

246/19-20

प्रमाणित किया जाता है कि इसकापी
पुस्तिका में काशीन के द्वारा कुल - 100
पृष्ठ अंकित हैं। यह कापी पुस्तिका
श्रीमहेंद्र कुमार सहपाठी को
सौंपा जाता है।

Executive Engineer
Rural Works Department
Works Division, Arera

11/12/19

Sch. XLV-Form No. 134

अरराज DIVISION
संग्रामपुर SUB-DIVISION

246/19-20

Measurement Book

No.

Name of officer श्रीमहेंद्र कुमार

Date of first entry

Date of last entry

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.	
<u>Name of Road = Gajwala to TOTA</u>					
<u>L = 2.335 Km</u>					
<u>Head = MNGS (Gen)</u>					
<u>Agency = Agency Mini Imperia</u>					
<u>Date of Agg =</u>					
<u>Date of Completion</u>					
<u>Estimated cost =</u>					
<u>Date of Estimation</u>					
<u>Measurement</u>					
① Construction of Reference Working Benchmarks & Poles					
					<u>Q₁ = 2.375 km</u> <u>≈ 2340 m</u>
② Construction of Reference Poles Benchmarks etc. do - 1 - 1/2					
					<u>Q₁ = 2.335 km</u> <u>= 234 km</u>
③ Clearing and grubbing road land etc. do - 1 - 1/2					
	2x30	30.0	1.50	-	<u>= 2700 m²</u>
	2x30	30.0	1.50	-	<u>= 2700 m²</u>
	2x17	30.0	1.50	-	<u>= 1530 m²</u>
Continuation					<u>6930 m²</u>

Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	H.	
					$Q = 192.21$
					$Q_{1/2} = 0.0234$
④ Construction of road end					
road width 70.10 m					
Cut at all - 3.86					
	2x70	70.10	0.9+1.5	0.45	$= 97.2 m^3$
	2x10	70.10	0.8+1.4	0.30	$= 19.8 m^3$
					$117.0 m^3$
4(i) E/W Qty for 100m = 100m					
					$= \frac{70}{100} \times 117.0 m^3 = 81.9 m^3$
					$Q_{1/2} = 81.9 m^3$

4(ii) E/W Qty for 100m = 100m

$$= \frac{30}{100} \times 117.0 m^3 = 35.1 m^3$$

Construction of culvert

⑤ E/W excavation in road					
width 2.50 m - 2.50 m - all - 1.50 m					
For 30mm	7	3	2.50	0.60	$= 18.9 m^3$
Home Pipe					$Q_{1/2} = 18.90 m^3$

⑥ P/Hand laying 30mm					
NP3 Home Pipe 30mm					
do do all - 1.50 m					
Qty	7x3	2.50	-	-	$= 52.50 m$

Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
<u>Construction of R.C. C Box Culvert</u>					
<u>(1.0M X 1.0M) size, 3 Nos</u>					
(F) F/W excavation information					
trenches etc do do do					
Rate	1	1.50	6.0	0.75	7.11 m ³
	4	2.0	0.75	1.90	10.80 "
	2	1.50	0.55	1.10	1.915 "
					19.725 m ³
Qty for 3 Nos culvert:					
					3 X 19.725 m ³ = 59.175 m ³

(B) Sand filling information					
etc do do do all job					
Rate	1	1.50	6.0	0.10	0.90 m ³
	4	2.0	0.75	0.10	0.60 "
	2	1.50	0.55	0.10	0.19 "
					1.68 m ³
Qty for 3 Nos culvert					
					3 X 1.68 m ³ = 5.04 m ³
					Qty 5.04 m ³

(9) P.C.C. M/s for drain c.c.					
in open foundation etc do do job					
Rate	1	1.50	0.60	0.10	0.90 m ³
	4	2.0	0.75	0.10	0.60 m ³
	2	1.50	0.55	0.10	0.165 "

Continuation

Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
	2	1.50	0.45	0.15	0.202 m^3
	2	1.50	0.30	0.74	0.666 m^3
					2.533 m^3

Hence Qty for 3 Nos Culvert

$$= 3 \times 2.533 \text{ m}^3 = 7.599 \text{ m}^3$$

$$\text{Qty} = 7.599 \text{ m}^3$$

(10) P/R/L laying R.C.C. Mass
Concrete in box cell etc

do - do - all complete job

Rate 1 1.50 6.0 0.25 = 2.25 m^3

Rate wall: 2 6.0 0.25 1.0 = 3.0 m^3

Total Deck	1	1.50	6.0	0.25	2.25 m^3
Hamch	2	6.0	0.10	0.10	0.12 m^3
Parapet	2	1.50	0.25	0.60	0.45 m^3
R/W :-	4	2.0	0.75	0.15	0.90 m^3
"	4	2.0	0.55	0.20	0.88 m^3
"	4	2.0	0.45	0.75	2.70 m^3
"	4	2.0	0.25	1.05	2.10 m^3
checked					14.65 m^3

Qty for 3 Nos Culvert

$$= 3 \times 14.65 \text{ m}^3 = 43.95 \text{ m}^3$$

$$\text{Qty} = 43.95 \text{ m}^3$$

(11) Supplying fitting and
laying HYSO bars etc

Continuation

Sch. XLV-Form No. 134

Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
do - do all complete					
① 12mm ϕ :					
Wall :	191	1.40	-	-	= 267.40m
Depth :	16	5.90	-	-	= 94.40m
checked					361.80m
$361.80 \text{ m} @ 0.89 \text{ kg/m}$					= 322.10 kg
(ii) 10mm ϕ :					
	20	5.90	-	-	= 118m
checked	164	1.40	-	-	= 229.60m
$\frac{118}{2.1}$	56	5.90	-	-	= 330.40
	115	2.10	-	-	
char bar	10	1.35	-	-	= 933.0m
$933.0 \text{ m} @ 0.62 \text{ kg/m}$					= 578.46 kg
(iii) 8mm ϕ :					
	212	2.10	-	-	= 444m
checked	96	0.25	-	-	= 24m
$\frac{444}{1.2}$					448.0m
$448.0 \text{ m} @ 0.40 \text{ kg/m}$					= 179.20 kg
					= 1079.66 kg
					$\approx 1080 \text{ kg}$
Qty For No. column :					
$3 \times 1080 \text{ kg}$					= 3240 kg
					Qty = 3.24 m

Continuation

Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
12) Back filling behind Abutment etc etc - all sides					
	2	6.0	1.0	0.60	$= 7.20 m^3$
Qty for 3 Nos Culvert					
$= 3 \times 7.20 m^3$					$= 21.60 m^3$
					Qty = 21.60 m
13) Work done in Abutment					
R/W etc etc - all sides					
Qty for 3 Nos Culvert					
$= 3 \times 10 Nos$					$= 30 Nos$
14) Construction of Subgrade					
Leanside shoulder etc etc					
etc - all complete job					
	20	30.0	6.0 + 7.0	0.30	$= 1170.0 m^3$
shoulder	10	30.0	5.5 + 7.5	0.30	$= 585.0 "$
	20	30.0	6.0 (m)	0.38	$= 1368.0 "$
	8	30	$\frac{5+6.5}{2}$	$\times 0.30$	$= 414.0 "$
					Qty = 3537.0 m
15) PIV & FIA MMSY Logo					
Sign board etc etc - all sides					
					Qty = 03 Nos

Continuation

18/3/20
 JE
 19.03.20
 A.E.

Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
Name of Road: Gungawal/ya + tola					
To TOTA					
Scheme head: MMGSY (Gen)					
Agency: Jt. M. T. Pathi					
Date of app: 9/7/019					
Date of completion: 2/7/020					
Date of entry:					
Measurement					

① Excavation for roadway
in soil using manual labour

for carrying to embankment
etc do - 1 - 104

Av. B.T.	2x10	30.0	0.575	0.10	= 31.50m ³
Portion c.c. Run	2x9	30.0	0.375	0.10	= 20.25m ³
1/	2x1	15.0	0.375	0.10	= 1.125m ³
checked A.E.					Σ = 52.875m ³

② Construction of granular

subbase by providing
well graded material etc

9m P.A.S.	10	1.20	0.90	0.10	= 1.08m ³
1/	1	4.0	1.10	0.10	= 0.44m ³
1/	1	2.16	1.0	0.10	= 0.21m ³
1/	1	3.10	0.90	0.10	= 0.279

checked
A.E.

Continuation

B
Sch. XLV-Form No. 134

Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D	
Post 1	1	3.10	0.90	0.10	0.279m ³
"	1	4.0	1.20	0.10	0.48 "
"	1	2.50	1.10	0.10	0.385 "
"	1	2.10	1.0	0.10	0.21 "
check	1	1.50	0.80	0.10	0.12 "
"	10	1.50	0.90	0.10	1.35 "
"	1	3.50	1.20	0.10	0.42 "
Post 2	2x4	10.0	0.30	0.10	2.40 "
"	2x3	8.0	0.45	0.10	2.16m ³
Post 3	1	3.15	0.90	0.10	0.28 "
"	1	3.50	1.10	0.10	0.385 "
"	10	0.90	0.70	0.10	0.63 "
"	1	1.50	0.90	0.10	0.135 "
"	1	2.50	1.10	0.10	0.275 "
check	1	3.2	1.0	0.10	0.352 "
"	1	3.80	1.10	0.10	0.418 "
"	1	1.40	0.40	0.10	0.126 "
Post 4	2x10	30.0	0.525	0.10	31.50m ³
"	2x9	30.0	0.375	0.10	20.25 "
"	2x1	15.0	0.375	0.10	1.125 "
over all	30	30.0	4.05	0.20	729.0 "
Post 5	20	30.0	4.05	0.20	486.0 "
"	8	30.0	4.05	0.20	194.40 "
"	1	10.0	4.05	0.20	8.10 "
B-7	10	30.0	4.05	0.10	121.50
check					1604.33m ³

Continuation

Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
		10.16		0.15	1604.33 m ³
Less for excavation ÷					
1	3.0	4.05	0.20		22.43 m ³
				0.15	1601.9 m ³

③

Providing, laying & breasting and compacting WBM/CC stone metal consolidation etc

	20	30.0	3.75	0.075	168.75 m ³
checked	20	30.0	3.75	0.075	168.75 m ³
done	20	30.0	3.75	0.075	168.75
A.E.	2	30.0	3.75	0.075	

	1	10.0	3.75	0.075	2.8125
	9	30	3.75	0.075	75.94
	1	15.0	3.85	0.075	4.33
Forextra width	2x8	12.0	0.45	0.075	6.48 m ³
				0.075	663.315 m ³

Deduction ÷	1x3.0	3.75	0.075		0.28125 m ³
					Net Q ₁ = 662.4 m ³

④ Construction of subgrade with approved

material etc as per spec

Shoulder ÷	2x60	30.0	0.8+1.5	0.25	103.50 m
"	2x6	30.0	0.75+1.25	0.25	90.00
					Q ₁ = 1125 m

checked
done
A.E.

4/6/20
5/5/20
JB

Continuation
A.E.

Is on A/C bill

Sch. XLV-Form No. 134

Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
Name of Road: Gussawala					toles
to TOTA					
Schedule Head: 91M41X (Gen)					
Agency: Tripalvi					
Agg No: 1					
Date of start: 9/7/2019					
Date of Completion: 8/7/2020					
Agg. Amount: Rs. 172.2035 Lakhs					
<u>ABSTRACT OF COST</u>					

(1) Construction of reference
 benchmark pillars etc
 At 5 wide TMB P-01
 2.335 Km @ Rs. 10857268/Km Rs. 25353=02

(2) Construction of bridge pillar
 etc etc etc all job
 At 5 wide TMB P-01
 2.34 Km @ Rs. 9874=931/Km Rs. 23058=02

(3) Clearing & grading
 road land etc etc etc
 all complete job
 At 5 wide TMB P-02

Continuation

Sch. XIV Form No. 134

Particulars	Details of actual measurement			Estimated of area
	No.	L.	B.	
(4) Construction of road embankment with lead 100m etc				
Qty wide TMBP - 2 Nos (11)				
351.0 m ³ @ R. 187 = 92/m ³				R. 65960=
(5) Construction of subgrade road on shoulder etc etc				
Qty wide TMBP - 6, 9				
(3537+125.0) m ³ = 4662 m ³				
4662.0 m ³ @ R. 189 = 80/m ³				R. 294848=
(6) Construction of road embankment with lead 100m etc etc - all - complete etc				
Qty wide TMBP - 2 Nos (41)				
819.0 m ³ @ R. 143 = 08/m ³				R. 117166=
(7) Excavation for roadways in soil using manual means etc				
Qty wide TMBP - 07				
52.875 m ³ @ R. 82 = 01/m ³				R. 4336=

Continuation

Particulars	Details of actual measurement				Content of area
	No.	L.	B.	D.	
($\frac{8}{10}$) Construction of granular sub base by providing well graded material etc etc - job					
Qty wide TMBP - 9					
1601.90 m ³ Limit for 1601.74 m ³					
1601.74 m ³ @ 3264 = 81/m ³ R 522937					
($\frac{9}{11}$) P/Ve laying WBM GTH Stone metal Consolidation in Proper grade Kerber etc					
Qty wide TMBP - 9					
162.47 m ³					
Limit for 662.45 m ³ @ 406 = 40 m ³ R 2689812-m					
($\frac{10}{32}$) P/Ve Laying P/F 300 mm ϕ NP3 heavy Pipe etc					
Qty wide TMBP - 2					
52.50 m ³ @ 2858 = 74/m ³ R 44821-m					
($\frac{11}{33}$) R/W excavation in form chattr trench etc etc - job					
Qty wide TMBP - 2, 3					
(18.90 + 59.175) m ³					
78.075 m ³ @ 285 = 71/m ³ R 22306-m					
($\frac{12}{34}$) Sand filling in foundation etc etc - all - job					

Continuation

B/F R 9141.55

13
Sch. XLV-Form No. 134

Particulars	Details of actual measurement				Content of area
	No.	L.	B.	D.	
Atg wide TMB P-03					
5.04 m ³ @ 455 = 62/m ³ R 2296 =					
(13/25) Paving R.C. CM 15					
infrastructure do - do					
Atg wide TMB P-4					
7.594 m ³ @ 6768 = 19/m ³ R 51370 =					
(14/25) Paving R.C. M 20					
do - do wall complete					
Atg wide TMB P-4					

43.95 m³ @ 8753.26/m³ R 384447 = 00

(15/37) Paving behind Abut
ment R/V etc do - do all job
Atg wide TMB P-06
21.60 m³ @ 3394 = 47/m³ R 73321 = 00

(16/38) P/V Weep holes in R/V Abut
ment etc do - do job
Atg wide TMB P-06
20 Nos @ 103 = 40/m³ R 3102 = 00

(17/40) Supplying, fitting, fix-
ing & placing HXS D bar

Continuation

14
Sch. XLV-Form No. 134

Particulars	Details of actual measurement				Contents of area
	No.	L.	B.	D.	
etc do - do - all complete					
Qty wide TMB P-5					
3.24 MT @ 773060/MT					Rs 250471=00
					Rs 9906560=00
8161 P M M G Y symbol					
etc do - do - all					
Qty wide TMB P-06					
					Rs 34626=00
					Rs 99,41186=00
					Rs 994=00
					Net Rs 99,40,192=00
Adf					
05/5/20					
JE					

Material statement (For Roughly)

- (i) R/W - 5832 M³
- (ii) Stone Agg - 2395.71 M³
- (iii) Coarse sand - $6/5.06 M^3 + 23.19$
= 638.25 M³
- (iv) Stone chips - 46.38 M³
- (v) Cement - 330 Bag

Adf
5/5/20
JE
A.L.

Continuation