sanitation)	846,711
		Sub Total	1,411,184
3	Training & capacity building	E&S including gender training for contractor of Subproject	1,128,947
		Awareness campaigns (traffic safety, Covid-19)	282,237
		Sub Total	1,411,184
4	Monitoring & Reporting	Monitoring of environmental quality (air, water, soil)	1,354,737
		Social impact monitoring (surveys, FGDs)	282,237
		Independent audits (bi-annually)	1,128,947
		Reporting & documentation	564,474
		Sub Total	3,330,395
5	E&S Staff	ES@200,000/monthly	2,709,474
		HSE Engineer/officer@100,000/monthly	1,354,737
		Sub Total	4,064,211
6	Contingency (5%)	Unforeseen environmental/social issues	625,437
Total ESMP Budget			13,134,174