社会開発調査部報告書

## SULTANATE OF OMAN

MINISTRY OF COMMUNICATIONS DIRECTORATE GENERAL OF ROADS



## CONSTRUCTION OF FLYOVER AT AL KHABURAH ROUNDABOUT BATINAH HIGHWAY

## **TENDER DOCUMENTS**

## **BILL OF QUANTITIES**

JICA LIBRARY



March, 1997

PACIFIC CONSULTANTS INTERNATIONAL FUKUYAMA CONSULTANTS INTERNATIONAL

1138278 (5)

• •

an suite problema a septembre. Na productione a suite france.

.

	CONSTRUCTION OF FLYOVER AT AL KHABRAH BILL OF QUANTITIES	COVER A	E		<b>1</b>
	BILL 1 - PRELIMINARIES	ARIES	-		-
Item No	Description	Unit	Estimated Quantity	Unit Rate R.O. Bz	Amount R.O. Bz
,	SECTION 100 PRELIMINARIES				
	101 Bonds and Insurance				
101.1	Performance Bond (Clause 10 of Standard Conditions of Contract)	lump sum			
( 101.2	Insurance of the Works (Clause 21 of Standard Conditions of Contract)	lump sum			
101.3 5 5 5 7	Damage to Persons and Property (Clause 22 of Standard Condition of Contract)	lums dunl			-
101.4	Third Party Insurance (Clause 23 of Standard Conditions of Contract)	lump sum			
101.5	Accident or injury to Workmen (Clause 24 of Standard Condition of Contract)	ums dunl			
		1-1	Ca	Carried to summary	44250.000

•

Pacific Consultants International Fukuyama Consultants International

J11382985

	CONSTRUCTION OF FLYOVER AT AL KHABRAH BILL OF QUANTITIES BILL 1 - PRELIMINARIES	YOVER A MES ARIES	£4 ·		
Item No	Description	Unit	Estimated	Unit Rate P.O. R.	Amount R O B-
	104 Facilities for the Engineer		guanury		
104.1	Provision of Engineer's office (Type A, 1 unit x 20)	month	20	250.000	5000.000
104.2	Maintenance of Engincer's office (Type A. 1 unit x 20)	month	20	150,000	3000,000
104.3	Provision of surveying instruments	month	18	300.000	5400.000
104.4	Maintenance of surveying instruments	month	18	150.000	2700.000
104.5	Provision of Engincer's accommodation				
	(i) Resident Engineer's accommodation (Type B, 2 unit )	month	38	250.000	9500.000
	(ii) Engineer's accommodation (Type C. 4 units )	month	74	150.000	11100.000
	(iv) Dining/Kitchen (Type D, 1 unit x 18)	month	18	250.000	4500.000
		1-2	ő	Carried to summary	41200.000

.

Pacific Consultants International Fukuyama Consultants International

.

	CONSTRUCTION OF FLYOVER AT AL KHABRAH BILL OF QUANTITIES	.YOVER A I TIES	F		
Item No	BILL 1 - PRELIMINARIES Description	ARIES	Estimated	Unit Rate	Amount
	-		Quantity	R.O. Bz	R.O. Bz
104.6	Maintenance of Engincer's accommodation				
	(i) Resident Engineer's accommodation (Type B. 2 unit )	month	38	150.000	5700.000
	(ii) Engineer's accommodation (Type C, 4 unit )	month	<b>*</b> 2	250.000	18500.000
	(iv) Dining/Kitchen (Type D, 1 unit x 18)	month	18	250.000	4500.000
104.7	Provision of laboratory	month	18	400.000	7200.000
104.S	Maintenance of laboratory	month	. 18	150.000	2700.000
104.10	In situ soù bearing capacity tests	ח.ד.	20	20.000	400.000
104.11	Sub-soil investigation by specialist Contractor	prov. sum		8,000.000	8000.000
		1-3	ů.	Carried to summary	47000.000

	CONSTRUCTION OF FLYOVER AT AL KHABRAH	.YOVER A	Ъ		
	BILL OF QUANTITIES BILL 1 - PRELIMINARIES	TIES TARIES	:		
Item No	Description	Unit	Estimated	Unit Rate	Amount
			Quantity	R.O. Bz	R.O. Bz
	105 Assistance for Engineer				
105.1	Laborers to assist the Engineer ( no x months)	man month	N/A		
	106 Contractor's Compound				
106.1	Mobilization and demobilization of Contractor's facility	Jump sum			100000.000
106.2	Maintenance of Contractor's facility	month	18	5,000.000	000.00006
	107 Maintenance and Protection of Traffic				
107.1	Maintenance and protection of traffic	lump sum			100000,000
107.2	Extra over item 107.1 for supply and compaction of subbase on diversions where ordered by the Engineer (10 cm. thick)	cu. m.			
107.3	Extra over item 107.1 for supply and compaction of bituminous basecourse on diversions where ordered by the Engineer ( 3 cm. thick)	נר ט			
		1-4	Ca	Carried to summary	290000,000

•

•

	CONSTRUCTION OF FLYOVER AT	YOVER A	E		
	AL KHABRAH				
	BILL OF QUANTITIES BILL 1 - PRELIMINARIES	ries Aries	-		
Item No	Description	Unit	Estimated	Unit Rate P.O. R.	Amount ' P O B2
	108 Progress Photographs		& ramery		
108.1	Provision of negatives and 5 sets of photographs (14 photos max.) (Mountable-Size 100 x 150 mm.)	month	18.	30.000	540.000
	109 Siga Boards				
109.1	Provision, erection, moving and maintenance of signboard (Wooden Type)	n.r.	2	300.000	600,000
19. <b>1. 19. 19. 19. 19. 19. 19.</b> 19. 19. 19. 19. 19. 19. 19. 19. 19. 19.	110 Commemoration Plaque and Opening Ceremony				
110.1	Supply and erection of commemoration plaque (Optional)	n.r.	<b>⊢</b> ₹	Option	
110.2	Opening ceremony (Optional)	lump sum			
			(		
		1-5	Ca	Carried to summary	1140.000

Item No 115.1	CONSTRUCTION OF FLYOVER AT AL KHABRAH BILL OF QUANTITIES BILL OF QUANTITIES BILL 1 - PRELIMINARIES BILL 1 - PRELIMINARIES Description I15 Compliance with the Tender Documents Allow for all costs and expense for complying with all the conditions and requirements stipulated in the Tender Documents. including all Clause of the Standard Conditions of Contract, which the Tenderer considers have financial implications on his tender and which are not covered separately in the various pay items of the Bill of Quantities	TES IES Vuit Unit	r Estimated Quantity	Unit Rate R.O. Bz	Amount R.O. Bz
	Clause No	mus dmul mus dmul mus dmul mus dmul mus dmul mus dmul mus dmul			
		1-6	Car	Carried to summary	

	CONSTRUCTION OF FLYOVER AT	VOVER A	E.		
	BILL OF QUANTITIES BILL 1 - PRELIMINARIES	TIES			
Item No	Description	Unit	Estimated	Unit Rate	Amount P.O. R.
	SUMMARY		Aummy		
	Page 1-1				44250.000
an and a second sec	Page 1-2				41200.000
	Page 1-3				47000.000
	Page 1-4				290000.000
	Page 1-5				1140.000
	Page 1-6				0.000
					un mentitik och
aya yan sanasan d					
		1-7	To (	To Ground Summary	423590.000

|

	CONSTRUCTION OF FLYOVER AT AL KHABRAH BILL OF QUANTITIES BILL 2 - EARTHWORKS	YOVER A TIES ORKS	E		
Item No	Description	Unit	Estimated	Umit Rate R O R <sub>2</sub>	Amount R.O. R.
	200 EARTHWORKS		(compared by		
	201 Clearing and Grubbing				
201.1	Removal and delivery of trees of 300mm trunk diameter or greater	n.r.	87	15.000	1305.000
	202 Removal of Structures and Obstructions				
202.1	Removal of existing building (Shop, etc)	n.r.	4	200.000	800.000
202.2	Removal of misc. reinforced concrete structures	cr. m.	58	5.000	140.000
202.3	Removal of pipe culvert (D=0.6,0.75.0.9)	lin.m.	119	2.000	238.000
202.4	Removal of asphaltic concrete pavement (100 mm thick)	cn. m.	5159	2.000	10318.000
202.5	Removal of damaged steel safety barrier (Gurdrail)	lin.m.	3845	1.800	6921.000
		2.1	Ca	Carried to summary	19722.000

.

Pacific Consultants International Fukuyuma Consultants International

.

	CONSTRUCTION OF FLYOVER AT AL KHABRAH BILL OF QUANTITIES	YOVER A	f		
Item No	Description Description Description	JKKS	Estimated	ITnit Rate	Amount
			Quantity	R.O. Bz	R.O. Bz
202.6	Remove carefully and relocate sign boards and road signs (size)	ח.ד.	.63	3.500	220.500
202.7	Removal of damaged Irish crossing marker posts	n.r.	N/A	2.500	-
202.8	Removal of damaged drainage protection works (gabions, conc. tiles, mortared riprap, dry rip rap)	cr. m.	N/A	3.500	
202.9	Removal of existing fences (wire mesh, chicken wire)	lin.m.	370	1.500	555.000
202.10	Removal of existing fences (block or masonry wall)	lin.m.	N/A	2.000	
202.11	Removal of existing box culvert (2 x 1 m)	lin.m.	252	5.000	1260.000
202.12	Removal of existing interlocking tiles	sd. m	1515	1.200	1818.000
202.13	Removal of existing crush stone	lin.m.	N/A	1.000	
202.14	Removal of existing plain concrete	cu. m.	173	2.000	346.000
202.15	Removal of Curb Stone	E	2894	1.500	4341.000
		2.2	Ca)	Carried to summary	8540.500

.

	BILL 2 - EARTHWORKS	LICVEN F H ITTES VORKS	1		
Item No	Description	Unit	Estimated	Unit Rate	Amount
			Quantity	R.O. Bz	R.O. Bz
	203 Earthworks Excavation				
203.1	Suitable excavation to embankment	cn. m.	35330	0.600	21198.000
203.2	Suitable excavation to waste	cu. m.	8712	0.300	2613.600
203.3	Unsuitable excavation to waste	cn. m.	N/A	0.400	
203.4	Borrow excavation to embankment	cr w.	62693	1.500	94039.500
203.5	Extra over item 203.1 ,2. 3 for excavation under water	.н. С.	N/A	3.000	
	206 Excavation and Backfilling for Structures				
206.1	Structure excavation in soils to a depth of 2m	cn m.	738	1.000	738.000
206.2	Structure excavation in soils to a depth more than 2m	сп. Ш.	N/A	1.700	
	· ·				
		2-3	Car	Carried to summary	118589,100

BILL         BILL         BILL         BILL         Bructural excavation in rock to a depth of 2m         Structural excavation in rock to a depth more than 2m         Extra over 206.1.2,3,4 for excavation under water		CONSTRUCTION OF FLYOVER AT	YOVER A	L L		
No     Description     Unit     Estimated     Unit Rate     Amount       Structural enviration in rock to a depth of 2m     cu. m.     N/A     1.100     R.O.       Structural enviration in rock to a depth more than 2m     cu. m.     N/A     2.600       Structural enviration in rock to a depth more than 2m     cu. m.     N/A     2.600       Extra over 206.1.2.8.4 for excavation under water     cu. m.     N/A     2.900		AL KHABRAH BILL OF QUANTIT BILL 2 - EARTHWC	I TIES DRKS			
Structural excavation in rock to a depth of 2m     cu. m.     N/A     L100       Structural creavation in rock to a depth more than 2m     cu. m.     N/A     2.500       Extra over 206.12.3.4 for excavation under water     cu. m.     N/A     2.900	iem No	Description	Unit	Estimated	Unit Rate	Amount b C b.
Structural occavation in rock to a depth more than 2m     cu. m.     N/A     2.600       Extra over 206.1.2.3.4 for excavation under water     cu. m.     N/A     2.900	206.3	Structural excavation in rock to a depth of 2m	cu. m.	N/A N/A		
Exten over 206.1.2.3.4 for excavation under water cu.m. N/A 2.900	206.4	Structural excavation in rock to a depth more than 2m	cu. m.	N/A	2.600	
Carried to summary	206.5	Extra over 206.1,2,3,4 for excavation under water	cu. m.	N/A	2.900	
Carried to summary					-	
			2-4	Car	rried to summary	0.000

.

	CONSTRUCTION OF FLYOVER AT AL KHABRAH	XUVER A			
	BILL OF QUANTITIES BILL 2 - EARTHWORKS	TIES (RKS)			
Item No	Description	Unit	Estimated	Unit Rate	Amount
			Quantity	R.O. Bz	R.O. Bz
	SUMMARY				
<b>7.000 °≠</b> €,0 <u>100 − 1000</u>	Page 2-1				19722.000
	Page 2-2				8540.500
	Pare 2.3				118589,100
	Page 2-4				0.000
		· · · · · ·			928.041969.44
	· · · ·	· • ·			
					<u></u>
			¢	Cond Summon	002 130271
		0-2	DT	to Aranu Summary	140001.000

	CONSTRUCTION OF FLYOVER AT AL KHABRAH BILL OF QUANTITIES BILL 3 - GRANULAR AND STABILIZED SUBBASE, BASE COURSE, STABILIZED SUBGRADE	YOVER A FIES ASE COU	T RSE, STABI	LIZED SUBGR	ADE
Item No	Description	Unit	Estimated Quantity	Unit Rate R.O. Bz	Amount R.O. Bz
	300 GRANULAR AND STABILIZED SUBBASE, BASECOURSE AND STABILIZED SUBGRADE				
	302 Granular Subbase				
302.1	Granular subbase (class B) (150 mm thick)	cu. m.	5276	2.000	10552,000
ayan a sada da kata ya Bakata ya mara	303 Aggregate Basecourse				
303.1	Aggregate basecourse (class B) (300 mm thick)	cn. m.	N/A	3.600	
303.2	Aggregate basecourse (class B) (250 mm thick)	cn, m,	N/A	3.500	
303.3	Aggregate basecourse (class B) (200 mm thick)	cu. m.	8070	3.300	26631.000
303.4	Aggregate basecourse (class B) (150 mm thick)	cu. m.	2253	3.000	6759.000
194 - <b>19</b> 19 - 192 - 192 - 192 - 192		3-1	- Os	Carried to summary	43942.000

 1	Amount R.O. Bz		43942.000	-	<u>2 - 4</u> 94 <del>-535</del> - 667-77	and an entry of the second		******	<u></u>		43942.000
עעמטמווא עמע	Unit Rate A. R.O. Bz									-	Carried to summary
L Sev CmADIII	Estimated Quantity						<u> </u>				Carr
NUVER A. TES	Unit										3-2
CONSTRUCTION OF FLYOVER AT AL KHABRAH BILL OF QUANTITIES	BILL 3 - GRANULAR AND STABILIZED SUBBASE, BASE COURSE, STABILIZED SUBJASE Description Unit Estimated Unit Rate Am Quantity R.O. Bz R.	SUMMARY	Page 3-1					· ·			
,	Item No										

		TIES	-		
Itam No	BILL 4 - BITUMINOUS PAVEMENT Description	PAVEMEN Unit	1T Estimated	Unit Rate	Amount
			Quantity	R.O. Bz	R.O. Bz
	400 BITUMINOUS PAVEMENT				
	401 Bituminous Prime Coat and Tack Coat				
401.1	Bituminous prime coat (MC 70)	ж ж	52318	0.250	13079.500
401.2	Bituminous tack coat (RC 250)	ъ х х	10075	0.300	3022.500
	402 Bituminous Basecourse				
402.1	Bituminous basccourse (class B) 70 mm.thick	cu. m.	701	24.000	16821.000
402.2	Bituminous basecourse (class B) 100 mm.thick	cr.m.	4035	28.000	112980.000
402.4	Increse or decrese in bituminous content from nominal rate	ц	rate only	0.050	
		4-1	C	Carried to summary	145906,000

	CONSTRUCTION OF FLYOVER AT AL KHABRAH BILL OF QUANTITIES BILL 4 - BITUMINOUS PAVEMENT	YOVER A	5 5		τ <sup>2</sup> αφβατοφαία
Item No	Description	Unit	Estimated	۲. The second	1 12
	405 Bituminous Wearing Course		Quantity	K.O. Bz	K.U. B2
405.1	Bituminous wearing course (class B) (50 mm thick)	cu. m.	3483	28,000	97524.000
405.2	Increase or decrease in bitumen content from nominal rate	k K	rate only	0.050	
		<u> </u>			
	-				
other and the					
X					****
an se de la competencia de la					
		4.2	Car Car	Carried to summary	97524 000
1		2	(41	frommes of port	

-

	CONSTRUCTION OF FLYOVER AT AL KHABRAH	OVER A'	6		
	BILL OF QUANTITIES BILL 4 - BITUMINOUS PAVEMENT	IES AVEMEN	Ŀ,		
Item No	Description	Unit	Estimated Quantity	Unit Rate R.O. Bz	Amount R.O. Bz
	SUMMARY				an a
Same and a	Page 4-1				14.000.000
-	Paçe 4-2				97524.000
- 					
a to a sould be					
and a second					
and the second secon					
:			c		
		۲-3 ۲	Ca	Carried to summary	243430,000

		CONSTRUCTION OF FLYOVER AT AL KHABRAH BILL OF QUANTITIES BILL OF QUANTITIES	CYOVER A H ITTES	R AT Swditentide		
片	Item No	Description Uni	Unit	Estimated	Unit Rate	Amount
				Quantity	R.O. Bz	R.O. Bz
		500 CONCRETE AND CONCRETE STRUCTURE				
		504 Concrete for Structure				
30 20	504.1	Concrete Class 16/20 (OPC cement) Blinding, Gravity Wall	cn. m.	3144	30.000	94320.000
30	504.2	Concrete Class A 24/20 for retaining wall, abutment and piers (OPC)	cu,m	5244	35.000	183540.000
20	504.3	Concrete Class 32/20 for bridge deck. cross beam and joint	cu.m	353	50.000	17650.000
2C	504.4	Cast-in-Situ Concrete Class 24/20 for bridge deck for cantilever	cu.m	1005	38.000	38190.000
						-
J			-1 -5-1	Ca	Carried to summary	333700.000

	CONSTRUCTION OF FLYOVER AT	OVER A	L		
	AL KHABRAH				
	BILL OF QUANTITIES BILL 5 - CONCRETE AND CONCRETE STRUCTURE	IES ETE STI	UCTURE		
Item No	Description	Unit	Estimated	Unit Rate	Amount
			Quantity	R.O. Bz	R.O. Bz
	506 Prestressed Concrete for Bridge				
506.1	Precast. pre-stressed. bridge beam. reinforced concrete class AA40 including all reinforcement. tendons. tension cable strands. approved anchorage points "Freyssinet" system or equal and approved. sheaths. de-watering. pipes grouting in accordance with manufacturers recommendations. all complete and as detailed on tender drawings				
	a) PS Box girders (Internal) 26 m long	אינ נ	198	2,400.000	475200.000
	b) PS Box girders (External) 26 m long	n.r.,	44	2,700.000	118800.000
		5-2	Cai	Carried to summary	594000.000

.

.

	CONSTRUCTION OF FLYOVER AT	YOVER A	4		
	AL KHABRAH		4		
	BILL OF QUANTITIES BILL 5 - CONCRETE AND CONCRETE STRUCTURE	RETE STI	NUCTURE		
Item No	Description	Unit	Estimated	Unit Rate	Amount
			Quantity	R.O. Bz	R.O. Bz
	509 Reinforcing Steel				
509.1	High yield steel bar reinforcement of any diameter	tone	068	285.000	253650.000
509.2	Mild steel bar reinforcement of any diameter	tone	N/A	300.000	
509.3	Mesh reinforcement of any size	tone	N/A	400,000	
					an a she a s
	- ··				
-		5.3	Car	Carried to summary	253650.000

	CONSTRUCTION OF FLYOVER AT AL KHABRAH	YOVER A	r		
	BILL OF QUANTITIES BILL 5 - CONCRETE AND CONCRETE STRUCTURE	NES RETE STI	RUCTURE		
Item No		Unit	Estimated	Unit Rate	Amount
t was a			Quantity	R.O. Bz	R.O. Bz
	SUMMARY				
	Page 5-1				333700.000
	Page 5-2				594000.000
<b>1-1</b>	Page 5-3				253650.000
1921-0457 et					
				<u></u>	
			-		
		•			
مىلىدىنى ئۆلىرىنى ئەرىمىيىرىكىنى <u>تە ب</u> ەر		5-4	Car	Carried to summary	1181350.000
		-			

ADDITIONAL AND ADDITION OF A CONTRACT AND ADDITION ADDITIONAL ADDITI

nkan (E. Sr.St

ALC: NO.

Contraction of the

A Sugar Street

Shreenstor

	CONSTRUCTION OF FLYOVER AT AL KHABRAH BILL OF QUANTITIES BILL 6 - STRUCTURAL STEEL AND OTHER METALWORK	YOVER A MES OTHER 1	T TETALWORF		
Item No		Unit	Estimated	Unit Rate	Amount
			Quantity	R.O. Bz	R.O. Bz
	600 STRUCTURAL STEEL AND OTHER METALWORK				
	603 Bridge Parapets				
603.1	Bridge Handrails (Aluminum) (H=500 mm)	lin.m.	2164	45.000	97380.000
0-54-5-5-5-5-5-5-5-5-5-5-5-5-5-5-5-5-5-5		·			
					-
					1993 - 1993 - 1994 - 1994 - 1994 - 1994 - 1994 - 1994 - 1994 - 1994 - 1994 - 1994 - 1994 - 1994 - 1994 - 1994 -
-					
		6-1	Car	Carried to summary	97380.000

۰

•

.

Pacific Consultants International Fukuyama Consultants International .

	岩	R.O. Bz	97380.000		97380.000
	Unit Rate	R.O. Bz		 	 Carried to summary
T METALWORK	Estimated	Quantity			Car
YOVER A I TIES OTHER 1	Unit			 	6-2
CONSTRUCTION OF FLYOVER AT AL KHABRAH BILL OF QUANTITIES BILL 6 - STRUCTURAL STEEL AND OTHER METALWORK		SUMMARY	Page 6-1		
· · · · · · · · · · · · · · · · · · ·	Item No				

CIES RVICE DUCTE Unit Estimated Unit Rate Am Quantity R.O. Bz R. Ih.m 198 35.000 Ih.m N/A 45.000 Ih.m N/A 45.000 Ih.m N/A 60.000 Ih.m N/A 110.000 Ih.m N/A 110.000 Ih.m 17 150.000		CONSTRUCTION OF FLYOVER AT AL KHABRAH	YOVER A	L		
No     Description     Unit Rate     Am       S00 DRAINAGE AND SERVICE DUCTS     Quancity     R.O. Bz     R.       S00 DRAINAGE AND SERVICE DUCTS     Iin.m     198     35,000       S01 Fipe Culverts     Iin.m     198     35,000       Reinforced concrete pipe culvert (600 mm. dia.)     Iin.m     198     35,000       Reinforced concrete pipe culvert (730 mm. dia.)     Iin.m     N/A     45,000       Reinforced concrete pipe culverts, Box Culverts, and Fipe     Iin.m     N/A     45,000       S02 Reinforced Concrete Dox Culverts, Box Culverts and Fipe     Iin.m     N/A     45,000       S02 Reinforced Concrete Dox Culverts, Box Culverts and Fipe     Iin.m     N/A     45,000       S02 Reinforced Concrete Dox Culverts, Box Culverts and Fipe     Iin.m     N/A     45,000       Culverts Headwalls, Wingwalls and Aprons (SRP coment)     Iin.m     N/A     45,000       I     Box culvert 2 x 1 m 2 cell     Iin.m     N/A     110,000       2     Box culvert 2 x 1 m 2 cell     Iin.m     N/A     110,000       3     Box culvert 2 x 1 m 3 cell     In.m     N/A     110,000	95,000,000,000,000,000,000,000,000,000,0	1	LIES RVICE D	UCTE		
Soo DRAINAGE AND SERVICE DUCTS     Quantity     R.O. Bat     R.       Soo DRAINAGE AND SERVICE DUCTS     Soo DRAINAGE AND SERVICE DUCTS     35.000       Sol Pipe Culverts     In.m     198     35.000       Reinforced concrete pipe culvert ( 600 mm. dia.)     In.m     198     35.000       Reinforced concrete pipe culvert ( 750 mm. dia.)     In.m     N/A     45.000       Reinforced concrete pipe culvert ( 750 mm. dia.)     In.m     N/A     45.000       Reinforced concrete pipe culverts, Box Culverts and Pipe     In.m     N/A     45.000       So2 Reinforced Concrete Box Culverts, Box Culverts and Pipe     In.m     N/A     45.000       So2 Reinforced Concrete Box Culverts, Box Culverts and Pipe     In.m     N/A     45.000       So2 Reinforced Concrete Dox Culverts and Pipe     In.m     N/A     45.000       So2 Reinforced Concrete Box Culverts and Pipe     In.m     N/A     45.000       So2 Reinforced Concrete Box Culverts and Pipe     In.m     N/A     60.000       So2 Reinforced Concrete Box Culverts and Pipe     In.m     N/A     60.000       Box culvert 2 x 1 m 1 cell     In.m     N/A     110.000       Box culvert 2 x 1 m 2 cell     In.m     In.m     17     150.000       Box culvert 2 x 1 m 3 cell     In.m     In.m     17     150.000 </td <td>Item N</td> <td>Description</td> <td>Unit</td> <td>Estimated</td> <td>Unit Rate</td> <td>뇌</td>	Item N	Description	Unit	Estimated	Unit Rate	뇌
800 DRAINAGE AND SERVICE DUCTS       801 Fipe Culverts         801 Fipe Culverts       801 Fipe Culverts         802 Reinforced concrete pipe culvert (600 mm. dia.)       11n.m         Reinforced concrete pipe culvert (750 mm. dia.)       11n.m         Reinforced concrete pipe culvert (750 mm. dia.)       11n.m         Reinforced concrete pipe culverts, Box Culverts and Fipe       45.000         S02 Reinforced Concrete Box Culverts, Box Culverts and Fipe       45.000         Culverts Headwalls, Wingwalls and Aprons (SRP com out)       11.m       N/A       45.000         1       Box culvert 2 x 1 m 1 cell       110.000       110.000         2       Box culvert 2 x 1 m 2 cell       11.m       N/A       110.000         3       Box culvert 2 x 1 m 3 cell       11.m       17       130.000				Quantity	1	R.O. Bz
801 Fipe Culverts     801 Fipe Culverts     803 Finderect     801 Fipe Culverts     800 Fin.m		SOO DRAINAGE AND SERVICE DUCTS				
Reinforced concrete pipe culvert (600 mm. dia.)     lin.m     198     35.000       Reinforced concrete pipe culvert (730 mm. dia.)     lin.m     N/A     45.000       S02 Reinforced Concrete Box Culverts, Box Culverts and Pipe Culverts Headwalls, Wingwalls and Aprons (SRP cement)     hin.m     N/A     45.000       S02 Reinforced Concrete Box Culverts, Box Culverts and Pipe Culverts Headwalls, Wingwalls and Aprons (SRP cement)     hin.m     N/A     60.000       1     Box culvert 2 x 1 m 1 cell     hin.m     N/A     60.000       2     Box culvert 2 x 1 m 2 cell     hin.m     N/A     110.000       3     Box culvert 2 x 1 m 3 cell     in.m     x7     130.000		801 Pipe Culverts				
Reinforced concrete pipe culvert (750 mm. dia.)       lin.m       N/A       45.000         S02 Reinforced Concrete Box Culverts, Box Culverts and Pipe       s02 Reinforced Concrete Box Culverts, Box Culverts and Pipe       45.000         S02 Reinforced Concrete Box Culverts, Box Culverts and Pipe       s02 Reinforced Concrete Box Culverts, Box Culverts and Pipe       45.000         Culverts Headwalls, Wingwalls and Aprons (SRP cement)       SRP cement)       s00 culverts Headwalls, Wingwalls, Mingwalls, Mingwalls, Mingwalls, Mingwalls       45.000         1       Box culvert 2 x 1 m 1 cell       lin.m       N/A       60.000         2       Box culvert 2 x 1 m 2 cell       lin.m       N/A       110.000         3       Box culvert 2 x 1 m 3 cell       lin.m       X/A       110.000	801.1	Reinforced concrete pipe culvert ( 600 mm. dia.)	lin.m	198	35.000	6930.000
<ul> <li>802 Reinforced Concrete Box Culverts, Box Culverts and Pipe Culverts Headwalls, Wingwalls and Aprons (SRP cement)</li> <li>Concrete (Class 24/20), Box Culverts, Box Culverts Headwalls, Wingwalls, Wingwalls, Wingwalls, Wingwalls, and Aprons (SRP Cement), all complete and as detailed on drawing</li> <li>1 Box culvert 2 x 1 m 1 cell</li> <li>2 Box culvert 2 x 1 m 2 cell</li> <li>3 Box culvert 2 x 1 m 3 cell</li> <li>8-1</li> </ul>	801.2	Reinforced concrete pipe culvert (750 mm. dia.)	lin.m	N/A	45.000	
802 Reinforced Concrete Box Culverts, Box Culverts and Pipe       802 Reinforced Concrete Box Culverts, Box Culverts and Pipe         Culverts Headwalls, Wingwalls, Wingwalls, Wingwalls, Wingwalls, Wingwalls, and Aprons (SRP Cement), all complete and as detailed on drawing       60.000         1       Box culvert 2 x 1 m 1 cell       In.m       N/A       60.000         2       Box culvert 2 x 1 m 2 cell       In.m       N/A       110.000         3       Box culvert 2 x 1 m 3 cell       In.m       17       150.000						
Concrete (Class 24/20), Box Culverts, Box Culverts and Pipe Culverts Headwalls. Wingwalls, and Aprons (SRP Cement), all complete and as detailed on drawing       60.000         I       Box culvert 2 x 1 m 1 cell       N/A       60.000         Box culvert 2 x 1 m 2 cell       N/A       110.000         Box culvert 2 x 1 m 3 cell       110.000       11         S       Box culvert 2 x 1 m 3 cell       17       150.000         S-1       Carried to summary	- 1294-1					
Box culvert 2 x 1 m 1 cellN/A60.000Box culvert 2 x 1 m 2 cellN/A110.000Box culvert 2 x 1 m 3 cell17150.000Box culvert 2 x 1 m 3 cell8-1Carried to summary	802.1	Concrete (Class 24/20), Box Culverts, Box Culverts and Pipe Culverts Head Wingwalls and Aprons (SRP Cement), all complete and as detailed on drawi	ا walls. Wingw ing	alls.		
Box culvert 2 x 1 m 2 cell         N/A         110.000           Box culvert 2 x 1 m 3 cell         17         150.000           8-1         Carried to summary	802.1.1	Box culvert 2 x 1 m 1 cell	lin.m	N/A	60.000	
Box culvert 2 x 1 m 3 cell     150.000       8-1     Carried to summary	802.1.2	Box culvert 2 x 1 m 2 cell	lin.m	A/N	110.000	
Carried to summary	802.1.3	Box culvert 2 x 1 m 3 cell	lin.m	17	150.000	2550.000
			8-1	Ca	rried to summary	9480.000

	CONSTRUCTION OF FLYOVER AT AL KHABRAH BILL OF QUANTITIES BILL 8 - DRAINAGE AND SERVICE DUCTE	OVER A ES VICE D	T UCTE	. ·	
Item No		Unit	Estimated Quantity	Unit Rate R.O. Bz	Amount R.O. Bz
	804 Catch Basins, Catch Pits, Manholes, Curb Inlets, Ditch Inlets and Outlets				
	Reinforced concrete catch pit comprising excavation, backfilling, disposal, 100 mm thick plain in-situ sulphate resisting concrete class (12/20) blinding, concrete class (24/20) for structure, all complete and as detailed on drawing				
804.1	Catch Fits 1 x 1 x 2 m	n.r.	4	180.000	720.000
	Reinforewed concrete rullies comprising excavation, backfilling, disposal, 150 mm bed and walls of reinforces sulphate resisting concrete class (24/20) all complete and as detailed on drawings				
804.2	Gullies 300 x 300 mm	lin.m	1000	25.000	25000.000
		8-2	Ca	Carried to summary	25720.000

	CONSTRUCTION OF FLYOVER AT AL KHABRAH	YOVER A	L.		
	BILL 8 - DRAINAGE AND SERVICE DUCTE	RVICE D	UCTE		
Item No	Description	Unit	Estimated	Unit Rate	Amount
			Quantity	R.O. Bz	R.O. Bz
	805 Water proofing for structure				
805.1	Waterproofing membrane	sq.m.	V/N	1.800	
805.2	Mastic asphalt waterproofing	.m.ps	N/A	S.000	
805.3	Bituminous paint	sq.m.	3000	0.350	1050.000
dechia: areas					
	807 Service Ducts				
807.1	Service duct (A.C. 150 mm dia1 way with concrete surround), including duct markers	lin.m.	N/N	2.200	
807.1.1	Service duct (A.C. 150 mm dia2 way with concrete surround), including duct markers	lin.m.	276	4.000	1104,000
807.2	Extra over for excavation in rock for service ducte	cu.m.	N/A		
		8 8	Ca	Carried to summary	2154.000

.

	BILL OF QUANTITIES BILL 8 - DRAINAGE AND SERVICE DUCTE	L LTLES ERVICE D	UCTE		
Item No	Description	Unit	Estimated Quantity	Unit Rate R.O. Bz	Amount R.O. Bz
SUMMARY					
Page 8-1					9480.000
Page 8-2					25720.000
Page S-3					2154.000
		8-2 7	Ö	Carried to summary	37354.000

.

2014	Bz		000.	en de care en	an an tha an	All Phall Market and accord according	000
	Amount R.O.		11592,000				11592.000
	Unit Rate R.O. Bz						Carried to summary
T TSATION	Estimated						Cai
YOVER A TIES	Unit						 9-2
CONSTRUCTION OF FLYOVER AT AL KHABRAH BILL OF QUANTITIES RITT 9 - STOPF PROTECTION AND STARTITS ATTON		SUMMARY	Page 9-1				
	Item No						

	CONSTRUCTION OF FLYOVER AT AL KHABRAH BILL OF QUANTITIES BILL 10 - PILING	OVER A IES 3	£		
Item No	Description	Unit	Estimated Quantity	Unit Rate R.O. Bz	Amount R.O. Bz
1001.1	1000 FILING 1001 Filing Reverse Filling Method or equivalent Diameter = 600 mm including setting up of piles, driving and testing, all complete and as detailed on tender drawings	lin m	2808	30.000	234240.000
		1-01	Car	Carried to summary	234240.000

.

	CONSTRUCTION OF FLYOVER AT	YOVER A	L	-	
<u> 2017 - 100</u>	AL KHABRAH BILL OF QUANTITIES	NES			
Ttor No	Description	Unit	Estimated	Unit Rate	Amount
			Quantity	R.O. Bz	R.O. Bz
	SUMMARY				
	Page 10-1				234240.000
·					
17657124.0 <sub>12</sub> 3-12					
an an an tao an					
		10-2	Ca	Carried to summary	234240.000

	CONSTRUCTION OF FLYOVER AT AL KHABRAH	COVER A	£-4		
	BILL OF QUANTITIES BILL 11 - BRIDGE BEARIBGS, EXPANSION JOINT, JOINTS SEAL AND FILLERS	IES NT, JOIN	ITS SEAL AI	VD FILLERS	
Item No	Description	Unit	Estimated	Unit Rate	Amount
	1100 BRIDGE BEARINGS, EXPANSION JOINT, JOINTS SEALS AND FILLERS		Aumuny		20 .O.A
	1101 Bridge Bearings				
1101.1	Synthetic Rubber Shoe 460 × 360 × 80 mm including anchor bar, cap, filler reinforcing bar, spiral bar and shrinkage mortar	n.r.	484	40.000	19360.000
	1102 Bridge Expansion Joints				
1102.1	Bridge expansion joint Movement Range W=50 mm	£	44	150.000	6600.000
1102.1.1	Bridge expansion joint Movement Range W=100 mm	æ	222	280.000	62160.000
					<del></del>
-	·		<u> </u>		
		11-1	To	To Grand Summary	88120.000
Pacific Consi	Pacific Consultants International				

	CONSTRUCTION OF FLYOVER AT	OVER A	64		
n se stille se	AL KHABRAH BILL OF QUANTITIES	IES			
	BILL 11 - BRIDGE BEARIBGS, EXPANSION JOINT, JOINTS SEAL AND FILLERS	NT, JOIN	TS SEAL AN	ND FILLERS	
Item No		Unit	Estimated	Unit Rate	뉢
			Quantity	K.U. Bz	K.U. 52
	SUMMARY				
والمراجع والمراجع والمراجع	Page 11-1				88120.000
54° - 714					
<b></b>					
		<u> </u>			
		11-2	Tc	To Grand Summary	88120.000

	CONSTRUCTION OF FLYOVER AT	YOVER A	F	-	
	AL KHABRAH	ہ بر			
	BILL OF QUANTITIES BILL 13 - SAFETY BARRIERS, DELINEATORS	TIES NEATORS	AND FENCES	SS	
Item No	Description	Unit	Estimated	Unit Rate	Amount
			Quantity	R.O. Bz	R.O. Bz
	1300 SAFETY BARRIERS, DELINEATORS AND FENCE				
	1301 Corrugated Steel Beam Safety Barrier				
1301.1.1	Safety barrier beam (Type-A) including posts and end anchor	lin.m.	1822	12.000	21864.000
1301.1.2	Safety barrier beam (Type-C) including posts and end anchor	lin.m	1340	13.000	17420.000
	1302 Reflectorised Markers for Safety Barriers				
1303.1	Reflectorised markers attached to guardrail	.r.u	210	8.000	1680.000
1303.2	Reflectorised markers attached to concretc	л. <del>г</del> .	N/A		
		13-1	Car	Carried to summary	40964.000

.

	B <sup>Z</sup>	<u></u>	000 <sup>.</sup>					.000
	Amount R.O.		40964.000					40964.000
Ś	Unit Rate R.O. Bz				 	 	<u> </u>	Carried to summary
T AND FENCE	Estimated Quantity					 		Car
YOVER A [ TIES VEATORS	Umit					 		13-2
CONSTRUCTION OF FLYOVER AT AL KHABRAH BILL OF QUANTITIES BILL 13 - SAFETY BARRIERS, DELINEATORS AND FENCES	Description							
		SUMMARY	Page 13-1		 	 		
	Item No			an a		 		

.

	CONSTRUCTION OF FLYOVER AT AL KHABRAH	YOVER A I	T		
	BILL OF QUANTITIES BILL 14 - HIGHWAY SIGNS AND ROAD MARKING	TIES D ROAD 1	AARKING		
Item No	Description	Unit	Estimated	Unit Rate	Amount
		~	Quantity	R.O. Bz	R.O. Bz
	1400 HIGHWAY SIGNS AND ROAD MARKING				
7. 1. 2	1401 Highway Signs				
1401.1	Highway sign, triangular, size (900 mm)	n.r.	17	40.000	680.000
1401.2	Highway sign, circular, diameter (900 mm)	n.r.	23	50.000	1150.000
1401.3	Highway sign, rectangular, (600 x 2400, 750 x 1400 mm)	n.r.	14	200.000	2800.000
1401.4	Highway sign, square	n.r.	17	50.000	850.000
1401.6.1	Overhead sign post and support assembling cantilever	n.r.	4	2,000.000	8000.000
1401.6.2	1401.6.2 Overhead sign post and support assembling gantry	n.r.	2	10,000.000	20000.000
				· · · · · · · · · · · · · · · · · · ·	
		14-1	Ö	Carried to summary	33480.000

•

₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩	CONSTRUCTION OF FLYOVER AT AL KHABRAH BILL OF QUANTITIES BILL OF QUANTITIES	YOVER A [ TIES	L.		
Item No		Unit	Estimated	Unit Rate	Amount
			Quantity	R.O. Bz	R.O. Bz
	1402 Road Markings				
1402.1	Traffic lines (Mechanically sprayed)	a, m sq.	2402	1.500	3605,000
1402.2	Special markings (Hand sprayed)	sq. m	593	5.000	2965.000
1402.3	Curb painting (Black and yellow)	sq. m	1637	1.600	2619.200
1402.4	Reflecting road studs type red	n.r.	1123	4.410	4952,430
1402.5	Non-reflecting road studs	n.r.			
1402.6	Reflecting ceramic buttons	n.r.			
1402.7	Non-reflecting ceramic buttons	n.r.			
-Samo		14-2	Ca	Carried to summary	14139.630

•

CONSTRUCTION OF FLYOVER AT	AL KHABRAH BILL OF QUANTITIES BILL 14 - HIGHWAY SIGNS AND ROAD MARKING	Description Unit Estimated Unit Rate Amount Quantity R.O. Bz R.O. Bz	33480.000	14139.630			
CONSTRUCTION O	AL KHAF BILL OF QUA BILL 14 - HIGHWAY SIGNS	Description					

	CONSTRUCTION OF FLYOVER AT AL KHABRAH	YOVER A'			
	BILL OF QUANTITIES BILL 15 - ELECTRICAL INSTALLATION	TES STALLAT	ION		ar mar ann an suir an suir dhe fa'r
Item No	Description	Unit	Estimated	Unit Rate	Amount
			Quantity	R.O. Bz	R.O. Bz
l langangan sa ta sa stati	1500 ELECTRICAL INSTALLATION				eyenne byskapit der before
104-1400 AD-4000-	1502 Mcdium Voltage Switching Stations	prov sum			50000.000
1502.1	Medium Voltage Switching Stations	n.r.			
	1503 Package Sub-stations				geg_gggggesen ngannenacarc
1503.1	Package sub-station	ח.ד.			9297494976239957996799
	1504 Package Medium Voltage Switching Stations				
1504.1	Packing medium voltage switching station	n.r.			
		15-1	Ca	Carried to summary	5000.000

	CONSTRUCTION OF FLYOVER AT AL KHABRAH BILL OF QUANTITIES BILL 15 - ELECTRICAL INSTALLATION	YOVEK A TIES STALLAT	NOL		
Item No	Description	Unit	Estimated Quantity	Unit Rate R.O. Bz	Amount R.O. Bz
	1505 33kV and 11kV Pole Mounted Transformer Stations				
1505.1	33kV pole mounted transformer station	ג. ע			
1505,2	11kV pole mounted transformer station	л.х. и			
	1506 Feeder Pillars				
1506.1	Feeder pillar	л.r.			
	1507 Cables				
1507.1	Cable (type) (size)	lin.m.			·
		15-2	Car	Carried to summary	

	CONSTRUCTION OF FLYOVER AT	YOVER A	Ţ		
	AL KHABRAH				
	BILL OF QUANTITIES BILL 15 - ELECTRICAL INSTALLATION	ries stallat	ION		
Item No	Description	Unit	Estimated	۲ ۲	뉭
			Quantity	R.O. B2	R.O. Bz
	1508 Road Lighting Masts and Column				
1.9061	High mast assembly (type) (height)	n.r.			
1508.2	Lighting columns (type) (number of arms) (Height)	n.r.			
	1509 Traffic Sign Illumination				
1509.1	Overhead sign lighting (gantry or cantilever ref no)	n.r.			
1509.2	Roadside sign lighting (sign ref no)	n.r.			
	1510 Recessed Lighting				
الدير الياسيون مول					
1510.1	Recessed lighting (type)	n.r.			
		15-3	Ca	Carried to summary	

	CONSTRUCTION OF FLYOVER AT AL KHABRAH	YOVER A'	L		
·	BILL 0F QUANTITIES BILL 15 - ELECTRICAL INSTALLATION	TALLAT:	ION		
Item No	Description	Unit	Estimated	Ř.	片
	1511 Traffic Signals		Quantity	к.О. Вz	K.U. Bz
1511.1	Traffic signal installation (location)	lump sum			
	1512 Earthing				
1512.1	Twin rod earthing installation (location)	л. И			
1512.2	Single rod carthing installation (location)				
				<u> </u>	
		15-4	Ca	Carried to summary	
icific Consi Ikuyama C	Pucific Consultants International Fukuyama Consultants Internationul				

em No SUMMARY					
Item No SUMMA	BILL OF QUANTITIES BILL 15 - ELECTRICAL INSTALLATION	TIES STALLAT	ION		
SUMMA	Description	Unit	Estimated	Unit Rate	Amount
SUMMA)			Quantity	R.O. Bz	R.O. Bz
	RY				
Page 15-1					
Page 15-2					
Page 15-3					
Page 15-4				·	
Provisional Sum	al Sum	Prov Sum			50000.000
			.5	(	

.

	CONSTRUCTION OF FLYOVER AT AL KHABRAH BILL OF OHANTITES	OVER A	ĿJ		
	BILL 17 - UTULITIES	IES			
Item No	Description	Unit	Estimated	Ě	달
			Quantity	R.O. Bz	R.O. Bz
	1700 UTILITIES			<u></u>	
	1701 Utilitics				
1701.1	Remove carefully and relocate low voltage electric poles, telephone poles, including removal of lines, excavation, backfilling amd other related works	prov sum			50000.000
	as directed by the Engineer				
1701.1.1	Protect of existing utilities crossing the roadway as shown in Drawing, or as directed by the Engineer	lin.m.			
			-		
		1-11	Car	Carried to summary	5000.000

	AL KHABRAH RIL OF OLIANTITES	TRS			
	BILL 17 - UTULITIES	ES (ES			
Item No	o Description	Unit	Estimated Quantity	Unit Rate R.O. Bz	Amount R.O. Bz
	SUMMARY		•		
and a state of the	Page 17.1	Prov Sum			50000.000
		17-2	T	To Grand Summary	5000,000

ł

ī.

F

	CONSTRUCTION OF FLYOVER AT AL KHABRAH BILL OF QUANTITIES BILL 19 - DAYWORKS	YUVEK A TIES RKS	X.		
Item No	Description	Unit	Estimated	řt	뉢
	A WAGES		Quantity	R.O. Bz	R.O. Bz
	These include proper wages, all used allowance, medical expense and all other charges provided for by local laws				
A.1	Supervisor	hour	100	4.000	400.000
$\mathbf{A2}$	Site Surveyor	hour	0001	3.500	3500.000
A.3	Foreman	hour	480	3.200	1536.000
A.4	Ist Class Operator	hour	480	1.100	528.000
A.5	2nd Class Operator	hour	100	0.950	95.000
A6	Mechanic	hour	061	1.000	190.000
A.7	Driver	hour	480	1.000	480.000
A.8	Skilled Labour	hour	0001	0.650	650.000
A.9	Semi Skilled Labour	hour	1000	0.600	600.000
		19-1	Ca	Carried to Summary	7979.000

Item No A.10 Ordinary Labour A.11 Mason A.12 Painter A.13 Carpenter	Description Description	RIT 19 - DAWORKS			
		Unit	Estimated	Unit Rate R O R,	Amount R O Bz
	abour	hour	1000 I	Ö	õ
		hour	200	0.650	130.000
		hour	100	0.750	75.000
		hour	200	0.650	130.000
A.14 Steel Fitter		hour	100	0.650	65.000
A.15 Electrician		hour	50	0.850	17.000
-		19-2	Ca	Carried to Summary	967.000

ı T

ł

i

I

i 1

.

	BILL 0F QUANTITIES BILL 0F QUANTITIES BILL 19 - DAYWORKS	ries rks			
Item No	Description	Unit	Estimated	Unit Rate	Amount
			Quantity	R.O. Bz	R.O. Bz
	B. OPERATING EQUIPMENT ON SITE				
	These rate include : fuel and lubricants cost, charges for depreciation interest, repairs, maintenance, spare parts, tyres, insurance, etc. Payment will not be made for mechanics or maintenance time which shall be include in and spread over the rates.	و کړ			
B.1	Motorgrader from 100 hp up to 120 hp	hour	ຽ	9.500	47.500
ବ ଅ	Motorgrader from 120 hp up to 150 hp	hour	11	11.500	126.500
6.3 E	Tractor from 60 to 100 hp	hour	ى ت	4.000	20.000
B.4	Bulldozer with ripper from 100 hp to 150 hp	hour	ຍ	7.000	35,000
B.5	Bulldozer with ripper from 150 hp to 200 hp	hour	۲	8.000	56.000
B.6	Bulldozer with ripper from 200 hp to250 hp	hour	Q	18.000	108.000
B. 7	Bulldozer with ripper from 250 hp to 300 hp	hour		19.500	78.000
B.8	Wheel tractor up to 50 hp	hour	10	4.000	40.000
		19-3	Car	Carried to Summary	511.000

	CONSTRUCTION OF FLIUVER AL AL KHABRAH BILL OF QUANTITIES BILL 19 - DAYWORKS	IUVER A I TIES RKS			
Item No	Description	Unit	Estimated Quantity	Unit Rate R.O. Bz	Amount R.O. Bz
B.9	Wheel tractor over 50 hp	hour	10	7.000	70.000
B.10	Motor scraper capacity up to 18 cu.m.	hour	10	19.000	000.061
B.11	Motor scraper capacity from 18 to 24 cu.m.	hour	10	19.000	190.000
B.12	Sheeps foot roller, from 5 tonnes to 10 tonnes	hour	10	5.000	50.000
B.13	Grid roller	hour	7	7.000	28.000
B.14	Vibratory compactor with prime mover up to 5 tonnes	hour	7	5.000	20.000
B.15	Vibratory compactor with prime mover from 5 to 10 tonnes	hour	۳	7.000	28.000
B.16	Pneumatic compactor with prime mover from 30 to 50 tonnes	hour	4	7.000	28,000
B.17	Pneumatic self-propelled rollers from 15 to 20 tonnes	hour	00	4.500	36,000
B.18	Tandem roller up to 8 tonnes	hour	24	4.500	108.000
B.19	Tandem roller from 8 to 12 tonnes	hour	ω	5.000	40.000
		19-4	Ö	Carried to Summary	788.000

	AL KHABRAH BILL OF QUANTITIES BILL 19 - DAYWORKS	AL KHABRAH BILL OF QUANTITIES BILL 19 - DAYWORKS			
Item No	Description	Unit	Estimated	Unit Rate	43
B.20	Triaxle roller from 10 to 15 tonnes	hour	Quantuy 24	5.000	120.000
B.21	Light frog- rammer 0.1 tonne	hour	50	0.500	10.000
B.22	Heavy frog-rammer 0.5 tonne	hour	20	0.700	14.000
B.23	Wheel loder 1.2 to 1.6 cu.m.	hour	20	9.500	000.061
B.24	Wheel loder 1.6 to 2.0 cu.m.	hour	50	10.000	200.000
B.25	Wheel loder 2.0 to 2.5 cu.m.	hour	20	11.000	220.000
B.26	Excavator up to 0.8 cu.m.	hour	15	5.500	82.500
B.27	Excavator from 0.8 to 1.2 cu.m.	hour	15	7.500	112.500
B.28	Bituminous mixing plant with batching apparatus up to 80 t/n.	hour	വ	18.000	90.000
B.29	Bituminous mixing plant with batching apparatus from 80 to 150 t/h.	hour	ю	23.000	115.000
B.30	Finisher up to 80 t/h.	hour	10	000.6	90.00
~~		19.5	°U	Commond to Summany	OOD FEEL

	CONSTRUCTION OF FLYOVER AT AL KHABRAH BILL OF QUANTITIES BILL 19 - DAYWORKS	rover a 'Ies RKS	<b>E</b> -1		
Item No	Description	Unit	Estimated Quantity	Unit Rate R.O. Bz	Amount R.O. Bz
B.31	Finisher from 80 t/h to 120 t/h.	hour	10	10,000	100.000
B.32	Bitumen sprayer up to 6 tonnes	hour	10	5.000	50,000
B.33	Tanker truck up to 6 cu.m.	hour	15	5,000	75.000
B.34	Dump truck up to 10 tonnes	hour	17	5.500	93.500
B.35	Dump truck from 10 to 15 tonnes	hour	20	6.000	120.000
B.36	Screening plant from 80 to 100 t/h.	hour	cu	16.000	80.000
B.37	Crushing plant from 40 to 60 t/h.	hour	Ŋ	20.000	100.000
B.38	Crushing plant with primary and secondary from 60 to 100 t/h.	hour	LO	30.000	150.000
B.39	Air compressor up to 6000 l/m.	hour	15	1.500	22.500
B.40	Air compressor over 6000 Nm.	hour	15	2.000	30.000
B.41	Mechanical broom	hour	Į	4.000	28.000
		19-6	Ca	Carried to Summary	849.000

	AL KHABRAH BILL OF QUANTITIES BILL 19 - DAYWORKS	HABRAH ŞUANTITIES DAYWORKS		-	
Item No	Description	Unit	Estimated Quantity	Unit Rate R.O. Bz	Amount R.O. Bz
B.42	Power water pump	hour	118	0.700	82.600
B.43	Steel cutting machine	hour	ມຈ	0.800	4,000
B.44	Steel bending machine	hour	ъ	1.200	6.000
B.45	Belt conveyor	hour	IJ	7.000	35.000
B.46	Concrete mixer up to 0.5 cu.m.	hour	10	2.000	20.000
B.47	Concrete mixer over 0.5 cu.m.	hour	12	4.000	48.000
B.48	Automatic concrete batch plant without mixing drum	hour	r3	7.500	37,500
B.49	Transmixer up to 5 cu.m.	hour	10	6.500	65.000
B.50	Concrete vibrators	hour	28	0.150	8.850
B.51	Crane up to 5 tonnes.	hour	6	4.500	40.500
B.52	Crane with broom and jib 5 to 10 tonnes	hour	Ľ	8.000	56.000
		19-7	Ca	Carried to Summary	403.450

.

Item No B.53 Cranc B.54 Gener	Description Crane with boom and jib over 10 tonnes	BILL OF QUANTITIES BILL 19 - DAYWORKS			
	e with boom and jib over 10 tonnes	Unit	Estimated	Unit Rate	Amount PO B~
		hour	2 minut		
	Generator 60 kw	hour	ю	1.500	7.500
B.55 Gene	Generator 75 kw	hour	ю	1.800	9,000
B.56 Drilli	Drilling equipment	hour	ي م	0.200	1.000
B.57 Gener	Generator 100 kw	hour	ю	3.000	15.000
B.58 Gener	Generator 150 kw	hour	ຍ	4,000	20.000
B.59 Geno	Generator 200 kw	hour	ю	5,000	25.000
B.60 Grave	Gravel strewer	hour	IJ	10.000	50.000
			(		

	CONSTRUCTION OF FLYOVER AT AL KHABRAH BILL OF QUANTITIES BILL 19 - DAYWORKS	OVER A IES KS	E		
Item No	Description	Unit	Estimated	Å.	12
	C. MATERIALS		Quantity	R.O. Bz	R.O. Bz
	These rates include all the charges for the supply of the materials, loading, transport to site, unloading and stores as well as all the charges provided for in the General and Special Specifications and in the Contract.				
C.1	Aggregate for granular sub-base course in accordance with the General and Special Specifications, in place as specified.	cu.m.	50	1.000	50.000
0.2	Aggregate for granular aggregate base course in accordance with the Gener Special Specifications, in place as specified.	cu.m.	25	3.000	50.000
с. С.	Aggregate for bituminous base course in accordance with the General and Special Specifications, near the asphalt plant, in bulk	cu.m.	20	32.000	100,000
C.4	Fine aggregate for concrete, in accordance with the General and Special Specifications, in place, in bulk	cn.m.	25	2.000	50.000
C.5	Coarse aggregates for concrete, in accordance with the General and Special specifications, in place, in bulk	.m.no	20	1.200	60.000
		19-9	Car	Carried to Summary	310.000

	CONSTRUCTION OF FLYOVER AT AL KHABRAH BILL OF QUANTITIES BILL 19 - DAYWORKS	YOVER A TES RKS	ę		
Item No	Description	Umit	Estimated Quantity	Unit Rate R.O. Bz	Amount R.O. Bz
0.0	Stone for drainage, masonry and slope protection, in accordance with the General and Special Specifications in place	cu.m.	25.	2.500	62.500
C.7	Asphalt coment, grade 60-70 on site	ton	Ţ	44.000	44,000
C.S	Asphalt cemont, grade 50-60 on site	ton	1	48.000	48.000
C.9	Emulsified asphalt, grade RS-1 on site	ton	•••	70.000	70.000
C.10	Cutback asphalt, MC and RC type on site	ton	1	75.000	7.5.000
C.11	Portland cement on site	ton		25.000	25.000
C.12	Deformed billet steel bars, AASHTO M 31 grade 60 (High Yield) of any diameter	ton	ц	135.000	135.000
C.13	Deformed billet steel bars AASHTO M 31 grade 40 (Mild) of any diameter	ton	1	135.000	135.000
C.14	Highway signs	.m.ps	က	32.000	96.000
C.15	Highway sign supports - 1 post	nr.	4	15.000	60.000
		19-10	C	Carried to Summary	750.500

•

	BILL OF QUANTITIES BILL 19 - DAYWORKS	TIES RKS			
Item No	Description	Unit	Estimated Quantity	Unit Rate R.O. Bz	Amount R.O. Bz
C.16	Highway sign supports - 2 post	Jr.	ରା	20.000	40.000
C.17	Timber plank, on site	cu.m.	63	105.000	210,000
C.18	Timber props, on site	cu.m.	63	105.000	210.000
C.19	Wire mesh gabgions, on site	ton	0.5	320.000	160.000
C.20	Explosive, on site	13 24	ĸ	20.000	100.000
C.21	Gas oil, on site	litre	100	0.080	S.000
C.22	Gasoline, on site	litre	500	0.120	60.000
C.23	Lubricant	цу.	Ŋ	0.300	1,500
					·
		19-11	Ca	Carried to Summary	789.500

	AL BILL 1 BILL 1	AL KHABRAH BILL OF QUANTITIES BILL 19 - DAYWORKS	IES KS	4		
Item No	Description		Unit	Estimated Quantity	Unit Rate R.O. Bz	Amount R.O. Bz
SU	SUMMARY			-		
A A	ge 19-1					7979.000
Pag	go 19-2					967.000
Pag	ge 19-3					511.000
Pat	ge 19-4					788.(
Pat	ge 19-5					1244.000
Pa	ge 19•6					849.(
Paí	ge 19-7					403.450
Pat	gc 19-8					204.
Pat	ge 19-9		<b>_</b>			310.000
Par	ge 19-10					750.8
Pa	Page 19-11					789.
			19-12	Ţ	To Grand Summary	14795.950

•

ļ

## **BILL OF QUANTITIES**

## **GRAND SUMMARY**

		Amount
Bill No	Description	R.O.
)	Preliminaries	423590.000
2	Earthworks	146851.600
3	Granular and stabilized subbase, basecourse and stabilized subgrade	43942.000
4	Bituminous Pavement	243430.000
5	Concrete and concrete structure	1181350.000
6	Structural steel and other metal work	97380.000
7	Paint	N/A
8	Drainage and service ducts	37354.000
9	Slope protection and stabilization	11592.000
10	Piling	234240.000
. 11	Bridge bearing, expansion joints, joint seals and fillers	88120.000
12	Sidewalks, paved areas and kerbs	47933.000
13	Safety barriers, delineators and fences	40964.000
14	Highway signs and road marking	47619.630
15	Electrical installations	50000.000
16	Landscape and irrigation	N/A
17	Utilities	50000.000
18	Plant and Equipment	N/A
19	Dayworks	14795.950
	Sub-total	2759162.180
	Contingencies (10%)	275916.218
	TOTAL CONTRACT VALUE (R.O)	3035078.398

(IN WORDS, THE TOTAL TENDER VALUE IS RIAL OMANI)

NAME OF TENDERER

DATE

-----

SIGNATURE OF TENDERER

·

· ·