

Detailed Estimate

Local Government Engineering Department

Scheme Code : 40314-20-10039

Road Code : 403143004

Financial Year : 2019-2020

Name of the Scheme : Construction of RCC Retaning wal on Chemidulu para-Kualong UP Road, at, Under Bandarban Sadar upazila Bandarban.(RCC Retaning walll ,Ch.402m & 3715m)

Scheme Preparation Date :

FY & Type of Rate : 2018-2019 (General)

District : BANDARBAN

Upazila : BANDARBAN-S

SL No	Item Code	Description of Work	Unit	Location / Component	Length	Width	Height / Depth	Area / Volume	No of Item	Total Qty of Works	Unit Rate	Amount
1	2	3	4	5	6	7	8	9	10	11	12	13
1.	2.02.3.02	EFW(CE): Earth filling work with specified soil in any type of embankment, Earth shall be carried by truck/boat or any other means, supplied at contractor's own cost including royalty, cutting, carrying, filling and compacting to 85%/95%/98% maximum dry density at optimum moisture content, with reference to laboratory density test AAHSTO standard hammer by throwing earth in layers not more than 150mm in proper alignment, grade, camber and side slope in all types of soil except rocky, gravelly and slushy including benching not more than 300mm in vertical and 600mm in horizontal steps along the sides while widening any embankment, with clod breaking to maximum size of 100mm, benching the side slopes, removing roots and stumps of trees of girth upto 200mm, stripping/ploughing the base of embankment and borrow pit area, dug bailing, clearing jungles, bail out of water, rough dressing including 150mm cambering at the centre of crest with all leads and lifts complete (compaction will be done by the contractor with approved equipment including all ancillary charges for compaction and testing) as per direction of Engineer in charge. Payment will be made on compacted volume. The item is applicable when earth is supplied and arranged by the contractor from a distance beyond 200m from the end of right of way. Outside municipal area, 95% Compaction	cum	Ch.402.00m	12.000	2.500	(3.66+4.20)/2	117.900	1.00	117.900		
				Ch.3715.00m	22.000	2.500	3.500	192.500	1.00	192.500		
										310.400	331.37	102857.25

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2.	4.05.01.01.	Earth work in excavation of foundation of structures by mechanical (Hydraulic excavator - Long Boom)/ manual means in all sorts of soil up to specified depth in accordance with requirements of lines, grades, cross sections and elevation as shown in the drawing including setting out, removal of stumps, logs, boulders and other deleterious materials, providing necessary tools and plants, construction of shoring and bracing, cleaning the excavated materials to a safe distance out of the site premises, cut to a firm surface including pumping/ bailing out water, removal of spoils to a safe distance, dressing of sides and bottom and backfilling of trenches up to original level with approved material etc. all complete as per approval of E-I-C. Contractor shall get acquainted with site conditions, nature of soil and adopt suitable adequate dewatering system as deemed fit for the nature of soil and prevailing water table to get the surface reasonably dry for laying PCC at the time of execution so that execution will not be hampered or delayed. Back-filled materials shall be compacted to a density comparable with the adjacent undisturbed material. Earth work in Ordinary Soil by Manual Means for an initial lead up to 30m For depth up to 3m	cum	Ch.402m R/S	10.000	3.000	1.200	36.000	1.00	36.000		
				Ch.3715m L/S	20.000	3.000	1.200	72.000	1.00	72.000		
										108.000	166.39	17970.12
3.	4.06.02	Single layer brick flat soling with 1st class or picked kiln burnt bricks in foundation, filling the interstices tightly with sand of minimum FM 0.50, watering, leveling, dressing, etc. all complete as per instruction of the E-I-C.	sqm	RCC Retaning wall	30.000	3.000		90.000	1.00	90.000		
										90.000	449.16	40424.40
4.	4.06.03	PCC-10: Plain cement concrete work in foundation with minimum compressive strength of 10 MPa at 28 days (sugessted mix proportion 1:3:6) on standard cylinder as per standard practice of Code AASHTO/ ASTM and cement conforming to BDS EN 197-1 : 2003 CEM-II/A-L/M/V/W 42.5N, sand of minimum FM 1.8 and 20mm down well graded 1st class/ picked brick chips (LAA value not exceeding 40) conforming to ASTM C 33 including breaking bricks into chips, shuttering, mixing by concrete mixer machine, casting, laying compacting and curing for the requisite period etc. all complete as per direction of the E-I-C. Additional quantity of cement to be added if required to attain the strength at the contractor's own cost.	cum	RCC Retaning wall	30.000	3.000	0.075	6.750	1.00	6.750		
										6.750	8419.66	56832.71

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5.	4.09.02.01	RCC-20SCCM: Reinforced cement concrete work with minimum cement content relates to nominal mix ratio 1:2:4 and maximum water cement ratio 0.4 having minimum required average strength, $f'_{cr} = 28.5$ MPa and satisfying a compressive strength $f'_c = 20$ MPa at 28 days on standard cylinders as per standard practice of Code AASHTO/ ASTM and cement conforming to BDS EN 197-1 : 2003 CEM-II/A-L/M/V/W 42.5N, high range water reducing admixture of complying type A or F under ASTM C 494 (Doses of admixture to be fixed by the mix design), sand of minimum FM 2.2 and 20mm down well graded crushed stone chips broken from boulders (Preferably stone chips from Madhyapara, Dinajpur, LAA value not exceeding 35) conforming to ASTM C33 including screening chips through proper sieves, cleaning, placing shutter in position, making shutter water-tight properly, placing reinforcement in position, mixing in standard mixture machine with hopper, fed by standard measuring boxes, maintaining allowable slump of 75mm to 100mm, casting in forms, compacting by mechanical vibrator machine, curing for 28 days, removing centering-shuttering after approved specified time period, other incidental charges, etc. all complete as per drawing, specification & direction of the E-I-C. The cost of reinforcement and its fabrication, welding, coupling, placing, binding etc. is not included but the cost of admixture is included in this unit rate. Additional quantity of cement to be added if required to attain the strength at the contractor's own cost. Note: Using Concrete Mixer For pile caps, abutment base of bridges and bottom slab of Box Culvert	cum	Base	30.000	3.000	0.450	40.500	1.00	40.500			
				Key	30.000	(.250+.400)/2	0.750	7.313	1.00	7.313			
										47.813	14423.52	689631.76	

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										32.400	14655.20	474828.48	

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7.	4.11.01.02	Supplying and fabrication of Ribbed or deformed bar reinforcement for all types of RCC work including straightening, removing ruts, cleaning, cutting, hooking, bending, lapping and/or welding wherever required as directed, placing in position, tying with 22 BWG black annealed binding wire (PVC coated in case of FBEC rebar) double fold, cost of binding wire and anchoring to the adjoining members wherever necessary, supplying and placing with proper cover blocks (1:1), supports, chairs, spacers, splices or laps etc. including cost of all materials, cost of labour, cost of equipment & machinery, loading and unloading, transportation, all other incidental charges and work at all leads and lifts etc. to complete the work as per design, drawing, specifications and direction of the E-I-C. Measurement relating to nominal mass, dimensions and tolerances of various types of steel shall conform to relevant BDS/ ASTM codes. Reinforcement shall be measured only in lengths of bar as actually placed in position on standard weight i.e. 7850 kg/m ³ (BNBC Table 6.2.1) basis. No separate payment shall be allowed for chairs of any shape & profile, spacer bar of any shape & profile, lap/ splice unless otherwise shown in the drawing, wastages, binding wire, concrete cover blocks etc. as the cost of these is included in the unit rate. Note: Tests for reinforcing bars shall be conducted at LGED/ BUET/ CUET/ KUET/ RUET. Grade 400 (RB 400/ 400W): Ribbed or Deformed bar produced and marked as per BDS ISO 6935-2:2006 with minimum yield strength, fy (ReH) = 400 MPa, but the tested yield strength shall not exceed fy by more than the 125 MPa and the ratio of tested ultimate strength, fu (Re) to tested yield strength (fy) shall be at least 1.25 and minimum elongation after fracture (A5.65) & minimum total elongation at maximum force (Agt) is 14% and 2.5% respectively.	kg	Ch.402m & 3715m				266.450	30.00	7993.500		
										7993.500	98.44	786880.14

8.	4.13.04	WH: Providing weep holes in Brick masonry/ Plain/ Reinforced concrete retaining wall, abutment, wing/ return wall, with 50 - 100 mm dia PVC pipe extending through the full width of structure with slope 1V : 20H towards draining face including hand packing of 0.85 cum pervious backfill material (40mm - 63mm sized 1st class/picked brick) wrapped in filter fabric in the back of each weep hole etc. all compete as per direction of the E-I-C. [Cost of PVC pipe is included in this item and shall not be paid separately.]	each	Ch.402m,& 3715m				10.000	5.00	50.000		
										50.000	606.98	30349.00

TOTAL SCHEME AMOUNT: 2,199,773.85

SAY: 2,199,774.00

In Word : Taka (Twenty-One Lac Ninety-Nine Thousand Seven Hundred Seventy-Four) Only

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