

Est on Mcbill

1.

Name of work -

Situation of work -

Agency by which work is executed -

Date of measurement -

No. and date of agreement.

(These four lines should be repeated at the commencement of the measurements relating to each work).

Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
Name of work:-	M.M.G.S.Y. road at				
	culvert to Mahanadi Mohanpur				
	Ravides to G. (M.M.G.S.Y. Awadhah, NDB)				
	L = 0.800 km				
Agg No:-	10-580/23 24				
Name of Contractor:-	M/S Ambeg Construction				
Package No:-	NDB-BRRP2-25-Maharshi				
Date of start:-	13/12/2023				
Intended date of completion:-	14/12/2023				
Rate of agreement:-	0.11 / below				
Agreement value:-	Gross ₹ 81.7866				

					Minimize 6.3622
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Total Agreement value =	₹ 88,14,743.200				
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Continuation

Particulars	Details of actual measurement				Contents of area
	No	L	B	D	
	1	3.50	3.38	0.15	1.77 m ³
			ie	1.77 m ³	
⑤ Brick masonry					
	2	8.00	0.825	3.00	39.60 m ³
			ie	39.60 m ³	
⑥ H.P.C. base for pump					
		10.00 m			
⑦ Box culvert (2x2 m)					
Elwin excavation for structure.					
Box	1	6.00	3.50	0.60	12.60 m ³
Cut-off wall	2	3.50	1.30	1.75	15.93 m ³
R/wall	4	3.32	3.42	1.80	81.68 m ³
					110.21 m ³
					ie 110.21 m ³

⑧ P.V.C. M-15 (1.25x1.5)					
in found					
Box culvert	1	6.00	2.50	0.100	1.50 m ³
R/wall	4	3.32	2.42	0.200	6.42 m ³
					7.92 m ³
					ie 7.92 m ³

⑨ S/F.P. H.P.C. for structure					
found					
Cut off wall					
12 dia longitudinal					
2x24x2.50x0.888					106.56 kg
8 dia ring					
2x20x3.50x0.395					55.30 kg

Continuation

ie 0.16 m³

161.86 kg

Done
16/12/23
AE/SE

Done
16/12/23
AE

Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
⑦ Plaster/area m-2 in open founda					
R/wall	4	2.92	2.017	0.20	4.71 m ³
	4	2.92	1.917	0.20	4.48 "
	4	2.92	1.817	0.20	4.24 "
	4	2.92	1.717	0.20	4.01 "
	4	2.92	1.617	0.20	3.78 "
	4	2.92	1.517	0.20	3.54 "
	4	2.92	1.417	0.20	3.31 "
	4	2.92	1.317	0.20	3.08 "
Underfloor	2	2.50	0.300	1.50	2.25 "
					33.40 m ³
					cc- 33.40 m ³

⑧ S/F HYSD bar reinforcement
in Substructure.

Bottom slab - 100 bottom & top main @ 140 c/c					
	2 x 44 x 2.50 x 0.617	2			135.74 "
top binder @ 200 c/c	2 x 14 x 6.00 x 0.617	2			103.66 "
chair 12-cp	20 x 1.20 x 0.888	2			21.31 "
wall outer face @ 140 c/c					
	2 x 44 x 4.00 x 0.617	2			217.18 "
Inner 104 @ 140 c/c					
	2 x 44 x 3.50 x 0.617	2			162.89 "
hatch 84 @ 140 c/c					
	2 x 44 x 1.20 x 0.395	2			41.71 "
bottom L 124 @ 140 c/c					
	2 x 44 x 1.50 x 0.888	2			117.22 "

Continuation

79971 kg

18/12/23
AE/SE

18/12/23
AE

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Particulars	Details of actual measurement				Contents of area B.H.
	No.	L.	B.	D.	
					795.71kg
100 dia @ 20 rods					
4 x 15 x 6.00 x 0.617 =					222.12
Top corner bar @ 14 rods					
2 x 44 x 1.50 x 0.617 =					81.44 "
Top haunch 8 @ 14 rods -					
2 x 44 x 1.20 x 0.395 =					41.71 "
					1144.98 kg
(9) Estw in excavation for road work					
change	Cut Area	Avg	Dist	Volume	
0 to 25	0 + 0.16	25	25	200	2.00
225-250	0.02 + 0.12	25			1.75
250-275	0.12 + 0	25			1.50
350-375	0.08 + 0.05	25			1.62
400-425	0.06 + 0.06	25			1.50
600-625	0 + 0.90	25			11.25
625-650	0.90 + 1.00	25			23.75
650-675	1.00 + 0.40	25			17.50
675-700	0.40 + 0.36	25			9.50
700-725	0.36 + 0.70	25			13.25
725-750	0.70 + 0.70	25			17.50 "
750-775	0.70 + 0.80	25			18.75 "
775-800	0.80 + 0.70	25			18.75 "

Continuation

138.62
73

Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
(10) Removal of un-suitable soil with disposal upto 1500mm					
2-D.P. of item (9)					
ie 20 ft of 138.62					
2		27.72 m ³			
(11) Centre of embankment with material obtained from road way cutting					
Qty = item 9 - item 10					
= 138.62 - 27.72					
2		110.90 m ³			

(12) S/F/R (R/S/D) bar reinforcement in Super structure

Top slab - Bottom 120 @ 125 c/c				
49 x 2.70 x 0.888	=	117.48		
Bottom 100 @ 140 c/c				
46 x 2.70 x 0.617	=	73.30		
100 binder @ 250 c/c				
2 x 14 x 6.00 x 0.617	=	103.66		
Cham 120				
20 x 2.00 x 0.898	=	35.52		
Parapet - 100 mm				
2 x 14 x 1.75 x 0.617	=	30.23		
80 binder 2 x 6 x 2.40 x 0.395	=	11.38		
				371.53

ie 0.370 MT

Continuation

21/12/23
ALG

21/12/23
ALG

Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
(13) Plv Rcc M-25 in Sub-structure.					
Bottom slab	1	6.00	2.50	0.25	3.75 m ³
Side wall	2	6.00	2.50	0.25	7.53 m ³
Launch	4	6.00	1/2 x 0.15 x 0.15	0.27	
					11.55 m ³
					ie 11.55 m ³

(14) Plv weep hole at all ang.					
					3 ENH

(15) Plv R.C.C M-25 in Super-structure.					
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Top slab	1	2.50	6.00	0.25	3.75 m ³
Kerbs	2	2.50	0.25	0.50	0.63

					4.38 m ³
					ie 4.38 m ³

(16) Plv pcc m-20 in Substructure					
R/Wall	4	2.32	1.162 + 0.40	1.78	16.24 m ³
			2		
					ie 16.24 m ³

(17) Plv filter material at all comp.					
Behind boxcan	2	4.61	0.60	1.75	9.68 m ³
Behind R/Wall	4	2.32	0.60	1.87	10.41 m ³
					20.09 m ³
					ie 20.09 m ³

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Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
(18) Back filling behind abutment					
	2	2.92	5.20	0.20	6.07 m ³
	2	2.92	4.61	1.783 1.783	48.09
Less for 1st term of leg width (17)					20.09
					33.98
					m ³
					re-33.98 m ³
(19) p/r drainage abutment					
					0.4 m ³
(20) construction embankment do-					
					all comp.

chainage	Area	Mean Area	Dist		Volume
(m)	(m ²)	(m ²)	(m)		(m ³)
0	3.642	—	—	—	—
50	1.950	2.796	50	—	139.80
100	1.105	1.528	50	—	76.375
150	1.115	1.110	50	—	55.500
200	1.097	1.106	50	—	55.300
250	1.130	1.114	50	—	55.675
300	1.053	1.092	50	—	54.575
350	1.151	1.102	50	—	55.100
400	1.429	1.290	50	—	64.500
450	1.555	1.492	50	—	74.600
500	2.993	2.274	50	—	113.700
550	2.641	2.817	50	—	140.850

Continuation

Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
600	3.084	2.863	50	-	143.125
650	2.932	3.008	50	-	150.400
700	2.930	2.931	50	-	146.550
750	3.057	2.994	50	-	149.675
					<u>1475.725</u>
1) 100 m lead					
2 50% of 1475.725 = 1180.58 m ³					
ii) 1000 m lead					
20% of 1475.725 = 295.145 m ³					
<u>29/12/23</u> AE/BC <u>29/12/23</u> AE					

(21) Contents of subgrade & earth shoulder					
Flexible pavement portion					
Subgrade - $10 \times 30.00 \times (7.10 + 8.30) / 2$					
$10 \times 30 = 698 = 0$					
$8 \times 30.00 \times 7.70 \times 0.30 = 554.40$					
<u>1247.40</u>					
ie 1247.40 m ³					
<u>02/10/2024</u> AE/BC <u>21/11/24</u> AE					
(22) Contents of GSB G-1					
Flexible pavement portion					
4	30.00	4.05	0.200		97.20 m ³
4	30.00	4.05	0.200		97.20
4	30.00	4.05	0.200		97.20
<u>291.60 m³</u>					

Continuation

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Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
					291.60 m ³
Pave Portion					(A)
Widening	2x	6x30m	x0.875	x0.100	31.50
	2x	1x20m	x0.875	x0.100	3.50
Profile correction					
	4	5.00	1.20	0.100	2.40
	6	1.50	0.60	0.200	2.88
	2	8.00	0.30	0.15	2.16
	1	20.00	2.00	0.100	4.00
	1	16.00	1.50	0.100	2.40
	2	4.00	1.80	0.15	2.16
					51.00 m ³
Total (A) + (B)					342.60 m ³
(23) Paving & spreading					
Compacting & WBM					4x3
Pave Portion	6	30.00	3.75	0.075	50.63 m ³
	1	20.00	3.75	0.075	5.62
Curve -	2x15m	x0.60 (av)	x0.075		1.35
					57.60 m ³
(24) Contn of Pave Portion					
M-30					150
	6	30.00	3.75	0.160	108.00 m ³
	1	20.00	3.75	0.160	12.00
					120.00 m ³

Continuation

Continuation

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Particulars	Details of actual measurement				Contents of area B/F
	No.	L.	B.	D.	
					249762
(4) Dismantling Brick masonry					
Qty in TMB p/2 item (3) (6)					
39.60 m ³ @ 773.10/m ³					306152
(5) Removing all types of					
UP. (600 to 900 mm dia)					
Qty in TMB p/2 item (3) (C)					
10.00 m @ 349.80/m					34982
(6) Excavation in soil using					
hydraulic excavator					
Qty in TMB p/4 item (5)					
Limited 13840 m ³					
138.62 m @ 103.96/m ³					143882
(7) Removal of unutilized					
soil					
Qty in TMB p/5 item (3) (C)					
27.72 m ³					
27.68 m @ 103.96/m ³					28782
Limited 27.68 m ³					
(8) Contn of embankment					
with material obtained from					
Roadway cutting					
Qty in TMB p/5 item (11)					
2110.90					
Qty. Fed to 110.72 m ³					
@ 83.71/m ³					92682
					856142

Continuation

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Particulars	Details of actual measurement				Contents of area B/F
	No.	L.	B.	D.	
					8561420
⑨ Contr of embankment do					
upto 100 m lead					
Qty used TMB P/B item ②①					
1180.58 m ³ @ 217.07 / m ³					25626920
⑩ Contr of embankment do					
upto 1000 m lead					
Qty used TMB P/B item ②①					
295.145 m ³ @ 267.79 / m ³					7903720
⑪ Contr of subgrade /					
Shoulder					
Qty used TMB P/B item ②①					
1247.40 m ³ @ 1247.40 m					
4 " " @ 10 item ②① = 190.80					
					1438.20 m ³
@ 438.03 / m ³					62997520
⑫ Contr of h/s B for I					
Qty used TMB P/B item ②②					
342.60 m ³ @ 2813.02 / m ³					96374120
⑬ PIV, laying & spreading					
Compacting do wsm 4m-3					
Qty used TMB P/B item ②③					
57.60 m ³ @ 4082.63 / m ³					23515920

Continuation

224979520

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Particulars	Details of actual measurement				Contents of area $\frac{B}{L}$
	No.	L.	B.	D.	
					122497952
(14) Contn of un-reinforced					
17 Rec pavement m-30.					
Qty incl TMB P/B item (24)					
120.00 m ³ @ 8	7472.87	m ³			8967442
(15) E/W in excavation for					
30 foundn of structure.					
Qty incl TMB P/2 item (4)					
110.21 m ³ @ 8	398.64	m ³			43932
(16) P/V Rec m-15 in sub-structure					
34 Qty incl TMB P/2 item (5)					
7.92 m ³ @ 8	63957.6	m ³			506542
(17) P/V Rec m-20 in					
34 open foundn					
Qty incl TMB P/3 item (7)					
33.40 m ³ @ 8	7236.01	m ³			241683
(18) P/V Rec m-25 in super					
35 structure.					
Qty incl TMB P/3 item (15)					
4.38 m ³ @ 8	9138.33	m ³			400282
(19) SLEP HYSD bar reinforcement					
in foundn					
Qty incl TMB P/2 item (8)					
0.16 MT @ 800	34.16	MT			128052
					35356412

Continuation

Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
					35356410
(20) S/F/R HYSD bar reinforcement 37 in sub structure.					
Qty vide TMB P/4 item (8)					
1.140 MT @ Rs 80257.72/MT					914940
(21) S/F/R HYSD bar reinforcement 38 in superstructure.					
Qty vide TMB P/5 item (12)					
0.380 MT @ Rs 81815.45/MT					310900
(22) P/R/R m-20 in Substructure 39 Qty vide TMB P/6 item (16)					
16.24 m ³ @ Rs 7879.90/m ³					1279700
(23) P/R weep hole 40 Qty vide TMB P/6 item (14)					
36 Nos @ Rs 153.13/each					551300
(24) P/R R/R m-25 in sub- 41 structure.					
Qty vide TMB P/6 item (13)					
11.55 m ³ @ Rs 8600.76/m ³					993390
(42) Back filling behind Abutment & Ret wall					
Qty vide TMB P/7 item (18)					
33.98 m ³ @ Rs 996.15/m ³					3384900
					392489600

Continuation

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Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
				13	3924836
(26) PR & laying filter					
43 m ²					
obj vide TMB P/6 item (17)					
20.09 m ³ @ 13278.98/m ³				13	6587520
(27) PR drainage spot					
46					
obj vide TMB P/7 item (19)					
04 Nos @ 1525.63 each					610220
					39968732
Laborers 1/2				20	399692
cut 184				20	71943720
				13	475627900
				(13)	
Seigniorage Tax					
1433.20 x 68.10 x 0.10					97942
(1) item (1) 1430.55 x					
Item (12) 342.60 x 870.25 x 0.102					298152
Item (13) 57.60 x 1434.24 x 0.102					82612
Item (14) 12000 x 1671.32 x 0.102					128562
Item (16) 7.92 x 1216.67 x 0.102					96422
Item (17) 33.40 x 1126.46 x 0.102					37622
Item (22) 16.24 x 1126.46 x 0.102					182922
Item (18) 4.38 x 1126.46 x 0.102					49322
Item (24) 11.55 x 1126.46 x 0.102					130122
					690752
				(6)	
APP 2				475627900	
				6907522	48253542

Continuation

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