

## **BILL OF QUANTITIES**

### **A. Preamble**

1. The Bill of Quantities shall be read in conjunction with the Conditions of Contract, Specifications and Drawings.

### **2. Basis of Payment**

- The quantities given in the Bill of Quantities are estimated and provisional, and are given to provide a common basis for tendering. The tenderers shall compute his own quantities based on the drawings and specifications provided in the Tender Documents to arrive at a **Lump Sum** total Tender Price. All payments for the work executed shall be made as per relevant clauses of contract.
3. The rates and prices bided in the priced Bill of Quantities shall, except insofar as it is otherwise provided under the Contract include all costs of Contractor's plant, labour, supervision, materials, execution, insurance, profit, taxes and duties, together with all general risks, taxes and other levies payable by the Contractor under the Contract, or for any other cause, as on the date 28 days prior to deadline for submission of Tenders, shall be included in the rates and prices and the total Tender Price submitted by the Tenderers.
  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 will have 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 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 the Works.
  6. General directions and description of work and materials are not necessarily repeated nor summarized in the Bill of Quantities. References to the relevant sections of the Tender Documents shall be made before entering prices against each item in the priced Bill of Quantities.
  7. 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 58.6 of part-1, General Conditions.
  8. Any arithmetic errors in computations or summations will be corrected by the Employer as follows:-
    - a) Where there is a discrepancy between amount 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.

9. Any item (i) described in the Bill of Quantities or relevant Specifications but not shown on the Drawings, or (ii) shown on the Drawings but not described in the Bill of Quantities or relevant Specifications, shall be of like effect as it has been shown and mentioned in both. Similarly, if any item which is neither shown on the drawing not mentioned in the Bill of Quantities or Specification but is a pre-condition to carryout any item of the contract, it shall be considered to be included in the contract price, distributed among the rates and prices entered for the related items of works. The decision of the Engineer shall be final and binding on the Contractor, unless before the deadline for submission of tenders, such discrepancies are clarified by the Consultant as a result of an inquiry from Tenderers or on the initiative of the Consultant / Employer. The clarification in either case would be sent to all Tenderers as an Addendum. However it shall be clearly understood that no extra cost whatsoever shall be paid in case such discrepancies if any, exist in the Tender documents.
10. No payment for extra lead and lift will be made.
11. Not with-standing any item of BOQ, **NO LEAD or LIFT** for supply of any material / disposal of any item / execution of any work would be given to the Contractor. The Contractor is supposed to investigate the source of all materials and ascertain their cost of cartage (including all incidental costs) which would be considered incorporated in the items rates.
12. Not withstanding anything contained in the Contract Documents, Employer / Engineer reserves the right to ask for justification / rate analysis from the contractor of any rate which in the opinion of the Employer / Engineer is abnormally high or low. Furthermore, the quoted rates, once accepted will be valid only for the quantities mentioned in the BOQ with a variation of  $\pm 15\%$ . For any further variation, the Employer / Engineer reserves the rights to reduce any abnormally high rate quoted by the contractor as per Clause 52.2 of the contract.

However, in case of any low rate, no increase in rates will be allowed / admissible.

## **BILL OF QUANTITIES**

### **B. Work Items**

1. The Bill of Quantities contains the following Bills and Schedule:

(by way of example)

Bill No. 1	-	Earthworks
Bill No. 2	-	Culverts and Bridges
Bill No. 3	-	Subsurface Drains
Bill No. 4	-	Tubewells and Pumphouses
Bill No. 5	-	Miscellaneous Items

Daywork Schedule

Summary Bill of Quantities

2. Tenderers shall price the Bill of Quantities in Pakistani Rupees only.

## Bill No. 1 Earthworks

[illegible]

## Bill No. 2 Culverts and Bridges

Item	Description	Unit	Quantity	Rate		Amount Rupees
				Rupees in figures	Rupees in words	
1	2	3	4	5		6
201						
202						
203						
204						
205						
206						
Total for Bill No. 2 (Carried forward to Summary Page)						

## Bill No. 3 Subsurface Drains

[illegible]

## Bill No. 4 Tubewells and Pump-houses

[illegible]

## Bill No. 5 Miscellaneous Items

Item	Description	Unit	Quantity	Rate		Amount Rupees
				Rupees in figures	Rupees in words	
1	2	3	4	5	6	
501						
502						
503						
504						
505						
506						
Total for Bill No. 5 (Carried forward to Summary Page)						



## **BILL OF QUANTITIES**

### **C. Daywork Schedule**

#### **General**

1. Reference is made to Sub-Clause 52.4 of the General Conditions of Contract Part-I. Work shall not be executed on a day work basis except by written order of the Engineer. Tenderers shall enter basic rates for Daywork items in the Schedules, which rates shall apply to any quantity of Daywork ordered by the Engineer. Nominal quantities have been indicated against each item of Daywork, and the extended total for Daywork shall be carried forward to the Tender Price.

#### **Daywork Labour**

2. In calculating payments due to the Contractor for the execution of Daywork, the actual time of classes of labour directly doing the Daywork ordered by the Engineer and for which they are competent to perform will be measured excluding meal breaks and rest periods. The time of gangers (charge hands) actually doing work with the gang will also be measured but not the time of foreman or other supervisory personnel.
3. The Contractor shall be entitled to payment in respect of the total time that labour is employed on Daywork, calculated at the basic rates entered by him in the Schedule of Daywork Rates for labour together with an additional percentage, payment on basic rates representing the Contractor's profit, overheads, etc., as described below:
  - 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 Pakistan law. The basic rates will be payable in local currency only; and
  - b) the additional percentage payment to be quoted by the Tenderer and applied to costs incurred under (a) above shall be deemed to cover the Contractor's profit, overheads, superintendence, liabilities and 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.

### SCHEDULE OF DAYWORK RATES

#### I. Labour

Item No.	Description	Unit	Nominal Quantity	Rate (Rs) in Figure	Rate (Rs) in Words	Extended Amount (Rs.)
1	2	3	4	5	6	7
D101	Ganger	Hr	500			
D102	Labourer	Hr	5,000			
D103	Brick layer	Hr	500			
D104	Mason	Hr	500			
D105	Carpenter	Hr	500			
D106	Steel work Erector	Hr	500			
	-----etc-----	Hr	500			
D113	Driver for vehicle up to 10 tons	Hr	1,000			
D114	Operator for excavator, dragline, shovel or crane	Hr	500			
D115	Operator for tractor, (tracked) with dozer blade or ripper	Hr	500			
D122	<p style="text-align: right;"><b>Sub Total</b></p> <p>Allow _____ percent of subtotal for Contractor's overhead, profit, etc, in accordance with Paragraph 3(b) of Daywork Schedule _____</p> <p>Total for Daywork: Labour : _____</p> <p>(Carried forward to Daywork Summary)</p>					

**Daywork Material**

4. 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 entered by him in the Schedule of Daywork Rates for materials together with an additional percentage payment on the basic rates to cover overhead charges and profit, as follows:
  - a) the basic rates for materials shall be calculated on the basis of the invoiced price, freight, insurance, handling expenses, damage, losses, etc., and shall provide for delivery to store for stockpiling at the site. The basic rates shall be stated in local currency but payment will be made in the currency or currencies expended upon presentation of supporting documentation;
  - b) the additional percentage payment shall be quoted by the Tenderer and applied to the equivalent local currency payments made under Sub-Para(a) above; and
  - c) the cost of hauling materials used 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 will be paid in accordance with the terms for Labour and Constructional Plant in this Schedule.

### SCHEDULE OF DAYWORK RATES

#### II. Materials

Item No.	Description	Unit	Nominal Quantity	Rate (Rs) in Figure	Rate (Rs) in Words )	Extended Amount (Rs.)
1	2	3	4	5	6	7
D201	Cement, ordinary Portland or equivalent in bags	M.Ton	200			
D202	Mild Steel reinforcing bar upto 16mm diameter to BS 4449 or equivalent	M.Ton	100			
D203	Fine aggregate for concrete as specified in Clause_____	Cu.M	1,000			
D204	-----etc-----					
D222	Gelignite (Noble Special Gelatine 60 % or equivalent) including caps, fuse, wire and requisite accessories	M.Ton	10			
D223	<p style="text-align: right;"><b>Sub Total</b></p> <p>Allow _____ percent of subtotal for Contractor's overhead, profit, etc., in accordance with Paragraph 4(b) of Daywork Schedule _____</p> <p>Total for Daywork: Materials _____</p> <p>(Carried forward to Daywork Summary)</p>					

**Daywork Constructional Plant**

5. The Contractor shall be entitled to payments in respect of constructional plant already on Site and employed on Daywork at the basic rental rates entered by him in the Schedule of Daywork Rates for constructional plant. The said rates shall be deemed to include complete allowance for depreciation, interest, indemnity and insurance, repairs, maintenance, supplies, fuel, lubricants, and other consumables, and all overhead, profit and administrative costs related to the use of such equipment. The cost of drivers, operators and assistants will be paid for separately as described under the section on Daywork Labour.
6. In calculating the payment due to the Contractor for constructional plant employed on Daywork, only the actual number of working hours will be eligible for payment, except that where applicable and agreed with the Engineer, the traveling time from the part of the Site where the constructional plant was located when ordered by the Engineer to be employed on Daywork and the time for return journey thereto shall be included for payment.
7. The basic rental rates for constructional plant employed on Daywork shall be stated in Pakistani Rupees.

### SCHEDULE OF DAYWORK RATES

#### III. Constructional Plant

Item No.	Description	Unit	Nominal Quantity	Rate (Rs.) in Figure	Rate Rs.) in Words	Extended Amount (Rs.)
1	2	3	4	5	6	7
D301	Excavator, face shovel or dragline:					
	1. Up-to and including 1 Cu.M.	Hr	500			
	2. Over 1 Cu.M to 2 Cu. M.	Hr	400			
	3. Over 2 Cu. M	Hr	100			
D302	Tractor (tracked) including bull or angle dozer:					
	1. Up-to and including 150 HP	Hr	500			
	2. Over 150 to 200 HP	Hr	400			
	3. Over 200 to 250 HP	Hr	200			
D303	Tractor with ripper:					
	1. Up-to and including 200 HP	Hr	400			
	2. Over 200 to 250 HP	Hr	200			
D304	-----etc-----					
	Total for Daywork: Constructional Plant _____ (Carried forward to Daywork Summary)					

**DAYWORK****Summary (Daywork)**

		Amount (Rs.)
(I)	Total for Daywork: Labour	_____
(II)	Total for Daywork : Materials	_____
(III)	Total for Daywork: Constructional Plant	_____
Total for Daywork		_____
(Carried forward to Summary Page of Bill of Quantities)		

**BILL OF QUANTITIES****SUMMARY**

		Amount (Rs.)
Bill No. 1:	Earthworks	_____
Bill No. 2:	Culverts and Bridges	_____
Bill No. 3:	Subsurface Drains	_____
Bill No. 4:	Tubewells and Pump Houses	_____
Bill No. 5:	Miscellaneous Items	_____
Sub-Total of Bills		_____
Daywork		_____
Tender Price		_____

Note: All Provisional Sums are to be expended in whole or, in part at the direction and discretion of the Engineer in accordance with Sub-Clauses 52.4 and 58.2 of the General Conditions of Contract Part- I.