प्रमाणित किया जाता है कि
मापी पुस्तक में समीक्षा इंजीत, जरूरतों
पुष्ट है जिसे श्री बाबू लाल प्रसाद
सहायक अभियंता कार्य उक्त प्रमंडल
पकड़ीदयाल के पदभार से निर्गत किया
~~जाता है~~ गया है

कार्यपालक ~~अभियंता~~
ग्रामीण कार्य विभाग
कार्य प्रमण्डल, पकड़ीदयाल
18.7.19

Schedule XLV Form No.-134

R.W.D PAKARIDAYAL DIVISION

R.W.D PAKARIDAYAL SUB-DIVISION

MEASUREMENT BOOK

764

Name of officer _____

_____

Date of first entry _____

Date of last entry _____

Sch. XLV-Form No.134

Particulars	Details of actual measurement No.	L.	B.	D.	Contents of area
Name of work :- Proposed High level Pcc Bridge with Five year Maintenance of Across Sikta Kothi River At - Gudarghat Under - Pakridayal Block in the District. East Champaran. Under - NABARD					
Agency :- M/s Rudra Enterprises at Belban -ws Motihari, East Champaran.					
Agreement No :- 14SBD/2019-20					
Date of work order :- 06-09-20					
Date of comp :- 05.09.21					
1. Providing Elastomeric Bearing & Seismic Pad - all comp. Job - Cu.m					
Span - P3-P4					
Pier 3 -	3	63.00	28.00	0.60	45571.20 m³
Pier 4 -	3	63.00	28.00	0.60	45511.20 m³
				T-	91022.40 m³
2. S/F & Placing HYSD bar Reinforcement in Superstructure all comp. Job - Kg					
Span. P3-P4					
Main Girders					
28mm Φ :	12	18.44	4.84 kg/m		= 1071.00 kg.
28mm Φ :	12	18.44	4.84 kg/m		= 1071.00 kg.
28mm Φ :	6	19.608	4.84 kg/m		= 569.42 kg.

Sch. XLV-Form No.134

Particulars	Details of actual measurement No.	L.	B.	D.	Contents of area
28mm ϕ	6 ×	18.316 ×	4.84 kg	/M =	531.90 kg.
28mm ϕ	6 ×	16.43 ×	4.84 kg	/M =	477.13 kg.
28mm ϕ	4 ×	14.59 ×	4.84 kg	/M =	282.46 kg.
16mm ϕ	12 ×	17.00 ×	1.58 kg	/M =	322.32 kg.
6mm ϕ	60 ×	17.00 ×	0.22 kg	/M =	224.40 kg
10mm ϕ	311 ×	2 × 3.756 ×	0.62 kg	/M =	1448.46 kg
6mm ϕ	58 ×	1.035 ×	0.22 kg	/M =	13.21 kg.
6mm ϕ	116 ×	0.750 ×	0.22 kg	/M =	19.14 kg.
Cross Girder					
20mm ϕ	6 ×	8.096 ×	2.47 kg	/M =	120.00 kg.
20mm ϕ	4 ×	8.284 ×	2.47 kg	/M =	82.00 kg.
25mm ϕ	9 ×	8.350 ×	3.86 kg	/M =	290.00 kg.
25mm ϕ	3 ×	6.495 ×	3.86 kg	/M =	75.00 kg.
25mm ϕ	2 ×	6.495 ×	3.86 kg	/M =	50.00 kg.
25mm ϕ	2 ×	8.494 ×	3.86 kg	/M =	65.00 kg.
10mm ϕ	66 ×	2 × 2.786 ×	0.62 kg	/M =	228.00 kg.
10mm ϕ	28 ×	2 × 3.586 ×	0.62 kg	/M =	125.00 kg.
6mm ϕ	24 ×	5.950 ×	0.22 kg	/M =	31.00 kg.
6mm ϕ	12 ×	5.25 ×	0.22 kg	/M =	14.00 kg.
16mm ϕ	18 ×	3.996 ×	1.58 kg	/M =	114.00 kg.
6mm ϕ	12 ×	6.78 ×	0.22 kg	/M =	18.00 kg.
6mm ϕ	16 ×	2.93 ×	0.22 kg	/M =	10.00 kg.
12mm ϕ	4 ×	2.604 ×	0.89 kg	/M =	27.00 kg.
				T	7279.44 kg.
Add 5% Extra for lap & Wastage				(+)	363.97 kg.
				T	7643.41 kg.
				or.	7.64 MT

Continuation

Sch. XLV-Form No.134

Particulars	Details of actual measurement No.	L.	B.	D.	Contents of area
2.	Providing RCC M30 in				
	super structure all comp				
	Job			ell	
Main	Girder				
3 x	17.07	x 0.300	x 1.460	=	22.43 m³
Cross	Girder				
3 x	4.10	x 0.250	x 1.460	=	4.49 m³
				T	26.92 m³
(signature) 25.3.23 J.E.					
3.	Supplying fitting & Plac				
	HYSD bar Reinforcement				
	in super structure all				
	Comp. Job			ell	
Span -	P3 - P4				
Slab					
12 mm φ	72 x	7.252	x 0.89 kg	/m	465.00 kg.
12 mm φ	78 x	5.30 x	0.89 kg	/m	368.00 kg.
12 mm φ	74 x	5.30 x	0.89 kg	/m	349.00 kg.
16 mm φ	156 x	2.325 x	1.58 kg	/m	573.00 kg.
8 mm φ	138 x	1.850 x	0.395 kg	/m	100.00 kg.
8 mm φ	24 x	17.24 x	0.395 kg	/m	161.00 kg.
8 mm φ	24 x	17.262 x	0.395 kg	/m	162.00 kg.
8 mm φ	44 x	17.02 x	0.395 kg	/m	296.00 kg.
8 mm φ	16 x	1.70 x	0.395 kg	/m	11.00 kg.
8 mm φ	8 x	17.02 x	0.395 kg	/m	53.00 kg.

Continuation

Sch. XLV-Form No.134

Particulars	Details of actual measurement No.	L.	B.	D.	Contents of area
8 mm ϕ	116	× 1.656	× 0.395 kg/m	:	75.00 kg.
				T	2613.00 kg.
Add 5%.	Extra laps & Wastage			(+)	130.65 kg.
				T	2743.65 kg.
				or.	2.743 MT
4. Providing Rcc M 30 in sub & structure all comp. Job					
	—	—	—		Cu.m
Slab.	17.05	× 8.450	× 0.24 (Avg)	:	34.57
				T	34.57 m³

28.4.23
S.E.

5. Providing Elastomeric Bearing & Seismic Pad all comp. Job — Each

Span - P4 - A1

Pier 4	3 ×	63.00 ×	28.00 ×	8.60	: 45511.20 m³
Abut. 1	3 ×	63.00 ×	28.00 ×	8.60	: 45511.20 m³
				T	91022.40 m³

6. Supplying Fitting & Placing HYSD bar reinforcement in Super Structure all comp. Job — Kg

Continuation

Sch. XLV-Form No.134

Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
Span - Py - A1					
Main Girder -					
28 mm φ	12 ×	18.440 ×	4.84 kg/m	=	1071.00 kg.
28 mm φ	12 ×	18.440 ×	4.84 kg/m	=	1071.00 kg.
28 mm φ	6 ×	19.608 ×	4.84 kg/m	=	569.42 kg.
28 mm φ	6 ×	18.316 ×	4.84 kg/m	=	531.90 kg.
28 mm φ	6 ×	16.43 ×	4.84 kg/m	=	477.13 kg.
28 mm φ	4 ×	14.59 ×	4.84 kg/m	=	282.46 kg
16 mm φ	12 ×	17.00 ×	1.58 kg/m	=	322.32 kg.
6 mm φ	60 ×	17.00 ×	0.22 kg/m	=	224.40 kg
10 mm φ	311 ×	2 × 3.75 ×	0.62 kg/m	=	1448.46 kg
6 mm φ	58 ×	1.035 ×	0.22 kg/m	=	13.21 kg.
6 mm φ	116 ×	0.750 ×	0.22 kg/m	=	19.14 kg
Cross Girder -					
20 mm φ	6 ×	8.096 ×	2.47 kg/m	=	120.00 kg.
20 mm φ	4 ×	8.284 ×	2.47 kg/m	=	82.00 kg.
25 mm φ	9 ×	8.350 ×	3.86 kg/m	=	290.00 kg
25 mm φ	3 ×	6.495 ×	3.86 kg/m	=	75.00 kg.
25 mm φ	2 ×	6.495 ×	3.86 kg/m	=	50.00 kg
25 mm φ	2 ×	8.494 ×	3.86 kg/m	=	65.00 kg.
10 mm φ	66 ×	2 × 2.786 ×	0.62 kg/m	=	228.00 kg.
10 mm φ	28 ×	2 × 3.586 ×	0.62 kg/m	=	125.00 kg.
6 mm φ	24 ×	5.950 ×	0.22 kg/m	=	31.00 kg.
6 mm φ	12 ×	5.250 ×	0.22 kg/m	=	14.00 kg.
16 mm φ	18 ×	3.996 ×	1.58 kg/m	=	114.00 kg.
6 mm φ	12 ×	6.78 ×	0.22 kg/m	=	18.00 kg.
6 mm φ	16 ×	2.93 ×	0.22 kg/m	=	10.00 kg.
12 mm φ	4 ×	7.604 ×	0.89 kg/m	=	27.00 kg
Continuation				=	7279.44 kg

P.T.O

Sch. XLV-Form No.134

Particulars	Details of actual measurement No.	L.	B.	D.	Contents of area
		Brf 9%	—	7279.44 kg.	
Add 5% Extra for lap & wastage (+)					363.97 kg
				T - 7	643.41 kg.
				or, 7.643 MT	
7. Providing Ice 730 in Super Structure all comp. Job				Cu ft	
Main Girders					
	3 × 17.07	× 0.300	× 1.460	=	22.43 m³
Cross Girders					
	3 × 4.10	× 0.250	× 1.460	=	4.49 m³
				T	26.92 m³

Ang.
2.5.23
S.E.

8. Supplying, fitting and Placing HYSD bar reinforcement in Super Structure all comp. Job — Cu ft

Span (A4 - A1)

Slab

12 mm φ	72 × 7.252 × 0.89 kg/m	=	465.00 kg.
12 mm φ	78 × 5.30 × 0.89 kg/m	=	368.00 kg.
12 mm φ	74 × 5.30 × 0.89 kg/m	=	349.00 kg.
16 mm φ	156 × 2.325 × 1.58 kg/m	=	573.00 kg.
8 mm φ	138 × 1.850 × 0.395 kg/m	=	100.00 kg.
8 mm φ	24 × 17.24 × 0.395 kg/m	=	161.00 kg.
8 mm φ	24 × 17.262 × 0.395 kg/m	=	162.00 kg.

Continuation

Sch. XLV-Form No.134

Particulars	Details of actual measurement No.	L.	B.	D.	Contents of area
8 7 4 φ	44 ×	17.02 ×	0.395 kg/m	=	296.00 kg
8 7 4 φ	16 ×	1.70 ×	0.395 kg/m	=	11.00 kg
8 7 4 φ	8 ×	17.02 ×	0.395 kg/m	=	53.0 kg.
8 7 4 φ	116 ×	1.656 ×	0.395 kg/m	=	75.0 kg.
				T	2613.00 kg.
	Add 5% Extra Lapa & wastage (+)				130.65 kg
				T	2743.65 kg
				or	2.743 MT

9. Providing ACC 730 in Super Structure all Comp. Job ____ Each

Slab. 17.05 × 8.450 × 0.24 (Avg) = 34.57 m³

T 34.57 m³

28.7.23
J.E.

AE

10. Providing weep hole in abutment & pier all comp. Job ____ Each 34 Nos

11. Providing ACC 730 in railing with gradual slope all comp. Job ____ on

~~2 × 5 × 17.118 = 2.~~

2 × 5 × 17.118 (Avg) = 171.18

2 × ½ × 1.95 (Avg) = 15.60

T 186.78 m

Continuation

24.8.23.
J.E.

Sch. XLV-Form No.134

Particulars	Details of actual measurement No.	L.	B.	D.	Contents of area
12. Providing M30 in wearing coat with 50/65mm thick all comp. Job ___ Cu					
Slab -	5	× 17.118	× 7.50	× 0.075 =	48.14
				T	48.14 m³
25.9.23 S.E.					
13. Providing Drainage spout as per app. Drawing ___ Cu.					
	5	× 6		=	30 NO
14. Back filling behind abutment using wash and return wall all comp. Job ___ Cu					
A2 -	1	× 2.90 × 6.350	× 6.35 =		116.935
A1	1	× 2.90 × 6.350	× 6.35 =		116.935
				T	233.870 m³
15. Providing filter media with stone metal & soil as per comp. Job ___ Cu					
B. Abut.	2	× 7.55 × 0.60	× 6.35 =		57.531
13. No. wall -	4	× 2.90 × 0.60	× 6.35 =		44.196
				T	101.727 m³

Continuation

Sch. XLV-Form No.134

Particulars	Details of actual measurement No.	L.	B.	D.	Contents of area
16. Providing P.C.C. 1:5:10 under leveling course below approach slab all complete Job ——— Cu.M					
	2 × 3.50 × 7.55 × 0.15			=	7.928
				T	7.928 M³
24.10.23 J.E.					
17. Providing P.C.C. 1:5:10 in approach slab all complete Job ——— Cu.M					
	2 × 3.50 × 7.55 × 0.300			=	15.855
				T	15.855 M³
25.11.23 J.E.					
18. Providing & laying of a strip seal expansion joint all complete Job ——— Rm					
	6 × 8.85 M			=	53.10
				T	53.10 Rm.
19. Construction of Embankment with approved material from borrow pits ——— Cu.M					
Earth work quantity sheet					
Sl. No.	Ch.	Area	Mean Area	Dist. M	Volume M³
At Side :—					
1	10.	3.660	0.915	10.00	9.150
2	20	3.282	1.736	10.00	17.355
3	30	34.671	9.489	10.00	94.883

Continuation

Sch. XLV-Form No.134

Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
4	40.-	42.454	19.282	10.00	192.813
5	50.-	48.953	22.852	10.00	228.518
6	60.-	56.974	26.482	10.00	264.818
7	70.-	63.862	30.209	10.00	302.090
8	80.-	66.937	32.700	10.00	326.998
9	90.-	68.449	33.847	10.00	338.465
10	100.-	69.571	34.505	10.00	345.050
11	110.-	64.066	33.410	10.00	334.093
12	120.-	55.228	29.824	10.00	298.235
13	130.-	71.762	31.748	10.00	317.475
14	140.-	78.043	37.453	10.00	374.513
15	150.-	79.355	39.350	10.00	393.495
16	160.-	84.365	40.930	10.00	409.300
17.	163.-	85.056	42.356	3.00	127.066
A2 & 2e.	—				
18.	256.-	93.569	—	—	—
19	260.-	93.505	46.769	4.00	187.074
20	270.-	99.873	48.345	10.00	483.440
21	280.-	94.608	48.621	10.00	486.203
22	290.-	88.574	45.781	10.00	457.805
23	300.-	84.592	43.264	10.00	432.640
24	310.-	78.108	40.663	10.00	406.625
25	320.-	70.699	37.202	10.00	372.018
26	330.-	60.242	32.736	10.00	327.353
27	340.-	46.909	26.788	10.00	267.878
28	350.-	36.646	20.869	10.00	208.888
29.	360.-	15.432	13.020	10.00	130.195

Continuation

Sch. XLV-Form No.134

Particulars	Details of actual measurement No.	L.	B.	D.	Contents of area
30.	365.0	0.529	3.991	5.0	19.952
				T	8157.393 m^3
24.12.23. J.E.					
20.	E/L in excavation in foundation				
A1 size	1 × 50.00 ×	2.22 ×	1.50	=	166.50
A2 size	1 × 50.00 ×	2.22 ×	1.50	=	166.50
				T	333.00 m^3
24.	Nominal reinforcement in guard wall steel used in g. wall as per				
10 mm ϕ	2 × 2 × 16 no × 50 m				
	@ 0.62 kg/m			=	1984 kg.
	2 × 250 no × 5.50 m.				
	@ 0.62 kg			=	1705 kg
				T	3689 kg.
Add	5% Wastage & over lap				184.45 kg
				T	3873.45 kg
				or	3.873 MT
16.1.24. J.E.					

Continuation

Sch. XLV-Form No.134

Particulars	Details of actual measurement No.	L.	B.	D.	Contents of area
22.	Const° of M/S grade in RCC guard wall as per drawing				
A1 -	1	50.00	$\frac{1.80+0.80+0.40}{3}$	3.176	158.80
A2 -	1	50.00	$\frac{1.80+0.80+0.40}{3}$	3.176 =	158.80
					1
				T	317.60 m³
23.	Weep hole in guard wall as per drawing				
A1 -	1	34 No			= 34 No
A2 -	1	34 No			= 34 No
				T	68 No.

Abstract of cost

Sch. XLV-Form No.134

Particulars	Details of actual measurement No.	L.	B.	D.	Contents of area
1/2.0	E/W in excavation for foundn ~~_____~~ vide Typ B-56			E/F	
496.76 m³ @	Rs. 73.73				Rs. 36626.-
2/10.	S/F & Placing Hyson bar reinf ~~_____~~ P.56				
90.59 MT @	Rs. 76903.11				Rs. 6966653.-
3/5.0	PCC board containing sity 435 psc. RC bills ~~_____~~ P.56				
704.25 m³ @	Rs. 16803.53				Rs. 11833886.-
4/4.00	PCC 6mm thick liner all cop. ~~_____~~ P.56				
35.628 MT @	Rs. 89295.81				Rs. 3181431.-
5/30.0	Constr. Embankment with glob. ~~taking from borrow~~ pits ~~_____~~ P.56				
2425.33 m³ @	Rs. 204.02				Rs. 494816.-
6/100	Pile load test on signel vertical pile. ~~_____~~ P.56				
1528.00 MT @	Rs. 300.00				Rs. 458400.-
7/11.00	Pile load test on signel vertical pile lateral -				

Continuation

Sch. XLV-Form No.134

Particulars	Details of actual measurement No.	L.	B.	D.	Contents of area
		P-57			
41.80 m³	@ Rs.	5000:00		Rs.	209000/-
9/6.	Dismantling & existing structure				
		P-57			
31.65 m³	@ Rs.	1140:29		Rs.	36090/-
9/2.	Sand filling in ap-				
	-ft in				
		P-57			
20.72 m³	@ Rs	455:99		Rs	9448/-
10/8.	PCC M15 in level				
	-ing course			All	
		P-57			
20.72 m³	@ Rs	6056:52		Rs	125491/-
11/15.	S/F & Placing HYSD				
	bar reinf-d in sub				
	structure				
		P-57			
33.204 MT	@ Rs.	77052:59		Rs	2558454/-
12/9.	PCC M35 in pile				
	cap				
		P. 58			
347.92 m³	@ Rs.	7612:74		Rs	2648625/-
13/11	PCC M30 in Abutment				
	stem & pier shaft				
		P. 58			
110.62 m³	@ Rs.	7737:64		Rs.	855938/-

Continuation

Sch. XLV-Form No.134

Particulars	Details of actual measurement No.	L.	B.	D.	Contents of area
14/12(i)	PIW RCC M30 grade in abut. soft cap & pier soft cap			Ex.	
		P. 58			
102.26 M³	@ R. 7737.64			R. 791251.00	
15/12(ii)	PIW RCC M30 in abut. soft cap & pier soft cap Hammer Head			—	
		P-58			
6.46 M³	@ R. 7881.06			R. 50912.00	
16/14.	PIW wing walls in abut & Return wall			—	
		P-58			
72 NO	@ Rs. 131.30			R. 9454.00	
17/13	S/F & Fixing Elastomeric Bearing & seismic Pad				
273067.20		P. 59			
91022.40		P. 63			
91022.40		P. 66			
455112.00 M³	@ R. 0.83			R. 377743.00	
18/19.0	S/F & Placing HYSD bar reinf in superstr. all cat.			Ex.	
31.149 MT		P. 59			
7.643 MT		P. 64			
2.743 MT		P. 66			
7.643 MT		P. 68			
2.743 MT		P. 69			
51.921 MT					

Continuation

Sch. XLV-Form No.134

Particulars	Details of actual measurement No.	L.	B.	D.	Contents of area
51.921 MT @ Rs.					
Limit 51.87 MT @ Rs. 78225.20				Rs.	4057541.00
19/18	P/L RCC M30 grade &				
	super structure				
184.47 m³		P. 59			
26.92 m³		P. 65			
34.57 m³		P. 66			
26.92 m³		P. 68			
34.57 m³		P. 69			
307.45 m³	m³ @ Rs. 8758.75			Rs.	2680177.00
Limit 306.00 m³					
20/	P/L RCC M30 in railing				
	with G.I. stone all				
	comp. job				
		P. 69			
186.78 m	@ Rs. 2101.05			Rs.	392434.00
21/	P/L RCC M30 in weep				
	comp.				
		P. 70			
48.14 m³	@ Rs. 13264.84			Rs.	638569.00
22/	P/L Drainage spout				
	comp.				
		P. 70			
30 NO	@ Rs. 907.99				
~~233.87~~ m³	@ Rs. ~~947.88~~			Rs.	27240.00
23/	P/L filter media with				
	stone metal				
		P. 70			
101.727 m³	@ Rs. 2985.43			Rs.	303708.00

Continuation

Sch. XLV-Form No.134

Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
24/	Back filling in behind abutment & wing wall —				
		P. 70			
233.87 m^3	@ 747.88			₹	174907/-
25/	P/L RCC M15 grade in below abb —				
		P. 71			
7.928 m^3	@ ₹ 6062.72			₹	48065/-
26/	P/L RCC M30 in app. slab —				
		P. 71			
15.855 m^3	@ ₹ 11350.05			₹	179955/-
27/	P/L [illegible] in strip seal expansion joint —				
		P. 71			
53.10 m	@ ₹ 12353.31			₹	655961/-
28/	Constn of embankment with app. material as per graph —				
		P. 73			
8151.393 m^3	@ ₹ 204.02			₹	1663047/-
29/	E/W in excavation of foundn —				
		P. 73			
333.6 m^3	@ ₹ 73.73			₹	24552/-

Continuation

Sch. XLV-Form No.134

Particulars	Details of actual measurement No.	L.	B.	D.	Contents of area
3/	S/A and placing HYSD bars in foundation				
		P-73			
3.873 MT	@ ₹ 76903=11			₹.	297846=00
3/	P/L RCC M15 in foundation etc				
		P-73			
317.60m³	@ ₹ 6201=09			₹	1969466
82/	P/L manhole in guard wall				
		P-73			
68 NO	@ ₹ 131=30			₹.	8928=00
			₹.	43766614=	
less 0.33%. balance				144430=00	
			₹.	43622184=00	
less Previous Pay			₹	30166596=00	
			₹.	134,55,588=00	

16.1.24.
J.E.

16/11/24
AE

Continuation

Sch. XLV-Form No.134

Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
		Material Stacked			
		Soil - 8157.0 m^3			
		Coarse sand - 241.989 m^3			
		Metal Gravel - 483.979 m^3			
16.1.24. J.E.			16.1.24 AE		

Continuation