



Directorate, CPWD

DG/DAR/08

NIRMAN BHAWAN, NEW DELHI - 110011.

This issue with the approval of DG, CPWD.

NIRMAN BHAWAN NEW DELHI

DATED: 25/07/2017

**OFFICE MEMORANDUM**

**Sub:- Correction slip no.6 Delhi Analysis of Rates 2016.**

The following new items of Bamboo wood material to be included in DAR-2016 after item No 26.6 of SH:26 (New Technologies and Materials).

26.6A	Providing, erecting, laying and fixing in position in 3.5 to 4 mm thick bamboo mat corrugated sheet (BMCS) as per IS: 15476-2004 in roofing with self drilling screws along with EPDM washers complete or with galvanized iron J or L hooks 8mm dia G.I. plain and bitumen washers etc, all complete as per direction of Engineer-in-Charge.				
Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 181.30sqm area. Consider a sheet of 18mx9m (external dimension of plinth). Area of roof = 18.5x9.8m = 181.30 sqm. MATERIAL: Sheets used = 2x 19 nos (2.44m x 1.05m) & 4x19 nos (1.83mx 1.05m). Total area = (2x19x2.44x1.05)+(4x19x1.83x1.05) = 243.39sqm, Add wastage @ 3% = 7.30 sqm, Total area = 250.69 sqm.				
NA	Bamboo Mat corrugated sheets	sqm	250.69	2648.00	663827.12
	Weight of sheets, For 2.44mx1.05m sheet size, 12kg/Nos x 38 nos = 456 kgs, For 1.83m x 1.05m sheet size, 9kgs/Nos x 76 Nos = 684 kgs. Total weight of sheet = 456+684 = 1140 kgs = 1.14 tonne				
NA	Carriage of Bamboo Mat corrugated sheets and accessories	tonne	1.14	11500.00	13110.00
1023	Galvanized steel J or L hooks 8mm dia	10 Nos	68.40	115.00	7866.00
1208	Bitumen washer	100 Nos	6.84	30.00	205.20
1209	G.I. plain washer thick	100 Nos	6.84	35.00	239.40
9977	Carriage of bolts and washers	L.S.	11.58	1.73	20.03
9999	Sundries	L.S.	56.78	1.73	98.23
	LABOUR:				
0130	Mistry	day	3.00	487.00	1461.00
0112	Carpenter 2nd class	day	3.00	448.00	1344.00
0114	Beldar	day	9.00	368.00	3312.00
	TOTAL				691482.98
	Add 1% water charges				6914.83
	TOTAL				698397.81

*[Signature]*  
EE CTAS

Code	Description	Unit	Quantity	Rate	Amount
	Add 15% CPOH				104759.67
	Cost of 181.30 sqm				803157.48
	Cost of 1sqm				4429.99
	<b>Say</b>				<b>4430.00</b>

26.6B	Providing and fixing in position ridges of 3.5 to 4 mm thick bamboo mat ridge cap (BMRC) as per IS: 15476-2004 in roofing with self drilling screws along with EPDM washers complete or with galvanized iron J or L hooks 8mm dia G.I. plain and bitumen washers etc, all complete as per direction of Engineer-in-Charge.				
Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for length of ridge 18.50 metre (pair of 43cm width each) Consider a shed of 18mx9m (external dimensions of plinth). Length of ridge 18.50 metre.  MATERIAL:  Ridges (Male & female) of size: 1.05m length required = 20 sets x 1.05m = 21.00 metre, Add wastage @ 5% = 1.05 metre, Total length = 22.05 metre.				
NA	Bamboo Mat Ridge cap	meter	22.05	2570.00	56668.50
9977	Carriage (The ridges to be fixed with the same hooks as the sheets)	L.S.	19.43	1.73	33.61
9999	Sundries	L.S.	9.71	1.73	16.80
	LABOUR:				
0130	Mistry	day	0.20	487.00	97.40
0112	Carpenter 2nd class	day	0.20	448.00	89.60
0114	Beldar	day	0.60	368.00	220.80
	TOTAL				57126.71
	Add 1% water charges				571.27
	TOTAL				57697.98
	Add 15% CPOH				8654.70
	Cost of 18.50 metre				66352.68
	Cost of 1 metre				3586.63
	<b>Say</b>				<b>3586.65</b>

*Two  
EECTAS)*



26.6C	Providing and fixing at all height false ceiling of 4mm thick phenol bonded Bamboo Mat board (595x595mm) conforming to IS:13958-1994 including providing and fixing of frame work made of GI angle 25x25x0.4 mm thick all around suitably fixed to wall with the help of dash fastener and hanger frame (600x600 c/c) made GI slotted Tee having powder coating on bottom side (30x25x0.3 mm thick for main member & 25x25x0.3 mm for cross member) connected to ceiling with 2.64mm GI wire and anchor fastener at every junction and also including cost of making openings for light fittings, grills, diffusers, cut outs made with frame of perimeter channels suitably fixed all complete as per direction of Engineer-in-charge.				
Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 100 sqm. Ceiling area = 100sqm, Add wastage @ 5% = 5sqm, Total area = 105 sqm MATERIAL:				
NA	4mm thick Bamboo Mat Board	sqm	105.00	1738.00	182490.00
	Weight: (0.595x0.595m of Bamboo board). Total number of board = 297. Total weight of Bamboo board = 297 Nos x 1.31kgs/Nos = 389.07 kgs = 0.39 tonne.				
NA	Carriage of 4mm thick Bamboo mat board and accessories.	tonne	0.39	11500.00	4485.00
NA	Main T ceiling section 30x25x0.3 mm (3 metre long) including of wastage of 10%	each	29.50	187.00	5516.50
NA	Perimeter wall angle 25x25x0.4 mm (3 metre long) including of wastage of 10%	each	13.50	157.00	2119.50
NA	Intermediate cross T section 25x25x0.3 mm (1.2 metre long) including of wastage of 10% on grid cutouts.	each	147.00	72.00	10584.00
NA	Intermediate cross T section 25x25x0.3 mm (0.6 metre long) including of wastage of 10% on grid cutouts.	each	147.00	34.00	4998.00
8615	Hanger rod 4mm thick	each	72.00	8.00	576.00
8616	Adjustment clip 85x30x0.8mm	each	72.00	5.00	360.00
7015	Soffit cleat (size 27x37x25x1.60mm)	each	72.00	3.00	216.00
7388	Dash hold fasteners 12.5mm dia, 50mm long with 6mm dia bolts	each	72.00	12.00	864.00
9977	Carriage of grid materials	L.S.	89.28	1.73	154.45
9999	Sundries	L.S.	187.95	1.73	325.15
	LABOUR:				
0112	Carpenter 2nd class	day	28.00	448.00	12544.00
0114	Beldar	day	23.00	368.00	8464.00
	TOTAL				233696.61
	Add 1% water charges				2336.97
	TOTAL				236033.57
	Add 15% CPOH				35405.04
	Cost of 100 sqm				271438.61
	Cost of 1sqm				2714.39
	Say				2714.40

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26.6D	Providing and fixing at Bamboo Mat board conforming to IS:13958-1994 for partition to frame by bucking or studding with screws etc. complete (Frames, backing or studding to be paid separately)				
26.6D.1	3mm thickness				
Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 3.5mx2m = 7.0 sqm Partition area = 7.0sqm, Add wastage @ 5% = 0.35sqm, Total area = 7.35 sqm  MATERIAL:				
NA	3mm thick Bamboo Mat Board  Weight: 7.35sqm x 2.70 kgs/sqm =19.845 kgs = 0.02 tonne.	sqm	7.35	1508.00	11083.80
NA	Carriage of 3mm thick Bamboo mat board and accessories.	tonne	0.02	11500.00	230.00
9999	Sundries and screws	L.S.	26.91	1.73	46.55
	LABOUR:				
0112	Carpenter 2nd class	day	0.90	448.00	403.20
0114	Beldar	day	1.00	368.00	368.00
	TOTAL				12131.55
	Add 1% water charges				121.32
	TOTAL				12252.87
	Add 15% CPOH				1837.93
	Cost of 7 sqm				14090.80
	Cost of 1 sqm				2012.97
	Say				<b>2012.95</b>

26.6D.2	4mm thickness				
Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 3.5mx2m = 7.0 sqm Partition area = 7.0sqm, Add wastage @ 5% = 0.35sqm, Total area = 7.35 sqm  MATERIAL:				
NA	4mm thick Bamboo Mat Board  Weight: 7.35sqm x 3.70 kgs/sqm =27.195 kgs = 0.03 tonne.	sqm	7.35	1738.00	12774.30
NA	Carriage of 4mm thick Bamboo mat board and accessories.	tonne	0.03	11500.00	345.00
9999	Sundries and screws	L.S.	26.91	1.73	46.55
	LABOUR:				
0112	Carpenter 2nd class	day	0.90	448.00	403.20
0114	Beldar	day	1.00	368.00	368.00
	TOTAL				13937.05
	Add 1% water charges				139.37

*Two EELTAS*



Code	Description	Unit	Quantity	Rate	Amount
	TOTAL				14076.42
	Add 15% CPOH				2111.46
	Cost of 7 sqm				16187.89
	Cost of 1 sqm				2312.56
	Say				2312.55

26.6D.3	6mm thickness				
Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 3.5mx2m = 7.0 sqm Partition area = 7.0sqm, Add wastage @ 5% = 0.35sqm, Total area = 7.35 sqm MATERIAL:				
NA	6mm thick Bamboo Mat Board Weight: 7.35sqm x 5.40 kgs/sqm =39.69 kgs = 0.04 tonne.	sqm	7.35	2098.00	15420.30
NA	Carriage of 6mm thick Bamboo mat board and accessories.	tonne	0.04	11500.00	460.00
9999	Sundries and screws	L.S.	26.91	1.73	46.55
	LABOUR:				
0112	Carpenter 2nd class	day	0.90	448.00	403.20
0114	Beldar	day	1.00	368.00	368.00
	TOTAL				16698.05
	Add 1% water charges				166.98
	TOTAL				16865.03
	Add 15% CPOH				2529.76
	Cost of 7 sqm				19394.79
	Cost of 1sqm				2770.68
	Say				2770.70

26.6D.4	9mm thickness				
Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 3.5mx2m = 7.0 sqm Partition area = 7.0sqm, Add wastage @ 5% = 0.35sqm, Total area = 7.35 sqm MATERIAL:				
NA	9mm thick Bamboo Mat Board Weight: 7.35sqm x 8.40 kgs/sqm =61.74 kgs = 0.06 tonne.	sqm	7.35	2688.00	19756.80
NA	Carriage of 9mm thick Bamboo mat board and accessories.	tonne	0.06	11500.00	690.00
9999	Sundries and screws	L.S.	26.91	1.73	46.55

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Code	Description	Unit	Quantity	Rate	Amount
0112	LABOUR: Carpenter 2nd class	day	0.90	448.00	403.20
0114	Beldar	day	1.00	368.00	368.00
	TOTAL				21264.55
	Add 1% water charges				212.65
	TOTAL				21477.20
	Add 15% CPOH				3221.58
	Cost of 7 sqm				24698.78
	Cost of 1sqm				3528.40
	Say				3528.40

26.6D.5	12mm thickness				
Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for 3.5mx2m = 7.0 sqm Partition area = 7.0sqm, Add wastage @ 5% = 0.35sqm, Total area = 7.35 sqm MATERIAL:				
NA	12mm thick Bamboo Mat Board	sqm	7.35	3115.00	22895.25
	Weight: 7.35sqm x 10.00 kgs/sqm = 73.50 kgs = 0.07 tonne.				
NA	Carriage of 12mm thick Bamboo mat board and accessories.	tonne	0.07	11500.00	805.00
9999	Sundries and screws	L.S.	26.91	1.73	46.55
	LABOUR:				
0112	Carpenter 2nd class	day	0.90	448.00	403.20
0114	Beldar	day	1.00	368.00	368.00
	TOTAL				24518.00
	Add 1% water charges				245.18
	TOTAL				24763.18
	Add 15% CPOH				3714.48
	Cost of 7 sqm				28477.66
	Cost of 1sqm				4068.24
	Say				4068.25

26.6E	Providing and fixing at all height wall panelling with phenol bonded Bamboo Mat board conforming to IS: 13958-1994 including providing and fixing to frame work made of 50mm x 50mm hardwood plugs including cutting brick work and fixing in cement mortar and making good the wall etc. and also providing and fixing wooden moulded corner beading of triangular shape to the junction of panelling etc. with iron screws all complete as per direction of Engineer-in-Charge.				
26.6E.1	9mm thickness				
	Details of cost for panelling area of 5mx4m = 20.00 sqm with moulding length of 18.00 metre				

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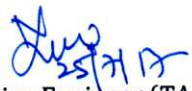


Code	Description	Unit	Quantity	Rate	Amount
	Wall panelling area = 20.00sqm, Add wastage @ 5% = 1.0sqm, Total area = 21.00 sqm MATERIAL:				
NA	9mm thick Bamboo Mat Board	sqm	21.00	2688.00	56448.00
	Weight: 21sqm x 8.40 kgs/sqm =176.4 kgs = 0.18 tonne.				
NA	Carriage of 9mm thick Bamboo mat board and accessories.	tonne	0.18	11500.00	2070.00
NA	50mmx50mm hardwood plug	each	45.00	75.00	3375.00
1190	Second class teak wood in planks	10 cudm	2.477	675.00	1671.98
2204	Carriage of timber	cum	0.02477	118.59	2.94
0637	Bright finished or black enamelled mild steel screws 40mm	100 Nos	0.70	63.00	44.10
9999	Sundries	L.S.	26.91	1.73	46.55
	LABOUR:				
0112	Carpenter 2nd class	day	2.00	448.00	896.00
0114	Beldar	day	2.00	368.00	736.00
	TOTAL				65290.57
	Add 1% water charges				652.91
	TOTAL				65943.47
	Add 15% CPOH				9891.52
	Cost of 20 sqm				75834.99
	Cost of 1sqm				3791.75
	Say				<b>3791.75</b>

26.6E.2	12mm thickness				
Code	Description	Unit	Quantity	Rate	Amount
	Details of cost for panelling area of 5mx4m = 20.00 sqm with moulding length of 18.00 metre Wall panelling area = 20.00sqm, Add wastage @ 5% = 1.0sqm, Total area = 21.00 sqm MATERIAL:				
NA	12mm thick Bamboo Mat Board	sqm	21.00	3115.00	65415.00
	Weight: 21sqm x 10 kgs/sqm =210 kgs = 0.21 tonne.				
NA	Carriage of 12mm thick Bamboo mat board and accessories.	tonne	0.21	11500.00	2415.00
NA	50mmx50mm hardwood plug	each	45.00	75.00	3375.00
1190	Second class teak wood in planks	10 cudm	2.477	675.00	1671.98
2204	Carriage of timber	cum	0.02477	118.59	2.94
0637	Bright finished or black enamelled mild steel screws 40mm	100 Nos	0.70	63.00	44.10
9999	Sundries	L.S.	26.91	1.73	46.55

*Dr. EECTAS*

Code	Description	Unit	Quantity	Rate	Amount
	LABOUR:				
0112	Carpenter 2nd class	day	2.00	448.00	896.00
0114	Beldar	day	2.00	368.00	736.00
	TOTAL				74602.57
	Add 1% water charges				746.03
	TOTAL				75348.59
	Add 15% CPOH				11302.29
	Cost of 20 sqm				86650.88
	Cost of 1sqm				4332.54
	Say				<b>4332.55</b>

  
 Executive Engineer (TAS-II)  
 CSQ, CPWD, Nirman Bhawan,  
 New Delhi.

No. 133/SE (TAS)/CS-DAR-2016/149-180

Dated: 25/07/2017

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 Executive Engineer (TAS-II)