

127/20-21

ଅନ୍ତର୍ଗତୀ. ଓ ଡିପା

N/S R.S Construction

(mmhsg)

(NIDB)

Measurement Book

Schedule XLV-Form No. 134

ଅନ୍ତର୍ଗତୀ

DIVISION

ଅନ୍ତର୍ଗତୀ

SUB-DIVISION

ଅନ୍ତର୍ଗତୀ ଓ ଡିପା

Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
rod and to drill					
Named work is to be done to Tella					
Agency is M/S R.S. Construction					
Agg. No. is 46 SBO/2020-2021					
Date of W. order is 17/9/20					
Date of Completion is 16/9/21					
Agg. Amount is Rs. 7,57,447.80 = 0					
Rs. 0.03 %					

Measurement					
① R/W in excavation for structure as per					
Spal - dr. B/E.					
Ref	1	1.50	6.0	0.79	= 7.07 m ³
	2	8.10	0.30	1.80	= 8.75 m ³
Qty for 2 Nos cul				Qty	= 15.82 m ³
2 x 15.82 m ³					= 31.64 m ³
② Sand filling in form					
on the de - de well - ch					
	1	1.50	6.0	0.10	= 0.90 m ³
	2	8.10	0.30	0.10	= 0.49 m ³
Qty for 2 Nos cul				Qty	= 1.39 m ³
					= 1.39 m ³

Continuation

Qty = 2.78 m³

Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
③ P.C.C. Mis information etc etc - all - job	1	1.50	6.0	0.10	$= 0.90 m^3$
Qty for 2 Nos					$0.90 m^3$
					$2 \times 0.90 m^3 = 1.80 m^3$
④ P/V R.C.C. M ₂₅ Concrete in open box cell component etc etc - all - job	1	1.50	6.0	0.21	$= 1.89 m^3$
Qty	1	1.50	6.0	0.21	$= 1.89 m^3$
Abutment	2	1.0	6.0	0.25	$= 3.0 //$
Deep slab	1	1.50	6.0	0.21	$= 1.89 //$
Parapet	2	1.50	0.25	0.60	$= 0.145 //$
Detail work	2	8.10	0.30	1.50	$= 7.29 //$
Haunch	2	0.10	0.10	6.0	$= 0.12 //$
Total Qty = 14.64 m ³					
for 2 Nos culvert					
$2 \times 14.64 m^3 = 29.28 m^3$					
⑤ Back filling behind Abutment etc etc - soil	2	6.0	1.0	0.60	$= 7.20 m^3$
Qty for 2 Nos culvert					$(+) 7.20$
⑥ Subgrading filling for and placing H.R.D bar etc etc - all - job					$Qty = 14.40 m^3$
(1) 8 mm ϕ	21	6.0			$= 126 m$
					$20.40 kg/m = 50.40 kg$

Continuation

⑥ O/F @ $\frac{1}{2}$ 30.4 = 15.2

(22) 10 m m ϕ :

$$\text{Raft} = 2 \times 65 \times 5.50 = 715.0 \text{ m}$$

$$\text{Abut} = 2 \times 15 \times 6.0 = 180.0 \text{ m}$$

$$\text{R/W} = 2 \times 15 \times 4 \times 1.90 = 228.0 \text{ m}$$

$$4 \times 2 \times 15 \times 1.95 = 234.0 \text{ m}$$

$$84 \times 2.80 = 235.0$$

$$1592.0 \text{ m}$$

$$\text{@ } 0.62 \text{ kg/m} = 987.04 \text{ kg}$$

$$1037.44 \text{ kg}$$

$$5\% \text{ Add for wastage (+) } 51.87 \text{ kg}$$

$$1089.3 \text{ kg}$$

$$= 1.089 \text{ MT}$$

Hence Qty for 2 Nos culvert

Continuation

Scanned by CamScanner

Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
<u>Further Measurement</u>					
<u>Date of measurement:</u>					
① <u>Painting of concrete</u>					
<u>Surface etc etc - 15</u>					
	2x25	30.0	0.10	-	= 150.0 m ²
					<u>Qty = 150.0 m²</u>
② <u>Road Marking with hot</u>					
<u>applied thermoplastic paint etc</u>					
<u>etc etc all complete job</u>					
	2x32	30.0	0.10	-	= 192.0 m ²
	2x32	30.0	0.10	-	= 192.0 m ²
	2x25	30.0	0.10	-	= 150.0 m ²
					<u>Qty = 534.0 m²</u>
③ <u>P/V & F/F MMS sign</u>					
<u>board & main frame sign</u>					
<u>board etc etc - 1 job</u>					
					<u>Qty = 0 Nos</u>
					<u>01 Nos</u>
④ <u>P/V & F/F maintenance</u>					
<u>sign boards etc etc - 1 job</u>					
					<u>Qty = NIL</u>
					<u>02 Nos</u>
⑤ <u>P/V & F/F 600 mm square</u>					
<u>val bangle etc etc - 1 job</u>					
					<u>Qty = NIL</u>
					<u>01 Nos</u>

Continuation

Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
⑥ P/W F/F 600 mm					
Carules sign board etc					
					Rs = NIL

⑦ Laying brick sealing in layer on prepared subgrade etc etc etc					
	2x85	30.0	0.25m		= 375.0 m ²
					Rs = 375.0 m ²

⑧ Excavation for road Width etc etc etc					
	2x3	30.0	0.5m	0.10	= 9.45 m ³
	2x1	10.0	0.525	0.10	= 1.05 m ³
	2x3	30.0	0.375	0.10	= 6.75 m ³
					Rs = 17.25 m ²

⑨ Earth work filling in road in subgrade grade etc from R/W etc sheet by 4/dec/5 method etc etc					
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SN	ch. (m)	Area (m ²)	Mean Area (m ²)	Distance (m)	Rs (m ³)
1	0.0	0.0	-	0.0	-
2	50.0	0	0	50.0	-
3	100.0	0	0	50	-
4	150.0	1.624	4.182	50	240.06

Continuation

Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
574	Ch	Area (M ²)	Mean Area (M ²)	Depth (M)	Volume (M ³)
5	200.0	1.875	5.7459	50	287.295
6	250.0	0.416	3.1455	50	157.275
7	300.0	0.26	4.3338	50	216.90
8	350.0	2.277	3.247	50	162.35
9	400.0	0.182	4.3712	50	218.56
10	450.0	0.361	3.4215	50	171.075
11	500.0	0.86	4.0657	50	203.285
12	550.0	2.123	5.4915	50	274.575
13	600.0	0.293	5.208	50	260.40
14	650.0	0.949	4.621	50	231.05
15	700.0	5.425	3.187	50	159.35
16	750.0	2.923	4.174	50	208.70
17	800.0	1.883	3.403	50	170.15
18	850.0	1.35	5.6472	50	282.36
19	900.0	0.042	4.1792	50	208.41
20	950.0	2.279	3.8983	50	194.915
21	1000.0	0.819	4.549	50	227.45
22	1050.0	0.897	5.858	50	292.90
23	1100	1.549	4.223	50	211.15
24	1150	0.004	5.775	50	288.75
25	1200	0.362	4.0183	50	200.915
26	1250	4.867	5.6145	50	280.725
27	1300	2.737	3.802	50	190.10
28	1350	1.165	4.951	50	247.55
29	1400	1.618	3.795	50	169.575
30	1450	0.258	5.938	50	296.90

Continuation

S.N	Particulars	Details of actual measurement				Contents of area
		No.	L.	B.	D.	
	Ch. (M)	Area (M ²)	Area (M ²)	Area (M ²)	-	Volume (M ³)
31	1500	2.1173	3.9872	50.10		199.36
32	1550	0.391	4.282	50		214.10
33	1600	0.382	3.894	50		194.70
34	1650	2.092	5.278	50		263.90
35	1700	4.609	4.82	50		241.0
36	1750	1.987	5.298	50		264.90
37	1800	4.751	3.369	50		168.450
38	1850	4.499	4.625	50		231.250
39	1900	3.082	5.7905	50		289.502
40	1950	1.213	4.65	50		232.50
41	2000	2.751	4.983	50		249.15
42	2050	2.653	5.072	50		253.60
43	2100	2.859	3.256	50.0		162.80
44	2150	2.081	4.95	50		247.50
45	2200	3.598	5.8395	50		291.975
46	2250	2.849	3.7235	50		186.175
47	2300	5.74	4.8945	50		229.725
48	2350	5.492	5.416	50		270.80
49	2400	3.166	4.329	50		216.45
50	2450	5.149	4.1515	50		207.875
51	2500	4.892	5.0205	50		251.025
52	2550	5.464	5.978	50		298.90
53	2600	5.757	5.6105	50		280.525
54	26680	3.636	4.696	68.0	-	319.362
(A)	Total Area =					11818.80m

Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
(B) for Deduction: Roadway					
(2) for G.S. B = (-) 1780.01 m ³					
(22) W.B.M. G.I.D. = (-) 757.41 m ³					
(222) for Sailing = (-) 146.97 m ³					
(2V) for C.C. Pav. = 454.90 m ³					
(V) for M.C. Cul. = 145.44 m ³					
(B) Total Deduction: (-) 3184.44 m ³					
Net R/W: (A - B) = 8634.76 m ²					
9(2) R/W Qty in Embankment					
185					
for lead = 1000 m					
30 X 2700 m ³ = 810.0 m ³					
100					
Qty = 810.0 m ³					
9(22) R/W in road embankment					
186					
for lead = 100 m					
70 X 2700 m ³ = 1890.0 m ³					
100					
Qty = 1890.0 m ³					
9(222) R/W Qty for Subgrade					
186					
Sanction shoulder =					
[8634.76 - (810 + 1890)] m ²					
= 5934.46 m ²					
Qty = 5934.46 m ³					
10) Planting of tree by road					
side of the road					
Qty = 191 Nos					
22/10/21					
25/6/21					
A-S					

3rd & Final Bill (Construction work complete) 27

Sch. XLV-Form No. 134

Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	

ABSTRACT OF COST

① Construction of Reference Pillar

T82

Surveying benchmark etc

Atg wide Tm B P - 14

2.67 Km @ Rs. 9988 = 26710.76, 26669 = 0

② Construction of Reference Pillar

T83

etc etc - do - all - 15

Atg wide Tm B P - 14

2.67 Km @ Rs. 9711 = 25929.57, 2543 = 0

③ Clearing & grubbing road

T84

land etc etc etc etc

Atg wide Tm B P - 14

Item No 21

0.80 Hect @ Rs. 49486 = 39588.80, 39597 = 0

④ Construction of road

T85

2m bukm + etc etc etc

Atg wide Tm B P - 26

810.0 m @ Rs. 174 = 141120.00, 141612 = 0

⑤ Construction of sub

T86

grade & construction should

etc etc - do - all - 15

Atg wide Tm B P - 26

Continuation

Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
5934.40 m ² @ 176=411/m ²					1047243=00
(6) Construction of road 167 embankment with level 100 m etc etc H/W = 5m P-26					
1890.00 m ² @ 179=61/m ²					263863=00
(7) E/W excavation for 198 road way by manual means etc etc - job					
H/W = 5m P-23					
17.25 m ³ @ 74=10/m ³					1278=00
(8) Laying base leveling 199 in station etc etc - job					
H/W = 5m P-23					
7 km 710 (7)					
375.00 m ² @ 471=171/m ²					176726=00
(9) Construction of granular 190 subbase with well graded material etc etc - job					
H/W = 5m P-14					
7 km No (6)					

Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	

1780.02 m³ @ 2744.42/m³ 4885122=0

(10) P/V (casing stone) metal

Q-177 Consolidation R

Atg wide TMBP-14

Item No (7)

757.61 m³ @ 3422=79/m³ 2593140=0

(11) P/V unrammed c. c.

Random uniform etc

Atg wide TMBP-14

Item No (8)

454.50 m³ @ 735=85/m³ 3243289=0

(12) P/V F/F ordinary

Km Post etc do - job

Atg wide TMBP-15

Item No 15(2)

3 No @ 2438=82/No R 7318=0

(13) P/V F/F 2nd m stone

Post etc do - job

Atg wide TMBP-15

11 No @ 6400=6/No R 7046=00

(14) P/V F/F Boundary R

Continuation

C.O. R 12A35444=07

Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
etc do - all job					
At wide TMBP-15					
53 Nos @ R, 513=65/No R, 27223=0					
(15) Painting of two coat on new surface etc					
At wide TMBP-21					
44.64 m ² @ R, 96=40/m ² R, 4303=0					
(16) P/V & applying two coat water based cement paint etc					
At wide TMBP-22					
Area No (1)					
150.0 m ² @ R, 90=30/m ² R, 13545=0					
(17) P/V & applying of hot applied to wall plaster etc					
At wide TMBP-22					
534.0 m ² @ R, 735=40/m ² R, 392704=0					
(18) P/V & P/F M.M.C.S X typical information sign board etc					
At wide TMBP-15, 22					
(2+1)=3 Nos					
@ R, 11371=27/No R, 34116=0					

Continuation

Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
($\frac{19}{205}$) P/V L F/F typical Maintenance Stop door etc do do do Qty wide TMBP-15 2 Nos @ R 1137.87/No R, 22744=0					
($\frac{20}{206}$) P/V L F/F 600mm equalateral triangle etc Qty wide TMBP-15 2 Nos @ R 3674.04/No R, 73481=0					
($\frac{21}{207}$) P/V L F/F 600mm circular band etc Qty wide TMBP-15 12 Nos @ R 4988.0/No R, 59857=00					
($\frac{22}{208}$) P/V L F/F 600mm x 450mm Rectangular etc Qty wide TMBP-15 2 Nos @ R 1299.18/No R, 8596=0					
($\frac{23}{209}$) 900mm side orthogon etc do do all etc Qty wide TMBP-15 2 Nos @ R 8256.03/No R, 16512=0					
($\frac{24}{210}$) P/V L F/F NP ₂ frame					

Continuation

B/F R, 13988525=0

32

Sch. XLV-Form No. 134

Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
Pipe 300 mm ϕ - 16					
At wide TMBP - 16					
52.50 m @ R 741 = 97/m					38953=0
(25/211) Planting of trees by two round circle each 16					
At wide TMBP - 26					
191 Nos @ R 800 = 30/m					152857=0
Content					
(26/212) R/W excavation in foundation trench, etc					
do do all - 16					
At wide TMBP - 16, 18					
(15.82 + 31.64) m ³					
47.46 m ³ @ R 260 = 59/m ³					12368=0
(27/213) Local sand filling in foundation etc do - 16					
At wide TMBP - 16, 18					
(1.362 + 2.78) m ³					
4.142 m ³ @ R 297 = 34/m ³					1646=0
(28/214) P/V R.C.C M/s in foundation etc do - 16					
At wide TMBP - 16, 18					
(0.90 + 1.80) m ³					

Continuation

Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
2.70 m ³ @ 5916 = 31/m ³					15974=0
(²⁹ / ₂₁₅) P/V 16.9 m ³ R.C.C					
M2 in Base Coll. etc					
Ats wide TMBP-16, 19					
(14.64 + 29.28) m ³					
43.92 m ³ @ 7545 = 32/m ³					3313900
(³⁰ / ₂₁₆) Buep filling behind					
Ats wide TMBP-16, 19					
(7.2 + 14.4) m ³					
21.60 m ³ @ 2603 = 64/m ³					56282=0
(³¹ / ₂₁₇) P/V 16.9 m ³ R.C.C					
Ats wide TMBP-16, 19					
(1.0 + 2.0) No. = 30 No.					
@ 83 = 39/No					2501=0
(³² / ₂₁₈) P/V 16.9 m ³ R.C.C					
bar eir' luting cutters					
banding, Placing etc					
Ats wide TMBP-16, 19, 21					
(1.08 + 2.17) MT					
3.25 MT					
3.24 MT @ 53317 = 65/MT					172749=0
					R 13873245=0

Continuation

Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
(33) P/vr applying Premix 192 Cont with AC, etc with					
Qty wide TMBP-15					
Item No (12)					
7272.10 m ² @ R. 41 = 46/m ² R. 3,01,497.0					
(34) P/vr applying tack 193 Cont with AC, etc with					
Qty wide TMBP-15					
Item No (13)					
7272.10 m ² @ R. 14 = 05/m ² R. 1,02,172.0					
(35) P/vr applying Mix 194 Seal surfacing etc					
Qty wide TMBP-15					
Item No (14)					
7272.10 m ² @ R. 203 = 63/m ² R. 1,48,079.7=0					
R. 1,57,577.11=0					
Add for G.S.T @ 12% (H) R. 1,89,092.5=0					
Add L.C.B.S.S @ 1%. (H) R. 1,57,577=0					
R. 1,78,06,213=0					
0.03% Less for Deduct					
Rate as per App. (H) R. 53,42=0					
R. 1,78,00,871=0					
Less for Previous Payment					
Wide TMBP-10					
Voucher No - Dt - 12/1/2016 R. 1,29,16,748=0					
R. 49,84,123=0					

Continuation

Construction work has been complete as per S.I. - 4 - B.I.T at D-22/10/02. Further maintenance work is not after this date.

(i)	R/W	$\div 2465.43 \text{ m}^3$
(ii)	Boulevard	$\div 20175 \text{ No.}$
(iii)	Local sand	$\div 28.60 \text{ m}^3$
(iv)	Coarse sand	$\div 13.96 \text{ m}^3$
(v)	Stone Aggr.	$\div 27.97 \text{ m}^3$
(vi)	Cement	$\div 10.58 \text{ MT}$
(ix)	Steel	$\div 2.17 \text{ MT}$

22/10/21