

शीलु MR-3054-पुनर्गठन वि. सरणी की 30-2-88
व. 27-1-88

Shedule XLV Form No. 134.

(Agreement No. 52 MBD/2020-21)

DIVISION

Executive Engin

BMW Works Division
Bokaro

SUB-DIVISION

Measurement Book

Madan Kumar Singh.

342

प्रमाणित किया जाता है कि इस मापीयुक्त में
कुल 100 (एक सौ) प्रक ममीन डाय भीडि
है/हमें श्री सुधीर कुमार, दण्डाधीन, कार्य
अथ प्रमाणित परलौनी के नाम से किया
किया जाता है

Executive Engin
RWD Works Division
07/10/2020

Sch. XLV-Form No. 134

DIVISION

SUB-DIVISION

MEASUREMENT BOOK

No. 342

Name of Officer

Date of first entry

Date of last entry

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.	
	1st on final Bill				

Name of Work: - Construction of Road
from Sakkhavli J. Chowk To Hira Sanhali

Agency: - Madan Kumar Singh

Package No: - MR-N/2013-2020 Beland/07
Under-3054 M/R Scheme

Agreement No: - S2MBD/2021

Date of Start: - 18.05.2020

Date of Completion: - 05.02.2021

Record Measurement: - 22.11.20

Date of Entry: - 22.11.20

(1/1) Clearing and Grubbing Road

Land as per drawing and

Specification - do - do -

E/I

$2 \times 162.5 \text{ m} \times 1.0 = 325.0 \text{ m}^2$

$= 0.33 \text{ Hect}$

(2/3) construction of granular sub-base

by well graded material.

$52 \times 2.5 \text{ m} \times 1.35 \times 0.175 = 30.71 \text{ m}^3$

$37 \times 2.7 \text{ m} \times 1.35 \times 0.175 = 23.60 \text{ m}^3$

$= 54.31 \text{ m}^3$

Limit $= 48.47 \text{ m}^3$

Continuation
22/11/20
J.E

Skomal
22/11/20
AK

Sch. XLV-Form No. 134

Particulars	Details of actual measurement			Contents of area
	No.	L.	B.	
Record Measurement 1	25.11.20			
Date of Entry Measurement 2	25.11.20			
(1/4) WBM Gr- 2				
Providing and laying spreading and compacting stone aggregates of specification do --- do				
E/I.				
45 Nos $3 \times 2 \cdot 5 \times 1 \cdot 5 \times 0 \cdot 075 =$				$12 \cdot 65 m^3$
88 Nos $1 \cdot 8 \times 1 \cdot 8 \times 1 \cdot 8 \times 0 \cdot 075 =$				$23 \cdot 20 m^3$
44 Nos $2 \cdot 4 \times 1 \cdot 75 \times 0 \cdot 075 =$				$13 \cdot 86 m^3$
				$= 49 \cdot 71 m^3$
				Limit $= 48 \cdot 29 m^3$
Summary				
25/11/20				

Record Entry Measurement 1	28.11.20			
Date of Entry Measurement 2	28.11.20			
(1/5) WBM Gr- 03				
providing and laying, spreading and compacting stone aggregates of specification of direction E/I.				
75 Nos $3 \times 2 \cdot 45 \times 1 \cdot 75 \times 0 \cdot 075 =$				$23 \cdot 62 m^3$
85 Nos $3 \times 2 \cdot 5 \times 1 \cdot 25 \times 0 \cdot 075 =$				$19 \cdot 92 m^3$
57 Nos $3 \times 2 \cdot 2 \times 1 \cdot 67 \times 0 \cdot 075 =$				$15 \cdot 70 m^3$
72 Nos $3 \times 2 \cdot 47 \times 1 \cdot 87 \times 0 \cdot 075 =$				$24 \cdot 94 m^3$
				$= 84 \cdot 18 m^3$
				Limit $= 81 \cdot 12 m^3$
Summary				
28/11/20				
AT				
Shiv				
28/11/20				
J.E				

Continuation

Sch. XLV-Form No. 134

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

Record Measurement 2-24 01.2.21

Date of Measurement 2-24 01.2.21

①/⑥ Providing and applying
primer coat with bitumen
emulsion (SS-1)

$$87 \times 3.92 \times 1.90 = 647.97 \text{ m}^2$$

$$55 \times 3.45 \times 1.87 = 354.83 \text{ m}^2$$

$$35 \times 2.42 \times 0.95 = 80.46 \text{ m}^2$$

$$= 1083.26 \text{ m}^2$$

$$\text{Limit} = 1081.60 \text{ m}^2$$

②/⑦ Providing and applying tack
coat with bituminous
Emulsion (RS-1)

$$87 \times 3.92 \times 1.90 = 647.97 \text{ m}^2$$

$$55 \times 3.45 \times 1.87 = 354.83 \text{ m}^2$$

$$35 \times 2.42 \times 0.95 = 80.46 \text{ m}^2$$

$$= 1083.26 \text{ m}^2$$

$$\text{Limit} = 1081.60 \text{ m}^2$$

9 in p.c.c surface :-

$$11 \text{ Nos} \times 2.5 \text{ m} \times 1.0 = 27.0 \text{ m}^2$$

$$= 1108.6 \text{ m}^2$$

③/⑧ Patch repairs work over WBM
using mix-sea 1-surface with
waste plastic for bituminous
and Existing C.C pavement.
do - - - do - - - E/I.

Continuation

Sch. XLV-Form No. 134

Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
87 Nos x	3.92	x	1.90	=	647.97m ²
55 Nos x	3.45	x	1.87	=	359.87m ²
35 Nos x	2.42	x	0.95	=	80.46m ²
				=	1083.26m ²
			Limit	=	1081.60m ²
gn p.c.c surface					
11 Nos x	2.5	x	1.02	=	27m ²
				=	1108.6m ²

5/9	Providing and applying				
	tack with bituminous				
	emulsion as per technical				
	and specification do				
	do -- E/I				

1x	16.25	x	3.75	=	60.937m ²
10x	30m	x	3.75	=	1125m ²
10x	30m	x	3.75	=	1125m ²
10x	30m	x	3.75	=	1125m ²
10x	30m	x	3.75	=	1125m ²
9x	30m	x	3.75	=	1012.50m ²
3x	30m	x	3.75	=	337.5m ²
1x	10m	x	3.75	=	37.5m ²
1x	5m	x	3.0	=	14.95m ²
1x	5m	x	3.4m + 3.25	=	16.25m ²
1x	10m	x	5.70m + 5.67	=	56.85m ²
1x	5m	x	3.75m + 5.5	=	38.125m ²
			Limit	=	2609.75m ²
5/10	Semi-Dense bituminous Concrete				
	providing and laying				

Continuation

Sch. XLV-Form No. 134

Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
bituminious concrete with 100-120 TPH					
batch type HMP producing as per drawing and specification of G/I.					
SDBC @ 1 = $60.83 \times 15m^3 \times 0.0252$					152.34m ³
					151.865m ³
(6/12) Km stone.					
1x3 = 3 Nos.					
(7/13) (ii) 20cm stone.					
1x6 = 6 Nos.					
(8/15) providing and fixing of retro-reflectorsised cautionary.					
1x4 = 4 Nos.					
(9/16) 600mm circular					
1x2 = 2 Nos.					
(10/17) 600mm x 450mm rectangular					
1x2 = 2 Nos.					
(11/18) Boundary pillar/Guard post.					
1x36 = 36 Nos.					
(12/21) Road marking with hot applied Thermoplastic Compound as per drawing and specification.					
2x $\frac{1620}{1625m} \times 0.10 = 325m^2$					324.00m ²
(13/22) providing and fixing Logo of typical MGSy informatory sign board.					
1x2 = 2 Nos.					
(14/23) Construction of sub-grade and earthen shoulder with approved materials. do do do G/I.					

Continuation

Sch. XLV-Form No. 134

Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
L.H.S side:-					
10x 30m x 0.70 x 0.30 =					63m ²
10x 30m x 0.70 x 0.30 =					63m ²
10x 30m x 0.70 x 0.30 =					63m ²
10x 30m x 0.70 x 0.30 =					63m ²
10x 30m x 0.70 x 0.30 =					63m ²
4x 30m x 0.70 x 0.30 =					25.2m ²
1x 5m x 0.70 x 0.30 =					1.05m ²
					= 341.22m ²
R.H.S side:-					
10x 30x 0.70 x 0.30 =					63m ²
10x 30x 0.70 x 0.30 =					63m ²
10x 30x 0.70 x 0.30 =					63m ²
4x 30m x 0.70 x 0.30 =					25.2m ²
1x 5m x 0.70 x 0.30 =					1.05m ²
					= 341.22m ²
L.H.S side + R.H.S side					
341.22m ² + 341.22m ² =					682.5m ²
15/23 Brick masonry in (13) in cement mortar in parapet.					
2x 6.0 x 0.40 x 0.60 =					2.88m ²
as for same 3 Nos culvert.					
2.88m ² x 3 Nos =					8.64m ²
16/24 plastering with cement mortar (14) on brick work in sub-structure.					

Continuation

Sch. XLV-Form No. 134

Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
Side face:-					
		$4.0 \times 6.0 \times 0.60$		$= 14.40 \text{ m}^2$	
Top:-					
		$2.0 \times 6.0 \times 0.40$		$= 4.80 \text{ m}^2$	
Front face:-					
		$4.0 \times 0.40 \times 0.60$		$= 0.960 \text{ m}^2$	
				$= 20.160 \text{ m}^2$	
as for same 3 Nos culvert.					
		$20.160 \text{ m}^3 \times 3 \text{ Nos}$		$= 60.48 \text{ m}^2$	
(17/25) painting Two coats on new concrete surface:					
Side face:-					
		$4.0 \times 4.0 \times 0.60$		$= 9.60 \text{ m}^2$	

Top:-					
		$2.0 \text{ m} \times 4.0 \times 6.0$		$= 48.0 \text{ m}^2$	
front face:-					
		$4.0 \times 0.40 \times 0.60$		$= 0.960 \text{ m}^2$	
				$= 58.560 \text{ m}^2$	
as for same 3 Nos culvert.					
		$58.560 \text{ m}^3 \times 3 \text{ Nos}$		$= 175.68 \text{ m}^2$	
(18/20) Planting of Trees :- 1x73 Nos				$= 73 \text{ Nos}$	
Skeema					
29/01/09					
AL					

Sch. XLV-Form No. 134

Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
Abstract of Cost					
Name of Work 1 - Construction of Road from					
Sarkhau, Li J. Chowk To Hira Sanhau					
Package No 1 - MR-N/2019-2020 Beland					
07 under-3054 M/R Scheme					
Agency 1 - Madan Kumar Singh					
Agreement No 1 - 52 BMBD/2020-2021					
Estimated Cost 1 -					
Date of Start 1 - 18.05.2020					
Date of Completion 1 - 17.02.2021					
Date of Entry 1 - 24/01/2021					

① Clearing and Grubbing Road Land

as per specification of E/I

Qty. vide TMB P.No - ①

item No 1 - ① 0.33 Hect

@ 49496.70/Hect ————— R, 16,333=00

② Construction of sub-grade and

earthen shoulder with approved

materials.

Qty. vide TMB P.No - ② 5 to 6)

item No 1 - ② 682.50 m³@ 176.75/m³ ————— R, 1,20,631=00

Total = 1,36,964=00

C.O.
Continuation

Sch. XLV-Form No. 134 B.F 136,964=00

Particulars	Details of actual measurement				Content of area
	No.	L.	B.	D.	
③ Construction of granular sub-base by providing well graded materials.					
Qty. vide TMBP No - ②					
item No - ③	48.47 m ³				
@ 2123.92/m ³					R, 1,02,946.200
④ WBM Gr-02:-					
providing, laying spreading and compacting stone aggregate.					
Qty. vide TMBP No - ②					
item No - ④	48.29 m ³				
@ 3825.86/m ³					R, 1,84,750.000
⑤ WBM Gr-03:-					
providing and laying spreading and compacting Gr-II Materials.					
Qty. vide TMBP No - ②					
item No - ⑤	81.12 m ³				
@ 3534.25/m ³					R, 2,86,698.200
⑥ providing and applying primer coat.					
Qty. vide TMBP No - ③					
item No - ⑥	1081.60 m ²				
@ 41.38/m ²					R, 44,756.000
⑦ providing and applying tack coat.					
Qty. vide TMBP No - ③					
item No - ⑦	1108.6 m ²				
@ 14.03/m ²					R, 15,553.000
					Total RS 27,71,667.000

C.O.

Continuation

Sch. XLV-Form No. 134 B.F 7,71,667=00

Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
⑧ Patch work over WBM using mix					
Seal surface with waste plastic					
for bituminous CC pavement.					
Qty. vide TMB P. No. — ④					
item No. — ⑧	1108	6m ²			
@ 205.71/m ²				R, 2,28,050.200	
⑨ Providing and applying tack coat					
Qty. vide TMB P. No. — ④					
item No. — ⑨	6093	6094.612m ² 75m			
@ 11.77/m ²				R, 71,723=00	
⑩ Semi-Dense bituminous concrete.					
Qty. vide TMB P. No. — ⑤					
item No. — ⑩	152	34m ² 151.865m ²			
@ 10298.75/m ²				R, 15,68,911=00	
⑫ (i) Km Stone					
Qty. vide TMB P. No. — ⑤					
item No. — ⑫(i)	3.0 Nos				
@ 2452.01/each				R, 7356=00	
⑬ (ii) 200mm Stone					
Qty. vide TMB P. No. — ⑤					
item No. — ⑬(ii)	6. Nos				
@ 657.49/each				R, 3944=00	
⑭ providing and fixing of retro					
reflectrised cautionary.					
Qty. vide TMB P. No. — ⑤					
item No. — ⑭	4.0 Nos				
@ 3733.04/each				R, 14,932=00	

C.O. 26,66,583=00

Continuation

Sch. XLV-Form No. 134

B.P 26,66,583200

Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
(15) 600mm Circular					
Qty. vide TMB P.No. (05)					
Item No. (16) 2.0 Nos					
@ 3832.3832.33/each				P	7664200
(16) 600mm x 450mm rectangular					
Qty. vide TMB P.No. (05)					
Item No. (17) 2.0 Nos					
@ 3703.27/each				P	740620.
(17) Boundary pillar/Guard Post					
Qty. vide TMB P.No. (05)					
Item No. (18) 36 Nos					
@ 517.14/each				P	18,617200

(18) Road marking with hot applied thermoplastic Compound.					
Qty. vide TMB P. No. (05)					
Item No. (21) 324m ²					
@ 735.40/m ²				P, 2,	39,00520
(19) Providing and fixing Logo of informatory sign Board.					
Qty. vide TMB P. No. (05)					
Item No. (22) 2.0 Nos					
@ 9494.40/each				P, 18,	988200
(20) Brick masonry work in cement mortar (1:2:3) in parapet					
Qty. vide TMB P. No. (06)					
Item No. (23) 8.64m ³					
@ 5266.93/m ³				P, 45,	506200

C.O.

30,03,771200

Continuation

(20) Planting of trees by the Roadside

Qty. vide TMB P.No. (67)

Item No. (20) 73 Nos

@ 800.30/each

12

R, 58421200

Sch. XLV-Form No. 134

B. P. 30,03,771200

Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
(21) plastering with cement mortar (1:2)					
on brick work in sub-structure					
Qty. vide TMB P.No. (66) and (67)					
Item No. (24) 66.48 m ²					
@ 194.27/m ²				R	11,749200
(23) painting two coats including					
Primer coat after filling the Joint.					
Qty. vide TMB P.No. (67)					
Item No. (25) 175.68 m ²					
@ 95.63/m ²				R	16,800000
Total RS =					30,39,720200
Less for 2.117 below WC					30,90,741000
RS =					29,68,838000
					30,25,527000

Add 1% Labour cell (+)	29,68,838000
	30,25,527000
Add 12% GST	(+) 3,59,763200
	30,55,778000
Add 12% GST	RS = 33,57,484000
	3,46,693200
	RS = 34,22,472000

Skeema
24/01/21
AZ

Shiv
24/01/21
J.E.

Continuation

Sch. XLV-Form No. 134

Sch. XLV-Form No. 154					
Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
	Material - Statement				
① Earth	682	3m ³	23.78m ³	R	16225=0
② Stone material	1-26	5mm to 9.5mm			
	16.964m ³	@ 550.83m ³		R	934420
	S.M 9.5mm to 2.36mm			R	498420
	12.117m ³	@ 411.33m ³			
	Local Sand			R	226520
	19.388m ³	@ 116.85m ³			
③ S.M 63mm to 45mm		Gr-151		R	22059200
	58.591m ³	@ 427.69m ³			
	Moosam/Gravel			R	4894200
	14.165m ³	@ 345.52m ³			
④ S.M 53mm to 22.4mm					
	19.468m ³	@ 395.52m ³	R		6727200
⑤ Emulsion SS-1		0.919MT			
⑥ Emulsion RS-1		1.924MT			
⑦ Emulsion S-90		19.686MT			
⑧ S.M chips 9.5mm to 4.75mm					
	126.927m ³	@ 528.94m ³	R		6713720
	S.M chips 7.75mm below				
	91.298m ³	@ 204.45m ³	R		1830120
	Pillar	4.453m ³	@ 3555.38m ³	R	15832200
⑨ West plastic		0.160MT			
	Stone agg. 13.2mm to 0.09mm				
	29.932m ³	@ 470m ³	R		1406820
Total RS 22,26,271=0					
Sherman 24/01/21 ML Shiv 24/01/21 J.E					
S.A.O. C2 1					

Continuation