



**Irrigation Department
Government of Sindh, Pakistan**

World Bank

SINDH BARRAGES IMPROVEMENT PROJECT

IDA CREDIT 62420

RFB No: PK-AFOF SBIP-98666-CW-RFB

Contract: SBIP/S4

**Rehabilitation and Modernisation
of Sukkur Barrage**

**Package-4:
De-Silting of Rice Canal in
Head Reach (RD 0 to 82.4)**

Bidding Documents

**Volume 1
Bill of Quantities**

May 2023

Overall Content of Bidding Documents

PART 1 – BIDDING PROCEDURES

VOLUME 0 – BIDDING PROCEDURES

Section I - Instructions to Bidders (ITB)

This Section provides relevant information to help prequalified Bidders prepare their Bids. It is based on a one-envelope Bidding process. Information is also provided on the submission, opening, and evaluation of Bids and on the award of Contracts. **Section I contains provisions that are to be used without modification.**

Section II - Bid Data Sheet (BDS)

This Section includes provisions that are specific to each procurement and that supplement Section I, Instructions to Bidders.

Section III - Evaluation and Qualification Criteria

This Section specifies the criteria to determine the Most Advantageous Bid.

Section IV - Bidding Forms

This Section includes the forms for the Bid Submission, Bill of Quantities, Schedules of technical proposal, including technical and financial qualifications, personnel, financial resources, and equipment, Bid Security and others to be completed and submitted by the Bidder as part of its Bid.

Section V - Eligible Countries

This Section contains information regarding eligible countries.

Section VI - Fraud and Corruption

This Section includes the Fraud and Corruption provisions which apply to this Bidding process.

VOLUME 1 – BILL OF QUANTITIES

PART 2 – WORKS’ REQUIREMENTS [INCLUDED WITHIN VOLUMES 2, 3 AND 4]

Section VII - Works’ Requirements

This Section specifies the Scope of Works, Specification, the Drawings, and supplementary information that constitute the Works’ Requirements for the Works to be procured. The Works’ Requirements also include the environmental and social (ES) requirements (including requirements relating to Sexual Exploitation and Abuse (SEA) and Sexual Harassment (SH) which are to be satisfied by the Contractor in executing the works.

VOLUME 2 – SPECIFICATION

VOLUME 3 – DRAWINGS

VOLUME 4 – SITE DATA

PART 3 – CONDITIONS OF CONTRACT AND CONTRACT FORMS

VOLUME 5 – CONDITIONS OF CONTRACT AND CONTRACT FORMS

Section VIII - General Conditions (GC)

This Section refers to the “General Conditions” which form part of the Conditions of Contract for Construction (Second Edition 2017) published by the Federation Internationale Des Ingenieurs – Conseils (FIDIC).

Section IX - Particular Conditions (PC)

This Section includes particular conditions of the contract consisting of: Part A- Contract Data; Part B -Special Provisions, PART C – Fraud and Corruption; and PART D – Environmental and Social (ES) Reporting Metrics for Progress Reports. The contents of this Section supplement the General Conditions and shall be completed by the Employer.

Section X - Contract Forms

This Section contains the Letter of Acceptance, Contract Agreement and other relevant forms.

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1 Preamble

- PRE 1.1** The Bill of Quantities shall be read in conjunction with the General and Particular Conditions of Contract, the Specifications, and the Drawings. General directions and descriptions of work and material set out in the Specification or on the Drawings are not necessarily repeated in the Bill of Quantities. The Bill of Quantities refers to specific Clauses in the Specifications. The prices entered for each item shall include provision to satisfy all relevant Clauses from the Specifications, even if not referred to in the Bill of Quantities
- PRE 1.2** 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 shall 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.
- PRE 1.3** 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.
- PRE 1.4** The following work shall not be measured for payment and the cost thereof shall be deemed to be distributed amongst the rates and prices for the various items in the Bill of Quantities.
- Survey and setting out
 - Design and construction of all Temporary Works
- PRE 1.5** The rates and prices tendered in the priced Bill of Quantities shall include without limitation the following:
- All general risks, liabilities and obligations set out in or reasonably implied from the Contract.
 - Complying in every respect with the requirements and the consideration of the Specifications and the Drawings.
 - All labour required for work and its associated cost.
 - All materials and goods and the associated cost.
 - All Contractor's Equipment including scaffolding, shuttering.
 - Equipment and tools, fuel, lubricants and maintenance.
 - Provision of water and power.
 - Fitting, erection, fixing material and goods in any position hoisting at any height.
 - Transportation of equipment and material.
 - Production of records and reports
 - All necessary protection of the works, removing all temporary installations and making good and clearing away upon completion.
 - All applicable taxes, duties, charges, government levies royalties, landing charges and transport.
 - Shifting of equipment from one location to another location.
 - Supervision
 - Overheads and profit.
- PRE 1.6** The rates shall also include for performing all tests (field & laboratory) required by the Specification, for which specific rates are not provided in the Bill of Quantities.

- PRE 1.7** The rates shall include for all reporting required associated with a particular item unless a specific item for reporting is provided.
- PRE 1.8** The rates shall also include for all dewatering required due to any reason, during execution of Work, except any items for which such dewatering is included in Bill of Quantities.
- PRE 1.9** 'Rock' is defined as all materials that, in the opinion of the Engineer requires blasting, or the use of compressed air drilling for their removal, and that cannot be extracted by ripping with a dozer or rear-mounted, heavy-duty ripper with a power output of 200 kW.
- PRE 1.10** For items of work where the unit for measurement is given as 'Sum' and the quantity of work is given as 'Item', the proportions of payments in interim certificate shall be made either according to components of work completed or in instalments defined by the period covered by the interim payment certificates to the total period of the work covered by the item.
- PRE 1.11** 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 in accordance with Sub-Clauses 13.4 and 13.5 of the General Conditions except with respect to DAAB Fees and Expenses for which no instruction shall be required from the Engineer.

2 Abbreviations

Length	in	inch
	ft	foot
	rft	running foot = linear foot
	RD	Reduced Distance (1 RD = 1,000 ft)
Area	sft	Square foot
Volume	cft	cubic foot
Discharge	cusecs	cubic feet per second ft ³ /s)
Mass	lb	pound
	kg	kilogram
	t	metric ton = 1,000 kg
Force	N	Newton
Other	dia	diameter
	nr	number
	GC	General Conditions of Contract
	±	plus or minus

3 Measurement and Payment

MP.1	Introduction
(i)	The Permanent Works shall be measured net notwithstanding any general or local custom except where otherwise specifically described or prescribed in the Contract.
(ii)	The total quantity included in the final measurement of each item shall be measured to the nearest integer relative to that item, or to one decimal place if so, indicated in the Bill of Quantities.
(iii)	Where in the Bill of Quantities there is a schedule or subsidiary bill setting out the quantities of component materials and work which comprise a unit of work measured under a single item in a Part of the Bill of Quantities, the said quantities shall be subject to measurement and valued at the rates and prices therein and the total value thereof shall be the rate for the item.

MP.2	Provisional Quantities, Provisional items and Provisional Sums
(i)	Items in the Bill of Quantities marked “Provisional Quantity” or “Provisional Item” shall only be executed if they are the subject of a written instruction from the Engineer. The rates set out for such items shall be used for the valuation of works so ordered by the Engineer in writing whether the quantities shown are used wholly or in part. If the amount of work ordered by the Engineer to be executed under a Provisional Quantity item or quantity exceeds the quantity shown in the Bill of Quantities, the rate for that item set out in the Contract shall not necessarily be deemed applicable to the excess and shall be determined in accordance with sub clause 12.3 (Valuation of the Works) of General Conditions of Contract.
(ii)	Where in the Bill of Quantities there is an item having the words “Provisional Sum” in the Unit column, the work shall be carried out when ordered and as directed by the Engineer. For items shown as ‘Prime Cost’ the Contractor shall provide evidence of the exact amount of the direct cost paid for the item by the Contractor and that the item has been procured at a competitive market price. This amount, without addition of overhead or profit, shall be paid by the Employer. The Provisional Sum shown for these items is indicative only.

MP.3	Dayworks
(i)	Work shall not be executed on a daywork basis except by written order of the Engineer. Rates for daywork items shall apply to the quantity of daywork ordered by the Engineer. Nominal quantities have been indicated against each item of daywork, and the extended total shall be carried forward as a Provisional Sum to the summary of total tender amount. The contractor shall prepare a daily report on the format as approved by the Engineer showing the labour, material and equipment utilized on a particular date for execution of dayworks. The daily report containing the supporting photographs shall be jointly signed by the site representative of the Engineer and contractor. In the event the Contractor’s site representative refuses to sign the daily report, the daily report submitted by the Engineer’s site representative shall be considered as final.

(ii)	<p>In calculating payments due to the Contractor for the execution of daywork, the hours for labour shall be reckoned from the time of arrival of the labour at the job site to execute the particular item of daywork to the time of return to the original place of departure, but excluding meal breaks and rest periods. Only the time of classes of labour directly doing work ordered by the Engineer and for which they are competent to perform shall be measured. The time of gangers (charge hands) actually doing work with the gangs will also be measured but not the time of foremen or other supervisory personnel.</p>
(iii)	<p>The Contractor shall be entitled to payment in respect of the total time that labour is employed on daywork basis, calculated at the basic rates in the Schedule of Daywork Rates in the Bill of Quantities together with an additional percentage payment on basic rates representing the Contractor's profit and overheads as described below:</p> <ul style="list-style-type: none"> a) The basic rates for labour shall cover all direct costs to the Contractor, including but not limited to the amount of wages paid to such labour, transportation time, overtime, subsistence allowances and any sums paid to or on behalf of such labour for social benefits in accordance with the law in the Islamic Republic of Pakistan. b) The additional percentage payment in the Schedule of Daywork Rates shall be applied to costs incurred under (a) above and shall be deemed to cover the Contractor's profit, overheads, superintendence, liabilities, insurances and allowances to labour, timekeeping and clerical and office work, the use of consumable stores, water, lighting and power, the use and repair of stagings, scaffolding, workshops and stores, portable power tools, manual plant and tools, supervision by the Contractor's staff, foremen and other supervisory personnel, and charges incidental to the foregoing.
(iv)	<p>The Contractor shall be entitled to payment in respect of materials used for daywork, except for materials for which the cost is included in the percentage addition to labour costs as detailed heretofore, at the basic rates in the Schedule of Daywork Rates together with an additional percentage payment on the basic rates to cover overheads and profit as follows:</p> <ul style="list-style-type: none"> a) The basic rates for materials shall be calculated on the basis of the invoiced price, freight, and insurance, handling expenses, damage and losses and shall provide for delivery to store for stockpiling at the Site. b) The additional percentage payment in the Schedule of Daywork Rates shall cover all additions costs, overheads and profit of the Contractor. c) The cost of hauling materials for use on work ordered to be carried out as daywork from the store or stockpile on the Site to the place where it is to be used shall be paid in accordance with the terms for daywork labour and daywork construction equipment.
(v)	<p>The Contractor shall be entitled to payments in respect of Construction Equipment already on Site and employed on daywork at the basic rental rates in the Schedule of Dayworks Rates. The said rates shall be deemed to include due and complete allowance for depreciation, interest, indemnity and insurance, repairs, maintenance, supplies, fuel, lubricants, and other consumables, and all overheads, profit and administration costs related to the use of such equipment. The cost of drivers, operators and assistants shall be paid for separately as daywork labour.</p>

(vi)	In calculating the payment due to the Contractor for Construction Equipment employed on daywork basis, only the actual number of working hours shall be eligible for payment, except that where applicable and agreed with the Engineer, the travelling time from the part of the Site where Construction Equipment was located when ordered by the Engineer to be employed on daywork basis and the time for return journey thereto shall be included for payment.
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MP.4	General
(i)	No separate payment shall be made for complying with the requirements of Chapter 1 of the Specification except where otherwise detailed in the Bill of Quantities.
(ii)	The measurement for compliance with the Health and Safety Plan shall be made on a monthly basis. Payment shall be made based on the percentage compliance of activities mentioned in the checklist of that particular month approved by the Engineer.
(iii)	The measurement for compliance with the Environmental and Social Management Plan shall be made on a monthly basis. Payment shall be made based on the percentage compliance of activities mentioned in the checklist of that particular month approved by the Engineer.

MP.5	Care for working in the vicinity of the high-pressure gas pipeline
	Measurement Measurement for Care for working in the vicinity of the high-pressure gas pipeline shall be made after consultation with the pipeline authority, confirmation of their requirements and satisfactory compliance at site and shall be deemed to cover all costs. Payment Payment shall be made as lump sum for the item and deemed to cover all costs.

MP.6	Provision of the staff listed in Clause 1.20
	Measurement Measurement for provision of the staff listed in Clause 1.20 shall be made in person months for the staff actually engaged at site. Payment Payment shall be made for the number of person months for the staff actually working at site.

MP.7	Provisional Sum for Employer's 50% share towards DAAB
	Measurement Measurement for Employer's 50% share for DAAB members shall be made in the number of months for which DAAB members will be engaged including their travel expenses, lodging and boarding etc. in accordance with the provisions of Sub clause 21 of CoC. Payment Fifty per cent of the total payment incurred by the contractor shall be made as the Employer's share paid to the DAAB members.

MP.8	The Site and Working Constraints
(i)	No separate payment shall be made for complying with the requirements of Chapter 2 of the Specification.

MP.9	Materials and Workmanship
(i)	No separate payment shall be made for complying with the requirements of Chapter 3 of the Specification.
(ii)	Except where otherwise provided for in the Bill of Quantities no separate payment shall be made, inter alia, for taking samples, delivery of samples to the Engineer's laboratory or alternative laboratory, making slump tests, testing of aggregates and making moisture content tests, making concrete cubes, supply of instruments for, and recording of temperatures of concrete and concrete materials, preparation and submission of Site records, trials and proving of alternative Construction Equipment, materials and methods of working suggested by the Contractor.
(iii)	For tests on materials for incorporation in the Permanent Works or tests on the Permanent Works, no payment shall be made for delivery of any sample to a laboratory if such sample or test shall fail to meet the requirements of the Specification, where such tests are ordered or normally required to demonstrate compliance with the Specification.
(iv)	For tests on materials before selection and approval of sources of materials for incorporation in the Permanent Works and for trials of Construction Equipment and methods of working for approval for use in constructing the Permanent Works including tests for resulting workmanship where not provided for in the Bill of Quantities, no separate payment shall be made.

MP.10	Earthworks
MP.10a	General
(i)	No separate payment shall be made for complying with the requirements of Chapter 4 of the Specification except where otherwise detailed in the Bill of Quantities.
(ii)	No measurement or payment will be made for excavation for the Contractor's temporary access roads inside the canal bed and for other Temporary Works for the Contractor's own use or for any requirements under disposal of material to specified location. Neither excess excavation nor backfill of excess excavation will be measured for payment
(iii)	No separate payment shall be made for placing excavated material in spoil tips and embankments, nor for associated works such as spreading, compacting and topsoiling, if done. The cost of such work shall be deemed to be included in the relevant excavation item.
(iv)	Excavation / desilting shall be measured in the following category: Desilting in channel
(v)	The rates for earthwork excavation shall be deemed to cover earthworks in any material except those for which separate items are provided.
(vi)	The cost of dealing with unsound material and dewatering in any part of the Works shall be borne by the Contractor.
(vii)	No separate payment shall be made inter alia for surveying and making records of ground levels and topography within earthwork excavation limits; supporting excavations; making good slips and falls; excess excavations, for working space or any other reason; trimming surface of excavation; additional material placed on account of or in anticipation of settlement; scarification; double handling; location and shaping of disposal heaps.
(viii)	For the purposes of measurement, it shall be assumed that one cubic foot of material excavated forms one cubic foot of material transported. The Contractor shall be deemed to have covered in his rates for the disposal of surplus or make up of shortfall resulting from bulking or shrinkage in the case of work measured under items which include for both excavation of material.
(ix)	No account shall be taken of any tolerance allowed in the specification when identifying for the purposes of measurement the dimensions shown on the drawings or ordered by the Engineer.

MP.10b	Earthwork excavation (desilting) in canal
(i)	For purposes of measurement, earthworks in channel shall be taken to include earthworks in canal.
(ii)	Excavation in channel shall be measured as the net volume of material below the existing bed level of canal to the limits shown on the Drawings or ordered by the Engineer. Where an existing channel is to be remodelled, the original channel profile is deemed to be the ground level. Rate shall include for excavation below the water table.
(iii)	Volumes of excavation in channel shall be measured as the product of cross-sectional area and length.
(iv)	Cross sections so determined shall be taken at 200 ft intervals along the centreline of the earthworks as shown on the Drawings or as ordered by the Engineer and the cross sectional area shall be deemed to apply for 100 ft along the centreline on each side of the point thereon at which the cross section was taken. If in the Engineer's opinion cross

	sections taken at these intervals will not give volumes representative of the actual volumes of channel, cross sections shall be taken at closer intervals.
(v)	Where earth movement has been undertaken in accordance with mass haul diagrams the positions of balancing lines on these mass haul diagrams shall be as per actual haul distance at site.
(vi)	Rates for excavation shall include for haul distances up to 750ft. Material hauled further shall be measured under only one haulage item, namely, the one which gives the limits within which the haul distances falls. The haul distance shall be measured as the actual haul distance between the centres of gravity of excavation and deposition. The unit prices for Excavation shall be deemed to cover all costs of excavating including clearing, jungle clearance, grubbing, stripping, ripping, excavating, trimming, loading, spreading, stockpiles, spoil tips and spoil embankments, topsoiling and all other work related to the Item.
(vii)	Notwithstanding the above, where mass haul diagrams are used, the measurement of the volumes of excavated material moved within limits of haul shall be effected by dividing each peak or trough on the diagrams by horizontal lines of length equivalent to the haul distance limits given in the Bill of Quantities, the vertical intercepts between such lines representing the quantities hauled between said haul distance limits.

MP.11	Canal Distance Marker
	Measurement of canal distance markers shall be made in number, in position, as shown in the drawings and directed by the Engineer, completed and accepted.

MP.12	Care and Handling of Water Including Dewatering
(i)	No separate measurement or payment shall be made for diversion, drainage, dewatering or care of water. Refer to Clause PRE 1.8 in the preamble, Clause MP.10(a) (vi), and Clauses 1.2 and 1.3 of the Specification.

MP.13	Miscellaneous works
	General
(i)	No separate measurement shall be made for Progress Reports and Progress Photographs as the cost thereof is deemed to be distributed among the rates and prices for the various items priced in the Bill of Quantities.

4 Bill of Quantities

SUMMARY

Bill Nr	Description of Bill	Amount (PKR)
1	General Requirement	
2	De-Silting of Rice Canal in Head Reach (Rd 0 to 82.4)	
A-	TOTAL OF BILLS	
B-	TOTAL OF DAYWORKS	
C-	TOTAL OF BILLS & DAY WORKS =(A+B)	
D-	SINDH SALES TAX (5% of C)	
E-	TOTAL OF BILLS & DAYWORKS INCLUDING SST = (C+D)	

Bill No.1 -General Requirement

Item No.	Description	Unit	Quantity	Rate in figures (PKR)	Rate in words (PKR)	Amount (PKR)
1.01	Provision of insurance for works and contract equipment	Prime cost				7,500,000
1.02	Provision of insurance for third parties	Prime cost				1,500,000
1.03	Provision of insurance to cover accident/injury to Contractor's personnel	Prime cost				7,500,000
1.04	Compliance with Environmental and Social Management Plan	month	9			
1.05	Compliance with Health and Safety Plan	month	9			
1.06	Care for working in the vicinity of the high pressure gas pipeline (see Volume 4, Site Data)	sum				
1.07	Provision of the staff listed in Clause 1.20 of the General Specification.	Provisional sum				4,000,000
1.08	Provisional Sum for Employer's share (50% of the total) of the costs of the Dispute Board Member(s) as per Clause 9.5 of the General Conditions of Dispute Avoidance / Adjudication Agreement.	Provisional sum				2,000,000
TOTAL CARRIED TO SUMMARY						

Bill No.2 -De-Silting of Rice Canal in Head Reach (Rd 0 to 82.4)

Item No.	Description	Unit	Quantity	Rate in figures (PKR)	Rate in words (PKR)	Amount (PKR)
2.01	Common excavation in canal during closure period by mechanical means and dressed to design section,grades and profiles and excavated material disposed off and dressed and levelled within 750 ft right of way,no haul	1000 cft	83,350			
2.02	Common excavation in canal during closure period by mechanical means and dressed to design section,grades and profiles and excavated material disposed off and dressed and levelled the excavated material to following specified location:					
(i)	Haul exceeding 750 ft but not exceeding 5,000 ft	1000 cft	5,675			
(ii)	Haul exceeding 5,000 ft but not exceeding 10,000 ft	1000 cft	15,480			
(iii)	Haul exceeding 10,000 ft but not exceeding 15,000 ft (Provisional Quantity)	1000 cft	1,000			
(iv)	Haul exceeding 15,000 ft but not exceeding 20,000 ft	1000 cft	51,898			
(v)	Haul exceeding 20,000 ft but not exceeding 25,000 ft (Provisional Quantity)	1000 cft	1,500			
(vi)	Haul exceeding 25,000 ft but not exceeding 30,000 ft	1000 cft	13,687			
(vii)	Haul exceeding 30,000 ft but not exceeding 35,000 ft (Provisional Quantity)	1000 cft	2,000			
2.03	Provide and install canal reduce distance markers at 1RD intervals complete in all respect as per Drawings and specifications or as directed by the Engineer.	nr.	83			
TOTAL CARRIED TO SUMMARY						

Summary-Day work

Item No.	Description	Total Amount (PKR)
1	Total for Dayworks Labour	
2	Total for Dayworks Materials	
3	Total for Dayworks Construction Equipment	
TOTAL FOR DAYWORKS CARRIED TO SUMMARY		

1-Labour

Item No.	Description	Unit	Nominal Quantity	Rate in figures (PKR)	Rate in words (PKR)	Amount (PKR)
1	Labour					
D1.01	Ganger	hr	50			
D1.02	Labourer	hr	1,500			
D1.03	Bricklayer	hr	200			
D1.04	Mason	hr	230			
D1.05	Carpenter	hr	100			
D1.06	Steel work erector	hr	100			
D1.07	Welder	hr	200			
D1.08	Steel metal worker	hr	50			
D1.09	Electrician	hr	50			
D1.10	Plumber	hr	30			
D1.11	Driver for any vehicle up to 2 ton	hr	600			
D1.12	Operator for excavator, dragline or crane	hr	600			
D1.13	Operator for tractor (tracked) with dozer, blade or ripper	hr	765			
D1.14	Operator for grader	hr	1,000			
D1.15	Operator for vibrating roller	hr	20			
D1.16	Operator for concrete mixer	hr	20			
D1.17	Operator for 10 ton dump truck	hr	225			
D1.18	Operator for piling rig	hr	10			
D1.19	Painter	hr	10			
A	Subtotal					
B	Allow _____ (state percentage) percent of subtotal for Contractor's overhead and profit					
C	Total for Day work Labour Carried to Day works Summary(C=A+B)					

2 -Material

Item No.	Description	Unit	Nominal Quantity	Rate in figures (PKR)	Rate in words (PKR)	Amount (PKR)
2	Materials					
D2.01	Cement, ordinary Portland or equivalent, in bags	t	20			
D2.02	Cement, sulphate resisting, in bags	t	20			
D2.03	Deformed steel reinforcement bar, Grade 60	t	5			
D2.04	Fine aggregate for concrete	cft	10,000			
D2.05	Coarse aggregate for concrete	cft	10,000			
D2.06	Bricks	nr	10,000			
D2.07	Steel plate	t	2			
D2.08	Welding rods	nr	40			
D2.09	Paint to steelwork	liter	100			
D2.10	Sheet piling, Arcelor Mittal Section PU12 or similar approved	sft	10			
A	Subtotal					
B	Allow ____ (state percentage) percent of subtotal for Contractor's overhead and profit					
C	Total for Day work Material Carried to Day works Summary					

3 - Construction Equipment

Item No.	Description	Unit	Nominal Quantity	Rate in figures (PKR)	Rate in words (PKR)	Amount (PKR)
3	Construction Equipment					
D3.01	Excavator or dragline:					
	(a) up to and including 30cft	hr	200			
	(b) over 30cft to 60cft	hr	200			
	(c) over 60cft	hr	200			
D3.02	Tractor (tracked) including bull or angle dozer					
	(a) up to 50 KW	hr	200			
	(b) over 50 KW to 80 KW	hr	200			
	(c) over 80 KW to 100 KW	hr	200			
D3.03	Tractor with ripper					
	(a) up to 50 KW	hr	150			
	(b) over 50 KW to 80 KW	hr	150			
D3.04	Motor grader 150 KW approx.	hr	150			
D3.05	Vibrating roller 10 ton to 12 ton	hr	20			
D3.06	Concrete mixer 20 cft capacity approx.	hr	20			
D3.07	10 ton dump truck	hr	225			
D3.08	Portable welder 400 Amp approx.	hr	50			
D3.09	Compressor 250 cft approx.	hr	50			
D3.10	Well point dewatering equipment complete for 100 points including all piping, pumps, motors etc.	hr	20			
D3.11	Sheet piling rig	hr	20			
D3.12	Water bowser 2500 gallons approx.	hr	100			
A	Subtotal					
B	Allow _____ (state percentage) percent of subtotal for Contractor's overhead and profit					
C	Total for Day work Construction Equipment Carried to Day works Summary					

5 Schedule Showing BoQ Items and Corresponding M&P Clauses and Specification Clauses

SBIP/S4-De silting work of Rice Canal in Head Reach (RD 0 to 82.4) BoQ Items linkage with M&P Clauses and Specification

S.No.	Bill No.	Item No.	Item Description	Specification Clause	M&P Clause
1		1.01	Provision of insurance for works and contract equipment		MP.02 (ii)
2		1.02	Provision of insurance for third parties		
3		1.03	Provision of insurance to cover accident/injury to Contractor's personnel		
4		1.04	Compliance with Environmental and Social Management Plan	Appendix B.Vol 2	MP.04 (iii)
5		1.05	Compliance with Health and Safety Plan	Appendix C.Vol 2	MP.04 (ii)
6		1.06	Care for working in the vicinity of the high pressure gas pipeline (see Volume 4, Site Data)	Clause 2.6 Site Data-Vol 4	MP.5
7		1.07	Provision of the staff listed in Clause 1.20 of the General Specification.	Chapter 1 Vol 2	MP.6
8		1.08	Provisional Sum for Employer's share (50% of the total) of the costs of the Dispute Board Member(s) as per Clause 9.5 of the General Conditions of Dispute Avoidance / Adjudication Agreement.	Clause 9.5 of the General Condition of Dispute Avoidance/Adjudication agreement	MP.7
9	Bill No.2 De-Silting of Rice Canal in Head Reach	2.01	Common excavation in canal during closure period by mechanical means and dressed to design section,grades and profiles and excavated material disposed off and dressed and levelled within 750 ft right of way,no haul	Chapter 4 Vol 2	MP.10
10		2.02	Common excavation in canal during closure period by mechanical means and dressed to design section,grades and profiles and excavated material disposed off and dressed and levelled the excavated material to following specified location:		
11		(i)	Haul exceeding 750 ft but not exceeding 5,000 ft		
12		(ii)	Haul exceeding 5,000 ft but not exceeding 10,000 ft		
13		(iii)	Haul exceeding 10,000 ft but not exceeding 15,000 ft (Provisional Quantity)		
14		(iv)	Haul exceeding 15,000 ft but not exceeding 20,000 ft		
15		(v)	Haul exceeding 20,000 ft but not exceeding 25,000 ft (Provisional Quantity)		
16		(vi)	Haul exceeding 25,000 ft but not exceeding 30,000 ft		
17		(vii)	Haul exceeding 30,000 ft but not exceeding 35,000 ft (Provisional Quantity)		
18		2.03	Provide and install Canal Reduce Distance markers at 1RD intervals complete in all respect as per Drawings and specifications or as directed by the Engineer.		