

PROPOSED ESTIMATE FOR CONSTRUCTION OF CONCRETE ROAD

The rates are taken from PWD(WB) schedule of rate for Road & Bridge works 1.12.15 & 11 th,12th ,13th,14th Addenda & Corrigenda and Building works of Midnapore west effect from 01.11.2017 .

Length = 100.00 m. Width= 2.1 m.

Sl. No	Page No & IT no	Description	No	L (m.)	B (m.)	H (m.)	Quantity	Unit	Rate (Rs.)	Amount (Rs.)	
1	237,3.16(a)	Box cutting or filling in Road embankment in all sorts of soil including spreading the spoils properly over the flank as necessary or on berm to approximate grade & camber and rolling the sub-grade with power roller to proper camber and grade as per direction and satisfaction of Engineer-in-charge including uprooting and removing plants and jungles when and where necessary.									
				1	100.00	1.800		180.000	m ²	14.40	2592.00
			For Lugs	2	100.00	0.150		30.000	m ²	19.00	570.00
				Total				210.000	m ²		3162.00
2	Rate analysis attached	Sand filling in foundation trenches and at the back of abutments, wing-walls etc. with good local sand free from earth in layers not exceeding 15 cm. including inundating each layer by profuse water and poking and ramming layer by layer complete including supply of sand. Quality of sand is to be approved by the Engineer-in-charge.									
				1	100.00	1.800	0.075	13.50			
			For Lugs	2	100.00	0.150	0.075	2.25			
				Total				15.750	m ³	515.22	8115.00
3	PWD B. S.(P-47) It no-03	Supplying & Laying Polythenshet(150gm/sqm)over damp proof course or below flooring or roof terracing or in foundation or in foundation trenches.									
				1	100.00	1.80		180.00			
			For Lugs	2	100.00	0.15		30.00			
				Total				210.00	m ²	24.00	5,040.00
4	Rate analysis attached	Providing and laying Design Mix concrete for plain /reinforced concrete work in any part of bridge (excluding bottom plugging) with coarse aggregates of appropriate nominal size and grading, fine aggregate (sand) conforming to proper grading zone, both of approved quality and cement, as necessary, including labour, cost and carriage of all materials and including preparation of design mix, approval of the same by the Engineer-in-Charge and cost for quality control, sampling, testing etc. all complete but excluding cost of labour and materials for formwork & reinforcement works.M20									
				1	100.00	2.100	0.190	39.900			
			For Lugs	2	100.00	0.150	0.200	6.000			
				Total				45.900	m ³	5462.17	250713.00
5	322,18.05(b)	Hire and labour charges for Shuttering with or without staging upto 4.0 m height using approved stout props with wooden planks/ply wood/steel sheet plate with required bracing for any kind of plain or reinforced concrete works in all sorts of minor structure including culvert, box culvert, cross-drain etc. The rate is inclusive of fitting, fixing and striking out after completion of work as per specification and direction.									
			Side of Lugs	2	100.00		0.390	78.000			
			Inner side	2	100.00		0.200	40.000			
				Total				118.000	m ²	214.00	25252.00

Sl. No	Page No & IT no	Description	No	L (m.)	B (m.)	H (m.)	Quantity	Unit	Rate (Rs.)	Amount (Rs.)
6	Rate analysis attached	Supplying and spreading moorum (70%) and sand (30%) by volume to the required thk. In layers as specified and directed by the EIC stabilized the same by adding requisite quantity of water to get OMC remixing in wet condition, wet rolling in power roller to the required compacted thickness to proper grade, camber, super elevation etc with power roller including proper tampering and curing the same for 5 days to have maximum dry density as specified and lighting, guarding, barricading and making adequate earthen bundth for protecting the edges etc.								
		Both side	2	100.000	0.150	0.150	4.500	m ³	637.98	2,871.00
7		Contraction Joint with Bitumin (L.S)	28					Nos	75	2,100.00
TOTAL COST (A) Rs.										297253.00
Add GST(6% CGST+6% SGST)On SI No A)B@12.0% Rs.										35670.00
Cost of Civi works excluding labour welfare cess Total (C=A+B)Rs.										332923.00
Labour welfare cess (on SI.no C)@1.0%D Rs.										3329.00
Cost of Civi works including labour welfare cess amount (E=C+D) Rs.										336252.00
Add Contingency (on SI.no C) @3.0% Rs.										9988.00
TOTAL ESTIMATED COST Rs.										346240.00
TOTAL ESTIMATE (IN WORD)-THREE LAKH FOUETY SIX THOUSAND TWO HUNDRED FOURTY ONLY										

Rate Aaysis of Cocrete										
(Format C)										
1st Corrigendum& Addenda to PWD (WB), SOR: 2015-16 Road & Bridge Works, P-1, Case-II										
Gradation of Stone Metal(Graded Aggregates)			20mm		10mm					
Cost of material from Pakur(Medinipur) P-222,11th Corrigenda,P-7			1700.00		1569.00					
L+U(P-224,1.03(c))		57.75	337.25		337.25		L+U+S	77.00	L=40%	
Up to 20KM							L+U	57.75	U=35%	
P-227,It-3							S	19.25	S=25%	
Upto 5km	124.00						L=Loading			
5-10km	10.90X5	54.50					U=Unloading			
10-20km	10.10X10	101.00					S=Stacking			
20-50km	9.50X05	0.00								
50-100	8.40X50									
100-150	7.90X50									
		337.25					2037.25		1906.25	
			Cement Concrete							
Cost of 20 mm stone chips			0.9	cum	0.6	0.54	2037.3	1100.12		
Cost of 10 mm stone chips			0.9	cum	0.4	0.36	1906.3	686.25		
P-208,Table No-3.2										
Cost of Cement(PPC/PSC/OPC43) P-215,11th Corrigenda & Addenda,P-1			(5717/1000)x400				2286.80	400kg Cement for M20 Ggrade(For Estimation purpose)From durability consideration, the value of minimum cement content and maximum water cement ratio to be considered in the mix design shall be as per the direction of the Engineer-inCharge.(P-323,Note-2)		
Providing and laying Design Mix concrete for plain / reinforced concrete work in any part of bridge (excluding bottom plugging) with coarse aggregates of appropriate nominal size and grading, fine aggregate (sand) conforming to proper grading zone, both of approved quality and cement, as necessary, including labour, cost and carriage of all materials and including preparation of design mix, approval of the same by the Engineer-in-Charge and cost for quality control, sampling, testing etc. all complete but excluding cost of labour and materials for formwork & reinforcement works.M-20 Grade.Using concrete mixer.(P=322,Item18.07(b))11th corrigendum)							1389.00			
					Total		5462.17			

Rate Aaysis of Fine Sand						
Cost at Site(Fine Sand)		305	rs/cum	L+U+S	77.00	L = 40%
(11th Corrigenda & Addenda to PWD (WB), SOR: 2015-16 Road & Bridge Works P-3, It-3)				L+U	57.75	U = 35%
		-19.25	rs/cum	S	19.25	S = 25%
		285.75	rs/cum			
				L=Loading		
Compacting Factor(280,12.04,Note 2)		0.835		U=Unloading		
				S=Stacking		
		342.22	rs/cum			
Labour Charges		173.00	rs/cum			
280,12.04 11th corrigendum						
Total		515.22	rs/cum			
Rate Aaysis of Moorrum						
Cost of Morrurum at Quarry per cum (11th Corrigenda & Addenda to PWD (WB), SOR: 2015-16 Road & BridgeWorks P-3, It-7)			117.00			
Carring charge from quarry to work site = 10 km						
0 -5 KM	Rs	124.00				
5 - 10 KM	Rs	54.50	178.50			
TOTAL = Rs		178.50				
Loading & Unloading			46.50			
62.00 x @ 0.75						
		342.00				
Moorum (P-3, Sl No. - 7)		0.7	1	510.45	Rs	357.31
Sand (P-3, Sl no-3)		0.3	1	342.22	Rs	102.66
Labour and other cost (P-242, sl no - 4.04 & 4.05)				Rs	178.00	
				Rs	637.98	