

Tamwar Utkramit Madhya Vidhyalay Se Lant Bar hake.

Schedule XLV-Form No. 134

MMHSY - New (Sc)

E. E. R. W. D works **DIVISION**

Chapara - 2

A. E. R. W. D works **SUB-DIVISION**

Ashish Rangan

Chhapra

MEASUREMENT BOOK

3524

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.	
Name of work -	Tanjavur Vtkarni Madhyam				
	Vidhyakul Se langri Barr Tak				
Length =	0.425 km				
Agreement No -	56/SBD/2020-2021				
Agreement Amount -	30.1976				
Date of start -	13/07/2020				
Date of Completion -	13/04/2021				
Date of Actual Completion -					
Below =	0.11% ✓				

Measurement				
1/	P/v and fixing of working bench mark Pillars			
	4 Nos per km of reference pillar etc.			
	$14 \times 30.04 = 420.04 \checkmark$			
	$1 \times 5.04 = 5.04 \checkmark$			
	425.04 $\checkmark$			
	$\frac{425}{1500} = 0.2833$			
	$= 0.43 \text{ km}$			
2/	Clearing & Grubbing Road land including			
	removing wild vegetation etc.			
	$2 \times 14 \times 30.04 \times 2.04 = 1680.04^2 \checkmark$			
	$2 \times 1 \times 5.04 \times 2.04 = 20.04^2 \checkmark$			
	1700.04 $\checkmark$			
Continuation = $\frac{1700}{10000} \text{ Hec} \checkmark$				
$= 0.170 \text{ Hec}$				

Sch.XLV-Form No. 134

Particulars	Details of actual measure				Contents of area
	No.	L.	B.	D.	
3/3 Box cutting Excavation for roadway in soil using manual means for carrying - B/s.					
	2X	8X30.04	X0.525	X0.10	25.20
	2X	1X12.04	X0.525	X0.10	1.26 0.63
	2X	5X30.04	X0.875	X0.10	11.25
	2X	1X25.04	X0.875	X0.10	1.88
					39.59 ^m
					Limit is - 39.38
4/4 Construction of embankment with approved material deposited from roadway etc.					

60% Bhp of routine No 3/3	
= 60% X 39.38 =	23.628 ³

5/8 Construction of GSB by P/V well graded material do-do as per B/s For Profile correction in BT position	
--	--

5X3.04	X2.54	X0.10	=	3.75
2X2.5	X2.6	X0.10	=	1.30
4X1.5	X2.50	X0.10	=	1.50
3X2.40	X1.36	X0.10	=	0.98
GSB in Widening in BT				
2X8X30.04	X0.525	X0.10	=	25.20
2X1X12.04	X0.525	X0.10	=	1.26

Continuation

Sch.XLV-Form No. 134

Particulars	Details of actual measure				Contents of area
	No.	L.	B.	D.	
GSB in full width					
8 x 30.04 x 4.05 x 0.10 =					97.204 ³
1 x 12 x 4.05 x 0.10 =					4.86
In Pcc Portion					
for Profile Correction					
5 x 1.89 x 1.88 x 0.10 =					1.78 ²
10 x 1.51 x 1.75 x 0.10 =					2.64
GSB in widening					6
2 x 5 x 30.04 x 0.375 x 0.10 =					11.25
2 x 1 x 25.04 x 0.375 x 0.10 =					1.88
					153.60 =
					146.07

(6/9) P/v, laying, spreading & compacting
Stone Aggregate of Specific Sizes of
IBM G-3 material do-do all complete job.

In BT Portion

11 x $\frac{3.75 + 3.50 + 3.75}{3}$ =	40.38 m ²
14 x $\frac{3.75 + 3.70}{2}$ =	52.15 m ²
30.04 x $\frac{3.70 + 3.60}{2}$ =	109.50
30.04 x 3.75 (av) =	112.50

Continuation

Sch.XLV-Form No. 134

Particulars	Details of actual measure				Contents of area
	No.	L.	B.	D.	
		$30.04 \times \frac{3.75 + 3.70}{2}$			$= 111.75 \text{ m}^2$
		$30.04 \times \frac{3.70 + 3.40}{2}$			$= 106.50 \text{ m}^2$
		$30.04 \times \frac{3.40 + 3.90}{2}$			$= 109.50$
		$30.04 \times \frac{3.90 + 3.70}{2}$			$= 114.04 \text{ m}^2$
		$30.04 \times \frac{3.70 + 3.70}{2}$			$= 111.04 \text{ m}^2$
		$17.04 \times \frac{3.70 + 3.70}{2}$			$= 62.90$
					$930.13 \text{ m}^2 - \textcircled{A}$

$Qty = 930.13 \times 0.075 = 69.76 \text{ m}^3 - \textcircled{B}$					
<u>In pcc position</u>					
		$8 \times \frac{6.8 + 4.8}{2}$			$= 46.40 \text{ m}^2$
		$22 \times \frac{4.8 + 3.75}{2}$			$= 94.05$
		$18 \times 3.75 \text{ (av)}$			$= 67.50 \text{ m}^2$
		$22 \times 3.40 \text{ (av)}$			$= 78.20 \text{ m}^2$
		$3 \times 30 \times 3.75$			$= 337.50 \text{ m}^2$
		14×3.75			$= 52.50$
					$676.15 \text{ m}^2 - \textcircled{C}$
		$Qty = 676.15 \times 0.075 = 50.71 - \textcircled{D}$			
		$Total Qty = \textcircled{B} + \textcircled{D}$			

Continuation
 $= 69.76 + 50.71 = 120.47 \text{ m}^3$

Sch.XLV-Form No. 134

Particulars	Details of actual measure				Contents of area
	No.	L.	B.	D.	
(7/10) P/V and applying primer coat with Bitumen emulsion (RS-1) on prepared surface etc.					
Qty VTMB P.No - (4) item					
No - 6/5 (A) -			930.13 M ²	✓	
(8/11) P/V & Applying Tack coat (RS-1) on prepared surface etc.					
Qty VTMB P.No - (4) item					
No - 6/9 (A) -			930.13 M ²	✓	
(9/12) P/V, laying & rolling of class- graded premix & surfacing material materials of 20mm thick etc.					

Qty VTMB P.No - (4) item No					
- 6/5 (A) -			930.13 M ²	✓	
(10/13) Construction of PCC pavement of M-30 grade do - do all complete job.					
$8 \times \frac{6.8 + 4.80}{2} \times 0.160 =$			7.424 M ³	✓	
$22 \times \frac{4.80 + 3.75}{2} \times 0.160 =$			15.05	✓	
$18 \times 3.75 \times 0.160 =$			10.80	✓	
$23 \times 3.40 \times 0.160 =$			12.51	✓	
$3 \times 30 \times 3.75 \times 0.160 =$			54.0 M ³	✓	
$14 \times 3.75 \times 0.160 =$			8.40	✓	

Continuation

108.18

Limit to - 107.10 M³

Sch.XLV-Form No. 134

Particulars	Details of actual measure				Contents of area
	No.	L.	B.	D.	
(11/14) Pk and laying Rec Pipe etc					
300 mm dia etc					
		1 x 30.4			3.0 m
(12/15) Rec M-15 grade 1 st					
(12/6) Construction of sub grade 1					
earthen material done all complete job.					
Beside of GSB					
		2 x 8 x 30 x 0.975 x 0.10 =			46.80
		2 x 1 x 10 x 0.975 x 0.10 =			1.95
Beside of WBM					
		2 x 8 x 30.04 x 1.125 x 0.075 =			40.50
		2 x 1 x 10.0 x 1.125 x 0.075 =			1.69
					2.25
					30.94 m ³
(13/7) Construction of sub grade 1					
earthen shoulder with approved etc.					
Sides of WBM					
		2 x 5 x 30.04 x 0.625 x 0.075 =			14.06
		2 x 1 x 25.04 x 0.625 x 0.075 =			2.34
Sides of PCC					
		2 x 5 x 30.04 x 0.625 x 0.160 =			30.0 m ³
		2 x 1 x 25.04 x 0.625 x 0.160 =			5.0 m ³
					51.40 m ³
(14/15) Rec M-15 grade boundary Pillar etc.					
		1 x 8			
		2 x 40.04 =			8.0 m

Continuation

Sch.XLV-Form No. 134

Particulars	Details of actual measure				Contents of area
	No.	L.	B.	D.	
(15/16) Rec 1-15 grade M-15 grade kilometer stone etc.					
				1x2.0 Nos = 2.0 Nos ✓	
(16/17) 200 m Stone					
				1x1.0 Nos = 1.0 Nos ✓	
(17/18) P/V and fixing of 600 mm equilateral & triangle etc.					
				1x1.0 Nos = 1.0 Nos ✓	
(18/19) P/V and fixing of 600 mm Circular etc.					
				1x1.0 = 1.0 Nos ✓	
(19/20) Planting of trees by the road side etc.					
				2x13.0 Nos = 26.0 Nos ✓	
(20/21) P/V and fixing of 600 mm x 450 mm rectangular etc.					
				1x1.0 Nos = 1.0 Nos ✓	
(21/22) P/V and erecting direction & place identification etc.					
				Direction Sign Board = 1.0 Nos	
				Intermediate Sign Board etc = 1.0 Nos	
				2.0 Nos ✓	

Continuation

Sch.XLV-Form No. 134

Particulars	Details of actual measure				Contents of area
	No.	L.	B.	D.	
(22/23) P/v and laying of hot applied thermoplastic compound etc.					
		2x8x30	0.10		48.0 ✓
		2x1x10.04	0.10		2.0 ✓
		2x5x30.04	0.10		30.0 ✓
		2x1x25.04	0.10		5.0 ✓
					85.042 ✓
(23/24) P/v and fixing of typical Informitory sign board with logo as per MORD Specification etc.					
		1x1.6	0.04		1.04 ✓
(24/25) P/v and fixing of Maintenance board with logo as per MORD Specification.					
		1x1.0	0.04		1.04 ✓
(25/26) P/v and fixing of Citizen Information board as per MORD Specification etc.					
		1x1.0	0.04		1.04 ✓
(26/5) Construction of Embankment with material obtained from borrow pit etc.					

Continuation

Sch.XLV-Form No. 134

Particulars	Details of actual measure				Contents of area
	No.	L.	B.	D.	
Sl. No	chainage	Area	mean Area	Length	Volume
1	0	1.0			
	50	1.50	1.25	50	62.50
	100	1.60	1.55	50	77.50
	150	1.70	1.65	50	82.50
	175	1.70	1.70	25	85.00 42.50
	200	2.20	1.95	25	48.75
	250	2.30	2.25	50	112.50
	300	2.80	2.55	50	127.50
	350	3.0	2.90	50	145.0
	400	2.100	2.55	50	127.50
	427	2.90	2.50	27	67.50
					893.75 m ³

Deduction					
(i) GSB (VTMB P.No - 3) = ⊖	153.62				
(ii) WBM G-3 (VTMB P.No - 4) = ⊖	120.47				
(iii) PCC (VTMR P.No - 5) = ⊖	107.10				
(iv) Subgrade (VTMB 6) - 30.94 + 51.45 = ⊖	142.34				
(v) BT (930.13 x 0.02) = ⊖	18.60				
					351.62 m ³

Continuation

Sch.XLV-Form No. 134

Particulars	Details of actual measure				Contents of area
	No.	L.	B.	D.	
Abstract of Cost					
1/1 P/V and fixing of working bench - mark pillar etc. Qty VTMB					
P.No - ①	0.43	KM	@ 6058	8857	2605200
	✓		✓		✓
2/2 Clearing & Grubbing road land including uprooting wild vegetation etc.					
Qty VTMB P.No - ①	0.17	Hec			
@ 51133.76	76	7 Hec			8693200
	✓				✓
3/3 Excavation of embankment with approved material etc. Qty					
VTMB P.No - ②	29.38	M ³			
@ 126	24	7 M ³			4971200
	✓				✓
4/4 Construction of embankment with approved material etc. Qty					
VTMB P.No - ②	23.63	M ³	@		
88.36	7 M ³				2088200
	✓				✓
5/5 Construction of embankment with material obtained from borrow pit etc. Qty VTMB P.No - ④					
351.62	M ³ @ 184	302	M ³		64804200
	✓	✓			
6/6 Construction of subgrade & earthen shoulder etc. Qty VTMB					
P.No - ⑤	90.94	M ³ @			
210	88	7 M ³			19177200
					✓

Continuation

11
Sch.XLV-Form No. 134

Particulars	Details of actual measure				Contents of area
	No.	L.	B.	D.	
7/7 Construction of sub-graded earthen shoulder etc. Qty VTMB P. No - ⑤ - 51.40 m ³					
@ 210 = 88 5 m ³					10839 = 00
8/8 Construction of GSB by P/V well graded material etc. Qty VTMB P. No - ③ - 153.60 m ³					
@ 2515 = 15 2 m ³					539997 = 00
9/9 P/V laying, spreading & compacting WBM G-2 material etc. Qty VTMB P. No - ④ - 120.47 m ³					539927 = 00
@ 4263 = 74 2 m ³					513653 = 00
10/10 Prime Coat - (SS-1) Qty VTMB P. No - ⑤ - 930.13 m ²					
@ 45.46 2 m ²					42284 = 00
11/11 Tack Coat (RS-1) Qty VTMB P. No - ⑤ - 930.13 m ²					
@ 15 = 63 2 m ²					14538 = 00
12/12 Mix Seal Surfacing on prepared surface etc. Qty VTMB P. No - ⑤ - 930.13 m ²					
@ 248 = 53 2 m ²					231165 = 00
13/13 P/V PCC Pavement M-30 grade do - do all complete jobs. Qty VTMB P. No - ⑤ - 107.10 m ³					
@ 7839 = 24 2 m ³					839583 = 00

Continuation

Sch.XLV-Form No. 134

Particulars	Details of actual measure				Contents of area
	No.	L.	B.	D.	
(14/14) P/x and laying RCC fibre of 200 mm dia etc.					
Qty VTMB P.No. - (6) - 3.04					
@ 836 = 98 2 m					2511 = 00
(15/15) P/x RCC M-15 grade Boundary Pillar etc. Qty VTMB P.No. - (6)					
8.0 Nos @ 511 = 00					4088 = 00
(16/16) KM Stone					
Qty VTMB P.No. - (7)					
2.0 Nos @ 22.76 = 67 3 m					4553 = 00
(17/17) 200mm Stone					
Qty VTMB P.No. - (7) - 1.0 Nos					
@ 634 = 26 2 m					634 = 00
(18/18) 600mm equilateral triangle etc.					
Qty VTMB P.No. - (7) - 1.0 Nos					
@ 3582 = 12 2 No					3582 = 00
(19/19) 600mm circular etc.					
Qty VTMB P.No. - (7) - 1.0 Nos					
@ 4740 = 23 2 No					4740 = 00
(20/20) Planting of trees by the road side etc. Qty VTMB P.No. - (7) - 26 Nos @					
822 = 26 2 No					213792

Continuation

Sch.XLV-Form No. 134

Particulars	Details of actual measure				Contents of area
	No.	L.	B.	D.	
21/21 600 mm x 450 mm rectangular retro-reflective board etc. Qty VTMB P.No-⑤ 1.0 No @ 4643 = 4643 $\frac{2}{m^2}$					4644 sqm
22/22 P/V and erecting direction & plate identification retro-reflective red sign as per IRC:67. Qty VTMB P.No-⑦ - 2.0 No @ 10437 = 20874 $\frac{2}{m^2}$					
23/23 P/V and laying of hot applied thermoplastic compound etc.					
Qty VTMB P.No-⑧ - 85.0 m ² @ 735 = 44 $\frac{2}{m^2}$					62512 sqm
24/24 P/V and fixing of typical Informative sign board with logos as per MORD Specification etc.					
Qty VTMB P.No-⑧ - 1.0 No @ 9414 = 9414 $\frac{2}{m^2}$					9415 sqm
25/25 P/V and fixing of Maintenance board with logos as per MORD Specification. Qty VTMB P.No-⑧ 1.0 No @ 9414 = 9414 $\frac{2}{m^2}$					9415 sqm

Continuation

					Jen	279159
					Lut	
					S/S/23	
					AB	
					CAP	
					Rip	
					05/05/23	

Continuation