

Uliastai-Tsagaankhairkhan Road Section

CW2, km 0 - km 40.2

GRAND SUMMARY

Bill	Description		Amount (\$US)
1	General		-
2	Survey and Site Clearance		-
3	Earthworks		-
4	Drainage		-
5	Subbase and Base		-
6	Pavement works		-
7	Road Furniture and Traffic Markings		-
8	Bridges		-
9	Ancillary Works		-
10	Dayworks		-
	Sub-Total of Bills	(A)	-
	Specified Provisional Sums	(B)	285,000.00
	Sub-Total	(C)	285,000.00
	Contingencies (10% of C)	(D)	
	TOTAL BID PRICE CARRIED FORWARD TO LETTER OF BID (C+D)	(E)	

Provisional Sums						
Item No.	Specification Reference	Description	Unit	Estimated Quantity	Unit Rate US\$	Amount US\$
1.12	132 (j)	HIV/AIDS and human trafficking awareness training	provisional sum	1	30,000.00	30,000.00
1.13	132 (l)	Relocation of utilities	provisional sum	1	85,000.00	85,000.00
1.13	132 (q)	Design and construction of animal crossings	provisional sum	1	100,000.00	100,000.00
1.14	1806 (a)	Tree Planting as directed by the Engineer. Species: Haloxylon ammodendron, Populus diversifolia and Hippophae rhamnoides	provisional sum	1	35,000.00	35,000.00
1.15	Sub clause 13.4 of PCC	DAAB	provisional sum	1	35,000.00	35,000.00
Total Provisional sums carried to summary						285,000.00

Bill No. 1: General Requirements and Provisional Sums

Item No.	Specification Reference	Description	Unit	Estimated Quantity	Unit Rate US\$	Amount US\$
General Requirements						
1.01	132 (a)	Contractor's Mobilization and Demobilisation	lump sum	1		-
1.02	132 (b)	Project signboard	number	2		-
1.03	Part A of the Specification & 132 (c)	Preparation of Detailed Design and Working Drawings	lump sum	1		-
1.04	Part A of the Specification & 132 (d)	Preparation of Environmental Impact Assessment	lump sum	1		-
1.05	132 (p)	Protection of historical and archeological sites	lump sum	1		-
Facilities for the Engineer						
1.06	132 (e)	Site Laboratory	month	36		-
1.07	132 (e)	Laboratory and Survey Equipment	lump sum	1		-
1.08	132 (f)	Provision and servicing of Engineer's site office	month	36		-
1.09	132 (g)	Provision and servicing of Engineer's accommodation	month	36		-
1.10	132 (h)	Vehicles for the Engineer and Employer	lump sum	1		-
1.11	132 (i)	Operation and maintenance of vehicles for the Engineer	month	36		-
Total Bill No. 1 carried to summary						-

Bill No. 2: Survey and Site Clearance

Surveying						
2.01	304 (a)	Basic survey and detailed setting out	km	40		-
Site Clearance						
2.02	405 (a)	Site Clearance	lump sum	1		-
2.03	405 (b)	Removal of topsoil, storage and deposition	m3	233,654		-
Total Bill No. 2 carried to summary						-

Bill No. 3: Earthworks

3.01	512 (a)	Embankment construction using materials from borrow or roadway excavation	m3	764,903		-
3.02	512 (c)	Excavation and disposal of unsuitable and surplus material.	m3	12,608		-
3.03	512 (b)	Excavation in hard rock	m3	8,663		-
3.04	512 (d)	Levelling and compaction of formation level	m3	93,122		-
3.05	512 (e)	Embankment construction using rock fill	m3	73,283		-
3.06	512 (f)	Fertile topsoil and greenery to intersection islands	m2	3,060		-
Total Bill No. 3 carried to summary						-

Item No.	Specification Reference	Description	Unit	Estimated Quantity	Unit Rate US\$	Amount US\$
Bill No. 4: Drainage						
		Side Drains				
4.01	711 (a)	Side ditch	m3	72,987		-
4.02	711 (a)	Interceptor ditch	m3	7,818		-
4.03	711 (e)	Stone pitching (grouted, 200mm) for side ditches	m2	37,436		-
		Pipe Culverts				
4.04	711 (b)	Excavation for culverts and minor drainage structures	m3	6,693		-
4.05	812 (b)	Granular material for drainage layer and culvert base layer	m3	949		-
4.06	812 (a)	Selected Granular backfill	m3	2,597		-
4.07	812 (f)	Waterproof coating	m2	3,617		-
4.08	711 (c)	Excavation for River training	m3	1,814		-
4.09	711 (e)	Stone pitching (grouted, 250mm)	m2	2,487		-
4.10	711 (e)	Stone pitching (grouted, 550mm)	m2	2,103		-
4.11	812 (c)	Concrete Grade B20 for bedding	m3	273		-
4.12	812 (g)	Concrete Grade B15 for filling	m3	136		-
4.13	812 (e)	Reinforced concrete culvert pipes with diameter of 1.0 m (Grade B30)	m	660		-
4.14	812 (e)	Reinforced concrete dual culvert pipes with diameter of 1.0 m (Grade B30)	m	90		-
4.15	812 (d)	Reinforced Concrete (Grade B20) for headwall, cut off wall, apron slab and minor drainage structures	m3	667		-
		Box Culverts				
4.16	711 (b)	Excavation for culverts and minor drainage structures	m3	18,314		-
4.17	812 (b)	Granular material for drainage layer and culvert base layer	m3	2,867		-
4.18	812 (a)	Selected Granular backfill	m3	2,581		-
4.19	812 (f)	Waterproof coating	m2	9,563		-
4.20	711 (c)	Excavation for River training	m3	3,634		-
4.21	711 (e)	Stone pitching (grouted, 200mm)	m2	4,930		-
4.22	711 (e)	Stone pitching (grouted, 250mm)	m2	5,481		-
4.23	711 (e)	Stone pitching (grouted, 500mm)	m2	651		-
4.24	711 (e)	Stone pitching (grouted, 550mm)	m2	2,000		-
4.25	711 (e)	Stone pitching (grouted, 600mm)	m2	1,628		-
4.26	812 (c)	Concrete Grade B20 for bedding	m3	219		-
4.27	812 (d)	Reinforced concrete box culvert body (Grade B30)	m3	3,745		-
4.28	812 (d)	Reinforced Concrete (Grade B20) for headwall, cut off wall, apron slab and minor drainage structures	m3	2,182		-
4.29	711 (g)	Rip rap at culvert outlet	m3	142		-
Total Bill No. 4 carried to summary						

Item No.	Specification Reference	Description	Unit	Estimated Quantity	Unit Rate US\$	Amount US\$
Bill No. 5: Subbase and Base						
5.01	1108 (a)	Subbase	m3	155,292		-
5.02	1129	Granular crushed stone base	m3	72,098		-
Total Bill No. 5 carried to summary						
Bill No. 6: Pavement works						
6.01	1216 (a)	Prime coat	m2	345,761		-
6.02	1216 (b)	Tack coat	m2	345,761		-
6.03	1231 (b)	Asphalt concrete binder course, 40mm thick (polymer modified bitumen)	m3	13,831		-
6.04	1231 (a)	Asphalt concrete surface course, 30mm thick (polymer modified bitumen)	m3	10,375		-
6.05	1005 (a)	Gravel shoulders	m3	35,754		-
Total Bill No. 6 carried to summary						
Bill No. 7: Road Furniture and Marking						
7.01	1606 (c)	Permanent road signs - Warning signs	number	65		-
7.02	1606 (c)	Permanent road signs - Regulatory, prohibitory, and mandatory signs	number	56		-
7.03	1606 (c)	Permanent road signs - Standard informative signs	number	80		-
7.04	1606 (c)	Permanent road signs - Direction signs	m2	18		-
7.05	1606 (c)	Chevron (curve delination) signs	number	24		-
7.06	1606 (a)	Flexible Guide posts	number	992		-
7.07	1606 (d)	Guardrails incl. terminal sections	m	6,530		-
7.08	1712 (a)	Road marking type 1.1 - solid, 0.15m width, centerline	m	10,330		-
7.09	1712 (a)	Road marking type 1.2 - solid, edge, 0.2m width (Audio Tactile)	m	82,778		-
7.10	1712 (a)	Road marking type 1.5 - broken, 0.15m width (25% solid)	m	30,379		-
7.11	1712 (a)	Road marking type 1.6 - broken, 0.15m width (75% solid)	m	1,420		-
7.12	1712 (a)	Road marking type 1.7 - broken, 0.1m width (50% solid)	m	117		-
7.13	1712 (a)	Road marking type 1.7 - broken, 0.15m width (50% solid)	m	161		-
7.14	1712 (a)	Road marking type 1.12 for symbols, letters, figures, etc.	m2	31		-
Total Bill No. 7 carried to summary						

Item No.	Specification Reference	Description	Unit	Estimated Quantity	Unit Rate US\$	Amount US\$
Bill No. 8: Bridges						
Abutments						
8.01	1429 (a)	Structural excavation for bridge foundation	m3	8,600		-
8.02	812 (b)	Gravel base for bridge foundation	m3	105		-
8.03	1325 (e)	Concrete (Grade B15) for levelling layer	m3	74		-
8.04	1325 (d)	Reinforced Concrete (Grade B30) for abutment	m3	1,746		-
8.05	812 (f)	Waterproof coating	m2	3,180		-
8.06	1429 (b)	Selected granular backfill to structures	m3	7,240		-
Piers						
8.07	1429 (a)	Excavation of foundation	m3	17,120		-
8.08	812 (b)	Gravel base for bridge foundation	m3	206		-
8.09	1325 (e)	Concrete (Grade B15) for levelling layer	m3	135		-
8.10	1325 (d)	Reinforced Concrete (Grade B30) for pier	m3	1,662		-
8.11	1325 (d)	Reinforced Concrete (Grade B40) for pier	m3	389		-
8.12	1429 (b)	Selected granular backfill to structures	m3	14,020		-
Superstructure						
8.13	1325 (g)	Construction of Pre-stressed reinforced concrete I-beam, concrete grade B40	m3	2,099		-
8.14	1325 (f)	Assembly and installation of PC I-beams	pcs	167		-
8.15	1325 (d)	Reinforced Concrete (Grade B40) for between beams	m3	339		-
8.16	1325 (d)	Reinforced Concrete (Grade B30) for diaphragms	m3	329		-
8.17	1429 (c)	Elastomeric bearing	number	334		-
8.18	1429 (e)	Expansion joint	m	289		-
Bridge Deck						
8.19	1325 (d)	Reinforced Concrete (Grade B30) for bridge deck (12-37cm)	m3	358		-
8.20	1429 (i)	Bridge deck waterproofing	m2	4,936		-
8.21	1216 (b)	Tack coat	m2	4,936		-
8.22	1231 (b)	Asphalt pavement - binder course (5cm)	m3	193		-
8.23	1231 (a)	Asphalt pavement - surface course (4cm)	m3	155		-
8.24	1325 (d)	Reinforced concrete (Grade B25) for edge (New Jersey) barrier, including steel vehicle railing	m3	279		-
8.25	1429 (f)	Bridge Railings	m	957		-
8.26	1325 (e)	Concrete (Grade B20) for sidewalk	m3	118		-
Aprons and Auxiliary Works						
8.27	812 (b)	Granular material under approach slab, staircase, revetment	m3	986		-
8.28	1325 (e)	Concrete (Grade B20) for bedding under approach slab	m3	196		-
8.29	1325 (d)	Reinforced concrete (Grade B25) for approach slab	m3	127		-
8.30	1429 (g)	Drainage spout (including discharge drainpipe)	number	126		-
8.31	711 (f)	Flexible Boulder Apron around abutment	m3	536		-
8.32	1325 (e)	Concrete (Grade B25) apron toe wall	m3	754		-
8.33	711 (g)	Rip Rap apron	m3	6,385		-
8.34	1325 (i)	Concrete blocks for embankment slope and quartercone erosion protection (15cm)	m2	5,133		-
8.35	1325 (d)	Reinforced Concrete (Grade B25) for bridge side stairs	m3	45		-
8.36	1429 (f)	Bridge side stair railings (110cm)	m	273		-
8.37	1806 (b)	Earth dam for River training	m3	8,630		-

Item No.	Specification Reference	Description	Unit	Estimated Quantity	Unit Rate US\$	Amount US\$
8.38	711 (e)	Grouted stone pitching on river training embankment slope	m2	4,868		-
8.39	711 (b)	Excavation for River training	m3	5,201		-
		Road Signs and Furniture				
8.40	1429 (j)	Bridge name board	number	16		-
8.41	1606 (d)	Guardrails	m	160		-
Total Bill No. 8 carried to summary						-

Bill No. 9: Ancillary Works

9.01	1804 (b)	Earth dam for drainage control	m3	9,092		-
9.02	1325 (b)	Concrete (Grade B15) for embankment slope protection toe wall	m3	144		-
9.03	1606 (e)	Curbs at intersections	m3	290		-
9.05	711 (e)	Stone pitching (grouted, 200mm) for road embankment slope	m2	3,600		-
9.04	711 (f)	Flexible Boulder Apron for toe of road embankment slope	m3	2,292		-
Total Bill No. 9 carried to summary						-

Bill No. 10: Dayworks

		Labour				
10.01		Foreman	hr	30		-
10.02		Skilled Labor	hr	50		-
10.03		Unskilled Labor	hr	100		-
10.04		Equipment Operator	hr	200		-
		Material				
10.05		Aggregate 5-20 mm	m3	50		-
10.06		Aggregate 5-10 mm	m3	50		-
10.07		Sand	m3	75		-
10.08		River Gravel	m3	75		-
10.09		Sub-base	m3	75		-
10.10		Aggregate Base Course	m3	75		-
10.11		Portland Cement	ton	5		-
10.12		Reinforcing Steel	ton	5		-
		Construction Equipment				
10.13		Bulldozer 150-200KW	hr	20		-
10.14		Motor Grader 200-250KW	hr	20		-
10.15		Excavator (0.6 m3)	hr	15		-
10.16		Backhoe (0.35 m3)	hr	10		-
10.17		Wheel Loader (150 KW)	hr	20		-
10.18		Smooth Wheel Roller	hr	20		-
10.19		Vibratory Roller	hr	20		-
10.20		Pneumatic Tired Roller	hr	20		-
10.21		Dump Truck (11 Tons)	hr	30		-
10.22		Water Tanker (10,000 liter)	hr	25		-
Total Bill No. 10 carried to summary						-