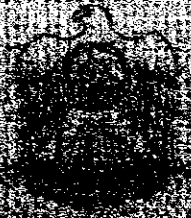
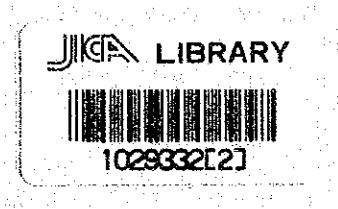


THE UNITED ARAB EMIRATES
THE MINISTRY OF AGRICULTURE AND FISHERIES
WATER AND SOIL EXPEDITION



REPORT OF THE
WATER AND SOIL EXPEDITION
NO. 1 OF QUANTITIES

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**THE UNITED ARAB EMIRATES
THE MINISTRY OF AGRICULTURE AND FISHERIES
WATER AND SOIL DIRECTORATE**



AL BASSIERAH DAM PROJECT

**TENDERING PROCEDURE
BILL OF QUANTITIES**

TENDER AND CONTRACT DOCUMENTS

VOL. III

JAPAN INTERNATIONAL COOPERATION AGENCY

NOVEMBER, 1981

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1. DESCRIPTION OF THE WORKS

The Works comprise the construction, completion and maintenance of the following works:

- Al Bassierah Dam Construction consisting of foundation, dam body, spillway and others as shown on the drawings
- The foundation works consisting of stripping and trench excavation
- The dam body works consisting of embankment by sand, gravel and rock materials
- The spillway works consisting of excavation of rock, placing of concrete and protection
- Conduit works consisting of excavation and placing of concrete
- Other works consisting of temporary works, service road and so on

2. INSTRUCTIONS TO TENDERERS

2.1. Description of Tender

The Ministry of Agriculture and Fisheries in the UNITED ARAB EMIRATES wishes to construct, complete and maintain the proposed project: "AL BASSIERAH DAM"

Contract will be let for the Dam works comprising earthworks, concrete works, protection works and miscellaneous works.

Tenders are herewith invited for the construction, completion and maintenance of the above mentioned Dam works all in accordance with these instructions to tenderers and Bill of Quantities, and with the Specifications and Conditions of Contract separately issued.

2.2. Obtaining Tender Documents

Persons wishing to tender will be issued with three copies of the Tender Procedure and Bill of Quantities, one set of the Tender Drawings, one copy of the Specifications and Conditions of Contract. All of these Tender Documents are to be obtained from the offices of the Ministry of Agriculture and Fisheries, Dubai at the time given in the Tender Notice.

2.3. Tendering

These Tender Documents completed as required together with all information required to accompany a tender shall be enclosed in a sealed cover and deposited in the Office of the Secretaria of the Planning Committee, P. O. Box 12, Abu Dhabi, by not later than the date given in the Tender Notice. The cover must not bear any mark indicating the name of the tenderer, but to marked "Tender for Al Bassierah Dam Project" only.

All copies of the Tender Drawings, the Specifications, Conditions of Contract, and Addenda if any which shall not be defaced or mutilated in any way, must be parcelled separately and labelled "Documents Only Al Bassierah Dam Project" and delivered at the same date.

The Tender must be signed by a principal duly authorized to represent and bind the Tenderer.

No alteration (other than filling in the blanks intended to be filled in) shall be made in the Tender Form and the other sections of the Contract Documents and the volumes shall be submitted intact with the items in the Bill of Quantities fully priced and totalled all in United Arab Emirates Dirhams having a unit rate affixed to every item herein, including the Dayworks Schedules.

If any alteration is made except as aforesaid and if these Instructions to Tenderers are not otherwise fully complied with, the tender may not be considered.

2.4. General Requirements

- a) Should the tenderer submit with his tender any particular conditions, these conditions will not be considered unless the tenderer has evaluated these conditions in fixed amounts which enables the Employer to compare the different offers.
- b) Tenders submitted on the basis of percentage discount from the lowest tender are not accepted.
- c) If in any tender a difference appears between the prices of the different items and the total tender value, the lower of these two amounts will be taken as the correct contract value.
- d) Should the tenderer fail to quote any item of the Works, the Employer will apply the highest rate submitted by other tenderers for the same item, for price comparison only.

Should this tenderer be awarded the contract the Employer will apply the lowest rate submitted by other tenderers for this item of work, and this rate will be the basis for payment.

The Employer reserves his right to exclude the tenderer from the competition.

2.5. Initial Guarantee

Each Tender must be accompanied by an Initial Guarantee in favour of the Ministry of Agriculture and Fisheries in the form of a Bank Guarantee issued by an authentic Bank in the United Arab Emirates and in the form attached to these documents. The value of the Guarantee shall be five percent (5%) of the Tender Price and shall be valid for one hundred and twenty (120) days from the date fixed for return of Tenders.

Tenders not accompanied by an initial Guarantee shall be rejected.

The initial Guarantees will be returned to the unsuccessful tenderers upon the signing of the Contract or after the expiration of the 120 days period specified above irrespective of the award of the tender.

2.6. Formal Contract and Performance Bond

The accepted tenderer will be required to execute within one month of the receipt of the acceptance of his tender a formal contract embodying the Contract Documents and will be required to find a satisfactory surety to the amount of ten percent (10%) of the Total Contract Sum and execute a Performance Bond for the same within the above-mentioned period; this Performance Bond is to be issued in the form attached to these documents.

Failure to execute the formal Contract and provide a Performance Bond within this period will cause the Initial Guarantee to be forfeited.

2.7. Tenderer's Capacity

Persons tendering shall submit evidence that they are properly registered as Contractors for the works in the United Arab Emirates and shall also submit with their Tender Documents, evidence that they have carried out works of at least the same character and magnitude as this project in order that the Employer may be satisfied that the persons tendering are technically and financially capable of executing the proposed works. Such documents shall give the name and nature of the works executed, for whom constructed, the site, value of contract, date of commencement and date of completion. A Tender which is not accompanied by such documents will not be considered.

2.8. Visiting Site and Examining Documents

Persons tendering must visit the Site of the proposed Works or cause it to be visited on their behalf by a competent and reliable person to obtain for themselves on their own responsibility all information that may be necessary for the purpose of making a tender and entering into a contract, and before tendering must study and examine the Contract Documents. All costs and charges in connection with the above mentioned visits shall be borne by persons tendering.

2.9. Building, Workyards, etc.

Persons tendering must examine and consider the Site and its surrounding, they must satisfy themselves as to the nature of existing works and buildings in the vicinity of the proposed Works, the nature of the existing roads or other means of communication, the access to and from the Site and Works, the available accommodation as regards land for temporary purposes (within or without the site), the buildings that may be required for temporary purposes, and must make their own enquiries as to workyards sites and such other additional areas as they may require for temporary occupation all for executing, completing and maintaining the Works in conformity with the Contract Documents.

2:10. Physical Conditions

Persons tendering must make local and independent examination and enquiries as to the physical conditions prevailing at the Site and obtain their own information on all matters and things that may in any way influence them in making a tender and fixing the rates in the Bill of Quantities, they must also satisfy themselves as to the risks, obligations and responsibilities to be undertaken in the contract to be entered into by them should their tender be accepted.

2. 11. Materials, Labour, etc.

Persons tendering must enquire and satisfy themselves as to the sources of supply, the sufficiency of and the means of obtaining and transporting all materials, labour, fuel, water, electrical current for light and power and other things required for or in connection with the Works and they must consider all other matters and possible contingencies affecting the execution, completion and maintenance of the Works.

2. 12. Neglect to Obtain Reliable Information

Any neglect or failure on the part of persons tendering to obtain reliable information on the spot or elsewhere upon the foregoing or any other matters affecting the execution, completion and maintenance of the Works and the contract shall not relieve the persons whose tender is accepted (herein called "the accepted contractor") from any risks or liabilities or from the responsibility of completing and handing over the Works all as defined in the contract.

2. 13. Time for Completion

The construction period shall be estimated by the tenderers and be stated in the Form of Tender. The construction works is required to be completed within a possibly short period. The estimated construction period and tender amount would be major factors for tender evaluation.

2. 14. Accuracy of Tender Documents not Guaranteed

The Employer does not guarantee the accuracy of the Tender Documents or any one of them or of any statement made or information given therein or shown thereon or of the estimated quantities given in the Bill of Quantities or of any other information supplied by or on behalf of the Employer in respect of the Works.

2. 15. Doubt or Obscurity as to Contract Documents

Should there be any discrepancy in or any doubt or obscurity as to the meaning of any of the Contract Documents or as to these Instructions or as to any other matter or thing, persons tendering must set of forth in writing such discrepancy, doubt or obscurity and submit the same, as soon as possible, but not later than 20 days before the date fixed for delivery of tenders to the Employer for clarification.

2. 16. Information Provided not Binding

Neither the Employer nor the Engineer or any of their employees have the right to give tenderers any clarification about the contract, the Specifications, the Bill of Quantities or Drawings or any other tender documents or any work which the Contractor shall execute according to the contract or about the meaning of instructions to tenderers or about any other matter that may bind the Employer, or affect the decision of the Engineer or Engineer's Representative or the performance of their duties and rights defined in the contract, except if such information or clarifications are given to all tenderers in writing, in

which case they will be deemed to be an integral part of the Tender Documents.

2.17. Unit Prices

The unit prices for all the items included in the Bill of Quantities which are submitted by the accepted contractor shall be deemed to be fixed prices not subject to any alteration. The Employer will not entertain any claim by the Contractor for the increase of these unit prices and the accepted contractor shall have no right to object to the Site, the conditions of work, or about any incorrect information given to him, or promises or undertakings given to him by the Employer, the Engineer or their employees or from a person or any other party.

2.18. Addenda

At any time before the date of submission of tenders, the Engineer has the right in his capacity as the Employer's Representative to prepare addenda to the tender documents and to issue such addenda to all tenderers who have received tender documents, omitting, adding or altering any item of work shown in the Tender Documents. These addenda will be deemed to be an integral part of the and Contract Documents.

2.19. Acceptance or Rejection of Tenders

The Employer does not bind himself to accept the lowest or any tender and will not assign any reason for the rejection of any tender. The Employer will not be responsible for or pay for any expenses or losses which may be incurred by any tenderer in the preparation of his tender.

2.20. Advance Payments by Employer

No advance payments whatsoever will be made by the Employer to the Contractor.

2.21. Explosives for Blasting

The Contractor if necessary shall obtain a permit for the use of explosives on the site of works only and he is responsible and liable for any accident or damage and shall save the Employer harmless from all claims arising from the use of explosives for works on this Contract.

2.22. Closing of existing Road Tracks

No existing track may be closed for traffic of any kind because of the construction of the Dam. The Contractor shall arrange for the necessary deviations on the existing tracks at his own expense and will not be entitled to any extra payment, in consequence thereof, such deviations must be constructed and maintained to the satisfaction of the Engineer.

2. 23. Drawings and Measurements of Works

The Drawings issued with these Tender Documents are Tender Drawings, and cover most of the works to be executed under this Contract.

These Tender Drawings could be modified if found necessary by the Engineer's Representative prior or during the execution of the works.

The Employer will not consider any claim of damages whatsoever for modification or alteration of drawings, increase or decrease of the quantity stated in the Bill of Quantities, handing over of the site in sections in accordance with the approved program of works, supplying instruction drawings during the progress of the work.

The Bill of Quantities have been prepared as estimated quantities according to the reference clauses of the Specifications.

Final quantities of works done shall be checked by the Engineer's Representative or any other person authorized by the Engineer to check the work and prepare the payment certificates to the Contractor.

2. 24. Priority of Documents

The documents forming this Contract are mutually explanatory, in case of any discrepancy or inconformity between the documents, the interpretation of this discrepancy will be given according to the list of priority hereunder.

- Form of Agreement and its Appendix
- Form of Tender and its Appendix
- Addenda, if any
- Instructions to Tenderers
- General and Particular Conditions of Contract
- Bills of Quantities
- Particular Specifications
- General Specifications
- Drawings

2.25. List of Drawings

<u>Drawing No.</u>	<u>Title</u>
1.	General Plan
2.	Geological Profile Along the Dam Axis
3.	Longitudinal Profile of the Dam Axis
4.	Typical Section
5.	Cross Section (1)
6.	Cross Section (2)
7.	Cross Section (3)
8.	Cross Section (4)
9.	Spillway
10.	Cross Section of Spillway
11.	Conduit Works (Plan & Profile)
12.	Inlet Works of Conduit
13.	Reinforcement of Inlet Works
14.	Outlet Works of Conduit
15.	Reinforcement of Outlet Works
16.	Detail of Conduit

3. FORM OF TENDER GUARANTEE

To: H. E. The Minister of Agriculture and Fisheries,
Dubai

Sir,

We have the honour to inform you that we guarantee in your favour
Messrs:
of
for the amount of
.....
in order to allow them to submit a Tender for the construction completion maintenance and delivering of the Al Bassierah Dam Project. This guarantee shall remain valid for a period of one hundred and twenty (120) days starting at 12 noon one the date indicated in Clause 5 of the Instructions to Tenderers.

In the event of Messrs. failing to
..... execute a Contract when called upon before the expiration of the
period of validity of this letter of guarantee, we undertake to deposit
with you upon demand and notwithstanding any objections on the
part of the said Messrs.
.....
the aforesaid sum of

Name of Signatory

Designation

Full name of firm

4. FORM OF PERFORMANCE BOND

To: H. E. The Minister of Agriculture and Fisheries
Dubai

Sir,

As Messrs
have declared that their Tender for the construction of the Al Bassierah
Dam Project has been accepted, we hereby undertake to hold at
your disposal the sum of
.....
as Performance Bond. This Bond shall be free of interest any pay-
able in cash on your first demand in the manner ordered, without
the Contractor or any person on his behalf or ourselves having
the right to suspend or delay payment or to object thereto for any
reason whatsoever.

This undertaking shall remain in force for the period and
subject to the conditions stipulated in the Conditions of Contract.

Name of Signatory

Designation

Full name of firm

5. PLANT EQUIPMENT AND STAFF QUESTIONNAIRE

NOTE: The signatory of this Questionnaire guarantees the truth and accuracy of the statements made and if awarded the Contract guarantees to supply plant equipment and staff as stated below.

5. 1. In what manner have you inspected this project?

5.2. Are you satisfied as to availability of labour, water and locally obtained materials?

- 5.3. What arrangements do you propose to make in respect of the repair and maintenance of the mechanical plant detailed in the forms hereafter?

5. 4. State the proposed location of your main site office, plant yard, etc.

- 5.5. If you intend to sub-let part or parts of the Works, state, if known, the name/s and address/es of Sub-Contractor/s stating qualification and experience.

5.6. Information about the Tenderer

Name of Contractor

Home Address of Contractor: Phone

Cable Address: Telex Address

Established where and when:

Registered Capital:

Contractor's Bank(s)

Address in United Arab Emirates: Phone

Name of Authorized Representative:

Private Address of Representative:

Registration No. in United Arab Emirates:

Registered Capital:

Contractor's Bank in United Arab Emirates:

The undersigned hereby declares that the above mentioned information forms part of the Tender and that any mistake or omission would be sufficient reason for the said Tender to be disqualified.

Date: Signature:

5. 7A. Details of Contractor's Technical Staff for the Execution of this Contract

- 1) Full Name of Agent:
- 2) Nationality:
- 3) Education:

Institutions Attended	Location	Period of Attendance		Degrees Received
		From	To	

4) Practical Experience:

Name of Project	Location	Size of Project (Est. Cost Dh.)	Name of Employer	Position Held

5) Years of Experience:

- a) Earth or Rockfill Dam Construction:
- b) Other Construction:

6) The position in which the Contractor intends to employ him:

Date: Contractor's Signature:

5. 7B. Details of Contractor's Technical Staff for the Execution of this Contract

Full Name	Institutions Attended	Period of Attendance		Degrees Received
		From	To	
a-				
b-				
c-				
d-				
e-				
f-				

1) Practical Experience:

Name of Project	Location	Size of Project (Est. Cost Dh.)	Name of Employer	Position Held	Proposed Position
a-					
b-					
c-					
d-					
e-					
f-					

Date: Contractor's Signature:

5.8. List of Equipment the Contractor Will Use on the Site

Description	Manufacturer's Name and Model	Year of Manufacture	Quantity	Size, Capacity in Horse Power	Owned		Present Location
					Yes/No	No.	

We, the undersigned hereby declare that the above detailed information forms an intergral part of the Tender.

Contractor's Signature:

5.8. List of Equipment the Contractor Will Use on the Site (Cont'd)

Description	Manufacturer's Name and Model	Year of Manufacture	Quantity	Size, Capacity in Horse Power	Owned		Present Location
					Yes	No	

We, the undersigned hereby declare that the above detailed information forms an integral part of the Tender.

Contractor's Signature:

5.8. List of Equipment the Contractor Will Use on the Site (Cont'd)

Description	Manufacturer's Name and Model	Year of Manufacture	Quantity	Size, Capacity in Horse Power	Owned Tes/No	Present Location

We, the undersigned hereby declare that the above detailed information forms an integral part of the Tender.

Contractor's Signature:

5. 9. References of Similar Works Executed by the Contractor

Serial No.	Name of Project	Place	Value of Project	Clients Name	Description of Work

Summary of Experience:

Years of Experience in Construction of:

1. Earth or Rock fill Dam Construction
2. Other Works

The undersigned hereby declares that the above mentioned information forms part of the Tender and that any mistake or omission would be sufficient reason for the said Tender to be disqualified.

Date:

Contractor's Signature:

5.10. Estimated Progress Chart (Work Programme)

STARTING DATE: IN ACCORDANCE WITH THE CONDITIONS OF CONTRACT,
to be filled by the Tenderer.

ITEM	ESTIMATED WORK PROGRAMME											
	0	2	4	6	8	10	12	14	16	18	20	
Mobilization												
Temporary Works												
Foundation Works												
Dam body Works												
Spillway Works												
Miscellaneous												

(Month)

Date Prepared:

Signature of Tenderer:

6. BILL OF QUANTITIES

6. 1. General Notes

The Preliminaries are applicable to the whole of the Works. The Tenderer shall not enter any lump sum covering more than one of all items.

6. 2. Descriptions Generally

The description included in the Bill of Quantities to describe the workmanship and materials necessary for each item are not necessarily complete. The Tenderer is referred to the General and Particular Specifications, Conditions of Contract and other Documents and the Drawings for further information concerning the Works and no claim or variation will be considered on account of his failure to acquaint himself with such information.

6. 3. Description of Quantities

The quantities given in the Bill of Quantities are the estimated quantities of the work only. The work actually executed in accordance with the instructions of the Employer will be measured and paid for in the manner described in Clauses 55, 56 and 57 of the Conditions of Contract.

6. 4. Pricing Generally

- A. The Contractor shall satisfy himself as to the meaning of every item in these Bill of Quantities and the rates and prices inserted by him will be deemed to cover all his obligations under the Contract and all matters and things necessary for the proper construction completion and maintenance of the Works including, but not by way of limitation, for all temporary work required (including any that may be required by sub-contractors, whether nominated or other wise). No claim for additional payment will be allowed for any error or misunderstanding by the Contractor in these respects.
- B. The total Contract Price inserted by Tenderers in the form of Tender will be considered an Estimated Contract Price only. Any arithmetical errors made by the accepted Contractor in extensions or totals in the Bills of Quantities shall be corrected and the revised total will become the Estimated Contract price for the purposes of the Contract.

- C. Upon request of the Employer, the Contractor is to produce a detailed analysis of all or any of his rates within one week of being so requested. Should the Contractor fail to submit such analysis, the Engineer has the right to prepare the required analysis and the Contractor has no right whatsoever to object.

6.5. Unit Price

The unit price of works applies for executed and completed works. Prices are inclusive for all materials, equipment expenses and all other necessary items required for the complete execution of the works without any exception or reservation and according to the Contract, the Conditions of Contract, Specifications and standards and the Engineer's instructions, regardless whether these requirements are stated in the contract documents or not.

In particular, whether these requirements are stated in the specifications or not, the prices include the following:

- Expenses for preparation and submission of the tender. Also, expenses for bank guarantee, insurance, bonds, taxes, custom duties, municipality and financial taxes and others.
- Expenses for transportation, construction of site work, roads leading to site, road deviations and their maintenance and guarding of site.
- Expenses for employment, housing, local and foreign labour necessary for the execution of the works, indemnities and bonuses.
- Expenses for providing plant, equipment and instruments to site and transportation, working, maintenance and repair of such.
- Price of constructional and consumed material, rent of stores, transportation and commission expenses of any type.
- Expenses for the provision of electricity and water to the site regardless of the distance. Also, expenses for the consumption of electricity and water during the works and maintenance periods.
- Rental expenses of all types.
- Expenses for the provision of laboratory equipment according to the Particular Specifications and the expenses related to laboratory tests and experiments of all types.

- Expenses for survey works and instruments, checking of drawings and computations.
- Expenses for the possession of special passes to cross land, use of public or private land, compensations resulting from any damage to property or products of others due to the presence of the Contractor's labourers and equipment on such, protection and fencing of private or public property, repair of any damage caused by the Contractor's equipment to the utility lines (Water, electricity, telephone and sewers) etc.
- Expenses for scaffolding, shoring, pumping, wooden or metallic forms. Also, expenses resulting from temporary works necessary for the works, their maintenance, removal after completion of the works, and repair.
- Expenses for security and that resulting from the obstruction of traffic, erection or temporary traffic signs to maintain the proper traffic flow.
- Wages of engineers, personnel, local and foreign expertises required for the execution of the works.
- General foreseen and unforeseen expenses of the Contractor including losses and profits.
- Arbitration expenses in case of any disputes between the Employer and the Contractor.
- Expenses for the protection of ruins appearing within the site of works until handed over to the local authorities.
- Any other expenses required for the execution, completion and maintenance of the works until the final date of handing over the works, without any exceptions or reservations and the Contractor shall have no right to claim any compensation or extra price for any necessary work for the execution, completion, and maintenance of the works, and this work shall be included in the unit price.

6.6. Daywork Schedule

The Contractor will be paid for Daywork carried out during the course of the Contract at the rates bid by him in the following Schedule.

The individual rates shall include overheads and profit.

The individual rates shall include for transport to and from the Site.

The amounts paid for daywork will be for the net time that labour and plant are employed on the Site upon the work that is the subject of the Daywork item.

The quantities entered against the Daywork are estimated quantities and are intended for comparison purposes only. The Contractor has no right to claim for all or any of the quantities against any individual items or to be compensated for failure to use more or less quantities than those estimated.

The Contractor shall supply all Labour, Materials and Plant in accordance with the following lists when so instructed, and in the event of his failure to do so, the Engineer may obtain such items to be produced from any source at the Contractor's expense.

The Contractor shall price all items in the following list in such a way that they conform with the Schedule of Rates by which he has priced the items included in the Bill of Quantities.

In the event of failure to price any of the Daywork in this manner or failure to enter a rate against any items the Engineer shall fix such rates in accordance with Clause 52(2) of the Conditions of Contract.

Rates for labour shall include for:

- a) Overtime, bonus and incentive payments
- b) Hand tools, stagings and all other non-mechanical plant
- c) Electric light and water for the works
- d) Supervision staff (e. g. engineers, non-working formen, and site surveyors)

Rates for plant shall include for:

- a) Drivers, attendants and operators
- b) Maintenance, cleaning materials and consumable spares
- c) Starting up and shutting down
- d) Fuel, power, lubricants greases, oils and the like
- e) Tools including sharpening

Rates for materials shall include for all handling charges.

Bill of Quantities

<u>Item No.</u>	<u>Description</u>	<u>Unit</u>	<u>Quantities</u>	<u>Rate</u> Dh	<u>Amount</u> Dh
<u>PAR I. GENERAL</u>					
1.01	As-built Drawings	L. S.	(G. S. 1. 4)		
1.02	Setting Out	L. S.	(G. S. 1. 9)		
1.03	Signpost and Notice Board	L. S.	(G. S. 1. 16)		
1.04	Engineer's Office	L. S.	(G. S. 1. 17)		
1.05	Engineer's Residences	L. S.	(G. S. 1. 18)		
1.06	Engineer's Transportation	L. S.	(G. S. 1. 19)		
1.07	Progress Report and Photographs	Month	(G. S. 1. 20)		

Sub-Total

Bill of Quantities

<u>Item No.</u>	<u>Description</u>	<u>Unit</u>	<u>Quantities</u>	<u>Rate</u> Dh	<u>Amount</u> Dh
<u>PART II. SITE INSTALLATION</u>					
2.01	Construction & Running of Necessary Facilities	L. S.	(G. S. 2. 3)		
2.02	Custody and Protection	L. S.	(G. S. 2. 4)		
2.03	Illumination	L. S.	(G. S. 2. 5)		
2.04	Telecommunication	L. S.	(G. S. 2. 6)		
2.05	Access	L. S.	(G. S. 2. 7)		
2.06	Storing Area	L. S.	(G. S. 2. 8)		
2.07	Power Supply	L. S.	(G. S. 2. 9)		
2.08	Water Supply	L. S.	(G. S. 2. 10)		
2.09	Accident and Fire Prevention	L. S.	(G. S. 2. 11)		
2.10	Safety Precautions	L. S.	(G. S. 2. 12)		
2.11	Sanitation and Medical Care	L. S.	(G. S. 2. 13)		
2.12	Facilities for Site Operation	L. S.	(G. S. 2. 14)		
2.13	Cleaning-up, Restoration	L. S.	(G. S. 2. 15)		
2.14	Waste Disposal & Sewage Treatment	L. S.	(G. S. 2. 16)		
2.15	Construction Procession Plants	L. S.	(G. S. 2. 17)		
2.16	Field Laboratory	L. S.	(G. S. 2. 18)		
	Sub-Total				

<u>Item No.</u>	<u>Description</u>	<u>Unit</u>	<u>Quantities</u>	<u>Rate</u> Dh	<u>Amount</u> Dh
3.01	Stripping	(G. S. 3. 4) cu. m	110,000		
3.02	Common Excavation	(G. S. 4. 4) cu. m	56,000		
3.03	Rock Excavation of Dam Abutment	(G. S. 6. 4) cu. m	400		
3.04	Embankment of Sand & Gravel	(G. S. 10. 4) cu. m	370,000		
3.05	Embankment by Filter	(G. S. 26. 3) cu. m	59,000		
3.06	Embankment of Rock	(G. S. 11. 4) cu. m	210,000		
3.07	Plain Concrete	(G. S. 13. 18) cu. m	300		
3.08	Formworks	(G. S. 14. 8) sq. m	1,400		
3.09	Paving of Dam Crest by Gravel	(G. S. 23. 2) cu. m	800		
3.10	Riprap	(G. S. 28. 2) cu. m	41,000		

Sub-Total

Bill of Quantities

<u>Item No.</u>	<u>Description</u>	<u>Unit</u>	<u>Quantities</u>	<u>Rate</u> Dh	<u>Amount</u> Dh
<u><u>PART IV. SPILLWAY</u></u>					
4.01	Common Excavation	(G. S. 4. 4) cu. m	10,000		
4.02	Rock Excavation	(G. S. 7. 5) cu. m	73,000		
4.03	Reinforced Concrete	(G. S. 13. 18) cu. m	2,000		
4.04	Reinforcing Bar	(G. S. 15. 5) kg	13,000		
4.05	Formworks	(G. S. 14. 8) sq. m	300		
4.06	Curved Formworks	(G. S. 21. 2) cu. m	700		
4.07	Gabion	(G. S. 21. 2) cu. m	5,500		

Sub-Total

Bill of Quantities

<u>Item No.</u>	<u>Description</u>	<u>Unit</u>	<u>Quantities</u>	<u>Rate</u> Dh	<u>Amount</u> Dh
<u>PART V. CONDUIT</u>					
5.01	Conduit Excavation	cu.m	4,500	(G.S. 5. 4)	
5.02	Backfill	cu.m	600	(G.S. 9. 4)	
5.03	Level Concrete	cu.m	50	(G.S. 13. 18)	
5.04	Reinforced Concrete	cu.m	650	(G.S. 13. 18)	
5.05	Reinforcing Bar	kg	25,000	(G.S. 15. 5)	
5.06	Formworks	sq.m	500	(G.S. 14. 8)	
5.07	Dowel Bar	No.	600	(G.S. 16. 2)	
5.08	Water Stop (B = 400 mm)	m	140	(G.S. 17. 2)	
5.09	Elastic Filler	sq.m	100	(G.S. 18. 2)	
5.10	R.C. Pipe	m	130	(G.S. 19. 2)	
5.11	Masonry	cu.m	800	(G.S. 20. 2)	
5.12	Gabion	cu.m	2,600	(G.S. 21. 1)	
5.13	Wire Stabler of Pipe	No.	130	(G.S. 22. 2)	

Sub-Total

Bill of Quantities

<u>Item No.</u>	<u>Description</u>	<u>Unit</u>	<u>Quantities</u>	<u>Rate</u>	<u>Amount</u>
				Dh	Dh
<u>PART VI. MISCELLANEOUS WORKS</u>					
6.01	Service Road (w = 7.0 m Asphalt paying)	m	2,000	(G. S. 24. 9)	
6.02	Replacement of Power Distribution Line	m	2,000	(G. S. 25. 4)	
	Sub-Total				

<u>Item No.</u>	<u>Description</u>	<u>Unit</u>	<u>Quantities</u>	<u>Rate</u>	<u>Amount</u>
				Dh	Dh
<u>PART VII. DAYWORKS SCHEDULE</u>					
<u>Labour</u>					
7.01	Labourer	day	700		
7.02	Mason	day	70		
7.03	Concretor	day	70		
7.04	Bar Bender	day	70		
7.05	Carpenter	day	70		
7.06	Mechanic	day	70		
7.07	Foreman (in charge of labourer)	day	70		
<u>Materials</u>					
7.09	Explosive including detonater	kg	30		
7.10	Coarse aggregate	cu.m	30		
7.11	Fine aggregate	cu.m	20		
7.12	Sand	cu.m	30		
7.13	Portland Cement	ton	10		
7.14	Reinforcing Bar	ton	10		

<u>Item No.</u>	<u>Description</u>	<u>Unit</u>	<u>Quantities</u>	<u>Rate</u>	<u>Amount</u>
				Dh	Dh
7.15	Softwood (all size)	cu. m	10		
7.16	Bitumen 60/70 Penetration Grade	ton	20		
7.17	Wire (all size)	kg	30		
7.18	Gasolin	liter	300		
7.19	Diesel oil	liter	150		
7.20	Heavy oil	liter	150		
	<u>Plant</u>				
7.21	Bulldozer from 80 to 100 HP	Hour	30		
7.22	Bulldozer from 100 to 200 HP	Hour	30		
7.23	Bulldozer over 200 HP	Hour	30		
7.24	Scraper from 10 to 12 cu. m struck	Hour	30		
7.25	Scraper over 12 cu. m struck	Hour	30		
7.26	Tractor, from 100 to 200 HP	Hour	60		
7.27	Backhoe Shovel, from 1.0 to 1.5 cu. m capacity	Hour	30		
7.28	Wheel Type Loader, from 1.5 to 2.5 cu. m capacity	Hour	30		
7.29	Dump Truck, from 10 - 12 ton capacity	Hour	40		
7.30	Dump Truck, over 12 ton capacity	Hour	30		

<u>Item No.</u>	<u>Description</u>	<u>Unit</u>	<u>Quantities</u>	<u>Rate</u>	<u>Amount</u>
				Dh	Dh
7.31	Vibrating Roller, from 8 to 10 ton	Hour	30		
7.32	Truck Crane, from 10 to 15 ton	Hour	30		
7.33	Crawler Drill, any size	Hour	30		
7.34	Air Compressor, 90 PS or below	Hour	30		
7.35	Air Compressor, over 90 PS	Hour	30		
7.36	Rock Drill, 30 kg class	Hour	20		
7.37	Leg Drill, 15 kg class	Hour	30		
7.38	Leg Drill, 30 kg class	Hour	30		
7.39	Pick Hammer, any size	Hour	30		
7.40	Concrete Mixer, 0.5 cu.m class	Hour	40		
7.41	Concrete Mixer, 0.2 cu.m class	Hour	40		
7.42	Concrete Vibrator, 4 PS class	Hour	70		
7.43	Pump, 10 PS class	Hour	70		
7.44	Generator, over 100 KVA	Hour	20		
7.45	Generator, 100 KVA or below	Hour	20		
7.46	Water lorry, 6,000 liter	Hour	20		
7.47	Agitator Car, 3.0 cu.m class	Hour	20		
7.48	Mixer Truck, 3.0 cu.m class	Hour	20		
7.49	Vibrating Compactor, 4 PS class	Hour	20		
7.50	Motorgrader, from 80 to 100 HP	Hour	20		

Sub-Total

SUMMARY OF BILL OF QUANTITIES

AMOUNT Dh

DESCRIPTION

- PART I GENERAL
- PART II SITE INSTALLATION
- PART III MAIN DAM
- PART IV SPILLWAY
- PART V CONDUIT
- PART VI MISCELLANEOUS WORKS
- PART VII DAYWORKS SCHEDULE

TOTAL (CARRYING OUT TO FORM OF TENDER)

7. FORM OF TENDER

Tender No. :

Project : AL BASSIERAH DAM PROJECT

TO : H. E. THE MINISTER OF AGRICULTURE AND FISHERIES

Sirs,

1. Having examined the Drawings, Conditions of Contract, Specifications and Bills of Quantities for the Construction of the above named Project, We, The undersigned, offer to construct, complete and maintain the whole of the said Project in conformity with the said Drawings, Conditions of Contract, Specification and Bills of Quantities for the sum of (Dh) or such other sum as may be ascertained in accordance with the said Conditions.
2. We undertake, if our Tender is accepted, to commence the Works within fifteen (15) days of receipt of the Engineer's order to commence and to complete and deliver the whole of the Works comprised in the Contract within months calculated from the last day of the aforesaid period in which the Works are to be commenced.
3. If our Tender is accepted we will submit the Performance Bond at the amount of (Dhs) (Say) which is equal to 10% of the Contract Value.
4. We agree to abide by this Tender for the period of one hundred and twenty (120) days from the date fixed for receiving the same and it shall remain binding upon us and may be accepted at any time before the expiration of that period.
5. We understand that you are not bound to accept the lowest or any tender you may receive.
6. We hereby agree that the following form part of the Tender:

- Amount of Initial Guarantee	5% of the Tender Price
- Amount of Performance Bond	10% of the Contract Price
- Insurance of the Works	The whole Works

7. FORM OF TENDER (CONT'D)

- Minimum amount of third party insurance 2, 000, 000 Dh
- Mobilization period from Engineer's order to commence
- Time for completion
- Amount of liquidated damages As per Clause 47 of the Conditions of Contract
- Period of maintenance 365 days
- Amount of Maintenance As stated in parag. 6 of the Form of Agreement
- Amount of retention money 10% of each payment
- Method of payment By monthly interim payments
- Time within which payment to be made after certificate 45 (Forty-five) days
- Percentage payment for material on site 75%
- Tenderer's name:
- Tenderer's address:
- Name of the person authorized to sign Tenders:
- Position of the person authorized to sign Tenders:
- Signature of the person authorized to sign Tenders:
- Date:
- Seal:

8. FORM OF AGREEMENT

DEPARTMENT OF TENDERS AND CONTRACTS

Contract No.:

Tender No.:

Project Name: AL BASSIERAH DAM PROJECT

Form of Agreement

This Agreement, made the day of
..... 19....., between:

First : THE MINISTRY OF AGRICULTURE AND FISHERIES, DUBAI
UNITED, ARAB EMIRATES, represented by H. E. SAEED
MOHAMMED AL RAGABANI Minister of Agriculture and
Fisheries, hereinafter called THE FIRST PARTY.

Second : MESSRS.
ADDRESS

Represented by:
who is duly authorized to sign this Agreement, hereinafter
called THE SECOND PARTY.

Now this Agreement witnesses as follows:

1. The SECOND PARTY will construct, complete and maintain the above mentioned project in accordance with the specifications, drawings, conditions of contract and all other documents which form part of this Agreement, and of which the Second Party states that he has read and studied them and will perform the Works accordingly.
2. The estimated value is U.A.E. Dirhams, (say U.A.E. Dirhams), to be paid by the First party to the Second Party in monthly payments according to the certificate of payment prepared on basis of the executed works every month.
3. The commencement of the Works is within days of receipt of the Engineer's order to commence the Works.

8. FORM OF AGREEMENT (CONT'D)

4. The time for completion is within months, calculated from the last day of aforesaid period in which the Works are to be commenced.
5. The amount of liquidated damages will be as per Clause 47 of the Conditions of Contract.
6. The First Party will retain from the monthly payments due to the Second Party, an amount of 10% of the whole of these monthly payments as a guarantee for the proper performance of the works and shall keep the total amount of these retentions for a period of one year starting the day after the initial handing over of the works, which period is the normal period of maintenance.
7. If in the works, completed by the Second Party, any defects show during the period of maintenance, they must be repaired by the Second Party at his own expense, and he must start these works within a period of one week after the date given in the written notice of these defects which will be send to him by the First Party.

Should the Second Party fail to start the repair of these defects within the above stated period, then the First Party has the right to repair these defects and charge all expenses and deduct the amount of these expenses from the retention money.
8. Despite the issue of the final completion certificate and the maintenance certificate and despite the release of the retention and the settlement of all accounts involved in this Contract, the Second Party remains responsible for a period of 10 years for the safety of all structures included in the contract, against any partial or total failure arising from any defects in the execution of the Works.
9. This Agreement will be signed in eight copies in Arabic and English languages, the Arabic version of this Agreement will be stated as ruling for the execution and interpretation of all the clauses of the Contract.

In witness hereof the parties hereto have hereunder set their respective hands and seals on the day and year first above written.

The Second Party will receive one copy of the Arabic and English version of this Agreement to work accordingly and the First Party will keep the remaining copies.

FIRST PARTY

H. E. THE MINISTER OF
AGRICULTURE AND FISHERIES

SECOND PARTY

THE REPRESENTATIVE
OF THE CONTRACTOR

MESSRS:

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