

Agency - Atul Krishna

Bellikarna Note to Bellikarna District

~~SECRET~~

17.11.94-SC

10.10.94

BUAR P.W.D.

~~SECRET~~ R.W.D. WORK ~~SECRET~~ DIVISION

~~SECRET~~ Babu ~~SECRET~~ S.D. DIVISION

~~SECRET~~ D.D. DIVISION

116/28021

Certified That This M.B. Contain (100)
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To Sri... Yaduvendra Yadav A.E. R.W.D.
Work Sub-Div... Barun

Yaduvendra Yadav
10/7/20

Executive Engineer
Rural Works Division, mt
Works Division, Aurangabad

Schedule XLV - Form No. 134.

E.C. A. bel DIVISION.

A.E. Barun SUB-DIVISION.

MEASUREMENT BOOK

211616 2801 ✓

name of officer Sri Yaduvendra Yadav

A.E. Barun

Date of issue 10/7/20

mmsy

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	

Test & A/c Bill

Name of work - Construction of
Road from Balikarnamare
to Balikarna Bigha.

Name of Agency - Atul Krishan
Durangabadi.

Head - mmsy.

Date of work started - 08.06.20

Date of completion - 07.03.2021

Agreement no - 73 SBD/20-21

Agreement Rate - 10% below
of B.O.G Rate.

Date of measurement - 07.11.20

(1) Providing & fixing of
working bench mark -

Qty = 1.0 No.

(2) Reference pillar -

Qty = 1.0 No.

(3) Clearing & leveling

Road land including
upgrading -

$2 \times 15 \text{ m} \times 3 \text{ m} \times 3.50 = 315.0 \text{ m}^3$

$2 \times 15 \text{ m} \times 2 \text{ m} \times 3.50 = 91.0 \text{ m}^3$

324.0 m³

Qty Survey = 0.324 Hec

Continuation

Particulars	Details of actual measurement				Contents of area
	No	L	B	D	
④ Dismantling of existing structure like					
P.C.C.	3	3.50	1.14	0.150	1.80 m ³

⑤ Dismantling of existing structure					
Setone / Brick masonry					
	3	1.0	4.20	0.825	0.50 = 51.99 m ³

⑥ Dismantling of existing structure					
Proj. H.P.C. 60mm					
	3	1.0	7.50		22.50 m

⑦ Boring & laying of R.C.C. pipe duct - 300mm					
	4	1.0	4.0	2.50	40.0 m

⑧ Boring & fixing log of Project. masonry bar					
Proj. = 2.0 m					
Running					
07-11-20					07/11/20
JR					AD

state of mesum -

03-12-2020

Sch. XLV-Form No. 134 3

Particulars	Details of actual measurement				Contents of area
	No	L	B	D	
① Construction of H.P.C. - 1000 mm dia. at CH - 25.0 m.					
② Earth working & excavation in foundation of structure - 1000 mm dia. H.P.C.					
2 x 6.450 x 1.40 x 1.50 = 27.09 m ³					
Below pipe - 1 x 4.850 x 1.530 x 0.365 = 2.708 m ³					
					= 29.80 m ³
③ Providing M15 P.C.C. (1:2:13.5) as leveling course - 1000 mm dia.					
2 x 6.45 x 1.40 x 0.150 = 2.70					
Below pipe - 1 x 4.93 x 1.530 x 0.250 = 1.58					
					Total = 4.60 m ³
④ P.C.C. in substructure. M20 - grade 100 mm - 100 mm dia.					
H.P.C. - 2 x 6.20 x 0.300 x 3.750					
For head wall - 2 x 6.20 x (1.250 + 0.400) x 3.18					
					= 32.532 m ³
Parapet - 2 x 6.20 x 0.40 x 0.50 = 2.48 m ³					
Less for pipe -					
2 x $\frac{1}{4} \times (\frac{\pi}{2})^2 \times 0.622 = 1.478 m^3$					
					= 33.534 m ³
⑤ Providing & laying 11/13 pipe for H.P.C. 1000 mm dia. 2 x 2.50 = 7.50 m					

Continuation

Ramya
03/12/2020
JLC

03/12/20

AND

Date of measurement
21-12-2020

Sch. XLV-Form No. 134

4

Particulars	Details of actual measurement				Contents of area
	No.	L	B	D	
Construction of A/R P.C.					
1000mm of a/cft item.					
(1) Earth work in excavation.					
for foundation of steel.					
upto 3.0 m depth.					
H.W. = $2 \times 6.45 \times 1.40 \times 1.50$					$= 27.09 \text{ m}^3$
Below Pipe = $1 \times 9.85 \times 1.53 \times 0.365$					$= 2.70 \text{ m}^3$
					$= 29.80 \text{ m}^3$
(2/2) Providing M15 (1:2.5:5)					
in P.C. in excavation.					
$2 \times 6.45 \times 1.40 \times 0.15$					$= 2.709 \text{ m}^3$
Below pipe = $1 \times 4.93 \times 1.53 \times 0.25$					$= 1.886 \text{ m}^3$
					$= 4.60 \text{ m}^3$
(3/3) P.C. m/c grade of					
concrete in substructure.					
- - - DO - DO - All					
$2 \times 6.15 \times \frac{(1.25 + 0.40)}{2} \times 3.120$					$= 32.26 \text{ m}^3$
For a/cft = $2 \times 6.15 \times 0.400 \times 0.55$					$= 2.706 \text{ m}^3$
Less for pipe = $2 \times \frac{\pi}{4} \times (1.25)^2 \times 0.622$					$= 1.475 \text{ m}^3$
					$= 33.497 \text{ m}^3$
(4) Providing & laying					
A/R 3 Pipe for 1.2 m					
1000 mm for					
3×2.50					$= 7.50 \text{ m}$

Rajendra
Continuation
21-12-2020
J.R.

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

Date of measurement
05-07-2021

① Box cuttings Exposed
for Road way. In

CH- 0.00 to 300m

2x10m x 30.0 x 0.525 x 0.10 = 31.50 m³

CH- 307m to 480m

2x5m x 30.0 x 0.525 x 0.10 = 13.75 m³

2x1m x 13.0 x 0.525 x 0.10 = 1.365 m³

= 48.615 m³

② Construction of embankment
with approved materials
Qty of

60% x 48.615 = 29.169 m³

Room No
05-01-2021

J.F.

05/01/21

AT

Date of measurement

28-01-2021

① Construction of
G.S.B. with well
graded materials

In Box cutting

CH- 0.00 to 300m

2x10m x 30.0 x 0.525 x 0.10 = 31.50 m³

CH- 307m to 480m

2x5m x 30.0 x 0.525 x 0.10 = 15.75 m³

2x1m x 13.0 x 0.525 x 0.10 = 1.365 m³

(Qty) = 48.615 m³

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

$$bf = 9 + 7 = 48.61 \text{ m}^3$$

Cons. B. for over-drum

straight portion

$$1 \text{ No} \times 11.0 \times (9.0 + 4.05) \times 0.10 = 7.179 \text{ m}^3$$

$$1 \times 2 \text{ No} \times 30.0 \times 4.05 \times 0.10 = 48.60 \text{ m}^3$$

at curve

$$1 \text{ No} \times 19.0 \times (4.05 + 5.10 + 4.05) \times 0.10 = 8.36 \text{ m}^3$$

$$1 \text{ No} \times 5 \text{ No} \times 30.0 \times 4.05 \times 0.10 = 60.75 \text{ m}^3$$

Ch- 30.7m to 47.0m

$$1 \times 5.0 \times 30 \times 4.05 \times 0.10 = 60.75 \text{ m}^3$$

$$1 \times 13.0 \times (4.05 + 5.10) \times 0.10 = 5.265 \text{ m}^3$$

Explosive for Port Repairing

Profile Correction

$$2 \text{ No} \times 7.65 \times 2.10 \times 0.100 = 1.113 \text{ m}^3$$

$$3 \text{ No} \times 3.10 \times 1.0 \times 0.90 = 1.86 \text{ m}^3$$

$$4 \text{ No} \times 5.20 \times 1.80 \times 0.125 = 4.65 \text{ m}^3$$

$$2 \text{ No} \times 1.90 \times 1.20 \times 0.100 = 0.956 \text{ m}^3$$

$$3 \text{ No} \times 2.65 \times 1.35 \times 0.100 = 1.073 \text{ m}^3$$

$$5 \text{ No} \times 4.30 \times 2.10 \times 0.200 = 9.03 \text{ m}^3$$

$$3 \text{ No} \times 2.20 \times 1.60 \times 0.200 = 2.112 \text{ m}^3$$

$$2 \text{ No} \times 7.30 \times 2.10 \times 0.100 = 3.066 \text{ m}^3$$

$$4 \text{ No} \times 8.10 \times 3.10 \times 0.150 = 5.019 \text{ m}^3$$

$$\text{Total} = 267.919 \text{ m}^3$$

$$\text{Surf limit} (4 + 7) = 265.64 \text{ m}^3$$

Ramya
28.05.2021
J.R.

Continuation

28/7/21
B

Sch. XLV-Form No. 134

Particulars	Details of actual measurement				Contents of area
	No.	L	B	D	
1. <u>Area of square</u>					
2. <u>Area of rectangle</u>					
3. <u>Area of circle</u>					
4. <u>Area of triangle</u>					
5. <u>Area of parallelogram</u>					
6. <u>Area of trapezium</u>					
7. <u>Area of rhombus</u>					
8. <u>Area of kite</u>					
9. <u>Area of regular polygon</u>					
10. <u>Area of irregular polygon</u>					
11. <u>Area of composite figure</u>					
12. <u>Area of shaded region</u>					
13. <u>Area of unshaded region</u>					
14. <u>Area of sector</u>					
15. <u>Area of segment</u>					
16. <u>Area of annulus</u>					
17. <u>Area of ring</u>					
18. <u>Area of circular sector</u>					
19. <u>Area of circular segment</u>					
20. <u>Area of circular annulus</u>					
21. <u>Area of circular ring</u>					
22. <u>Area of circular sector</u>					
23. <u>Area of circular segment</u>					
24. <u>Area of circular annulus</u>					
25. <u>Area of circular ring</u>					

	E	B	D	of an
<u>Date of measurement</u>				

23-02-2021

① WBM lanes 3, 4

Bonding, layering,

Spreading worm

7780-7090

Start-point.

$$1.20 \times 11.0 \times (9.0 + 3.75) \times 0.075 = 3.25 \text{ m}^2$$

$$1.1 \times 4 \text{ Nov } 30.0 \times 3.75 \times 0.075 = 33.75 \text{ m}^2$$

$$\frac{1 \text{ No} \times 19.0 \times (3.75 + 5.0 + 3.75) \times 0.075}{3} = 5.93 \text{ m}^3$$

$$30 \times 5 \times 0.75 \times 0.075 \times 242 = 187 \text{ m}^3$$

CH-307 to 7-70m.

$$1 \times 5 \times 30 \times 3.75 \times 0.075 = 42.1875$$

$$1 \times 13.0 \times \left(\frac{3.75 + 5.86}{2} \right) \times 0.075 = 4.65 \text{ m}^3$$

$$= 133.954 \text{ mg}$$

[Signature]

23-02-2021

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100	101	102	103	104	105	106	107	108	109	110	111	112	113	114	115	116	117	118	119	120	121	122	123	124	125	126	127	128	129	130	131	132	133	134	135	136	137	138	139	140	141	142	143	144	145	146	147	148	149	150	151	152	153	154	155	156	157	158	159	160	161	162	163	164	165	166	167	168	169	170	171	172	173	174	175	176	177	178	179	180	181	182	183	184	185	186	187	188	189	190	191	192	193	194	195	196	197	198	199	200	201	202	203	204	205	206	207	208	209	210	211	212	213	214	215	216	217	218	219	220	221	222	223	224	225	226	227	228	229	230	231	232	233	234	235	236	237	238	239	240	241	242	243	244	245	246	247	248	249	250	251	252	253	254	255	256	257	258	259	260	261	262	263	264	265	266	267	268	269	270	271	272	273	274	275	276	277	278	279	280	281	282	283	284	285	286	287	288	289	290	291	292	293	294	295	296	297	298	299	300	301	302	303	304	305	306	307	308	309	310	311	312	313	314	315	316	317	318	319	320	321	322	323	324	325	326	327	328	329	330	331	332	333	334	335	336	337	338	339	340	341	342	343	344	345	346	347	348	349	350	351	352	353	354	355	356	357	358	359	360	361	362	363	364	365	366	367	368	369	370	371	372	373	374	375	376	377	378	379	380	381	382	383	384	385	386	387	388	389	390	391	392	393	394	395	396	397	398	399	400	401	402	403	404	405	406	407	408	409	410	411	412	413	414	415	416	417	418	419	420	421	422	423	424	425	426	427	428	429	430	431	432	433	434	435	436	437	438	439	440	441	442	443	444	445	446	447	448	449	450	451	452	453	454	455	456	457	458	459	460	461	462	463	464	465	466
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[Signature]

~~23/2/21~~

As

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

Date of mesurment

02-03-21

① Construction of sub-grade & Earthwork
Shoulder - on - in
Adjacent of 6.5m.

$$2 \times 10N \times 30.0 \times \frac{(1.50 + 1.20)}{2} \times 0.20 = 162.0 m^3$$

$$2 \times 5N \times 30.0 \times \frac{(1.50 + 1.20)}{2} \times 0.20 = 81.0 m^3$$

$$2 \times 1N \times 13.0 \times \frac{(1.50 + 1.10)}{2} \times 0.20 = 7.02 m^3$$

Adjacent of 10.0m

$$2 \times 10N \times 30.0 \times \frac{(1.20 + 1.0)}{2} \times 0.075 = 49.5 m^3$$

$$2 \times 5N \times 30.0 \times \frac{(1.20 + 1.0)}{2} \times 0.075 = 24.75 m^3$$

$$2 \times 1N \times 13.0 \times \frac{(1.20 + 1.0)}{2} \times 0.075 = 2.145 m^3$$

$$\text{Total} = 326.415 m^3$$

Ramchandra

02-03-21

JT

Date of measurement

05.03.2021

Sch. XLV-Form No. 134 9

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

Ch	S/E	Area	L	Volume
0.00	4.842	—	—	—
50.0	4.832	4.832	50	241.60
100.0	4.130	4.481	50	224.05
150.0	5.121	4.625	50	231.25
200.0	4.830	4.725	50	236.25
250.0	3.170	3.750	50	187.50
300.0	5.320	4.245	50	212.25
350.0	5.210	5.265	50	263.25
400.0	4.835	5.022	50	251.125
450.0	4.793	4.814	50	240.70
500.0	4.999	4.896	20	97.92
550.0		Total Qty =	2186.195 m ³	

650.0	Reduction Qty			
700.0	(1)	L.S.B =	265.64 m ³	
	(2)	W.B.M. m ³ =	133.954 m ³	
	(3)	Subgrade =	326.415 m ³	

	Net Qty for			
	Embankment = 1460.186 m ³			
	for 100m lead			

05/3/21
 Rajat
 05.03.2021
 Ad

Continuation

Sch. XLV-Form No. 134

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

Materials STATEMENT.

- | | | | |
|-----|-------------|---|------------------------|
| (1) | Embankment | - | 1460.86 m ³ |
| (2) | Stone metal | - | 385.214 m ³ |
| (3) | Stone dust | - | 32.14 m ³ |
| (4) | Sand | - | 129.93 m ³ |
| (5) | Stone chips | - | 68.57 m ³ |

Pankaj
 05.03.2021
 J.G.

3/3/21
 AN

Particulars	Details of actual measurement				Contents of area
	No.	L	B	D	
<u>ABSTRACT of cost.</u>					
(1) Availability & fixing of working bench mark 1/11-56					
Qty wide T.M.B.P. = 1.0 alc.					
@ RS = 3825.53/Each = RS = 3825.53					
(2) Reference pillar					
Qty wide T.M.B.P. = 1.0 alc.					
@ RS = 1731.96/Each = RS = 1732.00					
(3) Cleaning & Grubbing.					
Road bench mark					
Qty wide T.M.B.P. = 0.3241 Hec.					
@ RS = 51133.76/Hec = RS = 16572.00					
(4) Dismantling of existing structure, like R.C.					
Qty wide T.M.B.P. = 1.80 m ³					
@ RS = 489.74/m ³ = RS = 881.53					
(5) Dismantling & existing structure cement mortar					
Qty wide T.M.B.P. = 51.53 m ³					
@ RS = 231.77/m ³ = RS = 12050.00					
(6) Removing all types of. Hummer pipe					
Qty wide T.M.B.P. = 28.50 m					
@ RS = 174.78/m = RS = 4973.00					
(Total) Total = 38936.00					

Particulars	Details of actual measurement				Content's of area
	No.	L	B	D	
					$BF = RS = 38,986 \text{ m}$
(7) Providing & Laying					
of a R.C.C. pipe duct.					
300 mm dia - 1.0 m					
Qty u/c - m ³ - 2 = 4.00 m					
@ RS = 873.87 / m ³ = RS = 34,954 = 00					
(8) Providing & Fixing					
logs of formwork					
- 2.0 m					
Qty u/c - m ³ P-2 = 2.0 m					
@ RS = 9217.04 / each = 4 = 18434 = 00					
(9) Earthwork in					
Foundation of					
Structure - 2.0 m					
Qty u/c - m ³ P-3 = 29.80 m ³					
Qty u/c - m ³ P-4 = 29.80 m ³					
= 59.60 m ³					
@ RS = 269.32 / m ³ = RS = 16051 = 00					
(10) Providing M/S R.C.C.					
(1:2:5) as leveling					
- 2.0 m					
Qty u/c - m ³ P-3 = 4.60 m ³					
Qty u/c - m ³ P-4 = 4.60 m ³					
= 9.20 m ³					
@ RS = 4673.68 / m ³ = RS = 42,998 = 00					
CS. RS = 1,51,423 = 00					

Continuation

Particulars	Details of actual measurement				Contents of area
	No.	L	B	D	
					$B.F. = 151,423 \text{ m}^2$
(11) P.C.C. in substructure.					
M20 concrete					
Qty. of concrete P-3					$= 33.539 \text{ m}^3$
Qty. of concrete P-4					$= 33.497 \text{ m}^3$
					$= 67.03 \text{ m}^3$
@ P-3 = 5463.21 / m ³					$= 366,204 \text{ m}^3$
(12) Providing & laying.					
N.P-3 H.P.C. - 1000 mm					
pipe					
Qty. of concrete P-3					$= 7.50 \text{ m}^3$
Qty. of concrete P-4					$= 7.50 \text{ m}^3$
					$= 15.0 \text{ m}^3$
@ P-3 = 3614.96 / m ³					$= 54224 \text{ m}^3$
(13) Box cutting - excavation for Roadway.					
Qty. of concrete P-5					$= 48.615 \text{ m}^3$
@ P-5 = 74.16 / m ³					$= 3605 \text{ m}^3$
(14) Construction of embankment for 60% of P.T.					
Qty. of concrete P-5					$= 29.110 \text{ m}^3$
@ P-5 = 26.11 / m ³					$= 761 \text{ m}^3$
(15) Construction of 1:5:3 with well graded sanding.					
Qty. of concrete P-6					$= 265.64 \text{ m}^3$
@ P-6 = 2420.35 / m ³					$= 642,942 \text{ m}^3$
(Total)					$= 12,19,159 \text{ m}^3$

