

### ANNEXURE 5 – BOQ (LOT 4)

**Bill of Quantities - INFRA 1 LOT 4 (2160.00 M road to Adit 5, 3120.00 m road to Adit 6, 1020.00 m road to Surge Shaft)**

Item No.	Description of Items	Unit	Qty	Rates (BTN)		Amount (BTN)
				In figure	In words	
<b>A</b>	<b>ROAD WORK</b>					
1	<b>Site Clearance</b>					
1.1	Clearing jungle including uprooting of vegetation & trees of girth < 300mm & disposal within 50m of the site	sq.m	18,900.00			
1.2	Felling trees including cutting of trunks and branches, removal of roots, stacking of serviceable materials and disposal of rubbish within 50m lead					
a	Girth 300 to 600mm	each	480.00			
b	Girth 600 to 1200mm	each	60.00			
c	Girth 1200 to 2400	each	30.00			
d	Girth > 2400mm	each	30.00			
2	<b>Earth work in excavation, back filling and transportation</b>					
2.1	Excavation of road formation/trace/box cutting, with excavator including separate deposition of soil, rock sandstones within 50m for reuse.					
a	All types of soil	cu.m	267,682.14			
b	All types of rock (With or Without blasting)	cu.m	114,720.92			
3	<b>Back Filling</b>					
	Backfilling excavated earth for road, flood banks, guide banks & depressions, in layers <200mm depth, including watering, rolling & dressing up within 50m lead & 1.5m lift					



Item No.	Description of Items	Unit	Qty	Rates (BTN)		Amount (BTN)
				In figure	In words	
3.1	All types of excavated materials including soil, blasted rock and boulders	cu.m	8,720.78			
4	<b>Transportation of excavated materials</b>					
	Transport of loose spoil materials in designated locations including loading/unloading, dressing and compaction of dump site					
4.1	Beyond 50m and up to 1km lead.	cu.m	7,613.57			
4.2	Beyond 50m and up to 2km lead.	cu.m	201,646.22			
<b>B</b>	<b>DRAINAGE WORKS</b>					
1	Construction of V- shaped drain base width 1000x150mm in PCC M15; 300x300mm thick Plum Concrete M15 (60%) with 40% boulder (75mm down) on hillside. The rate should be inclusive of excavation, rolling, levelling, backfilling, necessary form works (12mm thick waterproof plywood, Sawn Timber (50mm x75mm) thick and disposal of surplus earth within 50m lead (complete) as per drawing.	m	6,300.00			
<b>C</b>	<b>RETAINING WALLS</b>					
	<b>RRM WALL</b>					
1	Earth work in Excavation in foundation trenches or drains including dressing of sides and ramming of bottom, disposal of surplus excavated soil within 50m lead					
1.1	All types of soil	cu.m	77.00			
1.2	All types of rock with or without blasting	cu.m	33.00			
2	Providing and laying in position plain cement concrete in retaining walls, return walls, walls (any	cu.m	42.88			



Item No.	Description of Items	Unit	Qty	Rates (BTN)		Amount (BTN)
				In figure	In words	
	thickness) including attached pilasters, columns, piers, abutments, pillars, posts, struts, buttresses, string or lacing courses, parapets, coping, bed blocks, anchor blocks, plain window sills, fillets etc. up to floor five level, excluding the cost of centering and shuttering: 1:2:4 (1 cement : 2 sand : 4 graded crushed rock 20 mm nominal size)					
3	Providing & fixing centering and shuttering (formwork), including strutting, propping etc. and removal of formwork in Foundation, plinth and all lifts and heights.	sq.m	33.78			
4	Providing and laying Hand packed stone filling or soling with stones	cu.m	26.25			
5	Providing & laying Random Rubble Masonry with hard stone in Retaining wall/Breast wall/ cross drainage works foundation, plinth,, all lifts and heights In cement mortar 1:4	cu.m	517.50			
6	Providing and laying filter material (600mm wide) in trenches, sides of foundations, walls etc. with 100 to 200 mm stones wherever applicable.	cu.m	246.00			
7	Providing and laying in position plum concrete (concrete M15- 60% and boulder - 40%) excluding the cost of centering and shuttering in parapet wall	cu.m	2.54			
8	Providing & fixing P.V.C pipe for weep holes-90 mm dia	m	225.00			
9	Filling of trenches, sides of foundations etc. in layers <200mm using selected excavated earth, ramming etc. within lead 50 m & lift 1.5m	cu.m	472.50			



Item No.	Description of Items	Unit	Qty	Rates (BTN)		Amount (BTN)
				In figure	In words	
	<b>GABION WALL</b>					
10	Providing & filling hand-packed stone in G.I mesh of size 4mm (8swg) including supplying and weaving of mesh in boxes as specified in the drawing complete-Double-knotted mesh. Including excavation and back filling...100mmx 100mm mesh opening size including all lifts and heights	cu.m	370.00			
<b>D</b>	<b>PAVEMENT WORKS</b>					
1	Preparation of base for sub grade with proper camber by excavating earth to depth equal to pavement thickness, consolidation with roller, disposal of surplus earth up to 50m: All kinds of soil	cu.m	13,335.00			
2	Providing and laying Granular sub-base course (GSB) to required degree of compaction with proper formation of cross fall using motor grader for laying and compacted to required density as per material gradation and aggregate quality specified-150mm thick.	cu.m	7,620.00			
3	Providing & laying NP2 class R.C.C pipes, including collars, jointing in cement mortar 1:2 including testing of joints etc. complete	m	30.00			
3.1	600mm dia	m	-			
3.2	1050mm dia	m	30.00			
4	Providing & laying sand bedding, including watering, ramming, dressing	cu.m	2.00			
5	Providing and constructing boulder barriers with maximum inclination of 20 deg. to the road alignment within 50m lead	cu.m	200.00			



Item No.	Description of Items	Unit	Qty	Rates (BTN)		Amount (BTN)
				In figure	In words	
6	Providing & laying in position reinforced cement concrete excluding the cost of centering, shuttering and reinforcement - all work up to plinth level-1:1.5:3 (1 cement : 1.5 sand : 3 graded crushed rock 20 mm nominal size)	cu.m	10.50			
7	Providing & fixing Thermo-Mechanically Treated reinforcement bar (Yield Strength 500 MPa) for R.C.C work including cutting, bending, binding and placing in position complete-2% of concrete volume.	Kg	1,648.50			
8	Providing & fixing centering and shuttering (formwork), including strutting, propping etc. and removal of formwork in Foundation, plinth and all lifts and heights.	sq.m	7.00			
<b>E</b>	<b>Occupational Health and Safety</b>					
1	Personal Protective Equipment (PPE)	LS	1.00			
2	Temporary Living Accommodation	LS	1.00			
<b>Total</b>						

**Total Amount in figure:**

**Total Amount in Words:**

