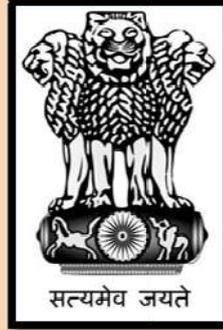


Government of Tripura  
Public Works Department



**ANALYSIS OF RATES**  
*for*  
**TRIPURA SCHEDULE OF RATES**  
*for*  
**ROAD & BRIDGE WORKS**  
**(PART-III)**  
*for*  
**Miscellaneous items for**  
**Roads, Timber Bridges,**  
**River training works.**  
**Year:- 2017**

Published By: The Chief Engineer, PWD(R&B), Agartala, Tripura

**MISCELLANEOUS-1**  
**DIFFERENT MISCELLANEOUS ITEMS FOR ROADS & STEEL BRIDGES**

Sr. No.	Description	Unit	Quantity	Rate (₹)	Amount (₹)	Remarks/ Ref.
<b>M1.1</b>	<b>Dismantling of Brick soling</b> Dismantling of brick soling, stacking serviceable materials and unserviceable materials separately with all lifts and upto a lead of 1000 m as per MoRD Technical Specification Clause 202.					
<b>I</b>	<b>(I) By Manual Means</b> <i>Unit = cum</i> <i>Taking output = 1 cum</i>					
	<b>a) Labour</b>					
	Mate	day	0.06	300.00	18.00	L-19
	Mazdoor(unskilled)	day	1.50	300.00	450.00	L-20
	<b>b) Machinery</b>					
	Tractor with trolley	hour	0.38	303.00	115.14	P&M-076
	<b>c) 0</b>				0.00	
	<b>d) Contractor's profit and overheads = 15 % on (a+b+c)</b>				87.47	
	<b>Rate per cum = (a+b+c+d)/1.00</b>				670.61	
				<b>say</b>	<b><u>670.60</u></b>	
<b>II</b>	<b>(II) By Mechanical Means</b> <i>Unit = cum</i> <i>Taking output = 60 cum</i>					
	<b>a) Labour</b>					
	Mate	day	0.80	300.00	240.00	L-19
	Mazdoor(unskilled)	day	20.00	300.00	6000.00	L-20
	<b>b) Machinery</b>					
	Front end loader 1 cum bucket capacity	hour	6.00	963.00	5778.00	P&M-030
	Tractor with trolley	hour	18.00	303.00	5454.00	P&M-076
	<b>c) 0</b>				0.00	
	<b>d) Contractor's profit and overheads = 15 % on (a+b+c)</b>				2620.80	
	Cost for 60 cum = a+b+c+d				20092.80	
	<b>Rate per cum = (a+b+c+d)/60</b>				334.88	
				<b>say</b>	<b><u>334.90</u></b>	
<b>M1.2</b>	<b>Dismantling of Brick soling</b> Dismantling of brick soling, stacking serviceable materials and unserviceable materials separately with all lifts and upto a lead of 500 m by manual means as per MoRD Technical Specification Clause 202.					
<b>I</b>	<b>(I) By Manual Means</b> <i>Unit = cum</i> <i>Taking output = 1 cum</i>					
	<b>a) Labour</b>					
	Mate	day	0.06	300.00	18.00	L-19
	Mazdoor(unskilled)	day	1.50	300.00	450.00	L-20
	<b>b) 0</b>				0.00	
	<b>c) Contractor's profit and overheads = 15 % on (a+b)</b>				70.20	
	<b>Rate per cum = (a+b+c)/1.00</b>				538.20	
				<b>say</b>	<b><u>538.20</u></b>	
<b>M1.3</b>	<b>Charges for Brick soling</b>					

**MISCELLANEOUS-1**  
**DIFFERENT MISCELLANEOUS ITEMS FOR ROADS & STEEL BRIDGES**

Sr. No.	Description	Unit	Quantity	Rate (₹)	Amount (₹)	Remarks/ Ref.
i.	i. Laying brick soling on prepared subgrade with brick on edge (excluding the cost of bricks but including the cost of binding materials) according to lines, grades and cross-section shown on the drawing, filling joints with sand , watering and rolling the same with three wheeled road roller 80-100 kN as per MoRD Technical Specification Clause 412.					
	<b>Unit = sqm</b>					
	<b>Taking output = 150 sqm</b>					
	<b>a) Labour</b>					
	Mate	day	0.52	300.00	156.00	L-19
	Mazdoor (unskilled)	day	10.00	300.00	3000.00	L-20
	Mason(1st class)	day	3.00	425.00	1275.00	L-17
	<b>b) Machinery</b>					
	Three wheel 80-100 KN static roller @ 150 sqm per hour	hour	1.00	379.00	379.00	P&M-064
	Water tanker 6 KL capacity	hour	1.00	310.00	310.00	P&M-084
	<b>c) Material</b>					
	Fine sand	cum	5.66	300.00	1698.00	M-175
	Water	KL	6.00	135.00	810.00	M-202
	<b>d) 0</b>				0.00	
	<b>e) Contractor's profit and overheads = 15 % on (a+b+c+d)</b>				1144.20	
	Cost for 150 sqm = a+b+c+d+e				8772.20	
	<b>Rate per sqm = (a+b+c+d+e)/150</b>				58.48	
				<b>say</b>	<b><u>58.50</u></b>	
ii.	ii. Laying flat brick soling on prepared subgrade (excluding the cost of bricks but including the cost of binding materials) according to lines, grades and cross-section shown on the drawing, filling joints with Earth, free from clay with a Plasticity Index not exceeding 6, watering and rolling the same with three wheeled road roller 80-100 kN as per MoRD Technical Specification Clause 412.					
	<b>Unit = sqm</b>					
	<b>Taking output = 150 sqm</b>					
	<b>a) Labour</b>					
	Mate	day	0.44	300.00	132.00	L-19
	Mazdoor (unskilled)	day	8.00	300.00	2400.00	L-20
	Mason(1st class)	day	3.00	425.00	1275.00	L-17
	<b>b) Machinery</b>					
	Three wheel 80-100 KN static roller = 150 sqm per hour	hour	1.00	379.00	379.00	P&M-064
	Water tanker 6 KL capacity	hour	1.00	310.00	310.00	P&M-084
	<b>c) Material</b>					
	Earth, free from clay with a Plasticity Index not exceeding 6.	cum	3.396	152.00	516.19	M-086
	Water	KL	3.60	135.00	486.00	M-202
	<b>d) 0</b>				0.00	
	<b>e) Contractor's profit and overheads = 15 % on (a+b+c+d)</b>				824.73	
	Cost for 150 sqm = a+b+c+d+e				6322.92	
	<b>Rate per sqm = (a+b+c+d+e)/150</b>				42.15	
				<b>say</b>	<b><u>42.20</u></b>	

**MISCELLANEOUS-1**  
**DIFFERENT MISCELLANEOUS ITEMS FOR ROADS & STEEL BRIDGES**

Sr. No.	Description	Unit	Quantity	Rate (₹)	Amount (₹)	Remarks/ Ref.
iii.	iii. Laying brick edging on prepared subgrade (excluding the cost of bricks but including the cost of binding materials) according to lines, grades and cross-section shown on the drawing, filling joints with Earth, free from clay with a Plasticity Index not exceeding 6, watering and rolling the same with three wheeled road roller 80-100 kN as per MoRD Technical Specification Clause 412. <b>Unit = m</b> <b>Taking output = 10 m</b>					
	<b>a) Labour</b>					
	Mate	day	0.02	300.00	6.00	L-19
	Mazdoor (unskilled)	day	0.30	300.00	90.00	L-20
	Mason(1st class)	day	0.24	425.00	102.00	L-17
	<b>b) Machinery</b>					
	Three wheel 80-100 KN static roller @ 150 sqm per hour	hour	0.01	379.00	3.79	P&M-064
	Water tanker 6 KL capacity	hour	0.01	310.00	3.10	P&M-084
	<b>c) Material</b>					
	Earth, free from clay with a Plasticity Index not exceeding 6.	cum	0.04	152.00	6.08	M-086
	Water	KL	0.04	135.00	5.40	M-202
	<b>d) 0</b>				0.00	
	<b>e) Contractor's profit and overheads = 15 % on (a+b+c+d)</b>				32.46	
	Cost for 10 m = a+b+c+d+e				248.83	
	<b>Rate per m = (a+b+c+d+e)/10</b>				24.88	
				<b>say</b>	<b><u>24.90</u></b>	
iv.	iv. Laying brick edging laid lengthwise on prepared subgrade (excluding the cost of bricks but including the cost of binding materials) according to lines, grades and cross-section shown on the drawing, filling joints with Earth, free from clay with a Plasticity Index not exceeding 6, watering and rolling the same with three wheeled road roller 80-100 kN as per MoRD Technical Specification Clause 412. <b>Unit = m</b> <b>Taking output = 10 m</b>					
	<b>a) Labour</b>					
	Mate	day	0.01	300.00	3.00	L-19
	Mazdoor (unskilled)	day	0.15	300.00	45.00	L-20
	Mason(1st class)	day	0.10	425.00	42.50	L-17
	<b>b) Machinery</b>					
	Three wheel 80-100 KN static roller @ 150 sqm per hour	hour	0.005	379.00	1.90	P&M-064
	Water tanker 6 KL capacity	hour	0.005	310.00	1.55	P&M-084
	<b>c) Material</b>					
	Earth, free from clay with a Plasticity Index not exceeding 6.	cum	0.02	152.00	3.04	M-086
	Water	KL	0.02	135.00	2.70	M-202
	<b>d) 0</b>				0.00	
	<b>e) Contractor's profit and overheads = 15 % on (a+b+c+d)</b>				14.95	
	Cost for 10 m = a+b+c+d+e				114.64	

**MISCELLANEOUS-1**  
**DIFFERENT MISCELLANEOUS ITEMS FOR ROADS & STEEL BRIDGES**

Sr. No.	Description	Unit	Quantity	Rate (₹)	Amount (₹)	Remarks/ Ref.
	Rate per m = (a+b+c+d+e)/10				11.46	
				<i>say</i>	<u>11.50</u>	
<b>M1.4</b>	<b>Labour charge for Breaking of jhama bats / jhama bricks / 1st class bricks.</b>					
	Breaking of jhama bats/ jhama bricks/ 1st class bricks (including bigger lumps) into metal/ chips /aggregates and stacking serviceable materials and unserviceable materials separately as per direction of the Engineer-in-charge with all lifts and upto a lead of 100 m.					
	<b>Unit = cum</b>					
	<b>Taking output = 1 cum.</b>					
i.	<b>Required sizes for filter media as per MoRD Technical Specification Clause 1204.3.8.</b>					
	<b>a) Labour</b>					
	Mate	day	0.10	300.00	30.00	L-19
	Mazdoor(unskilled)	day	2.45	300.00	735.00	L-20
	<b>b) 0</b>				0.00	
	<b>c) Contractor's profit and overheads = 15 % on (a+b)</b>				114.75	
	<b>Rate per cum = (a+b+c)/1.00</b>				879.75	
				<i>say</i>	<u>879.80</u>	
ii.	<b>ii. Required sizes for GSB (53 mm to 0.075 mm) as per MoRD Technical Specification Clause 401.</b>					
	<b>a) Labour</b>					
	Mate	day	0.11	300.00	33.00	L-19
	Mazdoor(unskilled)	day	2.65	300.00	795.00	L-20
	<b>b) 0</b>				0.00	
	<b>c) Contractor's profit and overheads = 15 % on (a+b)</b>				124.20	
	<b>Rate per cum = (a+b+c)/1.00</b>				952.20	
				<i>say</i>	<u>952.20</u>	
iii.	<b>iii. Required sizes for WBM Grading 2 (63 mm to 0.075 mm) as per MoRD Technical Specification Clause 405.</b>					
	<b>a) Labour</b>					
	Mate	day	0.10	300.00	30.00	L-19
	Mazdoor(unskilled)	day	2.50	300.00	750.00	L-20
	<b>b) 0</b>				0.00	
	<b>c) Contractor's profit and overheads = 15 % on (a+b)</b>				117.00	
	<b>Rate per cum = (a+b+c)/1.00</b>				897.00	
				<i>say</i>	<u>897.00</u>	
iv.	<b>iv. Required sizes for WBM Grading 3 (53 mm to 0.075 mm) as per MoRD Technical Specification Clause 405.</b>					
	<b>a) Labour</b>					
	Mate	day	0.11	300.00	33.00	L-19
	Mazdoor(unskilled)	day	2.65	300.00	795.00	L-20
	<b>b) 0</b>				0.00	
	<b>c) Contractor's profit and overheads = 15 % on (a+b)</b>				124.20	

**MISCELLANEOUS-1**  
**DIFFERENT MISCELLANEOUS ITEMS FOR ROADS & STEEL BRIDGES**

Sr. No.	Description	Unit	Quantity	Rate (₹)	Amount (₹)	Remarks/ Ref.
	Rate per cum = (a+b+c)/1.00				952.20	
				say	<u>952.20</u>	
<b>M1.5</b>	<b>Charge for construction of Granular Sub-base</b>					
	Charge for Construction of granular sub-base by providing well graded material (53 mm to 0.075 mm Jhama Brick Aggregate , Grading-I), spreading in uniform layers with tractor with attachments on prepared surface, mixing by mix in place method at OMC, applying and brooming sand to fill up the interstices of coarse aggregate, watering and compacting with smooth wheel roller to achieve the desired density, complete as per MoRD Technical Specification Clause 401.(excluding the cost of jhama aggregate which are available at site only).					
	<b>i. (i) For Grading-I Material</b>					
<b>A</b>	<b>(A) By Mix in Place Method</b>					
	<b>Unit = cum</b>					
	<b>Taking output = 300 cum</b>					
	<b>a) Labour</b>					
	Mate	day	0.48	300.00	144.00	L-19
	Mazdoor(skilled)	day	2.00	380.00	760.00	L-22
	Mazdoor(unskilled)	day	10.00	300.00	3000.00	L-20
	<b>b) Machinery</b>					
	Three wheel 80-100 Kn static roller @ 10 cum per hour	hour	30.00	379.00	11370.00	P&M-064
	Tractor with Rotavator 25 cum	hour	12.00	322.00	3864.00	P&M-077
	Water tanker 6 KL capacity	hour	5.00	310.00	1550.00	P&M-084
	<b>c) Material</b>					
	Well graded Granular sub-base Material as per table 400.1					
	53 mm to 9.5 mm = 85 % (free of cost available at site)	cum	326.24		0.00	
	Fine Sand = 15 %	cum	57.56	300.00	17268.00	M-175
	Water	KL	30.00	135.00	4050.00	M-202
	<b>d) 0</b>					
	<b>e) Contractor's profit and overheads = 15 % on (a+b+c+d)</b>					
	Cost for 300 cum = a+b+c+d+e					48306.90
	<b>Rate per cum = (a+b+c+d+e)/300</b>					161.02
				say	<u>161.00</u>	
<b>M1.6</b>	<b>Charge for construction of Water Bound Macadam Sub-Base / Base</b>					
<b>1</b>	<b>(1) WBM Grading-2</b>					

**MISCELLANEOUS-1**  
**DIFFERENT MISCELLANEOUS ITEMS FOR ROADS & STEEL BRIDGES**

Sr. No.	Description	Unit	Quantity	Rate (₹)	Amount (₹)	Remarks/ Ref.
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Charge for laying, spreading and compacting 63 mm to 0.075 mm jhama brick aggregates to water bound macadam specification including spreading in uniform thickness, hand packing rolling with three wheel roller 80-100 kN in stages to proper grade and camber, applying and brooming binding materials to fill up the interstices of coarse aggregate, watering and compacting to the required density Grading 2 as per MoRD Technical Specification Clause 405.(excluding the cost of jhama aggregate which are available at site only).

**1.A (A) By Manual Means***Unit = cum***Taking output = 360 cum****a) Labour**

Mate	day	10.08	300.00	3024.00	L-19
Mazdoor(skilled)	day	2.00	380.00	760.00	L-22
Mazdoor(unskilled)	day	250.00	300.00	75000.00	L-20

**b) Machinery**

Three wheel 80-100 Kn static roller @ 8 cum per hour	hour	45.00	379.00	17055.00	P&M-065
Water tanker 6 KL capacity	hour	24.00	310.00	7440.00	P&M-084

**c) Material****Refer Tables 400.7,8,9 and 10)****Aggregate well graded granular sub-base**

Grading-II, 63 mm to 0.075 mm @ 1.11 cum per 10 sqm for compacted thickness of 75 mm (free of cost available at site)	cum	532.80		0.00	
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**Binding material**

Binding Material (earth) @ 0.06 cum per 10 sqm for Grading-II material	cum	28.80	18.00	518.40	M-038
Water	KL	144.00	135.00	19440.00	M-202

**d) 0**

0.00

**e) Contractor's profit and overheads = 15 % on (a+b+c+d)**

18485.61

Cost for 360 cum = a+b+c+d+e

141723.01

**Rate per cum = (a+b+c+d+e)/360**

393.68

**say****393.70****1.B (B) By Mechanical Means***Unit = cum***Taking output = 360 cum****a) Labour**

Mate	day	0.68	300.00	204.00	L-19
Mazdoor(skilled)	day	2.00	380.00	760.00	L-22
Mazdoor(unskilled)	day	15.00	300.00	4500.00	L-20

**b) Machinery**

Tractor with rotavator	hour	14.40	322.00	4636.80	P&M-077
Three wheel 80-100 KN static roller @ 8 cum per hour	hour	45.00	379.00	17055.00	P&M-065
Water tanker 6 KL capacity	hour	24.00	310.00	7440.00	P&M-084

**c) Material****Refer Tables 400.7,8,9 and 10)**

**MISCELLANEOUS-1**  
**DIFFERENT MISCELLANEOUS ITEMS FOR ROADS & STEEL BRIDGES**

Sr. No.	Description	Unit	Quantity	Rate (₹)	Amount (₹)	Remarks/ Ref.
	<b>Aggregate well graded granular sub-base</b>					
	Grading-II, 63 mm to 0.075 mm @ 1.11 cum per 10 sqm for compacted thickness of 75 mm (free of cost available at site)	cum	532.80		0.00	
	<b>Binding material</b>					
	Binding Material @ 0.06cum per 10 sqm for Grading-II material	cum	28.80	18.00	518.40	M-038
	Water	KL	144.00	135.00	19440.00	M-202
	<b>d) 0</b>				0.00	
	<b>e) Contractor's profit and overheads = 15 % on (a+b+c+d)</b>				8183.13	
	Cost for 360 cum = a+b+c+d+e				62737.33	
	<b>Rate per cum = (a+b+c+d+e)/360</b>				174.27	
				<b>say</b>	<b><u>174.30</u></b>	
<b>2</b>	<b>(2) WBM Grading-III</b>					
	Providing, laying, spreading and compacting 53 mm to 0.075 mm jhama brick aggregates to water bound macadam specification including spreading in uniform thickness, hand packing, rolling with three wheel 80-100 kN static roller / vibratory roller in stages to proper grade and camber, applying and brooming and binding materials to fill up the interstices of coarse aggregate, watering and compacting to the required density as per MoRT&H Technical Specification Clause 404.					
<b>2.A</b>	<b>(A) By Manual Means</b>					
	<b>Unit = cum</b>					
	<b>Taking output = 360 cum</b>					
	<b>a) Labour</b>					
	Mate	day	10.08	300.00	3024.00	L-19
	Mazdoor(skilled)	day	2.00	380.00	760.00	L-22
	Mazdoor(ungskilled)	day	250.00	300.00	75000.00	L-20
	<b>b) Machinery</b>					
	Three wheel 80-100 Kn static roller = 8 cum per hour	hour	45.00	379.00	17055.00	P&M-065
	Water tanker 6 KL capacity	hour	24.00	310.00	7440.00	P&M-084
	<b>c) Material</b>					
	<b>Refer Tables 400.7,8,9 and 10)</b>					
	<b>Aggregate</b>					
	Grading-III, 53 mm to 0.075 mm = 1.09 cum per 10 sqm for compacted thickness of 75 mm (free of cost available at site)	cum	523.20		0.00	
	<b>Binding material</b>					
	Binding Material = 0.06 cum per 10 sqm for Grading-III material	cum	28.80	18.00	518.40	M-038
	Water	KL	144.00	135.00	19440.00	M-202
	<b>d) 0</b>				0.00	
	<b>e) Contractor's profit and overheads = 15 % on (a+b+c+d)</b>				18485.61	
	Cost for 360 cum = a+b+c+d+e				141723.01	
	<b>Rate per cum = (a+b+c+d+e)/360</b>				393.68	

**MISCELLANEOUS-1**  
**DIFFERENT MISCELLANEOUS ITEMS FOR ROADS & STEEL BRIDGES**

Sr. No.	Description	Unit	Quantity	Rate (₹)	Amount (₹)	Remarks/ Ref.
				<i>say</i>	<u>393.70</u>	

**2.B (B) By Mechanical Means***Unit = cum**Taking output = 360 cum***a) Labour**

Mate	day	0.68	300.00	204.00	L-19
Mazdoor(skilled)	day	2.00	380.00	760.00	L-22
Mazdoor(unskilled)	day	15.00	300.00	4500.00	L-20

**b) Machinery**

Tractor with rotavator	hour	14.40	322.00	4636.80	P&M-077
Three wheel 80-100 KN static roller @ 8 cum per hour	hour	45.00	379.00	17055.00	P&M-065
Water tanker 6 KL capacity	hour	24.00	310.00	7440.00	P&M-084

**c) Material****Refer Tables 400.7,8,9 and 10)****Aggregate**

Grading-III, 53 mm to 0.075 mm @1.09 cum per 10 sqm for compacted thickness of 75 mm (free of cost available at site)	cum	523.20		0.00	
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**Binding material**

Binding Material @ 0.06 cum per 10 sqm for Grading-III material	cum	28.80	18.00	518.40	M-038
Water	KL	144.00	135.00	19440.00	M-202

**d) 0**

0.00

**e) Contractor's profit and overheads = 15 % on (a+b+c+d)**

8183.13

Cost for 360 cum = a+b+c+d+e

62737.33

**Rate per cum = (a+b+c+d+e)/360**

174.27

*say***174.30****M1.7 Mastic Asphalt waering course**

Providing and laying mastic asphalt wearing course with paving grade bitumen (IS 73 : 2013), meeting the requirements given in table 500.29, prepared by using mastic cooker and laid to required level and slope after cleaning the surface, including providing antiskid surface with bitumen precoated finegrained hard stone chipping 13.2 mm nominal size at the rate of 0.005 cum per sqm and at an approximate spacing of 10 cm center to center in both directions, pressed into surface when the temperature of the surfaces is not less than 100° C, protruding 1 mm to 4 mm over mastic surface, all complete as per MoRT&H Technical Specification Clause 515.

**i. i. 25 mm thick***Unit = sqm**Taking output = 35.00 sqm (0.875 cum )**assuming a density of 2.3 tonnes/cum.=**2.0125 tonnes***a) Labour**

Mate	day	0.440	300.00	132.00	L-19
Mazdoor(unskilled)	day	10.00	300.00	3000.00	L-20

**MISCELLANEOUS-1**  
**DIFFERENT MISCELLANEOUS ITEMS FOR ROADS & STEEL BRIDGES**

Sr. No.	Description	Unit	Quantity	Rate (₹)	Amount (₹)	Remarks/ Ref.
	Mazdoor(skilled)	day	1.000	380.00	380.00	L-22
<b>b)</b>	<b>Machinery</b>					
	Hydraulic broom @ 1250 sqm per hour	hour	0.06	558.00	33.48	P&M-033
	Air compressor 210 cfm	hour	0.06	321.00	19.26	P&M-001
	Mastic cooker	hour	6.00	66.00	396.00	P&M-043
	Bitumen boiler 1500 litres capacity	hour	6.00	207.00	1242.00	P&M-011
	Tractor for towing and positioning of mastic cooker and bitumen boiler	hour	1.00	303.00	303.00	P&M-076
<b>c)</b>	<b>Material</b>					
	Base mastic (without coarse aggregates) = 60 %					
	Coarse aggregate (13.2 mm to 6.3 mm) = 40 %					
<b>i)</b>	<b>Bitumen (VG-30)</b>					
	= 15% by weight of mix 2.0125 x 15.00/100 = 0.302	tonne	0.302	37787.00	11411.67	M-042
<b>ii)</b>	<b>Coarse Aggregate</b>					
	iv) Crushed stone chipping 6.7 mm size 100% passing 11.2mm and retained on 2.36 mm = 40 per cent by weight of mix	cum	0.553	3605.00	1993.57	M-077
<b>iii)</b>	<b>Fine Aggregate</b>					
	Crushed stone dust or grit passing 2.36mm and retained on 75 micron = 30 per cent by weight of mix = 2.0125 x 30/100 = 0.604 tonnes = 0.604/1.625 = 0.372	cum	0.372	2472.50	919.77	M-072
<b>iv)</b>	<b>Filler</b>					
	Lime stone dust filler with calcium content not less than 80 per cent by weight = 15 per cent by weight of mix = 2.0125 x 15/100 = 0.302	tonne	0.302	7290.00	2201.58	M-128
<b>v)</b>	<b>Stone chips for skid resistance</b>					
	Stone chips of 13.2 mm nominal = 0.005cum per 10 sqm = 35 x 0.005/10 = 0.018	cum	0.018	3925.00	70.65	M-190
<b>vi)</b>	<b>Bitumen (VG-30) for pre-coating</b>					
	= 2 per cent by weight = 0.0175 x 1.456 x 2.0125/100 = 0.0005 MT	tonne	0.0005	37787.00	18.89	M-042
<b>d)</b>	<b>0</b>				0.00	
<b>e)</b>	<b>Contractor's profit and overheads = 15 % on (a+b+c+d)</b>				3318.28	
	Cost for 35.00 sqm = a+b+c+d+e				25440.15	
	<b>Rate per sqm = (a+b+c+d+e)/35</b>				726.86	
				<b>say</b>	<b><u>727.00</u></b>	

ii. ii. 40 mm thick

**Unit = sqm**

**Taking output = 22.00 sqm (0.88 cum )**

**assuming a density of 2.3 tonnes/cum.= 2.024 tonnes**

**a) Labour**

Mate	day	0.44	300.00	132.00	L-19
Mazdoor(ungskilled)	day	10.00	300.00	3000.00	L-20
Mazdoor(skilled)	day	1.00	380.00	380.00	L-22

**b) Machinery**

Hydraulic broom = 1250 sqm per hour	hour	0.06	558.00	33.48	P&M-033
Air compressor 210 cfm	hour	0.06	321.00	19.26	P&M-001
Mastic cooker	hour	6.00	66.00	396.00	P&M-043
Bitumen boiler 1500 litres capacity	hour	6.00	207.00	1242.00	P&M-011

**MISCELLANEOUS-1**  
**DIFFERENT MISCELLANEOUS ITEMS FOR ROADS & STEEL BRIDGES**

Sr. No.	Description	Unit	Quantity	Rate (₹)	Amount (₹)	Remarks/ Ref.
	Tractor for towing and positioning of mastic cooker and bitumen boiler	hour	1.10	303.00	333.30	P&M-076
	<b>c) Material</b>					
	Base mastic (without coarse aggregates) = 60 %					
	Coarse aggregate (13.2 mm to 6.3 mm) = 40 %					
	<b>i) Bitumen (VG-30)</b>					
	= 15% by weight of mix $2.024 \times 15.00/100 = 0.304$	tonne	0.304	37787.00	11487.25	M-042
	<b>ii) Coarse Aggregate</b>					
	iv) Crushed stone chipping 6.7 mm size 100% passing 11.2mm and retained on 2.36 mm = 40 per cent by weight of mix	cum	0.556	3605.00	2004.38	M-077
	<b>iii) Fine Aggregate</b>					
	Crushed stone dust or grit passing 2.36mm and retained on 75 micron = 30 per cent by weight of mix = $2.024 \times 30/100 = 0.607$ tonnes = $0.607/1.625 = 0.374$	cum	0.374	2643.00	988.48	M-072
	<b>iv) Filler</b>					
	Lime stone dust filler with calcium content not less than 80 per cent by weight = 18 per cent by weight of mix = $2.024 \times 15/100 = 0.304$	tonne	0.304	7290.00	2216.16	M-128
	<b>v) Stone chips for skid resistance</b>					
	Stone chips of 13.2 mm nominal = $0.005 \text{ cum per } 10 \text{ sqm} = 22 \times 0.005/10 = 0.011$	cum	0.011	3925.00	43.18	M-190
	<b>vi) Bitumen (VG-30) for precoating</b>					
	= 2 per cent by weight = $0.0176 \times 1.456 \times 2.024/100 = 0.0005 \text{ MT}$	tonne	0.0005	37787.00	18.89	M-042
	<b>d) 0</b>				0.00	
	<b>e) Contractor's profit and overheads = 15 % on (a+b+c+d)</b>				3344.16	
	Cost for 22.00 sqm = a+b+c+d+e				25638.54	
	<b>Rate per sqm = (a+b+c+d+e)/22</b>				1165.39	
				<b>say</b>	<b><u>1165.00</u></b>	

iii. **iii. 50 mm thick**

**Unit = sqm**

**Taking output = 18.00 sqm (0.90 cum )**

**assuming a density of 2.3 tonnes/cum.=**

**2.07 tonnes**

**a) Labour**

Mate	day	0.44	300.00	132.00	L-19
Mazdoor(unskilled)	day	10.00	300.00	3000.00	L-20
Mazdoor(skilled)	day	1.00	380.00	380.00	L-22

**b) Machinery**

Hydraulic broom = 1250 sqm per hour	hour	0.06	558.00	33.48	P&M-033
Air compressor 210 cfm	hour	0.06	321.00	19.26	P&M-001
Mastic cooker	hour	6.00	66.00	396.00	P&M-043
Bitumen boiler 1500 litres capacity	hour	6.00	207.00	1242.00	P&M-011
Tractor for towing and positioning of mastic cooker and bitumen boiler	hour	1.15	303.00	348.45	P&M-076

**c) Material**

Base mastic (without coarse aggregates) = 60 %

**MISCELLANEOUS-1**  
**DIFFERENT MISCELLANEOUS ITEMS FOR ROADS & STEEL BRIDGES**

Sr. No.	Description	Unit	Quantity	Rate (₹)	Amount (₹)	Remarks/ Ref.
	Coarse aggregate (13.2 mm to 6.3 mm) = 40 %					
	<b>i) Bitumen (VG-30)</b> = 15% by weight of mix $2.07 \times 15.00/100 = 0.311$	tonne	0.311	37787.00	11751.76	M-042
	<b>ii) Coarse Aggregate</b> iv) Crushed stone chipping 6.7 mm size 100% passing 11.2mm and retained on 2.36 mm = 40 per cent by weight of mix	cum	0.569	3605.00	2051.25	M-077
	<b>iii) Fine Aggregate</b> Crushed stone dust or grit passing 2.36mm and retained on 75 micron = 30 per cent by weight of mix = $2.07 \times 30/100 = 0.621$ tonnes = $0.621/1.625 = 0.382$	cum	0.382	2643.00	1009.63	M-072
	<b>iv) Filler</b> Lime stone dust filler with calcium content not less than 80 per cent by weight = 15 per cent by weight of mix = $2.07 \times 15/100 = 0.311$	tonne	0.311	7290.00	2267.19	M-128
	<b>v) Stone chips for skid resistance</b> Stone chips of 13.2 mm nominal = $0.005 \text{ cum per } 10 \text{ sqm} = 18 \times 0.005/10 = 0.009$	cum	0.009	3925.00	35.33	M-190
	<b>vi) Bitumen (VG-30) for precoating</b> = 2 per cent by weight = $0.018 \times 1.456 \times 2.07/100 = 0.0005$ MT	tonne	0.0005	37787.00	18.89	M-042
	<b>d) 0</b>				0.00	
	<b>e) Contractor's profit and overheads = 15 % on (a+b+c+d)</b>				3402.78	
	Cost for 18.00 sqm = a+b+c+d+e				26088.01	
	<b>Rate per sqm = (a+b+c+d+e)/18.00</b>				1449.33	
				<b>say</b>	<b><u>1449.00</u></b>	
<b>M1.8</b>	<b>Sanding</b> Applying local sands to areas of road where bleeding of excess bitumen has occurred as per specification. <b>Unit = sqm</b> <b>Taking output = 3500 sqm(0.900 cum/2.07t)</b>					
	<b>a) Labour</b>					
	Mate	day	0.08	300.00	24.00	L-19
	Mazdoor (unskilled)	day	2.00	300.00	600.00	L-20
	<b>b) Material</b>					
	Fine Sand	cum	6.25	300.00	1875.00	M-175
	Add 5.00 % for wastage				124.95	0.00
	<b>c) 0</b>				0.00	
	<b>d) Contractor's profit and overheads @ 15 % on (a+b+c)</b>				393.59	
	Cost for 3500 sqm = a+b+c+d				3017.54	
	<b>Rate per sqm = (a+b+c+d)/3500</b>				0.86	
				<b>say</b>	<b><u>0.90</u></b>	
<b>M1.9</b>	<b>laying Reinforced Cement Concrete Pipe NP3 as per design in single Row</b>					

**MISCELLANEOUS-1**  
**DIFFERENT MISCELLANEOUS ITEMS FOR ROADS & STEEL BRIDGES**

Sr. No.	Description	Unit	Quantity	Rate (₹)	Amount (₹)	Remarks/ Ref.	
	Laying reinforced cement concrete pipe NP3 for culverts on first class bedding of granular material in single row including fixing collar with cement mortar 1:2 but excluding cost of pipes (available at site), excavation, protection works, backfilling , concrete and masonry works in head walls and parapets as per MoRD Technical specification Clause 1106.						
	<b>Unit = metre</b>						
	<b>Taking output = 7.50 metres ( 3 pipes of 2.5 m length each )</b>						
<b>A</b>	<b>A. 1200 mm dia</b>						
	<b>a) Labour</b>						
	Mate	day	0.14	300.00	42.00	L-19	
	Mason (1st Class)	day	0.50	425.00	212.50	L-17	
	Mazdoor (unskilled)	day	3.00	300.00	900.00	L-20	
	<b>b) Material</b>						
	Sand	cum	0.05	370.00	18.50	M-174	
	Cement	tonne	0.07	6100.00	427.00	M-054	
	<b>c) 0</b>						
	<b>d) Contractor's profit and overheads = 15 % on (a+b+c)</b>						
	Cost for 7.50 metres = a+b+c+d					1840.00	
	<b>Rate per metre= (a+b+c+d)/7.50</b>					245.33	
						<b>say</b>	<b><u>245.30</u></b>
<b>B</b>	<b>B. 1000 mm dia</b>						
	<b>a) Labour</b>						
	Mate	day	0.09	300.00	27.00	L-19	
	Mason (1st Class)	day	0.25	425.00	106.25	L-17	
	Mazdoor (unskilled)	day	2.00	300.00	600.00	L-20	
	<b>b) Material</b>						
	Sand	cum	0.04	370.00	14.80	M-174	
	Cement	tonne	0.03	6100.00	183.00	M-054	
	<b>c) 0</b>						
	<b>d) Contractor's profit and overheads = 15 % on (a+b+c)</b>						
	Cost for 7.50 metres = a+b+c+d					1070.71	
	<b>Rate per metre = (a+b+c+d)/7.50</b>					142.76	
						<b>say</b>	<b><u>142.80</u></b>
<b>C</b>	<b>C. 750 mm dia</b>						
	<b>a) Labour</b>						
	Mate	day	0.05	300.00	15.00	L-19	
	Mason (1st Class)	day	0.15	425.00	63.75	L-17	
	Mazdoor (unskilled)	day	1.20	300.00	360.00	L-20	
	<b>b) Material</b>						
	Sand	cum	0.02	370.00	7.40	M-174	
	Cement	tonne	0.02	6100.00	122.00	M-054	
	<b>c) 0</b>						
	<b>d) Contractor's profit and overheads = 15 % on (a+b+c)</b>						
	Cost for 7.50 metres = a+b+c+d					653.37	
	<b>Rate per metre = (a+b+c+d)/7.50</b>					87.12	
						<b>say</b>	<b><u>87.10</u></b>
<b>D</b>	<b>D. 600 mm dia</b>						
	<b>a) Labour</b>						
	Mate	day	0.04	300.00	12.00	L-19	

**MISCELLANEOUS-1**  
**DIFFERENT MISCELLANEOUS ITEMS FOR ROADS & STEEL BRIDGES**

Sr. No.	Description	Unit	Quantity	Rate (₹)	Amount (₹)	Remarks/ Ref.
	Mason (1st Class)	day	0.12	425.00	51.00	L-17
	Mazdoor (unskilled)	day	0.96	300.00	288.00	L-20
	<b>b) Material</b>					
	Sand	cum	0.0192	370.00	7.10	M-174
	Cement	tonne	0.014	6100.00	85.40	M-054
	<b>c) 0</b>				0.00	
	<b>d) Contractor's profit and overheads = 15 % on (a+b+c)</b>				66.53	
	Cost for 7.50 metres = a+b+c+d				510.03	
	<b>Rate per metre = (a+b+c+d)/7.50</b>				68.00	
				<b>say</b>	<b><u>68.00</u></b>	

**M1.10 Laying Reinforced Cement Concrete Pipe NP3 as per design in Double Row**

Laying reinforced cement concrete pipe NP3 for culverts on first class bedding of granular material in Double row including fixing collar with cement mortar 1:2 but excluding cost of pipes (available at site), excavation, protection works, backfilling , concrete and masonry works in head walls and parapets as per MoRD Technical specification Clause 1106.

**Unit = metre**

**Taking output = 7.50 metres ( 6 pipes of 2.5 m length each in two rows)**

**A. 1200 mm dia**

**a) Labour**

Mate	day	0.34	300.00	102.00	L-19
Mason (1st Class)	day	1.20	425.00	510.00	L-17
Mazdoor (unskilled)	day	7.20	300.00	2160.00	L-20

**b) Material**

Sand	cum	0.11	370.00	40.70	M-174
Cement	tonne	0.14	6100.00	854.00	M-054

**c) 0**

**d) Contractor's profit and overheads = 15 % on (a+b+c)**

Cost for 7.50 metres = a+b+c+d

**Rate per metre = (a+b+c+d)/7.50**

**say 562.20**

**B. 1000 mm dia**

**a) Labour**

Mate	day	0.22	300.00	66.00	L-19
Mason (1st Class)	day	0.60	425.00	255.00	L-17
Mazdoor (unskilled)	day	4.80	300.00	1440.00	L-20

**b) Material**

Sand	cum	0.08	370.00	29.60	M-174
Cement	tonne	0.06	6100.00	366.00	M-054

**c) 0**

**d) Contractor's profit and overheads = 15 % on (a+b+c)**

Cost for 7.50 metres = a+b+c+d

**Rate per metre = (a+b+c+d)/7.50**

**say 330.70**

**C. 750 mm dia**

**a) Labour**

**MISCELLANEOUS-1**  
**DIFFERENT MISCELLANEOUS ITEMS FOR ROADS & STEEL BRIDGES**

Sr. No.	Description	Unit	Quantity	Rate (₹)	Amount (₹)	Remarks/ Ref.
	Mate	day	0.11	300.00	33.00	L-19
	Mason (1st Class)	day	0.30	425.00	127.50	L-17
	Mazdoor (unskilled)	day	4.80	300.00	1440.00	L-20
	<b>b) Material</b>					
	Sand	cum	0.08	370.00	29.60	M-174
	Cement	tonne	0.06	6100.00	366.00	M-054
	<b>c) 0</b>				0.00	
	<b>d) Contractor's profit and overheads = 15 % on (a+b+c)</b>				299.42	
	Cost for 7.50 metres = a+b+c+d				2295.52	
	<b>Rate per metre = (a+b+c+d)/7.50</b>				306.07	
				<b>say</b>	<b><u>306.10</u></b>	
<b>D</b>	<b>D. 600 mm dia</b>					
	<b>a) Labour</b>					
	Mate	day	0.09	300.00	27.00	L-19
	Mason (1st Class)	day	0.24	425.00	102.00	L-17
	Mazdoor (unskilled)	day	3.84	300.00	1152.00	L-20
	<b>b) Material</b>					
	Sand	cum	0.060	370.00	22.20	M-174
	Cement	tonne	0.050	6100.00	305.00	M-054
	<b>c) 0</b>				0.00	
	<b>d) Contractor's profit and overheads = 15 % on (a+b+c)</b>				241.23	
	Cost for 7.50 metres = a+b+c+d				1849.43	
	<b>Rate per metre = (a+b+c+d)/7.50</b>				246.59	
				<b>say</b>	<b><u>246.60</u></b>	
<b>M1.11</b>	<b>Laying Reinforced Cement Concrete Pipe NP2 as per design in single Row</b>					
	Laying reinforced cement concrete pipe NP2 for culverts on first class bedding of granular material in single row including fixing collar with cement mortar 1:2 but excluding cost of pipes (available at site), excavation, protection works, backfilling , concrete and masonry works in head walls and parapets as per MoRD Technical specification Clause 1106.					
	<b>Unit = metre</b>					
	<b>Taking output = 7.50 metres ( 3 pipes of 2.5 m length each )</b>					
<b>A</b>	<b>A. 1200 mm dia</b>					
	<b>a) Labour</b>					
	Mate	day	0.14	300.00	42.00	L-19
	Mason (1st Class)	day	0.50	425.00	212.50	L-17
	Mazdoor (unskilled)	day	3.00	300.00	900.00	L-20
	<b>b) Material</b>					
	Sand	cum	0.05	370.00	18.50	M-174
	Cement	tonne	0.07	6100.00	427.00	M-054
	<b>c) 0</b>				0.00	
	<b>d) Contractor's profit and overheads = 15 % on (a+b+c)</b>				240.00	
	Cost for 7.50 metres = a+b+c+d				1840.00	
	<b>Rate per metre= (a+b+c+d)/7.50</b>				245.33	
				<b>say</b>	<b><u>245.30</u></b>	
<b>B</b>	<b>B. 900 mm dia</b>					
	<b>a) Labour</b>					

**MISCELLANEOUS-1**  
**DIFFERENT MISCELLANEOUS ITEMS FOR ROADS & STEEL BRIDGES**

Sr. No.	Description	Unit	Quantity	Rate (₹)	Amount (₹)	Remarks/ Ref.
	Mate	day	0.09	300.00	27.00	L-19
	Mason (1st Class)	day	0.25	425.00	106.25	L-17
	Mazdoor (unskilled)	day	2.00	300.00	600.00	L-20
	<b>b) Material</b>					
	Sand	cum	0.04	370.00	14.80	M-174
	Cement	tonne	0.03	6100.00	183.00	M-054
	<b>c) 0</b>				0.00	
	<b>d) Contractor's profit and overheads = 15 % on (a+b+c)</b>				139.66	
	Cost for 7.50 metres = a+b+c+d				1070.71	
	<b>Rate per metre = (a+b+c+d)/7.50</b>				142.76	
				<b>say</b>	<b><u>142.80</u></b>	
<b>C</b>	<b>C. 600 mm dia</b>					
	<b>a) Labour</b>					
	Mate	day	0.05	300.00	15.00	L-19
	Mason (1st Class)	day	0.15	425.00	63.75	L-17
	Mazdoor (unskilled)	day	1.20	300.00	360.00	L-20
	<b>b) Material</b>					
	Sand	cum	0.02	370.00	7.40	M-174
	Cement	tonne	0.02	6100.00	122.00	M-054
	<b>c) 0</b>				0.00	
	<b>d) Contractor's profit and overheads = 15 % on (a+b+c)</b>				85.22	
	Cost for 7.50 metres = a+b+c+d				653.37	
	<b>Rate per metre = (a+b+c+d)/7.50</b>				87.12	
				<b>say</b>	<b><u>87.10</u></b>	
<b>D</b>	<b>D. 450 mm dia</b>					
	<b>a) Labour</b>					
	Mate	day	0.04	300.00	12.00	L-19
	Mason (1st Class)	day	0.12	425.00	51.00	L-17
	Mazdoor (unskilled)	day	0.96	300.00	288.00	L-20
	<b>b) Material</b>					
	Sand	cum	0.0192	370.00	7.10	M-174
	Cement	tonne	0.014	6100.00	85.40	M-054
	<b>c) 0</b>				0.00	
	<b>d) Contractor's profit and overheads = 15 % on (a+b+c)</b>				66.53	
	Cost for 7.50 metres = a+b+c+d				510.03	
	<b>Rate per metre = (a+b+c+d)/7.50</b>				68.00	
				<b>say</b>	<b><u>68.00</u></b>	
<b>E</b>	<b>E. 300 mm dia</b>					
	<b>a) Labour</b>					
	Mate	day	0.03	300.00	9.00	L-19
	Mason (1st Class)	day	0.10	425.00	42.50	L-17
	Mazdoor (unskilled)	day	0.77	300.00	231.00	L-20
	<b>b) Material</b>					
	Sand	cum	0.0154	370.00	5.70	M-174
	Cement	tonne	0.012	6100.00	73.20	M-054
	<b>c) 0</b>				0.00	
	<b>d) Contractor's profit and overheads = 15 % on (a+b+c)</b>				54.21	
	Cost for 7.50 metres = a+b+c+d				415.61	
	<b>Rate per metre = (a+b+c+d)/7.50</b>				55.41	
				<b>say</b>	<b><u>55.40</u></b>	

**MISCELLANEOUS-1**  
**DIFFERENT MISCELLANEOUS ITEMS FOR ROADS & STEEL BRIDGES**

Sr. No.	Description	Unit	Quantity	Rate (₹)	Amount (₹)	Remarks/ Ref.
M1.12	<b>Laying Reinforced Cement Concrete Pipe NP2 as per design in Double Row</b>					
	Laying reinforced cement concrete pipe NP2 for culverts on first class bedding of granular material in Double row including fixing collar with cement mortar 1:2 but excluding cost of pipes (available at site), excavation, protection works, backfilling, concrete and masonry works in head walls and parapets as per MoRD Technical specification Clause 1106.					
	<b>Unit = metre</b>					
	<b>Taking output = 7.50 metres ( 6 pipes of 2.5 m length each in two rows)</b>					
<b>A</b>	<b>A. 1200 mm dia</b>					
	<b>a) Labour</b>					
	Mate	day	0.34	300.00	102.00	L-19
	Mason (1st Class)	day	1.20	425.00	510.00	L-17
	Mazdoor (unskilled)	day	7.20	300.00	2160.00	L-20
	<b>b) Material</b>					
	Sand	cum	0.11	370.00	40.70	M-174
	Cement	tonne	0.14	6100.00	854.00	M-054
	<b>c) 0</b>				0.00	
	<b>d) Contractor's profit and overheads = 15 % on (a+b+c)</b>				550.01	
	Cost for 7.50 metres = a+b+c+d				4216.71	
	<b>Rate per metre= (a+b+c+d)/7.50</b>				562.23	
					<b>say</b>	<b><u>562.20</u></b>
<b>B</b>	<b>B. 900 mm dia</b>					
	<b>a) Labour</b>					
	Mate	day	0.22	300.00	66.00	L-19
	Mason (1st Class)	day	0.60	425.00	255.00	L-17
	Mazdoor (unskilled)	day	4.80	300.00	1440.00	L-20
	<b>b) Material</b>					
	Sand	cum	0.08	370.00	29.60	M-174
	Cement	tonne	0.06	6100.00	366.00	M-054
	<b>c) 0</b>				0.00	
	<b>d) Contractor's profit and overheads = 15 % on (a+b+c)</b>				323.49	
	Cost for 7.50 metres = a+b+c+d				2480.09	
	<b>Rate per metre = (a+b+c+d)/7.50</b>				330.68	
					<b>say</b>	<b><u>330.70</u></b>
<b>C</b>	<b>C. 600 mm dia</b>					
	<b>a) Labour</b>					
	Mate	day	0.11	300.00	33.00	L-19
	Mason (1st Class)	day	0.30	425.00	127.50	L-17
	Mazdoor (unskilled)	day	4.80	300.00	1440.00	L-20
	<b>b) Material</b>					
	Sand	cum	0.080	370.00	29.60	M-174
	Cement	tonne	0.060	6100.00	366.00	M-054
	<b>c) 0</b>				0.00	
	<b>d) Contractor's profit and overheads = 15 % on (a+b+c)</b>				299.42	
	Cost for 7.50 metres = a+b+c+d				2295.52	
	<b>Rate per metre = (a+b+c+d)/7.50</b>				306.07	

**MISCELLANEOUS-1**  
**DIFFERENT MISCELLANEOUS ITEMS FOR ROADS & STEEL BRIDGES**

Sr. No.	Description	Unit	Quantity	Rate (₹)	Amount (₹)	Remarks/ Ref.
				<i>say</i>	<u>306.10</u>	
<b>D</b>	<b>D. 450 mm dia</b>					
	<b>a) Labour</b>					
	Mate	day	0.09	300.00	27.00	L-19
	Mason (1st Class)	day	0.24	425.00	102.00	L-17
	Mazdoor (unskilled)	day	3.84	300.00	1152.00	L-20
	<b>b) Material</b>					
	Sand	cum	0.060	370.00	22.20	M-174
	Cement	tonne	0.050	6100.00	305.00	M-054
	<b>c) 0</b>				0.00	
	<b>d) Contractor's profit and overheads = 15 % on (a+b+c)</b>				241.23	
	Cost for 7.50 metres = a+b+c+d				1849.43	
	<b>Rate per metre = (a+b+c+d)/7.50</b>				246.59	
				<i>say</i>	<u>246.60</u>	
<b>E</b>	<b>E. 300 mm dia</b>					
	<b>a) Labour</b>					
	Mate	day	0.07	300.00	21.00	L-19
	Mason (1st Class)	day	0.19	425.00	80.75	L-17
	Mazdoor (unskilled)	day	3.07	300.00	921.00	L-20
	<b>b) Material</b>					
	Sand	cum	0.050	370.00	18.50	M-174
	Cement	tonne	0.040	6100.00	244.00	M-054
	<b>c) 0</b>				0.00	
	<b>d) Contractor's profit and overheads = 15 % on (a+b+c)</b>				192.79	
	Cost for 7.50 metres = a+b+c+d				1478.04	
	<b>Rate per metre = (a+b+c+d)/7.50</b>				197.07	
				<i>say</i>	<u>197.10</u>	
<b>M1.13</b>	<b>900, Maintenance of bituminous surface road using Jhama brick aggregate</b>					
<b>502,</b>						
<b>503</b>	Repair to pot holes by removal of failed material, trimming the sides to vertical and levelling the bottom, cleaning the same with compressed air or any appropriate method, filled with B.M (using jhama brick aggregate & bitumen of VG-30), after applying prime coat at the bottom and tack coat on sides and on bottom (using bitumen emulsion) and compacting, trimming & finishing the surface to form a smooth continuous surface, all as per MoRD technical specification Clauses 1900, 502, 503 and 504.					
	<b>Unit = cum</b>					
	<b>Taking output = 187.5x0.075(avg)</b>					
	<b>= 14.06 cum = (26.71 Tonne)</b>					
	<b>a) Labour</b>					
	Mate	day	0.80	300.00	240.00	
	Mazdoor (Unskilled)	day	20.00	300.00	6000.00	
	<b>b) Machinery</b>					
	Emulsion pressure distributor	hour	4.00	735.48	2941.92	
	Mixall 6/10 t capacity	hour	4.00	762.00	3048.00	
	Three wheeled 80-100 KN Static Roller	hour	4.00	379.00	1516.00	
	<b>c) Material</b>					

**MISCELLANEOUS-1**  
**DIFFERENT MISCELLANEOUS ITEMS FOR ROADS & STEEL BRIDGES**

Sr. No.	Description	Unit	Quantity	Rate (₹)	Amount (₹)	Remarks/ Ref.
	Primer with bitumen emulsion (SS-1) @ 9.00 kg/10 sqm 187.5x0.9 = 168.75 kg.	Tonne	0.1688	39435.00	6656.63	
	Tack coat with bitumen emulsion (RS-1) @ 3.00 kg/ 10 sqm Bottom = 187.5 Sides = 28.27 Total = 215.77	Tonne	0.0647	36443.00	2357.86	
	Bitumen (VG-30) for BM @ 3.5% by weight of mix = 26.71 x 3.5 / 100 = 0.935 Weight of mix (BM) 14.06 cum = (26.71 tonne) Weight of Bitumen = 0.935 Weight of aggregate 26.71 -0.935 = 25.775 Taking density of aggregate 1.5 t per cum	Tonne	0.935	37787.00	35330.85	
	Volume of jhama brick aggregate 25.775 / 1.5 = 17.183 cum 45 mm to 22.4 mm 70 % 22.4 mm to 2.36 mm 30%	cum	12.028	2529.00	30418.81	
		cum	5.155	2588.00	13341.14	
	<b>d) 0</b>				<b>0.00</b>	
	<b>e) Contractor's profit = 15 % on (a+b+c+d)</b>				<b>15,277.68</b>	
	Cost of 14.06 cum = a+b+c+d+e				117,128.89	
	<b>Rate per cum = a+b+c+d+e/14.06</b>				<b>8,330.65</b>	
				<b>say</b>	<b><u>8330.60</u></b>	
<b>M1.14</b>	<b>Seal coat on old bituminous road surface</b> Sand seal coat on old bituminous road surface by applying Viscosity Graded (VG-30) bitumen @ 1.00 kg per sqm using rubber brush after proper cleaning of the road surface and spreading of river sand @ 0.06 cum/ 10 sqm complete as per specification and direction of the Engg.-in-Charge. Unit = sqm Taking output = 1250 sqm					
	<b>a) Labour</b>					
	Mate	day	0.64	300.00	192.00	
	Mazdoor (Unskilled)	day	11.25	300.00	3,375.00	
	Mazdoor (Semi-Skilled)	day	1.50	340.00	510.00	
	<b>b) Machinery</b>					
	Cleaning by mechanical/ manual means @ 15 % of (a)				611.55	
	Bitumen boiler oil fired 1000 litre capacity fitted with spray set	hour	1.00	207.00	207.00	
	<b>c) Material</b>					
	Bitumen (VG-30) @ 1.00 kg per sqm	t	1.250	37,787.00	47,233.75	
	Sand (fine) applied @ 0.06 cum per 10 sqm	cum	7.50	370.00	2,775.00	
	<b>d) Cost of rubber brush, etc.</b>				203.85	
	<b>e) 0</b>				<b>0.00</b>	
	<b>f) Contractor's profit and overheads @ 15 % on (a+b+c+d)</b>				<b>8,266.22</b>	
	Cost of 1250 sqm = a+b+c+d+e+f				63,374.37	
	<b>Rate per sqm = (a+b+c+d+e+f)/1250</b>				<b>50.70</b>	
				<b>say</b>	<b><u>50.70</u></b>	



**MISCELLANEOUS-1**  
**DIFFERENT MISCELLANEOUS ITEMS FOR ROADS & STEEL BRIDGES**

Sr. No.	Description	Unit	Quantity	Rate (₹)	Amount (₹)	Remarks/ Ref.
	Total = 225.04 sqm, Bitumen for tack coat	Tonne	0.16878	37787.00	6377.69	
	d) 0				0.00	
	e) Contractor's profit = 15 % on (a+b+c+d)				15,417.89	
	Cost of 14.06 cum = a+b+c+d+e				118,203.84	
	Rate per cum = a+b+c+d+e/14.06				8,407.10	
				say	<u>8407.10</u>	
<b>M1.16</b>	<b>Labour charge for Seal coat on old bituminous road surface</b>					
	Labour charge for Sand seal coat on old bituminous road surface by applying Vicocity Graded (VG-30) bitumen @ 1.00 kg per sqm using rubber brush after proper cleaning of the road surface and spreading of river sand @ 0.06 cum/10 sqm complete as per specification and direction of the Engg.-in-Charge. (bitumen to be issued at free of cost by the department)					
	Unit = sqm					
	Taking output = 1250 sqm					
	<b>a) Labour</b>					
	Mate	day	0.64	300.00	192.00	
	Mazdoor (Unskilled)	day	11.25	300.00	3,375.00	
	Mazdoor (Semi-Skilled)	day	1.50	340.00	510.00	
	<b>b) Machinery</b>					
	Cleaning by mechanical/ manual means	@ 15 % of (a)			611.55	
	Bitumen boiler oil fired 1000 litre capacity fitted with spray set	hour	1.00	207.00	207.00	
	<b>c) Material</b>					
	Sand (fine) applied @ 0.06 cum per 10 sqm	cum	7.50	370.00	2,775.00	
	d) Cost of rubber brush, etc.	@ 5 % of (a)			203.85	
	e) 0				0.00	
	f) Contractor's profit and overheads @ 15 % on (a+b+c+d)				1,181.16	
	Cost of 1250 sqm = a+b+c+d+e+f				9,055.56	
	Rate per sqm = (a+b+c+d+e+f)/1250				7.24	
				say	<u>7.20</u>	
<b>M1.17</b>	<b>502 &amp; Tack coat using hot straight run bitumen of grade VG-30 on W.B.M.</b>					
<b>503</b>	<b>of grade VG-30 on W.B.M.</b>					
	Providing and applying tack coat using hot straight run bitumen of grade VG-30, including heating the bitumen, spraying the bitumen, cleaning and preparing the existing road surface as per specifications: <b>On W.B.M. @ 0.75 kg/ sqm.</b>					
	Unit = sqm					
	Taking output = 100 sqm					
	<b>a) Labour</b>					
	(a) For cleaning:					
	Mate	day	0.06	300.00	18.00	
	Mazdoor (Unskilled)	day	1.46	300.00	438.00	
	(b) For heating bitumen: -					
	Mazdoor (Unskilled)	day	0.19	300.00	57.00	
	(c) For applying tack coat: -					
	Mazdoor (Unskilled)	day	0.47	300.00	141.00	

**MISCELLANEOUS-1**  
**DIFFERENT MISCELLANEOUS ITEMS FOR ROADS & STEEL BRIDGES**

Sr. No.	Description	Unit	Quantity	Rate (₹)	Amount (₹)	Remarks/ Ref.
	<b>b) Machinery</b>					
	Bitumen Pressure Distributor	hour	0.07	735.48	51.48	
	<b>c) Material</b>					
	Bitumen (VG-30) @ 0.75 kg per sqm	t	0.075	37,787.00	2,834.03	
	Materials for cleaning the road surface :-					
	Wire brush (with thick wire)	each	0.05	24.00	1.20	
	Soft brush	each	0.12	21.00	2.52	
	Gunny bags	L.S.	7.80	2.00	15.60	
	Sundries @ 0.6 % of material	L.S.			17.12	
	<b>d) 0</b>				<b>0.00</b>	
	<b>e) Contractor's profit and overheads = 15 % on (a+b+c+d)</b>				<b>536.39</b>	
	Cost of 100 sqm = a+b+c+d+e				4,112.34	
	<b>Rate per sqm = (a+b+c+d+e)/100</b>				<b>41.12</b>	
				<b>say</b>	<b><u>41.10</u></b>	
<b>M1.18</b>	<b>502 &amp; Tack coat using hot straight run bitumen of grade VG-30 on bituminous surface</b>					
<b>503</b>						
	Providing and applying tack coat using hot straight run bitumen of grade VG-30, including heating the bitumen, spraying the bitumen, cleaning and preparing the existing road surface as per specifications: : <b>On bituminous surface @ 0.50 Kg/Sqm.</b>					
	Unit = sqm					
	Taking output = 100 sqm					
	<b>a) Labour</b>					
	(a) For cleaning:					
	Mate	day	0.06	300.00	18.00	
	Mazdoor (Unskilled)	day	1.46	300.00	438.00	
	(b) For heating bitumen:					
	Mazdoor (Unskilled)	day	0.19	300.00	57.00	
	(c) For applying tack coat:					
	Mazdoor (Unskilled)	day	0.47	300.00	141.00	
	<b>b) Machinery</b>					
	Bitumen Pressure Distributor	hour	0.07	735.48	51.48	
	<b>c) Material</b>					
	Bitumen (VG-30) @ 0.50 kg per sqm	t	0.050	37,787.00	1,889.35	
	Materials for cleaning the road surface :-					
	Wire brush (with thick wire)	each	0.05	24.00	1.20	
	Soft brush	each	0.12	21.00	2.52	
	Gunny bags	L.S.	7.80	2.00	15.60	
	Sundries @ 0.85 % of material	L.S.			16.22	
	<b>d) 0</b>				<b>0.00</b>	
	<b>e) Contractor's profit and overheads = 15 % on (a+b+c+d)</b>				<b>394.56</b>	
	Cost of 100 sqm = a+b+c+d+e				3,024.93	
	<b>Rate per sqm = (a+b+c+d+e)/100</b>				<b>30.25</b>	
				<b>say</b>	<b><u>30.20</u></b>	
<b>M1.19</b>	<b>Providing and laying factory made kerb stone</b>					

**MISCELLANEOUS-1**  
**DIFFERENT MISCELLANEOUS ITEMS FOR ROADS & STEEL BRIDGES**

Sr. No.	Description	Unit	Quantity	Rate (₹)	Amount (₹)	Remarks/ Ref.
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Providing and laying at or near ground level factory made kerb stone of M-25 grade cement concrete in position to the required line, level and curvature jointed with cement mortar 1:3 (1 cement : 3 sand), including making joints with or without grooves (thickness of joints except at sharp curve shall not to more than 5 mm), including making drainage opening wherever required complete etc. as per direction of Engineer-in-Charge (length of finished kerb edging shall be measured for payment). (Precast C.C. kerb stone shall be approved by Engineer-in-Charge).

Unit = cum

Taking output = 7.50 Cum

**a) Labour**

**Labour for fixing of Kerb stone**

Mason 1st class	Day	2.50	425.00	1,062.50
Mason 2nd class	Day	2.50	380.00	950.00
Mazdoor (Unskilled)	Day	2.50	300.00	750.00
Mate	Day	1.65	300.00	495.00

**b) Material**

Details for 100 metre i.e.  $100 \times 0.375 \times 0.20$   
= 7.50 cum

Precast C.C. Kerb stone M - 25

Number of kerb stones =  $100 / 0.405 = 247$   
Nos.

$247 \times 0.40 \times 0.375 \times 0.20 = 7.41$  cum      cum      7.410      7,765.00      57,538.65

Mortar 1:3 for fixing joints,

No. of joints =  $247 - 1 = 246$  Nos.

Cement Mortar 1:3 for fixing joints =  $246 \times [(0.115 + 0.20)/2 \times 0.375 \times 0.005] = 0.073$   
cum

Cement mortar 1:3 (1 cement : 3 sand)

Rate vide item number 11.5 (I) of MORD      Cum      0.073      3,805.50      277.80

**c) 0**

**d) Contractor's profit and overheads = 15 % on (a+b+c)      9,161.09**

Cost of 7.50 cum = a+b+c+d

70,235.04

**Rate per cum = (a+b+c+d)/7.50**

**9,364.67**

**say      9364.70**

**Note:** i. Carriage of kerb stones are payable separately as per Chapter of carriage of material (item no. 1.8 and 1.10 of MoRD) from nearest place of procurement to the site of work.

**M1.20 1500 Taking out existing CC interlocking paver blocks**

**MISCELLANEOUS-1**  
**DIFFERENT MISCELLANEOUS ITEMS FOR ROADS & STEEL BRIDGES**

Sr. No.	Description	Unit	Quantity	Rate (₹)	Amount (₹)	Remarks/ Ref.
	Taking out existing CC interlocking paver blocks from footpath/ central verge, including removal of rubbish etc., disposal of unserviceable material to the dumping ground, for which payment shall be made separately and stacking of serviceable material within 50 metre lead as per direction of Engineer-in-Charge. Unit = sqm Taking output = 10.00 sqm					
	<b>a) Labour</b>					
	Mate	Day	0.25	300.00	75.00	
	Mazdoor (Unskilled)	Day	1.00	300.00	300.00	
	Other incidental charges @ 1.5 % of Lbaour				5.63	
	<b>b) 0</b>				<b>0.00</b>	
	<b>c) Contractor's profit and overheads = 15 % on (a+b)</b>				<b>57.09</b>	
	Cost of 10.00 Sqm = a+b+c				437.72	
	<b>Rate per sqm = (a+b+c)/10.00</b>				<b>43.77</b>	
				<b>say</b>	<b><u>43.80</u></b>	
<b>M1.21</b>	<b>1500</b>	<b>Laying old cement concrete interlocking paver blocks</b>				
	Laying old cement concrete interlocking paver blocks of any design/shape laid in required line, level, curvature, colour and pattern over and including 50 mm thick compacted bed of coarse sand, filling the joints with fine sand etc. all complete as per the direction of Engineer-in-charge. (Old CC paver blocks shall be supplied by the department free of cost). Unit = sqm Taking output = 10.00 sqm					
	<b>a) Labour</b>					
	Laying charges					
	Mason 1st class	Day	0.50	425.00	212.50	
	Mason 2nd class	Day	0.50	380.00	190.00	
	Mazdoor (Unskilled)	Day	1.00	300.00	300.00	
	Mate	Day	0.50	300.00	150.00	
	<b>b) Material</b>					
	Bedding Layer 50 mm thick					
	Sand as per Table 1500.5					
	=10.00 x 0.050 = 0.50 cum	Cum	0.500	241.00	120.50	
	Fine sand for joint as per Table 1500.5	Cum	0.150	768.00	115.20	
	Water	Kl	0.027	301.00	8.03	
	<b>c) 0</b>				<b>0.00</b>	
	<b>d) Contractor's profit and overheads = 15 % on (a+b+c)</b>				<b>164.43</b>	
	Cost of 10.00 Sqm = a+b+c+d				1,260.66	
	<b>Rate per sqm = (a+b+c+d)/10.00</b>				<b>126.07</b>	
				<b>say</b>	<b><u>126.10</u></b>	
<b>M1.22</b>	<b>1500</b>	<b>60 mm thick factory made c.c interlocking paver block of M -30 Grade</b>				

**MISCELLANEOUS-1**  
**DIFFERENT MISCELLANEOUS ITEMS FOR ROADS & STEEL BRIDGES**

Sr. No.	Description	Unit	Quantity	Rate (₹)	Amount (₹)	Remarks/ Ref.
	Providing and laying 60 mm thick factory made cement concrete interlocking paver block of M-30 grade made by block making machine with strong vibratory compaction, of approved size, design & shape, laid in required colour and pattern over and including 50 mm thick compacted bed of sand, filling the joints with fine sand etc. all complete as per specification and approval/ direction of the Engineer-in-charge.					
	Unit = sqm					
	Taking output = 10.00 sqm					
	<b>a) Labour</b>					
	Laying charges (Based on actual observation)					
	Mason 1st class	Day	0.50	425.00	212.50	
	Mason 2nd class	Day	0.50	380.00	190.00	
	Mazdoor (Unskilled)	Day	1.00	300.00	300.00	
	Mate	Day	0.50	300.00	150.00	
	<b>b) Material</b>					
	Interlocking C.C. paver block (60 mm thick, M-30)	Sqm	10.000	702.00	7,020.00	
	Bedding Layer 50 mm thick					
	Sand as per Table 1500.5					
	=10.00 x 0.050 = 0.50 cum	Cum	0.500	300.00	150.00	
	Fine sand for joint as per Table 1500.5	Cum	0.150	370.00	55.50	
	Water	KI	0.027	135.00	3.60	
	<b>c) 0</b>				<b>0.00</b>	
	<b>d) Contractor's profit and overheads = 15 % on (a+b+c)</b>				<b>1,212.24</b>	
	Cost of 10.00 Sqm = a+b+c+d					9,293.84
	<b>Rate per sqm = (a+b+c+d)/10.00</b>					<b>929.38</b>
				<b>say</b>	<b><u>929.40</u></b>	

**Note:** i. Carriage of interlocking blocks are payable separately as per Chapter of carriage of material (item no. 1.8 and 1.10 of MoRD) from nearest place of procurement to the site of work.

ii. The rates for sub-grade, sub-base and base course if required can be taken separately from respective Chapters.

**M1.23 1500 60 mm thick factory made c.c. interlocking paver block of M-35 Grade**

**MISCELLANEOUS-1**  
**DIFFERENT MISCELLANEOUS ITEMS FOR ROADS & STEEL BRIDGES**

Sr. No.	Description	Unit	Quantity	Rate (₹)	Amount (₹)	Remarks/ Ref.
	Providing and laying factory made coloured chamfered edge Cement Concrete paver blocks of required strength, thickness & size/shape, made by table vibratory method using PU mould, laid in required colour & pattern over 50 mm thick compacted bed of sand, compacting and proper embedding/laying of inter locking paver blocks into the sand bedding layer through vibratory compaction by using plate vibrator, filling the joints with fine sand and cutting of paver blocks as per required size and pattern, finishing and sweeping extra sand in footpath, parks, lawns, drive ways or light traffic parking etc. complete as per specifications & approval/ direction of Engineer-in-Charge.					
	(a) 60 mm thick c.c. paver block of M-35 grade with approved colour design and pattern. Unit = sqm Taking output = 10.00 sqm					
	<b>a) Labour</b>					
	Laying charges (Based on actual observation)					
	Mason 1st class	Day	0.50	425.00	212.50	
	Mason 2nd class	Day	0.50	380.00	190.00	
	Mazdoor (Unskilled)	Day	1.00	300.00	300.00	
	Mate	Day	0.50	300.00	150.00	
	<b>b) Machinery</b>					
	Plate Vibrator	Hour	0.520	143.00	74.36	
	<b>c) Material</b>					
	Interlocking C.C. paver block (60 mm thick, M-35)	Sqm	10.000	764.00	7,640.00	
	Bedding Layer 50 mm thick					
	Sand as per Table 1500.5 =10.00 x 0.050 = 0.50 cum	Cum	0.500	300.00	150.00	
	Fine sand for joint as per Table 1500.5	Cum	0.150	370.00	55.50	
	Water for wetting of bedding sand	Kl	0.027	135.00	3.60	
	<b>d) 0</b>				<b>0.00</b>	
	<b>e) Contractor's profit and overheads = 15 % on (a+b+c+d)</b>				<b>1,316.39</b>	
	Cost of 10.00 sqm = a+b+c+d+e				10,092.35	
	<b>Rate per sqm = (a+b+c+d+e)/10.00</b>				<b>1,009.24</b>	
				<b>say</b>	<b><u>1009.20</u></b>	

**Note:** i. Carriage of interlocking blocks are payable separately as per Chapter of carriage of material (item no. 1.8 and 1.10 of MoRD) from nearest place of procurement to the site of work.

ii. The rates for sub-grade, sub-base and base course if required can be taken separately from respective Chapters.

**M1.24 1500 80 mm thick factory made c.c. interlocking paver block of M-30 Grade**

**MISCELLANEOUS-1**  
**DIFFERENT MISCELLANEOUS ITEMS FOR ROADS & STEEL BRIDGES**

Sr. No.	Description	Unit	Quantity	Rate (₹)	Amount (₹)	Remarks/ Ref.
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Providing and laying factory made chamfered edge Cement Concrete paver blocks of required strength, thickness & size/shape, made by table vibratory method, to attain superior smooth finish using PU or equivalent moulds, laid in required grey colour & pattern over 50 mm thick compacted bed of sand, compacting and proper embedding/ laying of inter locking paver blocks into the sand bedding layer through vibratory compaction by using plate vibrator, filling the joints with fine sand and cutting of paver blocks as per required size and pattern, finishing and sweeping extra sand in footpath, parks, lawns, drive ways or light traffic parking etc. all complete as per specifications & approval/ direction of the Engineer -in-Charge:

(a) 80 mm thick c.c. paver block of M-30 grade with approved colour design and pattern.

Unit = sqm

Taking output = 10.00 sqm

**a) Labour**

Laying charges (Based on actual observation)

Mason 1st class	Day	0.50	425.00	212.50
Mason 2nd class	Day	0.50	380.00	190.00
Mazdoor (Unskilled)	Day	1.00	300.00	300.00
Mate	Day	0.50	300.00	150.00

**b) Machinery**

Plate Vibrator	Hour	0.700	143.00	100.10
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**c) Material**

Interlocking C.C. paver block (80 mm thick, M-30)	Sqm	10.000	936.00	9,360.00
Bedding Layer 50 mm thick				
Sand as per Table 1500.5				
=10.00 x 0.050 = 0.50 cum	Cum	0.500	300.00	150.00
Fine sand for joint as per Table 1500.5	Cum	0.200	370.00	74.00
Water for wetting of bedding sand	Kl	0.027	135.00	3.60

**d) 0**

**0.00**

**e) Contractor's profit and overheads =**

**1,581.03**

**15 % on (a+b+c+d)**

Cost of 10.00 sqm = a+b+c+d+e

12,121.23

**Rate per sqm = (a+b+c+d+e)/10.00**

**1,212.12**

**say 1212.10**

**Note:** i. Carriage of interlocking blocks are payable separately as per Chapter of carriage of material (item no. 1.8 and 1.10 of MoRD) from nearest place of procurement to the site of work.

ii. The rates for sub-grade, sub-base and base course if required can be taken separately from respective Chapters.

**M1.25 1500 Cement concrete 1:2:4 in pavements, laid to required slope and camber in panels**

**MISCELLANEOUS-1**  
**DIFFERENT MISCELLANEOUS ITEMS FOR ROADS & STEEL BRIDGES**

Sr. No.	Description	Unit	Quantity	Rate (₹)	Amount (₹)	Remarks/ Ref.
	Cement concrete 1:2:4 (1 cement : 2 sand : 4 graded stone aggregate 40 mm nominal size) in pavements, laid to required slope and camber in panels as required including consolidation finishing and tamping complete as per direction of the of the Engineer-in-Charge.					
	Unit = cum					
	Taking output = 1.00 cum					
	cementg concrete 1:2:4 mix					
	<b>a) Labour</b>					
	Laying charges					
	Mason 1st class	Day	0.10	425.00	42.50	
	Bhisti	Day	0.70	300.00	210.00	
	Mazdoor (Unskilled)	Day	1.63	300.00	489.00	
	<b>b) Machinery</b>					
	Concrete mixer 0.25 to 0.4 cum with hopper	Hour	0.40	193.00	77.20	
	Needle vibrator 40 mm	Hour	0.35	62.00	21.70	
	<b>c) Material</b>					
	Stone Aggregate (Single size) : 40 mm nominal size	Cum	0.450	3,532.00	1,589.40	
	Stone Aggregate (Single size) : 20 mm nominal size	Cum	0.270	3,969.00	1,071.63	
	Stone Aggregate (Single size) : 10 mm nominal size	Cum	0.180	4,040.00	727.20	
	Portland Cement	Tonne	0.330	6,100.00	2,013.00	
	Sand	Cum	0.450	370.00	166.50	
	Side shuttering : (Taking the slab to be 15 cm thick and width to be 6 metre, length of road 27 metre = 9.90/24.30 = 0.407 sqm)	L.S. @ 1.00 % of (C)			56.00	
	<b>d) 0</b>				<b>0.00</b>	
	<b>e) Contractor's profit and overheads = 15 % on (a+b+c)</b>				<b>969.62</b>	
	Cost of 1.00 cum = a+b+c+d+e				7,433.75	
	<b>Rate per sqm = (a+b+c+d+e)/1.00</b>				<b>7,433.75</b>	
				<b>say</b>	<b><u>7433.70</u></b>	
<b>M1.26</b>	511 of Providing, laying and rolling of open - graded MoRT premix surfacing of 25 mm thickness &H/ composed of 13.2 mm to 5.6 mm 508 of aggregates using modified bitumen to MoRD required line, grade and level to serve as wearing course on a previously prepared base, including mixing in a suitable plant, laying and rolling with a smooth wheeled roller 8-10 tonne capacity, finished to required level and grades as per Technical Specification and as directed by the Engineerin-Charge.					
	<b>i) With Refinery Modified Bitumen CRMB 55 conforming to IRC: SP: 53-1999</b>					
	Unit = sqm					
	Taking output = 3200 sqm (80 cum)					
	<b>a) Labour</b>					
	Mate	day	0.52	300.00	156.00	
	Mazdoor(unskilled)	day	10.00	300.00	3000.00	
	Mazdoor(skilled)	day	3.00	380.00	1140.00	

**MISCELLANEOUS-1**  
**DIFFERENT MISCELLANEOUS ITEMS FOR ROADS & STEEL BRIDGES**

Sr. No.	Description	Unit	Quantity	Rate (₹)	Amount (₹)	Remarks/ Ref.
<b>b) Machinery</b>						
	Batch type HMP 30/40 TPH	hour	6.00	7734.00	46404.00	
	Electric Generator Set 125 KVA	hour	6.00	705.00	4230.00	
	Tipper 5.50 cum/ 10 tonne capacity	hour	3.64	321.00	1168.44	
	Front end loader 1 cum bucket capacity	hour	6.00	963.00	5778.00	
	Paver finisher hydrostatic with sensor	hour	6.00	3028.00	18168.00	
	Smooth wheeled/tandom roller 8-10 tonnes weight	hour	3.00	1132.00	3396.00	
<b>c) Material</b>						
<b>i) Modified Bitumen Refinery produced CRMB - 55</b>						
	@ 18.25 kg per 10 sqm	tonne	5.84	41110.00	240082.40	
<b>ii) Aggregate</b>						
	Crushed stone chipping, 13.2 mm to 5.6 mm @ 0.34 cum per 10 sqm	cum	108.80	4045.00	440096.00	
<b>ii) Solvent</b>						
	solvent @ of 70 grams per kg of Modified Bitumen	Kg	408.80	32.00	13081.60	
<b>d) 0</b>						
<b>e) Contractor's profit and overheads = 15 % on (a+b+c+d)</b>						
	Cost for 3200 sqm = a+b+c+d+e				893205.51	
	<b>Rate per sqm = (a+b+c+d+e)/3200</b>				279.13	
				<b>say</b>	<b><u>279.10</u></b>	
<b>ii) With Polymer Modified Bitumen PMB - 70</b>						
	Unit = sqm					
	Taking output = 3200 sqm (80 cum)					
<b>a) Labour</b>						
	Mate	day	0.52	300.00	156.00	
	Mazdoor(unskilled)	day	10.00	300.00	3000.00	
	Mazdoor(skilled)	day	3.00	380.00	1140.00	
<b>b) Machinery</b>						
	Batch type HMP 30/40 TPH	hour	6.00	7734.00	46404.00	
	Electric Generator Set 125 KVA	hour	6.00	705.00	4230.00	
	Tipper 5.50 cum/ 10 tonne capacity	hour	3.64	76102.00	277011.28	
	Front end loader 1 cum bucket capacity	hour	6.00	963.00	5778.00	
	Paver finisher hydrostatic with sensor	hour	6.00	3028.00	18168.00	
	Smooth wheeled/tandom roller 8-10 tonnes weight	hour	3.00	1132.00	3396.00	
<b>c) Material</b>						
<b>i) Polymer Modified Bitumen PMB - 70</b>						
	@ 18.25 kg per 10 sqm	tonne	5.84	46043.00	268891.12	
<b>ii) Aggregate</b>						
	Crushed stone chipping, 13.2 mm to 5.6 mm @ 0.34 cum per 10 sqm	cum	108.80	4045.00	440096.00	
<b>ii) Solvent</b>						
	solvent @ of 70 grams per kg of Modified Bitumen	Kg	408.80	32.00	13081.60	
<b>d) 0</b>						
<b>e) Contractor's profit and overheads = 15 % on (a+b+c+d)</b>						
	Cost for 3200 sqm = a+b+c+d+e				1081352.00	
	<b>Rate per sqm = (a+b+c+d+e)/3200</b>				337.92	
				<b>say</b>	<b><u>337.90</u></b>	

**MISCELLANEOUS-1**  
**DIFFERENT MISCELLANEOUS ITEMS FOR ROADS & STEEL BRIDGES**

Sr. No.	Description	Unit	Quantity	Rate (₹)	Amount (₹)	Remarks/ Ref.
<b>M1.27</b>	511 of Providing, laying and rolling of open - graded MoRT premix surfacing of 20 mm thickness &H/ composed of 13.2 mm to 5.6 mm 508 of aggregates using modified bitumen to MoRD required line, grade and level to serve as wearing course on a previously prepared base, including mixing in a suitable plant, laying and rolling with a smooth wheeled roller 8-10 tonne capacity, finished to required level and grades as per Technical Specification and as directed by the Engineerin-Charge.					
	<b>i) With Refinery Modified Bitumen CRMB 55 conforming to IRC: SP: 53-1999</b>					
	Unit = sqm Taking output = 4000 sqm (80 cum)					
	<b>a) Labour</b>					
	Mate	day	0.52	300.00	156.00	
	Mazdoor(unskilled)	day	10.00	300.00	3000.00	
	Mazdoor(skilled)	day	3.00	380.00	1140.00	
	<b>b) Machinery</b>					
	Batch type HMP 30/40 TPH	hour	6.00	7734.00	46404.00	
	Electric Generator Set 125 KVA	hour	6.00	705.00	4230.00	
	Tipper 5.50 cum/ 10 tonne capacity	hour	3.64	321.00	1168.44	
	Front end loader 1 cum bucket capacity	hour	6.00	963.00	5778.00	
	Paver finisher hydrostatic with sensor	hour	6.00	3028.00	18168.00	
	Smooth wheeled/tandom roller 8-10 tonnes weight	hour	3.00	1132.00	3396.00	
	<b>c) Material</b>					
	<b>i) Modified Bitumen Refinery produced CRMB - 55</b>					
	@ 14.60 kg per 10 sqm	tonne	5.84	41110.00	240082.40	
	<b>ii) Aggregate</b>					
	Crushed stone chipping, 13.2 mm to 5.6 mm @ 0.27 cum per 10 sqm	cum	108.00	4045.00	436860.00	
	<b>ii) Solvent</b>					
	solvent @ of 70 grams per kg of Modified Bitumen	Kg	408.80	32.00	13081.60	
	<b>d) 0</b>				0.00	
	<b>e) Contractor's profit and overheads = 15 % on (a+b+c+d)</b>				116019.67	
	Cost for 4000 sqm = a+b+c+d+e				889484.11	
	<b>Rate per sqm = (a+b+c+d+e)/4000</b>				222.37	
				<b>say</b>	<b><u>222.40</u></b>	
	<b>ii) With Polymer Modified Bitumen PMB - 70</b>					
	Unit = sqm Taking output = 3200 sqm (80 cum)					
	<b>a) Labour</b>					
	Mate	day	0.52	300.00	156.00	
	Mazdoor(unskilled)	day	10.00	300.00	3000.00	
	Mazdoor(skilled)	day	3.00	380.00	1140.00	
	<b>b) Machinery</b>					
	Batch type HMP 30/40 TPH	hour	6.00	7734.00	46404.00	
	Electric Generator Set 125 KVA	hour	6.00	705.00	4230.00	
	Tipper 5.50 cum/ 10 tonne capacity	hour	3.64	76102.00	277011.28	

**MISCELLANEOUS-1**  
**DIFFERENT MISCELLANEOUS ITEMS FOR ROADS & STEEL BRIDGES**

Sr. No.	Description	Unit	Quantity	Rate (₹)	Amount (₹)	Remarks/ Ref.
	Front end loader 1 cum bucket capacity	hour	6.00	963.00	5778.00	
	Paver finisher hydrostatic with sensor	hour	6.00	3028.00	18168.00	
	Smooth wheeled/tandom roller 8-10 tonnes weight	hour	3.00	1132.00	3396.00	
	<b>c) Material</b>					
	<b>i) Polymer Modified Bitumen PMB - 70</b>					
	@ 14.60 kg per 10 sqm	tonne	5.84	46043.00	268891.12	
	<b>ii) Aggregate</b>					
	Crushed stone chipping, 13.2 mm to 5.6 mm @ 0.27 cum per 10 sqm	cum	108.00	4045.00	436860.00	
	<b>ii) Solvent</b>					
	solvent @ of 70 grams per kg of Modified Bitumen	Kg	408.80	32.00	13081.60	
	<b>d) 0</b>				0.00	
	<b>e) Contractor's profit and overheads = 15 % on (a+b+c+d)</b>				161717.40	
	Cost for 4000 sqm = a+b+c+d+e				1239833.40	
	<b>Rate per sqm = (a+b+c+d+e)/4000</b>				309.96	
				<b>say</b>	<b><u>310.00</u></b>	

**M1.28** Road Stud with Lense Reflector

804 of Providing and fixing reflective road studs of MoRT size 100 x 20 mm made of ASA (Acrylic &H styrene Acryloretrite) or HIPS (High impact polystyrene) or ABS (Acrylonitrile butadiene styrene) or any other suitable material approved by the engineer having electronically welded micro-prismatic lens with abrasion resistant coating. The glow stud shall support a load of 13.635 tonne tested in accordance with ASTM D 4280. The slope of retro-reflective surface shall be 35 (± 5) degrees to base. The reflective panel should conform to ASTM D 788. The area of each retro-reflecting surface shall not be less than 13 sqcm. The luminance intensity should be as per the specification and shall be tested as described in ASTM I : 809 as recommended in BS: 873 part 4 : 1973. The studs shall be fixed to the Road surface in accordance with technical specification clause no. 804.7.2 using the adhesive conforming to IS or as per procedure recommended by the manufacturer complete and as per direction of Engineer-in-Charge and in field performance as per technical specification clause no. 804.7.3.

Unit = Nos

Details of cost for 15 Nos.

**a) Labour**

Mason (2nd Class)	day	0.50	380.00	190.00
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**MISCELLANEOUS-1**  
**DIFFERENT MISCELLANEOUS ITEMS FOR ROADS & STEEL BRIDGES**

Sr. No.	Description	Unit	Quantity	Rate (₹)	Amount (₹)	Remarks/ Ref.
	Mazdoor (Unskilled)	day	0.50	300.00	150.00	
	<b>b) Material</b>					
	ABS/ ASA/ HIPS body road stud	Nos	15.00	<b>198.00</b>	2970.00	
	Add 2.25 % of the cost of (b) as Sundries (LS) for material required for fixing cats eyes and providing barricading to divert traffic.				66.83	
	<b>c) 0</b>				0.00	
	<b>d) Contractor's profit and overheads = 15 % on (a+b+c)</b>				506.52	
	Cost for 15 Nos = a+b+c+d				3883.35	
	<b>Rate per No = (a+b+c+d)/15</b>				258.89	
				<b>say</b>	<b><u>258.90</u></b>	

**MISCELLANEOUS-1**  
**DIFFERENT MISCELLANEOUS ITEMS FOR ROADS & STEEL BRIDGES**

Sr. No.	Description	Unit	Quantity	Rate (₹)	Amount (₹)	Remarks/ Ref.
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**M1.29** Solar Powered Road Markers (Solar studs)

804 of Providing and fixing Solar Powered Road MoRT Markers (Solar studs) of specified size to &H meet the requirement of technical specification clause 804.6 made of aluminium alloy and poly carbonate material which shall be absolutely weather resistant and shall support a load of 13.635 tonne tested in accordance with ASTM D 4280, of appropriate color & water resistant to meet the requirement of IP 65 in accordance with IS: 12063:1987 category 2 for protection against water ingress. It shall have super bright LEDs of flashing rate not less than 1Hz having a life of not less than three years. The slope of retro-reflective surface shall be 35 (±5) degrees to base. The studs shall be fixed to the Road surface in accordance with technical specification clause no. 804.7.2 using the adhesive conforming to IS or as per procedure recommended by the manufacturer complete and as per direction of Engineer-in-Charge and in field performance as per technical specification clause no. 804.7.3.

Unit = Nos

Details of cost for 15 Nos.

**a) Labour**

Mason (2nd Class)	day	0.50	380.00	190.00
Mazdoor (Unskilled)	day	0.50	300.00	150.00

**b) Material**

Solar Powered Road Markers made of aluminium alloy and poly carbonate material (Solar studs)	Nos	15.00	<b>1165.00</b>	17475.00
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Add 0.50 % of the cost of (b) as Sundries (LS) for material required for fixing cats eyes and providing barricading to divert traffic. 87.38

**c) 0**

0.00

**d) Contractor's profit and overheads = 15 % on (a+b+c)**

2685.36

Cost for 15 Nos = a+b+c+d

20587.73

**Rate per No = (a+b+c+d)/15**

1372.52

**say 1372.50**

**M1.30** Delineators made of ABS

Providing and fixing post delineators made of ABS round body fitted with 2 nos 100 mm dia high reflective reflectors and mounted on MS pipe of 65 mm dia duly powder coated anti-rust and anti theft steel to be installed as per direction of Engineer-in-Charge.

Unit = Nos

Details of cost for 1 No.

**a) Material & Labour**

ABS Delineator	Nos	1.00	324.00	324.00
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**MISCELLANEOUS-1**  
**DIFFERENT MISCELLANEOUS ITEMS FOR ROADS & STEEL BRIDGES**

Sr. No.	Description	Unit	Quantity	Rate (₹)	Amount (₹)	Remarks/ Ref.
	Add LS 25 % of the cost of delineator for fixing material				81.00	
	Add LS 45 % of the cost of delineator for fixing charge				145.80	
	<b>b) 0</b>				0.00	
	<b>c) Contractor's profit and overheads = 15 % on (a+b)</b>				82.62	
	<b>Cost for 1 No = a+b+c</b>				633.42	
				<b>say</b>	<b><u>633.40</u></b>	
<b>M1.31</b>	Mending Potholes and depressions by stitching picked jhama bricks with one brick-on-edge laid in herring bone pattern and including necessary cushion of sand below the soling (and in between layers) including cutting the pothole area to rectangular shape with vertical edges, removing all loose materials, finishing the surface to match with adjacent areas complete as per direction of the Engineer-in-Charge.					
	<b>(a) One brick-on-edge laid in herring bone pattern on a layer of flat brick (thickness 75 mm plus 125 mm)</b>					
	Unit = sqm Taking output = 150 sqm					
	<b>a) Labour</b>					
	Mason 1st Class	day	7.20	425.00	3,060.00	
	Mate	day	1.20	300.00	360.00	
	Mazdoor (Unskilled)	day	23.00	300.00	6,900.00	
	<b>b) Machinery</b>				0.00	
	Three wheel 80-100 KN static roller @ 150 sqm per hour	hour	1.00	379.00	379.00	
	Water tanker 6 kl capacity	hour	1.70	310.00	527.00	
	<b>c) Material</b>				0.00	
	Over burnt bricks (picked Jhama)	no	12,450.00	8.03	99,973.50	
	Fine Sand (local)	cum	10.88	300.00	3,264.00	
	Water	kl	9.50	135.00	1,282.50	
	<b>d) 0</b>				<b>0.00</b>	
	<b>e) Contractor's profit and overheads = 15 % on (a+b+c)</b>				<b>17,361.90</b>	
	Cost for 150 sqm = a+b+c+d+e				133,107.90	
	<b>Rate per sqm = (a+b+c+d+e)/150</b>				<b>887.39</b>	
				<b>say</b>	<b><u>887.40</u></b>	
	<b>(b) One brick-on-edge laid in herring bone pattern (thickness 125 mm)</b>					
	Unit = sqm Taking output = 150 sqm					
	<b>a) Labour</b>					
	Mason 1st Class	day	3.60	425.00	1,530.00	
	Mate	day	0.62	300.00	186.00	
	Mazdoor (Unskilled)	day	12.00	300.00	3,600.00	
	<b>b) Machinery</b>				0.00	
	Three wheel 80-100 KN static roller @ 150 sqm per hour	hour	1.00	379.00	379.00	
	Water tanker 6 kl capacity	hour	1.00	310.00	310.00	
	<b>c) Material</b>				0.00	

**MISCELLANEOUS-1**  
**DIFFERENT MISCELLANEOUS ITEMS FOR ROADS & STEEL BRIDGES**

Sr. No.	Description	Unit	Quantity	Rate (₹)	Amount (₹)	Remarks/ Ref.
	Over burnt bricks (picked Jhama)	no	7,800.00	8.03	62,634.00	
	Fine Sand (local)	cum	6.79	300.00	2,037.00	
	Water	kl	6.00	135.00	810.00	
	<b>d) 0</b>				<b>0.00</b>	
	<b>e) Contractor's profit and overheads = 15 % on (a+b+c)</b>				<b>10,722.90</b>	
	Cost for 150 sqm = a+b+c+d+e				82,208.90	
	<b>Rate per sqm = (a+b+c+d+e)/150</b>				<b>548.06</b>	
				<b>say</b>	<b><u>548.10</u></b>	
<b>M1.32</b>	303.5.1: Preparation and consolidation of sub grade with power road roller of 8 to 12 tonne capacity after excavating earth to an average of 22.5 cm depth, dressing to camber and consolidating with road roller including making good the undulations etc. and re-rolling the sub grade and disposal of surplus earth with lead upto 50 metres as per direction of the of the Engineer-in-Charge. Unit = 100 sqm Details of cost for 1000 sqm					
	<b>a) Labour</b>					
	Mate	day	0.23	300.00	67.50	
	Mazdoor (Unskilled)	day	5.63	300.00	1,687.50	
	<b>b) Machinery</b>					
	Tractor with ripper attachment	hour	3.75	378.00	1,417.50	
	Water tanker 6 kl capacity	hour	1.50	310.00	465.00	
	Three wheel 80-100 kN Static Roller	hour	3.23	379.00	1,222.28	
	<b>c) Material</b>					
	Water	kl	9.00	135.00	1,215.00	
	<b>d) 0</b>				<b>0.00</b>	
	<b>e) Contractor's profit and overheads = 15 % on (a+b+c)</b>				<b>911.22</b>	
	Cost for 1000 sqm = a+b+c+d+e				6,985.99	
	<b>Rate per 100 sqm = (a+b+c+d+e)/10</b>				<b>698.60</b>	
				<b>say</b>	<b><u>698.60</u></b>	
<b>M1.33</b>	600,7 00 & 1200 Providing weep holes on brick masonry/ plain/ reinforced concrete wall with 90 mm dia uPVC pipe with ISI mark of approved/ reputed make extending through the full width of the structures with slope of 1(V):20(H) towards drawing face including cutting, fixing etc. complete as per drawing and direction of the Engineer-in-Charge and technical specification. Unit = Mtr Taking output = 30 Mtr					
	<b>a) Material</b>					
	uPVC pipe 90 mm dia including wastage @ 5 per cent. Average length of each weep hole is taken as one metre for the analysis.	m	31.50	118.70	3,739.05	
	Cement mortar 1:4 (For rate refer to item 11.5 II)	cum	0.045	3,012.50	135.56	
	<b>b) Labour</b>					
	Mate	day	0.03	300.00	9.00	
	Mason 1st Class	day	0.20	425.00	85.00	
	Mazdoor (Unskilled)	day	0.07	300.00	21.00	
	<b>c) 0</b>				<b>0.00</b>	

**MISCELLANEOUS-1**  
**DIFFERENT MISCELLANEOUS ITEMS FOR ROADS & STEEL BRIDGES**

Sr. No.	Description	Unit	Quantity	Rate (₹)	Amount (₹)	Remarks/ Ref.
	<b>d) Contractor's profit and overheads = 15 % on (a+b+c)</b>				598.44	
	Cost for 30 Mtr = (a+b+c+d)				4,588.05	
	<b>Rate per Mtr = (a+b+c+d)/30</b>				<b>152.94</b>	
				<b>say</b>	<b><u>152.90</u></b>	
<b>M1.34</b>	600,700 & 1200 Providing weep holes on brick masonry/ plain/ reinforced concrete wall with 75 mm dia uPVC pipe with ISI mark of approved/ reputed make extending through the full width of the structures with slope of 1(V):20(H) towards drawing face including cutting, fixing etc. complete as per drawing and direction of the Engineer-in-Charge and technical specification. Unit = Mtr Taking output = 30 Mtr					
	<b>a) Material</b>					
	uPVC pipe 75 mm dia including wastage @ 5 per cent. Average length of each weep hole is taken as one metre for the analysis.	m	31.50	85.30	2,686.95	
	Cement mortar 1:4 (For rate refer to item 11.5 II)	cum	0.038	3,012.50	114.48	
	<b>b) Labour</b>					
	Mate	day	0.03	300.00	9.00	
	Mason 1st Class	day	0.18	425.00	76.50	
	Mazdoor (Unskilled)	day	0.06	300.00	18.00	
	<b>c) 0</b>				0.00	
	<b>d) Contractor's profit and overheads = 15 % on (a+b+c)</b>				435.74	
	Cost for 30 Mtr = (a+b+c+d)				3,340.66	
	<b>Rate per Mtr = (a+b+c+d)/30</b>				<b>111.36</b>	
				<b>say</b>	<b><u>111.40</u></b>	
<b>M1.35</b>	900, 502, 503, 504 and 3004 Repair to pot holes/ patch repair on all types of bituminous pavement by using All Weather Instant Patch Repair Cold Readymix Compound (INSSTAPATTCH/ SHELMAC - PR/ SHALIPATCH or equivalent products accredited by IRC) within specified shelf life including cleaning the existing portion of the road to be repaired by appropriate method, disposal of all failed material, compacting, etc. complete as per relevant technical specification and as per direction of the Engineer-in-charge. (irrespective of recorded premeasured area/ volume of pot holes repaired, to be measured for payment in multiple packs of 25/ 50 kg net HDPE bags with inside LDPE liner actually supplied/ delivered & utilised)  Unit = per kg Details of cost for 100 sqm assuming average 20 mm thickness of area or 2500 kg (50 Bag of 50 kg each) coverage – Approximately (1 sqm x 20 mm per 25 kg of mix). Density of mix is approx. 2000 kg/ m3. (Assumed for analysis only)					
	<b>a) Labour</b>					
	Mate	day	0.27	300.00	81.00	

**MISCELLANEOUS-1**  
**DIFFERENT MISCELLANEOUS ITEMS FOR ROADS & STEEL BRIDGES**

Sr. No.	Description	Unit	Quantity	Rate (₹)	Amount (₹)	Remarks/ Ref.
	Mazdoor (Unskilled)	day	7.00	300.00	2,100.00	
	Compaction can be done using shovel and a simple hand rammer. For large repairs, using a roller shall ensure smooth/even compaction..					
	<b>b) Machinery</b>					
	Tractor with trolley	hour	0.75	303.00	227.25	
	(for additional carriage of material at different stretches of road)					
	Three wheel 80-100 kN Static Roller	hour	0.10	379.00	37.90	
	(Only taken for large potholes filled in layers if required as additional)					
	<b>c) Material</b>					
	Instant Road Repair Compound (INSSTAPATTCH/ SHELMAC - PR/ SHALIPATCH or Equivalent)	kg	2,500.00	28.00	70,000.00	
	Add 2.5% labour rate for cost of brush etc.					
					54.53	
	<b>d) 0</b>				<b>0.00</b>	
	<b>e) Contractor's profit and overheads = 15 % on (a+b+c)</b>				<b>10,875.10</b>	
	Cost for 50 bag of 50 kg each = a+b+c+d+e					
					83,375.78	
	<b>Rate per kg = (a+b+c+d+e)/2500</b>					
					<b>33.35</b>	
				<b>say</b>	<b><u>33.40</u></b>	

**Note:** i. Manufacturer's specification/ direction shall also to be followed during execution of work.

**M1.36 900, 502, 503, 504 and 3004** Labour charge for repair to pot holes/ patch repair on all types of bituminous pavement by using All Weather Instant Patch Repair Cold Readymix Compound (INSSTAPATTCH/ SHELMAC - PR/ SHALIPATCH or equivalent products accredited by IRC) within specified shelf life including cleaning the existing portion of the road to be repaired by appropriate method, disposal of all failed material, compacting, etc. complete as per relevant technical specification and as per direction of the Engineer-in-charge. (irrespective of recorded premeasured area/ volume of pot holes repaired, to be measured for payment in multiple packs of 25/ 50 kg net HDPE bags with inside LDPE liner actually issued at free of cost by the department & utilised)

Unit = Bag of 50 Kg each

Details of cost for 100 sqm assuming average 20 mm thickness of area or 2500 kg (50 Bag of 50 kg each)

coverage – Approximately (1 sqm x 20 mm per 25 kg of mix). Density of mix is approx. 2000 kg/ m3. (Assumed for analysis only)

**a) Labour**

Mate	day	0.27	300.00	81.00
Mazdoor (Unskilled)	day	7.00	300.00	2,100.00

Compaction can be done using shovel and a simple hand rammer. For large repairs, using a roller shall ensure smooth/even compaction..

**MISCELLANEOUS-1**  
**DIFFERENT MISCELLANEOUS ITEMS FOR ROADS & STEEL BRIDGES**

Sr. No.	Description	Unit	Quantity	Rate (₹)	Amount (₹)	Remarks/ Ref.
	<b>b) Machinery</b>					
	Tractor with trolley (for additional carriage of material at different stretches of road)	hour	0.75	303.00	227.25	
	Three wheel 80-100 kN Static Roller (Only taken for large potholes filled in layers if required as additional)	hour	0.10	379.00	37.90	
	<b>c) Material</b>					
	Instant Road Repair Compound kg (INSSTAPATTCH/ SHELMAC - PR/ SHALIPATCH or Equivalent)		2,500.00			
	Add 2.5% labour rate for cost of brush etc.				54.53	
	<b>d) 0</b>				<b>0.00</b>	
	<b>e) Contractor's profit and overheads = 15 % on (a+b+c)</b>				<b>375.10</b>	
	Cost for 50 bag of 50 kg each = a+b+c+d+e				2,875.78	
	<b>Rate per kg = (a+b+c+d+e)/2500</b>				<b>1.15</b>	
				<b>say</b>	<b><u>1.20</u></b>	

**Note:** i. Carriage of packs of 25/ 50 kg net HDPE bags from departmental store to work site is payable separately as per similar item of Chapter of carriage of material (item no. 1.4 and 1.10 of MoRD).

ii. Manufacturer's specification/ direction shall also to be followed during execution of work.



**MISCELLANEOUS-2**  
**MISCELLANEOUS ITEMS FOR TIMBER BRIDGES**

Sr. No.	Ref. to MORD Spec.	Description	Unit	Quantity	Rate (₹)	Amount (₹)	Remarks/ Ref.
		Mazdoor(semi-skilled)	day	6.00	340.00	2040.00	L-21
		Mazdoor(unskilled)	day	15.00	300.00	4500.00	L-20
		<b>b) Tools</b>					
		3/4th to 1.00 tonne monkey with necessary chains, pulley and other accessories for handling and driving of wooden piles (hire charges)	day	1.00	2962.00	2962.00	
		Add 1.00% on (a+b) for sundries				109.63	
		<b>c) 0</b>				0.00	
		<b>d) Contractor's profit and overheads @ 15 % on (a+b+c)</b>				1660.89	
		Cost for 10 m = a+b+c+d				12733.52	
		<b>Rate per m = (a+b+c+d)/10</b>				1273.35	
					<b>say</b>	<b><u>1273.40</u></b>	
		<b>(ii) 200 mm dia to 250 mm dia piles</b>					
		<b>Unit = m</b>					
		<b>Taking output = 10.00 m</b>					
		<b>a) Labour</b>					
		Mate	day	0.56	300.00	168.00	L-19
		Mistri(for wooden pile driving/ lifting)	day	1.00	425.00	425.00	L-23
		Mazdoor(skilled)	day	2.00	380.00	760.00	L-22
		Mazdoor(semi-skilled)	day	4.00	340.00	1360.00	L-21
		Mazdoor(unskilled)	day	8.00	300.00	2400.00	L-20
		<b>b) Tools</b>					
		3/4th to 1.00 tonne monkey with necessary chains, pulley and other accessories for handling and driving of wooden piles (hire charges)	day	1.00	2962.00	2962.00	
		Add 1.00% on (a+b) for sundries				80.75	
		<b>c) 0</b>				0.00	
		<b>d) Contractor's profit and overheads @ 15 % on (a+b+c)</b>				1223.36	
		Cost for 10 m = a+b+c+d				9379.11	
		<b>Rate per m = (a+b+c+d)/10</b>				937.91	
					<b>say</b>	<b><u>937.90</u></b>	
<b>M2.3</b>		Scarfig and jointing (half lap joint 1.00 m long) of Sal / Nahar / Nageswar piles of required dia with 3 Nos M.S. circular clamps of made of 50 mm x 10 mm MS flat or plate of required length, 2 nos. 100 mm x 100 mm x 10 mm MS angle 1.50 m long tightened with 12 mm dia & 50 mm long bolts and nuts for circular clamp and 3 Nos. 16 mm dia bolts and nuts of required length with washers on both side of the angles complete (payment for the length of piles required for jointing is to be made separately) as per drawing and as per Specification.					
		<b>(i) 250 mm dia to 300 mm dia piles</b>					
		<b>Unit = No</b>					
		<b>Taking output = 1 No</b>					
		<b>a) Labour</b>					
		Mate	day	0.01	300.00	3.00	L-19
		Carpenter(2nd class)	day	0.30	380.00	114.00	L-08
		Mazdoor(unskilled)	day	0.30	300.00	90.00	L-20
		<b>b) Material</b>					

**MISCELLANEOUS-2**  
**MISCELLANEOUS ITEMS FOR TIMBER BRIDGES**

Sr. No.	Ref. to MORD Spec.	Description	Unit	Quantity	Rate (₹)	Amount (₹)	Remarks/ Ref.
		M.S. Clamp made of MS flat or plate 50 x 10 mm 1.34 m long @ 3.80 kg/m 3 nos	Kg	15.28	42.67	652.00	M-131
		M.S. angle 100 x 100 x 10 mm 1.5 m long @ 15.20 kg/m 2 nos Machine charge of clamps and angles with necessary holes also @ 5.00 %	Kg	45.60	42.67	1945.75 140.24	M-131
		M.S. nut & bolts with washers 16 mm dia 3 nos 350 mm long	Kg	1.69	80.35	135.79	M-143
		M.S. nut & bolts with washers 12 mm dia 2 nos 50 mm long	Kg	0.09	80.35	7.23	M-143
		<b>c) 0</b>				0.00	
		<b>d) Contractor's profit and overheads @ 15 % on (a+b+c)</b>				463.20	
		Cost for 1 no = a+b+c+d				3551.21	
		<b>Rate per no of joint = (a+b+c+d)/1</b>				3551.21	
					<b>say</b>	<b><u>3551.20</u></b>	
		<b>(ii) 200 mm dia to 250 mm dia piles</b>					
		<b>Unit = No</b>					
		<b>Taking output = 1 No</b>					
		<b>a) Labour</b>					
		Mate	day	0.01	300.00	3.00	L-19
		Carpenter(2nd class)	day	0.30	380.00	114.00	L-08
		Mazdoor(unskilled)	day	0.30	300.00	90.00	L-20
		<b>b) Material</b>					
		M.S. Clamp made of MS flat or plate 50 x 10 mm 1.19 m long @ 3.80 kg/m 3 nos	Kg	13.57	42.67	579.03	M-131
		M.S. angle 100 x 100 x 10 mm 1.5 m long @ 15.20 kg/m 2 nos Machine charge of clamps and angles with necessary holes also @ 5.00 %	Kg	45.60	42.67	1945.75 136.59	M-131
		M.S. nut & bolts with washers 16 mm dia 3 nos 300 mm long	Kg	1.45	80.35	116.51	M-143
		M.S. nut & bolts with washers 12 mm dia 2 nos 50 mm long	Kg	0.09	80.35	7.23	M-143
		<b>c) 0</b>				0.00	
		<b>d) Contractor's profit and overheads @ 15 % on (a+b+c)</b>				448.82	
		Cost for 1 no = a+b+c+d				3440.93	
		<b>Rate per no of joint = (a+b+c+d)/1</b>				3440.93	
					<b>say</b>	<b><u>3440.90</u></b>	
<b>M2.4</b>		Cutting and jointing (butt joints) of Sal/ Nahar /Nageswar piles of required dia fitted with 400 mm long 32 mm dia MS Dowel bar at centre of the pile, 4 nos. 100 mm x 100 mm x 10 mm MS angle 1.50 m long tightened with 6 x 2 Nos. 16 mm dia bolts and nuts of required length with washers on both side of the angles complete as per drawing and as per Specification					
		<b>(i) 250 mm dia to 300 mm dia piles</b>					
		<b>Unit = No</b>					
		<b>Taking output = 1 No</b>					
		<b>a) Labour</b>					
		Mate	day	0.01	300.00	3.00	L-19
		Carpenter(2nd class)	day	0.20	380.00	76.00	L-08

**MISCELLANEOUS-2**  
**MISCELLANEOUS ITEMS FOR TIMBER BRIDGES**

Sr. No.	Ref. to MORD Spec.	Description	Unit	Quantity	Rate (₹)	Amount (₹)	Remarks/ Ref.
		Mazdoor(unskilled)	day	0.20	300.00	60.00	L-20
		<b>b) Material</b>					
		M.S. angle 100 x 100 x 10 mm 1.5 m long @ 15.20 kg/m 4 nos	Kg	91.20	42.67	3891.50	M-131
		Machine charge of clamps and angles with necessary holes also @ 5.00 %				201.53	
		M.S. nut & bolts with washers 16 mm dia 12 nos 350 mm long	Kg	6.76	80.35	543.17	M-143
		M.S. dowel bar 32 mm dia 1 no 400 mm long	Kg	2.57	80.35	206.50	M-143
		For staging etc. @ 5.00 %				249.08	
		<b>c) 0</b>				0.00	
		<b>d) Contractor's profit and overheads @ 15 % on (a+b+c)</b>				784.62	
		Cost for 1 no = a+b+c+d				6015.40	
		<b>Rate per no of joint = (a+b+c+d)/1</b>				6015.40	
					<b>say</b>	<b><u>6015.40</u></b>	
		<b>(ii) 200 mm dia to 250 mm dia piles</b>					
		<b>Unit = No</b>					
		<b>Taking output = 1 No</b>					
		<b>a) Labour</b>					
		Mate	day	0.01	300.00	3.00	L-19
		Carpenter(2nd class)	day	0.20	380.00	76.00	L-08
		Mazdoor(unskilled)	day	0.20	300.00	60.00	L-20
		<b>b) Material</b>					
		M.S. angle 100 x 100 x 10 mm 1.5 m long @ 15.20 kg/m 4 nos	Kg	91.20	42.67	3891.50	M-131
		Machine charge of clamps and angles with necessary holes also @ 5.00 %				201.53	
		M.S. nut & bolts with washers 16 mm dia 12 nos 300 mm long	Kg	5.79	80.35	465.23	M-143
		M.S. dowel bar 32 mm dia 1 no 400 mm long	Kg	2.57	80.35	206.50	M-143
		For staging etc. @ 5.00 %				245.19	
		<b>c) 0</b>				0.00	
		<b>d) Contractor's profit and overheads @ 15 % on (a+b+c)</b>				772.34	
		Cost for 1 no = a+b+c+d				5921.28	
		<b>Rate per no of joint = (a+b+c+d)/1</b>				5921.28	
					<b>say</b>	<b><u>5921.30</u></b>	
<b>M2.5</b>		Providing and placing R.S. Joists in position in SPT bridges including cutting, hoisting, making holes, fitting with 3 nos of MS hooks of 16 mm dia on both side of the joists with each beam, applying priming coat of red lead paint as per drawing and as per Specification.					
		<b>Unit = t</b>					
		<b>Taking output = 3.182 t.</b>					
		<b>a) Labour</b>					
		Mate	day	2.40	300.00	720.00	L-19
		Carpenter(2nd class)	day	4.00	380.00	1520.00	L-08
		Mazdoor(unskilled)	day	60.00	300.00	18000.00	L-20
		<b>b) Material</b>					
		RS Joist 450 x 150 mm size 12.00 m long @ 44.20 kg/m	Tonne	3.182	42670.00	135775.94	M-184

**MISCELLANEOUS-2**  
**MISCELLANEOUS ITEMS FOR TIMBER BRIDGES**

Sr. No.	Ref. to MOR Spec.	Description	Unit	Quantity	Rate (₹)	Amount (₹)	Remarks/ Ref.
		M.S. hooks, 16 mm dia 36 nos 200 mm long	Kg	11.59	40.32	467.31	M-186
		Machine charge for cutting joists, making holes, etc. @ 25.00 % of labour				5060.00	
		For making arrangements for placing the joist in position, etc. @ 25.00 % of labour				5060.00	
		Applying a priming coat of red lead paint including staging as required @ 15.00 % of labour				3036.00	
		<b>c) 0</b>				0.00	
		<b>d) Contractor's profit and overheads @ 15 % on (a+b+c)</b>				25445.89	
		Cost for 3.182 t = a+b+c+d				195085.14	
		<b>Rate per Tonne = (a+b+c+d)/3.182</b>				61308.97	
						<b>say 61309.00</b>	

M2.6

Charges for placing R.S. Joists in position in SPT bridges including cutting, hoisting, making holes, fitting with 3 nos of MS hooks of 16 mm dia on both side of the joists with each beam, applying priming coat of red lead paint as per drawing and as per Specification (excluding the cost of the RS Joist available at site).

**i. For placing new RS Joist****Unit = t****Taking output = 3.182 t.****a) Labour**

Mate	day	2.40	300.00	720.00	L-19
Carpenter(2nd class)	day	4.00	380.00	1520.00	L-08
Mazdoor(unskilled)	day	60.00	300.00	18000.00	L-20

**b) Material**

RS Joist 450 x 150 mm size 12.00 m long @ 44.20 kg/m (available at site)	Tonne	3.182		0.00	
M.S. hooks, 16 mm dia 36 nos 200 mm long	Kg	11.59	40.32	467.31	M-186
Machine charge for cutting joists, making holes, etc. @ 25.00 % of labour				5060.00	
For making arrangements for placing the joist in position, etc. @ 25.00 % of labour				5060.00	

Applying a priming coat of red lead paint including staging as required @ 15.00 % of labour

**c) 0** 0.00

**d) Contractor's profit and overheads @ 15 % on (a+b+c)** 5079.50

Cost for 3.182 t = a+b+c+d 38942.81

**Rate per Tonne = (a+b+c+d)/3.182** 12238.47

**say 12238.50**

**ii. For placing old and dismantled RS joists****Unit = t****Taking output = 3.182 t.****a) Labour**

Mate	day	2.40	300.00	720.00	L-19
Carpenter(2nd class)	day	4.00	380.00	1520.00	L-08

**MISCELLANEOUS-2**  
**MISCELLANEOUS ITEMS FOR TIMBER BRIDGES**

Sr. No.	Ref. to MORD Spec.	Description	Unit	Quantity	Rate (₹)	Amount (₹)	Remarks/ Ref.
		Mazdoor(unskilled)	day	60.00	300.00	18000.00	L-20
		<b>b) Material</b>					
		RS Joist 450 x 150 mm size 12.00 m long @ 44.20 kg/m (available at site)	Tonne	3.182		0.00	
		M.S. hooks, 16 mm dia 36 nos 200 mm long	Kg	11.59	40.32	467.31	M-186
		For making arrangements for placing the joist in position, etc. @ 25.00 % of labour				5060.00	
		For Scrapping of RS Joist. @ 5.00 % of labour				1012.00	
		Applying a priming coat of red lead paint including staging as required @ 15.00 % of labour				3036.00	
		<b>c) 0</b>				0.00	
		<b>d) Contractor's profit and overheads @ 15 % on (a+b+c)</b>				4472.30	
		Cost for 3.182 t = a+b+c+d				34287.61	
		<b>Rate per Tonne = (a+b+c+d)/3.182</b>				10775.49	
					<b>say</b>	<b><u>10775.50</u></b>	
<b>M2.7</b>		Dismantling R.S. Joists from SPT Bridges and stacking properly at site of work within 100 m lead with all lifts as per drawing and as per Specification.					
		<b>Unit = t</b>					
		<b>Taking output = 3.182 t</b>					
		<b>a) Labour</b>					
		Mate	day	2.20	300.00	660.00	L-19
		Carpenter(2nd class)	day	4.00	380.00	1520.00	L-08
		Mazdoor(unskilled)	day	55.00	300.00	16500.00	L-20
		<b>b) 0</b>				0.00	
		<b>c) Contractor's profit and overheads @ 15 % on (a+b)</b>				2802.00	
		Cost for 3.182 t = a+b+c				21482.00	
		<b>Rate per m = (a+b+c)/3.182</b>				6751.10	
					<b>say</b>	<b><u>6751.10</u></b>	
<b>M2.8</b>		Providing and fitting fixing of MS bolts with heads and nuts of various dia and length including making of holes in wooden members as per Specification.					
		<b>Unit = kg</b>					
		<b>Taking output = 15.88 kg</b>					
		<b>a) Labour</b>					
		Mate	day	0.01	300.00	3.00	L-19
		Carpenter(2nd class)	day	0.30	380.00	114.00	L-08
		Mazdoor(unskilled)	day	0.30	300.00	90.00	L-20
		<b>b) Material</b>					
		M.S. nut & bolts with washers 16 mm dia 16 nos 350 mm long	Kg	9.01	80.35	723.95	M-143
		M.S. nut & bolts with washers 12 mm dia 30 nos 200 mm long	Kg	5.97	80.35	479.69	M-143
		<b>c) 0</b>				0.00	
		<b>d) Contractor's profit and overheads @ 15 % on (a+b+c)</b>				211.60	
		Cost for 15.88 kg = a+b+c+d				1622.24	
		<b>Rate per kg = (a+b+c+d)/15.88</b>				102.16	

**MISCELLANEOUS-2**  
**MISCELLANEOUS ITEMS FOR TIMBER BRIDGES**

Sr. No.	Ref. to MORD Spec.	Description	Unit	Quantity	Rate (₹)	Amount (₹)	Remarks/ Ref.
					<i>say</i>	<u>102.20</u>	
<b>M2.9</b>		Applying coal tar at least two coats on wood work including handling and stacking the coal tarred material at the work site as per Specification. <b>Unit = sqm</b> <b>Taking output = 10.00 sqm</b>					
		<b>a) Labour</b>					
		Mate	day	0.02	300.00	6.00	L-19
		Mazdoor(unskilled)	day	0.50	300.00	150.00	L-20
		<b>b) Material</b>					
		Coal Tar (considering 1.52 kg for 1st coat & 1.11 kg for 2nd coat and 5.00 % wastage)	Kg	2.76	32.00	88.32	M-056
		Add 10.00 % of labour cost for Sundries				15.60	
		<b>Basic cost of labour &amp; materials(a+b)/ 25.99</b>					
		<b>Sqm</b>					
		<b>c) 0</b>				0.00	
		<b>d) Contractor's profit and overheads @ 15 % on (a+b+c)</b>				38.99	
		Cost for 10.00 sqm = a+b+c+d				298.91	
		<b>Rate per sqm = (a+b+c+d)/10.00</b>				29.89	
					<i>say</i>	<u>29.90</u>	
<b>M2.10</b>		Providing and fitting fixing of wooden beams including hoisting and placing in position with necessary dog spikes / nuts and bolts as per design and drawing, including applying coal tar of minimum two coats on all sides of new wood work complete as per the as per Specification. <b>Unit = cum</b> <b>Taking output = 0.270 cum</b> $4.50\text{ m} \times 0.30\text{ m} \times 0.20\text{ m} = 0.2700\text{ Cum}$ Wastage @ 2.00 % (+)= 0.0054 Cum <b>Total = 0.2754 Cum</b>					
		<b>A. Sal Wood</b>					
		<b>a) Labour</b>					
		Mate	day	0.20	300.00	60.00	L-19
		Carpenter(2nd class)	day	1.00	380.00	380.00	L-08
		Mazdoor(unskilled)	day	4.00	300.00	1200.00	L-20
		<b>b) Material</b>					
		Sal wood beam	Cum	0.2754	45000.00	12393.00	M-232
		Structural steel Dog spikes for beams, MS Bar 16 mm dia 4 nos @ 0.90 m long	kg	5.79	42.67	247.06	M-199
		Cost for making dog spikes @ 20.00 % of materials cost				49.41	
		Coal tarring, Rate as per item no. M2.9(ex/c CP & OH)	Sqm	4.62	25.99	120.08	Rate as per item M2.9
		<b>c) 0</b>				0.00	
		<b>d) Contractor's profit and overheads @ 15 % on (a+b+c)</b>				2167.43	
		Cost for 0.27 cum = a+b+c+d				16616.99	
		<b>Rate per cum = (a+b+c+d)/0.27</b>				61544.40	
					<i>say</i>	<u>61544.40</u>	
		<b>B. Karai Wood</b>					

**MISCELLANEOUS-2**  
**MISCELLANEOUS ITEMS FOR TIMBER BRIDGES**

Sr. No.	Ref. to MORD Spec.	Description	Unit	Quantity	Rate (₹)	Amount (₹)	Remarks/ Ref.
		<b>a) Labour</b>					
		Mate	day	0.20	300.00	60.00	L-19
		Carpenter(2nd class)	day	1.00	380.00	380.00	L-08
		Mazdoor(unskilled)	day	4.00	300.00	1200.00	L-20
		<b>b) Material</b>					
		Karai wood beam	Cum	0.2754	38000.00	10465.20	M-233
		Structural steel Dog spikes for beams, MS Bar 16 mm dia 4 nos @ 0.90 m long	kg	5.79	42.67	247.06	M-199
		Cost for making dog spikes @ 20.00 % of materials cost				49.41	
		Coal tarring, Rate as per item no. M2.9(ex/c CP & OH)	Sqm	4.62	25.99	120.08	Rate as per item M2.9
		<b>c) 0</b>				0.00	
		<b>d) Contractor's profit @ 15 % on (a+b+c)</b>				1878.26	
		Cost for 0.27 cum = a+b+c+d				14400.02	
		<b>Rate per cum = (a+b+c+d)/0.27</b>				53333.40	
						<b>say 53333.40</b>	

**M2.11**

Providing and fitting fixing of deckings, trackways, battens and planks for abutments & wing walls including hoisting and placing in position with necessary nails and spikes as per design and drawings, including applying coal tar of minimum two coats on all sides of new wood work complete as per the Specification.

**Unit = cum****Taking output = 5.508 Cum***(considering 10.00 m span bridge)**Decking:-*

66 x 4.200 m x 0.150 m x 0.100 m =

4.1580 Cum

*Trackway:-*

12 x 10.000 m x 0.150 m x 0.075 m =

1.3500 Cum

Total:- = 5.5080

Cum

Wastage @ 2.00 % (+)= 0.1102 Cum

**Grand Total = 5.6182 Cum****A. Sal Wood****a) Labour**

Mate day 0.91 300.00 273.00 L-19

Carpenter(2nd class) day 5.06 380.00 1922.80 L-08

Mazdoor(unskilled) day 17.71 300.00 5313.00 L-20

**b) Material**

Sal wood Scantling Cum 5.6182 30258.00 169995.50 M-234

M.S. Spikes kg 22.47 58.85 1322.36 M-142

Coal tarring, Rate as per item no. M2.9(ex/c CP &amp; OH) Sqm 194.85 25.99 5064.54 Rate as per item M2.9

**c) 0** 0.00**d) Contractor's profit and overheads** 27583.68**@ 15 % on (a+b+c)**

Cost for 5.508 cum = a+b+c+d 211474.88

**Rate per cum = (a+b+c+d)/5.508** 38394.13**say 38394.10**

**MISCELLANEOUS-2**  
**MISCELLANEOUS ITEMS FOR TIMBER BRIDGES**

Sr. No.	Ref. to MORD Spec.	Description	Unit	Quantity	Rate (₹)	Amount (₹)	Remarks/ Ref.
<b>B. Karai Wood</b>							
<b>a) Labour</b>							
		Mate	day	0.82	300.00	246.00	L-19
		Carpenter(2nd class)	day	4.55	380.00	1729.00	L-08
		Mazdoor(unskilled)	day	15.93	300.00	4779.00	L-20
<b>b) Material</b>							
		Karai wood scantling	Cum	5.6182	23560.00	132364.79	M-235
		M.S. Spikes	kg	22.47	58.85	1322.36	M-142
		Coal tarring, Rate as per item no. M2.9(ex/c CP & OH)	Sqm	194.85	25.99	5064.54	Rate as per item M2.9
<b>c) 0</b>						0.00	
<b>d) Contractor's profit @ 15 % on (a+b+c)</b>						21825.85	
Cost for 5.508 cum = a+b+c+d						167331.55	
<b>Rate per cum = (a+b+c+d)/5.508</b>						30379.73	
						<b>say</b>	<b><u>30379.70</u></b>
<b>C. Soft Wood</b>							
<b>a) Labour</b>							
		Mate	day	0.66	300.00	198.00	L-19
		Carpenter(2nd class)	day	4.10	380.00	1558.00	L-08
		Mazdoor(unskilled)	day	12.30	300.00	3690.00	L-20
<b>b) Material</b>							
		Soft wood scantling	Cum	5.6182	16300.00	91576.66	M-239
		M.S. Spikes	kg	22.47	58.85	1322.36	M-142
		Coal tarring, Rate as per item no. M2.9(ex/c CP & OH)	Sqm	194.85	25.99	5064.54	Rate as per item M2.9
<b>c) 0</b>						0.00	
<b>d) Contractor's profit @ 15 % on (a+b+c)</b>						15511.43	
Cost for 5.508 cum = a+b+c+d						118920.99	
<b>Rate per cum = (a+b+c+d)/5.508</b>						21590.59	
						<b>say</b>	<b><u>21590.60</u></b>

**M2.12**

Providing and fitting fixing of joist runner, wheel guards, rail post, struts, railings, bracings of piles, including hoisting and placing in position with necessary nails and spikes and finally fitted with nuts & bolts as per design and drawings, including applying of coal tar of minimum two coats on all sides of new wood work complete (payment for nuts & bolts is to be made separately) as per the as per Specification.

**Unit = cum**

**Taking output = 3.2206 Cum**

(considering 10.00 m span bridge)

**MISCELLANEOUS-2**  
**MISCELLANEOUS ITEMS FOR TIMBER BRIDGES**

Sr. No.	Ref. to MORD Spec.	Description	Unit	Quantity	Rate (₹)	Amount (₹)	Remarks/ Ref.
<i>Wheel Guard:-</i>							
<i>2 x 10.000 m x 0.150 m x 0.200 m = 0.6000 Cum</i>							
<i>Rail Post:-</i>							
<i>14 x 1.000 m x 0.100 m x 0.100 m = 0.1400 Cum</i>							
<i>Strut:-</i>							
<i>14 x 1.500 m x 0.100 m x 0.075 m = 0.1575 Cum</i>							
<i>Railing:-</i>							
<i>6 x 10.000 m x 0.100 m x 0.075 m = 0.4500 Cum</i>							
<i>Joist Packing:-</i>							
<i>6 x 10.000 m x 0.150 m x 0.125 m = 1.1250 Cum</i>							
<i>Bracing:-</i>							
<i>14 x 4.750 m x 0.150 m x 0.075 m = 0.7481 Cum</i>							
<i>Total:- = 3.2206 Cum</i>							
<i>Wastage @ 2.00 % (+)= 0.0644 Cum</i>							
<b>Grand Total = 3.2850 Cum</b>							
<b>A. Sal Wood</b>							
<b>a) Labour</b>							
		Mate	day	0.66	300.00	198.00	L-19
		Carpenter(2nd class)	day	3.29	380.00	1250.20	L-08
		Mazdoor(unskilled)	day	13.16	300.00	3948.00	L-20
<b>b) Material</b>							
		Sal wood Scantling	Cum	3.2850	30258.00	99397.53	M-234
		M.S. Nails & Spikes for placing the scantling in position	kg	3.29	58.85	193.62	M-142
		Coal tarring, Rate as per item no. M2.9(ex/c CP & OH)	Sqm	112.12	25.99	2914.22	Rate as per item M2.9
<b>c) 0</b>						0.00	
<b>d) Contractor's profit and overheads @ 15 % on (a+b+c)</b>						16185.24	
Cost for 3.2206 cum = a+b+c+d						124086.80	
<b>Rate per cum = (a+b+c+d)/3.2206</b>						38529.10	
						<b>say</b>	<b><u>38529.10</u></b>
<b>B. Karai Wood</b>							
<b>a) Labour</b>							
		Mate	day	0.53	300.00	159.00	L-19
		Carpenter(2nd class)	day	2.96	380.00	1124.80	L-08
		Mazdoor(unskilled)	day	10.36	300.00	3108.00	L-20
<b>b) Material</b>							
		Karai wood scantling	Cum	3.2850	23560.00	77394.60	M-235
		M.S. Nails & Spikes for placing the scantling in position	kg	3.29	58.85	193.62	M-142
		Coal tarring, Rate as per item no. M2.9(ex/c CP & OH)	Sqm	112.12	25.99	2914.22	Rate as per item M2.9
<b>c) 0</b>						0.00	
<b>d) Contractor's profit @ 15 % on (a+b+c)</b>						12734.14	
Cost for 3.2206 cum = a+b+c+d						97628.38	
<b>Rate per cum = (a+b+c+d)/3.2206</b>						30313.72	
						<b>say</b>	<b><u>30313.70</u></b>
<b>C. Soft Wood</b>							
<b>a) Labour</b>							
		Mate	day	0.43	300.00	129.00	L-19
		Carpenter(2nd class)	day	2.66	380.00	1010.80	L-08
		Mazdoor(unskilled)	day	7.98	300.00	2394.00	L-20
<b>b) Material</b>							
		Soft wood scantling	Cum	3.2850	16300.00	53545.50	M-239

**MISCELLANEOUS-2**  
**MISCELLANEOUS ITEMS FOR TIMBER BRIDGES**

Sr. No.	Ref. to MORD Spec.	Description	Unit	Quantity	Rate (₹)	Amount (₹)	Remarks/ Ref.
		M.S. Nails & Spikes for placing the scantling in position	kg	3.29	58.85	193.62	M-142
		Coal tarring, Rate as per item no. M2.9(ex/c CP & OH)	Sqm	112.12	25.99	2914.22	Rate as per item M2.9
		<b>c) 0</b>				0.00	
		<b>d) Contractor's profit @ 15 % on (a+b+c)</b>				9028.07	
		Cost for 3.2206 cum = a+b+c+d				69215.21	
		<b>Rate per cum = (a+b+c+d)/3.2206</b>				21491.40	
					<b>say</b>	<b><u>21491.40</u></b>	

**M2.13**

Dismantling of existing Wood work with all T&P and scaffolding whenever necessary, sorting the dismantled materials, disposal of unserviceable materials and stacking the serviceable materials separately and refitting the serviceable dismantled materials with spikes and nails with all lifts and lead at site of work as per Specification.

**Unit = cum**

**Taking output = 4.00 cum**

**a) Labour**

Mate	day	0.80	300.00	240.00	L-19
Carpenter(2nd class)	day	4.00	380.00	1520.00	L-08
Mazdoor(unskilled)	day	16.00	300.00	4800.00	L-20

**b) Material**

M.S. Nails & Spikes for placing the scantling in position	kg	12.00	58.85	706.20	M-142
Cost for T&P and scaffolding whenever necessary @ 0.50 %				36.33	

**c) 0**

**d) Contractor's profit and overheads @ 15 % on (a+b+c)**

Cost for 4.00 cum = a+b+c+d

**Rate per cum = (a+b+c+d)/4.00**

**say 2099.50**

**M2.14**

Handling and lifting of Sal/ Nahar/ Nageswar piles by any means from river / cherra bed level, stacking properly, as per Specification.

**(ii) 250 mm dia to 300 mm dia piles**

**Unit = m**

**Taking output = 10.00 m**

**a) Labour**

Mate	day	0.60	300.00	180.00	L-19
Mistri(for wooden pile driving/ lifting)	day	1.00	425.00	425.00	L-23
Mazdoor(skilled)	day	2.00	380.00	760.00	L-22
Mazdoor(semi-skilled)	day	3.00	340.00	1020.00	L-21
Mazdoor(unskilled)	day	10.00	300.00	3000.00	L-20

**b) Tools**

Chain, pully and other accessories for handling and lifting of wooden piles (hire charges)	day	1.00	1866.00	1866.00	
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Add 1.00% on (a+b) for sundries

72.51

**c) 0**

0.00

**MISCELLANEOUS-2**  
**MISCELLANEOUS ITEMS FOR TIMBER BRIDGES**

Sr. No.	Ref. to MORD Spec.	Description	Unit	Quantity	Rate (₹)	Amount (₹)	Remarks/ Ref.
		<b>d) Contractor's profit and overheads</b>				1098.53	
		<b>@ 15 % on (a+b+c)</b>					
		Cost for 10 m = a+b+c+d				8422.04	
		<b>Rate per m = (a+b+c+d)/10</b>				842.20	
					<b>say</b>	<b><u>842.20</u></b>	
		<b>(ii) 200 mm dia to 250 mm dia piles</b>					
		<b>Unit = m</b>					
		<b>Taking output = 10.00 m</b>					
		<b>a) Labour</b>					
		Mate	day	0.48	300.00	144.00	L-19
		Mistri(for wooden pile driving/ lifting)	day	1.00	425.00	425.00	L-23
		Mazdoor(skilled)	day	2.00	380.00	760.00	L-22
		Mazdoor(semi-skilled)	day	2.00	340.00	680.00	L-21
		Mazdoor(unskilled)	day	8.00	300.00	2400.00	L-20
		<b>b) Tools</b>					
		Chain, pully and other accessories for handling and lifting of wooden piles (hire charges)	day	1.00	1866.00	1866.00	
		Add 1.00% on (a+b) for sundries				62.75	
		<b>c) 0</b>				0.00	
		<b>d) Contractor's profit and overheads</b>				950.66	
		<b>@ 15 % on (a+b+c)</b>					
		Cost for 10 m = a+b+c+d				7288.41	
		<b>Rate per m = (a+b+c+d)/10</b>				728.84	
					<b>say</b>	<b><u>728.80</u></b>	
<b>M2.15</b>		Making 12 mm dia holes in the RS joists at specified spacing for fitting, fixing of wooden joist runner as per Specification.					
		<b>Unit = no</b>					
		<b>Taking output = 36 Nos</b>					
		<b>a) Labour</b>					
		Mate	day	0.08	300.00	24.00	L-19
		Blacksmith	day	1.00	403.00	403.00	L-04
		Mazdoor(unskilled)	day	2.00	300.00	600.00	L-20
		<b>b) Tools</b>					
		Appliances for making holes @ 5.00 %				51.35	
		<b>c) 0</b>				0.00	
		<b>d) Contractor's profit and overheads</b>				161.75	
		<b>@ 15 % on (a+b+c)</b>					
		Cost for 36 nos = a+b+c+d				1240.10	
		<b>Rate per no = (a+b+c+d)/36</b>				34.45	
					<b>say</b>	<b><u>34.40</u></b>	

**MISCELLANEOUS-2**  
**MISCELLANEOUS ITEMS FOR TIMBER BRIDGES**

Sr. No.	Ref. to MORD Spec.	Description	Unit	Quantity	Rate (₹)	Amount (₹)	Remarks/ Ref.
<b>M2.16</b>		Charges for fitting fixing of new timber beams, deckings, trackways, battens and planks for abutments & wing walls, joist runner, wheel guards, rail post, struts, railings, bracings of piles, including hoisting and placing in position with necessary nails and spikes and or nuts & bolts as per design and drawings, including applying coal tar of minimum two coats on all sides of new wood work complete as per Specification (excluding the cost of new timbers available at the site of work and the cost of nuts and bolts which are to paid separately).					
		<b>Unit = cum</b>					
		<b>Taking output = 5.508 Cum</b>					
		(considering 10.00 m span bridge)					
		Decking:-					
		66 x 4.200 m x 0.150 m x 0.100 m = 4.1580 Cum					
		Trackway:-					
		12 x 10.000 m x 0.150 m x 0.075 m = 1.3500 Cum					
		Total:-					
		Wastage @ 2.00 %					
		<b>Grand Total = 5.6182 Cum</b>					
		<b>A. Sal Wood</b>					
		<b>a) Labour</b>					
		Mate	day	0.91	300.00	273.00	L-19
		Carpenter(2nd class)	day	5.06	380.00	1922.80	L-08
		Mazdoor(unskilled)	day	17.71	300.00	5313.00	L-20
		<b>b) Material</b>					
		Sal wood Scantling	Cum	5.6182		0.00	
		M.S. Spikes	kg	22.47	58.85	1322.36	M-142
		Coal tarring, Rate as per item no. M2.9(ex/c CP & OH)	Sqm	194.45	25.99	5054.14	Rate as per item M2.9
		<b>c) 0</b>				0.00	
		<b>d) Contractor's profit and overheads @ 15 % on (a+b+c)</b>				2082.80	
		Cost for 5.508 cum = a+b+c+d				15968.10	
		<b>Rate per cum = (a+b+c+d)/5.508</b>				2899.07	
						<b>say 2899.10</b>	
		<b>B. Karai Wood</b>					
		<b>a) Labour</b>					
		Mate	day	0.82	300.00	246.00	L-19
		Carpenter(2nd class)	day	4.55	380.00	1729.00	L-08
		Mazdoor(unskilled)	day	15.93	300.00	4779.00	L-20
		<b>b) Material</b>					
		Karai wood scantling	Cum	5.6182		0.00	
		M.S. Spikes	kg	22.47	58.85	1322.36	M-142
		Coal tarring, Rate as per item no. M2.9(ex/c CP & OH)	Sqm	194.45	25.99	5054.14	Rate as per item M2.9
		<b>c) 0</b>				0.00	
		<b>d) Contractor's profit @ 15 % on (a+b+c)</b>				1969.58	
		Cost for 5.508 cum = a+b+c+d				15100.08	
		<b>Rate per cum = (a+b+c+d)/5.508</b>				2741.48	
						<b>say 2741.50</b>	
		<b>C. Soft Wood</b>					
		<b>a) Labour</b>					

**MISCELLANEOUS-2**  
**MISCELLANEOUS ITEMS FOR TIMBER BRIDGES**

Sr. No.	Ref. to MORD Spec.	Description	Unit	Quantity	Rate (₹)	Amount (₹)	Remarks/ Ref.
		Mate	day	0.66	300.00	198.00	L-19
		Carpenter(2nd class)	day	4.10	380.00	1558.00	L-08
		Mazdoor(unskilled)	day	12.30	300.00	3690.00	L-20
		<b>b) Material</b>					
		Soft wood scantling	Cum	5.6182		0.00	
		M.S. Spikes	kg	22.47	58.85	1322.36	M-142
		Coal tarring, Rate as per item no. M2.9(ex/c CP & OH)	Sqm	194.45	25.99	5054.14	Rate as per item M2.9
		<b>c) 0</b>				0.00	
		<b>d) Contractor's profit @ 15 % on (a+b+c)</b>				1773.38	
		Cost for 5.508 cum = a+b+c+d				13595.88	
		<b>Rate per cum = (a+b+c+d)/5.508</b>				2468.39	
						<b>say 2468.40</b>	

**M2.17**

Charges for fitting fixing of old dismantled beams, deckings, trackways, battens and planks for abutments & wing walls, joist runner, wheel guards, rail post, struts, railings, bracings of piles, including hoisting and placing in position with necessary nails and spikes and or nuts & bolts as per design and drawings, including applying coal tar of minimum two coats on all sides of new wood work complete as per the Specification (excluding the cost of new timbers available at the site of work and the cost of nuts and bolts which are to paid separately).

**Unit = cum****Taking output = 5.508 Cum***(considering 10.00 m span bridge)**Decking:-**66 x 4.200 m x 0.150 m x 0.100 m = 4.1580 Cum**Trackway:-**12 x 10.000 m x 0.150 m x 0.075 m = 1.3500 Cum**Total:- = 5.5080 Cum**Wastage @ 2.00 % (+)= 0.1102 Cum***Grand Total = 5.6182 Cum****A. Sal Wood****a) Labour**

Mate	day	0.72	300.00	216.00	L-19
Carpenter(2nd class)	day	4.49	380.00	1706.20	L-08
Mazdoor(unskilled)	day	13.47	300.00	4041.00	L-20

**b) Material**

Sal wood Scantling	Cum	5.6182		0.00	
M.S. Spikes	kg	22.47	58.85	1322.36	M-142
Coal tarring, Rate as per item no. M2.9(ex/c CP & OH)	Sqm	194.45	25.99	5054.14	Rate as per item M2.9

**c) 0****d) Contractor's profit and overheads @ 15 % on (a+b+c)**

Cost for 5.508 cum = a+b+c+d

**Rate per cum = (a+b+c+d)/5.508****say 2576.40****B. Karai Wood****a) Labour**

Mate	day	0.65	300.00	195.00	L-19
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**MISCELLANEOUS-2**  
**MISCELLANEOUS ITEMS FOR TIMBER BRIDGES**

Sr. No.	Ref. to MORD Spec.	Description	Unit	Quantity	Rate (₹)	Amount (₹)	Remarks/ Ref.
		Carpenter(2nd class)	day	3.59	380.00	1364.20	L-08
		Mazdoor(unskilled)	day	12.57	300.00	3771.00	L-20
		<b>b) Material</b>					
		Karai wood scantling	Cum	5.6182		0.00	
		M.S. Spikes	kg	22.47	58.85	1322.36	M-142
		Coal tarring, Rate as per item no. M2.9(ex/c CP & OH)	Sqm	194.45	25.99	5054.14	Rate as per item M2.9
		<b>c) 0</b>				0.00	
		<b>d) Contractor's profit @ 15 % on (a+b+c)</b>				1756.01	
		Cost for 5.508 cum = a+b+c+d				13462.71	
		<b>Rate per cum = (a+b+c+d)/5.508</b>				2444.21	
					<b>say</b>	<b><u>2444.20</u></b>	
		<b>C. Soft Wood</b>					
		<b>a) Labour</b>					
		Mate	day	0.46	300.00	138.00	L-19
		Carpenter(2nd class)	day	2.87	380.00	1090.60	L-08
		Mazdoor(unskilled)	day	8.61	300.00	2583.00	L-20
		<b>b) Material</b>					
		Soft wood scantling	Cum	5.6182		0.00	
		M.S. Spikes	kg	22.47	58.85	1322.36	M-142
		Coal tarring, Rate as per item no. M2.9(ex/c CP & OH)	Sqm	194.45	25.99	5054.14	Rate as per item M2.9
		<b>c) 0</b>				0.00	
		<b>d) Contractor's profit @ 15 % on (a+b+c)</b>				1528.22	
		Cost for 5.508 cum = a+b+c+d				11716.32	
		<b>Rate per cum = (a+b+c+d)/5.508</b>				2127.15	
					<b>say</b>	<b><u>2127.10</u></b>	
<b>M2.18</b>		Providing of third class local wood piles dressed to heart wood and making shoes with end tapered upto 750 mm from the bottom of the pile, marking of length with chisel in metre and part of a metre run from the bottom of the piles, applying coal tar after verification and approval of the piles and stacking at the work site as per Specification.					
		<b>(i) 300 mm dia to 350 mm dia piles</b>					
		<b>Unit = m</b>					
		<b>Taking output = 10.00 m</b>					
		<b>a) Labour</b>					
		Mate	day	0.04	300.00	12.00	L-19
		Carpenter(2nd class)	day	0.50	380.00	190.00	L-08
		Mazdoor(unskilled)	day	0.50	300.00	150.00	L-20
		<b>b) Material</b>					
		3rd class local wood piles 300 mm to 350 mm dia	cum	10.10	1345.00	13584.50	M-241
		Applying coal tar, Rate vide item no. M2.9(ex/c OH & CP)	Sqm	10.21	25.99	265.38	Item no. M2.9
		<b>c) 0</b>				0.00	
		<b>d) Contractor's profit and overheads @ 0 % on (a+b+c)</b>				2130.28	
		Cost for 10 m = a+b+c+d				16332.16	
		<b>Rate per m = (a+b+c+d)/10</b>				1633.22	

**MISCELLANEOUS-2**  
**MISCELLANEOUS ITEMS FOR TIMBER BRIDGES**

Sr. No.	Ref. to MORD Spec.	Description	Unit	Quantity	Rate (₹)	Amount (₹)	Remarks/ Ref.
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say 1633.20

**(ii) 250 mm dia to 300 mm dia piles**

**Unit = m**

**Taking output = 10.00 m**

**a) Labour**

Mate	day	0.032	300.00	9.60	L-19
Carpenter(2nd class)	day	0.40	380.00	152.00	L-08
Mazdoor(unskilled)	day	0.40	300.00	120.00	L-20

**b) Material**

3rd class local wood piles 250 mm to	cum	10.10	908.00	9170.80	M-242
Applying coal tar,	Sqm	8.64	25.99	224.57	Item no. M2.9
Rate vide item no. M2.9(ex/c OH & CP)					

**c) 0**

0.00

**d) Contractor's profit and overheads**

1451.55

**@ 15 % on (a+b+c)**

Cost for 10 m = a+b+c+d

11128.52

**Rate per m = (a+b+c+d)/10**

1112.85

say 1112.90

**(iii) 200 mm dia to 250 mm dia piles**

**Unit = m**

**Taking output = 10.00 m**

**a) Labour**

Mate	day	0.032	300.00	9.60	L-19
Carpenter(2nd class)	day	0.40	380.00	152.00	L-08
Mazdoor(unskilled)	day	0.40	300.00	120.00	L-20

**b) Material**

3rd class local wood piles 200 mm to	cum	10.10	648.00	6544.80	M-243
Applying coal tar,	Sqm	7.07	25.99	183.76	Item no. M2.9
<b>Rate vide item no. M2.9(ex/c OH &amp; CP)</b>					

**c) 0**

0.00

**d) Contractor's profit and overheads**

1051.52

**@ 15 % on (a+b+c)**

Cost for 10 m = a+b+c+d

8061.69

**Rate per m = (a+b+c+d)/10**

806.17

say 806.20

**M2.19**

Handling and lifting of Sal / Nahar / Nageswar piles by any means from river / cherra bed level, stacking properly, as per Specification.

**(i) 300 mm dia to 350 mm dia piles**

**Unit = m**

**Taking output = 10.00 m**

**a) Labour**

Mate	day	0.92	300.00	276.00	L-19
Mistri(for wooden pile driving/ lifting)	day	1.00	425.00	425.00	L-23
Mazdoor(skilled)	day	2.00	380.00	760.00	L-22
Mazdoor(semi-skilled)	day	6.00	340.00	2040.00	L-21
Mazdoor(unskilled)	day	15.00	300.00	4500.00	L-20

**b) Tools**

1/2 tonne monkey with necessary chains, pulley and other accessories for handling and driving of wooden piles (hire charges)	day	1.00	2309.00	2309.00	
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Add 1.00% on (a+b) for sundries

103.10

**c) 0**

0.00

**MISCELLANEOUS-2**  
**MISCELLANEOUS ITEMS FOR TIMBER BRIDGES**

Sr. No.	Ref. to MORD Spec.	Description	Unit	Quantity	Rate (₹)	Amount (₹)	Remarks/ Ref.
		<b>d) Contractor's profit and overheads</b>				1561.97	
		<b>@ 15 % on (a+b+c)</b>					
		Cost for 10 m = a+b+c+d				11975.07	
		<b>Rate per m = (a+b+c+d)/10</b>				1197.51	
					<b>say</b>	<b><u>1197.50</u></b>	
		<b>(ii) 250 mm dia to 300 mm dia piles</b>					
		<b>Unit = m</b>					
		<b>Taking output = 10.00 m</b>					
		<b>a) Labour</b>					
		Mate	day	0.72	300.00	216.00	L-19
		Mistri(for wooden pile driving/ lifting)	day	1.00	425.00	425.00	L-23
		Mazdoor(skilled)	day	1.00	380.00	380.00	L-22
		Mazdoor(semi-skilled)	day	5.00	340.00	1700.00	L-21
		Mazdoor(unskilled)	day	12.00	300.00	3600.00	L-20
		<b>b) Tools</b>					
		1/2 tonne monkey with necessary chains, pulley and other accessories for handling and driving of wooden piles (hire charges)	day	1.00	2309.00	2309.00	
		Add 1.00% on (a+b) for sundries				86.30	
		<b>c) 0</b>				0.00	
		<b>d) Contractor's profit and overheads</b>				1307.45	
		<b>@ 15 % on (a+b+c)</b>					
		Cost for 10 m = a+b+c+d				10023.75	
		<b>Rate per m = (a+b+c+d)/10</b>				1002.37	
					<b>say</b>	<b><u>1002.40</u></b>	
		<b>(iii) 200 mm dia to 250 mm dia piles</b>					
		<b>Unit = m</b>					
		<b>Taking output = 10.00 m</b>					
		<b>a) Labour</b>					
		Mate	day	0.44	300.00	132.00	L-19
		Mistri(for wooden pile driving/ lifting)	day	1.00	425.00	425.00	L-23
		Mazdoor(skilled)	day	1.00	380.00	380.00	L-22
		Mazdoor(semi-skilled)	day	3.00	340.00	1020.00	L-21
		Mazdoor(unskilled)	day	7.00	300.00	2100.00	L-20
		<b>b) Tools</b>					
		1/2 tonne monkey with necessary chains, pulley and other accessories for handling and driving of wooden piles (hire charges)	day	1.00	2309.00	2309.00	
		Add 1.00% on (a+b) for sundries				63.66	
		<b>c) 0</b>				0.00	
		<b>d) Contractor's profit and overheads</b>				964.45	
		<b>@ 15 % on (a+b+c)</b>					
		Cost for 10 m = a+b+c+d				7394.11	
		<b>Rate per m = (a+b+c+d)/10</b>				739.41	
					<b>say</b>	<b><u>739.40</u></b>	

**MISCELLANEOUS-3**  
**MISCELLANEOUS ITEMS FOR RIVER TRAINING WORKS**

Sr. No.	Ref. to MORD Spec.	Description	Unit	Quantity	Rate (₹)	Amount (₹)	Remarks/ Ref.
M3.1		Supplying bamboo (1st class) 85 mm to 100 mm dia and making shoe with end tapered upto 300 mm from the bottom of the bamboo as per drawing and specification.					
		<b>Unit = metre</b>					
		<b>Taking output = 100.00 metre</b>					
		<b>a) Labour</b>					
		Mate	day	0.040	300.00	12.00	L-19
		Mazdoor(unskilled)	day	1.000	300.00	300.00	L-20
		<b>b) Material</b>					
		Bamboo (1st Class) 85 mm - 100 mm dia	metre	105.000	20.80	2184.00	M-033
		<b>c) Sundries</b>					
		L.S @ 2.00 % of (a+b)				49.92	
		<b>d) 0</b>				0.00	
		<b>e) Contractor's profit and overheads @ 15 % on (a+b+c+d)</b>				381.89	
		Cost for 100 m = a+b+c+d+e				2927.81	
		<b>Rate per metre = (a+b+c+d+e)/100</b>				29.28	
						<b>say 29.30</b>	
M3.2		Handling and driving bamboo (1st class) 85 mm to 100 mm dia upto the length required by heavy hammer as per drawing and specification.					
		<b>Unit = metre</b>					
		<b>Taking output = 50.00 metre</b>					
		<b>a) Labour</b>					
		Mate	day	0.240	300.00	72.00	L-19
		Mazdoor(unskilled)	day	6.000	300.00	1800.00	L-20
		<b>b) Material</b>					
		Bamboo (1st Class) 85 mm - 100 mm dia				0.00	
		<b>c) Sundries</b>					
		L.S @ 2.00 % of (a+b)				37.44	
		<b>d) 0</b>				0.00	
		<b>e) Contractor's profit and overheads @ 15 % on (a+c+d)</b>				286.42	
		Cost for 50.00 m = a+c+d+e				2195.86	
		<b>Rate per metre = (a+c+d+e)/50.00</b>				43.92	
						<b>say 43.90</b>	
M3.3		Providing and fitting, fixing bamboo (1st class) 85 mm to 100 mm dia for horizontal, diagonal bracing, strut etc. with nails/ spikes and binding wire (GI 2.0 mm) as per drawing and specification.					
		<b>Unit = metre</b>					
		<b>Taking output = 100.00 metre</b>					
		<b>a) Labour</b>					
		Mate	day	0.120	300.00	36.00	L-19
		Mazdoor(unskilled)	day	3.000	300.00	900.00	L-20
		<b>b) Material</b>					
		Bamboo (1st Class) 85 mm - 100 mm dia	metre	105.000	20.80	2184.00	M-033
		Nails	kg	2.000	58.85	117.70	M-142
		Binding wire (GI, 2.00 mm)	kg	1.500	64.00	96.00	M-040

**MISCELLANEOUS-3**  
**MISCELLANEOUS ITEMS FOR RIVER TRAINING WORKS**

Sr. No.	Ref. to MORD Spec.	Description	Unit	Quantity	Rate (₹)	Amount (₹)	Remarks/ Ref.
		<b>c) Sundries</b>					
		L.S @ 2.00 % of (a+b)				66.67	
		<b>d) 0</b>				0.00	
		<b>e) Contractor's profit and overheads @ 15 % on (a+b+c+d)</b>				510.06	
		Cost for 100 m = a+b+c+d+e				3910.43	
		<b>Rate per metre = (a+b+c+d+e)/100</b>				39.10	
					<b>say</b>	<b><u>39.10</u></b>	
<b>M3.4</b>		Providing and fitting, fixing brush wood (Tetul, Sheora, Mandar, etc.) tied with GI wire 2.00 mm well packed complete as per drawing and specification.					
		<b>Unit = cum</b>					
		<b>Taking output = 6.00 cum</b>					
		<b>a) Labour</b>					
		Mate	day	0.080	300.00	24.00	L-19
		Mazdoor(unskilled)	day	2.000	300.00	600.00	L-20
		<b>b) Material</b>					
		Brush wood (Tetul, Sheora, Mandar, etc.)	cum	6.000	110.00	660.00	M-052
		Binding wire (GI, 2.00 mm)	kg	0.500	64.00	32.00	M-040
		<b>c) Sundries</b>					
		L.S @ 2.00 % of (a+b)				26.32	
		<b>d) 0</b>				0.00	
		<b>e) Contractor's profit and overheads @ 15 % on (a+b+c+d)</b>				201.35	
		Cost for 6.00 cum = a+b+c+d+e				1543.67	
		<b>Rate per cum = (a+b+c+d+e)/6.00</b>				257.28	
					<b>say</b>	<b><u>257.30</u></b>	
<b>M3.5</b>		Providing and fitting, fixing double layer split muli bamboo tatti lining in position as per drawing and specification.					
		<b>Unit = sqm</b>					
		<b>Taking output = 20.00 sqm</b>					
		<b>a) Labour</b>					
		Mate	day	0.120	300.00	36.00	L-19
		Mazdoor(semi-skilled)	day	1.000	340.00	340.00	L-21
		Mazdoor(unskilled)	day	3.000	300.00	900.00	L-20
		<b>b) Material</b>					
		Muli Bamboo 40 mm to 50 mm dia	metre	297.000	2.60	772.20	M-035
		Gl. Wires 1.00 mm, etc. L.S @ 2.00 % of (a+b)				40.96	
		<b>c) 0</b>				0.00	
		<b>d) Contractor's profit and overheads @ 15 % on (a+b+c)</b>				313.37	
		Cost for 20.0 sqm = a+b+c+d				2402.54	
		<b>Rate per cum = (a+b+c+d)/20.00</b>				120.13	
					<b>say</b>	<b><u>120.10</u></b>	
<b>M3.6</b>		Supplying ballies 100 mm dia well dressed and making shoe with end tapered upto 300 mm from the bottom including marking length and part of a metre as per drawing and specification.					
		<b>Unit = metre</b>					

**MISCELLANEOUS-3**  
**MISCELLANEOUS ITEMS FOR RIVER TRAINING WORKS**

Sr. No.	Ref. to MORD Spec.	Description	Unit	Quantity	Rate (₹)	Amount (₹)	Remarks/ Ref.
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**Taking output = 100.00 metre**

**i) Sal Ballies**

**a) Labour**

Mate	day	0.08	300.00	24.00	L-19
Carpenter(2nd class)	day	1.00	380.00	380.00	L-08
Mazdoor(unskilled)	day	2.00	300.00	600.00	L-20

**b) Material**

Sal Ballies 100 mm dia	metre	105.000	249.00	26145.00	M-240
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**c) Sundries**

L.S @ 2.00 % of (a+b)				542.98	
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**d) 0**

0.00

**e) Contractor's profit and overheads**

4153.80

**@ 15 % on (a+b+c+d)**

Cost for 100.00 metre = a+b+c+d+e 31845.78

**Rate per metre = (a+b+c+d+e)/100.00** 318.46

**say 318.50**

**ii) 3rd class local wood ballies**

**a) Labour**

Mate	day	0.08	300.00	24.00	L-19
Carpenter(2nd class)	day	1.00	380.00	380.00	L-08
Mazdoor(unskilled)	day	2.00	300.00	600.00	L-20

**b) Material**

3rd class local wood Ballies 100 mm dia	metre	105.000	82.40	8652.00	M-245
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**c) Sundries**

L.S @ 2.00 % of (a+b)				193.12	
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**d) 0**

0.00

**e) Contractor's profit and overheads**

1477.37

**@ 15 % on (a+b+c+d)**

Cost for 100.00 metre = a+b+c+d+e 11326.49

**Rate per metre = (a+b+c+d+e)/100.00** 113.26

**say 113.30**

**M3.7**

Handling and driving ballies of 100 mm dia upto the length required by heavy hammer as per drawing and specification.

**Unit = metre**

**Taking output = 50.00 metre**

**a) Labour**

Mate	day	0.28	300.00	84.00	L-19
Mazdoor(unskilled)	day	7.00	300.00	2100.00	L-20

**b) Sundries**

L.S @ 2.00 % of (a)				43.68	
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**c) 0**

0.00

**d) Contractor's profit and overheads**

334.15

**@ 15 % on (a+b+c+d)**

Cost for 50.00 metre = a+b+c+d 2561.83

**Rate per metre = (a+b+c+d)/50.00** 51.24

**say 51.20**

**M3.8**

Providing and fitting, fixing ballies of 100 mm dia for horizontal, diagonal bracing, strut etc. with nails / spikes and binding wire (GI 2.0 mm) as per drawing and specification.

**Unit = metre**

**MISCELLANEOUS-3**  
**MISCELLANEOUS ITEMS FOR RIVER TRAINING WORKS**

Sr. No.	Ref. to MORD Spec.	Description	Unit	Quantity	Rate (₹)	Amount (₹)	Remarks/ Ref.
<b>Taking output = 100.00 metre</b>							
<b>i) Sal Ballies</b>							
<b>a) Labour</b>							
		Mate	day	0.08	300.00	24.00	L-19
		Carpenter(2nd class)	day	1.00	380.00	380.00	L-08
		Mazdoor(unskilled)	day	2.00	300.00	600.00	L-20
<b>b) Material</b>							
		Sal Ballies 100 mm dia	metre	105.000	249.00	26145.00	M-240
		Nails	kg	4.000	58.85	235.40	M-142
		Binding wire (Gl, 2.00 mm)	kg	2.000	64.00	128.00	M-040
<b>c) Sundries</b>							
		L.S @ 2.00 % of (a+b)				542.98	
<b>d) 0</b>							
<b>e) Contractor's profit and overheads</b>							
<b>@ 15 % on (a+b+c+d)</b>							
Cost for 100.00 metre = a+b+c+d+e						32263.69	
<b>Rate per metre = (a+b+c+d+e)/100.00</b>						322.64	
						<b>say</b>	<b><u>322.60</u></b>
<b>ii) 3rd class local wood ballies</b>							
<b>a) Labour</b>							
		Mate	day	0.08	300.00	24.00	L-19
		Carpenter(2nd class)	day	1.00	380.00	380.00	L-08
		Mazdoor(unskilled)	day	2.00	300.00	600.00	L-20
<b>b) Material</b>							
		3rd class local wood Ballies 100 mm dia	metre	105.000	82.40	8652.00	M-245
		Nails	kg	4.000	58.85	235.40	M-142
		Binding wire (Gl, 2.00 mm)	kg	2.000	64.00	128.00	M-040
<b>c) Sundries</b>							
		L.S @ 2.00 % of (a+b)				200.39	
<b>d) 0</b>							
<b>e) Contractor's profit @ 15 % on (a+b+c+d)</b>							
Cost for 100.00 metre = a+b+c+d+e						11752.76	
<b>Rate per metre = (a+b+c+d+e)/100.00</b>						117.53	
						<b>say</b>	<b><u>117.50</u></b>
<b>M3.9</b>		Providing and placing gunny / polythene (of minimum wall thickness of 500 micron) bags filled with sand (of minimum qty of 0.034 cum) and properly manually stitched to avoid any leakage of sand as per specification.					
<b>Unit = No</b>							
<b>Taking output = 100.00 Nos</b>							
<b>a) Labour</b>							
		Mate	day	0.08	300.00	24.00	L-19
		Mazdoor(unskilled)	day	2.00	300.00	600.00	L-20
<b>b) Material</b>							
		Empty gunny/ polythene (of minimum wall thickness of 500 micron) bags	No	100.000	2.00	200.00	M-090
		Sand	Cum	3.570	300.00	1071.00	M-175
<b>c) Sundries</b>							
		L.S @ 2.00 % of (a+b)				37.90	
<b>d) 0</b>							

**MISCELLANEOUS-3**  
**MISCELLANEOUS ITEMS FOR RIVER TRAINING WORKS**

Sr. No.	Ref. to MORD Spec.	Description	Unit	Quantity	Rate (₹)	Amount (₹)	Remarks/ Ref.
		<b>e) Contractor's profit and overheads @ 15 % on (a+b+c+d)</b>				289.94	
		Cost for 100.00 nos = a+b+c+d+e				2222.84	
		<b>Rate per No = (a+b+c+d+e)/100.00</b>				22.23	
					<b>say</b>	<b><u>22.20</u></b>	
<b>M3.10</b>		Providing and fixing bitumen or tar drum guard posts including two coats of white synthetic enamel paint over a primer coat in the exposed outside surface above Ground level and applying two coats of coal tar on the outside surface below ground level including bottom before placing the same for a depth of 450 mm below ground level filled with earth as per specification.					
		<b>Unit = No</b>					
		<b>Taking output = 10.00 Nos</b>					
		(considering drum of 600 mm dia and 1000 mm total height out of which 450 mm is below ground level)					
		<b>a) Labour</b>					
		Mate	day	0.08	300.00	24.00	L-19
		Mazdoor(unskilled)	day	2.00	300.00	600.00	L-20
		<b>b) Material</b>					
		i. Bitumen Drum (empty)	No	10.000	300.00	3000.00	M-044
		ii. Compensation of earth taken from private land (for AGL portion)	Cum	1.560	18.00	28.08	M-063
		iii. Applying coal tar,	Sqm	11.31	25.99	293.97	Item no. M2.9
		<b>Rate vide item no. M2.9(ex/c OH &amp; CP)</b>					
		iv. Applying white synthetic enamel paint,	Sqm	10.37	85.40	885.60	Item no. 10.5 of MoRD
		<b>Rate vide item no. 10.5 of MoRD</b>					
		iv. Excavation & refilling of earth	Cum	1.270	287.00	364.49	Item no. 11.1 of MoRD
		<b>Rate vide item no. 11.1 of MoRD</b>					
		<b>c) Sundries</b>					
		L.S @ 2.00 % of (a+b)				73.04	
		<b>d) 0</b>				0.00	
		<b>e) Contractor's profit and overheads @ 15 % on (a+b.i,ii,iii+c+d)</b>				602.86	
		Cost for 10.00 nos = a+b+c+d+e				5872.04	
		<b>Rate per No = (a+b+c+d+e)/10.00</b>				587.20	
					<b>say</b>	<b><u>587.20</u></b>	