

SINDH PUBLIC PROCUREMENT REGULATORY AUTHORITY

CONTRACT EVALUATION FORM

TO BE FILLED IN BY ALL PROCURING AGENCIES FOR PUBLIC CONTRACTS OF WORKS, SERVICES & GOODS

- 1) NAME OF THE ORGANIZATION / DEPTT. Work and Services Department.
- 2) PROVINCIAL / LOCAL GOVT./ OTHER Provincial.
- 3) TITLE OF CONTRACT KARACHI FISHERIES HARBOUR AUTHORITY GOS
- 4) TENDER NUMBER KFHA/DE/3020/2018 Dated: 05-01-2018.
- 5) BRIEF DESCRIPTION OF CONTRACT Rehab: & Reno: of Fish Harb: Ext: Serv: (Part-A) Civil Works.
- 6) FORUM THAT APPROVED THE SCHEME Competant Authority (PDWP)
- 7) TENDER ESTIMATED VALUE C-2 or Above
- 8) ENGINEER'S ESTIMATE (For civil works only) 610,493,442/-
- 9) ESTIMATED COMPLETION PERIOD (AS PER CONTRACT) 15 Calendar Months
- 10) TENDER OPENED ON (DATE & TIME) 01-02-2018.
- 11) NUMBER OF TENDER DOCUMENTS SOLD (12)
(Attach list of buyers)
- 12) NUMBER OF BIDS RECEIVED (04)
- 13) NUMBER OF BIDDERS PRESENT AT THE TIME OF OPENING OF BIDS (04)
- 14) BID EVALUATION REPORT (Enclose a copy) Attached.
- 15) NAME AND ADDRESS OF THE SUCCESSFUL BIDDER M/s Haji Syed Ameer & Brothers
- 16) CONTRACT AWARD PRICE Rs. 563,916,350/-
- 17) RANKING OF SUCCESSFUL BIDDER IN EVALUATION REPORT (i.e. 1st, 2nd, 3rd EVALUATION BID).
(I)M/S. Haji Syed Ameer & Brothers
(II)M/s Maqbool & Fatima(JV) (III)M/S. Muhammad Hasni Bldr
(iv) Amcop Engineering & Construction Co.

18) METHOD OF PROCUREMENT USED : - (Tick one)

- a) SINGLE STAGE – ONE ENVELOPE PROCEDURE Domestic/ Local
- b) SINGLE STAGE – TWO ENVELOPE PROCEDURE X
- c) TWO STAGE BIDDING PROCEDURE X
- d) TWO STAGE – TWO ENVELOPE BIDDING PROCEDURE X

PLEASE SPECIFY IF ANY OTHER METHOD OF PROCUREMENT WAS ADOPTED i.e. EMERGENCY, DIRECT CONTRACTING ETC. WITH BRIEF REASONS:

19) APPROVING AUTHORITY FOR AWARD OF CONTRACT _____ Procurement Committee

20) WHETHER THE PROCUREMENT WAS INCLUDED IN ANNUAL PROCUREMENT PLAN?

Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>
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21) ADVERTISEMENT :

i) SPPRA Website
(If yes, give date and SPPRA Identification No.)

Yes	SPPRA S.NO. 36073, SPPRA ID # 2147483647
No	

ii) News Papers
(If yes, give names of newspapers and dates)

Yes	KAWISH DT: 07-1-2018, JUNG DT: 10-01-2018.
No	

22) NATURE OF CONTRACT

Domestic/ Local	<input checked="" type="checkbox"/>	Int.	<input type="checkbox"/>
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23) WHETHER QUALIFICATION CRITERIA WAS INCLUDED IN BIDDING / TENDER DOCUMENTS?
(If yes, enclose a copy)

Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>
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24) WHETHER BID EVALUATION CRITERIA WAS INCLUDED IN BIDDING / TENDER DOCUMENTS?
(If yes, enclose a copy)

Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>
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25) WHETHER APPROVAL OF COMPETENT AUTHORITY WAS OBTAINED FOR USING A METHOD OTHER THAN OPEN COMPETITIVE BIDDING?

Yes	<input type="checkbox"/>	No	<input checked="" type="checkbox"/>
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26) WAS BID SECURITY OBTAINED FROM ALL THE BIDDERS?

Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>
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27) WHETHER THE SUCCESSFUL BID WAS LOWEST EVALUATED BID / BEST EVALUATED BID (in case of Consultancies)

Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>
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28) WHETHER THE SUCCESSFUL BIDDER WAS TECHNICALLY COMPLIANT?

Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>
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29) WHETHER NAMES OF THE BIDDERS AND THEIR QUOTED PRICES WERE READ OUT AT THE TIME OF OPENING OF BIDS?

Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>
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30) WHETHER EVALUATION REPORT GIVEN TO BIDDERS BEFORE THE AWARD OF CONTRACT?
(Attach copy of the bid evaluation report)

Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>
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31) ANY COMPLAINTS RECEIVED
(If yes, result thereof)

Yes	
No	✓

32) ANY DEVIATION FROM SPECIFICATIONS GIVEN IN THE TENDER NOTICE / DOCUMENTS
(If yes, give details)

Yes	
No	✓

33) WAS THE EXTENSION MADE IN RESPONSE TIME?
(If yes, give reasons)

Yes	
No	✓

34) DEVIATION FROM QUALIFICATION CRITERIA
(If yes, give detailed reasons.)

Yes	
No	✓

35) WAS IT ASSURED BY THE PROCURING AGENCY THAT THE SELECTED FIRM IS NOT
BLACK LISTED?

Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>
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36) WAS A VISIT MADE BY ANY OFFICER/OFFICIAL OF THE PROCURING AGENCY TO THE
SUPPLIER'S PREMISES IN CONNECTION WITH THE PROCUREMENT? IF SO, DETAILS TO
BE ASCERTAINED REGARDING FINANCING OF VISIT, IF ABROAD:
(If yes, enclose a copy)

Yes	<input type="checkbox"/>	No	<input checked="" type="checkbox"/>
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37) WERE PROPER SAFEGUARDS PROVIDED ON MOBILIZATION ADVANCE PAYMENT IN
THE CONTRACT (BANK GUARANTEE ETC.)?

Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>
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38) SPECIAL CONDITIONS, IF ANY
(If yes, give Brief Description)

Yes	
No	✓

Signature & Official Stamp of
Authorized Officer


EXECUTIVE ENGINEER
Provincial Buildings Division No.II,
Karachi

FOR OFFICE USE ONLY

SPPRA, Block. No.8, Sindh Secretariat No.4-A, Court Road, Karachi

Tele: 021-9205356; 021-9205369 & Fax: 021-9206291

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Reset



KARACHI FISHERIES HARBOUR AUTHORITY

Government of Sindh

170

Ref: KFHA/ 181 /2018

Dated: 20-06-2018

M/s. Haji Syed Ameer Brothers
Office B-2, Block Q, North Nazimabad
Karachi.

**Subject: Rehabilitation & Renovation of Karachi Fish Harbour – External Services
(Part-I) Package “A” Civil Works
-Letter of Acceptance(Work Order)**

Reference is made to your Bid dated 01-02-2018 for the above mentioned works, Identification No. KFHA/ADP/ENG/04/2018.

2. Karachi Fisheries Harbour Authority is pleased to accept your Bid Amount equivalent of Rs.563,916,350/- (Rupees Five Hundred Sixty Three Million Nine Hundred Sixteen Thousand Three Hundred Fifty only) as corrected and modified in accordance with the Instructions to Bidders, for the execution of subject work; subject to the Conditions of Contract, Technical Specifications, Bidding Drawings.& the following conditions:

- a) The work shall be performed strictly in accordance with the conditions set out in the Bidding and Contract Document.
- b) Time is of essence of the project and with issuance of Engineer's / Employer's notice to commence; you will be required to complete the Work within 457 (Four Hundred Fifty Seven Calendar Days) as required under Sub-Clause 8.2 of Conditions of Contract and Special Stipulations as per the Contract Document.
- c) You will be liable to pay liquidated damages as per Sub-Clause 8.7 of Conditions of Contract and as per Contract document to the Employer in case of any delay in the completion of the Project beyond the stipulated period under (b) above.
- d) The B.O.Q unit rates included in the Contract will not be subject to change for any reason whatsoever, except as provided in the Bidding Documents as per Sub-Clause 13.8 of the Conditions of the Contract and will be considered the Bidding rates for all contractual purposes.
- e) All conditions/stipulations requests if attached with your Bid whether made a part of your Bid or otherwise are to be treated as null and void. The Bidding conditions contained in Volume I, II and III of the Bidding Documents along with minutes of pre bid meeting shall be applicable and considered as part of the Contract Agreement.

3. You are required to furnish Guarantees and Insurance policies as per the contract. (171)

4. You are required to depute your authorized representative(s) with proper Power of Attorney for the purpose of accepting and executing the Contract Agreement with the Karachi Fisheries Harbour Authority on form set out in the Bidding Documents on non-judicial stamp paper of appropriate value.

5. You are required to furnish the Performance Security within 28 days after receipt of Letter of Acceptance as per Instructions to Bidders, IB.32 and Sub-Clause 4.2 of Conditions of Contract as per Contract Document.

6. After furnishing of acceptable Performance Security under the Conditions of Contract, the Employer will send within 14 days the Contract Agreement incorporating all agreements between the parties as per Instructions to Bidders, IB.33.

7. The formal Agreement between the Employer and the Contractor shall be executed within 14 days after receipt of the Contract Agreement by the Contractor from the Employer as per Instructions to Bidders, IB.33.

8. You will commence the work within 14 days from the date of receipt of the Engineer's Notice to commence.

9. M/s National Engineering Services Pakistan (Pvt.) Ltd. (NESPAK) appointed for the purpose shall act as "Engineer" under the Conditions of the Contract.


10. Till such time a formal Contract Agreement is executed, this Letter of Acceptance along with your offer as detailed above shall constitute a binding agreement between us.

11. Please sign, date, affix your Company's seal and return one copy of the Letter of Acceptance in token of your acceptance of this Letter of Acceptance.



ACCEPTED




(Baqaulah Unnar)
Managing Director

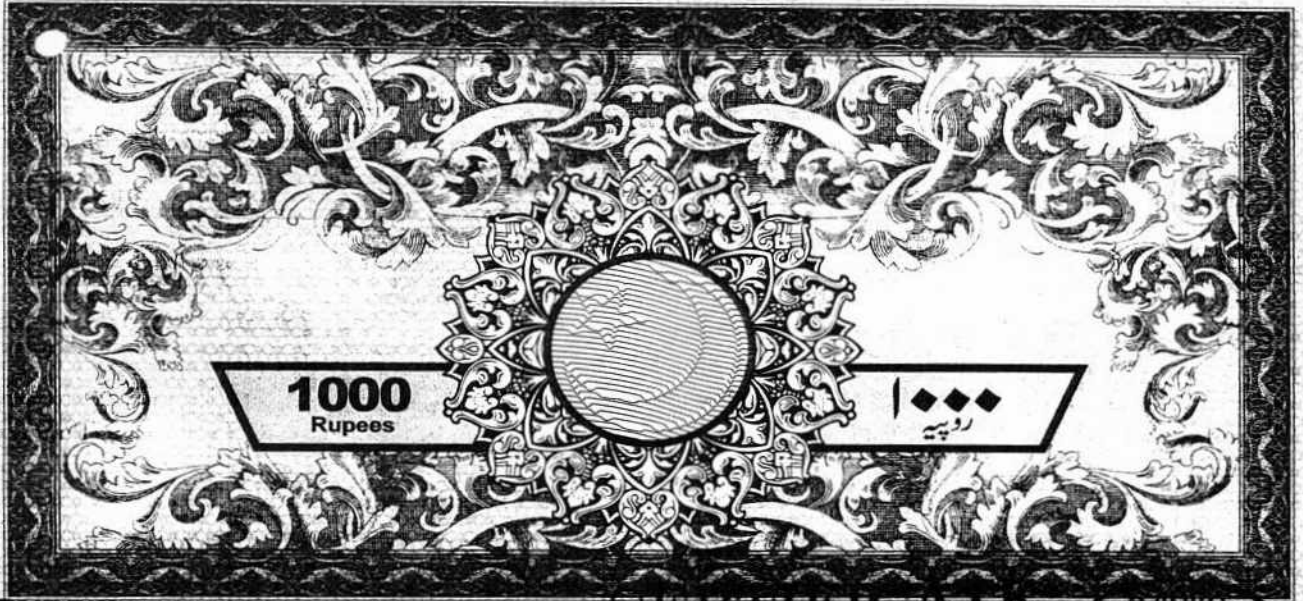
Date: 20-06-2018

(Signature of Authorized Representatives and Seal)

M/s Haji Syed Ameer & Brothers
B-2, Block -Q, North Nazimabad, Karachi.

Copy to:

1. P.S. to Minister Livestock & Fisheries Department, Govt. of Sindh, Karachi.
2. P.S. to Secretary Livestock & Fisheries Department, Govt. of Sindh, Karachi.
3. Engr. Ali Nawaz Shaikh, Project Manager, NESPAK.

**MUHAMMAD FAISAL KHAN STAMP VENDOR**Licence No. 124, Shop No. S-7, Maymar Tower
Gulshan-e-Maymar Karachi.S. No. **003891** Date **23 JUL 2018**

Issued to With Address

Thru With Address

Value Rs. Attached

Stamps Vendor's Signature

Not For used Bank Guarantee/will/divorce vendor

not responsible Any Bank Documentation

CERTIFICATE

Certified u/s 10 of the Stamp Act 1897

that Stamp duty of Rs = 1973.71% of

has been recovered vide Challan

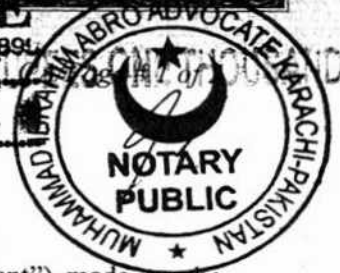
= 05 = dt 24-07-2018

No. = 05 =

Advocate

Asstt. Chief Inspector of Stamps

Board of Revenue, Sindh

**CONTRACT AGREEMENT**

THIS CONTRACT AGREEMENT (hereinafter called the "Agreement") made on the

___ day of July (month) 2018 between KARACHI FISHERIES HARBOUR AUTHORITY Located at "Fish Harbour West Wharf Road Karachi" (hereafter called the "Employer") of the one part and M/s HAJI SYED AMEER & BROTHERS Located at "B-2 Block-Q North Nazimabad Karachi" (hereafter called the "Contractor") of the other part.

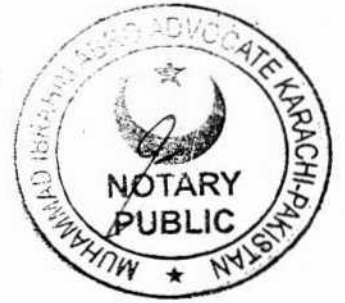
WHEREAS the Employer is desirous that certain Works, viz Rehabilitation and Renovation of Karachi Fish Harbour – External Services (Part-I) Package "A" – Civil Work should be executed by the Contractor and has accepted a Bid by the Contractor for the execution and completion of such Works and the remedying of any defects therein.

NOW this Agreement witnesseth as follows;

1. In this Agreement words and expressions shall have the same meanings as are respectively assigned to them in the Conditions of Contract hereinafter referred to.
2. The following documents after incorporating addenda, if any, except those parts relating to Instructions to Bidders shall be deemed to form and be read and construed as part of this Agreement, viz:
 - (a) The Contract Agreement;
 - (b) The Letter of Acceptance;
 - (c) The completed Form of Bid;
 - (d) Special Stipulations (Appendix-A to Bid);
 - (e) The Particular Conditions of Contract – Part II;
 - (f) The General Conditions – Part I;

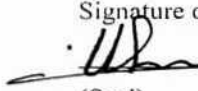

(ABDUL QADIR SHAIKH)
EXECUTIVE ENGINEER
PROVINCIAL BUILDING DIVISION-II
KARACHI



- (g) The priced Bill of Quantities (Appendix-D to Bid);
- (h) The completed Appendices to Bid (B, C, E to L);
- (i) The Drawings;
- (j) The Specifications.
- (k) Any other Documents





3. In consideration of the payments to be made by the Employer to the Contractor as hereinafter mentioned, the Contractor hereby covenants with the Employer to execute and complete the Works and remedy defects therein in conformity and in all respects with the provisions of the Contract.
4. The Employer hereby covenants to pay the Contractor, in consideration of the execution and completion of the Works as per provisions of the Contract, the Contract Price or such other sum as may become payable under the provisions of the Contract at the times and in the manner prescribed by the Contract.



IN WITNESS WHEREOF the parties hereto have caused this Agreement to be executed on the day, month and year first before written in accordance with their respective laws.



Signature of the Contactor

 (Seal) 

Signature of Employer

 (Seal) 

Signed, Sealed and Delivered in the presence of:

Witness:

 MR. Ainuddin
 E-662 Block 'R' N. Nazimabad
 M/s. SHAMROZ CONSTRUCTION COMPANY

 (Name, Title and Address)

Witness:

 MR. AYA ULLAH MUHAMMAD
 M/s. CRYSTAL PARAMOUNT CONSTRUCTION
 A-41 BLOCK 'Q' N. NAZIMABAD KH

 (Name, Title and Address)

ATTESTED

 Muhammad Ibrahim Abro
 M.A.L.L.B. Advocate High Court
 NOTARY PUBLIC
 KARACHI - PAKISTAN


23 JUL 2018

KARACHI FISHERIES HARBOUR AUTHORITY
 REHABILITATION AND RENOVATION OF KARACHI HARBOUR
 EXTERNAL SERVICES (PART-I)
 PACKAGE "A" - CIVIL WORKS

SUMMARY OF COST

CODE	DESCRIPTION	AMOUNT IN PAK. RUPEES
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01 De. Works. 14,328,400

Sub-Total 14,328,400

02 Water Supply System

2a. External Piping Network

C. Civil Works 7,059,750

P. Piping Works 6,755,000

Sub-Total 13,814,750

2b. Underground Water Tank, Pump Room

C. Civil Works 41,518,500

P. Piping Works 9,991,000

E. Electrical Works 3,946,000

Sub-Total 55,455,500

2c. Water Tower

C. Civil Works 27,134,800

P. Plumbing Works 1,505,000

E. Electrical Works 2,711,500

2,081,500/-

30,721,300

Sub-Total 31,357,300

03 Sewage System.

3a. External Sewage Network

C. Civil Works 41,613,000

P. Piping Works 10,089,000

Sub-Total 51,702,000



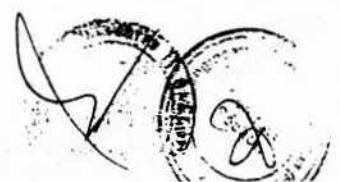
SUMMARY OF COST

CODE	DESCRIPTION	AMOUNT IN PAK.RUPEES
3b.	Sewage Lift Station 1&2	
C.	Civil Works	12,163,200
P.	Piping Works	15,280,000
E.	Electrical Works	1,820,800
Sub-Total		31,569,700
04	Fire Fighting System	
C.	Civil Works	12,135,300
P.	Piping Works	27,960,000
E.	Electrical Works	666,000
Sub-Total		41,711,300
05	Ancillary Buildings	
5a.	Guard Room 1&2	
C.	Civil Works	2,335,800
E.	Electrical Works	1,138,000
Sub-Total		3,473,800
5b.	Security Room	
C.	Civil Works	3,610,000
E.	Electrical Works	1,750,000
Sub-Total		5,360,000
5c.	Toilet Block	
C.	Civil Works	2,672,300
P.	Plumbing Works	512,800
E.	Electrical Works	585,000
Sub-Total		3,770,100



SUMMARY OF COST

CODE	DESCRIPTION	AMOUNT IN PAK. RUPEES
5d.	Public Toilet Block (3.Nos)	
C.	Civil Works	7,258,100
P.	Plumbing Works	1,024,000
E.	Electrical Works	1,345,000
Sub-Total		9,627,100
5e.	Gate Houses (Main KFH Boundary Wall Gates).	
C.	Civil Works	5,339,200
P.	Plumbing Works	1,527,500
E.	Electrical Works	2,508,000
Sub-Total		9,374,700
5f.	Boundary Wall (Water Works)	
C.	Civil Works	8,330,700
Sub-Total		8,330,700
06	External Electrical Work	
C.	Civil Works	2,750,000
E.	Electrical Works	20,938,000
Sub-Total		23,688,000
6a.	CCTV System for Harbour.	
C.	Civil Works	5,900,000
E.	Electrical Works	7,000,000
Sub-Total		12,900,000
6b.	Electrical Manhole	
C.	Civil Works	38,855,000
Sub-Total		38,855,000



SUMMARY OF COST

CODE	DESCRIPTION	AMOUNT IN PA. RUPEES
07	Main KFHA Boundary Wall C. Civil Works	41,249,000
		Sub-Total 41,249,000
08	Pre investigation for R.O.Plant	500,000
		Sub-Total 500,000
09	Roads	165,117,500
		Sub-Total 165,117,500
GRAND TOTAL OF ALL CODES		563,916,350

After correction amount in words:- FIFTY six crore thirty nine Lacs sixteen thousand three hundred fifty only.

Grand Total Amount in Words:- FIFTY SIX CRORE FORTY FIVE LAC FORTY SIX THOUSAND THREE HUNDRED & FIFTY ONLY

de
01/11/18

[Signature]
1/11/2018



KARACHI FISHERIES HARBOUR AUTHORITY
REHABILITATION AND IMPROVEMENT OF KARACHI FISH HARBOUR
EXTERNAL SERVICES (PART-I)
PACKAGE "A" - CIVIL WORKS
BILL OF QUANTITIES

CODE NO.01 DEMOLITION WORKS

Item No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)
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C. CIVIL WORKS

DEMOLITION WORKS

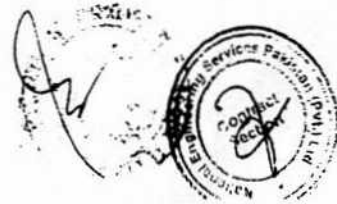
Ref. Sec.No. 0200

01-1C Demolition/ cutting of following existing structures/ buildings including disposal of demolished/ dismantled materials to designated places, complete in all respect as shown on the drawings, specifications and as directed by the Engineer.

1) Toilets	No.	2	800,000	1600,000
1) Water Works consisting:				
a) Water Tower	Job	1	800,000	800,000
b) Underground Water Tank	Job	1	800,000	800,000
c) Office	Job	2	800,000	1600,000
d) Pump Room	Job	1	800,000	800,000
2) High Mast Tower including foundations & gear control rooms.	No.	11	200,000	2200,000
3) Perimeter Boundary Wall including gates.	RM	2400	766	1,838,400

01-2C Demolition of existing asphalt pavement road including base, sub-base and disposal of dismantled material to designated places complete in all respect as shown on the drawings, specifications and as directed by the Engineer.

Sq.m	22,100	100	2210,000
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BILL OF QUANTITIES

CODE NO.01 DEMOLITION WORKS

Item No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)
01-3C	Demolition/ removal of Existing Structures, kerb stones, footpaths etc. falling within the ROW including disposal of dismantled/ removed materials to designated places as shown on the drawings or as directed by the Engineer.	Job	1	800,000	800,000
01-4C	Demolition of existing reinforced concrete pavement including base, sub-base and disposal of dismantled material to designated places complete in all respect as shown on the drawings, specifications and as directed by the Engineer.	Sq.m	14,000	1200	16,800,000
Total Amount					14,328,400
Carried over to summary of cost					



KARACHI FISHERIES HARBOUR AUTHORITY
REHABILITATION AND RENOVATION OF KARACHI FISH HARBOUR
EXTERNAL SERVICES (PART- I)
PACKAGE "A" - CIVIL WORKS
BILL OF QUANTITIES

CODE NO.02 WATER SUPPLY SYSTEM.

Item No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)
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02a. External Piping Works.

C. CIVIL WORKS

EARTHWORKS

Ref.Spec. No.1100

02a-1C	Excavation of trenches in all kinds of sub-surface material up to following depths including dewatering and disposal of surplus/rejected excavated material to designated places.				
	a) 0 - 2 meter	Cu.m.	4155	600	2,493,000
02a-2C	Fill & backfill with selected material obtained from required excavation.	Cu.m.	3695	200	739,000
02a-3C	Fine sand bedding including compaction.	Cu.m.	385	1300	500,500
<u>PLAIN AND REINFORCED CONCRETE</u>					
Ref. Sec.No. 2300, 2100					
02a-4C	Class 'E' concrete using specified cement in foundations.	Cu.m.	5	10,000	50,000
02a-5C	Class 'B' reinforced concrete using specified cement in following manholes/ chambers structures complete in all respect as shown on the drawings.				
	a) Base Slab	Cu.m.	7	15000	105000
	b) Walls	Cu.m.	32	13000	416,000
	c) Top Slab	Cu.m.	7	13000	91,000
02a-6C	Class 'C' plain concrete using specified cement including M.S. anchor bars in thrust blocks.	Cu.m.	5	13000	65,000



BILL OF QUANTITIES

CODE NO.02 WATER SUPPLY SYSTEM.

Item No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)
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REINFORCEMENT

Ref. Sec.No. 2200

02a-7C	Grade 60 deformed hot rolled steel bars conforming to ASTM A-615.	tonne	5	125,000	625,000
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CAST IRON COVERS WITH FRAME & LADDER RUNGS

Ref. Sec. 5233

02a-8C	Cast iron cover with frame of following sizes including fixing complete in all respects as shown on the drawing and specifications. (Heavy Duty)				
a)	600 mm x 600 mm	No.	22	8,000	176,000
02a-9C	20mm dia. M.s. galvanised ladder rungs including fixing and fixing accessories complete in all respect as shown on the drawings.	No	105	1,000	1,05,000

STEEL PIPE & FITTINGS

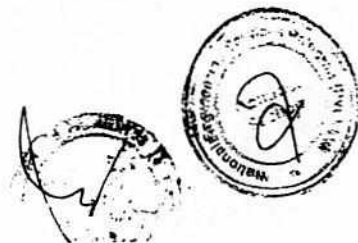
Ref. Sec. 5214

02a-10C	Steel pipe conforming to API 5L (8mm wall thickness) sleeves on road crossings.				
i)	250mm	Rm	41	10,000	410,000
ii)	150mm	Rm	41	10,000	410,000

THRUST BORING

Ref. Sec. 5820

02a-11C	Thrust Boring below road for providing dia. Following dia steel pipe conforming to API 5L (8mm wall thickness) sleeves for pipe crossings.				
i)	250mm	Rm	41	10,000	410,000
ii)	150mm	Rm	41	10,000	410,000



BILL OF QUANTITIES

CODE NO.02 WATER SUPPLY SYSTEM.

Item No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)
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WATER PROOFING AND BUILT-UP ROOFING

Ref. Sec.No.6411

02a-12C Two coats of hot bitumen grade 10/20 applied at the rate of 1 kg./Sq.m. per coat to all exposed structural concrete surfaces in contact with earth.

Sq.m.	155	350	54250
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Total Amount

Carried over to summary of cost

7,059,750



KARACHI FISHERIES HARBOUR AUTHORITY
REHABILITATION & RENOVATION OF KARACHI FISH HARBOUR
EXTERNAL SERVICES (PART - I)
PACKAGE "A" - CIVIL WORKS
BILL OF QUANTITIES

CODE NO.02 WATER SUPPLY SYSTEM.

Item No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)
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02a. External Water Supply Network

P. PIPING WORKS

POLY ETHYLENE PIPES & PIPE FITTINGS

Ref. Spec. No. 5213 & 5280

02a-1P H.D.P.E. Pipes PN-10 (SDR 17) conforming to ISO-4427:1996 and fittings conforming to ISO-3458 of following diameters as shown on drawing and as specified.

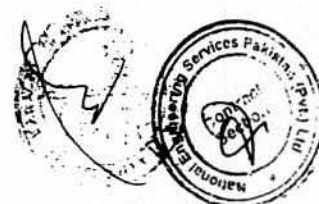
a) 225 mm (O.D.)	Rm	100	3500	350,000
b) 180 mm (O.D.)	Rm	1,350	2500	3,375,000
c) 110 mm (O.D.)	Rm	1,850	1000	1,850,000
d) 75 mm (O.D.)	Rm	350	1000	350,000

VALVES AND APPURTENANCES

Ref. Spec. No. 5220

02a-2P Cast iron flanged gate valve of the following diameters conforming to BS 5163 or equivalent, PN 10 as shown on drawing and as specified.

a) 180 mm	No.	8	50,000	400,000
b) 110 mm	No.	6	30,000	180,000
c) 75 mm	No.	3	50,000	150,000



BILL OF QUANTITIES

CODE NO.02 WATER SUPPLY SYSTEM.

Item No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)
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02a-3P Cast iron flanged double acting air valve including approved isolating valves of the following diameters as per AWWA C512 or BS equivalent, PN-10 of Western European or Japan origin as shown on drawings and as specified.

a) 25 mm

No.

2

50,000

100,000

Total Amount

Carried over to summary of cost

6,755,000



KARACHI FISHERIES HARBOUR AUTHORITY
REHABILITATION AND RENOVATION OF KARACHI FISH HARBOUR
EXTERNAL SERVICES (PART-I)
PACKAGE "A" - CIVIL WORKS
BILL OF QUANTITIES

CODE NO.02 WATER SUPPLY SYSTEM.

Item No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)
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02b. Under ground Water Tank, Pump Room.

C. CIVIL WORKS

EARTHWORKS

Ref.Spec. No.1100

02b-1C	Excavation of trenches in all kinds of sub-surface material up to following depths including dewatering and disposal of surplus/rejected excavated material to designated places.				
	a) 0 - 2 meter	Cu.m.	1425	600	855,000
	b) 2 - 4 meter	Cu.m.	1500	600	900,000
02b-2C	Fill & backfill with selected material obtained from required excavation.	Cu.m.	450	200	90,000

STONE SOLING

Ref. Sec.No. 1330

02b-3C	400mm thick compacted stone soling.	Sq.m.	710	1200	852,000
02b-4C	100mm thick compacted stone soling.	Sq.m.	85	1200	102,000

TERMITE CONTROL TREATMENT

Ref.Spec. No.1600

02b-5C	Termite control treatment.	Sq.m.	710	1000	710,000
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REINFORCEMENT

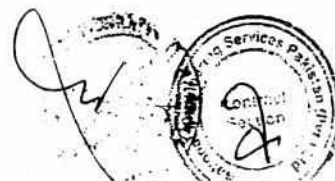
Ref. Sec.No. 2200

02b-6C	Grade 60 deformed hot rolled billet steel bars conforming to ASTM A-615.	tonne	100	120,000	12,000,000
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PLAIN AND REINFORCED CONCRETE

Ref. Sec.No. 2300, 2100

02b-7C	Class 'E' concrete using specified cement in foundations.	Cu.m.	70	10,000	700,000
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BILL OF QUANTITIES

ODE NO.02 WATER SUPPLY SYSTEM.

Item No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)
02b-8C	Class 'C' plain cement concrete floor using ordinary Portland cement in Ramp etc.	Cu.m.	3	16,000	48,000
02b-9C	Class 'D' plain cement concrete using ordinary Portland cement in plinth protection including bitumen seal.	Cu.m.	1	16,000	16,000
02b-10C	Class 'A' fair faced reinforced concrete in following sub- structures using specified cement including water proofing admixture BETOCRETE-C16 and Polypropylene fibrous (Duracrete 25mm Fibrillated DCF-25/13 or approved equivalent) complete in all respect as shown on the drawings & specifications.				
	a) Base slab including pads	Cu.m.	455	15,000	6,825,000
	b) Column	Cu.m.	23	16,000	368,000
	c) Walls	Cu.m.	90	16,000	1,440,000
	d) Slab including beams	Cu.m.	207	16,000	3,312,000
02b-11C	Class 'B' reinforced concrete in following super structures using specified cement complete in all respect as shown on the drawings & specifications.				
	a) Beams	Cu.m.	30	16,000	480,000
	b) Columns	Cu.m.	50	16,000	800,000
	c) Screed over double tee roof	Cu.m.	60	18,000	1,080,000
	d) Slab & Projection	Cu.m.	18	18,000	324,000
	d) Purdi	Cu.m.	4	25,000	100,000



BILL OF QUANTITIES

CODE NO.02 WATER SUPPLY SYSTEM.

Item No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)
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PRECAST PRESTRESSED CONCRETE
UNIT DOUBLE TEE ROOF SYSTEM

Ref. Sec.No. 2550

02b-12C	Precast prestressed fairfaced Class 'A1' reinforced concrete double & single tee roof as per design including steel reinforcement, steel strands for prestressing, and steel embedding parts complete in all respect as shown on the drawings and specifications.	Sq.m.	550	6,000	3,300,000
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BLOCK MASONRY

Ref. Sec.No. 4100

02b-13C	Reinforced block masonry of the following thicknesses set in 1:6 cement sand mortar.				
	a) 200mm thick solid	Cu.m.	50	12,000	6,00,000

CEMENT PLASTER

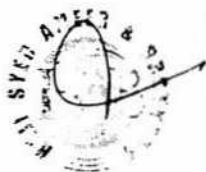
Ref. Sec.No. 6521

02b-14C	12mm thick 1:4 cement sand plaster to specified interior surfaces.	Sq.m.	885	800	7,08,000
02b-15C	20mm thick 1:4 cement sand plaster to specified exterior surfaces.	Sq.m.	280	800	2,24,000
02b-16C	20mm thick, 1:4 cement sand smooth Water proof plaster to specified surfaces.	Sq.m.	990	12,000	11,88,000

FLOOR AND WALL FINISHES

Ref. Sec.No. 6600

02b-17C	100mm thick Class 'D' cement concrete sub-floor.	Sq.m.	15	3200	48,000
02b-18C	Chequered tile floor using of size 300x300x25mm thick in approved colour laid in approved pattern set in specified cement sand mortar including Class 'C' cement concrete screed base complete in all respect as shown on the drawings & specifications.	Sq.m.	86	2000	1,72,000



BILL OF QUANTITIES

CODE NO. 0.02 WATER SUPPLY SYSTEM.

Item No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)
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WATER PROOFING AND BUILT-UP ROOFING

Ref. Sec.No.6411

02b-1	Water proofing and built-up roofing over slabs as per specifications and as shown on the drawings.	Sq.m.	580	1800	1044,000
02b-20C	Two coats of hot bitumen grade 10/20 applied at the rate of 1 kg./Sq.m. per coat to all exposed structural concrete surfaces in contact with earth.	Sq.m.	640	350	224,000
02b-21C	Water proofing at construction joint comprising swellable thermoplastic expensive water stop (INDU-FLEX-CJ13 or equivalent), Crystallin water proof slurry (AQUAFIN-1C or equivalent) @ 1kg./Sq.m. to specified concrete surfaces and polypropylene based tape (ASO-JOINT-TAPE 2000 or equivalent) embedded between two layers of polymer modified cementitious coating (AQUAFIN-2C or equivalent) complete in all respect as shown on the drawings and specifications.	R.m.	100	3000	300,000
02b-22C	Flexible cementitious surface water proofing (AquaFin 2KM, Product of Schomburg Germany or approved equivalent) to specified surfaces complete in all respect as shown on the drawings and as per manufacturer's instruction.	Sq.m.	1,100.0	1000	11,00,000

CAST IRON COVERS WITH FRAME & LADDER RUNGS

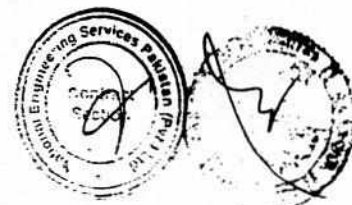
Ref. Sec.No. 5233

02b-23C	20mm dia. M.s. galvanised ladder rungs including fixing and fixing accessories complete in all respect as shown on the drawings.	No	42	3000	126,000
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STRUCTURAL STEEL WORKS

Ref.Spec. No. 3000

02b-24C	Steel doors and ventilators as per design including specified paint system, hardwares and all accessories complete in all respect as shown on the drawings & specifications.	Kg.	3,000	350	1050,000
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BILL OF QUANTITIES

CODE NO. 2 WATER SUPPLY SYSTEM.

Item No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)
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PAINING

Ref.Spec. No. 6700

02b-25C	Primer paint to specified surfaces on ceiling including sealer primer.	Sq.m.	335	300	100500
02b-26C	Three coats of Aqua matt emulsion paint to specified interior surfaces including Aqua primer and surface preparation complete in all respect as shown on the drawings and specifications.	Sq.m.	550	400	220,000
02b-27C	Three coats of (comprising Aqua primer X, Aqua flex, Aqua shield or approved equivalent) of approved quality, colour & shade applied upto desired finish to specified exterior surfaces including primer and surface preparation complete in all respect as per specifications.	Sq.m.	280	400	112000

Total Amount
Carried over to summary of cost

41,518,500



KARACHI FISHERIES HARBOUR AUTHORITY
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EXTERNAL SERVICES (PART - I)
PACKAGE "A" - CIVIL WORKS
BILL OF QUANTITIES

CODE NO.02 WATER SUPPLY SYSTEM.

Item No.	Description	Unit	Quantity	Rate	Amount (Rs.)
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02b. Under-ground Water Tank & Pump Room**P. PIPING / PLUMBING WORKS****STEEL PIPES & PIPE FITTINGS**

Ref. Spec. No. 5214 and 5280

02b-1P Black steel pipes including fittings of the following diameters conforming to API 5L Grade 42 as shown on the drawings, as specified or as directed by the Engineer.

a) 300 mm	Rm	40	5,000	200,000
b) 150 mm	Rm	50	4000	200,000
c) 75 mm	Rm	3	4000	12000

02b-2P Galvanized mild steel U-turned vent pipes of following diameters:

a) 100 mm	No.	4	50,000	200,000
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CAST IRON COVER WITH FRAMES & LADDER RUNGS

Ref. Spec. No. 5233

02b-3P Galvanized M.S. ladder rungs 20 mm dia. as specified.

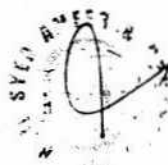
No.	32	2,000	64000
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VALVES AND APPURTENANCES

Ref. Spec. No. 5220

02b-4P Cast iron flanged gate valve on fire water line of the following diameters conforming to BS 5163 or equivalent, PN 16 of Western European or Japan origin as shown on drawing and as specified.

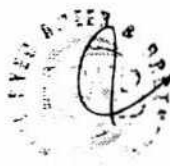
a) 300 mm	No.	2	200,000	400,000
b) 150 mm	No.	3	100,000	300,000



BILL OF QUANTITIES

CODE NO.02 WATER SUPPLY SYSTEM.

Item No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)
	c) 75 mm	No.	1	100,000	100,000
02b-5P	Cast iron flanged gate valve on potable water line of the following diameters conforming to BS 5163 or equivalent, PN 10 of Western European or Japan origin as shown on drawing and as specified.				
	a) 150 mm	No.	5	100,000	500,000
02b-6P	Cast iron flanged check valves on fire water line of the following diameter conforming to BS 5153 or equivalent PN 16 of Western European or Japan origin as shown on drawing and as specified.				
	a) 150 mm	No.	3	100,000	300,000
	b) 75 mm	No.	1	100,000	100,000
02b-7P	Cast iron flanged check valves on potable water line of the following diameter conforming to BS 5153 or equivalent PN 10 of Western European or Japan origin as shown on drawing and as specified.				
	a) 150 mm	No.	3	35,000	105,000
02b-8P	Surge relief valve of following diameters including all accessories as shown on the drawings and as specified:				
	a) 100 mm	No.	1	50,000	50,000
	b) 75 mm	No.	1	50,000	50,000
02b-9P	Float valve shall be of copper alloy piston type & conform to BS 1212 including float shall be of copper conforming to BS 1968.				
	a) 75 mm	No.	1	100,000	100,000



BILL OF QUANTITIES

CODE NO.02 WATER SUPPLY SYSTEM.

Item No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)
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PUMPING MACHINERY AND ACCESSORIES

Ref. Spec. No. 5240

02b-10P Deep well turbine fire water pump and motor of the following capacity and head including all accessories, pressure guage, etc.

a) Q = 140 US GPM
H = 4 bars

No. 3 500,000 1,500,000

02b-11P Deep well turbine fire water pump and motor of the following capacity and head including all accessories, pressure guage, pressure switch, etc.

a) Q = 500 US GPM
H = 7.5 bars

No. 3 1,500,000 4,500,000

02b-12P Deep well turbine fire water jockey pump and motor of the following capacity and head including all accessories.

a) Q = 100 US GPM
H = 8.5 bars

No. 1 500,000 500,000

02b-13P Water level indicator with level switches for stopping of potable pumps as specified.

No. 1 10,000 10,000

02b-14P Girder and pulley block arrangement for 3 ton lifting capacity as shown on drawings and as specified.

No. 1 500,000 500,000

02b-15P Pipe support as shown on drawing.

No. 20 10,000 200,000

MISCELLANEOUS STEEL WORKS

Ref. Spec. No. 3100

02b-16P 6.4 mm thick hinged steel cover and frame of the following sizes, complete in all respect:

a) 1000 mm x 1000 mm (4 No.)

Kg 250 700



BILL OF QUANTITIES

CODE NO.02 WATER SUPPLY SYSTEM.

Item No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)
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02b-17P Mild steel overflow funnel of following size:

a) Dia. 100 x 150

No.

1

50,000

50,000

Total Amount

Carried over to summary of cost

 9,991,000



KARACHI FISH HARBOUR AUTHORITY
 REHABILITATION & RENOVATION OF KARACHI FISH HARBOUR
 EXTERNAL SERVICES (PART-I)
 PACKAGE "A" - CIVIL WORKS
 BILL OF QUANTITIES

CODE NO. 02: WATER SUPPLY SYSTEM.

Item No.	Description	Unit	Quantity	Rate (Rs.)	Amount
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02b. UG Tank, Pump Room.

E. ELECTRICAL WORKS

Supply, installation, testing and commissioning of the following items of work (unless specifically stated otherwise) including all material, labour, tools, plant, accessories, related civil works, etc., required for proper completion of each item as per specifications (Section-8001 "General Specifications for Electrical Works" shall be applicable to all BOQ items).

MOTOR CONTROL CENTRES

Ref. Sec. No. 8132, 8133, 8135, 8240

02b-1E Following MCC (as per single line diagram shown on drawing.) including all control wiring, foundation, mounting arrangement, related civil works and all accessories, etc., complete in all respects:

a) MCC-PW

Job

1

800,000

800,000

LIGHT FIXTURES

Ref. Spec. Sec. 8150, 8212, 8240

02b-2E Following lighting fixtures with fluorescent or compact fluorescent or incandescent lamps or as per lighting fixture schedule installed on surface or on false ceiling complete with all accessories such as lamps, lamp holders, ballast, starters, capacitors, as applicable, etc. and all relevant installation material as approved by the Engineer:



BILL OF QUANTITIES

CODE NO. 02: WATER SUPPLY SYSTEM.

Item No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)
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a) Type A1

Surface mounted batten light fixture body made of cold rolled sheet (CRC) sheet pretreated, painted and enameled in white color with 1X36W fluorescent lamp. Diffuser made of clear prismatic pattern acrylic sheet.

No. 30 50,000 1,500,000

LOW TENSION CABLES

Ref. Spec. Sec. 8212

02b-3E Following sizes single core/multi core PVC insulated and PVC sheathed, unarmoured copper conductor cables in already installed surface mounted/concealed PVC conduit or underground PVC pipe or on cable tray, for power and miscellaneous wiring including all accessories:

a) 3 core 6 sq.mm PVC/PVC

RM 40 3000 1,20,000

WIRING

Ref. Sec. 8212,8220,8230,8240,8290

02b-4E Wiring of Distribution Board (DB) to contactor controlled, first light point with 3(1x2.5 sq.mm) single core copper conductor, PVC cable complete with appropriate size surface mounted medium duty GI conduit and all accessories, etc. including two coats of suitable weather resistant matt finish paint on entire length of surface GI conduits and all accessories, complete in all respects.

No. 3 50,000 1,50,000

02b-5E Wiring from light point to point (Contactor controlled) with 3(1x2.5 sq.mm) single core copper conductor PVC cable complete with appropriate size surface mounted medium duty GI conduit and all accessories, etc. including two coats of suitable weather resistant matt finish paint on entire length of surface GI conduits and all accessories, complete in all respects.

No. 27 13000 3,51,000



BILL OF QUANTITIES

CODE NO. 02: WATER SUPPLY SYSTEM.

Item No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)
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02b-6E Wiring of 16A, 250 Volt socket outlets with single core, copper conductor, PVC cable complete with appropriate size surface mounted medium duty GI conduit and all accessories, etc. including two coats of suitable weather resistant matt finish paint on entire length of surface GI conduits and all accessories, complete in all respects.

a) From Distribution Board (DB) to outlet with 3(1x2.5 sq.mm) cable.

No. 2 50,000 100,000

b) From outlet to outlet with 3(1x2.5 sq.mm) cable.

No. 8 50,000 400,000

WIRING ACCESSORIES

Ref. Spec. Sec.8220

02b-7E 16 Amp, 250 Volt, 2 pin + earth, schuko socket outlet with sheet steel surface back box and all accessories.

No. 10 15,000 150,000

EARTHING

Ref. Spec. Sec. 8212, 8240

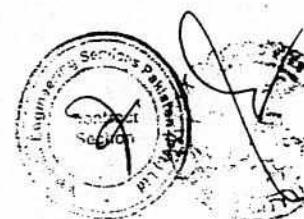
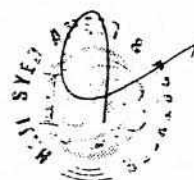
02b-8E Following sizes of single core PVC insulated copper conductor cable as earth continuity conductor (ECC) installed on surface or on already installed cable tray or on already installed pipes/conduits or in trench etc.

a) 6 sq. mm.

RM 40 5000 200,000

02b-9E 600 mmx 600 mm x 3 mm tin plated copper Plate type earth electrode including 2x70 sq.mm PVC copper conductor cable as earthing lead, inspection chamber with medium duty C.I cover, 50 mm dia medium duty G.I pipe as shown on drawings, complete in all respect.

No. 1 50,000 50,000



BILL OF QUANTITIES

CODE NO. 02: WATER SUPPLY SYSTEM.

Item No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)
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MISCELLANEOUS ITEMS

Ref. Spec. Sec. 8290

02b-10E Following sizes perforated G.I. sheet metal trays powder coated after fabrication including cover, joints, bend, mounting brackets hanger complete with all accessories:

a) 100mmX50mm

RM

15

5,000

75,000

a) 300mmX75mm

RM

10

5,000

50,000

Total Amount
Carried over to summary of cost

3,946,000



KARACHI FISHERIES HARBOUR AUTHORITY
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EXTERNAL SERVICES (PART-I)
PACKAGE "A" - CIVIL WORKS
BILL OF QUANTITIES

CODE NO.02 WATER SUPPLY SYSTEM.

Item No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)
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02c. Water Tower.**C. CIVIL WORKS****EARTHWORKS**

Ref.Spec. No.1100

02c-1C Excavation of trenches in all kinds of sub-surface material up to following depths including dewatering and disposal of surplus/rejected excavated material to designated places.

a) 0 - 2 meter	Cu.m.	145	600	87,000
b) 2 - 4 meter	Cu.m.	20	600	12,000

02c-2C Fill & backfill with selected material obtained from required excavation.

Cu.m.	90	300	27,000
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STONE SOLING

Ref. Sec.No. 1330

02c-3C 150mm thick compacted stone soling.

Sq.m.	65	1000	65,000
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TERMITE CONTROL TREATMENT

Ref.Spec. No.1600

02c-4C Termite control treatment.

Sq.m.	65	100	6,500
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PILING WORKS

Ref. Sec.No. 1520

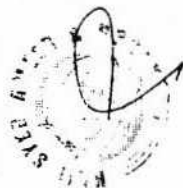
02c-5C Load test on selected working pile onshore upto 195 tonnes as per ASTM 1143-81 (1987).

No.	1	1,000,000	1,000,000
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02c-6C Drilling of boreholes upto following depth for piles 780mm diameter in all kinds of sub-surface material including disposal of drilled material to designated places.

a) 0 - 17 meters

R.m.	325	10,000	3,250,000
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BILL OF QUANTITIES

CODE NO.02 WATER SUPPLY SYSTEM.

Item No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)
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02c-7C	Class 'A' reinforced concrete piles 760mm diametre using specified cement including water proofing admixture BETOCRETE- C or equivalent and Polypropylene fibres (Duracrete 25mm Fibrillated DCF-25/13 or approved equivalent) excluding the cost of reinforcement.	R.m.	290	15,000	4,350,000
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02c-8C	Permanent steel liner (780mm dia.) 10mm wall thickness including specified paint system and driving etc. complete in all respect as shown on the drawings and specifications.	R.m.	165	15,000	2,475,000
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REINFORCEMENT

Ref. Sec.No. 2200

02c-9C	Grade 60 deformed hot rolled billet steel bars conforming to ASTM A-615.	tonne	65	115,000	7,475,000
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PLAIN AND REINFORCED CONCRETE

Ref. Sec.No. 2300, 2100

02c-10C	Class 'E' concrete using specified cement in foundations.	Cu.m.	7	15,000	105,000
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02c-11C	Class 'A' reinforced concrete in pile caps using specified cement including Polypropylene fibrous (Duracrete 25mm Fibrillated DCF-25 or approved equivalent) complete in all respect as shown on the drawings & specifications.	Cu.m.	66	18,000	1,188,000
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02c-12C	Class 'B' reinforced concrete in following sub-structures using specified cement complete in all respect as shown on the drawings & specifications.				
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a) Plinth Beams		Cu.m.	4	16,000	64,000
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BILL OF QUANTITIES

CODE NO.02 WATER SUPPLY SYSTEM.

Item No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)
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STRUCTURAL STEEL WORKS

Ref.Spec. No. 3000

02c-20A Staircase handrailing as per design comprising 40mm nominal dia Schedule 40 m.s. pipe handrail, middle rail and ballustrades etc. including specified painting and all accessories complete in all respect as shown on the drawings and as directed by the Engineer.

a) Floor mounted R.m. 125 3000 375,000

02c-20C Structural steel monkey ladder works including anchor bolts, embedding and specified painting/ coating complete in all respect as per specifications and as shown on the drawings.

Kg 1,000 1000 1,000,000

MISCELLANEOUS STEEL WORKS

Ref.Spec. No. 3100

02c-21C 6.4mm thick hinged steel cover and frame of the following sizes,complete in all respect as per specifications and as shown on the drawings.

Kg 60 350 21,000

CAST IRON COVERS WITH FRAME & LADDER RUNGS

Ref. Sec.No. 5233

02c-22C 20mm dia. M.s. galvanised ladder rungs including fixing and fixing accessories complete in all respect as shown on the drawings.

No 50 3000 150,000

WATER PROOFING AND BUILT-UP ROOFING

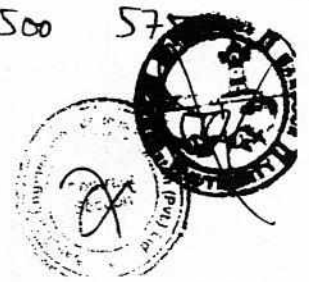
Ref. Sec.No. 6411

02c-23C Water proofing and built-up roofing over slab as per specifications and as shown on the drawings.

Sq.m. 90 2000 180,000

02c-24C Two coats of hot bitumen grade 10/20 applied at the rate of 1 kg./Sq.m. per coat to all exposed structural concrete surfaces in contact with earth.

Sq.m. 115 500 57,500



BILL OF QUANTITIES

CODE NO.02 WATER SUPPLY SYSTEM.

Item No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)
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PAINTING

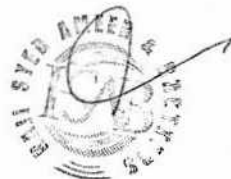
Ref.Spec. No. 6700

02c-250 Three coats of (comprising Aqua primer X, Aqua flex ,Aqua shield or approved equivalent) of approved quality, colour & shade applied upto desired finish to specified exterior surfaces including primer and surface preparation complete in all respect as per specifications.

Sq.m. 500 350 175,000

Total Amount
Carried over to summary of cost

27,134,800



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EXTERNAL SERVICES (PART - I)
PACKAGE "A" - CIVIL WORKS
BILL OF QUANTITIES

CODE NO.02 WATER SUPPLY SYSTEM.

Item No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)
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02c. Water Tower

P. PIPING / PLUMBING WORKS

STEEL PIPES & PIPE FITTINGS

Ref. Spec. No. 3100, 5214 and 5280

02c-1P	Black steel pipes including fittings of the following diameters conforming to API 5L Grade 42 as shown on the drawings, as specified or as directed by the Engineer.				
	a) 200 mm	Rm	40	4,000	160,000
	b) 150 mm	Rm	110	3,000	330,000
02c-2P	Galvanized mild steel U-turned vent pipes of following diameters:				
	a) 100 mm	No.	2	50,000	100,000
02c-3P	Removeable brass dome strainer of following diameters:				
	a) 150 mm	No.	1	50,000	50,000
02c-4P	Black steel bell mouth inlet with flange of following diameters:				
	a) 150 mm	No.	1	25,000	25,000
02c-5P	Brass bucket strainer with flange of following diameters:				
	a) 200 mm	No.	1	50,000	50,000
02c-6P	M.S. puddle flange of following diameters:				
	a) 200 mm	No.	1	10,000	10,000
	b) 150 mm	No.	4	5,000	20,000
	c) 100 mm	No.	2	5,000	10,000



BILL OF QUANTITIES

CODE NO.02 WATER SUPPLY SYSTEM.

Item No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)
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VALVES AND APPURTENANCES

Ref. Spec. No. 5220

02c-7P Cast iron flanged gate valve of the following diameters conforming to BS 5163 or equivalent, PN 10 of Western European or Japan origin as shown on drawing and as specified.

a) 225 mm

No. 1 200,000 200,000

b) 150 mm

No. 1 150,000 150,000

PUMPING MACHINERY AND ACCESSORIES

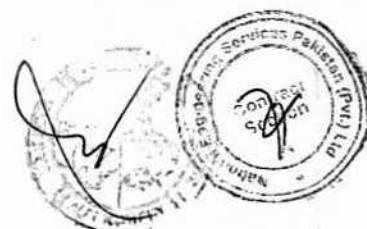
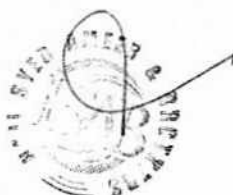
Ref. Spec. No. 5240

02c-8P Water level indicator with level switches for start/stop of pumps in underground water tank as specified.

No. 4 100,000 400,000

Total Amount

Carried over to summary of cost

1,505,000

KARACH FISH HARBOUR AUTHORITY
 MAINTENANCE & RENOVATION OF KARACHI FISH HARBOUR
 EXTERNAL SERVICES (PART-I)
 PACKAGE "A" - CIVIL WORKS
 BILL OF QUANTITIES

CODE NO. 02: WATER SUPPLY SYSTEM.

Item No.	Description	Unit	Quantity	Rate	Amount (Rs.)
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02c. Water Tower.

E. ELECTRICAL WORKS

Supply, installation, testing and commissioning of the following items of work (unless specifically stated otherwise) including all material, labour, tools, plant, accessories, related civil works, etc., required for proper completion of each item as per specifications (Section-8001 "General Specifications for Electrical Works" shall be applicable to all BOQ items).

L.T. DISTRIBUTION BOARDS

Ref. Spec. Sec. 8133, 8212, 8240

02c-1E Following LT Distribution Boards (as per single line diagrams), recessed/surface mounted including all accessories, related civil works etc. complete in all respects.

a) DB-WT

Job

1

500,000

500,000

LIGHT FIXTURES

Ref. Spec. Sec. 8150, 8212, 8240

02c-2E Following lighting fixtures with fluorescent or compact fluorescent or incandescent lamps or as per lighting fixture schedule installed on surface or on false ceiling complete with all accessories such as lamps, lamp holders, ballast, starters, capacitors, as applicable, etc. and all relevant installation material as approved by the Engineer.



Engineer's Estimate

CODE NO. 02: WATER SUPPLY SYSTEM.

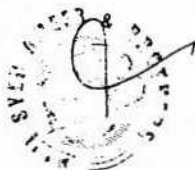
Item No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)
a)	Type W3 Surface mounted light fixture body made of non-corrosive, high pressure die-cast aluminium, stove enameled, painted in white color with 2X11W compact florescent lamp along with clear polycarbonate diffuser.	No.	18	8,500	153,000
b)	Type OB Philips make type Obstruction light XGP-500 (OBSTIVION) or equivalent with low intensity long life led lamps, flasher, glass cover, photo switch and sensor, junction box, etc. IP65 with 2-meter-high suitable G.I. pipe.	No.	1	24,000	24,000
WIRING					
Ref. Sec. 8212,8220,8230,8240,8290					
02c-3E	Wiring of light circuits from distribution board (DB) to point/switch including wiring between switches on the same circuit with 3(1x2.5sq.mm) single core copper conductor PVC cable complete with appropriate size surface mounted medium duty G.I conduit and all accessories, etc., including two coats of matching weather resistant paint on entire length of surface GI conduits.complete in all respects.	No.	2	11,000	22,000
02c-4E	Wiring from light/fan/exhaust fan point to switch with 3(1x1.5sq.mm) single core copper conductor, PVC cable in appropriate size surface mounted medium duty G.I conduit, including ceiling rose, 10 Amps weather proof light control gang switch, sheet steel surface back box, 3 core flexible cable and all accessories, etc., including two coats of matching weather resistant paint on entire length of surface GI conduits. complete in all respect.	No.	1	4,500	4,500



BILL OF QUANTITIES

CODE NO. 02: WATER SUPPLY SYSTEM.

Item No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)
02c-5E	Wiring of Distribution Board (DB) to contactor controlled, first light point with 3(1x2.5 sq.mm) single core copper conductor, PVC cable including appropriate size surface mounted medium duty GI conduits and all accessories including two coats of matching weather resistant paint on entire length of surface GI conduits etc., complete in all respect.	No.	6	30,000	180,000
02c-6E	Wiring from light point to point (Contactor controlled) with 3(1x2.5 sq.mm) single core copper conductor PVC cable including appropriate size surface mounted medium duty GI conduit and all accessories including two coats of matching weather resistant paint on entire length of surface GI conduits etc., complete in all respect.	No.	12	30,000	360,000
02c-7E	Wiring of two way light points including wiring between the switches and 10A light control two way gang switch as required with 3(1x1.5 sq.mm) single core copper conductor PVC cable, including appropriate size surface mounted medium duty GI conduit, ceiling rose, 10 Amps two way light control gang switch, sheet steel back box, 3 core flexible cable and all accessories including two coats of matching weather resistant paint on entire length of surface GI conduits etc., complete in all respect.	No.	2	30,000	60,000
02c-8E	Wiring of 16A, 250 Volt socket outlets with single core, copper conductor, PVC cable complete with appropriate size surface mounted medium duty GI conduit and all accessories, etc. including two coats of suitable weather resistant matt finish paint on entire length of surface GI conduits and all accessories.				
a)	From Distribution Board (DB) to outlet with 3(1x2.5 sq.mm) cable.	No.	1	30,000	30,000



BILL OF QUANTITIES

CODE NO. 02: WATER SUPPLY SYSTEM.

Item No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)
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a) From Distribution Board (DB) to outlet with 3(1x2.5 sq.mm) cable.

No. 1 50,000 50,000

WIRING ACCESSORIES

Ref. Spec. Sec.8220

02c-9E 16 Amp, 250 Volt, 2 pin + earth, schuko socket outlet with sheet steel surface back box and all accessories.

No. 1 50,000 50,000

EARTHING

Ref. Spec. Sec. 8212, 8240

02c-10E 600 mmx 600 mm x 3 mm tin plated copper Plate type earth electrode including 2x70 sq.mm PVC copper conductor cable as earthing lead, inspection chamber with medium duty C.I cover, 50 mm dia medium duty G.I pipe as shown on drawings, complete in all respect.

No. 1 50,000 50,000

02c-11E 19 mm dia, 3 meter long copper clad steel Rod type earth electrode including 2x70 sq.mm PVC copper conductor cable as earthing lead, clamp with nuts and bolts, R.C.C. inspection chamber with medium duty C.I cover, excavation, backfilling, and all accessories, etc., as shown on the drawings, complete in all respects.

No. 2 200,000 400,000

LIGHTNING PROTECTION

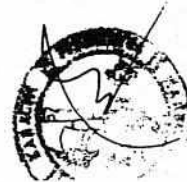
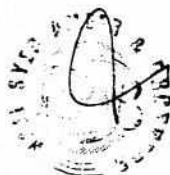
Ref. Spec. Sec. 8212, 8250

02c-12E 2 meter high, 15 mm dia Air terminal

No. 1 1500 1500

02c-13E 25mmx3mm tinned copper strip as roof/down conductor installed on surface including copper clamps and all mounting accessories etc.

RM 200 1500 300,000



BILL OF QUANTITIES

CODE NO. 02: WATER SUPPLY SYSTEM.

Item No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)
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02c-15E Cad welding of the copper conductor with copper conductor and copper conductor with mild steel.

Job

1

1,00,000

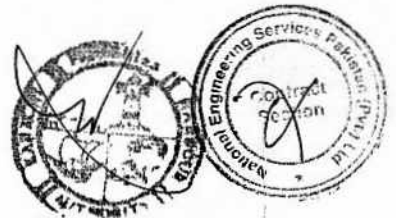
1,00,000

Total Amount

Carried over to summary of cost

~~2,71,500~~

2,081,500/-



KARACHI FISHERIES HARBOUR AUTHORITY
REHABILITATION AND RENOVATION OF KARACHI FISH HARBOUR
EXTERNAL SERVICES (PART- I)
PACKAGE "A" - CIVIL WORKS
BILL OF QUANTITIES

CODE NO.03 SEWAGE SYSTEM

Item No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)
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03a.External Sewage Network

C. CIVIL WORKS

EARTHWORKS

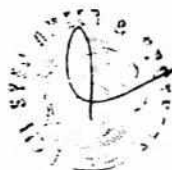
Ref.Spec. No.1100

03a-1C	Excavation of trenches in all kinds of sub-surface material up to following depths including dewatering and disposal of surplus/rejected excavated material to designated places.				
	a) 0 - 2 meter	Cu.m.	9155	600	5,493,000
	b) 2 - 4 meter	Cu.m.	3305	600	1,983,000
03a-2C	Fill & backfill with selected material obtained from required excavation.	Cu.m.	10270	300	3,081,000
03a-3C	Fine sand bedding including compaction.	Cu.m.	650	1800	1,170,000

PLAIN AND REINFORCED CONCRETE

Ref. Sec.No. 2300, 2100

03a-4C	Class 'E' concrete using specified cement in foundations.	Cu.m.	42	15000	630,000
03a-5C	Class 'B' reinforced concrete using specified cement in following manholes/ chambers structures complete in all respect as shown on the drawings.				
	a) Base Slab	Cu.m.	70	18,000	1,260,000
	b) Walls	Cu.m.	545	13000	7,085,000
	c) Top Slab	Cu.m.	70	18000	1,260,000
03a-6C	Class 'C' plain concrete using specified cement including M.S. anchor bars in thrust blocks.	Cu.m.	5	20,000	100,000



BILL OF QUANTITIES

CODE NO.03 SEWAGE SYSTEM

Item No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)
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03a-7C RCC Class 'B' cover of following sizes including fixing complete in all respects as shown on the drawing and specifications.

a) 600 mm x 600 mm No. 132 2000 1,056,000

REINFORCEMENT

Ref. Sec.No. 2200

03a-8C Grade 60 deformed hot rolled billet steel bars conforming to ASTM A-615.

tonne 62 11500 7,130,000

CAST IRON COVERS WITH FRAME & LADDER RUNGS

Ref. Sec. 5233

03a-9C 20mm dia. M.s. galvanised ladder rungs including fixing and fixing accessories complete in all respect as shown on the drawings.

No 1,350 1000 1,350,000

STEEL PIPE & FITTINGS

Ref. Sec. 5214

03a-10C Steel pipe conforming to API 5L (8mm wall thickness) sleeves on road crossings.

i) 300mm	Rm	166	18000	2,988,000
ii) 350mm	Rm	27	26000	702,000
iii) 400mm	Rm	27	35000	945,000
iv) 450mm	Rm	39	35000	1,365,000
v) 550mm	Rm	12	45000	540,000

THRUST BORING

Ref. Sec. 5820

03a-11C Thrust Boring below road for providing dia. Following dia steel pipe conforming to API 5L (8mm wall thickness) sleeves for pipe crossings.

i) 300mm	Rm	166	10,000	1,660,000
ii) 350mm	Rm	27	10,000	270,000



BILL OF QUANTITIES

CODE NO.03 SEWAGE SYSTEM

Item No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)
iii)	400mm	Rm	27	10,000	270,000
iv)	450mm	Rm	39	10,000	390,000
v)	550mm	Rm	12	10,000	120,000

WATER PROOFING AND BUILT-UP ROOFING

Ref. Sec.No. 6411

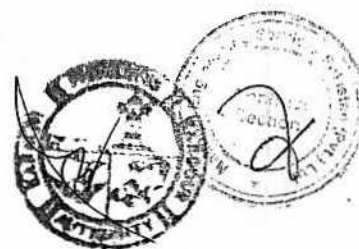
03a-12C Two coats of hot bitumen grade 10/20 applied at the rate of 1 kg./Sq.m. per coat to all exposed structural concrete surfaces in contact with earth.

Sq.m. 2,550 300 765,000

Total Amount

Carried over to summary of cost

4,163,000



KARACHI FISHERIES HARBOUR AUTHORITY
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EXTERNAL SERVICES (PART - I)
PACKAGE "A" - CIVIL WORKS
BILL OF QUANTITIES

CODE NO.03 SEWAGE SYSTEM

Item No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)
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03a. External Sewage Network**P. PIPING WORKS****uPVC PIPES & PIPE FITTINGS**

Ref. Spec. No. 5218 and 5280

03a-1P uPVC sewage pipes & fittings conforming to BS 3505 & BS 4346 of class B as specified of following pipe diameters:

a) 200 mm	R.m.	2,060	900	18,54,000
b) 250 mm	R.m.	650	1500	9,75,000
c) 300 mm	R.m.	220	2,000	4,40,000
d) 350 mm	R.m.	360	2,500	9,00,000
e) 450 mm	R.m.	260	5000	1,300,000
f) 550 mm	R.m.	620	6,000	3,720,000
g) 600 mm	R.m.	60	15000	900,000

Total Amount
 Carried over to summary of cost

10,089,000



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PACKAGE "A" - CIVIL WORKS
BILL OF QUANTITIES

CODE NO.03 SEWAGE SYSTEM

Item No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)
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03b.Sewage Lift Station 1&2**C. CIVIL WORKS****EARTHWORKS**

Ref.Spec. No.1100

03b-1C Excavation in all kinds of sub-surface materials upto following depths including dewatering and disposal of surplus/ rejected excavated materials to designated places.

a) 0 - 2 metere	Cu.m.	230	800	184,000
b) 2 - 4 metere	Cu.m.	454	1000	454,000
c) 4 - 6 metere	Cu.m.	65	1600	104,000

03b-2C Fill & backfill with selected material obtained from required excavation.

Cu.m.	560	400	224,000
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STONE SOLING

Ref. Sec.No. 1330

03b-3C 100mm thick compacted stone soling.

Sq.m.	100	2000	200,000
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TERMITE CONTROL TREATMENT

Ref.Spec. No.1600

03b-4C Termite control treatment.

Sq.m.	100	1000	100,000
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REINFORCEMENT

Ref. Sec.No. 2200

03b-5C Grade 60 deformed hot rolled billet steel bars conforming to ASTM A-615.

tonne	30	115000	3,450,000
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BILL OF QUANTITIES

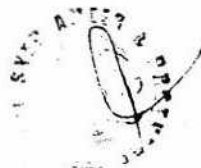
CODE NO.03 SEWAGE SYSTEM

Item No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)
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PLAIN AND REINFORCED CONCRETE

Ref. Sec.No. 2300, 2100

03b-6C	Class 'E' concrete using specified cement in foundations.	Cu.m.	40	18000	720,000
03b-7C	Class 'D' concrete using specified cement in steps & foundations etc.	Cu.m.	2	18000	36,000
03b-8C	Class 'D' plain cement concrete using ordinary Portland cement in plinth protection including bitumen seal.	Sq.m	100	13000	1,300,000
03b-9C	Class 'B' reinforced concrete in following sub-structures using specified cement complete in all respect as shown on the drawings & specifications.				
a)	Foundations/Grade Slab	Cu.m.	62	13000	806,000
b)	Wall	Cu.m.	130	13000	1,690,000
c)	Pads	Cu.m.	2	20,000	40,000
03b-10C	Class 'B' reinforced concrete in following super structures using specified cement complete in all respect as shown on the drawings & specifications.				
a)	Columns	Cu.m.	10	20,000	200,000
b)	Beams & lintels	Cu.m.	10	20,000	200,000
c)	Slabs & projections	Cu.m.	14	20,000	280,000
d)	Purdi	Cu.m.	4	20,000	80,000
e)	Precast Planks	Cu.m.	4	20,000	80,000



BILL OF QUANTITIES

CODE NO.03 SEWAGE SYSTEM

Item No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)
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STRUCTURAL STEEL WORKS

Ref.Spec. No. 3000

03b-10	Mild steel Louvered Door, grill & Ventilators as per design including fixing and specified paint system complete in all respect as shown on the drawings and specifications.	Kg.	3,810	300	1,143,000
03b-12C	Structural steel comprising angles, plates, chequered plates, Grating bars etc. including hot dipped galvanizing, fabrication, erection, embedding and painting complete in all respect as shown on the drawings.	Kg.	550	300	1,65,000
03b-13C	Structural steel monkey ladder works including anchor bolts, embedding and specified painting/ coating complete in all respect as per specifications and as shown on the drawings.	Kg	600	300	1,80,000
03b-14C	Handrailing as per design comprising 65mm nominal dia hot dipped galvanizing pipe handrail, middle rail and ballustrades etc. including specified painting and all accessories complete in all respect as shown on the drawings and as directed by the Engineer.	R.m	12	2000	24,000

BLOCK MASONRY

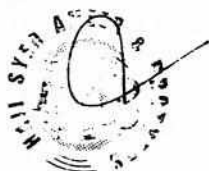
Ref. Sec.No. 4100

03b-15C	Reinforced block masonry of the following thicknesses set in 1:6 cement sand mortar.				
a)	150mm thick solid	Cu.m.	22	15000	330,000

CAST IRON COVERS WITH FRAME & LADDER RUNGS

Ref.Sec. 5233

03b-16C	Cast iron cover with frame of following sizes including fixing. (Medium duty)				
a)	750 mm x 750 mm	No.	2	50,000	1,00,000



BILL OF QUANTITIES

COLL NO.03 SEWAGE SYSTEM

Item No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)
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03b-17C	20mm dia. M.s. galvanised ladder rungs including fixing and fixing accessories complete in all respect as shown on the drawings.	No	20	3000	60,000
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CEMENT PLASTER

Ref. Sec.No. 6521

03b-18C	12mm thick 1:4 cement sand plaster to specified interior surfaces.	Sq.m.	272	800	217,600
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03b-19C	20mm thick 1:4 cement sand plaster to specified exterior surfaces.	Sq.m.	316	1000	316,000
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FLOOR AND WALL FINISHES

Ref. Sec.No. 6600

03b-20C	75mm thick Class 'C' cement concrete floor.	Sq.m.	50	2000	1,00,000
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03b-21C	Cement concrete skirting 100mm high including rough base plaster complete in all respect as shown on the drawings & specifications.	Sq.m.	4	4000	16,000
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03b-22C	Chequered tile floor using of size 300x300x25mm thick in approved colour laid in approved pattern set in specified cement sand mortar including Class 'C' cement concrete screed base complete in all respect as shown on the drawings & specifications.	Sq.m.	100	2000	2,00,000
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WATER PROOFING AND BUILT-UP ROOFING

Ref. Sec.No. 6411

03b-23C	Water proofing and built-up roofing over slab as per specifications and as shown on the drawings.	Sq.m.	130	3000	390,000
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03b-24C	Two coats of hot bitumen grade 10/20 applied at the rate of 1 kg./Sq.m. per coat to all exposed structural concrete surfaces in contact with earth.	Sq.m.	200	500	1,00,000
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BILL OF QUANTITIES

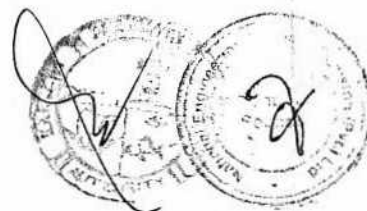
CODE NO. 03 SEWAGE SYSTEM

Item No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)
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PAINTING

Ref. Spec. No. 6700

03b-25C	Distemper paint to specified surfaces on ceiling including sealer primer.	Sq.m.	52	300	15,600
03b-26C	Matt finish paint of approved make, quality, colour/ shade including wall sealer, primer, surfaces preparation to specified interior surfaces complete in all respect as shown on the drawings and specifications.	Sq.m.	220	500	110,000
03b-27C	Weather resistant paint of approved make, quality, colour/ shade including surfaces preparation to specified exterior surfaces complete in all respect as shown on the drawings and specifications.	Sq.m.	308	500	154,000
				Total Amount	<u>137,600</u>
				Carried over to summary of cost	<u>13,769,200</u>



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PACKAGE "A" - CIVIL WORKS
BILL OF QUANTITIES

CODE NO.03 SEWAGE SYSTEM

Item No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)
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03b. Sewage Lift Station 1 & 2**P. PIPING / PLUMBING WORKS****MS PIPES & PIPE FITTINGS**

Ref. Spec. No. 5214

03b-1P Black steel pipes including fittings of the following diameters conforming to API 5L Grade 42 as shown on the drawings, as specified or as directed by the Engineer.

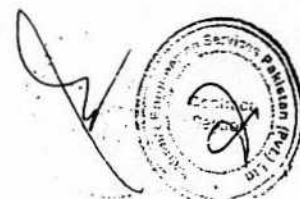
a) 450 mm (6.4mm thick)	RM	6	30,000	180,000
b) 350 mm (6.4mm thick)	RM	6	20,000	120,000
c) 250 mm (6.4mm thick)	RM	1	20,000	20,000
d) 200 mm (6.4mm thick)	RM	1	20,000	20,000

VALVES AND APPURTENANCES

Ref. Spec. No. 5220

03b-2P Cast iron flanged gate valve of the following diameters conforming to BS 5163 or equivalent, PN 10 of Western European or Japan origin as shown on drawing and as specified.

a) 450 mm	No.	1	500,000	500,000
b) 350 mm	No.	1	300,000	300,000
c) 250 mm	RM	3	200,000	600,000
d) 200 mm	RM	3	200,000	600,000



BILL OF QUANTITIES

CODE NO.03 SEWAGE SYSTEM

Item No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)
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03b-3P Cast iron flanged check valve of the following diameters conforming to BS 5163 or equivalent or 10 of Western European or Japan origin as shown on drawing and as specified.

a) 250 mm	No.	3	200,000	600,000
b) 200 mm	No.	3	200,000	600,000

PUMPING MACHINERY AND ACCESSORIES

Ref. Spec. No. 5240

03b-4P Submersible sewage pump (with cutter) and motor of the following capacity and head with level switches, electric cable, control panel, lifting arrangement, flexible pipe, (as per recommendation of manufacturer) etc. including all accessories required for installation, maintenance and operation (complete in all respects). (two duty & one standby).

a) Discharge = 800 GPM Head = 10 meters	No.	3	1,500,000	4,500,000
b) Discharge = 650 GPM Head = 10 meters	No.	3	1,500,000	4,500,000

03b-5P Water level indicator with level switches for start/stop of pumps inside the wetwell at designated levels.

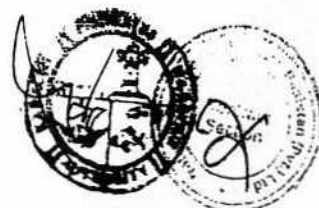
No.	16	25,000	400,000
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03b-6P Girder and pulley block arrangement for the following lifting capacities.

a) 6 tonnes	No.	1	300,000	300,000
b) 5 tonnes	No.	1	200,000	200,000

03b-7P 1.5 meter stainless steel sluice gate with gear handle to be fixed as per Manufacturer's requirements and as shown on the drawing.

No.	2	1,000,000	2,000,000
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BILL OF QUANTITIES

CODE NO.03 SEWAGE SYSTEM

Item No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)
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STAINLESS STEEL MATERIAL & FINISHES

Ref. Spec. No. 3010

03b-8P Stainless steel bar rack comprising of rectangular steel sections, stainless steel plate, stainless steel bolts and stainless steel angle etc. complete as shown on drawings.

Kg. 120 4500

Total Amount
Carried over to summary of cost

15,980,000



KARACHI FISH HARBOUR AUTHORITY
REHABILITATION & RENOVATION OF KARACHI FISH HARBOUR
EXTERNAL SERVICES (PART-I)
PACKAGE "A" - CIVIL WORKS
BILL OF QUANTITIES

CODE NO. 03: SEWAGE NETWORK SYSTEM.

Item No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)
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03b. Sewage Lift Station 1 & 2.

E. ELECTRICAL WORKS

Supply, installation, testing and commissioning of the following items of work (unless specifically stated otherwise) including all material, labour, tools, plant, accessories, related civil works, etc., required for proper completion of each item as per specifications (Section-8001 "General Specifications for Electrical Works" shall be applicable to all BOQ items).

MOTOR CONTROL CENTRES

Ref. Sec. No. 8132, 8133, 8135, 8240

03b-1E Following MCC (as per single line diagram shown on drawing.) including all control wiring, foundation, mounting arrangement, related civil works and all accessories, etc., complete in all respects.

a) MCC-SP (1 & 2)

Job

2

500,000 1,000,000

LIGHT FIXTURES

Ref. Spec. Sec. 8150, 8212, 8240

03b-2E Following lighting fixtures with fluorescent or compact fluorescent or incandescent lamps or as per lighting fixture schedule installed on surface or on false ceiling complete with all accessories such as lamps, lamp holders, ballast, starters, capacitors, as applicable, etc. and all relevant installation material as approved by the Engineer.

a) Type A1

Surface mounted batten light fixture body made of cold rolled steel (CRC) sheet pretreated, painted and stove enameled in white color with 1X36W fluorescent lamp. Diffuser made of clear prismatic pattern acrylic sheet.

No.

6

50000 300,000



BILL OF QUANTITIES

CODE NO. 03: SEWAGE NETWORK SYSTEM.

Item No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)
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b) Type W1

Surface mounted light fixture body made of non-corrosive, high pressure die-cast aluminium, enameled, painted in white color with 11W compact florescent lamp along with clear polycarbonate

No. 2 25,000 50,000

WIRING

Ref. Sec. 8212,8220,8230,8240,8290

03b-3E Wiring of light circuits from distribution board (DB) to point/switch including wiring between switches on the same circuit with 3(1x2.5sq.mm) single core copper conductor PVC cable complete with appropriate size surface mounted medium duty GI conduit and all accessories, etc. including two coats of suitable weather resistant matt finish paint on entire length of surface GI conduits and all accessories, complete in all respect.

No. 2 25,000 50,000

03b-4E Wiring from light/fan/exhaust fan point to switch with 3(1x1.5sq.mm) single core copper conductor, PVC cable in appropriate size surface mounted medium duty G.I conduit, including ceiling rose, 10 Amps weather proof light control gang switch, sheet steel surface back box, 3 core flexible cable and all accessories, etc., including two coats of matching weather resistant paint on entire length of surface GI conduits. complete in all respect.

No. 4 25,000 100,000

03b-5E Same as item No. 03b-4E, but wiring from point to point.

No. 2 10,000 20,000

03b-6E Wiring of 16A, 250 Volt socket outlets with single core, copper conductor, PVC cable complete with appropriate size surface mounted medium duty GI conduit and all accessories, etc. including two coats of suitable weather resistant matt finish paint on entire length of surface GI conduits and all accessories, complete in all

a) From Distribution Board (DB) to outlet with 3(1x2.5 sq.mm) cable.

No. 2 25,000 50,000

b) From outlet to outlet with 3(1x2.5 sq.mm) cable.

No. 2 25,000 50,000



BILL OF QUANTITIES

CODE NO. 03: SEWAGE NETWORK SYSTEM.

Item No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)
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WIRING ACCESSORIES

Ref. Spec. Sec.8220

03b-7E 16 Amp, 250 Volt, 2 pin with, schuko socket outlet with sheet steel surface back box and all accessories.

No. 4 25,000 100,000

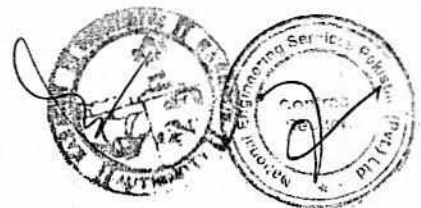
EARTHING

Ref. Spec. Sec. 8212, 8240

03b-8E 600 mmx 600 mm x 3 mm tin plated copper Plate type earth electrode including 2x70 sq.mm PVC copper conductor cable as earthing lead, inspection chamber with medium duty C.I cover, 50 mm dia medium duty G.I pipe as shown on drawings, complete in all respect.

No. 2 50,000 100,000

Total Amount 1,870,500
 Carried over to summary of cost



KARACHI FISHERIES HARBOUR AUTHORITY
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EXTERNAL SERVICES (PART-I)
PACKAGE "A" - CIVIL WORKS
BILL OF QUANTITIES

CODE NO.04 FIRE FIGHTING SYSTEM

Item No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)
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C. CIVIL WORKS

EARTHWORKS

Ref.Spec. No.1100

04-1C	Excavation of trenches in all kinds of sub-surface material up to following depths including dewatering and disposal of surplus/rejected excavated material to designated places.				
	a) 0 - 2 meter	Cu.m.	9060	600	5,436,000
04-2C	Fill & backfill with selected material obtained from required excavation.	Cu.m.	8011	300	2,403,300
04-3C	Fine sand bedding including compaction.	Cu.m.	25	2,000	50,000

PLAIN AND REINFORCED CONCRETE

Ref. Sec.No. 2300, 2100

04-4C	Class 'E' concrete using specified cement in foundations.	Cu.m.	10	1500	15,000
04-5C	Class 'B' reinforced concrete using specified cement in following manholes/ chambers structures complete in all respect as shown on the drawings.				
	a) Base Slab	Cu.m.	16	18,000	288,000
	b) Walls	Cu.m.	60	20,000	1,200,000
	c) Top Slab	Cu.m.	16	20,000	320,000
04-6C	Class 'C' plain concrete using specified cement including M.S. anchor bars in thrust blocks.	Cu.m.	5	20,000	100,000



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BILL OF QUANTITIES

CODE NO.04 FIRE FIGHTING SYSTEM

Item No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)
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REINFORCEMENT

Ref. Sec.No. 2200

04-7C	Grade 60 deformed hot rolled billet steel bars conforming to ASTM A-615.	tonne	0.1	1,80,000	1,80,000
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CAST IRON COVERS WITH FRAME & LADDER RUNGS

Ref. Sec. 5233

04-8C Cast iron cover with frame of following sizes including fixing complete in all respects as shown on the drawing and specifications. (Heavy Duty)

a)	600 mm x 600 mm	No.	31	5,000	1,55,000
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04-9C 20mm dia. M.s. galvanised ladder rungs including fixing and fixing accessories complete in all respect as shown on the drawings.

No	160	1,000	1,60,000
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STEEL PIPE & FITTINGS

Ref. Sec. 5214

04-10C Steel pipe conforming to API 5L (8mm wall thickness) sleeves on road crossings.

i)	300mm	Rm	58	10,000	5,80,000
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ii)	350mm	Rm	34	10,000	3,40,000
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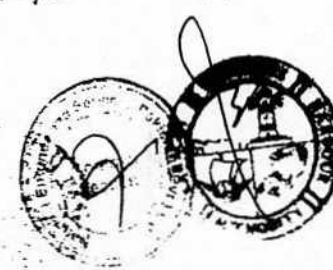
THRUST BORING

Ref. Sec. 5820

04-11C Thrust Boring below road for providing dia. Following dia steel pipe conforming to API 5L (8mm wall thickness) sleeves for pipe crossings.

i)	300mm	Rm	58	10,000	5,80,000
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ii)	350mm	Rm	34	10,000	3,40,000
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BILL OF QUANTITIES

CODE NO.04 FIRE FIGHTING SYSTEM

Item No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)
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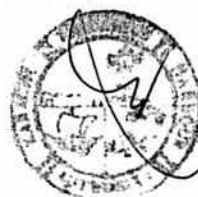
WATER PROOFING AND BUILT-UP ROOFING

Ref. Sec.No.6411

04-12C	Two coats of hot bitumen grade 10.20 applied at the rate of 1 kg./Sq.m. per coat to all exposed structural concrete surfaces in contact with earth.	Sq.m.	300	500	150,000
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Total Amount

Carried over to summary of cost

12,135,300

KARACHI FISHERIES HARBOUR AUTHORITY
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EXTERNAL SERVICES (PART - I)
PACKAGE "A" - CIVIL WORKS
BILL OF QUANTITIES

CODE NO.04 FIRE FIGHTING SYSTEM

Item No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)
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P. PIPING WORKS

POLY ETHYLENE PIPES & PIPE FITTINGS

Ref. Spec. No. 5213

04-1P H.D.P.E. Pipes PN-16 conforming to ISO-4427:1996 and fittings conforming to ISO-3458 of following diameters as shown on drawing and as specified.

a) 355 mm	Rm	170	13,000	2,210,000
b) 280 mm	Rm	1,900	4,000	7,600,000
c) 225 mm	Rm	3,350	3,000	10,050,000
d) 90 mm	Rm	20	5,000	100,000

FIRE HYDRANTS

Ref. Spec. No. 5220

04-2P Above ground fire hydrant with two 65mm dia. outlet and one 100mm dia. outlet, valves, chain etc. including MS extension pipe, fitting and accessories complete in all respect as shown on the drawings, as specified and as directed by the Engineer.

No. 26 1,00,000 2,600,000

04-3P Below ground fire hydrant with 65mm dia. outlet, valves, chain etc. including MS extension pipe fitting and accessories complete in all respect as shown on the drawings, as specified and as directed by the Engineer.

No. 28 1,00,000 2,800,000



BILL OF QUANTITIES

CODE NO.04 FIRE FIGHTING SYSTEM

Item No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)
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VALVES AND APPURTENANCES

Ref. Spec. No. 5220

04-4P Cast iron flanged gate valve of the following diameters conforming to BS 5163 or equivalent, PN 16 as shown on drawing and as specified.

a) 355 mm

No.

2

200,000

400,000

b) 280 mm

No.

7

100,000

700,000

c) 225 mm

No.

9

100,000

900,000

04-5P Cast iron flanged double acting air valve including approved isolating valves of the following diameters as per AWWA C512 or BS equivalent, PN-16 of Western European or Japan origin as shown on drawings and as specified.

a) 50 mm

No.

2

300,000

600,000

Total Amount
Carried over to summary of cost

27,960,000



KARACH FISH HARBOUR AUTHORITY
 REHABILITATION & RENOVATION OF KARACHI FISH HARBOUR
 EXTERNAL SERVICES (PART-I)
 PACKAGE "A" - CIVIL WORKS
 BILL OF QUANTITIES

CODE NO. 04: FIRE FIGHTING SYSTEM

Item No.	Description	Unit	Quantity	Rate (Rs)	Amount (Rs.)
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E. ELECTRICAL WORKS

Supply, installation, testing and commissioning of the following items of work (unless specifically stated otherwise) including all material, labour, tools, plant, accessories, related civil works, etc., required for proper completion of each item as per specifications (Section-8001 "General Specifications for Electrical Works" shall be applicable to all BOQ items).

MOTOR CONTROL CENTRES

Ref. Sec. No. 8132, 8133, 8135, 8240

- 04-1E Following MCC (as per single line diagram shown on drawing.) including all control wiring, foundation, mounting arrangement, related civil works and all accessories, etc., complete in all respects.

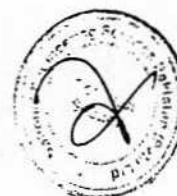
a) MCC-FW	Job	1	300,000	300,000
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LOW TENSION CABLES

Ref. Spec. Sec. 8212

- 04-2E Following sizes single core/multi core PVC insulated and PVC sheathed, unarmoured copper conductor cables in already installed surface mounted/concealed PVC conduit or underground PVC pipe or on cable tray, for power and miscellaneous wiring including all accessories.

a) 3 core 16 sq.mm PVC/PVC	RM	24	2,000	48,000
b) 3 core 70 sq.mm PVC/PVC	RM	84	8000	672,000



BILL OF QUANTITIES

CODE NO. 04: FIRE FIGHTING SYSTEM

Item No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)
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EARTHING

Ref. Spec. Sec. 8212, 8240

Following sizes of single core PVC insulated copper conductor cable as earth continuity conductor (ECC) installed on surface or on already installed cable tray or on already installed pipes/conduits or in trench etc.

a) 16 sq. mm.	RM	12	2,000	24,000
b) 35 sq. mm.	RM	42	6,000	252,000

04-4E 600 mm x 600 mm x 3 mm tin plated copper Plate type earth electrode including 2x70 sq.mm PVC copper conductor cable as earthing lead, inspection chamber with medium duty C.I cover, 50 mm dia medium duty G.I pipe as shown on drawings, complete in all respect.

Nos.	1	100,000	100,000
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MISCELLANEOUS ITEMS

Ref. Spec. Sec. 8290

04-5E Following sizes perforated G.I. sheet cable trays powder coated after fabrication including cover, joints, bend, mounting brackets hanger complete with all accessories:

a) 100 mm x 50 mm	RM	20	5000	100,000
b) 750 mm x 100 mm	RM	15	8000	120,000

Total Amount
Carried over to summary of cost 1,616,000



KARACHI FISHERIES HARBOUR AUTHORITY
REHABILITATION AND RENOVATION OF KARACHI FISH HARBOUR
EXTERNAL SERVICES (PART-I)
PACKAGE "A" - CIVIL WORKS
BILL OF QUANTITIES

CODE NO.05 ANCILLIARY BUILDINGS.

Item No	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)
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05a. Guard Room 1 & 2**C. CIVIL WORKS****EARTHWORKS**

Ref.Spec. No.1100

05a-1C Excavation in all kinds of sub-surface materials upto following depths including dewatering and disposal of surplus/ rejected excavated materials to designated places.

a) 0 - 2 metre	Cu.m.	28	600	16,800
b) 2 - 4 metre	Cu.m.	5	600	3,000

05a-2C Fill & backfill with selected material obtained from required excavation.

Cu.m.	25	3000	75000
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STONE SOLING

Ref. Sec.No. 1330

05a-3C 100mm thick compacted stone soling.

Sq.m.	21	2000	42000
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05a-4C 150mm thick compacted stone soling.

Sq.m.	15	2000	30,000
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05a-5C 300mm thick compacted stone soling.

Sq.m.	12	2000	24000
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TERMITE CONTROL TREATMENT

Ref.Spec. No.1600

05a-6C Termite control treatment.

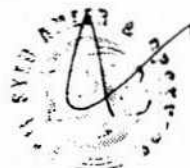
Sq.m.	48	1000	48000
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REINFORCEMENT

Ref. Sec.No. 2200

05a-7C Grade 60 deformed hot rolled billet steel bars conforming to ASTM A-615.

tonne	2	140,000	280,000
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BILL OF QUANTITIES

CODE NO. 05 ANCILLIARY BUILDINGS.

Item No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)
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PLAIN AND REINFORCED CONCRETE

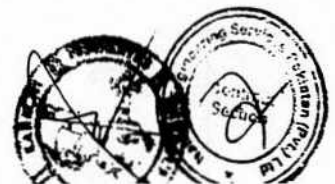
Ref. Sec.No. 2300, 2100

05a-8C	Class 'E' concrete using specified cement in foundations.	Cu.m.	3	15,000	45,000
05a-9C	Class 'D' concrete using specified cement in steps & foundations etc.	Cu.m.	4	18,000	72,000
05a-10C	Class 'D' plain cement concrete using ordinary Portland cement in plinth protection including bitumen seal.	Cu.m.	2	18,000	36,000
05a-11C	Class 'B' reinforced concrete in following sub-structures using specified cement complete in all respect as shown on the drawings & specifications.				
	a) Foundations	Cu.m.	4	18,000	72,000
	b) Plinth beam	Cu.m.	2	20,000	40,000
	c) Column upto plinth	Cu.m.	1	20,000	20,000
05a-12C	Class 'B' reinforced concrete in following super structures using specified cement complete in all respect as shown on the drawings & specifications.				
	a) Columns	Cu.m.	2	20,000	40,000
	b) Beams & lintels	Cu.m.	2	20,000	40,000
	c) Slabs & projections	Cu.m.	5	20,000	100,000
	d) Purdi	Cu.m.	2	20,000	40,000

ALUMINIUM WORKS

Ref. Sec.No. 6220, 6250

05a-13C	Anodized aluminium glazed sliding windows including 5mm thick clear glass and hardware set as per schedule complete in all respect as shown on the drawings.	Sq.m.	4	15,000	60,000
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BILL OF QUANTITIES

CODE NO. 05 ANCILLIARY BUILDINGS.

Item No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)
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BLOCK MASONRY

Ref. Sec.No. 4100

05a-14C Reinforced block masonry of the following thicknesses set in 1:6 cement sand mortar.

a) 150mm thick solid

Cu.m.

7

15000

105000

CEMENT PLASTER

Ref. Sec.No. 6521

05a-15C 12mm thick 1:4 cement sand plaster to specified interior surfaces.

Sq.m.

90

1200

108000

05a-16C 20mm thick 1:4 cement sand plaster to specified exterior surfaces.

Sq.m.

110

1500

165000

FLOOR AND WALL FINISHES

Ref. Sec.No. 6600

05a-17C 100mm thick Class 'D' cement concrete sub-floor.

Sq.m.

15

1500

22500

05a-18C Porcelain tile floor using of size 600x600mm in approved colour laid in approved pattern set in specified cement sand mortar including Class 'C' cement concrete screed base complete in all respect as shown on the drawings & specifications.

Sq.m.

16

10000

160000

05a-19C Porcelain tile skirting 100mm high using tile of approved size, colour and quality laid in approved pattern including rough base plaster complete in all respect as shown on the drawings & specifications.

Sq.m.

3

12000

36000

05a-20C Chequered tile floor using of size 300x300x25mm thick in approved colour laid in approved pattern set in specified cement sand mortar including Class 'C' cement concrete screed base complete in all respect as shown on the drawings & specifications.

Sq.m.

21

12000

252000



BILL OF QUANTITIES

CODE NO.05 A. ACCESSORY BUILDINGS.

Item No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)
<u>WATER PROOFING AND BUILT-UP ROOFING</u>					
Ref. Sec.No. 6411					
05a-21C	Water proofing and built-up roofing over slab as per specifications and as shown on the drawings.	Sq.m.	35	1500	52500
05a-22C	Two coats of hot bitumen grade 10/20 applied at the rate of 1 kg./Sq.m. per coat to all exposed structural concrete surfaces in contact with earth.	Sq.m.	52	500	26000
<u>CARPENTRY & JOINERY</u>					
Ref.Spec. No. 4600, 6700					
05a-23C	Wooden doors including hardwares set as per schedule and paint complete in all respect as shown on the drawings.	Sq.m.	5	15000	75000
<u>PAINTING</u>					
Ref.Spec. No. 6700					
05a-24C	Distemper paint to specified surfaces on ceiling including sealer primer.	Sq.m.	25	600	15000
05a-25C	Matt enamel paint of approved make, quality, colour/ shade including wall sealer, primer, surfaces preparation to specified interior surfaces complete in all respect as shown on the drawings and specifications.	Sq.m.	70	1000	70000
05a-26C	Weather resistant paint of approved make, quality, colour/ shade including surfaces preparation to specified exterior surfaces complete in all respect as shown on the drawings and specifications.	Sq.m.	110	1500	165000
Total Amount					21,335,800
Carried over to summary of cost					



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CODE NO. 05: ANCILLARY BUILDING

Item No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)
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05a. Guard Room 1 & 2.**E. ELECTRICAL WORKS**

Supply, installation, testing and commissioning of the following items of work (unless specifically stated otherwise) including all material, labour, tools, plant, accessories, related civil works, etc., required for proper completion of each item as per specifications (Section-8001 "General Specifications for Electrical Works" shall be applicable to all BOQ items).

LT DISTRIBUTION BOARDS

Ref. Spec. Sec. 8133, 8212, 8240

05a-1E Following LT Distribution Boards (as per single line diagrams), recessed/surface mounted including all accessories, related civil works etc. complete in all respects.

a) DB-GR-1 & 2

Job 2 150,000 300,000

LIGHT FIXTURES

Ref. Spec. Sec. 8150,8240

05a-2E Following lighting fixtures with fluorescent or compact fluorescent or incandescent lamps or as per lighting fixture schedule installed on surface or on false ceiling complete with all accessories such as lamps, lamp holders, ballast, starters, capacitors, as applicable, etc. and all relevant installation material as approved by the Engineer.

a) Type A1

Surface mounted batten light fixture body made of cold rolled steel (CRC) sheet pretreated, painted and stove enameled in white color with 1X36W fluorescent lamp. Diffuser made of clear prismatic pattern acrylic sheet.

No. 4 25000 100,000



BILL OF QUANTITIES

CODE NO. 05: ANCILLARY BUILDING

Item No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)
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b) Type W1

Surface mounted light fixture body made of non-corrosive high pressure die-cast aluminium, ~~stainless~~enameled, painted in white color with 1X11W compact florescent lamp along with clear polycarbonate diffuser.

No. 2 25000 50,000

WIRING

Ref. Sec. 8212,8220,8230,8240,8290

05a-3E Wiring of light circuits from distribution board (DB) to point/switch including wiring between switches on the same circuit with 3(1x2.5sq.mm) single core copper conductor PVC cable complete with appropriate size surface/ concealed PVC conduit and all accessories etc., complete in all respect.

No. 2 15000 30,000

05a-4E Wiring from light/exhaust fan point to switch with 3(1x1.5 sq.mm) single core copper conductor PVC cable, including appropriate size surface/ concealed PVC conduit, ceiling rose, 10 Amps light control gang switch, sheet steel back box, 3 core flexible cable and all accessories etc., complete in all respect.

No. 6 15000 90,000

05a-5E Wiring of 16A socket outlets with single core, copper conductor PVC cable complete with appropriate size concealed / surface PVC conduit and all accessories etc., complete in all respects.

a) From Distribution Board (DB) to outlet with 3(1x2.5 sq.mm.) cable.

No. 2 30,000 60,000

b) From outlet to outlet with 3(1x2.5 sq.mm.) cable.

No. 2 30,000 60,000

WIRING ACCESSORIES

Ref. Spec. Sec.8220, 8290

05a-6E 16 amps, 250 volts, 2 pin + earth Schuko socket outlett, with sheet steel back box and all accessories.

No. 4 30,000 120,000



BILL OF QUANTITIES

CODE NO. 05: ANCILLA BUILDING

Item No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)
05a-7E	Sheet steel backbox with plastic cover plate including all mounting and installation accessories.	No.	2	50,000	100,000
CONDUIT & PIPES					
Ref. Spec. Sec.8230					
05a-8E	25 mm dia PVC conduit installed concealed including all mounting and installation accessories.	RM.	20	10,000	200,000
EARTHING					
Ref. Spec. Sec. 8212, 8240					
05a-9E	600 mmx 600 mm x 3 mm tin plated copper Plate type earth electrode including 2x70 sq.mm PVC copper conductor cable as earthing lead, inspection chamber with medium duty C.I cover, 50 mm dia medium duty G.I pipe as shown on drawings, complete in all respect.	No.	2	2,000	4,000
MISCELLANEOUS					
Ref. Spec. Sec. 8290					
05a-10E	56" sweep, single phase, 250V, ceiling fan including fan speed regulators / dimmers, fan hook and all mounting accessories, as required, complete in all respects.	No.	2	12,000	24,000
				Total Amount	<u>1,138,000</u>
				Carried over to summary of cost	



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EXTERNAL SERVICES (PART- I)
PACKAGE "A" - CIVIL WORKS
BILL OF QUANTITIES

CODE NO.05 ANCILLIARY BUILDINGS.

Item No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)
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05b. Security Room

C. CIVIL WORKS

EARTHWORKS

Ref.Spec. No.1100

05b-1C Excavation in all kinds of sub-surface materials upto following depths including dewatering and disposal of surplus/ rejected excavated materials to designated places.

a) 0 - 2 metre

Cu.m. 52 600 31,200

b) 2 - 4 metre

Cu.m. 9 600 5,400

05b-2C Fill & backfill with selected material obtained from required excavation.

Cu.m. 47 300 14,100

STONE SOLING

Ref. Sec.No. 1330

05b-3C 100mm thick compacted stone soling.

Sq.m. 35 2,000 70,000

05b-4C 150mm thick compacted stone soling.

Sq.m. 30 2,000 60,000

05b-5C 300mm thick compacted stone soling.

Sq.m. 25 2,000 50,000

TERMITE CONTROL TREATMENT

Ref.Spec. No.1600

05b-6C Termite control treatment.

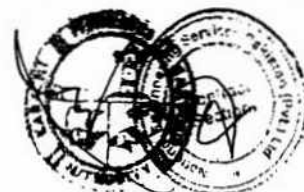
Sq.m. 87 1,000 87,000

REINFORCEMENT

Ref. Sec.No. 2200

05b-7C Grade 60 deformed hot rolled billet steel bars conforming to ASTM A-615.

tonne 4 160,000 640,000



BILL OF QUANTITIES

CODE NO.05 ANCILLIARY BUILDINGS.

Item No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)
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PLAIN AND REINFORCED CONCRETE

Ref. Sec.No. 2300, 2100

05b-8C	Class 'E' concrete using specified cement in foundations.	Cu.m.	4	15000	60,000
05b-9C	Class 'D' concrete using specified cement in foundations.	Cu.m.	4	18000	72,000
05b-10C	Class 'D' plain cement concrete using ordinary Portland cement in plinth protection including bitumen seal.	Cu.m.	4	18000	72,000
05b-11C	Class 'B' reinforced concrete in following sub-structures using specified cement complete in all respect as shown on the drawings & specifications.				
	a) Foundations	Cu.m.	7	20,000	140,000
	b) Plinth beam	Cu.m.	4	20,000	80,000
	c) Column upto plinth	Cu.m.	3	20,000	60,000
05b-12C	Class 'B' reinforced concrete in following super structures using specified cement complete in all respect as shown on the drawings & specifications.				
	a) Columns	Cu.m.	3	20,000	60,000
	b) Beams & lintels	Cu.m.	4	20,000	80,000
	c) Slabs & projections	Cu.m.	7	20,000	140,000
	d) Purdi	Cu.m.	2	20,000	40,000

ALUMINIUM WORKS

Ref. Sec.No. 6220, 6250

05b-13C	Anodized aluminium glazed sliding windows including 5mm thick clear glass and hardware set as per schedule complete in all respect as shown on the drawings.	Sq.m.	6	15000	90,000
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BILL OF QUANTITIES

CODE NO.05 ANCILLIARY BUILDINGS.

Item No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)
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BLOCK MASONRY

Ref. Sec.No. 4100

05b-14C Reinforced block masonry of the following thicknesses set in 1:6 cement sand mortar.

a) 150mm thick solid	Cu.m.	13	15000	195,000
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CEMENT PLASTER

Ref. Sec.No. 6521

05b-15C 12mm thick 1:4 cement sand plaster to specified interior surfaces.

Sq.m.	165	1200	198000
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05b-16C 20mm thick 1:4 cement sand plaster to specified exterior surfaces.

Sq.m.	160	1500	240,000
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FLOOR AND WALL FINISHES

Ref. Sec.No. 6600

05b-17C 100mm thick Class 'D' cement concrete sub-floor.

Sq.m.	30	2000	60,000
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05b-18C Porcelain tile floor using of size 600x600mm in approved colour laid in approved pattern set in specified cement sand mortar including Class 'C' cement concrete screed base complete in all respect as shown on the drawings & specifications.

Sq.m.	29	10,000	290,000
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05b-19C Porcelain tile skirting 100mm high using tile of approved size, colour and quality laid in approved pattern including rough base plaster complete in all respect as shown on the drawings & specifications.

Sq.m.	5	12000	60,000
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05b-20C Chequered tile floor using of size 300x300x25mm thick in approved colour laid in approved pattern set in specified cement sand mortar including Class 'C' cement concrete screed base complete in all respect as shown on the drawings & specifications.

Sq.m.	35	2000	70,000
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BILL OF QUANTITIES

CODE NO.05 ANCILLIARY BUILDINGS.

Item No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)
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WATER PROOFING AND BUILT-UP ROOFING

Ref. Sec.No. 6411

05b-21C Water proofing and built-up roofing over slab as per specifications and as shown on the drawings.

Sq.m. 48 1500 72,000

05b-22C Two coats of hot bitumen grade 10/20 applied at the rate of 1 kg./Sq.m. per coat to all exposed structural concrete surfaces in contact with earth.

Sq.m. 85 500 42,500

CARPENTRY & JOINERY

Ref.Spec. No. 4600, 6700

05b-23C Wooden doors including hardwares set as per schedule and paint complete in all respect as shown on the drawings.

Sq.m. 9 15000 135,000

PAINTING

Ref.Spec. No. 6700

05b-24C Distemper paint to specified surfaces on ceiling including sealer primer.

Sq.m. 31 800 24,800

05b-25C Matt enamel paint of approved make, quality, colour/ shade including wall sealer, primer, surfaces preparation to specified interior surfaces complete in all respect as shown on the drawings and specifications.

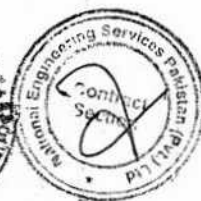
Sq.m. 131 1000 131,000

05b-26C Weather resistant paint of approved make, quality, colour/ shade including surfaces preparation to specified exterior surfaces complete in all respect as shown on the drawings and specifications.

Sq.m. 160 1500 240,000

Total Amount
Carried over to summary of cost

3,610,000



KARACH FISH HARBOUR AUTHORITY
REHABILITATION & RENOVATION OF KARACHHI FISH HARBOUR
EXTERNAL SERVICES (PART-I)
PACKAGE "A" - CIVIL WORKS
BILL OF QUANTITIES

CODE NO. 05: ANCILLARY BUILDING

Item No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)
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05b.Security Room.

E. ELECTRICAL WORKS

Supply, installation, testing and commissioning of the following items of work (unless specifically stated otherwise) including all material, labour, tools, plant, accessories, related civil works, etc., required for proper completion of each item as per specifications (Section-8001 "General Specifications for Electrical Works" shall be applicable to all BOQ items).

LT DISTRIBUTION BOARDS

Ref. Spec. Sec. 8133, 8212, 8240

05b-1E Following LT Distribution Boards (as per single line diagrams), recessed/surface mounted including all accessories, related civil works etc. complete in all respects.

a) DB-SR

Job 1 500,000 500,000

LIGHT FIXTURES

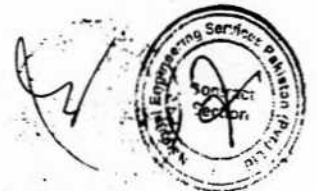
Ref. Spec. Sec. 8150,8240

05b-2E Following lighting fixtures with fluorescent or compact fluorescent or incandescent lamps or as per lighting fixture schedule installed on surface or on false ceiling complete with all accessories such as lamps, lamp holders, ballast, starters, capacitors, as applicable, etc. and all relevant installation material as approved by the Engineer.

a) Type A1

Surface mounted batten light fixture body made of cold rolled steel (CRC) sheet pretreated, painted and stove enameled in white color with 1X36W fluorescent lamp. Diffuser made of clear prismatic pattern acrylic sheet.

No. 8 30,000 240,000



BILL OF QUANTITIES

CODE NO. 05: ANCILLARY BUILDING

Item No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)
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b) Type W1

Surface mounted light fixture body made of non-corrosive, high pressure die-cast aluminium, stove enameled, painted in white color with 1X11W compact florescent lamp along with clear polycarbonate diffuser.

No. 4 30,000 120,000

WIRING

Ref. Sec. 8212,8220,8230,8240,8290

05b-3E Wiring of light circuits from distribution board (DB) to point/switch including wiring between switches on the same circuit with 3(1x2.5sq.mm) single core copper conductor PVC cable complete with appropriate size surface/ concealed PVC conduit and all accessories etc., complete in all respect.

No. 3 20,000 60,000

05b-4E Wiring from light/exhaust fan point to switch with 3(1x1.5 sq.mm) single core copper conductor PVC cable, including appropriate size surface/ concealed PVC conduit, ceiling rose, 10 Amps light control gang switch, sheet steel back box, 3 core flexible cable and all accessories etc., complete in all respect.

No. 12 20,000 240,000

05b-5E Same as item No. 05b-4E, but wiring from point to point.

No. 4 20,000 80,000

05b-6E Wiring of 16A socket outlets with single core, copper conductor PVC cable complete with appropriate size concealed / surface PVC conduit and all accessories etc., complete in all respects.

a) From Distribution Board (DB) to outlet with 3(1x2.5 sq.mm.) cable.

No. 2 20,000 40,000

b) From outlet to outlet with 3(1x2.5 sq.mm.) cable.

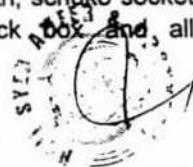
No. 10 10,000 100,000

WIRING ACCESSORIES

Ref. Spec. Sec.8220, 8290

05b-7E 16 Amp, 250 Volt, 2 pin + earth, schuko socket outlet, with sheet steel back box and, all accessories.

No. 10 10,000 100,000



BILL OF QUANTITIES

CODE NO. 02: WATER SUPPLY SYSTEM.

Item No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)
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a) Type W3

Surface mounted light fixture body made of non-corrosive, high pressure die-cast aluminium. Groove enameled, painted in white color with 2X11W compact florescent lamp along with clear polycarbonate diffuser.

No. 18 20,000 360,000

b) Type OB

Philips make type Obstruction light XGP-500 (OBSTIVION) or equivalent with low intensity long life led lamps, flasher, glass cover, photo switch and sensor, junction box, etc. IP65 with 2-meter-high suitable G.I. pipe.

No. 1 200,000 200,000

WIRING

Ref. Sec. 8212,8220,8230,8240,8290

02c-3E Wiring of light circuits from distribution board (DB) to point/switch including wiring between switches on the same circuit with 3(1x2.5sq.mm) single core copper conductor PVC cable complete with appropriate size surface mounted medium duty G.I conduit and all accessories, etc., including two coats of matching weather resistant paint on entire length of surface GI conduits. complete in all respects.

No. 2 20,000 40,000

02c-4E Wiring from light/fan/exhaust fan point to switch with 3(1x1.5sq.mm) single core copper conductor, PVC cable in appropriate size surface mounted medium duty G.I conduit, including ceiling rose, 10 Amps weather proof light control gang switch, sheet steel surface back box, 3 core flexible cable and all accessories, etc., including two coats of matching weather resistant paint on entire length of surface GI conduits. complete in all respect.

No. 1 30,000 30,000



BILL OF QUANTITIES

CODE NO. 05: ANCILLARY BUILDING

Item No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)
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05b-8E Sheet steel backbox with plastic cover plate including all mounting and installation accessories.

4

10,000

40,000

CONDUIT & PIPES

Ref. Spec. Sec.8230

05b-9E 25 mm dia PVC conduit installed concealed including all mounting and installation accessories.

RM.

40

3,000

120,000

EARTHING

Ref. Spec. Sec. 8212, 8240

05b-10E 600 mm x 600 mm x 3 mm tin plated copper Plate type earth electrode including 2x70 sq.mm PVC copper conductor cable as earthing lead, inspection chamber with medium duty C.I cover, 50 mm dia medium duty G.I pipe as shown on drawings, complete in all respect.

No.

1

50,000

50,000

MISCELLANEOUS

Ref. Spec. Sec. 8290

05b-11E 56" sweep, single phase, 250V, ceiling fan including fan speed regulators / dimmers, fan hook and all mounting accessories, as required, complete in all respects.

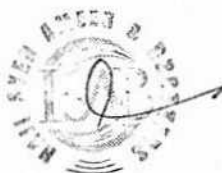
No.

4

10,000

40,000

Total Amount 1,750,000
Carried over to summary of cost



KARACHI FISHERIES HARBOUR AUTHORITY
REHABILITATION AND RENOVATION OF KARACHI FISHERY HARBOUR
EXTERNAL SERVICES (PART-I)
PACKAGE "A" - CIVIL WORKS
BILL OF QUANTITIES

CODE NO.05 ANCILLIARY BUILDINGS.

Item	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)
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05c. Toilet Block.

C. CIVIL WORKS

EARTHWORKS

Ref.Spec. No.1100

05c-1C Excavation in all kinds of sub-surface materials upto following depths including dewatering and disposal of surplus/ rejected excavated materials to designated places.

a) 0 - 2 metre Cu.m. 44 600 26400

b) 2 - 4 metre Cu.m. 9 600 5400

05c-2C Fill & backfill with selected material obtained from required excavation. Cu.m. 42 300 12600

STONE SOLING

Ref. Sec.No. 1330

05c-3C 100mm thick compacted stone soling. Sq.m. 21 2000 42,000

05c-4C 150mm thick compacted stone soling. Sq.m. 15 2000 30,000

05c-5C 300mm thick compacted stone soling. Sq.m. 21 2000 42000

TERMITE CONTROL TREATMENT

Ref.Spec. No.1600

05c-6C Termite control treatment. Sq.m. 57 1000 57000

REINFORCEMENT

Ref. Sec.No. 2200

05c-7C Grade 60 deformed hot rolled billet steel bars conforming to ASTM A-615. tonne 3 140,000 420,000



BILL OF QUANTITIES

CODE NO. 05 ANCILLIARY BUILDINGS.

Item No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)
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PLAIN AND REINFORCED CONCRETE

Ref. Sec.No. 2300, 2100

05c-8C	Class 'E' concrete using specified cement in foundations.	Cu.m.	3	15,000	45,000
05c-9C	Class 'D' concrete using specified cement in steps & foundations.	Cu.m.	3	18,000	54,000
05c-10C	Class 'D' plain cement concrete using ordinary Portland cement in plinth protection including bitumen seal.	Cu.m.	2	20,000	40,000
05c-11C	Class 'B' reinforced concrete in following sub-structures using specified cement complete in all respect as shown on the drawings & specifications.				
	a) Foundations	Cu.m.	7	20,000	140,000
	b) Plinth beam	Cu.m.	2	20,000	40,000
	c) Column upto plinth	Cu.m.	1	20,000	20,000
05c-12C	Class 'B' reinforced concrete in following super structures using specified cement complete in all respect as shown on the drawings & specifications.				
	a) Columns	Cu.m.	2	20,000	40,000
	b) Beams & lintels	Cu.m.	2	20,000	40,000
	c) Slabs & projections	Cu.m.	5	20,000	1,00,000
	d) Purdi	Cu.m.	3	20,000	60,000

ALUMINIUM WORKS

Ref. Sec.No. 6220, 6250

05c-13C	Anodized aluminium glazed sliding Ventilators including 5mm thick clear glass and hardware set as per schedule complete in all respect as shown on the drawings.	Sq.m.	2	20,000	40,000
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BILL OF QUANTITIES

CODE NO. 05 ANCILLIARY BUILDINGS.

Item No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)
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BLOCK MASONRY

Ref. Sec.No. 4100

05c-14C Reinforced block masonry of the following thicknesses set in 1:6 cement sand mortar.

a) 200mm thick solid	Cu.m.	7	15,000	105,000
b) 100mm thick solid	Cu.m.	2	15,000	30,000

CEMENT PLASTER

Ref. Sec.No. 6521

05c-15C 12mm thick 1:4 cement sand plaster to specified interior surfaces.

Sq.m. 40 1,500 60,000

05c-16C 20mm thick 1:4 cement sand plaster to specified exterior surfaces.

Sq.m. 126 1500 189,000

FLOOR AND WALL FINISHES

Ref. Sec.No. 6600

05c-17C 100mm thick Class 'D' cement concrete sub-floor.

Sq.m. 15 1500 22,500

05c-18C Porcelain tile floor matt finish using of size 300x300mm in approved colour laid in approved pattern set in specified cement sand mortar including Class 'C' cement concrete screed base complete in all respect as shown on the drawings & specifications.

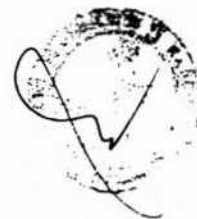
Sq.m. 15 5,000 75,000

05c-19C Porcelain tile dado using tile of size 200x300mm, approved colour and quality laid in approved pattern including rough base plaster complete in all respect as shown on the drawings & specifications.

Sq.m. 48 5,000 240,000

05c-20C Chequered tile floor using of size 300x300x25mm thick in approved colour laid in approved pattern set in specified cement sand mortar including Class 'C' cement concrete screed base complete in all respect as shown on the drawings & specifications.

Sq.m. 21 5,000 105,000



BILL OF QUANTITIES

CODE NO.05 ANCILLIARY BUILDINGS.

Item No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)
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WATER PROOFING AND BUILT-UP ROOFING

Ref. Sec.No. 6411

05c-21C Water proofing and built-up roofing over slab as per specifications and as shown on the drawings. Sq.m. 37 5,000 185,000

05c-22C Two coats of hot bitumen grade 10/20 applied at the rate of 1 kg./Sq.m. per coat to all exposed structural concrete surfaces in contact with earth. Sq.m. 62 500 31,000

CARPENTRY & JOINERY

Ref.Spec. No. 4600, 6700

05c-23C Wooden doors including hardwares set as per schedule and paint complete in all respect as shown on the drawings. Sq.m. 7 25,000 175,000

PAINTING

Ref.Spec. No. 6700

05c-24C Distemper paint to specified surfaces on ceiling including sealer primer. Sq.m. 27 1200 32400

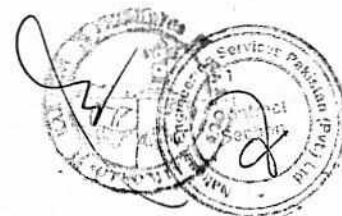
05c-25C Matt enamel paint of approved make, quality, colour/ shade including wall sealer, primer, surfaces preparation to specified interior surfaces complete in all respect as shown on the drawings and specifications. Sq.m. 14 1200 16,800

05c-26C Weather resistant paint of approved make, quality, colour/ shade including surfaces preparation to specified exterior surfaces complete in all respect as shown on the drawings and specifications. Sq.m. 126 1200 151,200

Total Amount

Carried over to summary of cost

2,672,300



KARACHI FISHERIES HARBOUR AUTHORITY
REHABILITATION & RENOVATION OF KARACHI FISH HARBOUR
EXTERNAL SERVICES (PART - I)
PACKAGE "A" - CIVIL WORKS
BILL OF QUANTITIES

CODE NO.05c Toilet Block

Item No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)
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05 P. PLUMBING WORKS**WATER SUPPLY**

Ref: Spec. No. 5100, 5180

05c-1P PPR cold & hot water pipes SDR 6 (PN 20) conforming to DIN 8077 & DIN 8078 & fittings SDR 6 (PN20) conforming to DIN 16962 of following diameters.

a) 15 mm	RM	4	2000	8,000
b) 20 mm	RM	6	2000	12,000
c) 25 mm	RM	6	2000	12,000
d) 40 mm	RM	6	2000	12,000

05c-2P C.P. brass bib cock of the following diameter with perinial spray including all accessories:

a) 15 mm	No.	3	1000	3000
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05c-3P Bronze gate valves of the following diameters as specified.

a) 40 mm	No.	1	2000	2000
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05c-4P Electric Water Heater of following capacities:

a) 10 gallons	No.	1	50,000	50,000
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05c-5P Fiber Glass Water tank of 800 gallons capacity as specified on drawing.

	No.	1	50,000	50,000
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PLUMBING FIXTURES

Ref: Spec. No. 5100

05c-6P Wash basin counter type with all other accessories.

	No.	3	15000	45000
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BILL OF QUANTITIES

CODE NO.05c Toilet Block

Item No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)
05c-7P	Western water closet with flushing cistern & all other accessories.	No.	2	25,000	50,000
05c-8P	Eastern water closet with all other accessories.	No.	1	30,000	30,000
05c-9P	Imported Belgium glass mirror.	Sq.M.	3	25,000	75,000
05c-10P	Toilet Paper Holder as specified.	No.	2	5,000	10,000
05c-11P	Towel rail as specified.	No.	1	5,000	5,000

SANITARY DRAINAGE

Ref. Spec. No. 5100 & 5180

05c-12P uPVC soil, waste and vent pipes conforming to ASTM D-1785 of Schedule 40 & fittings D-2466 of Schedule 40 including fittings compatible with pipe of following diameter as specified: (for unexposed piping).

a) 100 mm	RM	6	200	1200
b) 75 mm	RM	10	200	2000
c) 32 mm	RM	3	200	600

05c-13P uPVC floor drains of the following diameter:

a) 75 mm	No.	1	5,000	5,000
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05c-14P uPVC floor traps of the following diameter:

a) 75 mm	No.	2	5,000	10,000
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05c-15P uPVC floor clean out of following diameter:

a) 75 mm	No.	1	5,000	5,000
b) 100 mm	No.	1	5,000	5,000



BILL OF QUANTITIES

CODE NO.05c Toilet Block

Item No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)
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05c-16P Cast iron gully trap in block work chamber of the following size including C.I cover & Frame(light duty)complete as shown on the drawing & as specified

a) 300 mm x 300 mm

No. 1

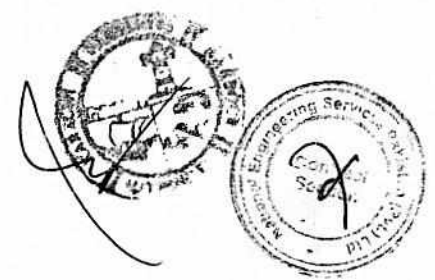
120,000

120,000

Total Amount

Carried over to summary of cost

512,800



KARACH FISH HARBOUR AUTHORITY
 REHABILITATION & RENOVATION OF KARACHI FISH HARBOUR
 EXTERNAL SERVICES (PART-I)
 PACKAGE "A" - CIVIL WORKS
 BILL OF QUANTITIES

CODE NO. 05: ANCILLARY BUILDING

Item No.	Description	Unit	Quantity	Rate (Rs.)	Amount
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05c. Toilet Block.

E. ELECTRICAL WORKS

Supply, installation, testing and commissioning of the following items of work (unless specifically stated otherwise) including all material, labour, tools, plant, accessories, related civil works, etc., required for proper completion of each item as per specifications (Section-8001 "General Specifications for Electrical Works" shall be applicable to all BOQ items).

LT DISTRIBUTION BOARDS

Ref. Spec. Sec. 8133, 8212, 8240

05c-1E Following LT Distribution Boards (as per single line diagrams), recessed/surface mounted including all accessories, related civil works etc. complete in all respects.

a) DB-TOILET

Job 1 50,000 50,000

LIGHT FIXTURES

Ref. Spec. Sec. 8150,8240

05c-2E Following lighting fixtures with fluorescent or compact fluorescent or incandescent lamps or as per lighting fixture schedule installed on surface or on false ceiling complete with all accessories such as lamps, lamp holders, ballast, starters, capacitors, as applicable, etc. and all relevant installation material as approved by the Engineer.

a) Type A1

Surface mounted batten light fixture body made of cold rolled steel (CRC) sheet pretreated, painted and stove enameled in white color with 1X36W fluorescent lamp.

No. 1 20,000 20,000



BILL OF QUANTITIES

CODE NO. 05: ANCILLARY BUILDING

Item No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)
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b) Type A3

Surface mounted batten light fixture body made of cold rolled steel (CRC) sheet pretreated, painted and stove enameled in white color with 1X18W fluorescent lamp. Diffuser made of clear prismatic pattern acrylic sheet.

No. 2 30,000 60,000

c) Type D1

Surface mounted down lighter. Reflector made of highly polished specular aluminium finishes, white polycarbonate outer ring with 1X18W compact fluorescent lamp with glass cover.

No. 3 30,000 90,000

d) Type W1

Surface mounted light fixture body made of non-corrosive, high pressure die-cast aluminium, stove enameled, painted in white color with 1X11W compact florescent lamp along with clear polycarbonate diffuser.

No. 1 30,000 30,000

WIRING

Ref. Sec. 8212,8220,8230,8240,8290

05c-3E Wiring of light circuits from distribution board (DB) to point/switch including wiring between switches on the same circuit with 3(1x2.5sq.mm) single core copper conductor PVC cable complete with appropriate size surface/ concealed PVC conduit and all accessories etc., complete in all respect.

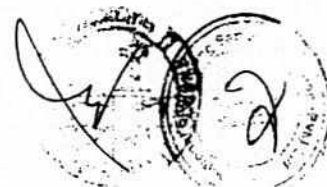
No. 1 20,000 20,000

05c-4E Wiring from light/exhaust fan point to switch with 3(1x1.5 sq.mm) single core copper conductor PVC cable, including appropriate size surface/ concealed PVC conduit, ceiling rose, 10 Amps light control gang switch, sheet steel back box, 3 core flexible cable and all accessories etc., complete in all respect.

No. 7 20,000 140,000

05c-5E Same as item No. 05c-4E, but wiring from point to point.

No. 3 20,000 60,000



BILL OF QUANTITIES

CODE NO. 05: ANCILLARY BUILDING

Item No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)
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05c-6E Wiring of 16A socket outlets with single core, copper conductor PVC cable complete with appropriate size concealed / surface PVC conduit and all accessories etc. complete in all respects.

a) From Distribution Board (DB) to outlet with 3(1x2.5 sq.mm.) cable.

No. 1 20,000 20,000

05c-7E Wiring from distribution board (DB) to 16 A, SP&N+E, 250 volts load break switch in weather proof enclosure with 3 (1x4.0 sq.mm) single core copper conductor PVC cable complete with appropriate size concealed/surface PVC conduit and all accessories etc. complete in all respect.

No. 1 20,000 20,000

WIRING ACCESSORIES

Ref. Spec. Sec.8220, 8290

05c-8E 16 Amp, 250 Volt, 2 pin + earth, schuko socket outlet, with sheet steel back box and all accessories.

No. 1 20,000 20,000

EARTHING

Ref. Spec. Sec. 8212, 8240

05c-9E 600 mmx 600 mm x 3 mm tin plated copper Plate type earth electrode including 2x70 sq.mm PVC copper conductor cable as earthing lead, inspection chamber with medium duty C.I cover, 50 mm dia medium duty G.I pipe as shown on drawings, complete in all respect.

No. 1 20,000 20,000



BILL OF QUANTITIES

CODE NO. 05: ANCILLARY BUILDING

Item No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)
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MISCELLANEOUS

Ref. Spec. Sec. 8290

05c-10E 8" dia single phase, 250V exhaust fans with back draft dampers, anti-vertic screen, mounting accessories etc., including making opening in wall and making surface good, complete in all respects.

No. 3 10,000 30,000

05c-11E 16 A, SP&N+E load break switches AC-3 duty in normal/weather proof enclosure.

No. 1 5000 5000

Total Amount 585,000
Carried over to summary of cost



KARACHI FISHERIES HARBOUR AUTHORITY
REHABILITATION AND RENOVATION OF KARACHI FISH HARBOUR
EXTERNAL SERVICES (PART-I)
PACKAGE "A" - CIVIL WORKS
BILL OF QUANTITIES

CODE NO.05 ANCILLIARY BUILDINGS.

Item No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)
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05d. Public Toilet (3.Nos).**C. CIVIL WORKS****EARTHWORKS**

Ref.Spec. No.1100

05d-1C Excavation in all kinds of sub-surface materials upto following depths including dewatering and disposal of surplus/ rejected excavated materials to designated places.

a) 0 - 2 metre	Cu.m.	135	600	81,000
b) 2 - 4 metre	Cu.m.	28	600	16,800

05d-2C Fill & backfill with selected material obtained from required excavation.

Cu.m.	120	300	36,000
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STONE SOLING

Ref. Sec.No. 1330

05d-3C 100mm thick compacted stone soling.	Sq.m.	85	2000	170,000
05d-4C 150mm thick compacted stone soling.	Sq.m.	112	2000	224,000
05d-5C 300mm thick compacted stone soling.	Sq.m.	60	2000	120,000

TERMITE CONTROL TREATMENT

Ref.Spec. No.1600

05d-6C Termite control treatment.	Sq.m.	255	1000	255,000
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REINFORCEMENT

Ref. Sec.No. 2200

05d-7C Grade 60 deformed hot rolled billet steel bars conforming to ASTM A-615.	tonne	11	140,000	1,540,000
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BILL OF QUANTITIES

CODE NO.05 ANCILLIARY BUILDINGS.

Item No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)
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PLAIN AND REINFORCED CONCRETE

Ref. Sec.No. 2300, 2100

05d-8C	Class 'E' concrete using specified cement in foundations.	Cu.m.	13	15,000	195,000
05d-9C	Class 'D' concrete using specified cement in steps & foundations.	Cu.m.	9	18,000	162,000
05d-10C	Class 'D' plain cement concrete using ordinary Portland cement in plinth protection including bitumen seal.	Cu.m.	6	13,000	78,000
05d-11C	Class 'B' reinforced concrete in following sub-structures using specified cement complete in all respect as shown on the drawings & specifications.				
	a) Foundations	Cu.m.	18	13,000	234,000
	b) Plinth beam	Cu.m.	14	13,000	182,000
	c) Column upto plinth	Cu.m.	4	13,000	52,000
05d-12C	Class 'B' reinforced concrete in following super structures using specified cement complete in all respect as shown on the drawings & specifications.				
	a) Columns	Cu.m.	5	13,000	65,000
	b) Beams & lintels	Cu.m.	14	13,000	182,000
	c) Slabs & projections	Cu.m.	30	20,000	600,000
	d) Purdi	Cu.m.	5	20,000	100,000



BILL OF QUANTITIES

CODE NO.05 ANCILLIARY BUILDINGS.

Item No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)
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ALUMINIUM WORKS

Ref. Sec.No. 6220, 6250

05d-13C	Anodized aluminium glazed sliding Windows,Ventilators including 5mm thick clear glass and hardware set as per schedule complete in all respect as shown on the drawings.	Sq.m.	18	15000	270,000
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BLOCK MASONRY

Ref. Sec.No. 4100

05d-14C	Reinforced block masonry of the following thicknesses set in 1:6 cement sand mortar.				
a)	150mm thick solid	Cu.m.	43	15000	645,000

CEMENT PLASTER

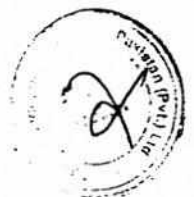
Ref. Sec.No. 6521

05d-15C	12mm thick 1:4 cement sand plaster to specified interior surfaces.	Sq.m.	180	1200	216,000
05d-16C	20mm thick 1:4 cement sand plaster to specified exterior surfaces.	Sq.m.	396	15,00	594,000

FLOOR AND WALL FINISHES

Ref. Sec.No. 6600

05d-17C	100mm thick Class 'D' cement concrete sub-floor.	Sq.m.	112	1500	168,000
05d-18C	Porcelain tile floor matt finish using of size 300x300mm in approved colour laid in approved pattern set in specified cement sand mortar including Class 'C' cement concrete screed base complete in all respect as shown on the drawings & specifications.	Sq.m.	125	5,000	625,000



BILL OF QUANTITIES

CODE NO.05 ANCILLIARY BUILDINGS.

Item No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)
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05d-19C Porcelain tile dado using tile of size 200x300mm, approved colour and quality laid in approved pattern including rough base plaster complete in all respect as shown on the drawings & specifications.

Sq.m. 260 1000 260,000

05c-20C Chequered tile floor using of size 300x300x25mm thick in approved colour laid in approved pattern set in specified cement sand mortar including Class 'C' cement concrete screed base complete in all respect as shown on the drawings & specifications.

Sq.m. 85 1000 85,000

WATER PROOFING AND BUILT-UP ROOFING

Ref. Sec.No. 6411

05c-21C Water proofing and built-up roofing over slab as per specifications and as shown on the drawings.

Sq.m. 190 1200 228,000

05d-22C Two coats of hot bitumen grade 10/20 applied at the rate of 1 kg./Sq.m. per coat to all exposed structural concrete surfaces in contact with earth.

Sq.m. 295 500 147,500

CARPENTRY & JOINERY

Ref.Spec. No. 4600, 6700

05d-23C Wooden doors including hardwares set as per schedule and paint complete in all respect as shown on the drawings.

Sq.m. 45 2000 90,000

PAINTING

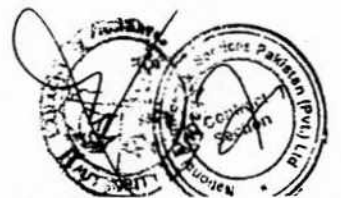
Ref.Spec. No. 6700

05d-24C Distemper paint to specified surfaces on ceiling including sealer primer.

Sq.m. 148 600 88,800

05d-25C Matt enamel paint of approved make, quality, colour/ shade including wall sealer, primer, surfaces preparation to specified interior surfaces complete in all respect as shown on the drawings and specifications.

Sq.m. 30 800 24,000



BILL OF QUANTITIES

CODE NO.05 ANCILLIARY BUILDINGS.

Item No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)
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05d-26C Weather resistant paint of approved make, quality, colour/ shade including surfaces preparation to specified exterior surfaces complete in all respect as shown on the drawings and specifications.

Sq.m. 396 500 198,000

Total Amount
Carried over to summary of cost

7,932,100



KARACHI FISHERIES HARBOUR AUTHORITY
REHABILITATION & RENOVATION OF KARACHI FISH HARBOUR
EXTERNAL SERVICES (PART - I)
PACKAGE "A" - CIVIL WORKS
BILL OF QUANTITIES

CODE NO.05d Public Toilet

Item No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)
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05 P. PLUMBING WORKS**WATER SUPPLY**

Ref: Spec. No. 5100, 5180

05d-1P PPR cold & hot water pipes SDR 6 (PN 20) conforming to DIN 8077 & DIN 8078 & fittings SDR 6 (PN20) conforming to DIN 16962 of following diameters.

a) 15 mm	RM	49	1000	49000
b) 20 mm	RM	30	1000	30000
c) 25 mm	RM	21	1000	21000
d) 40 mm	RM	35	1000	35000

05d-2P C.P. brass bib cock of the following diameter with perinial spray including all accessories:

a) 15 mm	No.	24	2000	48000
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05d-3P Bronze gate valves of the following diameters as specified.

a) 40 mm	No.	12	2000	24000
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05d-4P Electric Water Heater of following capacities:

a) 25 gallons	No.	3	50,000	150,000
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05d-5P Fiber Glass Water tank of 800 gallons capacity as specified on drawing.

No.	3	50,000	150,000
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PLUMBING FIXTURES

Ref: Spec. No. 5100

05d-6P Wash basin counter type with all other accessories.

No.	24	5000	120,000
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BILL OF QUANTITIES

CODE NO. 05d Public Toilet

Item No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)
05d-7P	Eastern water closet with all other accessories.	No.	24	15,000	360,000
05d-8P	Imported Belgium glass mirror.	Sq.M.	24	5,000	120,000
05d-9P	Toilet Paper Holder as specified	No.	24	5,000	120,000
05d-10P	Towel rail as specified.	No.	6	5,000	30,000
05d-11P	Janitor Sink with all other accessories as specified.	No.	3	5,000	15,000
<u>SANITARY DRAINAGE</u>					
Ref: Spec. No. 5100 & 5180					
05d-12P	uPVC soil, waste and vent pipes conforming to ASTM D-1785 of Schedule 40 & fittings D-2466 of Schedule 40 including fittings compatible with pipe of following diameter as specified: (for unexpose piping).				
	a) 100 mm	RM	55	200	11,000
	b) 75 mm	RM	39	200	7,800
	c) 32 mm	RM	21	200	4,200
05d-13P	uPVC floor drains of the following diameter:				
	a) 75 mm	No.	9	5,000	45,000
05d-14P	uPVC floor traps of the following diameter:				
	a) 75 mm	No.	3	5,000	15,000
05d-15P	uPVC floor clean out of following diameter:				
	a) 75 mm	No.	6	5,000	30,000
	b) 100 mm	No.	6	5,000	30,000



BILL OF QUANTITIES

CODE NO.05d Public Toilet

Item No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)
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05d-16P Cast iron gully trap in block work chamber of the following size including C.I cover & Frame (light duty) complete as shown on the drawing & as specified.

a) 300 mm x 300 mm

No.

3

3000

9,000

Total Amount

Carried over to summary of cost

1,424,000



KARACH FISH HARBOUR AUTHORITY
 REHABILITATION & RENOVATION OF KARACHI FISH HARBOUR
 EXTERNAL SERVICES (PART-I)
 PACKAGE "A" - CIVIL WORKS
 BILL OF QUANTITIES

CODE NO. 05: ANCILLARY BUILDING

Item No.	Description	Unit	Quantity	Rate	Amount (Rs.)
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05d. Public Toilets.

E. ELECTRICAL WORKS

Supply, installation, testing and commissioning of the following items of work (unless specifically stated otherwise) including all material, labour, tools, plant, accessories, related civil works, etc., required for proper completion of each item as per specifications (Section-8001 "General Specifications for Electrical Works" shall be applicable to all BOQ items).

LT DISTRIBUTION BOARDS

Ref. Spec. Sec. 8133, 8212, 8240

05d-1E Following LT Distribution Boards (as per single line diagrams), recessed/surface mounted including all accessories, related civil works etc. complete in all respects.

a) DB-PT(1-3)

Job 3 100,000 300,000

LIGHT FIXTURES

Ref. Spec. Sec. 8150,8240

05d-2E Following lighting fixtures with fluorescent or compact fluorescent or incandescent lamps or as per lighting fixture schedule installed on surface or on false ceiling complete with all accessories such as lamps, lamp holders, ballast, starters, capacitors, as applicable, etc. and all relevant installation material as approved by the Engineer.

a) Type A1

Surface mounted batten light fixture body made of cold rolled steel (CRC) sheet pretreated, painted and stove enameled in white color with 1X36W fluorescent lamp. Diffuser made of clear prismatic pattern acrylic sheet.

No. 15 25000 375000



BILL OF QUANTITIES

CODE NO. 05: ANCILLARY BUILDING

Item No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)
b)	Type A3 Surface mounted batten light fixture body made of cold rolled steel (CRC) sheet pretreated, powder coated and stove enameled in white color with 1X18W fluorescent lamp. Diffuser made of clear prismatic pattern acrylic sheet.	No.	12	15000	180,000
c)	Type D1 Surface mounted down lighter. Reflector made of highly polished specular aluminium finishes, white polycarbonate outer ring with 1X18W compact fluorescent lamp.	No.	27	5000	135,000
d)	Type W1 Surface mounted light fixture body made of non-corrosive, high pressure die-cast aluminium, stove enameled, painted in white color with 1X11W compact florescent lamp along with clear polycarbonate diffuser.	No.	3	15000	45,000

WIRING

Ref. Sec. 8212,8220,8230,8240,8290

05d-3E	Wiring of light circuits from distribution board (DB) to point/switch including wiring between switches on the same circuit with 3(1x2.5sq.mm) single core copper conductor PVC cable complete with appropriate size surface/ concealed PVC conduit and all accessories etc., complete in all respect.	No.	12	5000	60,000
05d-4E	Wiring from light/exhaust fan point to switch with 3(1x1.5 sq.mm) single core copper conductor PVC cable, including appropriate size surface/ concealed PVC conduit, ceiling rose, 10 Amps light control gang switch, sheet steel back box, 3 core flexible cable and all accessories etc., complete in all respect.	No.	51	5000	255,000
05d-5E	Same as item No. 05b-4E, but wiring from point to point.	No.	30	5000	150,000



BILL OF QUANTITIES

CODE NO. 05: ANCILLARY BUILDING

Item No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)
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05d-6E Wiring of 16A socket outlets with single core, copper conductor PVC cable complete with appropriate size concealed / surface PVC conduit and all accessories etc., complete in all respects.

a) From Distribution Board (DB) to outlet with 3(1x2.5 sq.mm.) cable.

No. 3 15000 45000

a) From outlet to outlet with 3(1x2.5 sq.mm) cable.

No. 3 15000 45000

05d-7E Wiring from distribution board (DB) to 16 A, TP&N+E, 500 volts load break switch in weather proof enclosure with 5 (1x4.0 sq.mm) single core copper conductor PVC cable complete with appropriate size concealed/surface PVC conduit and all accessories etc. complete in all respect.

No. 1 5000 5000

WIRING ACCESSORIES

Ref. Spec. Sec.8220, 8290

05d-8E 16 Amp, 250 Volt, 2 pin + earth, schuko socket outlet, with sheet steel back box and all accessories.

No. 6 5000 30,000

EARTHING

Ref. Spec. Sec. 8212, 8240

05d-9E 600 mmx 600 mm x 3 mm tin plated copper Plate type earth electrode including 2x70 sq.mm PVC copper conductor cable as earthing lead, inspection chamber with medium duty C.I cover, 50 mm dia medium duty G.I pipe as shown on drawings, complete in all respect.

No. 3 50,000 150,000



BILL OF QUANTITIES

CODE NO. 05: ANCILLARY BUILDING

Item No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)
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MISCELLANEOUS

Ref. Spec. Sec. 8290

05d-10E8" dia single phase, 250V exhaust fans with back draft dampers, anti-vermin screen, mounting accessories etc., including making opening in wall and making surface good, complete in all respects.

No. 24 5000 120,000

05d-11E16 A, TP&N+E load break switches AC-3 duty in normal/weather proof enclosure.

No. 1 50,000 50,000

Total Amount 1,945,000
Carried over to summary of cost



KARACHI FISHERIES HARBOUR AUTHORITY
REHABILITATION AND RENOVATION OF KARACHI FISH HARBOUR
EXTERNAL SERVICES (PART- I)
PACKAGE "A" - CIVIL WORKS
BILL OF QUANTITIES

CODE NO.05 ANCILLIARY BUILDINGS.

Item No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)
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05e. Gate Houses(5.Nos)**C. CIVIL WORKS****EARTHWORKS**

Ref.Spec. No.1100

05e-1C Excavation in all kinds of sub-surface materials upto following depths including dewatering and disposal of surplus/ rejected excavated materials to designated places.

a) 0 - 2 metre Cu.m. 100 600 60,000

b) 2 - 4 metre Cu.m. 20 600 12,000

05e-2C Fill & backfill with selected material obtained from required excavation.

Cu.m. 85 300 25500

STONE SOLING

Ref. Sec.No. 1330

05e-3C 100mm thick compacted stone soling. Sq.m. 56 2000 112,000

05e-4C 150mm thick compacted stone soling. Sq.m. 62 2000 124,000

05e-5C 300mm thick compacted stone soling. Sq.m. 42 2000 84,000

TERMITE CONTROL TREATMENT

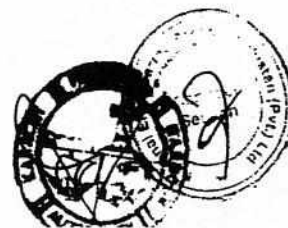
Ref.Spec. No.1600

05e-6C Termite control treatment. Sq.m. 160 1000 160,000

REINFORCEMENT

Ref. Sec.No. 2200

05e-7C Grade 60 deformed hot rolled billet steel bars conforming to ASTM A-615. tonne 8 140,000 1,120,000



BILL OF QUANTITIES

CODE NO.05 ANCILLIARY BUILDINGS.

Item No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)
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PLAIN AND REINFORCED CONCRETE

Ref. Sec.No. 2300, 2100

05e-8C	Class 'E' concrete using specified cement in foundations.	Cu.m.	10	15,000	1,50,000
05e-9C	Class 'D' concrete using specified cement in steps & foundations etc.	Cu.m.	9	18,000	1,62,000
05e-10C	Class 'D' plain cement concrete using ordinary Portland cement in plinth protection including bitumen seal.	Cu.m.	4	13,000	52,000
05e-11C	Class 'B' reinforced concrete in following sub-structures using specified cement complete in all respect as shown on the drawings & specifications.				
	a) Foundations	Cu.m.	12	13,000	1,56,000
	b) Plinth beam	Cu.m.	8	13,000	1,04,000
	c) Column upto plinth	Cu.m.	6	13,000	78,000
05e-12C	Class 'B' reinforced concrete in following super structures using specified cement complete in all respect as shown on the drawings & specifications.				
	a) Columns	Cu.m.	6	13,000	78,000
	b) Beams & lintels	Cu.m.	9	13,000	1,17,000
	c) Slabs & projections	Cu.m.	17	13,000	2,21,000
	d) Purdi	Cu.m.	5	13,000	65,000

ALUMINIUM WORKS

Ref. Sec.No. 6220, 6250

05e-13C	Anodized aluminium glazed sliding Windows, Ventilators including 5mm thick clear glass and hardware set as per schedule complete in all respect as shown on the drawings.	Sq.m.	25	5000	1,25,000
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BILL OF QUANTITIES

CODE NO.05 ANCILLIARY BUILDING.

Item No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)
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BLOCK MASONRY

Ref. Sec.No. 4100

05e-14C Reinforced block masonry of the following thicknesses set in 1:6 cement sand mortar.

a) 150mm thick solid	Cu.m.	25	15000	375000
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CEMENT PLASTER

Ref. Sec.No. 6521

05e-15C 12mm thick 1:4 cement sand plaster to specified interior surfaces.

Sq.m.	255	1000	255,000
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05e-16C 20mm thick 1:4 cement sand plaster to specified exterior surfaces.

Sq.m.	365	1200	438,000
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FLOOR AND WALL FINISHES

Ref. Sec.No. 6600

05e-17C 100mm thick Class 'D' cement concrete sub-floor.

Sq.m.	62	1800	111,600
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05e-18C Porcelain tile floor using of size 600x600mm in approved colour laid in approved pattern set in specified cement sand mortar including Class 'C' cement concrete screed base complete in all respect as shown on the drawings & specifications.

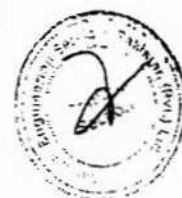
Sq.m.	48	1800	86,400
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05e-19C Porcelain tile floor matt finish using of size 300x300mm in approved colour laid in approved pattern set in specified cement sand mortar including Class 'C' cement concrete screed base complete in all respect as shown on the drawings & specifications.

Sq.m.	11	1800	19,800
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05e-20C Porcelain tile dado using tile of size 200x300mm, approved colour and quality laid in approved pattern including rough base plaster complete in all respect as shown on the drawings & specifications.

Sq.m.	34	1800	61,200
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BILL OF QUANTITIES

CODE NO.05 ANCILLIARY BUILDINGS.

Item No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)
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05e-21C Porcelain tile skirting 100mm high using tile of approved size, colour and quality laid in approved pattern including rough base plaster complete in all respect as shown on the drawings & specifications.

Sq.m. 6 2000 12000

05e-22C Chequered tile floor using of size 300x300x25mm thick in approved colour laid in approved pattern set in specified cement sand mortar including Class 'C' cement concrete screed base complete in all respect as shown on the drawings & specifications.

Sq.m. 56 1500 84000

WATER PROOFING AND BUILT-UP ROOFING

Ref. Sec.No. 6411

05e-23C Water proofing and built-up roofing over slab as per specifications and as shown on the drawings.

Sq.m. 110 1500 165000

05e-24C Two coats of hot bitumen grade 10/20 applied at the rate of 1 kg./Sq.m. per coat to all exposed structural concrete surfaces in contact with earth.

Sq.m. 235 300 70500

CARPENTRY & JOINERY

Ref.Spec. No. 4600, 6700

05e-25C Wooden doors including hardware set as per schedule and paint complete in all respect as shown on the drawings.

Sq.m. 18 2000 36000

PAINTING

Ref.Spec. No. 6700

05e-26C Distemper paint to specified surfaces on ceiling including sealer primer.

Sq.m. 84 300 25200

05e-27C Matt enamel paint of approved make, quality, colour/ shade including wall sealer, primer, surfaces preparation to specified interior surfaces complete in all respect as shown on the drawings and specifications.

Sq.m. 175 500 87500



BILL OF QUANTITIES .

CODE NO.05 ANCILLIARY BUILDINGS.

Item No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)
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05e-28C Weather resistant paint of approved make, quality, colour/ shade including surfaces preparation to specified exterior surface complete in all respect as shown on drawings and specifications.

Sq.m. 365 500 182.500

Total Amount
Carried over to summary of cost

5,339,200



KARACHI FISHERIES HARBOUR AUTHORITY
REHABILITATION & RENOVATION OF KARACHI FISH HARBOUR
EXTERNAL SERVICES (PART - I)
PACKAGE "A" - CIVIL WORKS
BILL OF QUANTITIES

CODE NO.05e Gate House

Item	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)
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05 P. PLUMBING WORKS

WATER SUPPLY

Ref. Spec. No. 5100, 5180

05e-1P PPR cold & hot water pipes SDR 6 (PN 20) conforming to DIN 8077 & DIN 8078 & fittings SDR 6 (PN20) conforming to DIN 16962 of following diameters.

a) 15 mm	RM	25	5000	125000
b) 25 mm	RM	30	1000	30000

05e-2P C.P. brass bib cock of the following diameter with perinial spray including all accessories:

a) 15 mm	No.	5	1000	5000
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05e-3P Fiber Glass Water tank of 500 gallons capacity as specified on drawing.

No.	5	52000	260000
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PLUMBING FIXTURES

Ref. Spec. No. 5100

05e-4P Wash basin pedestal type with all other accessories.

No.	3	15000	45000
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05e-5P Wash basin counter type with all other accessories.

No.	3	55000	165000
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05e-6P Westren water closet with all other accessories.

No.	5	25000	125000
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05e-7P Imported Belgium glass mirror.

Sq.M.	5	5000	25000
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05e-8P Toilet Paper Holder as specified

No.	5	5000	25000
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05e-9P Towel rail as specified.

No.	5	5000	25000
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BILL OF QUANTITIES

C.C.E NO.05e Gate House

Item No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)
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SANITARY DRAINAGE

Ref: Spec. No. 5100 & 5180

05e-10P uPVC soil, waste and vent pipes conforming to ASTM D-1785 of Schedule 40 & fittings D-2466 of Schedule 40 including fittings compatible with pipe of following diameter as specified: (for unexposed piping).

a) 100 mm RM 15 3500 52,500

b) 75 mm RM 10 2500 25,000

c) 32 mm RM 5 1500 7,500

05e-11P uPVC floor drains of the following diameter:

a) 75 mm No. 5 1500 7,500

05e-12P uPVC floor clean out of following diameter:

a) 75 mm No. 5 1500 7,500

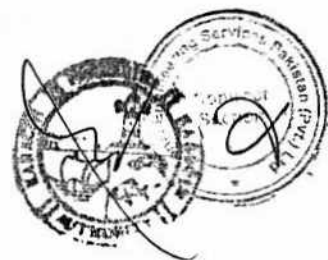
05e-13P Cast iron gully trap in block work chamber of the following size including C.I cover & Frame(light duty) complete as shown on the drawing & as specified.

a) 300 mm x 300 mm No. 5 11500 57,500

Total Amount

Carried over to summary of cost

1,527,500



KARACH FISH HARBOUR AUTHORITY
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BILL OF QUANTITIES

CODE NO. 05: ANCILLARY BUILDINGS.

Item No	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)
05e. Gate Houses (Main KFH Boundary Wall Gates).					

E. ELECTRICAL WORKS

Supply, installation, testing and commissioning of the following items of work (unless specifically stated otherwise) including all material, labour, tools, plant, accessories, related civil works, etc., required for proper completion of each item as per specifications (Section-8001 "General Specifications for Electrical Works" shall be applicable to all BOQ items).

LT DISTRIBUTION BOARDS

Ref. Spec. Sec. 8133, 8212, 8240

05e-1E Following LT Distribution Boards (as per single line diagrams), recessed/surface mounted including all accessories, related civil works etc. complete in all respects.

a) DB-GH(1 & 2)

Job 2 50,000 100,000

b) DB-GH(3 - 6)

Job 4 50,000 200,000

LIGHT FIXTURES

Ref. Spec. Sec. 8150,8240

05e-2E Following lighting fixtures with fluorescent or compact fluorescent or incandescent lamps or as per lighting fixture schedule installed on surface or on false ceiling complete with all accessories such as lamps, lamp holders, ballast, starters, capacitors, as applicable, etc. and all relevant installation material as approved by the Engineer.



BILL OF QUANTITIES

CODE J. 05: ANGLARY BUILDINGS.

Item No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)
a) Type A1	Surface mounted batten light fixture body made of cold rolled steel (CRC) sheet pretreated, painted and stove enameled in white color with 1X36W fluorescent lamp. Diffuser made of clear prismatic pattern acrylic sheet.	No.	12	25000	300,000
b) Type D1	Surface mounted down lighter. Reflector made of highly polished specular aluminium finishes, white polycarbonate outer ring with 1X18W compact fluorescent lamp.	No.	12	35,000	420,000
WIRING					
Ref. Sec. 8212,8220,8230,8240,8290					
05e-3E	Wiring of light circuits from distribution board (DB) to point/switch including wiring between switches on the same circuit with 3(1x2.5sq.mm) single core copper conductor PVC cable complete with appropriate size surface/ concealed PVC conduit and all accessories etc., complete in all respect.	No.	6	25000	150,000
05e-4E	Wiring from light/exhaust fan point to switch with 3(1x1.5 sq.mm) single core copper conductor PVC cable, including appropriate size surface/ concealed PVC conduit, ceiling rose, 10 Amps light control gang switch, sheet steel back box, 3 core flexible cable and all accessories etc., complete in all respect.	No.	30	5000	150,000
05e-5E	Same as item No. 05e-4E, but wiring from point to point.	No.	6	25000	150,000
05e-6E	Wiring of 16A socket outlets with single core, copper conductor PVC cable complete with appropriate size concealed / surface PVC conduit and all accessories etc., complete in all respects.				
a)	From Distribution Board (DB) to outlet with 3(1x2.5 sq.mm.) cable.	No.	6	25000	150,000
b)	From outlet to outlet with 3(1x2.5 sq.mm) cable.	No.	12	15000	180,000

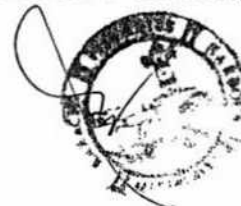
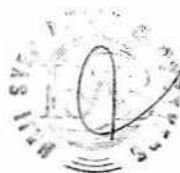


BILL OF QUANTITIES

CODE NO. 5: ANCILLARY BUILDINGS.

Item No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)
<u>WIRING ACCESSORIES</u>					
Ref. Spec. Sec.8220, 8290					
05e-7E	16, 250 Volt, 2 pin + earth, schuko socket outlet, with sheet steel back box and all accessories.	No.	18	15000	270,000
05e-8E	Sheet steel backbox with plastic cover plate including all mounting and installation accessories.	No.	2	15000	30,000
<u>CONDUIT & PIPES</u>					
Ref. Spec. Sec.8230					
05e-9E	25 mm dia PVC conduit installed concealed including all mounting and installation accessories.	RM.	20	1500	30,000
<u>EARTHING</u>					
Ref. Spec. Sec. 8212, 8240					
05e-10E	600 mmx 600 mm x 3 mm tin plated copper Plate type earth electrode including 2x70 sq.mm PVC copper conductor cable as earthing lead, inspection chamber with medium duty C.I cover, 50 mm dia medium duty G.I pipe as shown on drawings, complete in all respect.	No.	6	52,000	312,000
<u>MISCELLANEOUS</u>					
Ref. Spec. Sec. 8290					
05e-11E	56" sweep, single phase, 250V, ceiling fan including fan speed regulators / dimmers, fan hook and all mounting accessories, as required, complete in all respects.	No.	6	5000	30,000
05e-12E	8" dia single phase, 250V exhaust fans with back draft dampers, anti-vermin screen, mounting accessories etc., including making opening in wall and making surface good, complete in all respects.	No.	6	5000	30,000

Total Amount
Carried over to summary of cost 2,502,000



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PACKAGE "A" - CIVIL WORKS
BILL OF QUANTITIES

CODE NO.05 ANCILLIARY BUILDINGS.

Item No.	Description	Unit	Quantity	Rate	Amount (Rs.)
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05f. Boundary Wall (Water Works)

C. CIVIL WORKS

EARTHWORKS

Ref.Spec. No.1100

05f-1C Excavation of trenches in all kinds of sub-surface material up to following depths including dewatering and disposal of surplus/rejected excavated material to designated places.

a) 0 - 2 meter Cu.m. 312 600 187,200

05f-2C Fill & backfill with selected material obtained from required excavation.

Cu.m. 145 300 43,500

REINFORCEMENT

Ref. Sec.No. 2200

05f-3C Grade 60 deformed hot rolled billet steel bars conforming to ASTM A-615.

tonne 13 120,000 1560,000

PLAIN AND REINFORCED CONCRETE

Ref. Sec.No. 2300, 2100

05f-4C Class 'E' concrete using specified cement in foundations.

Cu.m. 35 15000 525,000

05f-5C Class 'D' concrete using specified cement in situ etc.

Cu.m. 34 15000 510,000

05f-6C Class 'B' reinforced concrete in following sub-structures using specified cement complete in all respect as shown on the drawings & specifications.

a) Foundations Cu.m. 48 15000 720,000

b) Plinth Beams Cu.m. 30 13000 390,000

c) Columns upto plinth Cu.m. 8 15000 120,000



BILL OF QUANTITIES

CODE NO.05 ANCILLIARY BUILDINGS.

Item No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)
05f-7C	Class 'B' reinforced concrete in columns above plinth using specified cement complete in all respect as shown on the drawings.	Cu.m.	20	23000	460,000
05f-8C	Precast Class 'B' reinforced concrete coping as per design using specified cement set in specified cement sand mortar complete in all respect as shown on the drawings.	Cu.m.	3	35000	105,000
<u>STRUCTURAL STEEL WORKS</u>					
Ref.Spec. No. 3000					
05f-9C	Mild steel gate as per design including fixing and specified paint system complete in all respect as shown on the drawings and specifications.	Kg.	2,100	500	1,050,000
<u>BLOCK MASONRY</u>					
Ref. Sec.No. 4100					
05f-10C	150mm thick Reinforced block masonry set in 1:6 cement sand mortar.	Cu.m.	85	10,000	850,000
<u>WATER PROOFING AND BUILT-UP ROOFING</u>					
Ref. Sec.No. 6411					
05f-11C	Two coats of hot bitumen grade 10/20 applied at the rate of 1 kg./Sq.m. per coat to all exposed structural concrete surfaces in contact with earth.	Sq.m.	720	500	360,000
<u>CEMENT PLASTER</u>					
Ref. Sec.No. 6521					
05f-12C	20mm thick 1:4 cement sand plaster to specified exterior surfaces.	Sq.m.	1,450	500	725,000



BILL OF QUANTITIES

CODE NO.05 ANCILLIARY BUILDINGS.

Item No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)
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PAINING

Ref.Spec. No. 6700

05f-13C Weather resistant paint of approved make, quality, colour/ shade including surfaces preparation to specified exterior surfaces complete in all respect as shown on the drawings and specifications.

Sq.m. 1,450

500

725,000

Total Amount

Carried over to summary of cost

8,330,700



KARACHI FISH HARBOUR AUTHORITY
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CODE NO.06: EXTERNAL ELECTRICAL WORKS

Item No.	Description	Unit	Quantity	Rate (Rs.)	Amount
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C. CIVIL WORKS

STEEL PIPE & FITTINGS

Ref.Sec. 5214

06-1C Steel pipe conforming to API 5L (8mm wall thickness) sleeves on road crossings.

i) 550mm	Rm	15	26,000	390,000
ii) 450mm	Rm	26	20,000	520,000
iii) 250mm	Rm	65	12,000	780,000

THRUST BORING

Ref.Sec. 5820

06-2C Thrust Boring below road for providing dia. Following dia steel pipe conforming to API 5L (8mm wall thickness) sleeves for pipe crossings.

i) 550mm	Rm	15	10,000	150,000
ii) 450mm	Rm	26	10,000	260,000
iii) 250mm	Rm	65	10,000	650,000

Total Amount
Carried over to summary of cost

2,750,000



KARACH FISH HARBOUR AUTHORITY
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EXTERNAL SERVICES (PART-I)
PACKAGE "A" - CIVIL WORKS
BILL OF QUANTITIES

CODE NO.06: EXTERNAL ELECTRICAL WORKS

Item No.	Description	Unit	Quantity	Rate (Rs.)	Amount
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E. ELECTRICAL WORKS

Supply and installation of the following items of work (unless specifically stated otherwise) including all material, labour, tools, plant, accessories, related civil works, etc., required for proper completion of each item as per specifications (Section-8001 "General Specifications for Electrical Works" shall be applicable to all BOQ items).

CONDUITS & PIPES

Ref. Spec. Sec. 8230

06-1E Following sizes (Internal Diameter) of underground uPVC Class 'D' pipes including all accessories, pipe range spacers, pull rope, sand bed, excavation & selected backfilling from excavation, complete in all respects:

a) 200 mm dia	RM	1,580	2500	3,950,000
b) 150 mm dia	RM	3,050	1000	3,050,000
c) 100 mm dia	RM	18,140	700	12,698,000
d) 50 mm dia	RM	1,240	1000	1,240,000

Total Amount
 Carried over to summary of cost 20,938,000



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CODE NO.06: EXTERNAL ELECTRICAL WORKS

Item No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)
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06a. CCTV System for Harbour

C. CIVIL WORKS

STEEL PIPE & FITTINGS

Ref.Sec. 5214

06-1C Steel pipe conforming to API 5L (8mm wall thickness) sleeves on road crossings.

i) 250mm	Rm	48	15,000	720,000
ii) 200mm	Rm	150	10,000	1,500,000
iii) 150mm	Rm	85	10,000	850,000

THRUST BORING

Ref.Sec. 5820

06-2C Thrust Boring below road for providing dia. Following dia steel pipe conforming to API 5L (8mm wall thickness) sleeves for pipe crossings.

i) 250mm	Rm	48	10,000	480,000
ii) 200mm	Rm	150	10,000	1,500,000
iii) 150mm	Rm	85	10,000	850,000

Total Amount
Carried over to summary of cost

5,900,000



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CODE NO.06 EXTERNAL ELECTRICAL WORKS.

Item No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)
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06a. CCTV System for Harbour.

E. ELECTRICAL WORKS

Supply and installation of the following items of work (unless specifically stated otherwise) including all material, labour, tools, plant, accessories, related civil works, etc., required for proper completion of each item as per specifications (Section-8001 "General Specifications for Electrical Works" shall be applicable to all BOQ items).

CONDUITS & PIPES

Ref. Spec. Sec. 8230

06a-1E 50 mm (Internal Diameter) of underground uPVC Class 'D' pipes including all accessories, pipe range spacers, pull rope, sand bed, excavation & selected backfilling from excavation, complete in all respects:

RM. 14,000 500 7,000,000

Total Amount 7,000,000
 Carried over to summary of cost



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CODE NO.06 EXTERNAL ELECTRICAL WORKS

Item No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)
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06b. Electrical Manhole

C. CIVIL WORKS

EARTHWORKS

Ref.Spec. No.1100

06b-1C Excavation of trenches in all kinds of sub-surface material up to following depths including dewatering and disposal of surplus/rejected excavated material to designated places.

a) 0 - 2 meter	Cu.m.	1500	600	900,000
b) 2 - 4 meter	Cu.m.	50	800	40,000

06b-2C Fill & backfill with selected material obtained from required excavation.

Cu.m.	250	300	75,000
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PLAIN AND REINFORCED CONCRETE

Ref. Sec.No. 2300, 2100

06b-3C Class 'E' concrete using specified cement in foundations.

Cu.m.	80	15000	1,200,000
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06b-4C Class 'C' Plain Concrete using ordinary Portland Cement in benching Concrete

Cum	65	15000	975,000
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06b-5C Class 'B' reinforced concrete using specified cement in following manholes/ chambers structures complete in all respect as shown on the drawings.

a) Base Slab	Cu.m.	150	15,000	2,250,000
b) Walls	Cu.m.	555	18,000	9,990,000
c) Top Slab	Cu.m.	135	20,000	2,700,000



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BILL OF QUANTITIES

CODE NO.06 EXTERNAL ELECTRICAL WORKS

Item No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)
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REINFORCEMENT

Ref. Sec.No. 2200

06b-6C	Grade 60 deformed hot rolled billet steel bars conforming to ASTM A-615.	tonne	101	150,000	15,150,000
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C.I COVERS WITH FRAME

Ref. Sec. 5233

06b-7C	Water and dust tight cast iron cover with frame of 600 mm dia size including fixing. (Heavy duty)	No.	244	10,000	2,440,000
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06b-8C	20mm dia. M.s. galvanised ladder rungs including fixing and fixing accessories complete in all respect as shown on the drawings.	No	1,155	2,000	2,310,000
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WATER PROOFING AND BUILT-UP ROOFING

Ref. Sec.No.6411

06b-9C	Two coats of hot bitumen grade 10/20 applied at the rate of 1 kg./Sq.m. per coat to all exposed structural concrete surfaces in contact with earth.	Sq.m.	1,650	500	825,000
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Total Amount:
Carried over to summary of cost

38,855,000



**KARACHI FISHERIES HARBOUR AUTHORITY
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BILL OF QUANTITIES**

CODE NO.07 MAIN KFH BOUNDARY WALL

Item No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)
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07. Boundary Wall**C. CIVIL WORKS****EARTHWORKS**

Ref.Spec. No.1100

07-1C Excavation of trenches in all kinds of sub-surface material up to following depths including dewatering and disposal of surplus/rejected excavated material to designated places.

a) 0 - 2 meter

Cu.m. 1,250 600 750,000

07-2C Fill & backfill with selected material obtained from required excavation.

Cu.m. 665 300 199500

REINFORCEMENT

Ref. Sec.No. 2200

07-3C Grade 60 deformed hot rolled billet steel bars conforming to ASTM A-615.

tonne 60 110,000 6,600,000

PLAIN AND REINFORCED CONCRETE

Ref. Sec.No. 2300, 2100

07-4C Class 'E' concrete using specified cement in foundations.

Cu.m. 170 15,000 2,550,000

07-5C Class 'D' concrete using specified cement in situ etc.

Cu.m. 165 15,000 2,475,000

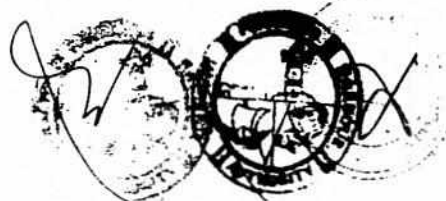
07-6C Class 'B' reinforced concrete in following sub-structures using specified cement complete in all respect as shown on the drawings & specifications:

a) Foundations

Cu.m. 230 15,000 3,450,000

b) Plinth Beams

Cu.m. 190 15,000 2,850,000



BILL OF QUANTITIES

CODE NO.07 MAIN KFH BOUNDARY WALL

Item No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)
	c) Columns upto plinth	Cu.m.	35	15000	5,25,000
07-7C	Class 'B' reinforced concrete in columns above plinth using specified cement complete in all respect as shown on the drawings.	Cu.m.	115	15000	1,725,000
07-8C	Precast Class 'B' reinforced concrete coping as per design using specified cement set in specified cement sand mortar complete in all respect as shown on the drawings.	Cu.m.	95	15000	1,425,000
<u>STRUCTURAL STEEL WORKS</u>					
Ref.Spec. No. 3000					
07-9C	Mild steel gate as per design including fixing and specified paint system complete in all respect as shown on the drawings and specifications.	Kg.	1,570	350	549,500
<u>GALVANIZED IRON BARBED WIRE FENCING</u>					
Ref.Spec. No. 0420					
07-10C	G.I Barbed wire fencing as per design including Y-shape angles, cutting, hoisting, welding, making pockets, cement grout, with all fixing accessories & painting on angles etc. complete in all respect as shown on the drawings and specifications.	Rm	760	3000	2,280,000
<u>BLOCK MASONRY</u>					
Ref. Sec.No. 4100					
07-11C	150mm thick Reinforced block masonry set in 1:6 cement sand mortar.	Cu.m.	510	10,000	5,100,000
<u>WATER PROOFING AND BUILT-UP ROOFING</u>					
Ref. Sec.No. 6411					
07-12C	Two coats of hot bitumen grade 10/20 applied at the rate of 1 kg./Sq.m. per coat to all exposed structural concrete surfaces in contact with earth.	Sq.m.	3,900	500	1,950,000



BILL OF QUANTITIES

CODE NO.07 MAIN KFH BOUNDARY WALL

Item No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)
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CEMENT PLASTER

Ref. Sec.No. 6521

07-13	20mm thick 1:4 cement sand plaster to specified exterior surfaces.	Sq.m.	6,800	900	6,120,000
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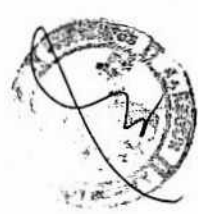
PAINTING

Ref.Spec. No. 6700

07-14C	Weather resistant paint of approved make, quality, colour/ shade including surfaces preparation to specified exterior surfaces complete in all respect as shown on the drawings and specifications.	Sq.m.	6,800	500	3,400,000
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Total Amount
Carried over to summary of cost

41,949,000



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PACKAGE "A" - CIVIL WORKS
BILL OF QUANTITIES**

CODE NO.08 PRE INVESTIGATION FOR R.O. PLANT

Item No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)
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EARTHWORKS
Ref. Sec.No. 1100

08-1 Soil Electrical Resistivity Survey for ground water/aquifer study at different locations as per site requirement and engineer's instructions complete in all respects along with complete ERS report.

No. 5 100,000 500,000

Total Amount
Carried over to summary of cost

500,000



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CODE NO.09 ROADS

Item No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)
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C. CIVIL WORKS

EARTHWORKS

Ref. Sec.No. 1100

09-1C	Excavation/ cutting in all kinds of sub-surface material including disposal of surplus/ rejected excavated materials to designated places.	Cu.m.	25,765	300	7,729,500
09-2C	Selected earthfill including compaction 95% modified (AASHTO T-180, Method-D) complete in all respect as shown on the drawings, specifications and as directed by the Engineer.	Cu.m.	1,000	1850	1,850,000
09-3C	Selected fill with improved soil having CBR \geq 15% at 95% modified (AASHTO T-180, Method-D) including compaction complete in all respect in conformity with the lines, levels and grades as shown on the drawings, specifications and as directed by the Engineer.	Cu.m.	8,080	1200	9,696,000

SUBGRADE PREPARATION

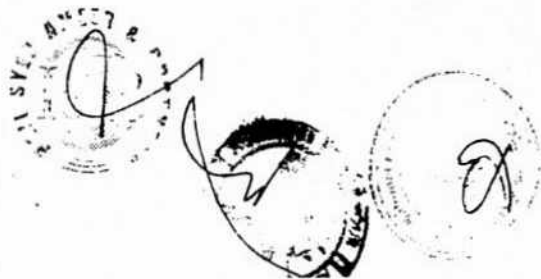
Ref. Sec.No. 7111

09-4C	Subgrade preparation including compaction 95% modified (AASHTO T-180, Method-D)	Sq.m.	44,500	108	4,806,000
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AGGREGATE SUBBASE & AGGREGATE BASE COURSE

Ref. Sec.No. 7120

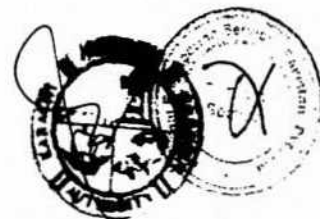
09-5C	Aggregate base Course, 200mm thick.	Cu.m.	8,725	1800	15,705,000
09-6C	Aggregate base Course, 150mm thick.	Cu.m.	130	2800	364,000



BILL OF QUANTITIES

CODE NO. 09 ROADS

Item No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)
<u>CEMENT CONCRETE PAVEMENT</u>					
Ref. Sec.No. 7170					
09-7C	Concrete pavement of flexural strength 4.50 Mpa, using sulphate resistant cement, including all types of expansion, contraction construction joints and dowel bars, complete in all respect.	Cu.m.	4,800	10,000	48,000,000
09-8C	Rehabilitation/ repair of existing concrete roads comprising cleaning and jet washing of existing top surface, repair of cracks by using polysulphide joint sealant and backer rod etc. complete in all respect as shown on the drawings, specifications and as directed by the Engineer.	Sq.m.	26,140	500	13,070,000
<u>REINFORCEMENT</u>					
Ref. Sec.No. 2200					
09-9C	Grade 60 deformed hot rolled billet steel bars conforming to ASTM A-615.	tonne	33	11,500	3,795,000
09-10C	Welded wire fabric mesh type A193, BRC or approved equivalent including fixing.	Sq.m.	24,000	200	4,800,000
<u>PLAIN AND REINFORCED CONCRETE</u>					
Ref. Sec.No. 2300,2200					
09-11C	Class 'E' plain concrete using ordinary Portland cement.	Cu.m.	1,485	10,000	14,850,000
09-12C	150 micron thick polyethylene sheet conforming to ASTM E-154 complete in all respect as shown on the drawings.	Sq.m.	27,000	100	2,700,000
<u>CONCRETE PAVERS</u>					
Ref. Sec. 2510					
09-13C	Concrete paving blocks (7700 PSI) 80mm thick of size 8"x4" (200x100mm) laid in approved pattern including 2" thick (50mm) sand cushion complete in all respect as shown on the drawings.	Sq.m.	18,635	1,500	27,952,500



BILL OF QUANTITIES

CODE NO.09 ROADS

Item No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)
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MISCELLANEOUS ROAD WORKS

Ref. Sec.No. 7190

09-14C Precast finished Class 'B' reinforced cement concrete Kerb stone as per design using sulphate resistant cement set in 1:4 cement sand mortar including earthworks, Class 'E' concrete etc. complete in all respect as shown on the drawings. (excluding the cost of steel reinforcement)

a) Kerb stone with drain gutter	R.M.	3,270	1500	4,905,000
b) Kerb stone	R.M.	1,060	1200	1,272,000

FLOOR FINISHES

Ref. Sec.No. 6600

09-15C 75mm thick Class 'C' cement concrete pavement over footpath.

Sq.m.	880	1500	1,320,000
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TRAFFIC MARKING & PAVEMENT STUDS

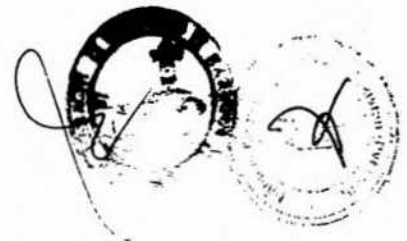
Ref. Sec.No. 7370

09-16C Pavement markings as shown on the drawings using thermoplastic paint complete in all respect as per specifications and as directed by the Engineer.

a) Lane marking	Sq.m.	1,110	500	555,000
b) Zebra Crossing	Sq.m.	1,515	500	757,500

09-17C Reflectorized road studs (heavy duty) as shown on the drawings and as per specifications complete in all respect.

No.	1,380	500	690,000
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BILL OF QUANTITIES

CODE NO.09 ROADS

Item No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)
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TRAFFIC SIGNS

Ref. Sec.No. 7380

09-18C Traffic sign boards (permanent) of the following types including reflective sheeting (diamond grade), posts, foundations earthwork and related civil work etc. as shown on the drawings complete in all respect.

a) Triangular

No.

4

50,000 200,000

b) Circular

No.

2

50,000 100,000

Total Amount

Carried over to summary of cost

165,117,500
