



GENERAL AUTHORITY  
FOR ROADS, BRIDGES AND LAND TRANSPORT  
MINISTRY OF TRANSPORT AND COMMUNICATIONS  
THE GOVERNMENT OF THE ARAB REPUBLIC OF EGYPT

THE PROJECT FOR CONSTRUCTION OF  
THE SUEZ CANAL BRIDGE  
IN EGYPT

BILL OF QUANTITIES

(EGYPTIAN PORTION - WEST BANK SECTION)

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January 1997

PREPARED BY  
PACIFIC CONSULTANTS INTERNATIONAL  
CHODAI CO., LTD.

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### **Preamble to the Bill of Quantities**

1. General directions and descriptions of items of work given elsewhere in the Tender Documents are not generally repeated in the Bill of Quantities. Reference must be made to the Drawings, Specification and Conditions of Contract for this information.
2. The items of work given in the Bill of Quantities shall comply with the relevant sections of the Specification and with the instructions of the Engineer.
3. The initial part of the item numbers used in the Bill of Quantities corresponds to the clause numbers used in the Specification, and the second part is consecutive within each clause reference.
4. Payment for Mobilization will be made at the lump sum prices for "Mobilization" as listed in the Bill of Quantities. This item shall include all preparatory work within and outside the work areas, site preparation, supply, installation and maintenance of temporary facilities including project signs, site and roadway maintenance, water treatment facilities, erosion and siltation control; all costs related to establishing construction offices for the Engineer, the Contractor and his subcontractors, communication and other temporary utilities which may be required; site security and fencing as necessary; and transportation to and from the site of construction equipment as required for the performance of the Work. The first progress payment for Mobilization will be made upon full establishment of the Working Site, including all offices, vehicles, and related equipment and will amount to 50% of the Total of this Bill less retention. The remaining of 50% will be due for payment upon the issue of the Taking Over Certificate.
5. The value of services and obligations involved in the Mobilization shall not be included in rates in other parts of the Bill of Quantities but shall be completely priced against the particular item in the Mobilization.
6. Quantities of work and materials in the Bill of Quantities are estimated only and are not to be considered as limiting or extending the amount of work to be done and material to be supplied by the Contractor. The Contractor shall not use the quantities as an ordering schedule.

7. Each item in the Bill of Quantities shall be priced as indicated. No Tender will be considered complete unless this requirement has been fulfilled.
8. Unit rates and amounts shall be written in ink in the space specified in the Bill of Quantities.
9. The unit rate inserted by the Tenderer in the Bill of Quantities for any item of work shall apply to completed work conforming to the Contract Documents covering all costs of labour, materials and equipment required for executing that item of work as well as covering the share of that item for the other general costs to be incurred by the Contractor during the execution of the Works. These general costs shall include but are not limited to, the following, unless entered as a separate pay item in the Bill of Quantities.
  - (i) preparation and submission of tender including the Site inspection.
  - (ii) employment and accommodation of the Contractor's staff - local and expatriate - including official holidays, annual leave, sick leave, compensation, bonuses, insurances etc.
  - (iii) costs related to the Contractor's site Camp(s) including the provision of all utility facilities.
  - (iv) provision for wastage of materials and for consumable materials.
  - (v) costs of laboratory testing, survey work and assistance to the Engineer as required in the Contract.
  - (vi) for electrical installation, costs shall also include providing, testing and commissioning of the complete installation.
  - (vii) royalties, duties, customs, taxes, insurance and all other related costs.
  - (viii) cost of bank guarantees.
  - (ix) costs for permission to use private or public land.
  - (x) cost of temporary works.
  - (xi) cost of work items for which there are no direct payments and which are considered in the Specification and other contract documents as subsidiary to other items in the Bill of Quantities.

(xii) overheads and profit.

(xiii) all other expenses the Contractor may encounter in the proper execution of the Contract.

10. The Tenderer/Contractor shall allow in the Bill of Quantities a lump sum for complying with the conditions and requirements stipulated in the Tender Documents and which are not covered separately in the various pay items of the Bill of Quantities.
11. The tendered lump sum for this item is deemed to cover the whole of the contract period. Monthly payments against this item shall be made in installments proportional to the time for completion.

## Egyptian Portion (East Bank)

### Summary of Bill of Quantities

	Item	Amount (LE)
1.0	Mobilization and Demobilization	
2.0	Earthworks	
3.0	Concrete Mixtures and Concrete Structures	
4.0	Foundations	
5.0	Incidental Concrete Works	
6.0	Structural Steel Works	
7.0	Incidental Bridge Works	
8.0	Road Pavement Works	
9.0	Safety Facilities	
10.0	Electrical and Telephone Works	
11.0	Supplementary Works	
	Grand Total	























**Bill No. 10 Electrical and Telephone Works (E)**

Item No.	Electrical and telephone Works	Unit	Estimated Quantity	Unit Rate (LE)	Estimated Amount (LE)
10.2.1 10.2.2	<b>Medium voltage package unit</b>				
	Supply, install, test and put into operation the medium voltage package unit and, complete with all accessories required to complete the Work as per the Specification and the regulations of the electric companies.	nr	1		
	With transformer 100 KVA	nr	1		
10.2.2	With transformer 160 KVA	nr	1		
10.2.3 10.2.4 10.2.5 10.2.6 10.2.7	<b>Distribution Boards</b>				
	Supply, install, test and put into operation the following distribution boards, outdoor type and complete with all accessories required to complete the Work as per the Specification, the Drawings and the regulations of the electric companies.				
	Distribution Board DB-1	nr	1		
	Distribution Board DB-2	nr	1		
	Distribution Board DB-3	nr	1		
	Distribution Board DB-4	nr	1		
10.2.7	Distribution Board DB-5	nr	1		
	total to next page				

	total upto previous page				
	<p><b>Feeding Cables</b></p> <p>Supply, install, test and put into operation the following low voltage PVC 1000 V armoured copper cables laid underground in trenches and/or inside PVC conduits, etc. The work should include all other accessories required to complete the Work according to the Specification and the Drawings and with the cross section areas as follows:</p>				
10.2.11	(3x185 +95)+70 mm <sup>2</sup>	1 m	2,100		
10.2.12	(3x120+70)+50 mm <sup>2</sup>	1 m	1,060		
10.2.13	(3x25+16)+10 mm <sup>2</sup>	1 m	40		
10.2.14	(4x16+10) mm <sup>2</sup>	1 m	6,000		
10.2.15	(5x10) mm <sup>2</sup>	1 m	250		
	<p><b>Grounding System</b></p>				
10.4	Supply, install and put into operation the grounding system with all accessories required to complete the Work as specified.	L.S.	1		
	<p><b>Lighting Fixtures</b></p>				
10.5.1	Supply, install, test and put into operation the lighting pole fixtures with sodium lamp 250 W. The Work should be completed with all accessories and as specified and shown on the Drawings.	nr	480		
	total to next page				

	total upto previous page				
	<p><b>Lighting Poles</b></p> <p>Supply, install, test and put into operation the lighting poles fixed on the ground or on the concrete bridge and complete with all accessories as specified and shown on the Drawings.</p>				
10.5.3	Fixed on ground	nr	400		
10.5.4	Fixed on the concrete bridge	nr	80		
	<p><b>Intercommunication System</b></p>				
10.6.1	Supply, install, test and put into operation the equipment of the main stations and complete with all accessories required to complete the Works as specified.	L.S.	1		
10.6.2	Supply, install, test and put into operation the equipment of the slave stations and complete with the cabinet, telephone, terminal box and all other accessories required to complete the Works as specified.	Nr	18		
	<p><b>Telephone Cables</b></p> <p>Supply, install, test and put into operation the telephone cables laid underground and/or in conduits inside concrete with all accessories required to complete the Work as specified and with following sizes.</p>				
10.6.3.	10 pairs telephone cable	l m	4,300		
10.6.4	5 pairs telephone cable	l m	9,200		
<b>Total to Summary</b>					







100

100





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