MMGSY(SC)

MBNO:-3595

Schedule XLV-Form No. 134

ग्राम सिसवां हरिजन टोला से उत्तर केरवा खार तक पथ।

DIVISION

Sanoj Kumar Singh SUB-DIVISION

3595

Tsugpur

MEASUREMENT BOOK

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 & final Bill of Construction work. Single			
~~N/A~~ N/W - Construction of Road with Maintenance from Gram Sishya Harijan Tola Se Uttar Kerwa Khar Tak					
Date of Strt - 13/02/2021					
Date of Completion - 12/03/2022					
Below	—	15.01			
		Measurement			
(1/1) P/V & fixing of working bench mark pillars do-do all complete job.		0.711 KM			
(2/2) ~~clearing & Grubbing Road land including uprooting weld vegetation etc.~~		~~1x 0.711 KM = 0.711 KM~~			
(2/2) P/V and fixing of Reference Pillar do-do all complete job.		1x 0.711 KM = 0.711 KM			

Continuation

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Particulars	Details of actual measure No.	L.	B.	D.	Contents of area
3/3 Clearing & Grubbing Road land including uprooting with vegetation do-do all complete job.					
	2 ×	23 × 30.04 ×	3.5	=	4830.0 m²
	2 ×	1 × 21.04 ×	3.50	=	147.0 m²
					4977.0 m²
				⇒	0.4977 Hec.
4/4 Excavation for roadway in soil do-do all complete job. Beside of BES of Rigid Pavement - 15.75 M³					
	2 × 7 Nos ×	30.04 ×	0.375 × 0.1	=	157.50 M³
	2 × 1 Nos ×	15.04 ×	0.375 × 0.1	=	1.125 M³
Beside of BES for flexible road.					
	2 × 16 Nos ×	30.04 ×	0.525 × 0.10	=	50.40 M³
	2 × 1 Nos ×	6.0 M ×	0.525 × 0.10	=	0.63 M³
					67.91 M³
5/5 Construction of GSB by providing well graded material do-do all complete job.					
GSB in widening					
	2 × 16 ×	30.04 ×	0.525 × 0.10	=	50.40
	2 × 1 ×	6.04 ×	0.525 × 0.10	=	0.63
for profile correction					
	2 × 2.5 ×	2.10 ×	0.10	=	1.05
	10 × 1.50 ×	1.20 ×	0.10	=	1.80
	5 × 2.70 ×	1.80 ×	0.10	=	2.43
	8 × 2.80 ×	1.90 ×	0.10		4.26

Continuation

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Particulars	Details of actual measure No.	L.	B.	D.	Contents of area
				Bf-	60.57
	8 x	2.90	2.80	x0.10 =	4.64 ~~6.05~~
	GSB in full width				
	16	x30.04	x4.05	x0.10 =	194.40 m^3
	1	x10.04	x4.05	x0.10 =	4.04 ~~4.64~~ m^3
					263.65 m^3

(5/9) P/L. laying, spreading & compacting KBM G3 material do-do all complete job.

14	x 3.75	x 0.075 =		3.94
35	x (3.90 + 4.0)/2	x0.075 =		~~10.37~~
30.04	x (4.0 + 3.8)/2	x0.075 =		8.78
30.04	x (3.8 + 4.0)/2	x0.075 =		8.78
30.04	x (4.0 + 3.90)/2	x0.075 =		8.89
30.04	x (3.90 + 3.8)/2	x0.075 =		8.66
30.04	x (3.8 + 4.0)/2	x0.075 =		8.78
30.04	x (4.0 + 4.0)/2	x0.075 =		9.0
30.04	x (4.0 + 3.80)/2	x0.075 =		8.78
30.04	x (3.8 + 3.75)/2	x0.075 =		8.49
30.04	x (3.75 + 3.75)/2	x0.075 =		8.44
				92.91

Continuation

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Particulars	Details of actual measure No.	L.	B.	D.	Contents of area
			BF	—	92.31
	30.04	$\times \frac{3.75+3.9}{2}$		$\times 0.075$	= 8.61
	30.04	$\times \frac{3.90+3.80}{2}$		$\times 0.075$	= 8.66
	30.04	$\times \frac{3.80+3.90}{2}$		$\times 0.075$	= 8.66
	30.04	$\times \frac{3.90+3.80}{2}$		$\times 0.075$	= 8.66
	30.04	$\times \frac{3.8+3.8}{2}$		$\times 0.075$	= 8.55
	21	$\times \frac{3.8+3.8}{2}$		$\times 0.075$	= 5.98
					142.03 M²

(7/10) P/L and Applying primer coat with Bitumen Emulsion (SS-1) on prepared surface &c.

	14	$\times$ 3.75	=	52.50
	35.04	$\times \left(\frac{3.9+4.0}{2}\right)$	=	138.25
	30.04	$\times \left(\frac{4.0+3.8}{2}\right)$	=	117.01 M²
	30.04	$\times \left(\frac{3.8+4.0}{2}\right)$	=	117.04 M²
	30.04	$\times \left(\frac{4.0+3.90}{2}\right)$	=	118.50
	30.04	$\times \left(\frac{3.90+3.8}{2}\right)$	=	115.50
	30.4	$\times \left(\frac{3.8+4.0}{2}\right)$	=	117.0

Continuation

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Particulars	Details of actual measure				Contents of area
	No.	L.	B.	D.	
		$30.0 \times \left(\frac{4.0+4.0}{2}\right)$		=	120.0
		$30.0 \times \left(\frac{4.0+3.8}{2}\right)$		=	117.0
		$30.0 \times \left(\frac{3.8+3.75}{2}\right)$		=	113.25
		$30.0 \times \left(\frac{3.75+3.75}{2}\right)$		=	112.50
		$30.0 \times \left(\frac{3.75+3.90}{2}\right)$		=	114.75
		$30.0 \times \left(\frac{3.90+3.80}{2}\right)$		=	115.50
		$30.0 \times \left(\frac{3.80+3.90}{2}\right)$		=	115.50
		$30.0 \times \left(\frac{3.90+3.80}{2}\right)$		=	115.50
		$30.0 \times \left(\frac{3.80+3.80}{2}\right)$		=	114.0
		$21.0 \times \left(\frac{3.8+3.80}{2}\right)$		=	79.80
					1893.55 M^2

(8/11) P/V and Apply Tack coat with Bitumen Emulsion (RS-1) do-do all complete job.

Qty VTHB P.No-(5)

= 1893.55 M^2

(9/12) P/V. laying & rolling of close-graded premix Surfacing material of 20mm thickness do-do all complete job.

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

Dtto UTMB D. No - (5)
— 1893.95 m^2

(10/13) Construction of GSB by P/L well graded material do-do all complete job.

In Box Cutting Portion.

2 X 20.04 X 0.665 X 0.10 = 2.66

2 X 6 X 30.4 X 0.375 X 0.10 = 13.50

2 X 21.04 X 0.375 X 0.10 = 1.58

For Profile correction
10 X 2.50 X 2.0 X 0.20 = 5.0

5 X 2.10 X 1.0 X 0.10 = 1.05

23.79 m^3

(11/14) P/L laying, spreading & Compacting stone Aggregate of WBM G-3 material do-do all complete job.

$20.04 \times \frac{5.3 + 3.9 + 3.8}{3} \times 0.075 = 6.50\ m^3$

$30.04 \times \frac{3.8 + 3.8}{2} \times 0.075 = 8.55\ m^3$

$30.04 \times \frac{3.80 + 3.70}{2} \times 0.075 = 8.44\ m^3$

$30.04 \times \frac{3.7 + 3.70}{2} \times 0.075 = 8.33\ m^3$

Continuation

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Particulars	Details of actual measure No.	L.	B.	D.	Contents of area
			B/F -		
	30.04	$\times \frac{3.70+4.0}{2}$		$\times 0.075 =$	8.66
	~~30.04~~	~~$\times \frac{4.0+3.90}{2}$~~		~~$\times 0.075 = 8.88$~~	
	30.04	$\times \frac{3.90+3.80}{2}$		$\times 0.075 = 8.66$	
	21.04	$\times 3.75$		$\times 0.075 =$	5.90
					63.92 M³
				Limit to	63.91 M³

12/ Construction of Un-reinforced Pcc pavement of M-30 grade c/w. do all complete job.

$20.4 \times \frac{5.3+3.90+3.8}{3}$			$\times 0.160 =$	13.87 M³
$30.04 \times \frac{3.80+3.8}{2}$			$\times 0.160 =$	18.24 M³
$30.04 \times \frac{3.8+3.70}{2}$			$\times 0.160 =$	18.0 M³
$30.04 \times \frac{3.70+3.70}{2}$			$\times 0.160 =$	17.76 M³
$30.04 \times \frac{3.71+4.0}{2}$			$\times 0.160 =$	18.48 M³
$30.04 \times \frac{4.0+3.90}{2}$			$\times 0.160 =$	18.96 M³
$30.04 \times \frac{3.90+3.80}{2}$			$\times 0.160 =$	18.48 M³
21.04×3.75			$\times 0.160 =$	12.60
				136.3
			Limit to	136.35 M³

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Particulars	Details of actual measure No.	L.	B.	D.	Contents of area
(13/4) Construction of Sub-grade and earthen shoulder do-do all complete job.					
(A) In flexible Road					
Sides of GSB					
	2×16×30.04×1.388×0.20 =				266.50
	2×1×10.04×1.388×0.20 =				5.55
Sides of KIBH					
	2×16×30.04×1.181×0.075 =				85.03
	2×1×10.04×1.181×0.075 =				1.77
					358.85
(B) In Rigid Road					
Sides of GSB					
	2×7×30.04×0.625×0.10 =				26.25
	2×1×11.04×0.625×0.10 =				1.38
Sides of KIBH					
	2×7×30.04×0.625×0.075 =				19.69
	2×1×11.04×0.625×0.075 =				1.03
Sides of CC Road					
	2×7×30.04×0.625×0.160 =				42.0
	2×11.04×0.625×0.160 =				2.20
					92.55
Total Qty = A + B					
	= 358.85+92.55				
	= 451.404 M³				

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Particulars	Details of actual measure No.	L.	B.	D.	Contents of area
(14/16) Rec M-15 grade Kilometer Stone etc					
	1×1·0 Nos =				1·0 Nos
(15/17) Rce M-15 grade 200 m stone etc					
	1×3·0 Nos =				3·0 Nos
(16/18) P/f and fixing of 600mm Circular etc.					
	1×4·0 Nos =				4·0 Nos
(17/19) P/f and fixing of 900mm equilateral triangular etc					
	1×2·0 Nos =				2·0 Nos
(18/20) P/f and fixing of 600mm×450mm rectangular etc-do all complete job.					
	1×2·0 Nos =				2·0 Nos
(19/21) P/f and laying of hot applied thermoplastic compound etc-do all complete job.					
On Rigid Portion					
	2× 7	× 30·04	× 0·10 =		42·0
	2× 1	× 11·04	× 0·10 =		2·20
At flexible Portion					
	2× 16	× 30·04	× 0·10 =		96·0 96·04
	2× 1	× 10·0	× 0·10 =		2·0
					142·20 m²

Continuation

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Particulars	Details of actual measure No.	L.	B.	D.	Contents of area
20/22 Planting of trees by the road side in 0.6m dia hole do-do all complete job.					
	2	25.0	Nos	=	50.0 Nos
21/23 P/v and laying of RCC Pipe duct do-do all complete job.					
	4	2	0.5	=	20.0 M
22/ Providing & erecting direction and place identification etc.					
	1	1.0	Nos	=	1.0 Nos
23/ P/v and fixing of typical MMGSY Information Sign board do-do all complete job.					
Logo Indentification Sign Board					
	1	2.0	Nos	=	2.0 Nos
Citizen Information Board					
	1	2.0	Nos	=	2.0 Nos
Maintenance Board					
	1	2.0	Nos	=	2.0 Nos
			Total	=	6.0 Nos

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Particulars	Details of actual measure No.	L.	B.	D.	Contents of area
24	Construction of Embankment with material obtained from borrow Pits etc do-do-all complete Job.				
Sl.No.	chainage	Area	Mean Area	Length	Qty.
1	0	1.948			
2	50	2.157	2.052	50	102.607
3	100	1.985	2.071	50	103.544
4	150	2.529	2.257	50	112.853
5	200	2.234	2.382	50	119.087
6	250	2.795	2.515	50	125.743
7	300	2.75	2.872	50	143.624
8	350	2.232	2.591	50	129.534
9	400	2.468	2.35	50	117.488
10	450	2.407	2.437	50	121.833
11	500	2.277	2.341	50	117.059
12	550	2.765	2.521	50	126.035
13	600	2.439	2.602	50	130.072
14	650	2.142	2.291	50	114.574
15	700	2.224	2.184	50	109.202
16	711	2.456	2.34	11	25.735
					1699.043
Deduction					
①	Subgrade(VTMB P.No-⑧)-				⊖ 450.41
⑪	GSB(VTMB P.No-⑨) - VTMB P.No ⑧				
	= 263.65 + 23.79 =				⊖ 287.44

Continuation

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Particulars	Details of actual measure No.	L.	B.	D.	Contents of area
				RF =	
(III) KIBM C-3 (UTMB P.No- (4) + UTMB No. (5)					
	142.08 +	62.81		= (6)	205.94
(IV) BT (LE	93.55	x 0.00	20)	= (7)	37.87
(V) PCC (UTMB P.No-	(8)			= (9)	136.35
					580.04 m³
(a) for	1000 m lead				
	580.04 m³ x	19.8 %			
			=		114.90 m³
(b) for	100 m lead				
	580.04 m³ x	80.15 %			
			=		465.10 m³

08/04/24
JE

08/04

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Particulars	Details of actual measure No.	L.	B.	D.	Contents of area
		Abstract of Cft			
(1/1) P/N & fixing of working bench Mark Pillar at Nos per KM etc					
Qty VTMB P. No – (1)					
0.711 KM @ 3691=73 ₹/KM					2625=00
(2/2) Reference Pillar etc. Qty					
VTMB P. No – (1) – 0.711 KM					
@ 1706=32 ₹/KM					1213=00
(3/3) clearing & Grubbing Road and including uprooting wild vegetation do-do all complete jobs.					
Qty VTMB P. No – (2)					
~~0.4077 KM~~ @ 5 1153=76 ₹/KM					25449=00
(4/4) Excavation for roadway in soil do-do all complete job.					
Qty VTMB P. No – (2)					
67.91 M³ @ 74=16 ₹/M³					5036=00
(5/5) construction of Embankment with material obtained from borrow pits pit for 1 coom lead etc.					
Qty VTMB P. No – (12)					
114.90 M³ @ 175.22 ₹/M³					20133=00
(6/6) Construction of embankment with material obtained from borrow pit for 100m lead etc.					
Qty VTMB P. No – (12)					
465.10 M³ @ 141= 14.2 ₹/M³					65644=00

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Particulars	Details of actual measure No.	L.	B.	D.	Contents of area
(7) Construction of Sub-grade & earthen shoulder do-do all complete job Qty VIMB P.No-					
(8) @	451.404 M^3 @				
	176=86 ₹/M^3 ——				79835=00
(8) Construction of CSB by P/V well graded material do-do all complete job. Qty VIMB P.No - (3)					
	262.65 M^3 @ 31.52=71 ₹/M^3 ——				83212=00
(9) P/V, laying, spreading & compacting WBM-G-3 material do-do all complete job. Qty VIMB P.No - (4) -	142.03 M^3 @				
	38.32=42 ₹/M^3 ——				54431=00
(10) P/V and Applying Prime Coat with Bitumen Emulsion (SS-1) etc Qty VIMB P.No - (5)					
	1893.55 M^2 @ 44=75 ₹/M^2 ——				84736=00
(11) P/V and Applying Tack Coat with Bitumen Emulsion (RS-1) etc. Qty VIMB P.No- (5) - 1893.55 M^2					
	@ 15=22 ₹/M^2 ——				28820=00
(12) P/V, laying & rolling of close-graded premix surfacing of 20mm thickness etc. Qty VIMB P.No — (6) -					
	1893.55 M^2 @ 234=50 ₹/M^2 ——				444037=00

Continuation

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Particulars	Details of actual measure No.	L.	B.	D.	Contents of area
(13/13) Construction of CC B by P/V Wall graded material do-do all complete job. Qty VTMB P.No- (6) @ 3152 = 71 3/M3					23.79 M3 — 75003=00
(14/14) P/V, laying & Spreading & Compacting WBM-G-3 material do-do all complete job. Qty VTMB P.No- (7)					63.9 1 M3 @ 3832 = 42 3/M3 — 244930=00
(15/15) Construction of Un-reinforced PCC Pavement of M-30 grade do-do all complete job. Qty VTMB P.No- (7)					136 = 35 M3 @ 7207 = 68 3/M3 — 982760=00
(16/16) Rcc M-15 grade KM stone etc. Qty VTMB P.No- (9)					1.0 Nos @ 2286 = 01 3/Nos — 2286=00
(17/17) Rcc M-15 grade 200 lts stone etc. Qty VTMB P.No- (6)					3.0 Nos @ 607 = 74 3/Nos — 1823=00
(18/18) P/V & fixing of R.C.C 600 mm Circular etc. Qty VTMB P.No- (9)					4.0 Nos @ 4958 = 02 3/Nos — 19832=00

Continuation

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Particulars	Details of actual measure No.	L.	B.	D.	Contents of area
(19/19) P/f & fixing 900mm equilateral & triangle ch Dtp VTMB P.No- (9)					
2.0Nos @ 5455=75 ₹/No					10912=00
(20/20) P/f & fixing 600m x 450mm rectangular ch. Dtp VTMB P.No- (9)					
2.0Nos @ 4827=85 ₹/No					9656=00
(21/21) P/f and laying of hot applied thermoplastic compound do-do all complete job. Dtp VTMB P.No- (9)					
142.20 M² @ 735=44 ₹/M²					104580=00
(22/22) Planting of trees by the road side do-do all complete job. Dtp VTMB P.No- (10) 50.0Nos @ 819=92 ₹/No					40996=00
(23/23) P/f and laying of RCC pipe duct 300mm dia ch. Dtp VTMB P.No- (10)					
20.0M @ 807=15 ₹/M					16143=00
(24/24) P/f and erecting direction & Place do-do all complete Job. Dtp VTMB P.No- (10)					
1.0Nos @ 8166=67 ₹/Nos					8167=00

Continuation

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Particulars	Details of actual measure No.	L.	B.	D.	Contents of area
25/25 P/f and fixing of typical MMGSP informatory sign board do- do a/c complete job- Qty VTMS P.No- (10)	6.00 Nos @	109.20=08		2 Nos —	65520=00
					3710667=00
	Add	12% for GST	—		445280=00
	Add	1% for LC	—		37107=00
	Add	SF	—		39960=00
					4233014=00
Less as per Agreement		15.01% below=€			635375=00
					3597639=00

08/04/24 JE

08/04/24

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