

1st and final bill

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

1. clearing & grubbing road land - - do - -			
$2 \times 100 \times 2.5 \times 1.0 = 5000 \text{ m}^2$			
$= \frac{5000}{10000} \text{ m}^2 = 0.50 = 0.50 \text{ hect}$			
2. construction of subgrade and earthen shoulder			
- - do - -			
$2 \times 40 \times 2.5 \times 0.70 \times 0.30 = 420 \text{ m}^3$			3
$2 \times 60 \times 2.5 \times 0.70 \times 0.30 = 630 \text{ m}^3$			
			total
3. const. of granular subbase			1050 m ³
- - do - -			m ³
$8.45 \times 2.93 \times 0.175 = 4.333 \text{ m}$			3
$12.54 \times 2.93 \times 0.175 = 6.430$			3
$6.57 \times 2.25 \times 0.175 = 2.587 \text{ m}$			3
Continuation			

Continuation

Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
11.23 m X 2.93 X 0.175 =					5.752 m ³
10.97 m X 3.38 X 0.175 =					6.489 m ³
24.07 m X 1.80 X 0.175 =					7.582 m ³
16.49 m X 2.12 X 0.175 =					6.118 m ³
10.97 m X 2.03 X 0.175 =					3.897 m ³
5.59 m X 2.25 X 0.175 =					2.201 m ³
10.0 m X 3.20 X 0.175 =					5.600 m ³
5.76 m X 3.20 X 0.175 =					3.226 m ³
19.14 m X 2.25 X 0.175 =					7.536 m ³
16.78 m X 3.11 X 0.175 =					9.133 m ³
6.13 m X 1.35 X 0.175 =					1.448 m ³

5.76 m X 2.75 X 0.175 =					2.772 m ³
11.23 m X 4.80 X 0.175 =					5.404 m ³
8.33 m X 2.93 X 0.175 =					2.624 m ³
5.76 m X 2.84 X 0.175 =					2.953 m ³
16.78 m X 2.93 X 0.175 =					8.340 m ³
12.74 m X 2.93 X 0.175 =					6.532 m ³
22.04 m X 2.03 X 0.175 =					7.830 m ³
Total					108.793 m ³

1/2 BM - 88 - II

4) Providing, laying, spreading and compacting stone aggregates - also -

9.45 m X 2.97 m X 0.075 =					2.105 m ³
13.54 X 2.97 X 0.075 =					3.016 m ³
7.57 X 2.29 X 0.075 =					1.300 m ³
12.23 X 2.97 X 0.075 =					2.724 m ³

Continuation

Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
11.97 x 3.42 x 0.075 =					3.070
25.07 x 1.84 x 0.075 =					3.460
17.49 x 2.16 x 0.075 =					2.833
11.97 x 2.07 x 0.075 =					1.858
6.59 x 2.29 x 0.075 =					1.132
11 x 3.24 x 0.075 =					2.673
6.76 x 3.24 x 0.075 =					1.643
20.14 x 2.29 x 0.075 =					3.459
17.78 x 3.15 x 0.075 =					4.201
7.13 x 1.39 x 0.075 =					0.743
6.76 x 2.79 x 0.075 =					1.415
12.23 x 2.79 x 0.075 =					2.559
9.33 x 1.84 x 0.075 =					1.288
6.76 x 2.97 x 0.075 =					1.506
17.78 x 2.88 x 0.075 =					3.840
13.74 x 2.97 x 0.075 =					3.061
23.04 x 2.07 x 0.075 =					3.577
16.80 x 3.15 x 0.075 =					3.969
6.06 x 2.29 x 0.075 =					1.041
23.35 x 3.24 x 0.075 =					5.674
23.35 x 2.29 x 0.075 =					4.010
				Total	66.157 ³
(5) WBM gr-TII					
Providing, laying, spreading					
and compacting stone aggregates					

Continuation

Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
of specific size to					
water bound bound macadam					
- do -					
11.65m x 2.92m x 0.075m					2.551m ³
15.74 x 2.92 x 0.075					3.447
9.77 x 2.24 x 0.075					1.641
14.43 x 2.92 x 0.075					3.160
14.17 x 3.37 x 0.075					3.581
27.27 x 1.79 x 0.075					3.661
19.69 x 2.11 x 0.075					3.116
14.17 x 2.02 x 0.075					2.147
8.79 x 2.24 x 0.075					1.477
13.20 x 3.19 x 0.075					3.158
8.96 x 3.19 x 0.075					2.144
22.34 x 2.24 x 0.075					3.753
19.98 x 3.10 x 0.075					4.645
9.33 x 1.34 x 0.075					0.938
8.96 x 2.74 x 0.075					1.841
14.43 x 2.74 x 0.075					2.965
11.53 x 1.79 x 0.075					1.548
8.96 x 2.92 x 0.075					1.962
19.98 x 2.83 x 0.075					4.241
15.94 x 2.92 x 0.075					3.491
25.24 x 2.02 x 0.075					3.824
19.0 x 3.10 x 0.075					4.418

Continuation

Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
8.26 m x 2.24 m x 0.075 m					1.388 m ³
25.55 m x 3.19 m x 0.075 m					6.113 m ³
25.55 m x 2.24 m x 0.075 m					4.292 m ³
11.65 m x 2.92 m x 0.075 m					2.551 m ³
20.39 m x 3.37 m x 0.075 m					5.154 m ³
19.98 m x 1.79 m x 0.075 m					2.682 m ³
36.39 m x 2.11 m x 0.075 m					5.759 m ³
7.34 m x 2.50 m x 0.075 m					1.376 m ³
			Total		93.025 m ³

⑥ Prime coat

Providing and applying primer coat with bitumen emulsion

Area for prime coat

is same as area

used for WBM gr-10

if P-⑤ item - ⑤

$$\frac{93.025}{0.075} = 1240.33$$

⑦ Tack coat

Providing and applying tack coat with (RS-1) emulsion

Area used for tack coat

Continuation

is same as area used for prime coat +

$$(2 \times 20 \times 3.75)$$

$$= (1240.33 + 150) = 1390.33$$

limit to 1382.83 m²

Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
3) Patch work over WBM using mss -- do --					
Providing, laying and rolling of mss -- do --					
Area used for mss is same as area used for tack coat					
P- (5) item - (7) =					1382.83 m ²
4) Tack coat Providing and applying tack coat with RS-1					
1900 x 25 x 3.75					8437.50 m ²
10 x 20 x 3.80					760 m ²
1 x 25 x 3.50					87.50 m ²
1 x 25 x $\left(\frac{3.5 + 4.0}{2}\right)$					102.50 m ²
					95.00 m ²
				Total	9380 m ²
				Limit to	9375 m ²
10) Providing and laying semi- dense bituminous concrete -- do --					
Area used for SDBC is same as area used for tack coat P- (6)					
item - (9) =					9375 m ²
∴ ont 2 9375 m ² x 0.025 m =					234.375 m ³

Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
(11) Kilometer stone					
(i) km stone - ant =					4 NO.
(ii) 200m stone - ant =					10 NO.
(12) Direction and place identification signs					
do					
2 x 1.2 x 0.8					1.92m ²
(13) Providing & fixing of retro-reflective cautionary manditory					
do					
(i) 600mm equilateral triangle board					20 NO.
(ii) 600mm circular board					8 NO.
(iii) 600mm x 450mm rectangular board					8 NO.
do					
(14) Boundary pillar					
do					
ant =					60 NO.
(15) Planting of trees by the road side					
do					
ant =					125 NO.

Continuation

Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
(16) Road marking with hot applied Thermoplastic compound - do -					
$\frac{1}{2} \times [2 \times 100 \times 25 \times 0.10 = 500m^2]$					
(17) Providing and fixing of of typical masonry informatory sign board - do -					
				ent =	4 No.
(18) Brick masonry work in cement mortar - do -					
$\frac{1}{2} \times [2 \times 6.0 \times 0.40 \times 0.60 = 2.88m^3]$					
for five No. of culvert = $5 \times 2.88 = 14.40m^3$					
(19) Plastering with cement mortar - do -					
$\frac{1}{2} \times [4 \times 6 \times 0.60 = 14.40]$					
$\frac{1}{2} \times [2 \times 6 \times 0.40 = 4.80]$					
$\frac{1}{2} \times [4 \times 0.40 \times 0.60 = 0.960]$					
				total	20.160m ²
for 5 No. culvert					
				$5 \times 20.160 =$	100.80m ²

Continuation

Continuation

Abstract of cost

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Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
1. clearing and grubbing road					
Land — do —					
ent = 0.50 hect				P- (1)	
item - (1) @ Rs 49496.70/h					
				= Rs	24748=
2. const. of subgrade and					
earthen shoulder					
— — do —					
ent = 1050 m ³				P- (1)	
item - (2) @ Rs 176.96/m ³					
				= Rs	185808=
3. const. of granular subbase					
— — do —					
ent = 108.793 m ³				P- (2)	
item - (3) @ Rs 2300.10/m ³					
				= Rs	250235=
(4) WBM gr-II Providing, laying					
spreading - do -					
ent = 66.157 m ³				P- (3)	
item - (4) @ Rs 4283.43/m ³					
				= Rs	283379=
(5) WBM gr -III Providing, laying					
spreading - do -					
ent = 93.025 m ³				P- (5)	
item - (5) @ Rs 3827.98/m ³					

Continuation = Rs 356098=

Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
⑥ Prime coat					
Providing and applying primer coat					
ent =	1240.33	m ²	P- (5)		
item -	⑥	@ Rs 41.57/m ²			
			Rs	51561=	
⑦ Tack coat					
do					
ent =	1382.83	m ²	P- (5)		
item -	⑦	@ Rs 14.09/m ²			
			Rs	19484=	

⑧ Patch work over WBM					
using mss - do -					
ent =	1382.83	m ²			
P- (6) item -	⑧	@ Rs 229.05			
			Rs	316737=	

⑨ Tack coat					
do					
ent =	937.5	m ²	P- (6)		
item -	⑨	@ Rs 12.25/m ²			
			Rs	114844=	

⑩ Providing and Laying					
SDBC - do -					
ent =	234.375	m ³	P- (6)		

Continuation

item - ⑩ @ Rs 11059.86/m³
 = Rs 2592155=
 = Rs 2592155=

Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
(11) Kilometer stone					
(i) Km stone					
Qnt = 4 No. P- (7)					
Item - 11 (i) @ Rs 2303.50					
			= Rs		9214 =
ii) 200 m stone					
Qnt = 10 No. P- (7)					
Item - 11 (ii) @ Rs 634.78					
			= Rs		6348 =
(12) Direction & Place identification signs					
Qnt = 1.92 m ² P- (7)					
Item - (12) @ Rs 12361.12					
			= Rs		23733 =
(13) Providing & fixing of retro-reflective					
do					
(i) 600 mm equilateral triangle board					
Qnt = 20 No. P- (7)					
Item - 13 (i) @ Rs 3661.57/H					
			= Rs		73232 =
ii) 600 mm circular board					
do					
Qnt = 8 No. P- (7)					
Item - 13 (ii) @ Rs 3760.94					
			= Rs		30088 =

Continuation

Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
(iii) 600mm X 450mm rectangular board - do					
amt = 8 No. P- (7)					
itm - 13(iii) @ R 3631.82					
				= R	29055=
(14) Boundary pillar - do					
amt = 60 No. P- (7)					
itm - (14) @ R 507.81 =					
				R	30469=
(15) Planting of trees by the road side - do					
amt = 125 No. P- (7)					
itm - (15) @ R 800.30/H					
				= R	100037=
(16) Road marking with hot applied Thermoplastic compound - do					
amt = 500m ² P- (8)					
itm - (16) @ R 735.40/m					
				= R	367700=
(17) Providing and fixing of typical messy informatory sign board - do					

Continuation

Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
ent=	440	P-	(8)		
itm-	(17)	@ R _o	935	1.51	
			= R _o		37406=
(18) Brick masonry work in cement mortar					
		do			
ent=	14.40 m ³	P-	(8)		
itm-	(18)	@ R _o	5102.55		
			= R _o		73476=
(19) Plastering with cement mortar - do -					
ent=	100.80 m ²	P-	(8)		
itm-	(19)	@ R _o	148.85/m ²		
			= R _o		15004=
(20) Painting two coats on new concrete - do -					
ent=	292.80 m ²	P-	(9)		
itm-	(20)	@ R _o	95.63/m ²		
			= R _o		28000=
Total R _o					501881=
Add GST-12 %	+	(+)	R _o		602257=
Add Labour cost	1.1%	(+)	R _o		50188=
Total R _o					5671256=
Signed 06/01/2022 JE					
RPS 6-1-2022 AE					

Continuation