

Palestinian National Authority

Project Name:

**Rehabilitation of the Yatta-Alkrmel road
Hebron -Palestine**

Bid No. :

Bill of Quantities

Date:

Bill of Quantities
Project Name: Rehabilitation of the Yatta-Alkrmel road

Contents

<u>Item</u>		Page
1	Description of the Works	78
2	Preambles	79
3	Preliminaries	80
4	Earth Works	80
5	Base Coarse Works	80
6	Bituminous Construction	80
7	Concrete	80
8	Sign Traffic works	81
9	Street Lighting (Electrical Works)	81
10	Total	82

Work Description

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The project consists of widening and re-construction of the road from Junction Sweden to Alkrmel.

Preambles

- A. These Bills of Quantities are to be read in conjunction with the Tender Conditions of Contract, agreement, Specifications, and Drawings. The various documents making up the contract shall be deemed to be mutually explanatory. The method of measurement followed shall be the “principles of measurement (international) for works of construction “ amended to suit local practice .
- B. The general direction and descriptions of works given in the specifications are not Necessarily repeated in the bills of quantities. Reference must be made to the specification for this information.
- C. The contractor shall be deemed to have revised all the tender documents, inspected and examined the site and it's surroundings, and have satisfied himself to the nature of the ground and subsoil before submitting his tender. He shall also be deemed to have taken into account the form and nature of the site, the extent and nature of the work and materials necessary for the completion of the works, the means of communication with and access to the site, the accommodation he may require and in general to have obtained for himself all necessary information as to the risks, contingencies and any other circumstances influencing and affecting his tender.
- D. The contractor shall be deemed to have satisfied himself before submitting his tender as to the correctness and sufficiency of the tender and of the rates and prices stated in the bill of quantities or price schedule, where shall, save where otherwise provided, cover all his obligations under the contract.
- E. Since the contractor is deemed to have determined his price on the basis of his own calculations, operations and estimates, he shall, at no additional charge, carry out any work that is the subject of any item whatsoever in his tender for which he indicates neither a unit price nor a lump sum.
- F. Quantities stated in the Bill of Quantities are approximate and not to be considered as limiting for extending the amount of work to be carried out and/or materials to be supplied by contractor.
- G. The Contractor should note that the cost of all work carried out in the construction of junctions, access roads or access to properties shall be based on tendered rates under the appropriate items in the Bills of Quantities and no claim for additional payment for this work shall be considered.
- H. The Contractor shall note that there are no haulage items given in these Bill of Quantities, and that allowance must be made in the tendered rates for any haulage in the appropriate items.
- I. Payments due under the contract shall be determined by applying the unit rates to the quantities executed for the respective items, in accordance with the BoQ and contract.
- J. The utility diversions work shall include the workmanship needed. The work shall be according to the Specifications and Engineer's satisfaction.
- K. Unless otherwise mentioned in the Bill item, all services items expect relocation works, not directly measured under this bill item shall include for excavation (including rock), back filling, dewatering, compaction, temporary works and placement and testing of pipes etc. Excavation width for various services shall be as agreed by Engineer on site. The width of trench excavation for the relocation of existing cables shall be as directed by the Engineer on site .
- L. Items for the preparation of formation to receive subsequent embankment layers shall include for shaping, watering and compaction.
- M. Rates of concrete works are to include for placing, compacting, forming any joints, all necessary frame works, curing and protecting, etc

1.0 Earth Works

No.	Item	Unit	Quantity	Unit Cost (\$)	Total Cost
1.1	Unclassified excavation in the cut sections of the road, including removing existing pavement layers, watercourses, ditches and Wade relocations all as and where shown on the drawings including grading, watering, compaction, testing, all tests required, and hauling the excavated material either to locations for road embankments or to stockpiles or to waste, all according to specifications and as directed by the Engineer.	C.M	4,535	4.8	21768
1.2	Constructions embankments and subgrade layers in fill sections, including the preparation of the foundation layer as required by the specifications, of suitable job excavated material, including placing in layers not exceeding 250mm before compaction, watering, mixing, spreading and compaction to 96% maximum dry density of Modified Proctor in accordance with the specifications and drawings.	C.M	3161	5.5	17385.5
Total					39153.5

2 Aggregate Base Course

No.	Item	Unit	Quantity	Unit Cost (\$)	Total Cost
2.1	Furnishing crushed aggregate base course material class A ,200 mm thick after compaction, including mixing, spreading on prepared sub-base course or sub-grade, compacting and finishing, including 7cm BC. Layer for shoulders after laying asphaltic wearing course and all tests required. All according to specifications drawings, cross-sections and directions of the Engineer.	C.M	20700	3.3	68310
Total of Base Courses					68310

3.0 Bituminous Construction

No.	Item	Unit	Quantity	Unit Cost (\$)	Total Cost
3.1	Furnishing and applying bituminous prime coat (MC-70) or equivalent (rate of application 1.2 kg/m2) to previously constructed sub grade, sub-base or aggregate base course road paved shoulders and sidewalks, or concrete pavement, all according to specifications, drawings and directions of the Engineer.	S.M	15111	0.6	9066.6
3.2	Furnishing, spreading and compacting 5 cm bituminous wearing course (3/4 inch), including all tests required. All according to specifications, drawings and directions of the Engineer.	S.M.	15111	10.4	157154.4
Total of Bituminous Construction					166221

4.0 Concrete

No.	Item	Unit	Quantity	Unit Cost (\$)	Total Cost
4.1	Supplying and placing of precast reinforced concrete pipes 1000 mm diameter (single pipe culverts) including excavation, preparation, bedding, back filling, supplying all necessary materials and building of head walls and end walls, aprons inlet and outlet protections, tar or bituminous painting to surfaces permanently in contact with backfilled material and all necessary works, including all tests required. All according to specifications, drawings, and directions of the Engineer.	L.M	12	220	2640
4.2	Supplying of all materials required and construction of reinforced concrete box culverts including excavation, preparation, formworks, backfilling, headwalls, end walls, aprons, tar or bituminous painting to surfaces permanently in contact with backfilled materials, and all necessary works. All according to specifications, drawings and directions of the Engineer.	C.M	10	150	1500

4.3	Supplying, placing and finishing of reinforced concrete (B250) for lining of side ditches (thickness 10cm, width 0.80m), including steel reinforcement. All according to specifications, drawings, and directions of the Engineer.	L.M.	1000	5.5	5500
Total of Concrete and Utility Works					9640

5.0 Traffic Signs

No.	Item	Unit	Quantity	Unit Cost (\$)	Total Cost
5.1	Supplying and fixing high intensity road circular, triangular, octagonal or square signs (90x90) including the sign black steel pipe for the stands, fixing the stands concrete, excavating and construction of footings, painting and any other required works, all according to specifications, drawings, and directions of the Engineer.	No.	25	80	2000
5.2	Furnishing and installation of continuous and/or intermittent Pavement lines as shown on the drawings or as directed by the Engineer and according to specifications. (W=15cm)	L.M	4000	1	4000
	Apply intermittent (dashed) white line on finished road surface in reflective tropical thermoplastic paint (150mm) wide		1200	1	1200
	Apply single head arrow on finished road surface, paint as above.		50	20	1000
Total of Traffic Signs Works					8200

6.0 Street Lighting (Electrical Works)

No.	Item	Unit	Quantity	Unit Cost (\$)	Total Cost
6.1	Supply and install street lighting luminary connects 250 w HPS with die cast ALUMINUM BODY AND COVER complete including control gear ,comprises hinged lower body housing and fix top cover ,true 90 degree cut off optics adjustable base sucker E39 standard ,plug in igniter ,ip 65 construction ,250 Whips lamp including also 3x2.5 mm2 N2XY cable between lighting fixture and connection box . -Type gaash orot industry or equivalent .	NO.	120	110	13200
6.2	Supply and install 10 m long galvanized steel ,street lighting pole ,octagonal reinforced shaft on 15 mm base plate complete with 2 inch a connection box with 10 A circuit breaker .Three tubular arm 1.5 m and all accessories	NO.	120	980	117600
6.3	Supply and install 5X10 mm2 CU/XLPE cable between main boards and final street lighting pole inside 3 inches flexible conduit to be laid into trenches style cobra and all accessories .	M	2200	18	39600
6.4	Supply and install 18 mm2 bare electrode earthen to be put it under base of all column alone and electrode clamp and all accessories	NO.	120	70	8400
	Excavation of 40X80 cm trench including a 20 cm two sand layers (10 cm each) double weld corrugated conduit -cobra manufactured wiesman -fredman ,and basecourse backfilling .Price should include excavating existing lands,rocks,trees,Asphalt ,concrete parts,and every existing materials and transporting to any approved dump station .	M	2200	8	17600
Total of Street Lighting (Electrical Works)					196400

No.	Item	Cost \$
1	Total of Earth Works	39153.5
2	Total of Base Course	68310
3	Total of Bituminous Construction	166221
4	Total of Concrete Works	9640
5	Total of sign Traffic works	8200
6	Total of Street Lighting works	196400
	Total Excluding VAT.	487924.5
	Total Excluding VAT. In words	Four hundred eighty seven thousand nine hundred twenty four dollars and half