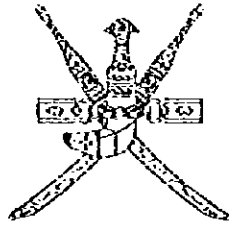


SULTANATE OF OMAN
MINISTRY OF COMMUNICATIONS
DIRECTORATE GENERAL OF ROADS



**CONSTRUCTION OF
FLYOVER
AT
BARKA ROUNDABOUT
BATINAH HIGHWAY**

TENDER DOCUMENTS

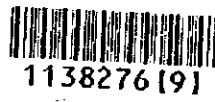
BILL OF QUANTITIES

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CONSTRUCTION OF FLYOVER AT

BARKA

BILL OF QUANTITIES

BILL 1 - PRELIMINARIES

Item No	Description	Unit	Estimated Quantity	Unit Rate		Amount	
				R.O.	Bz	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	Damage to Persons and Property (Clause 22 of Standard Condition of Contract)	lump sum					
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)	lump sum					
				I-1	Carried to summary		44250.000

9928311382769

**CONSTRUCTION OF FLYOVER AT
BARKA
BILL OF QUANTITIES
BILL 1 - PRELIMINARIES**

Item No	Description	Unit	Estimated Quantity	Unit Rate		Amount	
				R.O.	Bz	R.O.	Bz
	104 Facilities for the Engineer						
104.1	Provision of Engineer's office (Type A, 1 unit x 20)	month	20	250.000		5000.000	
104.2	Maintenance of Engineer'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 Engineer'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 20)	month	18	250.000		4500.000	
I-2				Carried to summary		41200.000	

CONSTRUCTION OF FLYOVER AT

BARKA

BILL OF QUANTITIES

BILL 1 - PRELIMINARIES

Item No	Description	Unit	Estimated Quantity	Unit Rate		Amount	
				R.O.	Bz	R.O.	Bz
104.6	Maintenance of Engineer's accommodation						
	(i) Resident Engineer's accommodation (Type B, 1 unit x 20)	month	38	150.000		5700.000	
	(ii) Engineer's accommodation (Type C, 5 unit x 20)	month	74	250.000		18500.000	
	(iv) Dining/Kitchen (Type D, 1 unit x 20)	month	18	250.000		4500.000	
104.7	Provision of laboratory	month	18	400.000		7200.000	
104.8	Maintenance of laboratory	month	18	150.000		2700.000	
104.10	In situ soil bearing capacity tests	n.r.	20	20.000		400.000	
104.11	Sub-soil investigation by specialist Contractor	prov. sum		8.000.000		8000.000	
1-3				Carried to summary		47000.000	

CONSTRUCTION OF FLYOVER AT

BARKA

BILL OF QUANTITIES

BILL 1 - PRELIMINARIES

Item No	Description	Unit	Estimated Quantity	Unit Rate		Amount	
				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	lump sum				100000.000	
106.2	Maintenance of Contractor's facility	month	18		5,000.000	90000.000	
	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)	cu. m.					
				Carried to summary			290000.000

CONSTRUCTION OF FLYOVER AT

BARKA

BILL OF QUANTITIES

BILL 1 - PRELIMINARIES

Item No	Description	Unit	Estimated Quantity	Unit Rate		Amount	
				R.O.	Bz	R.O.	Bz
108.1	108 Progress Photographs Provision of negatives and 5 sets of photographs (14 photos max.) (Mountable-Size 100 x 150 mm.)	month	18		30.000		540.000
109.1	109 Sign Boards Provision, erection, moving and maintenance of signboard (Wooden Type)	n.r.	2		300.000		600.000
110.1	110 Commemoration Plaque and Opening Ceremony Supply and erection of commemoration plaque (Optional)	n.r.	1		Option		
110.2	Opening ceremony (Optional)	lump sum					
			1-5		Carried to summary		1140.000

CONSTRUCTION OF FLYOVER AT
 BARKA
 BILL OF QUANTITIES
 BILL 1 - PRELIMINARIES

Item No	Description	Unit	Estimated Quantity	Unit Rate		Amount
				R.O.	Bz	
115.1	115 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					
	Clause No	lump sum				
	Clause No	lump sum				
	Clause No	lump sum				
	Clause No	lump sum				
	Clause No	lump sum				
	Clause No	lump sum				
	Clause No	lump sum				
	Clause No	lump sum				
				1-6	Carried to summary	

CONSTRUCTION OF FLYOVER AT
 BARKA
 BILL OF QUANTITIES
 BILL 1 - PRELIMINARIES

Item No	Description	Unit	Estimated Quantity	Unit Rate		Amount	
				R.O.	Bz	R.O.	Bz
	SUMMARY						
	Page 1-1					44250.000	
	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	
				1.7	To Ground Summary	422590.000	

CONSTRUCTION OF FLYOVER AT

BARKA

BILL OF QUANTITIES

BILL 2 - EARTHWORKS

Item No	Description	Unit	Estimated Quantity	Unit Rate		Amount
				R.O.	Bz	
	200 EARTHWORKS					
	201 Clearing and Grubbing					
201.1	Removal and delivery of trees of 300mm trunk diameter or greater	n.r.	78	15.000		1170.000
	202 Removal of Structures and Obstructions					
202.1	Removal of existing building (Shop)	n.r.	6	200.000		1200.000
202.2	Removal of misc. reinforced concrete structures	cu. m.	59	5.000		295.000
202.3	Removal of pipe culvert (D=0.6,0.75,0.9)	lin. m.	91	2.000		182.000
202.4	Removal of asphaltic concrete pavement (100 mm thick)	cu. m.	6684	2.000		13368.000
202.5	Removal of damaged steel safety barrier (Gurdrail)	lin. m.	3860	1.800		6948.000
		2-1		Carried to summary		23163.000

CONSTRUCTION OF FLYOVER AT

BARKA

**BILL OF QUANTITIES
BILL 2 - EARTHWORKS**

Item No	Description	Unit	Estimated Quantity	Unit Rate		Amount
				R.O. Bz	R.O. Bz	
202.6	Remove carefully and relocate sign boards and road signs (size)	n.r.	62	3.500		217.000
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)	cu. m.	N/A	3.500		
202.9	Removal of existing fences (wire mesh, chicken wire)	lin.m.	N/A	1.500		
202.10	Removal of existing fences (block or masonry wall)	lin.m.	324	2.000		648.000
202.11	Removal of existing box culvert (2 x 1 m)	lin.m.	N/A	5.000		
202.12	Removal of existing interlocking tiles	sq. m	2806	1.200		3367.200
202.13	Removal of existing crush stone	lin.m.	N/A	1.000		
202.14	Removal of existing plain concrete	cu. m.	282	2.000		564.000
202.15	Removal of Curb Stone	m	2747	1.500		4120.500
				Carried to summary		8916.700

CONSTRUCTION OF FLYOVER AT

BARKA

BILL OF QUANTITIES

BILL 2 - EARTHWORKS

Item No	Description	Unit	Estimated Quantity	Unit Rate		Amount	
				R.O.	Bz	R.O.	Bz
	203 Earthworks Excavation						
203.1	Suitable excavation to embankment	cu. m.	34936	0.600		20961.600	
203.2	Suitable excavation to waste	cu. m.	26396	0.300		7918.800	
203.3	Unsuitable excavation to waste	cu. m.	N/A	0.400			
203.4	Borrow excavation to embankment	cu. m.	42315	1.500		63472.500	
203.5	Extra over item 203.1, 2, 3 for excavation under water	cu. m.	N/A	3.000			
	206 Excavation and Backfilling for Structures						
206.1	Structure excavation in soils to a depth of 2m	cu. m.	283	1.000		283.000	
206.2	Structure excavation in soils to a depth more than 2m	cu. m.	N/A	1.700			
			2-3	Carried to summary		92635.900	

CONSTRUCTION OF FLYOVER AT

BARKA

BILL OF QUANTITIES

BILL 2 - EARTHWORKS

Item No	Description	Unit	Estimated Quantity	Unit Rate		Amount	
				R.O.	Bz	R.O.	Bz
206.3	Structural excavation in rock to a depth of 2m	cu. m.	N/A	1.100			
206.4	Structural excavation in rock to a depth more than 2m	cu. m.	N/A	2.600			
206.5	Extra over 206.1,2,3,4 for excavation under water	cu. m.	N/A	2.900			
				2-4		Carried to summary	
						0.000	

CONSTRUCTION OF FLYOVER AT
 BARKA
 BILL OF QUANTITIES
 BILL 2 - EARTHWORKS

Item No	Description	Unit	Estimated Quantity	Unit Rate		Amount
				R.O.	Bz	
	SUMMARY					
	Page 2-1					23163.000
	Page 2-2					8916.700
	Page 2-3					92635.900
	Page 2-4					0.000
				2-5	To Grand Summary	124715.600

CONSTRUCTION OF FLYOVER AT

BARKA

BILL OF QUANTITIES

BILL 3 - GRANULAR AND STABILIZED SUBBASE, BASE COURSE, STABILIZED SUBGRADE

Item No	Description	Unit	Estimated Quantity	Unit Rate		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.	5438	2.000		10876.000
	303 Aggregate Basecourse					
303.1	Aggregate basecourse (class B) (300 mm thick)	cu. m.	N/A	3.600		
303.2	Aggregate basecourse (class B) (250 mm thick)	cu. m.	N/A	3.500		
303.3	Aggregate basecourse (class B) (200 mm thick)	cu. m.	11856	3.300		39124.800
303.4	Aggregate basecourse (class B) (150 mm thick)	cu. m.	3126	3.000		9378.000
		3-1		Carried to summary		59378.800

CONSTRUCTION OF FLYOVER AT

BARKA

BILL OF QUANTITIES

BILL 3 - GRANULAR AND STABILIZED SUBBASE, BASE COURSE, STABILIZED SUBGRADE

Item No	Description	Unit	Estimated Quantity	Unit Rate		Amount
				R.O.	Bz	
	SUMMARY					
	Page 3-1					59378.800
		3-2			Carried to summary	59378.800

CONSTRUCTION OF FLYOVER AT

BARKA

BILL OF QUANTITIES

BILL 4 - BITUMINOUS PAVEMENT

Item No	Description	Unit	Estimated Quantity	Unit Rate		Amount
				R.O.	Bz	
400 BITUMINOUS PAVEMENT						
401 Bituminous Prime Coat and Tack Coat						
401.1	Bituminous prime coat (MC 70)	kg	64102	0.250		16025.500
401.2	Bituminous tack coat (RC 250)	kg	11856	0.300		3556.800
402 Bituminous Basecourse						
402.1	Bituminous basecourse (class B) 70 mm.thick	cu.m.	216	24.000		5184.000
402.2	Bituminous basecourse (class B) 100 mm.thick	cu.m.	5619	28.000		157332.000
402.4	Increase or decrease in bituminous content from nominal rate	kg	rate only	0.050		
				4-1	Carried to summary	182098.300

CONSTRUCTION OF FLYOVER AT

BARKA

BILL OF QUANTITIES

BILL 4 - BITUMINOUS PAVEMENT

Item No	Description	Unit	Estimated Quantity	Unit Rate		Amount
				R.O.	Bz	
	405 Bituminous Wearing Course					
405.1	Bituminous wearing course (class B) (50 mm thick)	cu. m.	4262	28.000		119336.000
405.2	Increase or decrease in bitumen content from nominal rate	kg	rate only	0.050		
				4-2	Carried to summary	119336.000

CONSTRUCTION OF FLYOVER AT

BARKA

BILL OF QUANTITIES

BILL 4 - BITUMINOUS PAVEMENT

Item No	Description	Unit	Estimated Quantity	Unit Rate		Amount	
				R.O.	Bz	R.O.	Bz
	SUMMARY						
	Page 4-1					182098.300	
	Page 4-2					119336.000	
		4-3			Carried to summary		301434.300

CONSTRUCTION OF FLYOVER AT

BARKA

BILL OF QUANTITIES

BILL 5 - CONCRETE AND CONCRETE STRUCTURE

Item No	Description	Unit	Estimated Quantity	Unit Rate		Amount	
				R.O.	Bz	R.O.	Bz
	500 CONCRETE AND CONCRETE STRUCTURE						
	504 Concrete for Structure						
504.1	Concrete Class 16/20 (OPC cement) Blinding, Gravity Wall	cu. m.	1855		30.000		55650.000
504.2	Concrete Class A 24/20 for retaining wall, abutment and piers (OPC cement)	cu.m	9257		35.000		323995.000
504.3	Concrete Class 32/20 for bridge deck, cross beam and joint	cu.m	353		50.000		17650.000
504.4	Cast-in-Situ Concrete Class 24/20 for bridge deck for cantilever	cu.m	1605		38.000		60990.000
						Carried to summary	458285.000

5-1

CONSTRUCTION OF FLYOVER AT

BARKA

BILL OF QUANTITIES

BILL 5 - CONCRETE AND CONCRETE STRUCTURE

Item No	Description	Unit	Estimated Quantity	Unit Rate		Amount	
				R.O.	Bz	R.O.	Bz
506.1	506 Prestressed Concrete for Bridge <u>Precast pre-stressed bridge beam reinforced concrete class AA40 including all reinforcement tendons, tension cable strands, approved anchorage points "Freyssinet" system of equal and approved sheaths, de-watering pipes, grouting in accordance with manufacturers recommendations, all complete and as detailed on tender drawings</u>						
	a) PS Box girders (Internal) 26 m long	n.r.	154		2,400.000		369600.000
	b) PS Box girders (External) 26 m long	n.r.	44		2,700.000		118800.000
				5-2	Carried to summary		488400.000

CONSTRUCTION OF FLYOVER AT

BARKA

BILL OF QUANTITIES

BILL 5 - CONCRETE AND CONCRETE STRUCTURE

Item No	Description	Unit	Estimated Quantity	Unit Rate		Amount
				R.O.	Ez	
509.1	High yield steel bar reinforcement of any diameter	tone	927	285,000		264195,000
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		
				5-3	Carried to summary	264195,000

CONSTRUCTION OF FLYOVER AT

BARKA

BILL OF QUANTITIES

BILL 5 - CONCRETE AND CONCRETE STRUCTURE

Item No	Description	Unit	Estimated Quantity	Unit Rate		Amount	
				R.O.	Bz	R.O.	Bz
	SUMMARY						
	Page 5-1					458285.000	
	Page 5-2					488400.000	
	Page 5-3					264195.000	
				5-4	Carried to summary		1210880.000

CONSTRUCTION OF FLYOVER AT

BARKA

BILL OF QUANTITIES

BILL 6 - STRUCTURAL STEEL AND OTHER METALWORK

Item No	Description	Unit	Estimated Quantity	Unit Rate		Amount	
				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.	2195		45.000		98775.000
				6-1	Carried to summary		98775.000

CONSTRUCTION OF FLYOVER AT

BARKA

BILL OF QUANTITIES

BILL 6 - STRUCTURAL STEEL AND OTHER METALWORK

Item No	Description	Unit	Estimated Quantity	Unit Rate		Amount	
				R.O.	Bz	R.O.	Bz
	SUMMARY						
	Page 6-1						98775.000
			6-2	Carried to summary			98775.000

CONSTRUCTION OF FLYOVER AT

BARKA

BILL OF QUANTITIES

BILL 8 - DRAINAGE AND SERVICE DUCTS

Item No.	Description	Unit	Estimated Quantity	Unit Rate		Amount
				R.O.	Bz	
	800 DRAINAGE AND SERVICE DUCTS					
	801 Pipe Culverts					
801.1	Reinforced concrete pipe culvert (600 mm. dia.)	lin.m	97	35.000		3395.000
801.2	Reinforced concrete pipe culvert (750 mm. dia.)	lin.m	62	45.000		2790.000
	802 Reinforced Concrete Box Culverts, Box Culverts and Pipe Culverts Headwalls, Wingwalls and Aprons (SRP cement)					
802.1	Concrete (Class 28/20), Box Culverts, Box Culverts and Pipe Culverts Headwalls, Wingwalls, Wingwalls and Aprons (SRP Cement), all complete and as detailed on drawings					
802.1.1	Box culvert 2 x 1 m 1 cell	lin.m	N/A	60.000		
802.1.2	Box culvert 2 x 1 m 2 cell	lin.m	N/A	110.000		
802.1.3	Box culvert 2 x 1 m 12 cell	lin.m	11	650.000		7150.000
		S-1		Carried to summary		13335.000

CONSTRUCTION OF FLYOVER AT

BARKA

BILL OF QUANTITIES

BILL 8 - DRAINAGE AND SERVICE DUCTE

Item No	Description	Unit	Estimated Quantity	Unit Rate		Amount	
				R.O.	Bz	R.O.	Bz
	804 Catch Basins, Catch Pits, Manholes, Curb Inlets, Ditch Inlets and Outlets						
	<u>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</u>						
804.1	Catch Pits 1 x 1 x 2 m	n.r.	4		180.000		720.000
	<u>Reinforced concrete gullies comprising excavation, backfilling, disposal, 150 mm bed and walls of reinforces sulphate resisting concrete class (24/20) all complete and as detailed on drawings</u>						
804.2	Gullies 300 x 300 mm	lin.m	297		25.000		7425.000
				8-2	Carried to summary		8145.000

**CONSTRUCTION OF FLYOVER AT
BARKA**

BILL OF QUANTITIES

BILL 8 - DRAINAGE AND SERVICE DUCTS

Item No	Description	Unit	Estimated Quantity	Unit Rate		Amount
				R.O.	Ez	
S05 Water proofing for structure						
805.1	Waterproofing membrane	sq.m.	N/A	1.800		
805.2	Mastic asphalt waterproofing	sq.m.	N/A	8.000		
805.3	Bituminous paint	sq.m.	3000	0.350		1050.000
S07 Service Ducts						
807.1	Service duct (A.C. 150 mm dia. -1 way with concrete surround), including duct markers	lin. m.	N/A	2.200		
807.1.1	Service duct (A.C. 150 mm dia. -2 way with concrete surround), including duct markers	lin. m.	284	4.000		1136.000
807.2	Extra over for excavation in rock for service ducts	cu. m.	N/A			
				8-3	Carried to summary	2186.000

CONSTRUCTION OF FLYOVER AT

BARKA

BILL OF QUANTITIES

BILL 8 - DRAINAGE AND SERVICE DUCTE

Item No	Description	Unit	Estimated Quantity	Unit Rate		Amount
				R.O.	Bz	
	SUMMARY					
	Page 8-1					13335.000
	Page 8-2					8145.000
	Page 8-3					2186.000
					Carried to summary	23666.000

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**CONSTRUCTION OF FLYOVER AT
BARKA**

**BILL OF QUANTITIES
BILL 9 - SLOPE PROTECTION AND STABILISATION**

Item No	Description	Unit	Estimated Quantity	Unit Rate		Amount	
				R.O.	Bz	R.O.	Bz
900	SLOPE PROTECTION AND STABILISATION						
901	Riprap						
901.2	Mortared stone riprap (Class A), in Irish Crossing	cu.m.	N/A	13.000			
901.2.1	Mortared stone riprap (Class A), other than Irish Crossing	cu.m.	890	16.000		14240.000	
				9-1	Carried to summary		14240.000

CONSTRUCTION OF FLYOVER AT

BARKA

BILL OF QUANTITIES

BILL 9 - SLOPE PROTECTION AND STABILISATION

Item No	Description	Unit	Estimated Quantity	Unit Rate		Amount
				R.O.	Bz	R.O. Bz
	SUMMARY					
	Page 9-1					14240.000
			9-2	Carried to summary		14240.000

CONSTRUCTION OF FLYOVER AT

BARKA

BILL OF QUANTITIES

BILL 11 - BRIDGE BEARINGS, EXPANSION JOINT, JOINTS SEAL AND FILLERS

Item No	Description	Unit	Estimated Quantity	Unit Rate		Amount	
				R.O.	Bz	R.O.	Bz
	1100 BRIDGE BEARINGS, EXPANSION JOINT, JOINTS SEALS AND FILLERS						
	1101 Bridge Bearings						
1101.1	Synthetic Rubber Shoe 460 x 360 x 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	m	44		150.000		6600.000
1102.1.1	Bridge expansion joint Movement Range W=100 mm	m	222		280.000		62160.000
				11-1	To Grand Summary		88120.000

CONSTRUCTION OF FLYOVER AT

BARKA

BILL OF QUANTITIES

BILL 11 - BRIDGE BEARINGS, EXPANSION JOINT, JOINTS SEAL AND FILLERS

Item No	Description	Unit	Estimated Quantity	Unit Rate		Amount	
				R.O.	Bz	R.O.	Bz
	SUMMARY						88120.000
	Page 11.1						
			11-2	To Grand Summary			88120.000

CONSTRUCTION OF FLYOVER AT

BARKA

BILL OF QUANTITIES

BILL 12 - SIDEWALKS, PAVED AREAS AND CURBS

Item No	Description	Unit	Estimated Quantity	Unit Rate		Amount	
				R.O.	Bz	R.O.	Bz
	1200 SIDE WALKS, PAVED AREAS AND CURBS						
	1201 Sidewalks						
1201.1	Interlocking Block Pavement including granular Basecourse 150 mm thick	sq. m	5488		4.000		21752.000
	1202 Curbs						
1202.1.1	Curb 100 x 200 (Mountable)	lin.m.	4372		3.500		15302.000
1202.1.2	Curb 150 x 350 (Mountable)	lin.m	2499		5.000		12495.000
1202.1.3	Curb 150 x 350 (None mountable)	lin.m.	80		4.000		320.000
	All curbs are hydraulically pressed sulphate resisting concrete class A (45/20) ceded jointed and pointed in 10 mm thick sand cement grout including all necessary excavation, backfill, dispose, formwork and all necessary works for complete						
		12-1			Carried to summary		49869.000

CONSTRUCTION OF FLYOVER AT

BARKA

BILL OF QUANTITIES

BILL 12 - SIDEWALKS, PAVED AREAS AND CURBS

Item No	Description	Unit	Estimated Quantity	Unit Rate		Amount
				R.O.	Bz	
	SUMMARY					49869.000
	Page 12-1					
				12-2	Carried to summary	49869.000

**CONSTRUCTION OF FLYOVER AT
BARKA**

**BILL OF QUANTITIES
BILL 13 - SAFETY BARRIERS, DELINEATORS AND FENCES**

Item No	Description	Unit	Estimated Quantity	Unit Rate		Amount	
				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.	2193	12.000		26316.000	
1301.1.2	Safety barrier beam (Type-C) including posts and end anchor	lin.m	1178	13.000		15314.000	
	1302 Reflectorisd Markers for Safety Barriers						
1303.1	Reflectorisd markers attached to guardrail	n.r.	222	8.000		1776.000	
1303.2	Reflectorisd markers attached to concrete	n.r.	N/A				
		13-1		Carried to summary		43406.000	

CONSTRUCTION OF FLYOVER AT
 BARKA
 BILL OF QUANTITIES
 BILL 13 - SAFETY BARRIERS, DELINEATORS AND FENCES

Item No	Description	Unit	Estimated Quantity	Unit Rate		Amount	
				R.O.	Bz	R.O.	Bz
	SUMMARY						43406.000
	Page 13-1						
						Carried to summary	43406.000
						13-2	

CONSTRUCTION OF FLYOVER AT

BARKA

BILL OF QUANTITIES

BILL 14 - HIGHWAY SIGNS AND ROAD MARKING

Item No	Description	Unit	Estimated Quantity	Unit Rate		Amount	
				R.O.	Bz	R.O.	Bz
	1400 HIGHWAY SIGNS AND ROAD MARKING						
	1401 Highway Signs						
1401.1	Highway sign, triangular, size (900 mm)	n.r.	15		40.000		600.000
1401.2	Highway sign, circular, diameter (900 mm)	n.r.	14		50.000		700.000
1401.3	Highway sign, rectangular, (600 x 2400, 750 x 1400 mm)	n.r.	8		200.000		1600.000
1401.4	Highway sign, square	n.r.	13		50.000		650.000
1401.6.1	Overhead sign post ans support assenbring cantilever	n.r.	4		2,000.000		8000.000
1401.6.2	Overhead sign post ans support assenbring gantry	n.r.	2		10,000.000		20000.000
				14-1	Carried to summary		31550.000

CONSTRUCTION OF FLYOVER AT

BARKA

BILL OF QUANTITIES

BILL 14 - HIGHWAY SIGNS AND ROAD MARKING

Item No	Description	Unit	Estimated Quantity	Unit Rate		Amount	
				R.O.	Bz	R.O.	Bz
1402.1	1402 Road Markings Traffic lines (Mechanically sprayed)	sq. m	2400	1.500		3600.000	
1402.2	Special markings (Hand sprayed)	sq. m	903	5.000		4515.000	
1402.3	Curb painting (Black and yellow)	sq. m	1530	1.600		2448.000	
1402.4	Reflecting road studs tupe red	n.r.	1220	4.410		5380.200	
		14-2		Carried to summary		15943.200	

CONSTRUCTION OF FLYOVER AT

BARKA

BILL OF QUANTITIES

BILL 14 - HIGHWAY SIGNS AND ROAD MARKING

Item No	Description	Unit	Estimated Quantity	Unit Rate		Amount
				R.O.	Bz	
	SUMMARY					
	Page 14-1					31550.000
	Page 14-2					15943.200
				14-3	To Grand Summary	47493.200

CONSTRUCTION OF FLYOVER AT

BARKA

BILL OF QUANTITIES

BILL 15 - ELECTRICAL INSTALLATION

Item No	Description	Unit	Estimated Quantity	Unit Rate		Amount	
				R.O.	Bz	R.O.	Bz
	1500 ELECTRICAL INSTALLATION						
	1502 Medium Voltage Switching Stations	prov sum				50000.000	
1502.1	Medium Voltage Switching Stations	n.r.					
	1503 Package Sub-stations						
1503.1	Package sub-station	n.r.					
	1504 Package Medium Voltage Switching Stations						
1504.1	Packing medium voltage switching station	n.r.					
				15-1	Carried to summary	50000.000	

CONSTRUCTION OF FLYOVER AT

BARKA

BILL OF QUANTITIES

BILL 15 - ELECTRICAL INSTALLATION

Item No	Description	Unit	Estimated Quantity	Unit Rate		Amount	
				R.O.	Bz	R.O.	Bz
	1505 33kV and 11kV Pole Mounted Transformer Stations						
1505.1	33kV pole mounted transformer station	n.r.					
1505.2	11kV pole mounted transformer station	n.r.					
	1506 Feeder Pillars						
1506.1	Feeder pillar	n.r.					
	1507 Cables						
1507.1	Cable (type) (size)	lin.m.					
				15-2	Carried to summary		

CONSTRUCTION OF FLYOVER AT

BARKA

BILL OF QUANTITIES

BILL 15 - ELECTRICAL INSTALLATION

Item No	Description	Unit	Estimated Quantity	Unit Rate		Amount
				R.O.	Bz	
	1508 Road Lighting Masts and Column					
1508.1	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					
1510.1	Recessed lighting (type)	n.r.				
				15-3	Carried to summary	

CONSTRUCTION OF FLYOVER AT

BARKA

BILL OF QUANTITIES

BILL 15 - ELECTRICAL INSTALLATION

Item No	Description	Unit	Estimated Quantity	Unit Rate		Amount	
				R.O.	Bz	R.O.	Bz
	1511 Traffic Signals						
1511.1	Traffic signal installation (location)	lump sum					
	1512 Earthing						
1512.1	Twin rod earthing installation (location)	n.r.					
1512.2	Single rod earthing installation (location)	n.r.					
				15-4	Carried to summary		

CONSTRUCTION OF FLYOVER AT

BARKA

BILL OF QUANTITIES

BILL 15 - ELECTRICAL INSTALLATION

Item No	Description	Unit	Estimated Quantity	Unit Rate		Amount	
				R.O.	Bz	R.O.	Bz
	SUMMARY						
	Page 15-1						
	Page 15-2						
	Page 15-3						
	Page 15-4						
	Provisional Sum	Prov Sum					50000.000
		15-5				To Grand Summary	50000.000

CONSTRUCTION OF FLYOVER AT
 BARKA
 BILL OF QUANTITIES
 BILL 17 - UTILITIES

Item No	Description	Unit	Estimated Quantity	Unit Rate		Amount
				R.O.	Bz	
1700	UTILITIES					
1701	Utilities					
1701.1	Remove carefully and relocate low voltage electric poles, telephone poles, including removal of lines, excavation, backfilling and other related works as directed by the Engineer	prov sum				50000.000
1701.1.1	Protect of existing utilities crossing the roadway as shown in Drawing, or as directed by the Engineer	lin.m.				
				17-1	Carried to summary	50000.000

CONSTRUCTION OF FLYOVER AT
 BARKA
 BILL OF QUANTITIES
 BILL 17 . UTULITIES

Item No	Description	Unit	Estimated Quantity	Unit Rate		Amount	
				R.O.	Bz	R.O.	Bz
	SUMMARY						
	Page 17-1	Prov Sum				50000.000	
		17-2			To Grand Summary		50000.000

**CONSTRUCTION OF FLYOVER AT
BARKA
BILL OF QUANTITIES
BILL 19 - DAYWORKS**

Item No	Description	Unit	Estimated Quantity	Unit Rate		Amount	
				R.O.	Ez	R.O.	Ez
A. WAGES							
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
A.2	Site Surveyor	hour	1000		3.500		3500.000
A.3	Foreman	hour	480		3.200		1536.000
A.4	1st Class Operator	hour	480		1.100		528.000
A.5	2nd Class Operator	hour	100		0.950		95.000
A.6	Mechanic	hour	190		1.000		190.000
A.7	Driver	hour	480		1.000		480.000
A.8	Skilled Labour	hour	1000		0.650		650.000
A.9	Semi Skilled Labour	hour	1000		0.600		600.000
			19-1	Carried to Summary			7979.000

CONSTRUCTION OF FLYOVER AT
BARKA
BILL OF QUANTITIES
BILL 19 - DAYWORKS

Item No	Description	Unit	Estimated Quantity	Unit Rate		Amount	
				R.O.	Bz	R.O.	Bz
A.10	Ordinary Labour	hour	1000	0.550		550.000	
A.11	Mason	hour	200	0.650		130.000	
A.12	Painter	hour	100	0.750		75.000	
A.13	Carpenter	hour	200	0.650		130.000	
A.14	Steel Fitter	hour	100	0.650		65.000	
A.15	Electrician	hour	20	0.850		17.000	
			19-2	Carried to Summary		967.000	

CONSTRUCTION OF FLYOVER AT

BARKA

**BILL OF QUANTITIES
BILL 19 - DAYWORKS**

Item No	Description	Unit	Estimated Quantity	Unit Rate		Amount	
				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.							
B.1	Motorgrader from 100 hp up to 120 hp	hour	5		9.500		47.500
B.2	Motorgrader from 120 hp up to 150 hp	hour	11		11.500		126.500
B.3	Tractor from 60 to 100 hp	hour	5		4.000		20.000
B.4	Bulldozer with ripper from 100 hp to 150 hp	hour	5		7.000		35.000
B.5	Bulldozer with ripper from 150 hp to 200 hp	hour	7		8.000		56.000
B.6	Bulldozer with ripper from 200 hp to 250 hp	hour	6		18.000		108.000
B.7	Bulldozer with ripper from 250 hp to 300 hp	hour	4		19.500		78.000
B.8	Wheel tractor up to 50 hp	hour	10		4.000		40.000
				19-3	Carried to Summary		511.000

CONSTRUCTION OF FLYOVER AT

BARKA

BILL OF QUANTITIES

BILL 19 - DAYWORKS

Item No	Description	Unit	Estimated Quantity	Unit Rate		Amount	
				R.O.	Bz	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		190.000	
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	4	7.000		28.000	
B.14	Vibratory compactor with prime mover up to 5 tonnes	hour	4	5.000		20.000	
B.15	Vibratory compactor with prime mover from 5 to 10 tonnes	hour	4	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	8	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	8	5.000		40.000	
			19-4	Carried to Summary		788.000	

CONSTRUCTION OF FLYOVER AT

BARKA

**BILL OF QUANTITIES
BILL 19 - DAYWORKS**

Item No	Description	Unit	Estimated Quantity	Unit Rate		Amount	
				R.O.	Bz	R.O.	Bz
B.20	Triaxle roller from 10 to 15 tonnes	hour	24	5.000		120.000	
B.21	Light frog-rammer 0.1 tonne	hour	20	0.500		10.000	
B.22	Heavy frog-rammer 0.5 tonne	hour	20	0.700		14.000	
B.23	Wheel loader 1.2 to 1.6 cu.m.	hour	20	9.500		190.000	
B.24	Wheel loader 1.6 to 2.0 cu.m.	hour	20	10.000		200.000	
B.25	Wheel loader 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/h.	hour	5	18.000		90.000	
B.29	Bituminous mixing plant with batching apparatus from 80 to 150 t/h.	hour	5	23.000		115.000	
B.30	Finisher up to 80 t/h.	hour	10	9.000		90.000	
			19-5	Carried to Summary		1244.000	

**CONSTRUCTION OF FLYOVER AT
BARKA
BILL OF QUANTITIES
BILL 19 - DAYWORKS**

Item No	Description	Unit	Estimated Quantity	Unit Rate		Amount
				R.O. Bz	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	5	16.000	80.000	
B.37	Crushing plant from 40 to 60 t/h.	hour	5	20.000	100.000	
B.38	Crushing plant with primary and secondary from 60 to 100 t/h.	hour	5	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 l/m.	hour	15	2.000	30.000	
B.41	Mechanical broom	hour	7	4.000	28.000	
			19-6	Carried to Summary	849.000	

**CONSTRUCTION OF FLYOVER AT
BARKA
BILL OF QUANTITIES
BILL 19 - DAYWORKS**

Item No	Description	Unit	Estimated Quantity	Unit Rate		Amount
				R.O.	Bz	
B.42	Power water pump	hour	118	0.700		\$2,600
B.43	Steel cutting machine	hour	5	0.800		4,000
B.44	Steel bending machine	hour	5	1,200		6,000
B.45	Belt conveyor	hour	5	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	5	7,500		37,500
B.49	Transmixer up to 5 cu.m.	hour	10	6,500		65,000
B.50	Concrete vibrators	hour	59	0.150		8,850
B.51	Crane up to 5 tonnes.	hour	9	4,500		40,500
B.52	Crane with broom and jib 5 to 10 tonnes	hour	7	8,000		56,000
			19-7	Carried to Summary		403,450

CONSTRUCTION OF FLYOVER AT
 BARKA
 BILL OF QUANTITIES
 BILL 19 - DAYWORKS

Item No	Description	Unit	Estimated Quantity	Unit Rate		Amount	
				R.O.	Bz	R.O.	Bz
B.53	Crane with boom and jib over 10 tonnes	hour	7	11.000		77.000	
B.54	Generator 60 kw	hour	5	1.500		7.500	
B.55	Generator 75 kw	hour	5	1.800		9.000	
B.56	Drilling equipment	hour	5	0.200		1.000	
B.57	Generator 100 kw	hour	5	3.000		15.000	
B.58	Generator 150 kw	hour	5	4.000		20.000	
B.59	Generator 200 kw	hour	5	5.000		25.000	
B.60	Gravel strower	hour	5	10.000		50.000	
			19-8	Carried to Summary		204.500	

CONSTRUCTION OF FLYOVER AT

BARKA

**BILL OF QUANTITIES
BILL 19 - DAYWORKS**

Item No	Description	Unit	Estimated Quantity	Unit Rate		Amount	
				R.O.	Bz	R.O.	Bz
C. MATERIALS							
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
C.2	Aggregate for granular aggregate base course in accordance with the General and Special Specifications, in place as specified.	cu.m.	25		2.000		50.000
C.3	Aggregate for bituminous base course in accordance with the General and Special Specifications, near the asphalt plant, in bulk	cu.m.	50		2.000		100.000
C.4	Fine aggregate for concrete, in accordance with the General and Special Specifications, in place, in bulk	cu.m.	25		2.000		50.000
C.5	Coarse aggregates for concrete, in accordance with the General and Special specifications, in place, in bulk	cu.m.	50		1.200		60.000
			19-9	Carried to Summary		310.000	

CONSTRUCTION OF FLYOVER AT

BARKA

BILL OF QUANTITIES

BILL 19 - DAYWORKS

Item No	Description	Unit	Estimated Quantity	Unit Rate		Amount	
				R.O.	Bz	R.O.	Bz
C.6	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 cement, grade 60-70 on site	ton	1	44.000		44.000	
C.8	Asphalt cement, grade 50-60 on site	ton	1	48.000		48.000	
C.9	Emulsified asphalt, grade RS-1 on site	ton	1	70.000		70.000	
C.10	Outback asphalt, MC and RC type on site	ton	1	75.000		75.000	
C.11	Portland cement on site	ton	1	25.000		25.000	
C.12	Deformed billet steel bars, AASHTO M 31 grade 60 (High Yield) of any diameter	ton	1	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	sq.m.	3	32.000		96.000	
C.15	Highway sign supports - 1 post	nr.	4	15.000		60.000	
			19-10	Carried to Summary		750.500	

CONSTRUCTION OF FLYOVER AT

BARKA

BILL OF QUANTITIES

BILL 19 - DAYWORKS

Item No	Description	Unit	Estimated Quantity	Unit Rate		Amount	
				R.O.	Bz	R.O.	Bz
C.16	Highway sign supports - 2 post	nr.	2	20.000		40.000	
C.17	Timber plank, on site	cu.m.	2	105.000		210.000	
C.18	Timber props, on site	cu.m.	2	105.000		210.000	
C.19	Wire mesh gabgrions, on site	ton	0.5	320.000		160.000	
C.20	Explosive, on site	kg.	5	20.000		100.000	
C.21	Gas oil, on site	litre	100	0.080		8.000	
C.22	Gasoline, on site	litre	500	0.120		60.000	
C.23	Lubricant	kg.	5	0.300		1.500	
			19-11	Carried to Summary		789.500	

CONSTRUCTION OF FLYOVER AT
 BARKA
 BILL OF QUANTITIES
 BILL 19 - DAYWORKS

Item No	Description	Unit	Estimated Quantity	Unit Rate		Amount	
				R.O.	Bz	R.O.	Bz
	SUMMARY						
	Page 19-1					7979.000	
	Page 19-2					967.000	
	Page 19-3					511.000	
	Page 19-4					788.000	
	Page 19-5					1244.000	
	Page 19-6					849.000	
	Page 19-7					403.450	
	Page 19-8					204.500	
	Page 19-9					310.000	
	Page 19-10					750.500	
	Page 19-11					789.500	
			19-12	To Grand Summary		14795.950	

BILL OF QUANTITIES

GRAND SUMMARY

Bill No	Description	Amount
		R.O.
1	Preliminaries	423590.000
2	Earthworks	124715.600
3	Granular and stabilized subbase, basecourse and stabilized subgrade	59378.800
4	Bituminous Pavement	301434.300
5	Concrete and concrete structure	1210880.000
6	Structural steel and other metal work	98775.000
7	Paint	N/A
8	Drainage and service ducts	23666.000
9	Slope protection and stabilization	14240.000
10	Piling	N/A
11	Bridge bearing, expansion joints, joint seals and fillers	88120.000
12	Sidewalks, paved areas and kerbs	49869.000
13	Safety barriers, delineators and fences	43406.000
14	Highway signs and road marking	47493.200
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	2600363.850
	Contingencies (10%)	260036.385
	TOTAL CONTRACT VALUE (R.O)	2860400.235

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

NAME OF TENDERER

DATE

SIGNATURE OF TENDERER

