

MR-31/19.20 CHAPRA-2/17

121.B.NO-3247

Schedule XLV-Form No. 134

Taxia to Patilo.

Ag.No
Agent. Sri Rajeshwar Singh DIVISION

Sri. Ashok Kumar (A.E.)

SUB-DIVISION

Talalpur

MEASUREMENT BOOK

121.B.NO-3247

1st on A/c bill

Name to work—

1

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.	

M/W:— Maintenance & Repair
of Road from Tarwan
to Bahly (Package NO—
MR-N/19-20/chapra-2/17)
Under New Maintenance
Policy-2018 (Head-3054).

M/Agency— Sri Rajashwar Singh.

Ass. NO—

Date of start— 06.03.2020

Date of Completion— 05.03.2021

Date of measurement— 23.11.2020

Item of work.

① clearing & grubbing of
road land.

$$2 \times 50 \times 30.00 \text{ m} \times 1.00 \text{ m} = 3000.00 \text{ m}^2$$

$$2 \times 50 \times 30.00 \text{ m} \times 1.00 \text{ m} = 3000.00 \text{ m}^2$$

$$2 \times 50 \times 30.00 \text{ m} \times 1.00 \text{ m} = 3000.00 \text{ m}^2$$

$$2 \times 30 \times 30.00 \text{ m} \times 1.00 \text{ m} = 1800.00 \text{ m}^2$$

$$\text{Total} = 10,800.00 \text{ m}^2$$

$$= 1.08 \text{ Hect.}$$

② Construction of granular
subbase by providing
well graded materials

for patches—

$$1 \times 10.50 \text{ m} \times 3.50 \text{ m} \times 0.175 \text{ m} = 6.43 \text{ m}^3$$

$$1 \times 6.00 \text{ m} \times 2.25 \text{ m} \times 0.175 \text{ m} = 2.36 \text{ m}^3$$

Continuation of work = 8.79 m³

Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
					Qty A/F = 8.79 m ³
1 x 13.50 m x 3.50 m x 0.175 m					= 7.96 m ³
1 x 4.50 m x 2.50 m x 0.175 m					= 1.96 m ³
2 x 6.50 m x 3.60 m x 0.175 m					= 8.19 m ³
1 x 18.50 m x 2.50 m x 0.175 m					= 8.09 m ³
2 x 13.80 m x 2.60 m x 0.175 m					= 12.55 m ³
2 x 8.00 m x 2.30 m x 0.175 m					= 6.44 m ³
2 x 13.50 m x 3.40 m x 0.175 m					= 14.17 m ³
1 x 12.50 m x 3.60 m x 0.175 m					= 7.87 m ³
2 x 8.50 m x 3.20 m x 0.175 m					= 9.52 m ³
2 x 7.10 m x 2.70 m x 0.175 m					= 6.61 m ³
2 x 8.75 m x 3.05 m x 0.175 m					= 9.34 m ³
2 x 12.70 m x 3.70 m x 0.175 m					= 14.22 m ³

$$2 \times 8.10 \text{ m} \times 2.90 \text{ m} \times 0.175 \text{ m} = 8.12 \text{ m}^3$$

$$\text{Total} = 123.83 \text{ m}^3$$

$$\text{Qty limit} = 123.09 \text{ m}^3$$

③ P.V., Laying, spreading &

Compacting of W.B.M-2

as per technical specification.

$$1 \times 12.60 \text{ m} \times 3.60 \text{ m} \times 0.075 \text{ m} = 3.40 \text{ m}^3$$

$$1 \times 8.50 \text{ m} \times 2.40 \text{ m} \times 0.075 \text{ m} = 1.53 \text{ m}^3$$

$$1 \times 15.30 \text{ m} \times 3.65 \text{ m} \times 0.075 \text{ m} = 4.18 \text{ m}^3$$

$$1 \times 5.50 \text{ m} \times 2.70 \text{ m} \times 0.075 \text{ m} = 1.11 \text{ m}^3$$

$$2 \times 8.10 \text{ m} \times 3.75 \text{ m} \times 0.075 \text{ m} = 4.50 \text{ m}^3$$

$$1 \times 20.50 \text{ m} \times 2.75 \text{ m} \times 0.075 \text{ m} = 4.22 \text{ m}^3$$

$$2 \times 7.50 \text{ m} \times 3.00 \text{ m} \times 0.075 \text{ m} = 3.37 \text{ m}^3$$

$$1 \times 10.20 \text{ m} \times 2.25 \text{ m} \times 0.075 \text{ m} = 1.72 \text{ m}^3$$

$$\text{Qty C/O} = 24.03 \text{ m}^3$$

Continuation

Particulars	Details of actual measurement				Contents of area
	No.	L	B	D	
				Qty B/P =	24.03 m ³
2 X	14.50 m	2.70 m	0.075 m		5.87 m ³
2 X	9.50 m	2.50 m	0.075 m		3.56 m ³
2 X	9.50 m	2.50 m			
2 X	14.90 m	3.20 m	0.075 m		7.15 m ³
1 X	13.40 m	3.70 m	0.075 m		3.71 m ³
2 X	9.30 m	3.40 m	0.075 m		4.74 m ³
2 X	8.50 m	2.90 m	0.075 m		3.69 m ³
2 X	9.00 m	3.15 m	0.075 m		4.25 m ³
1 X	12.00 m	2.20 m	0.075 m		1.98 m ³
2 X	7.00 m	2.70 m	0.075 m		2.83 m ³
2 X	14.30 m	3.50 m	0.075 m		7.50 m ³
2 X	8.50 m	3.10 m	0.075 m		3.95 m ³
2 X	7.20 m	3.50 m	0.075 m		3.78 m ³
1 X	11.50 m	2.50 m	0.075 m		2.15 m ³
1 X	6.30 m	3.50 m	0.075 m		1.70 m ³
1 X	10.50 m	3.40 m	0.075 m		2.67 m ³
1 X	9.60 m	3.50 m	0.075 m		2.52 m ³
1 X	10.70 m	2.90 m	0.075 m		2.32 m ³
1 X	7.20 m	2.80 m	0.075 m		1.51 m ³
1 X	12.00 m	2.90 m	0.075 m		2.61 m ³
1 X	8.00 m	3.40 m	0.075 m		2.04 m ³
1 X	9.50 m	3.20 m	0.075 m		2.38 m ³
1 X	12.20 m	2.45 m	0.075 m		2.24 m ³
1 X	10.40 m	3.45 m	0.075 m		2.69 m ³
1 X	12.50 m	2.70 m	0.075 m		2.53 m ³
				Qty C/P =	104.30 m ³

Continuation

Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
			Qty	B/F =	104.30 m ³
1 x 12.80 m x 3.75 m x 0.075 m					3.60 m ³
1 x 13.00 m x 3.40 m x 0.075 m					3.31 m ³
1 x 7.60 m x 2.70 m x 0.075 m					1.41 m ³
2 x 10.10 m x 3.35 m x 0.075 m					5.07 m ³
			Total =		117.69 m ³
			Qty limit =		115.77 m ³

④	Plv. Laying, spreading				
	& compacting of WBM-3				
	@ per technical specifications.				
1 x 14.30 m x 3.70 m x 0.075 m					3.96 m ³
1 x 9.70 m x 3.00 m x 0.075 m					2.18 m ³

1 x 16.75 m x 3.10 m x 0.075 m					3.89 m ³
1 x 7.80 m x 3.75 m x 0.075 m					2.19 m ³
2 x 9.20 m x 3.75 m x 0.075 m					5.17 m ³
1 x 21.75 m x 2.80 m x 0.075 m					4.56 m ³
2 x 9.10 m x 3.70 m x 0.075 m					4.32 m ³
1 x 10.50 m x 2.50 m x 0.075 m					1.96 m ³
2 x 11.80 m x 2.70 m x 0.075 m					4.78 m ³
1 x 17.50 m x 3.30 m x 0.075 m					4.33 m ³
1 x 12.50 m x 2.40 m x 0.075 m					2.25 m ³
1 x 11.70 m x 3.20 m x 0.075 m					2.80 m ³
2 x 7.50 m x 2.75 m x 0.075 m					3.09 m ³
1 x 18.10 m x 2.70 m x 0.075 m					3.64 m ³
2 x 16.50 m x 2.95 m x 0.075 m					7.30 m ³
			Qty c/o =		56.42 m ³

Continuation

Particulars	Details of actual measurement				Contents of area
	No.	L	B	D	
				Qty B/P =	56.42 m ³
2x	12.20m	2.90m	0.075m		5.30 m ³
2x	16.30m	3.50m	0.075m		8.55 m ³
1x	14.50m	3.75m	0.075m		4.07 m ³
2x	11.20m	3.75m	0.075m		6.30 m ³
2x	12.10m	3.75m	0.075m		6.75 m ³
2x	11.50m	3.50m	0.075m		6.03 m ³
1x	13.50m	2.70m	0.075m		2.73 m ³
2x	9.10m	3.10m	0.075m		4.05 m ³
2x	15.20m	3.50m	0.075m		7.98 m ³
2x	9.20m	3.20m	0.075m		4.41 m ³
2x	7.90m	3.75m	0.075m		4.44 m ³
1x	11.80m				
1x	11.80m	2.70m	0.075m		2.39 m ³
1x	6.90m	3.75m	0.075m		1.94 m ³
1x	11.20m	3.75m	0.075m		3.15 m ³
1x	10.70m	3.75m	0.075m		3.08 m ³
1x	11.50m	3.10m	0.075m		2.58 m ³
1x	9.10m	3.10m	0.075m		2.02 m ³
1x	13.50m	3.10m	0.075m		3.03 m ³
1x	9.20m	3.75m	0.075m		2.58 m ³
1x	10.50m	3.50m	0.075m		2.75 m ³
1x	13.40m	2.70m	0.075m		2.71 m ³
1x	11.20m	3.50m	0.075m		2.94 m ³
1x	14.10m	2.90m	0.075m		3.04 m ³
1x	13.10m	3.75m	0.075m		3.65 m ³
				Qty 40 =	152.81 m ³

Continuation

Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
				Qty B/F =	152.81m ⁵
1 x 13.50m x 3.75m x 0.075m =					3.79m ³
1 x 8.20m x 2.90m x 0.075m =					1.78m ³
2 x 10.50m x 3.50m x 0.075m =					5.51m ³
1 x 10.90m x 2.50m x 0.075m =					2.04m ³
				Total =	165.93m ⁵

(5) Plv and applying primer
Coat with bitumen emulsion
SS-1.

$$\begin{aligned} \text{Area of Primer coat} &= \frac{165.93\text{m}^5}{0.075\text{m}} \\ &= 2212.40\text{m}^2 \end{aligned}$$

(6) Plv & applying tack
Coat with bitumen emulsion
RS-1

$$\begin{aligned} \text{Area of tack coat} &= \text{Area of Primer coat} \\ &= 2212.40\text{m}^2 \end{aligned}$$

In P.C.C. Area.

$$\begin{aligned} 4 \times 4.20\text{m} \times 3.75\text{m} &= 63.00\text{m}^2 \\ 6 \times 2.80\text{m} \times 2.50\text{m} &= 42.00\text{m}^2 \\ \text{Total} &= 2317.40\text{m}^2 \end{aligned}$$

(7) Plv, Laying and rolling
of close-graded Premix
surfacing material of 20mm
thickness.

Continuation

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

Net Area = Area of tank local
= 2317.40 m²

(8) Plv and applying tank coal with bitumen emulsion RS-1.

For B.T & existing P.C.C. portion

20 x 30.00 m x 3.75 m = 2250.00 m²

50 x 30.00 m x 3.75 m = 2250.00 m²

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50 x 30.00 m x 3.75 m = 2250.00 m²

3 x 30.00 m x 3.75 m = 337.50 m²

1 x 10.00 m x 3.75 m = 37.50 m²

Total = 22875.00 m²

(9) Plv & Laying semi dense bituminous concrete as per technical specification.

20 x 30.00 m x 3.75 m = 2250.00 m²

20 x 30.00 m x 3.75 m = 2250.00 m²

50 x 30.00 m x 3.75 m = 2250.00 m²

20 x 30.00 m x 3.75 m = 2250.00 m²

20 x 30.00 m x 3.75 m = 2250.00 m²

Continuation 274/0 = 11,250.00 m²

Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
			Bty	B/F	11250.0 m ²
90	X	30.00 m	X	3.75 m	= 2250.0 m ²
		20 X 30.00 m	X	3.75 m	= 2250.0 m ²
		20 X 30.00 m	X	3.75 m	= 2250.0 m ²
		20 X 30.00 m	X	3.75 m	= 2250.0 m ²
		20 X 30.00 m	X	3.75 m	= 2250.0 m ²
		3 X 30.00 m	X	3.75 m	= 337.50 m ²
		1 X 30.00 m	X	3.75 m	= 37.50 m ²
		Area, Total = 22875.0 m ²			
(10)	$\text{Bty} = 22875.0 \text{ m}^2 \times 0.075 \text{ m} = 571.87 \text{ m}^3$ Construction of Subgrade m ³				
	2 Earthen shoulders with approved materials.				
	2 X	20 X 30.00 m	X	0.700 m X 0.300 m	= 252.00 m ³
	2 X	20 X 30.00 m	X	0.700 m X 0.300 m	= 252.00 m ³
	2 X	20 X 30.00 m	X	0.700 m X 0.300 m	= 252.00 m ³
	2 X	20 X 30.00 m	X	0.700 m X 0.300 m	= 252.00 m ³
	2 X	20 X 30.00 m	X	0.700 m X 0.300 m	= 252.00 m ³
	2 X	20 X 30.00 m	X	0.700 m X 0.300 m	= 252.00 m ³
	2 X	20 X 30.00 m	X	0.700 m X 0.300 m	= 252.00 m ³
		Total = 1764.00 m ³			
(11)	Plv & Fixing of R.C.C. MIS grade kilometre stone				
	= 07 Nos.				
(12)	Plv & Fixing of 200m stones				
	= 24 Nos.				

Continuation

Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
(13) Plv & erecting direction & place identification					
Sign board					$21.60 \text{ m} \times 0.90 \text{ m}$
					$= 1.98 \text{ m}^2$
					Qty kml = 1.92 m^2
(14) Plv & fixing of retro-reflectORIZED traffic					
Sign board					$= 20.00 \text{ NOS}$
(15) Plv & fixing of 600mm					
Circular sign board					$= 8.00 \text{ NOS}$
(16) Plv & fixing of					
600mm x 450mm rectangular					
					Sign board $= 8.00 \text{ NOS}$
(17) Plv & fixing of R.C.C					
MIS grade boundary pillars.					
					$6 \times 2 \times 8 \text{ NOS} = 96 \text{ NOS}$
(18) Plv & Laying of hot-					
applied thermoplastic					
compound 2.5 mm thick					
					$2 \times 20 \times 30.00 \text{ m} \times 0.10 \text{ m} = 120.00 \text{ m}^2$
					$2 \times 20 \times 30.00 \text{ m} \times 0.100 \text{ m} = 120.00 \text{ m}^2$
					$2 \times 20 \times 30.00 \text{ m} \times 0.100 \text{ m} = 120.00 \text{ m}^2$
					$2 \times 20 \times 30.00 \text{ m} \times 0.100 \text{ m} = 120.00 \text{ m}^2$
					$2 \times 20 \times 30.00 \text{ m} \times 0.100 \text{ m} = 120.00 \text{ m}^2$
					Qty C/O = 600.00 m^2

Continuation

Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
			Qty	B/F =	600.00 m ²
2 x 20 x 30.00 m x 0.100 m =					120.00 m ²
2 x 20 x 30.10 m x 0.100 m =					120.00 m ²
2 x 20 x 30.10 m x 0.100 m =					120.00 m ²
2 x 20 x 30.10 m x 0.100 m =					120.00 m ²
2 x 20 x 30.10 m x 0.100 m =					120.00 m ²
2 x 20 x 30.10 m x 0.100 m =					120.00 m ²
2 x 3 x 30.00 m x 0.100 m =					18.00 m ²
2 x 1 x 10.00 m x 0.100 m =					2.00 m ²
			Total =		1220.00 m ²

(19) PIV & fixing of typical masonry
informatory sign board
with logo = 4.0 Nos.

(20) Brick masonry work
in cement mortar (1:3)
in parapet wall.
For 8 Nos culverts (1x1000mm) H.P.C
8 x 2 x 6.00 m x 0.40 m x 0.60 m = 23.04 m³

(21) Plastering with cement
mortar (1:4) on brick
work in sub structure.
For 8 Nos H.P. Culverts.
Sides, 8 x 4 x 6.00 m x 0.60 m = 115.20 m²
Top, 8 x 2 x 6.00 m x 0.40 m = 38.40 m²
Ends, 8 x 4 x 0.40 m x 0.60 m = 7.68 m²
Total = 161.28 m²

Continuation

Particulars	Details of actual measurement				Contents of area
	No.	L	B	D.	
(22) Painting two coats on new surface.					
For H.P. Culvert - 8 No.					
Sides					
$8 \times 4 \times 6.10 \text{ m} \times 0.60 \text{ m} =$					115.20 m^2
Top, $8 \times 2 \times 6.10 \text{ m} \times 0.40 \text{ m} =$					38.40 m^2
Ends $8 \times 4 \times 0.40 \text{ m} \times 0.60 \text{ m} =$					7.68 m^2
					Total: 161.28 m^2
					licked then checked
					M/s
					23/11/20
					(J.E)
					Wish
					23/11/20
					Ac

Abstract of cost

1. clearing & grubbing of road land.

1.08 Hect, vide TMBP-1

① Rs 49496 = 20/Hect — Rs 53,456 = 00

2. Construction of granule

Sub-base by providing

well graded material.

123.09 m^2 , vide TMBP-2

① Rs 2097 = 75/ m^2 — Rs 2,58,712 = 00

3. P.V. levelling, spreading & compaction of WBM-2

115.77 m^2 , vide TMBP-4

① Rs 2854 = 07/ m^2 — Rs 4,46,186 = 00

Continuation c/o, Rs 7,57,854 = 00

Particulars	Details of actual measurement				Contents of area
	No.	L	B	D.	
				P.F./H	7,57,854=
4					
5. Plv, Leving, spreading					
& Compacting of WBM-3					
165.9377 ² , vide TMBP-6					
(1) RS 3445=94/m ³ —				B	5,71,785=
5					
6. Plv & applying Primer					
Coal with bitumen					
emulsion RS-1					
2212.40 m ² , vide TMBP-6					
(1) RS 41=36/m ² —				R	91,505=00
6					
7 Plv & applying					
thick Coal with					
bitumen emulsion RS-1					
2317.40 m ² , vide TMBP-6					
(1) RS 14=03/m ² —				R	32,513=00
7					
Plv, Leving & rolling					
8. of close-graded					
Prerix surfacing material					
of 20 mm thickness					
2317.40 m ² , vide TMBP-7					
(1) RS 221=40/m ² —				RS	5,13,072=00
8					
Plv & applying thick					
Coal with bitumen emulsion					
RS-1					
22875.00 m ² , vide TMBP-7					
(1) RS 12=20/m ² —				R	2,79,075=00

Continuation

C/O, RS 22,45,804=00

Particulars	Details of actual measurement				Contents of area
	No.	L	B	D.	
			B/F		22,45.8046
<u>9</u> <u>10</u> P.V. & Laying Semi					
dense bituminous concrete					
as per technical specifications					
571.87 m ² , vide TMDP-8					
① Rs 10,654.29 / m ² — B					60,93,223=
<u>10</u> <u>2</u> Construction of Subgrade					
& earthen shoulder					
with approved material.					
1764.10 m ² , vide TMDP-8					
① Rs 176=96 / m ² — B					3,12,157=0
<u>11</u> <u>11</u> P.V. & Laying of R.C.C.					
M/S granite kilometric					
stones.					
07 NOS, vide TMDP-8					
① Rs 2206=14 / NO — B					15,443=0
<u>12</u> <u>12</u> P.V. & Laying of 200mm					
stones.					
24 NOS, vide TMDP-8					
① Rs 617=47 / NO — B					14,819=0
<u>13</u> <u>13</u> P.V. & erecting structure					
& place identification					
sign board.					
1.92 m ² , vide TMDP-9					
① Rs 12300=38 / m ² — B					23,617=0
Continuation					40, Rs 87,05,063=

Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
14. P.V. & fixing of retro-reflectors to traffic sign board.					B/P 387,05,683=0
20 Nos, vide TMD-9.					
① P 3616=04/NO — P					72,324=0
15. P.V. & fixing of 600mm circular sign board.					
08 Nos, vide TMD-9.					
① P 3715=39/NO — P					29,723=00
16. P.V. & fixing of 600mm x 450 mm rectangular sign board.					
08 Nos, vide TMD-9.					
① P 3986=27/NO — P					28,690=00
17. P.V. & fixing of R.C.C. MIS grade boundary pillar.					
96 Nos, vide TMD-9.					
① P 499=89/NO — P					47,989=00
18. P.V. & laying of hot applied thermoplastic compound 2.5m thick.					
1220.10 m ² , vide TMD-10.					
① P 735=40/m ² — P					8,97,198=00
					C/D, P 97,80,974=00

Continuation

Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
					B/P, RS 97,80,974=0
19 21. P/V & fixing of typical MGSY in formwork Given board inter. large.					
04 Nos, vide TMBP-10					
(e) RS 9260=40/NO — B					37,042=0
20 22. Brick masonry work for cement mortar 1:3 in parapet wall.					
23.04 m ³ , vide TMBP-10					
(e) RS 5102=55/m ³ — B					1,17,563=0
24 23. Plastering with cement mortar 1:4 on					

					brick work in Sub-
					Structure.
					161.28 m ² , vide TMBP-10
					(e) RS 142=28 m ² — B
					22,947=0
22 24. Painting two coats including prime coat. on new surface.					
					161.28 m ² , vide TMBP-11
					(e) RS 95=63/m ² — B
					15,423=0
					Sub Total, RS 99,73,949=0
					Adding 1% Labourers + RS 99,739=0
					Adding 12% GST + RS 11,96,874=0
					Total, RS 1,12,70,562=0
					(Rupees one crore, twelve lakh, seventy thousand, five hundred & seventy four and 2/100 only)

M/M
23/11/20
(J.E)

Krishna
23.11.20
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