

पक्ष का नाम:- शिवान सरफटा P.W.D. तथा रेल लाफागुट

Schedule XLV-Form No. 134 (MR)

Name of Agency:- Sarthak Enterprises

DIVISION

Block:- Mamsha

SUB-DIVISION

M.B.No. 581

MEASUREMENT BOOK

Survey Form No. 1

Job or Site Data

Name of Work: Construction of Road
 Location of Work: 10/20/2020
 Agency by which work is done: 10/20/2020
 Date of Measurement: 10/20/2020
 No. and date of agreement: 10/20/2020

(Please fill in these details as required at the commencement of the measurement relating to each work)

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

Name of Road: Construction of Road

Date of Measurement: 10/20/2020

Agency: 10/20/2020

Estimated Cost: 10/20/2020

Actual Cost: 10/20/2020

Area: 10/20/2020

Volume: 10/20/2020

Weight: 10/20/2020

Length: 10/20/2020

Width: 10/20/2020

Height: 10/20/2020

Date of Agreement: 10/20/2020

Date of Start of Work: 10/20/2020

Date of completion of Work: 10/20/2020

Date of Measurement: 10/20/2020

① Clearing & grubbing Road
land including up to do

$$\begin{aligned}
 271 \times 15 \times 0.70 &= 5628 \text{ cu ft} \\
 1 \times 27 \times 0.70 &= 28 \text{ cu ft}
 \end{aligned}$$

Continuation

$$= 5656 \text{ cu ft}$$

Particulars	Details of actual measurement			Quantity of work
	No.	L	B	
Qty in Hardcore			566.0 m ³	0.566 m ³
Limiting for Aggregates			100.0	0.12 m ³
(2) Providing & fixing of typical necessary Substructure Board	do			2.10 m ³
(3) Construction of granular Sub base by spreading well graded material & breaking - 1050 m ³				
1x12x2.00x1.50x0.10				3.60 m ³
1x22x1.60x1.40x0.10				4.93 m ³
1x15x2.10x1.30x0.10				4.03 m ³
1x14x2.20x1.60x0.10				5.92 m ³
				18.60 m ³
Limit as per Agreement				18.12 m ³
(4) Providing, laying, spreading and compacting 20mm Aggr. of specific spread water bound				
1x12x2.00x1.50x0.075				2.70 m ³
1x22x1.60x1.40x0.075				3.70 m ³
1x15x2.10x1.30x0.075				3.07 m ³
1x14x2.20x1.60x0.075				4.49 m ³
1x14x2.20x1.85x0.075				4.27 m ³

Continuation

Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
	1x8	1.40	1.20	0.075	1.01 m ³
	1x12	1.25	1.10	0.075	1.03 m ³
	1x23	1.60	1.20	0.075	0.31 m ³
	1x21	2.10	1.20	0.075	3.33 m ³
	Total				26.98 m ³
	Limit of pre Agg. m ³				26.98 m ³
(5) Primary laying & bracing and compacting stone Aggro Gates of specific size with m ³					
	1x93	2.33	1.82	0.075	10.53 m ³
	1x36	4.10	1.85	0.075	20.47 m ³
	1x38	1.10	1.00	0.075	3.22 m ³
	1x32	1.20	1.10	0.075	3.17 m ³
	1x21	2.10	1.20	0.075	3.93 m ³
	1x13	1.30	1.10	0.075	1.39 m ³
	1x33	1.70	1.35	0.075	5.68 m ³
	1x45	4.55	1.25	0.075	19.19 m ³
	1x13	2.35	1.45	0.075	4.34 m ³
	1x23	1.65	1.55	0.075	4.41 m ³
	1x24	1.65	1.25	0.075	3.71 m ³
	1x22	1.80	1.35	0.075	4.01 m ³
	1x12	2.10	1.40	0.075	2.65 m ³
	1x28	1.75	1.45	0.075	5.33 m ³
	1x23	1.65	1.35	0.075	3.84 m ³

Continuation

45.98 m³

Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
1x17x4.2x1.26x0.075					7.28m ³
1x23x8.15x1.15x0.075					6.25m ³
1x15x2.25x1.25x0.075					3.19m ³
Total.					112.70m ³
Limit as per Agreement					108.94m ³
Date of Measurement					01/03/2021
(6) Providing & applying primer coat with bituminous Emulsion (SS-1) on prepared surface as per district rule - do -					
Qty like TMS P-4 Storm (5) = 112.70m ³					
Qty in Area = $\frac{112.70m^3}{0.075} = 1502.67m^2$					
Qty limit as per agreement = 1465.87m ²					
(7) Providing & applying tack coat with bituminous Emulsion (RS-1) - do -					
Qty like TMS P-4 Storm (6) = 112.70m ³					
Qty in Area = $\frac{112.70m^3}{0.075} = 1502.67m^2$					

Continuation

5
Sch. XLV-Form No. 134

Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
limit as per Agreement					1465.87m ²
⑧ Providing laying & spreading					
Roller compacting 20mm					
thick concrete carpet - do -					
Qty vide MBP-494m No. 6					
				$\Delta = 1098$	
					$= 1502.67m^2$
limit as per Agreement					1465.87m ²
⑨					
Date of Measurement:-					13.03.21
⑨ Providing & laying applying					
face coat with bituminous					
emulsion using emulsion - do					
$= 1 \times 20 \times \frac{(8.00 + 5.05 + 4.15 + 3.45)}{4} \times 2.61$					$= 104.75m^2$
$= 1 \times 2 \times 30 \times 3.75$					$= 225.00m^2$
$= 1 \times 20 \times 3.75$					$= 75.00m^2$
$= 1 \times 35 \times \frac{(3.75 + 4.10 + 4.80 + 4.50 + 3.75)}{5}$					$= 146.20m^2$
$= 1 \times 4 \times 30 \times 3.75$					$= 450.00m^2$

Continuation

Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
					$= 71.25m^2$
					$= 1 \times 20 \times \left(\frac{3.75 + 4.00 + 4.05 + 3.75}{4} \right)$
					$= 77.75m^2$
					$= 1 \times 10 \times 30 \times 3.75 = 1125.00m^2$
					$= 1 \times 26 \times 3.75 = 97.50m^2$
					$= 1 \times 9 \times \left(\frac{4.15 + 4.05 + 3.75}{3} \right)$
					$= 35.85m^2$
					$= 1 \times 13 \times \left(\frac{4.60 + 4.00 + 3.60}{3} \right)$
					$= 52.83m^2$
					$= 1 \times 30 \times 3.75 = 112.50m^2$
					$= 1 \times 14 \times 3.75 = 52.50m^2$
					$= 7 \times 30 \times \left(\frac{3.45 + 3.80 + 3.60 + 3.80 + 2.90 + 3.00 + 3.85}{7} \right)$
					$= 732.00m^2$
					$= 1 \times 13 \times \left(\frac{3.75 + 3.60}{2} \right) = 47.77m^2$
					$= 1 \times 3 \times 30 \times \left(\frac{4.00 + 3.45 + 4.35 + 3.85 + 3.75}{5} \right)$
					$= 349.20m^2$
					$= 1 \times 12.20 \times 3.75 = 45.75m^2$
					$= 1 \times 10 \times 30 \times 3.75 = 1125.00m^2$
					$= 1 \times 6 \times 3.75 = 22.50m^2$

Continuation

Particulars	Details of actual measurement				Contents of area
	No.	L	B	D.	
= 1x 4x 30x 3.75					450.00m ²
= 1x 5x 3.75					18.75m ²
= 1x 10x $\frac{5.50+3.60}{2}$					45.50m ²
Total					546.24m ²

(10) Providing and laying

Semidimensional bituminous

Concrete with 100-120 TPH

batch type HRP do

= 1x 20x $\frac{8.00+5.05+4.15+3.75}{4}$					x 0.025
					= 2.62m ³
= 1x 2x 30x 3.75x 0.025					= 5.62m ³
= 1x 20x 3.75x 0.025					= 1.87m ³
= 1x 35x $\frac{3.75+4.10+4.80+4.50+3.75}{5}$					x 0.025
					= 3.66m ³
= 1x 4x 30x 3.75x 0.025					= 11.25m ³
= 1x 19x 3.75x 0.025					= 1.78m ³
= 1x 20x $\frac{3.75+4.00+4.05+3.75}{4}$					x 0.025
					= 1.94m ³

Continuation

Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
					$= 1 \times 10 \times 30 \times 3.75 \times 0.025 = 28.12 \text{ m}^3$
					$= 1 \times 25 \times 3.75 \times 0.025 = 2.44 \text{ m}^3$
					$= 1 \times 8 \times \left(\frac{4.35 + 4.05 + 3.35}{3} \right) \times 0.025$
					$= 0.91 \text{ m}^3$
					$= 1 \times 13 \times \left(\frac{4.60 + 4.00 + 3.60}{3} \right) \times 0.025$
					$= 1.32 \text{ m}^3$
					$= 1 \times 30 \times 3.75 \times 0.025 = 2.81 \text{ m}^3$
					$= 1 \times 14 \times 3.75 \times 0.025 = 1.31 \text{ m}^3$
					$= 1 \times 7 \times 30 \times \left(\frac{3.45 + 3.30 + 3.60 + 3.80}{4} + \frac{2.90 + 3.00 + 3.85}{3} \right) \times 0.025$
					$= 6.7 \times 0.025$
					$= 18.81$
					$= 18.30 \text{ m}^3$
					$= 1 \times 13 \times \left(\frac{3.75 + 3.40}{2} \right) \times 0.025$
					$= 1.19 \text{ m}^3$
					$= 1 \times 3 \times 30 \times \left(\frac{4.00 + 3.45 + 4.35 + 3.85 + 3.75}{5} \right) \times 0.025$
					$= 8.73 \text{ m}^3$
					$= 1 \times 12.20 \times 3.75 \times 0.025 = 1.14 \text{ m}^3$
					$= 1 \times 10 \times 30 \times 3.75 \times 0.025 = 28.12 \text{ m}^3$
					$= 6 \times 3.75 \times 0.025 = 0.56 \text{ m}^3$
					$= 1 \times 4 \times 30 \times 3.75 \times 0.025 = 1.125 \text{ m}^3$
					$= 1 \times 5 \times 3.75 \times 0.025 = 0.47 \text{ m}^3$

Continuation

Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
$= 1 \times 10 \times \frac{(5.50 + 3.60)}{2} \times 0.025$					$= 1.14 \text{ m}^2$
					$= 136.55 \text{ m}^2$
Total					$= 137.06 \text{ m}^2$
(11) Reinforced cement concrete					
M15 grade kilometre local					
8 tone — do —					$= 3 \text{ Nos.}$
(12) Reinforced cement concrete					
M15 grade 200mm post					
					$= 6 \text{ Nos.}$
(13) Providing & fixing of					
retro reflectorised caution					
& mandatory Board — do					
600mm equilateral triangle					$= 8 \text{ Nos.}$
(14) Providing & fixing retro					
reflectorised mandatory					
600mm Circular Board — do					$= 8 \text{ Nos.}$
(15) Providing & fixing retro					
reflectorised mandatory					
600mm 450mm Rectangular					$= 6 \text{ Nos.}$

Continuation

Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
(16) Reinforced concrete boundary pillars / local stone - do					= 64 Nos.
(17) Painting wall letter & figures of any shade - do					
8 x 1.76					= 1408.00
(18) Providing & fixing of hot applied thermoplastic compound 2-5 mm thick - do					
1 x 2 x 48 x 30 x 0.10					= 288.00 m ²
2 x 1 x 12 x 0.10					= 2.40
4 x 2.5 x 1.00					= 10.00 m ²
Total					= 300.40 m ²
limit as per B.O.S.					= 300.00 m ²
(19) Providing & fixing of typical nursery mainmance Board as per Spec - do					
					= 1 Nos.
(20) Planting of tree by the Road Side Avenue tree - do					
					= 19 Nos.

Continuation

Sch. XLV-Form No. 134

Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
(21) Brick masonry work In corner window 1:3 do					
3 X 2.15 X 0.4 X 0.4					= 1.02 m ³
(22) Plastering with cement mortar (1:4) on Brick Core Sub Structure etc					
3 X 0.15 X 0.4 X 0.4					= 0.36 m ³
2 X 3 X 2.15 X 0.42					= 5.42 m ²
6 X 0.40 X 0.42					= 1.01 m ²
					= 9.01 m ²
(23) Painting two coat on including primer coat after filling the surface with synthetic enamel paint					
4 X 2.15 X 0.4					= 3.44 m ²
4 X 2.15 X 0.41					= 3.53 m ²
8 X 0.40 X 0.40					= 1.28 m ²
2 X 2.18 X 0.40					= 1.74 m ²
2 X 2.18 X 0.45					= 1.96 m ²
2 X 3.35 X 0.40					= 2.68 m ²
2 X 3.35 X 0.20					= 1.34 m ²
7 X 6.30 X 0.40					= 5.04 m ²
2 X 6.30 X 0.50					= 6.30 m ²

Continuation

= 27.31 m²

Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
<u>ABSTRACT OF COST</u>					

Continuation

Particulars	Details of actual measurement				Contents of area
	No.	LL	BL	DJ	
Qty wide TMBP-4 Item No (6)					
= 1465.87 m ² @ Rs. 44.64/m ²					= 65435.00
(6/1) Providing laying and rolling above graded from surface 20mm thick — do					
Qty wide TMBP-5 Item No (8)					
= 1465.85 m ² @ Rs. 218.78/m ²					= 320629/-
(7/5) Providing and applying Tack coat with bitumen					

Emulsion (RS-1) — do —					
Qty wide TMBP-4 Item No. (7)					1502.67
Qty wide TMBP-7 Item No (8)					= 1465.87
					= 5462.79 m ²
					= 6948.61 m ²
					= 6966.41 m ²
Limit as per Agreement					= 6957.73 m ²
= 6957.73 m ² @ Rs. 5.18/m ²					= 105618.00
(8/9) Providing and laying semi dense bituminous concrete — do —					
Qty wide TMBP-9 Item No (10)					
= 137.06 m ² @ Rs. 10900.94/m ²					= 1495316/-

Continuation

Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
(9/12) Reinforced concrete concrete M/S grade 1 kilometre post — do —					
Qty vide TM B P-3 9thm No = (11)					
= 3 Nos @ Rs. 2467.92 / Nos = 7404=00					
(10/12) Reinforced concrete concrete M/S grade 200 m post do					
Qty vide TM B P-3 9thm No = (12)					
= 6 Nos @ Rs. 642.62 / Nos = 3855=70					
(11/16) 600mm equilateral triang — do —					
Qty vide TM B P-3 9thm No = (13)					
= 8 Nos @ Rs. 3533.17 / Nos = 28265=00					
(12/17) Provision & fixing of Retro reflective 600 mm Circular do					
Qty vide TM B P-3 9thm No = (14)					
= 8 Nos @ Rs. 4847.20 / Nos = 38778=20					
(13/18) Provision & fixing of retroreflective cautionary & mandatory 600 x 450 mm do					
Qty vide TM B P-3 9thm No = (15)					
= 6 Nos @ Rs. 4139.98 / Nos = 24839=80					
Continuation					= 24840=00

Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
(14/19) Reinforced concrete Command concrete M-15 Grade Boundary pillars - do Qty vide TMBP-10 94mm (15) = 24 Nos @ Rs. 520.82/No = 12499.68 = 12499.68					
(15/20) Painting New latching figures as per - do Qty vide TMBP-10 94mm (15) = 1408/1mm @ Rs. 0.52/1mm = 732.16 = 732.16					
(16/21) Planting of tree by Road side Avenue tree - do Qty vide TMBP-10 94mm (100) = 19 Nos @ Rs. 819.92/No = 15578.48 = 15578.48					
(17/22) Providing and laying hot applied thermoplastic Compound 2.5 mm thick - do Qty vide TMBP-10 94mm (18) = 300.00 m ² @ Rs. 742.19/m ² = 222657.00 = 222657.00					
(18/23) Providing & laying of typical M.M.S.C. Interlocks Sign Board - do - Qty vide TMBP-10 94mm (10) = 1 No					

Continuation

Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
Qty vide TMBP-2 Item No (2) = 2 Nos					
					= 3 Nos
= 3 Nos @ Rs. 11482.91/m ²					
					= 34449.00
(19/24) Brick masonry work					
1:3 in cement mortar do					
Qty vide TMBP-11 Item No (21)					
= 1.03 m ³ @ Rs. 6070.48/m ³					6253.00
					= 6254.00
(20/25) Plastering with cement mortar (1:4) on Brick work					
Qty vide TMBP-1 Item No (22)					
= 9.01 m ² @ Rs. 178.37/m ²					
					= 1612.00
(21/26) Painting two coats including primer coat after filling the surb do					
Qty vide TMBP-11 Item No (23)					
= 27.31 m ² @ Rs. 108.98/m ²					
					= 2976.00
(22/2) Construction of Subgrade & Earthwork Shoulders with approved. 100mm do -					
Qty vide TMBP-12 Item No (24)					

Continuation

Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
= 786.60 m ³ @ Rs. 176.58/m ³					= 138898/-
Total.					= 3093036/-
(-) Less 0.07% Below 0.07% = 2165/-					3093179/-
Total -					= 3090871/-
(+) 12% cost on total					= 370922/-
(+) Add 1% labour cost					= 30909/-
Total.					= 3492684/-
					3492846/-

16/03/2021 JE, Morha ink and checked 16-3-21 M. S. M. Material Statement ① Earth: - 786.60 m³ ② Stone Metal - 192.00 m³ ③ Screening. - 29.28 m³ ④ SS-1 = 1277.27 Kg. ⑤ RS-1 = 1815.49 Kg. ⑥ Bitumen = 18372.05 Kg. ⑦ Crushed sand = 9.45 m³					
---	--	--	--	--	--

Continuation

16/03/2021
JE, Morha

Continuation