

CHAPTER - 1 : Earth Work

Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)	
011000	Earthwork in New Lines, Doubling Projects Etc. - Embankments						
011010	Preparation of foundation for Embankment by clearing, grubbing, stripping top soil (average 150 mm) and stacking beyond foundation area, thereafter ploughing and pulverizing 150 - 200 mm of top of soil with tractor trolley, mixing water to achieve OMC with water sprinkler or left for natural drying, as required, and compaction with vibratory roller of suitable capacity to achieve 98% MDD for laying first layer of soil for embankment construction.						
	Considering bank height of 5m, formation width 8m additional clearance of 0.5m on either side. The total width for clearing = 8m + 2x0.5m + 2x2x5m + 2x0.5m = 30m Total area in 1 km = 30,000 Sqm Cost for 30,000 Sqm						
	Machinery:						
	Hire charges of dozer 166 HP capacity	Day	0505	17504.00	2.40	42,009.60	
	Hire charges of tractor with Ripper arrangement	Day	0081	1833.00	2.00	3,666.00	
	Hire charges of Water tanker 5 to 6 KL capacity	Hour	0055	241.00	24.00	5,784.00	
	Hire Charges of Vibratory roller 8 to 10 tonne	Hour	0056	823.00	56.00	46,088.00	
	Labour:						
	Bhisti (Semi skilled)	Day	0023	619.00	3.00	1,857.00	
	Coolie (Un skilled)	Day	0026	547.00	50.00	27,350.00	
						126,754.60	
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		1,267.55	
						128,022.15	
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		17,987.11	
						146,009.26	
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		21,901.39	
						167,910.65	
	Add for Cess @ 1%	Lumpsum	9905	0.01		1,679.11	
	Cost for 30,000 Sqm					169,589.75	
	Cost of 100 Sqm	100 Sqm				565.30	
011020	Benching of existing embankment manually in steps of 30 cm height for doubling/tripling works in running line to provide proper amalgamation between the old and new embankments as per RDSO latest Specifications and guidelines RDSO/2020//GE: IRS-0004 to the entire satisfaction of Engineer in-charge. The item includes uprooting and disposing of all the vegetation, all lift, descends, ascends and additional earthwork required for filling due to removal of earth in benching in existing bank. Note: (1) The benching Work shall be done for a maximum height of 0.90 m at any time based on the progress of earthwork starting from toe of the embankment. (2) Benchng work shall be certified and recorded before starting the earth work. (3) Unit for payment shall be km per metre height of the Bank. Height here means representative average height of the bank in the specified km taken from cross sectional measurements for earthwork. (4) Since the rate includes earthwork in steps, payment under this item shall be made after completion of earthwork to that level. (5) Cut soil from bank shall not be used in embankment construction and disposed off away from bank as per the direction of Engineer-in-charge.						
	Detail of cost for 1 Km of 3 metres height of the embankment						
	Assuming 3m Height of Bank, Number of Steps of Benchng = 10 Volume of 10 Steps of Benchng /1 Km length = 10 x 1000 x 0.5 x 0.30 x 0.60 =900 Cum @3 Cum/ 1 persons Rate of the Soil are considered as average of the rates for SQ1, SQ2 and SQ3 soil.						
	Cost of Earthwork for Benchng = Average rate of items of Earthwork for SQ1, SQ2, SQ3 classifications of Soil						
	Rate of SQ1	Cum	0166	184.00			
	Rate of SQ2	Cum	0167	190.00			
	Rate of SQ3	Cum	0168	172.00			
	Average rate of above 3 items			182.00	900.00	163,800.00	

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)	
	Labour:						
	Labour Unskilled	Day	0020	540.00	300.00	162,000.00	
	Misc:						
	T & P	Lumpsum	9901	1.00	100.00	100.00	
	Total					325,900.00	
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		3,259.00	
						329,159.00	
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		46,246.84	
						375,405.84	
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		56,310.88	
						431,716.72	
	Add for Cess @ 1%	Lumpsum	9905	0.01		4,317.17	
	Cost for 1 Km per 3m					436,033.88	
	Rate per Km per metre	Km				145,344.63	
011030	Earthwork in filling in embankment, guide bunds, around buried type abutments, bridge gaps, trolley refuges, platforms etc. with contractor's own earth conforming to Soil Quality Class SQ1/SQ2/SQ3, after preparation of foundations as applicable, benching in existing banks wherever required, spreading in layers with motor grader, bringing the moisture content to OMC, mechanical compaction to specified density and dressing of bank to final profile as per RDSO Specifications: RDSO/2020/GE: IRS-0004 with latest correction slips. Note: 1) Foundation preparation, Benching including additional earthwork on account of this, wherever required, shall be paid extra under relevant schedule item for benching. 2) Payment for Earthwork under this item shall be made based on the cross section measurements calculated (i) with original ground profile of existing bank based on initial ground levels before doing benching and (ii) final profile of the bank worked out with final levels as per prevailing guidelines.						
011031	Using Soil Class SQ1						
	Detail of Cost for 100 cum of finished work Considering average 3 m height of embankment and 7.85 m formation width, extra earthwork for new line on account of 50 cm additional width on either side (for compaction), extra soil required is 6.08%. Actual quantity of soil required for 100 cum of finished work = 100 +6.08 cum = 106.08 cum						
	Material:						
	Soil Quality Class SQ1 suitable for sub grade of embankment as per RDSO Specifications RDSO/2020/GE: IRS-0004	Cum	0166	184.00	106.08	19,518.72	
	Hire and running charges of Tipper 12 Cum Capacity	Day	0509	6317.85	0.15	947.68	
	Hire Charges of Crawler mounted 3D Hydraulic Excavator 148 HP (0.9 Cum Bucket Capacity)	Day	0501	10423.00	0.17	1,771.91	
	Hire charges of Motor grader (3.67 metre blade)	Day	0504	17894.50	0.03	536.84	
	Labour:						
	Beldar (Un skilled)	Day	0025	547.00	2.20	1,203.40	
	Coolie (Un skilled)	Day	0026	547.00	0.20	109.40	
	Hire Charges of Vibratory roller 8 to 10 tonne	Hour	0056	823.00	1.50	1,234.50	
	Hire charges of Water tanker 5 to 6 KL capacity	Hour	0055	241.00	1.50	361.50	
	Sundries	Lumpsum	9901	1.00	150.00	150.00	
						25,833.94	
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		258.34	
						26,092.28	
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		3,665.97	
						29,758.25	
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		4,463.74	
						34,221.98	
	Add for Cess @ 1%	Lumpsum	9905	0.01		342.22	
	Cost for 100 cum					34,564.20	
	Rate per Cum	Cum				345.64	

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)	
011032	Using Soil Class SQ2						
	Detail of Cost for 100 cum						
	Material:						
	Soil Quality Class SQ2 suitable for sub grade of embankment as per RDSO Specifications RDSO/2020/GE: IRS-0004	Cum	0167	190.00	106.08	20,155.20	
	Hire and running charges of Tipper 12 Cum Capacity	Day	0509	6317.85	0.30	1,895.36	
	Hire Charges of Crawler mounted 3D Hydraulic Excavator 148 HP (0.9 Cum Bucket Capacity)	Day	0501	10423.00	0.17	1,771.91	
	Hire charges of Motor grader (3.67 metre blade)	Day	0504	17894.50	0.03	536.84	
	Labour:						
	Beldar (Un skilled)	Day	0025	547.00	2.20	1,203.40	
	Coolie (Un skilled)	Day	0026	547.00	0.20	109.40	
	Hire Charges of Vibratory roller 8 to 10 tonne	Hour	0056	823.00	1.50	1,234.50	
	Hire charges of Water tanker 5 to 6 KL capacity	Hour	0055	241.00	1.50	361.50	
	Sundries	Lumpsum	9901	1.00	150.00	150.00	
						27,418.10	
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		274.18	
	Total					27,692.28	
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		3,890.77	
	Total					31,583.05	
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		4,737.46	
	Total					36,320.50	
	Add for Cess @ 1%	Lumpsum	9905	0.01		363.21	
	Cost of 100 cum					36,683.71	
	Rate per Cum	Cum				366.84	
011033	Using Soil Class SQ3						
	Material:						
	Soil Quality Class SQ3 suitable for sub grade of embankment as per RDSO Specifications RDSO/2020/GE: IRS-0004	Cum	0168	172.00	106.08	18,245.76	
	Hire and running charges of Tipper 12 Cum Capacity	Day	0509	6317.85	0.30	1,895.36	
	Hire Charges of Crawler mounted 3D Hydraulic Excavator 148 HP (0.9 Cum Bucket Capacity)	Day	0501	10423.00	0.17	1,771.91	
	Hire charges of Motor grader (3.67 metre blade)	Day	0504	17894.50	0.03	536.84	
	Labour:						
	Beldar (Un skilled)	Day	0025	547.00	2.20	1,203.40	
	Coolie (Un skilled)	Day	0026	547.00	0.20	109.40	
	Hire Charges of Vibratory roller 8 to 10 tonne	Hour	0056	823.00	1.50	1,234.50	
	Hire charges of Water tanker 5 to 6 KL capacity	Hour	0055	241.00	1.50	361.50	
	Sundries	Lumpsum	9901	1.00	150.00	150.00	
						25,508.66	
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		255.09	
	Total					25,763.75	
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		3,619.81	
	Total					29,383.55	
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		4,407.53	
	Total					33,791.09	
	Add for Cess @ 1%	Lumpsum	9905	0.01		337.91	
	Cost of 100 cum					34,129.00	
	Rate per Cum	Cum				341.29	

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)	
012000	Earthwork in New Lines, Doubling Projects Etc. - Cuttings						
012010	Earthwork in cutting in formation, trolley refuges, side drains, level crossing approaches, platforms, catch water drains, diversion of nallah & finishing to required dimension and slopes to obtain a neat appearance to standard profile inclusive of all labour, materials, plant & machinery, leading all cut spoils either to make spoil dumps or for filling in embankment with leads within 2 km on either side of edge of the cutting(s) including all lifts, ascent, descent, loading, unloading, bailing & pumping out water, if required, clearance of site and all other works incidental thereto for completing the work as per RDSO Specification No. RDSO/2020/GE: IRS-0004 with latest updated correction slips and to the satisfaction of the Engineer-in-Charge. Note: (i) All usable earth arising from cut spoils shall be led into bank formation and Unusable spoils shall be dumped / stacked away from toe of embankment. (ii) All hard rock /and boulders not fit for filling will be stacked by the contractor and will be property of the Railways. (iii) Cut trees shall be property of Railways and to be deposited in the railway godown unless specified otherwise in the Conditions of Contract.						
012011	In all conditions and classifications of soil except rock						
	Detail of Cost for 518 cum						
	Bucket Capacity = 0.90 Cum Cycle time = 35 Sec Efficiency = 70% Capacity = $0.9 \times 60 \times 60 \times 0.70 / 35 = 64.80$ Cum/hour Average output per day = $8 \times 64.8 = 518$ Cum						
	Machinery:						
	Hire Charges of Crawler mounted 3D Hydraulic Excavator 148 HP (0.9 Cum Bucket Capacity)	Day	0501	10423.00	1.00	10,423.00	
	Hire and running charges of Tipper 12 Cum Capacity	Day	0509	6317.85	4.00	25,271.40	
	Labour:						
	Helper (Semi-skilled)	Day	0021	572.00	4.00	2,288.00	
	Beldar (Un skilled)	Day	0025	547.00	8.00	4,376.00	
						42,358.40	
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		423.58	
						42,781.98	
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		6,010.87	
						48,792.85	
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		7,318.93	
						56,111.78	
	Add for Cess @ 1%	Lumpsum	9905	0.01		561.12	
	Total for 518 Cum					56,672.90	
	Rate per Cum	Cum				109.41	
012012	Soft rock not requiring blasting						
	Detail of Cost for 150 cum						
	Bucket Capacity = 0.90 Cum Cycle time = 35 Sec x 4 = 140 Sec (Due to rock there will be more cycle time) Efficiency = 70% Capacity = $0.9 \times 60 \times 60 \times 0.70 / 140 = 16.20$ Cum/hour Average output per day = $8 \times 16.20 = 129.6$ Cum Excavator required = $150 / 129.6 = 1.16$ days						
	Machinery:						
	Hire Charges of Crawler mounted 3D Hydraulic Excavator 148 HP (0.9 Cum Bucket Capacity)	Day	0501	10423.00	1.16	12,090.68	
	Hire and running charges of Tipper 12 Cum Capacity	Day	0509	6317.85	1.00	6,317.85	
	Labour:						
	Rock Excavator (Semi skilled)	Day	0014	660.00	3.00	1,980.00	
	Rock Breaker (Semi skilled)	Day	0015	660.00	3.00	1,980.00	
	Rock Hole Driller (Semi skilled)	Day	0016	627.00	1.00	627.00	
	Beldar (Un skilled)	Day	0025	547.00	7.00	3,829.00	
	Coolie (Un skilled)	Day	0026	547.00	4.00	2,188.00	
	Sundries	Lumpsum	9901	1.00	100.00	100.00	
						29,112.53	

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)	
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		291.13	
						29,403.66	
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		4,131.21	
						33,534.87	
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		5,030.23	
						38,565.10	
	Add for Cess @ 1%	Lumpsum	9905	0.01		385.65	
	Cost for 150 Cum					38,950.75	
	Rate per Cum	Cum				259.67	
012013	In hard rock requiring blasting						
	Detail of Cost for 150 cum						
	Bucket Capacity = 0.90 Cum Cycle time = 35 Sec x 2 = 70 Sec (Due to rock there will be more cycle time) Efficiency = 80% Capacity = $0.9 \times 60 \times 60 \times 0.80 / 70 = 37.03$ Cum/hour Average output per day = $8 \times 37.03 = 296.24$ Cum Excavator required = $150 / 296.24 = 0.506$ Say 0.5 days Tipper required (considering twice the number due to less volume of rock to be accommodated and more time of loading also) = 2 nos..						
	Machinery:						
	Hire Charges of Crawler mounted 3D Hydraulic Excavator 148 HP (0.9 Cum Bucket Capacity)	Day	0501	10423.00	0.50	5,211.50	
	Hire and running charges of Tipper 12 Cum Capacity	Day	0509	6317.85	2.00	12,635.70	
	Labour:						
	Rock Excavator (Semi skilled)	Day	0014	660.00	3.00	1,980.00	
	Rock Breaker (Semi skilled)	Day	0015	660.00	3.00	1,980.00	
	Rock Hole Driller (Semi skilled)	Day	0016	627.00	7.00	4,389.00	
	Beldar (Semi Skilled)	Day	0024	585.00	7.00	4,095.00	
	Coolie (Un skilled)	Day	0026	547.00	15.00	8,205.00	
	Material						
	Blasting Powder	Kg	0169	98.00	52.00	5,096.00	
	Blasting Fuse (Fuse Wire)	Each	0170	41.00	75.00	3,075.00	
	Sundries	Lumpsum	9901	1.00	100.00	100.00	
						46,767.20	
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		467.67	
						47,234.87	
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		6,636.50	
						53,871.37	
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		8,080.71	
						61,952.08	
	Add for Cess @ 1%	Lumpsum	9905	0.01		619.52	
	Cost for 150 Cum					62,571.60	
	Rate per Cum	Cum				417.14	
012014	In hard rock with hammer / chisel / pavement breaker etc. where blasting is not permitted due to special circumstances and if specifically ordered in writing including drilling and all incidental works thereto.						
	Detail of Cost for 10 cum						
	Machinery:						
	Hire Charges of Crawler mounted 3D Hydraulic Excavator 148 HP (0.9 Cum Bucket Capacity)	Day	0501	10423.00	0.10	1,042.30	
	Hire and running charges of Tipper 12 Cum Capacity	Day	0509	6317.85	0.10	631.79	
	Labour:						
	Rock Excavator (Semi skilled)	Day	0014	660.00	2.00	1,320.00	
	Rock Breaker (Semi skilled)	Day	0015	660.00	4.00	2,640.00	
	Stone Chiseller (Semi skilled)	Day	0017	627.00	1.00	627.00	
	Blacksmith - 2nd Class (Semi-skilled)	Day	0009	649.00	0.18	113.58	
	Beldar (Un skilled)	Day	0025	547.00	0.75	410.25	
	Coolie (Un skilled)	Day	0026	547.00	1.50	820.50	
	Sundries	Lumpsum	9901	1.00	10.00	10.00	
						7,615.41	
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		76.15	
						7,691.56	

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	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		1,080.66	
						8,772.23	
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		1,315.83	
						10,088.06	
	Add for Cess @ 1%	Lumpsum	9905	0.01		100.88	
	Cost for 10 cum					10,188.94	
	Rate per Cum	Cum				1,018.89	
012015	Extra for leading of Cut spoil every one km beyond original lead of 2 km over item nos. 012011 to 012014						
	Cost for 12 cum for additional leading of 1 km						
	Hire and running charges of Tipper 12 Cum Capacity	Day	0509	6317.85	0.01	50.54	
						50.54	
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		0.51	
						51.05	
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		7.17	
						58.22	
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		8.73	
						66.95	
	Add for Cess @ 1%	Lumpsum	9905	0.01		0.67	
	Cost for 12 cum					67.62	
	Rate per Cum	Cum				5.64	
012020	Foundation preparation in cutting - ploughing and pulverizing 15 cm of top of soil with tractor trolley, mixing water to achieve OMC with water sprinkler or allowing for natural drying, as required, and compaction with vibratory roller of suitable capacity to achieve 98% MDD for laying blanketing layer.						
	Considering cost for 30,000 Sqm						
	Machinery:						
	Hire charges of tractor with Ripper arrangement	Day	0081	1833.00	2.00	3,666.00	
	Hire charges of Water tanker 5 to 6 KL capacity	Hour	0055	241.00	24.00	5,784.00	
	Hire Charges of Vibratory roller 8 to 10 tonne	Hour	0056	823.00	56.00	46,088.00	
	Labour:						
	Bhisti (Semi skilled)	Day	0023	619.00	3.00	1,857.00	
	Coolie (Un skilled)	Day	0026	547.00	9.00	4,923.00	
						62,318.00	
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		623.18	
						62,941.18	
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		8,843.24	
						71,784.42	
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		10,767.66	
						82,552.08	
	Add for Cess @ 1%	Lumpsum	9905	0.01		825.52	
	Cost for 30,000 Sqm					83,377.60	
	Cost of 100 Sqm	100 Sqm				277.93	
012030	Mechanical manufacturing of blanketing material by using only hard and durable stone crushed in mechanical crusher to different gradations, wet mixing of the same in designed proportion in Pug mill or wet mix plant to have uniform gradation including all incidental transportation, laying over finished formation in uniform layer(s) with motor grader, compaction with suitable vibratory roller to specified density and finishing to correct profile, complete as per RDSO Specification No. RDSO/2020/GE: IRS-0004 with latest correction slips. Note: This item shall be used only when entire constituent of blanketing material is mechanically manufactured by crushing of hard and durable stone into desired gradation of designed proportion.						
	Wastage due to additional 50 cm width is about 9.76% . For 225 cum (450 MT) of finished work, total volume of blanketing material required = 225 x 1.0976 = 246.96 cum (493.92 MT)						
	Material:						
	Detail of cost for 225 cum (450 MT) finished quantity at site after compaction						
	Stone Aggregate (Single size) : 20 mm nominal size	Cum	0204	1017.00	45.69	46,469.87	
	Stone Aggregate (Single size) : 10 mm nominal size	Cum	0205	983.00	68.53	67,369.06	
	Stone Aggregate (Single size) : 06 mm nominal size	Cum	0206	925.00	91.38	84,522.06	

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)	
	Crusher Screening(Quarry Dust) Conforming to Grading Zone - I to Zone- II	Cum	0208	600.00	114.22	68,529.75	
	Machinery:						
	Hire Charges of Wet Mix Plant 60 TPH Capacity	Hour	0059	905.00	8.25	7,466.25	
	Hire Charges of Generator 100 KVA/125 KVA	Day	0075	3083.00	1.03	3,175.49	
	Hire charges of Water tanker 5 to 6 KL capacity	Hour	0055	241.00	4.50	1,084.50	
	Hire Charges of JCB 3DX Plus Backhoe Loader	Day	0506	4966.80	0.75	3,725.10	
	Hire and running charges of Tipper 12 Cum Capacity	Day	0509	6317.85	2.80	17,689.98	
	Transportation of material within a distance of 5 kms on either side of the Wet Mix plant requires 2.8 tippers.						
	Add 10% of cost of carriage to cover cost of loading and unloading				0.10	1,769.00	
	Machinery for spreading in layers, profiling and compacting at work site						
	Hire charges of Motor grader (3.67 metre blade)	Day	0504	17894.50	0.08	1,431.56	
	Hire Charges of Vibratory roller 8 to 10 tonne	Hour	0056	823.00	6.00	4,938.00	
	Labour:						
	Mate (Semi skilled)	Day	0003	619.00	0.40	247.60	
	Beldar (Semi Skilled)	Day	0024	585.00	2.00	1,170.00	
	Beldar (Un skilled)	Day	0025	547.00	8.00	4,376.00	
	Total					313,964.23	
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		3,139.64	
						317,103.87	
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		44,553.09	
						361,656.96	
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		54,248.54	
						415,905.51	
	Add for Cess @ 1%	Lumpsum	9905	0.01		4,159.06	
	Cost for 225 cum					420,064.56	
	Rate per Cum	Cum				1,866.95	
012040	Manufacturing of blanketing material by wet mixing of naturally available suitable soil including additional blending with naturally available or manufactured material as required to achieve specified gradation, in designed proportion in Pug mill or wet mix plant to have uniform gradation including all incidental transportation, laying over finished formation in uniform layer(s) with motor grader, compaction with suitable vibratory roller to specified density and finishing to correct profile, complete as per RDSO Specification No. RDSO/2020/GE: IRS-0004 with latest correction slips.						
	Wastage due to additional 50 cm width is about 9.76% . For 225 cum finished work, total volume of blanketing material required = 246.96 cum.						
	Material:						
	Considering 80% of the Blanketing Quantity as naturally available material and 20% qty for Blending material. Natural soil = 0.8*246.96 = 197.57 cum Blending material = 0.20x246.96 = 49.39 cum						
	Since this is naturally available, the cost shall be the same cost of Soil as SQ3. However, in all probability it may be available at a reasonable distance away from worksite in most of the cases. Distance of availability of material is considered as additional 30 km for analysis purpose.						
	Soil Quality Class SQ3 suitable for sub grade of embankment as per RDSO Specifications RDSO/2020/GE: IRS-0004	Cum	0168	172.00	197.57	33,982.04	
	Considering availability of natural material meeting the specification may not be in close vicinity, a distance of 30 km is considered for calculation of additional cost for transportation. Cost of 30 km of transportation for 197.56 cum as per working sheet						
	Cost of transportation	cum		153.60	197.57	30,346.65	
	Considering 20% of Blending Material, Qty of Blending material =						
	Crusher Screening(Quarry Dust) Conforming to Grading Zone - I to Zone- II	Cum	0208	600.00	49.39	29,634.00	
	Machinery:						
	Hire Charges of Wet Mix Plant 60 TPH Capacity	Hour	0059	905.00	8.25	7,466.25	
	Hire Charges of Generator 100 KVA/125 KVA	Day	0075	3083.00	1.03	3,175.49	
	Hire charges of Water tanker 5 to 6 KL capacity	Hour	0055	241.00	4.50	1,084.50	
	Hire Charges of JCB 3DX Plus Backhoe Loader	Day	0506	4966.80	0.75	3,725.10	
	Hire and running charges of Tipper 12 Cum Capacity	Day	0509	6317.85	2.80	17,689.98	
	Transportation of material within a distance of 5 kms on either side of the Wet Mix plant requires 2.8 tippers.						

Note: The figures given in amount/Rate Column Which are striked out) are not to be taken for estimation or justifying rate. This amount/rate has been given illustration purpose only.

Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)	
	Add 10% of cost of carriage to cover cost of loading and unloading				0.10	1,769.00	
	Machinery for spreading in layers, profiling and compacting at work site						
	Hire charges of Motor grader (3.67 metre blade)	Day	0504	17894.50	0.08	1,431.56	
	Hire Charges of Vibratory roller 8 to 10 tonne	Hour	0056	823.00	6.00	4,938.00	
	Labour:						
	Mate (Semi skilled)	Day	0003	619.00	0.40	247.60	
	Beldar (Semi Skilled)	Day	0024	585.00	2.00	1,170.00	
	Beldar (Un skilled)	Day	0025	547.00	8.00	4,376.00	
						141,036.17	
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		1,410.36	
						142,446.53	
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		20,013.74	
						162,460.27	
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		24,369.04	
						186,829.31	
	Add for Cess @ 1%	Lumpsum	9905	0.01		1,868.29	
	Cost for 225 cum					188,697.60	
	Rate per Cum	Cum				838.66	
012050	Mechanical manufacturing and supply of blanketing material by using only hard and durable stone crushed in mechanical crusher to different gradations, wet mixing of the same in designed proportion in Pug mill or wet mix plant to have uniform gradation as per RDSO Specification No. RDSO/2020/GE: IRS-0004 with latest correction slips including transportation to nominated place and stacking. Note: 1.This item shall be used only when entire constituent of blanketing material is mechanically manufactured by crushing of hard and durable stone into desired gradation(s) in designed proportion to meet prescribed Specification. 2. Measurement shall be done as per Stack measurement.						
	For 246.96 cum (493.92 MT) of compacted blanketing, the volume in loose state shall be 246.96 x 1.20 = 296.352 cum.						
	Material:						
	Detail of cost for 296.352 cum in stacks						
	Stone Aggregate (Single size) : 20 mm nominal size	Cum	0204	1017.00	45.69	46,469.87	
	Stone Aggregate (Single size) : 10 mm nominal size	Cum	0205	983.00	68.53	67,369.06	
	Stone Aggregate (Single size) : 06 mm nominal size	Cum	0206	925.00	91.38	84,522.06	
	Crusher Screening(Quarry Dust) Conforming to Grading Zone - I to Zone- II	Cum	0208	600.00	114.22	68,529.75	
	Machinery:						
	Hire Charges of Wet Mix Plant 60 TPH Capacity	Hour	0059	905.00	8.25	7,466.25	
	Hire Charges of Generator 100 KVA/125 KVA	Day	0075	3083.00	1.03	3,175.49	
	Hire charges of Water tanker 5 to 6 KL capacity	Hour	0055	241.00	4.50	1,084.50	
	Hire Charges of JCB 3DX Plus Backhoe Loader	Day	0506	4966.80	0.75	3,725.10	
	Hire and running charges of Tipper 12 Cum Capacity	Day	0509	6317.85	2.80	17,689.98	
	Transportation of material within a distance of 5 kms on either side of the Wet Mix plant requires 2.8 tippers.						
	Add 10% of cost of carriage to cover cost of loading and unloading				0.10	1,769.00	
	Labour:						
	Beldar (Semi Skilled)	Day	0024	585.00	2.00	1,170.00	
	Beldar (Un skilled)	Day	0025	547.00	4.00	2,188.00	
	Total					305,159.07	
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		3,051.59	
						308,210.66	
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		43,303.60	
						351,514.25	
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		52,727.14	
						404,241.39	
	Add for Cess @ 1%	Lumpsum	9905	0.01		4,042.41	
	Cost for 296.352 cum					408,283.81	
	Rate per Cum	Cum				1,377.70	

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)	
012060	Manufacturing and supply of blanketing material by wet mixing of different types of naturally available suitable soil including additional blending with naturally available or manufactured material as required to achieve specified gradation, in designed proportion in Pug mill or wet mix plant to have uniform gradation as per RDSO Specification No. RDSO/2020/GE: IRS-0004 with latest correction slips including all incidental transportation and stacking at site in Stacks. Note: Measurement shall be done in as per Stack measurement.						
	For 246.96 cum (493.92 MT) of compacted blanketing, the volume in loose state shall be 246.96 x 1.20 = 296.352 cum.						
	Material:						
	Considering 80% of the Blanketing Quantity as naturally available and 20% qty for Blending Natural soil = 0.8*246.96 = 197.57 cum Blending material = 0.20x246.96 = 49.39 cum						
	Since this is naturally available, the cost shall be the same cost of Soil as SQ3. However, in all probability it may be available at a reasonable distance away from worksite in most of the cases. Distance of availability of material is considered as additional 30 km for analysis purpose.						
	Soil Quality Class SQ3 suitable for sub grade of embankment as per RDSO Specifications RDSO/2020/GE: IRS-0004	Cum	0168	172.00	197.57	33,982.04	
	Considering availability of natural material meeting the specification may not be in close vicinity, a distance of 30 km is considered for calculation of additional cost for transportation. Cost of 30 km of transportation for 197.56 cum as per working sheet						
	Cost of transportation	Cum		153.60	197.57	30,346.65	
	Crusher Screening(Quarry Dust) Conforming to Grading Zone - I to Zone- II	Cum	0208	600.00	49.39	29,634.00	
	Machinery:						
	Hire Charges of Wet Mix Plant 60 TPH Capacity	Hour	0059	905.00	8.25	7,466.25	
	Hire Charges of Generator 100 KVA/125 KVA	Day	0075	3083.00	1.03	3,175.49	
	Hire charges of Water tanker 5 to 6 KL capacity	Hour	0055	241.00	4.50	1,084.50	
	Hire Charges of JCB 3DX Plus Backhoe Loader	Day	0506	4966.80	0.75	3,725.10	
	Hire and running charges of Tipper 12 Cum Capacity	Day	0509	6317.85	2.80	17,689.98	
	Transportation of material within a distance of 5 kms on either side of the Wet Mix plant requires 2.8 tippers.						
	Add 10% of cost of carriage to cover cost of loading and unloading				0.10	1,769.00	
	Labour:						
	Beldar (Semi Skilled)	Day	0024	585.00	2.00	1,170.00	
	Beldar (Un skilled)	Day	0025	547.00	4.00	2,188.00	
						132,231.01	
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		1,322.31	
						133,553.32	
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		18,764.24	
						152,317.56	
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		22,847.63	
						175,165.19	
	Add for Cess @ 1%	Lumpsum	9905	0.01		1,751.65	
	Cost for 296.352 cum					176,916.85	
	Rate per Cum	Cum				596.98	
013000	Miscellaneous						
013010	Felling trees of girth (measured at a height of 1.0 m above ground level) including leading and stacking of material within 100m. Note : 1. When stumps are grubbed up in addition, the rates shall be doubled for trees cut and grubbed 2. Payment for grubbing shall only be made where specially ordered. 3. Grubbing shall be ordered only where it is essential to remove the stumps, including the roots, as per specification. 4. Grubbing shall include removal of roots of trees and saplings to a depth of 60cm below ground level or 30 cm below formation level or 15 cm below sub grade level, whichever is lower.						
013011	Girth over 30 cm and up to 60 cm						
	Details of cost for 1 tree						
	Labour:						
	Beldar (Un skilled)	Day	0025	547.00	0.30	164.10	
	Coolie (Un skilled)	Day	0026	547.00	0.20	109.40	

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)	
	Sundries	Lumpsum	9901	1.00	5.00	5.00	
						278.50	
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		2.79	
						281.29	
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		39.52	
						320.81	
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		48.12	
						368.93	
	Add for Cess @ 1%	Lumpsum	9905	0.01		3.69	
	Rate per Tree	Each				372.62	
013012	Girth over 60 cm and up to 1.5m						
	Details of cost for 1 tree						
	Labour:						
	Beldar (Un skilled)	Day	0025	547.00	1.00	547.00	
	Coolie (Un skilled)	Day	0026	547.00	0.40	218.80	
	Sundries	Lumpsum	9901	1.00	5.00	5.00	
						770.80	
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		7.71	
						778.51	
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		109.38	
						887.89	
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		133.18	
						1,021.07	
	Add for Cess @ 1%	Lumpsum	9905	0.01		10.21	
	Rate per Tree	Each				1,031.28	
013013	Girth over 1.5m up to 3 m						
	Details of cost for 1 tree						
	Labour:						
	Beldar (Un skilled)	Day	0025	547.00	2.00	1,094.00	
	Coolie (Un skilled)	Day	0026	547.00	0.80	437.60	
	Sundries	Lumpsum	9901	1.00	5.00	5.00	
						1,536.60	
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		15.37	
						1,551.97	
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		218.05	
						1,770.02	
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		265.50	
						2,035.52	
	Add for Cess @ 1%	Lumpsum	9905	0.01		20.36	
	Rate per Tree	Each				2,055.88	
013014	Girth over 3 m						
	Details of cost for 1 tree						
	Labour:						
	Beldar (Un skilled)	Day	0025	547.00	3.50	1,914.50	
	Coolie (Un skilled)	Day	0026	547.00	1.20	656.40	
	Sundries	Lumpsum	9901	1.00	5.00	5.00	
						2,575.90	
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		25.76	
						2,601.66	
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		365.53	
						2,967.19	
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		445.08	
						3,412.27	
	Add for Cess @ 1%	Lumpsum	9905	0.01		34.12	
	Rate per Tree	Each				3,446.39	
013020	Turfing / planting, including all lead & lift and watering as required until properly rooted with. Note: Initially payment of only 40% will be made. Balance 60% will be paid after 3 months of maintenance period, only if the turfing is properly rooted on entire turfed area.						

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)	
013021	Turfing with sods, 10cm thick and 20cm square closely laid.						
	Details of cost for 100 Sqm. Considering coverage at the time of planting as 70%, planting area required = 0.70 x 100 = 70 Sqm						
	Material:						
	Grass sods	Sqm	0174	73.00	70.00	5,110.00	
	Labour:						
	Beldar (Un skilled)	Day	0025	547.00	1.00	547.00	
	Coolie (Un skilled)	Day	0026	547.00	1.00	547.00	
	Bhisti (Semi skilled)	Day	0023	619.00	0.50	309.50	
	Sundries	Lumpsum	9901	1.00	20.00	20.00	
						6,533.50	
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		65.34	
						6,598.84	
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		927.14	
						7,525.97	
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		1,128.90	
						8,654.87	
	Add for Cess @ 1%	Lumpsum	9905	0.01		86.55	
	Rate per 100 Sqm	100 Sqm				8,741.42	
013022	Turfing with planted doob grass.						
	Material:						
	Details of cost for 100 Sqm. Considering coverage at the time of planting as 70%, planting area required = 0.70 x 100 = 70 Sqm						
	Doob grass	Sqm	0172	50.00	70.00	3,500.00	
	Labour:						
	Beldar (Un skilled)	Day	0025	547.00	2.00	1,094.00	
	Coolie (Un skilled)	Day	0026	547.00	3.00	1,641.00	
	Sundries	Lumpsum	9901	1.00	10.00	10.00	
						6,245.00	
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		62.45	
						6,307.45	
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		886.20	
						7,193.65	
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		1,079.05	
						8,272.69	
	Add for Cess @ 1%	Lumpsum	9905	0.01		82.73	
	Rate per 100 Sqm	100 Sqm				8,355.42	
013023	Planting Sarkanda / sarpat or any other suitable species approved by the engineer.						
	Details of cost for 100 Sqm. Considering coverage at the time of planting as 70%, planting area required = 0.70 x 100 = 70 Sqm						
	Material:						
	Sarkanda/ Sarpat	Sqm	0173	66.00	70.00	4,620.00	
	Labour:						
	Beldar (Un skilled)	Day	0025	547.00	2.00	1,094.00	
	Coolie (Un skilled)	Day	0026	547.00	2.00	1,094.00	
	Sundries	Lumpsum	9901	1.00	20.00	20.00	
						6,828.00	
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		68.28	
						6,896.28	
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		968.93	
						7,865.21	
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		1,179.78	
						9,044.99	
	Add for Cess @ 1%	Lumpsum	9905	0.01		90.45	
	Rate per 100 Sqm	100 Sqm				9,135.44	
013030	Cleaning out silt from bed of reservoir/canals including 50m lead and lift up to 1.5m.						
	Taking output 10 cum						
	Labour:						

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)	
	Beldar (Un skilled)	Day	0025	547.00	1.50	820.50	
	Coolie (Un skilled)	Day	0026	547.00	1.50	820.50	
	Sundries	Lumpsum	9901	1.00	10.00	10.00	
						1,651.00	
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		16.51	
						1,667.51	
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		234.29	
						1,901.80	
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		285.27	
						2,187.06	
	Add for Cess @ 1%	Lumpsum	9905	0.01		21.87	
	Cost for 10 Cum					2,208.94	
	Rate per Cum	Cum				220.89	
013040	Providing portable fencing along running track where work is to be done in close vicinity of track, maintaining during execution of work and removing after completion of the work as per direction of the Engineer. Fencing shall consist of self supporting steel angles of size 50mm x 50mm x 6mm, 1.5m long provided with hooks etc. and embedded in CC 1:2:4 block of size 0.23m x 0.23m x 0.23m placed at c/c distance of 2m along track. 12mm dia rods in three horizontal layers shall be tack welded with angle posts. Note : Released material will be property of the contractor after completion of work. Cost of cement required for CC blocks shall be paid separately.						
013041	With provision of one 50mm wide retro-reflective tape in horizontal direction, duly secured/tight with vertical posts.						
	Details of cost for 30m						
	Material:						
	Steel angle supports 50mm x 50mm x 6mm (steel angles to be used 8 times). Therefore, quantity taken = 1.06 / 8 = 0.133 quintal)	Quintal	0221	7050.00	0.133	937.65	
	Weight of Angle of size 50mm x 50mm x 6mm is 4.5 kg/m 15 no. x 1.5m = 22.5m @ 4.5kg/m = 101.25 kg (Add 5% extra for wastage) = 106.31 kg i.e. 1.06 Quintal						
	MS round bar for reinforcement- average rate for various dia	Quintal	0217	5717.00	0.10	571.70	
	M.S. bars 12mm dia = 30m x 3no. x 0.89 = 0.80 quintal (Steel to be used 8 times). Therefore, quantity taken = 0.8 / 8 = 0.10 qtl.)						
	Less salvage value after full use of material @ 25% on (A + B)					-377.34	
	Retro Reflective tape 50mm wide	Metre	0473	198.00	31.50	6,237.00	
	Stone Aggregate (Single size) : 20 mm nominal size	Cum	0204	1017.00	0.16	166.79	
	Coarse Sand (Zone III)	Cum	0199	2083.00	0.08	170.81	
	Sundries	Lumpsum	9901	1.00	20.00	20.00	
	Labour:						
	Mate (Semi skilled)	Day	0003	619.00	0.10	61.90	
	Mason 2nd class (Semi-skilled)	Day	0005	662.00	1.00	662.00	
	Beldar (Un skilled)	Day	0025	547.00	1.00	547.00	
						8,997.51	
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		89.98	
						9,087.48	
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		1,276.79	
						10,364.27	
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		1,554.64	
						11,918.91	
	Add for Cess @ 1%	Lumpsum	9905	0.01		119.19	
	Cost of 30 m					12,038.10	
	Rate per metre	Metre				401.27	
013042	With provision of painting verticals & horizontals with red luminous paints / strips of 30cm each with a gap of 30 cm.						
	Taking out put 30m						
	Material:						
	Structural steel such as T, Angles, Channels and R S Joists conforming to Grade Designation E 250; Quality "A" as per IS 2062	Quintal	0221	7050.00	0.14	979.95	

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)	
	Weight of Angle of size 50mm x 50mm x 6mm is 4.5 kg/m 15no's x 1.5m = 22.5m @ 4.5kg/m = 101.25 kg (Add 5% extra for wastage) = 111.375 kg say 1.1 qtl. Considering angles to be used 8 times, quantity taken for one time use = 1.1 / 8 = 0.14 qtl.)						
	MS round bar for reinforcement- average rate for various dia	Quintal	0217	5717.00	0.11	634.59	
	M.S. bars 12mm dia = 30m x 3no. x 0.89 = 0.80 quintal (Steel to be used 8 times). Therefore, quantity taken = 0.8 / 8 = 0.111 qtl.)						
	Less salvage value after full use of material @ 25% on (A + B)					-403.63	
	Luminous Paint as per RDSO's Spec. no. M&C/PCN/120-2011	Litre	0298	362.00	0.4000	144.80	
	Surface area of angle 50mm + 50mm + 6mm + 6mm = 112mm, for 22.5 metre long angle, Area = 22.5m x .112m = 2.52 Sqm, Surface area of 12mm dia rods for 90m long = 3.42 Sqm, i.e. Total coverage Area = 2.52sqm + 3.42sqm = 5.94 Sqm, Paint required @ 15sqm/litre = 5.94 / 15 = 0.396 litre Say 0.40 litre						
	Cement Concrete 1:2:4=0.182cum						
	Stone Aggregate (Single size) : 20 mm nominal size	Cum	0204	1017.00	0.16	166.79	
	Coarse Sand (Zone III)	Cum	0199	2083.00	0.08	170.81	
	Sundries	Lumpsum	9901	1.00	20.00	20.00	
	Labour:						
	Mate (Semi skilled)	Day	0003	619.00	0.10	61.90	
	Mason 2nd class (Semi-skilled)	Day	0005	662.00	1.00	662.00	
	Painter (Skilled)	Day	0012	749.00	0.20	149.80	
	Beldar (Un skilled)	Day	0025	547.00	1.00	547.00	
						3,134.00	
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		31.34	
						3,165.34	
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		444.73	
						3,610.07	
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		541.51	
						4,151.58	
	Add for Cess @ 1%	Lumpsum	9905	0.01		41.52	
	Cost of 30 m					4,193.09	
	Rate per metre	Metre				139.77	
013050	Provision of barricading with contractor's bamboos / ballies vertical post of 100mm dia. planted at every 2m interval, projecting at least 1.5m above ground level and driven firmly (minimum 0.5m) inside ground and including painting verticals & horizontals with red luminous paints / strips at alternative bay on barricade. Barricades shall be maintained through out the execution of the work and shall be removed in workman like manner on completion of the work only after instruction of Engineer in-Charge. Note: (1) 60% payment shall be made on provision of barricading at work-site and balance 40% payment after removal of barricades. (2) The released bamboos / ballies shall be the property of the Contractor.						
013051	With 3 horizontal bamboo / balli members of minimum 50mm dia. spaced equally						
	Details of cost for 100 RM						
	Material:						
	Considering use of ballies 3 times and 20% overlapping, the quantity to be taken for 1 time use for 100 RM (i) Quantity of 50 mm ballies in 100 RM = 3 x 100 x 1.2 m 360m = 360/2.5 = 144 nos. = 144/20 = 7.2 scores. Quantity for one time use = 7.2/3 = 2.42 Scores Say 2.50 Scores (ii) Quantity of 100 mm ballies in 100 RM = 100/2 = 50 nos. = 50 x 2 = 100 m. Quantity for one time use = 100/3 = 33.33 Say 34 m						
	Bamboo 50 mm dia 2.5 metre long (1 Score = 20 nos.)	score	0475	1883.00	2.50	4,707.50	
	100 mm dia ballies of locally available hard wood	Metre	0480	77.00	34.00	2,618.00	
	Luminous Paint as per RDSO's Spec. no. M&C/PCN/120-2011	Litre	0298	362.00	3.00	1,086.00	
	Iron spike (different sizes)	Kg	0481	93.00	2.00	186.00	
	Labour:						
	Mate (Skilled)	Day	0002	751.00	0.25	187.75	
	Carpenter (Skilled)	Day	0006	734.00	1.00	734.00	
	Helper (Semi-skilled)	Day	0021	572.00	1.00	572.00	

Note: The figures given in amount/Rate Column Which are striked out) are not to be taken for estimation or justifying rate. This amount/rate has been given illustration purpose only.

Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)	
	Labour Unskilled	Day	0020	540.00	4.00	2,160.00	
	Misc :						
	T & P	Lumpsum	9901	1.00	15.00	15.00	
						12,266.25	
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		122.66	
						12,388.91	
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		1,740.64	
						14,129.55	
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		2,119.43	
						16,248.99	
	Add for Cess @ 1%	Lumpsum	9905	0.01		162.49	
	Cost for 100 RM					16,411.48	
	Rate per RM	RM				164.11	
013052	Joining with strong nylon rope in one cross and one horizontal pattern of minimum 5mm dia.						
	Details of cost for 100 RM						
	Material:						
	100 mm dia ballies of locally available hard wood	Metre	0480	77.00	34.00	2,618.00	
	Iron spike (different sizes)	Kg	0481	93.00	2.00	186.00	
	Nylon rope 5 mm dia	Kg	0482	247.00	12.00	2,964.00	
	Labour:						
	Mate (Skilled)	Day	0002	751.00	0.25	187.75	
	Carpenter (Skilled)	Day	0006	734.00	0.50	367.00	
	Helper (Semi-skilled)	Day	0021	572.00	0.50	286.00	
	Labour Unskilled	Day	0020	540.00	4.00	2,160.00	
	Misc:						
	T & P	Lumpsum	9901	1.00	15.00	15.00	
						8,783.75	
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		87.84	
						8,871.59	
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		1,246.46	
						10,118.05	
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		1,517.71	
						11,635.75	
	Add for Cess @ 1%	Lumpsum	9905	0.01		116.36	
	Cost for 100 RM					11,752.11	
	Rate per RM	RM				117.52	
013060	Supplying, driving and erecting in all types of soils, hard wood pile 5m to 7m long without joint, 125mm average dia. for protection of bank slope including two coats of coal tar paint complete, as directed. Note: Payment will be made as per actual driven length of pile.						
	Details of cost for 100 m pile						
	Material:						
	125 mm dia ballies of locally available hard wood	Metre	0479	103.00	105.00	10,815.00	
	Coal tar Emulsion	Litre	0315	79.00	5.00	395.00	
	Sundries	Lumpsum	9901	1.00	100.00	100.00	
	Hire charges of Derrick Monkey Rope	Day	0060	867.00	1.00	867.00	
	Labour:						
	Mistry (Semi skilled)	Day	0027	619.00	1.00	619.00	
	Beldar (Un skilled)	Day	0025	547.00	1.00	547.00	
	Coolie (Un skilled)	Day	0026	547.00	5.00	2,735.00	
						16,078.00	
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		160.78	
						16,238.78	
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		2,281.55	
						18,520.33	
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		2,778.05	
						21,298.38	
	Add for Cess @ 1%	Lumpsum	9905	0.01		212.98	
	Cost for 100 metres					21,511.36	
	Rate per metre	Metre				215.11	

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)	
013070	Driving rails 90R/52 Kg section below average ground level within the slope/toe of embankment including making of nose with contractor's own arrangement complete in all respect Note: Payment will be made as per actual driven length of rail which will be supplied free by Railways at the site of work.						
	Details of cost for 100 metre rail driving						
	Material:						
	Hire charges of Derrick Monkey Rope	Day	0060	867.00	1.00	867.00	
	Labour:						
	Mistry (Semi skilled)	Day	0027	619.00	1.00	619.00	
	Beldar (Un skilled)	Day	0025	547.00	1.00	547.00	
	Coolie (Un skilled)	Day	0026	547.00	12.00	6,564.00	
	Sundries	Lumpsum	9901	1.00	150.00	150.00	
						8,747.00	
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		87.47	
						8,834.47	
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		1,241.24	
						10,075.71	
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		1,511.36	
						11,587.07	
	Add for Cess @ 1%	Lumpsum	9905	0.01		115.87	
	Cost for 100 metre rail driving					11,702.94	
	Rate per metre	Metre				117.03	
013080	Shoring with 'Z' section MS sheet piles side by side in all kinds of soil mechanically or manually as per approved drawing with contractor's own arrangement complete in all respects and removal of sheet piles after completion of the work as directed by engineer in-charge Note: Payment will be made as per actual driven length of pile.						
	Details of cost for 100 m of Z section Pile having wall area of 100x0.80 = 80.00 Sqm.						
	Material:						
	AZ 18-800 Sheet piles 100m @ 80.70 kg/m=8070 kg=80.70 Quintals. Add 10% for bracing. Total weight = 80.70 x 1.10 = 88.077quintals This can be used 12 times with a salvage value of 25% , the weight to be taken for using once = 0.75 x 88.077/12 = 5.5048 Say 5.505 quintal						
	Z section sheet piles AZ 18-800 (Arcelor Mittal) or equivalent & bracing	Quintal	0248	6292.00	5.51	34,637.46	
	Hire Charges of Crawler mounted 3D Hydraulic Excavator 148 HP (0.9 Cum Bucket Capacity)	Day	0501	10423.00	0.75	7,817.25	
	Hire charges of Vibratory Hammer attachment of Hydraulic Excavator for driving Sheet pile driving	Day	0054	1748.00	0.75	1,311.00	
	Hire charges of Diesel Truck - 9 tonne	Day	0508	3794.12	2.00	7,588.24	
	(1 day for transportation of material to work site and 1 day for return)						
	Extra 20% of Hire Charges of Truck for loading unloading				0.20	1,517.65	
	Labour:						
	Mistry (Semi skilled)	Day	0027	619.00	2.00	1,238.00	
	Beldar (Un skilled)	Day	0025	547.00	4.00	2,188.00	
	Coolie (Un skilled)	Day	0026	547.00	12.00	6,564.00	
	Sundries	Lumpsum	9901	1.00	100.00	100.00	
						62,961.60	
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		629.62	
						63,591.21	
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		8,934.57	
						72,525.78	
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		10,878.87	
						83,404.65	
	Add for Cess @ 1%	Lumpsum	9905	0.01		834.05	
	Cost per 80 Sqm					84,238.69	
	Rate per Sqm	Sqm				1,052.98	

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)	
013090	Supplying, laying Non-woven Needle Punched and Mechanically or Thermally bonded type Geotextile for use as Separator/Filtration for Railway formation as per RDSO Specification No. RDSO/2018/GE:IRS-0004 - Part I made of Polypropylene / Polyethylene / Polyamide or combination there of having apparent opening size of less than or equal to 85 microns and elongation at failure more than 50% in both directions including transportation labour, lead & lift complete as directed by Engineer in-charge.						
013091	On top of subgrade or prepared subgrade before laying blanketing layer with minimum strengths in Grab test, Trapezoidal Tear test and Puncture test of 700N, 250 N and 1800 N respectively.						
	Cost for 100 Sqm						
	Material:						
	Non-woven Needle Punched and Mechanically or Thermally bonded type Geotextile for use as Separator/Filtration for Railway formation as per RDSO Specification No. RDSO/2018/GE:IRS-0004 - Part I with minimum strengths in Grab test, Trapezoidal Tear test and Puncture test of 700N, 250 N and 1800 N respectively	Sqm	0175	142.00	100.00	14,200.00	P
	Add 10 % of P for wastage and accessories for joining elements, overlap, transportation etc.			0.10		1,420.00	
	Labour:						
	Mate (Semi skilled)	Day	0003	619.00	0.12	74.28	
	Beldar (Un skilled)	Day	0025	547.00	2.00	1,094.00	
	Coolie (Un skilled)	Day	0026	547.00	1.00	547.00	
						17,335.28	
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		173.35	
						17,508.63	
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		2,459.96	
						19,968.60	
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		2,995.29	
						22,963.89	
	Add for Cess @ 1%	Lumpsum	9905	0.01		229.64	
	Cost for 100 Sqm					23,193.52	
	Rate per Sqm	Sqm				231.94	
013092	Below the ballast and above blanket layer with minimum strengths in Grab test, Trapezoidal Tear test and Puncture test of 1750N, 800 N and 5800 N respectively.						
	Cost for 100 Sqm						
	Material:						
	Non-woven Needle Punched and Mechanically or Thermally bonded type Geotextile for use as Separator/Filtration for Railway formation as per RDSO Specification No. RDSO/2018/GE:IRS-0004 - Part I with minimum strengths in Grab test, Trapezoidal Tear test and Puncture test of 1750N, 800 N and 5800 N respectively.	Sqm	0176	232.00	100.00	23,200.00	P
	Add 10 % of P for wastage and accessories for joining elements, overlap, transportation etc.			0.10		2,320.00	
	Labour:						
	Mate (Semi skilled)	Day	0003	619.00	0.12	74.28	
	Beldar (Un skilled)	Day	0025	547.00	2.00	1,094.00	
	Coolie (Un skilled)	Day	0026	547.00	1.00	547.00	
						27,235.28	
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		272.35	
						27,507.63	
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		3,864.82	
						31,372.46	
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		4,705.87	
						36,078.32	
	Add for Cess @ 1%	Lumpsum	9905	0.01		360.78	
	Cost for 100 Sqm					36,439.11	
	Rate per Sqm	Sqm				364.39	

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)	
013100	Supplying & laying of drainage composite for use behind abutments, wing walls, return walls and Retaining walls Geocomposite drain (Vertical) as per RDSO Specification No. RDSO/2018/GE:IRS-0006 latest version with all material, labour, equipment, tools and plants, lead, lift etc. complete in all respects as per the direction of Engineer-in-Charge.						
	Cost for 100 Sqm						
	Material:						
	Geo-composite drain consisting of Geonet Core sandwiched between Non-Woven geo textile filters on both sides as per RDSO Specification No. RDSO/2018/GE:IRS-0006	Sqm	0177	492.00	100.00	49,200.00	P
	Add 10 % of P for wastage and accessories for joining elements, overlap, transportation, perforated pipes etc.			0.10		4,920.00	
	Labour:						
	Mate (Semi skilled)	Day	0003	619.00	0.12	74.28	
	Beldar (Un skilled)	Day	0025	547.00	2.00	1,094.00	
	Coolie (Un skilled)	Day	0026	547.00	1.00	547.00	
						55,835.28	
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		558.35	
						56,393.63	
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		7,923.31	
						64,316.94	
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		9,647.54	
						73,964.48	
	Add for Cess @ 1%	Lumpsum	9905	0.01		739.64	
	Cost for 100 Sqm					74,704.12	
	Rate per Sqm	Sqm				747.04	

CHAPTER - 2 : Bridge Works - Substructure

Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
021000	Soil Exploration and Testing					
021010	Exploratory drilling of boreholes down to required depth, drilling of 150mm dia. boreholes in all type of soils except hard rock & large boulders (boulder core more than 30cm) including refilling, reinstating surface and disposing off surplus material including use of mechanical rigs with power operated winches as well as percussion/chiselling tool for advancing through occasional seams of hard strata to be employed, where necessary in Dry area.					
021011	0m to 10m					
	Exploratory drilling of boreholes of 150mm dia. in all type of soils except hard rock / large boulders (boulder core more than 30cm), for collecting the undisturbed core sample including refilling, reinstating surface and disposing off surplus material including use of mechanical rigs with power operated winches as well as percussion/chiselling tool for advancing through occasional seams of hard strata, where necessary with contractor's labour, tools, plants, machinery, equipment, consumables etc., with all lead and lift complete as per specifications and as directed by the Engineer-in-charge in Dry area 0-10m	Metre	0371	950.00	1.00	950.00
						950.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		9.50
	Total					959.50
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		134.81
						1,094.31
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		164.15
						1,258.46
	Add for Cess @ 1%	Lumpsum	9905	0.01		12.58
	Cost per meter	Metre				1,271.04

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
021012	10m to 20m					
	Exploratory drilling of boreholes of 150mm dia. in all type of soils except hard rock / large boulders (boulder core more than 30cm), for collecting the undisturbed core sample including refilling, reinstating surface and disposing off surplus material including use of mechanical rigs with power operated winches as well as percussion/chieselling tool for advancing through occasional seams of hard strata, where necessary with contractor's labour, tools, plants, machinery, equipment, consumables etc., with all lead and lift complete as per specifications and as directed by the Engineer-in-charge in Dry area 10m-20m	Metre	0372	913.00	1.00	913.00
						913.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		9.13
	Total					922.13
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		129.56
						1,051.69
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		157.75
						1,209.44
	Add for Cess @ 1%	Lumpsum	9905	0.01		12.09
	Cost per meter	Metre				1,221.54
021013	20m to 30m					
	Exploratory drilling of boreholes of 150mm dia. in all type of soils except hard rock / large boulders (boulder core more than 30cm), for collecting the undisturbed core sample including refilling, reinstating surface and disposing off surplus material including use of mechanical rigs with power operated winches as well as percussion/chieselling tool for advancing through occasional seams of hard strata, where necessary with contractor's labour, tools, plants, machinery, equipment, consumables etc., with all lead and lift complete as per specifications and as directed by the Engineer-in-charge in Dry area 20m-30m	Metre	0373	1083.00	1.00	1,083.00

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
						1,083.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		10.83
						1,093.83
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		153.68
						1,247.51
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		187.13
						1,434.64
	Add for Cess @ 1%	Lumpsum	9905	0.01		14.35
	Cost per meter	Metre				1,448.99
021014	30m to 40m					
	Exploratory drilling of boreholes of 150mm dia. in all type of soils except hard rock / large boulders (boulder core more than 30cm), for collecting the undisturbed core sample including refilling, reinstating surface and disposing off surplus material including use of mechanical rigs with power operated winches as well as percussion/chieselling tool for advancing through occasional seams of hard strata, where necessary with contractor's labour, tools, plants, machinery, equipment, consumables etc., with all lead and lift complete as per specifications and as directed by the Engineer-in-charge in Dry area 30m-40m	Metre	0374	1080.00	1.00	1,080.00
						1,080.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		10.80
						1,090.80
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		153.26
						1,244.06
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		186.61
						1,430.67
	Add for Cess @ 1%	Lumpsum	9905	0.01		14.31
	Cost per meter	Metre				1,444.97

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
021015	40m to 50m					
	Exploratory drilling of boreholes of 150mm dia. in all type of soils except hard rock / large boulders (boulder core more than 30cm), for collecting the undisturbed core sample including refilling, reinstating surface and disposing off surplus material including use of mechanical rigs with power operated winches as well as percussion/chieselling tool for advancing through occasional seams of hard strata, where necessary with contractor's labour, tools, plants, machinery, equipment, consumables etc., with all lead and lift complete as per specifications and as directed by the Engineer-in-charge in Dry area 40m-50m	Metre	0375	1113.00	1.00	1,113.00
						1,113.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		11.13
						1,124.13
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		157.94
						1,282.07
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		192.31
						1,474.38
	Add for Cess @ 1%	Lumpsum	9905	0.01		14.74
	Cost per meter	Metre				1,489.12
021016	50m to 60m					

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Exploratory drilling of boreholes of 150mm dia. in all type of soils except hard rock / large boulders (boulder core more than 30cm), for collecting the undisturbed core sample including refilling, reinstating surface and disposing off surplus material including use of mechanical rigs with power operated winches as well as percussion/chieselling tool for advancing through occasional seams of hard strata, where necessary with contractor's labour, tools, plants, machinery, equipment, consumables etc., with all lead and lift complete as per specifications and as directed by the Engineer-in-charge in Dry area 50m-60m	Metre	0376	1388.00	1.00	1,388.00
						1,388.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		13.88
						1,401.88
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		196.96
						1,598.84
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		239.83
						1,838.67
	Add for Cess @ 1%	Lumpsum	9905	0.01		18.39
	Cost per meter	Metre				1,857.06
021017	60 m to 70 m					
	Exploratory drilling of boreholes of 150mm dia. in all type of soils except hard rock / large boulders (boulder core more than 30cm), for collecting the undisturbed core sample including refilling, reinstating surface and disposing off surplus material including use of mechanical rigs with power operated winches as well as percussion/chieselling tool for advancing through occasional seams of hard strata, where necessary with contractor's labour, tools, plants, machinery, equipment, consumables etc., with all lead and lift complete as per specifications and as directed by the Engineer-in-charge in Dry area 60m-70m	Metre	0377	1690.00	1.00	1,690.00
						1,690.00

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		16.90
						1,706.90
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		239.82
						1,946.72
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		292.01
						2,238.73
	Add for Cess @ 1%	Lumpsum	9905	0.01		22.39
	Cost per meter	Metre				2,261.11
021020	Exploratory drilling of Boreholes down to required depth, drilling of 150mm diameter boreholes in all type of soils except hard rock and large boulders (boulder core more than 30cm), including refilling, reinstating surface and disposing off surplus material including use of mechanical rigs with power operated winches as well as percussion / chiselling tool for advancing through occasional seams of hard strata to be employed where necessary in River bed area including standing/flowing water with all necessary arrangements except making of platform under water which shall be paid under relevant item of SOR.					
021021	0m to 10m					
	Rate as per item no 021011 for drilling in dry area	Metre	021011			1,271.04
	Add extra for doing drilling in water 20% over item no 021011				0.20	254.21
	Cost per meter	Metre				1,525.25
021022	10m to 20m					
	Rate as per item no 021012 for drilling in dry area	Metre	021012			1,221.54
	Add extra for doing drilling in water 20% over item no 021012				0.20	244.31
	Cost per meter	Metre				1,465.84
021023	20m to 30m					

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Rate as per item no 021013 for drilling in dry area	Metre	021013			1,448.99
	Add extra for doing drilling in water 20% over item no 021013				0.20	289.80
	Cost per meter	Metre				1,738.78
021024	30m to 40m					
	Rate as per item no 021014 for drilling in dry area	Metre	021014			1,444.97
	Add extra for doing drilling in water 20% over item no 021014				0.20	288.99
	Cost per meter	Metre				1,733.97
021025	40m to 50m					
	Rate as per item no 021015 for drilling in dry area	Metre	021015			1,489.12
	Add extra for doing drilling in water 20% over item no 021015				0.20	297.82
	Cost per meter	Metre				1,786.95
021026	50m to 60m					
	Rate as per item no 021016 for drilling in dry area	Metre	021016			1,857.06
	Add extra for doing drilling in water 20% over item no 021016				0.20	371.41
	Cost per meter	Metre				2,228.47
021027	60m to 70m					
	Rate as per item no 021017 for drilling in dry area	Metre	021017			2,261.11
	Add extra for doing drilling in water 20% over item no 021017				0.20	452.22
	Cost per meter	Metre				2,713.34
021030	Extra for 150mm dia. bore in hard Rock/large Boulder at all levels					
	Extra for 150mm dia. bore in hard Rock/large Boulder at all levels	Metre	0378	1313.00	1.00	1,313.00
						1,313.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		13.13

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
						1,326.13
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		186.32
						1,512.45
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		226.87
						1,739.32
	Add for Cess @ 1%	Lumpsum	9905	0.01		17.39
	Cost per meter	Metre				1,756.71
021040	Erection of temporary working platform to drill bore hole through flowing/standing water through river bed up to water depth of 1.5m, and dismantling after completing work and removing from the site to clear the water way.					
	Details of cost for 3m x 3m x 2m high Platform =18 cum					
	Material:					
	150 mm dia Eucalyptus Ballies	Metre	0478	187.00	104.00	19,448.00
	Salvage value to be deducted @ 10% after compensating for the cost of dismantling and removing platform from water body.				0.10	-1,944.80
	Filled sand bags (30 kg weight)	Each	0198	52.00	500.00	26,000.00
	Sundries	Lumpsum	9901	1.00	180.00	180.00
	Labour:					
	Mate (Semi skilled)	Day	0003	619.00	1.00	619.00
	Mistry (Semi skilled)	Day	0027	619.00	3.00	1,857.00
	Carpenter (Semi skilled)	Day	0007	637.00	3.00	1,911.00
	Beldar (Un skilled)	Day	0025	547.00	20.00	10,940.00
						59,010.20
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		590.10
						59,600.30
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		8,373.84
						67,974.14

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		10,196.12
						78,170.27
	Add for Cess @ 1%	Lumpsum	9905	0.01		781.70
	Cost for 18 Cum					78,951.97
	Cost per Cum	Cum				4,386.22
021050	Drilling of NX size borehole (75mm dia.) in all types of hard rock and collection of rock core samples from boreholes and preserving in boxes.					
021051	0m to 10m					
	Drilling of NX size borehole (75mm dia.) in all types of hard rock (fresh rock) and collection of rock core samples from boreholes and preserving in boxes 0m-10m	Metre	0379	2353.00	1.00	2,353.00
						2,353.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		23.53
						2,376.53
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		333.90
						2,710.43
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		406.56
						3,117.00
	Add for Cess @ 1%	Lumpsum	9905	0.01		31.17
	Cost per meter	Metre				3,148.17
021052	10m to 20m					
	Drilling of NX size borehole (75mm dia.) in all types of hard rock (fresh rock) and collection of rock core samples from boreholes and preserving in boxes 10m-20m	Metre	0380	2457.00	1.00	2,457.00
						2,457.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		24.57
						2,481.57
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		348.66

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
						2,830.23
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		424.53
						3,254.77
	Add for Cess @ 1%	Lumpsum	9905	0.01		32.55
	Cost per meter	Metre				3,287.31
021053	20m to 30m					
	Drilling of NX size borehole (75mm dia.) in all types of hard rock (fresh rock) and collection of rock core samples from boreholes and preserving in boxes 20m-30m	Metre	0381	2902.00	1.00	2,902.00
						2,902.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		29.02
						2,931.02
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		411.81
						3,342.83
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		501.42
						3,844.25
	Add for Cess @ 1%	Lumpsum	9905	0.01		38.44
	Cost per meter	Metre				3,882.70
021054	30m to 40m					
	Drilling of NX size borehole (75mm dia.) in all types of hard rock (fresh rock) and collection of rock core samples from boreholes and preserving in boxes 30m-40m	Metre	0382	2895.00	1.00	2,895.00
						2,895.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		28.95
						2,923.95
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		410.81
						3,334.76
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		500.21

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
						3,834.98
	Add for Cess @ 1%	Lumpsum	9905	0.01		38.35
	Cost per meter	Metre				3,873.33
021055	40m to 50m					
	Drilling of NX size borehole (75mm dia.) in all types of hard rock (fresh rock) and collection of rock core samples from boreholes and preserving in boxes 40m-50m	Metre	0383	3583.00	1.00	3,583.00
						3,583.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		35.83
						3,618.83
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		508.45
						4,127.28
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		619.09
						4,746.37
	Add for Cess @ 1%	Lumpsum	9905	0.01		47.46
	Cost per meter	Metre				4,793.83
021056	50m to 60m					
	Drilling of NX size borehole (75mm dia.) in all types of hard rock (fresh rock) and collection of rock core samples from boreholes and preserving in boxes 50m-60m	Metre	0384	3250.00	1.00	3,250.00
						3,250.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		32.50
						3,282.50
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		461.19
						3,743.69
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		561.55
						4,305.24
	Add for Cess @ 1%	Lumpsum	9905	0.01		43.05

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Cost per meter	Metre				4,348.30
021057	60m to 70m					
	Drilling of NX size borehole (75mm dia.) in all types of hard rock (fresh rock) and collection of rock core samples from boreholes and preserving in boxes 60m-70m	Metre	0385	3667.00	1.00	3,667.00
						3,667.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		36.67
						3,703.67
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		520.37
						4,224.04
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		633.61
						4,857.64
	Add for Cess @ 1%	Lumpsum	9905	0.01		48.58
	Cost per meter	Metre				4,906.22
021060	Conducting in-situ full size Plate Load Test (PLT) at selected location as per IS:1888 including making loading arrangements & casting of RCC/cast in-situ concrete footing as per codal provisions including excavation and refilling of trial pit.					
021061	Plate size 30cm x 30cm					
	Conducting in-situ full size Plate Load Test (PLT) at selected location as per IS:10042 including making loading arrangements & casting of RCC/cast in-situ concrete footing as per codal provisions including excavation and refilling of trial pit : Plate size- 30cm x 30cm	Each	0386	20333.00	1.00	20,333.00
						20,333.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		203.33
						20,536.33
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		2,885.35

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
						23,421.68
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		3,513.25
						26,934.94
	Add for Cess @ 1%	Lumpsum	9905	0.01		269.35
	Cost of Each	Each				27,204.29
021062	Plate size 45cm x 45cm					
	Conducting in-situ full size Plate Load Test (PLT) at selected location as per IS:10042 including making loading arrangements & casting of RCC/cast in-situ concrete footing as per codal provisions including excavation and refilling of trial pit : Plate size- 45cm x 45cm	Each	0387	20917.00	1.00	20,917.00
						20,917.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		209.17
						21,126.17
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		2,968.23
						24,094.40
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		3,614.16
						27,708.56
	Add for Cess @ 1%	Lumpsum	9905	0.01		277.09
	Cost of Each	Each				27,985.64
021063	Plate size 60cm x 60cm					
	Conducting in-situ full size Plate Load Test (PLT) at selected location as per IS:10042 including making loading arrangements & casting of RCC/cast in-situ concrete footing as per codal provisions including excavation and refilling of trial pit : Plate size- 60cm x 60cm	Each	0388	24917.00	1.00	24,917.00
						24,917.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		249.17

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
						25,166.17
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		3,535.85
						28,702.02
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		4,305.30
						33,007.32
	Add for Cess @ 1%	Lumpsum	9905	0.01		330.07
	Cost of Each	Each				33,337.39
021070	Conducting in situ Vane shear test for soil as per IS:4434					
	Conducting in situ Vane shear test for soil as per IS:4434	Each	0389	2725.00	1.00	2,725.00
						2,725.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		27.25
						2,752.25
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		386.69
						3,138.94
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		470.84
						3,609.78
	Add for Cess @ 1%	Lumpsum	9905	0.01		36.10
	Cost of Each	Each				3,645.88
021080	Conducting SCPT for soil as per IS:4968					
	Conducting SCPT for soil as per IS:4968	Each	0390	15433.00	1.00	15,433.00
						15,433.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		154.33
						15,587.33
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		2,190.02
						17,777.35
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		2,666.60

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
						20,443.95
	Add for Cess @ 1%	Lumpsum	9905	0.01		204.44
	Cost of Each	Each				20,648.39
021090	Conducting DCPT for soil as per IS:4968					
	Conducting DCPT for soil as per IS:4968	Each	0391	13717.00	1.00	13,717.00
						13,717.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		137.17
						13,854.17
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		1,946.51
						15,800.68
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		2,370.10
						18,170.78
	Add for Cess @ 1%	Lumpsum	9905	0.01		181.71
	Cost of Each	Each				18,352.49
021100	Conducting determination of California Bearing Ratio as per IS:2720					
	Conducting determination of California Bearing Ratio (CBR) as per IS:2720	Each	0392	1992.00	1.00	1,992.00
						1,992.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		19.92
						2,011.92
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		282.67
						2,294.59
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		344.19
						2,638.78
	Add for Cess @ 1%	Lumpsum	9905	0.01		26.39
	Cost of Each	Each				2,665.17

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
021110	Taking out 100mm dia. & 450mm long undisturbed samples of soil from bore holes, including provision of air tight containers for packing and, labeling incl. transporting the samples to laboratory. Piston sampler shall be used for extracting undisturbed samples where necessary. Samples shall be collected as per IS:2720.					
	Taking out 100mm dia. & 450mm long undisturbed samples of soil from bore holes, including provision of air tight containers for packing and, labelling incl. transporting the samples to laboratory. Piston sampler shall be used for extracting undisturbed samples where necessary. Samples shall be collected as per IS:2720.	Each	0393	113.00	1.00	113.00
						113.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		1.13
						114.13
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		16.04
						130.17
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		19.52
						149.69
	Add for Cess @ 1%	Lumpsum	9905	0.01		1.50
	Cost of Each	Each				151.19
021120	Taking out 100mm dia. & 450mm long disturbed samples of soil from bore holes, including provision of air tight containers for packing, labeling and transporting the samples to laboratory. Samples shall be collected as per IS:2720.					
	Taking out 100mm dia. & 450mm long disturbed samples of soil from bore holes, including provision of air tight containers for packing, labelling and transporting the samples to laboratory. Samples shall be collected as per IS:2720.	Each	0394	100.00	1.00	100.00
						100.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		1.00

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
						101.00
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		14.19
						115.19
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		17.28
						132.47
	Add for Cess @ 1%	Lumpsum	9905	0.01		1.32
	Cost of Each	Each				133.79
021130	Conducting standard penetration test as per IS:2131 at approximate 1.5m intervals in bore holes, as directed by the Engineer in charge					
	Conducting standard penetration test as per IS:2131 at approximate 1.5m intervals in bore holes, as directed by the Engineer in charge	Each	0395	575.00	1.00	575.00
						575.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		5.75
						580.75
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		81.60
						662.35
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		99.35
						761.70
	Add for Cess @ 1%	Lumpsum	9905	0.01		7.62
	Cost of Each	Each				769.31
021140	Collection of water samples at required intervals					
	Collection of water samples at required intervals	Each	0396	243.00	1.00	243.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		2.43
						245.43
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		34.48
						279.91

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		41.99
						321.90
	Add for Cess @ 1%	Lumpsum	9905	0.01		3.22
	Cost of Each	Each				325.12
021150	Conducting laboratory Tests on collected soil samples as per relevant IS code					
021151	Moisture Content/Dry Density					
	Moisture Contents/Dry Density	Each	0397	250.00	1.00	250.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		2.50
						252.50
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		35.48
						287.98
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		43.20
						331.17
	Add for Cess @ 1%	Lumpsum	9905	0.01		3.31
	Cost of Each	Each				334.48
021152	Atterberg Limits					
	Atterberg Limit	Each	0398	600.00	1.00	600.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		6.00
						606.00
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		85.14
						691.14
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		103.67
						794.81
	Add for Cess @ 1%	Lumpsum	9905	0.01		7.95
	Cost of Each	Each				802.76

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
021153	Specific Gravity					
	Specific Gravity	Each	0399	422.00	1.00	422.00
						422.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		4.22
						426.22
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		59.88
						486.10
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		72.92
						559.02
	Add for Cess @ 1%	Lumpsum	9905	0.01		5.59
	Cost of Each	Each				564.61
021154	Grain size analysis including Hydrometer analysis					
	Grain size analysis including Hydrometer analysis	Each	0400	528.00	1.00	528.00
						528.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		5.28
						533.28
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		74.93
						608.21
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		91.23
						699.44
	Add for Cess @ 1%	Lumpsum	9905	0.01		6.99
	Cost of Each	Each				706.43
021155	Direct Shear Test					
	Direct Shear Test	Each	0401	1688.00	1.00	1,688.00
						1,688.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		16.88

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
						1,704.88
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		239.54
						1,944.42
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		291.66
						2,236.08
	Add for Cess @ 1%	Lumpsum	9905	0.01		22.36
	Cost of Each	Each				2,258.44
021156	Natural Density					
	Natural Density Test	Each	0402	550.00	1.00	550.00
						550.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		5.50
						555.50
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		78.05
						633.55
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		95.03
						728.58
	Add for Cess @ 1%	Lumpsum	9905	0.01		7.29
	Cost of Each	Each				735.87
021157	Consolidation Test					
	Consolidation Test	Each	0403	2300.00	1.00	2,300.00
						2,300.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		23.00
						2,323.00
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		326.38
						2,649.38
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		397.41

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
						3,046.79
	Add for Cess @ 1%	Lumpsum	9905	0.01		30.47
	Cost of Each	Each				3,077.26
021158	Unconfined Compression Test					
	Unconfined Compression Test	Each	0404	1817.00	1.00	1,817.00
						1,817.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		18.17
						1,835.17
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		257.84
						2,093.01
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		313.95
						2,406.96
	Add for Cess @ 1%	Lumpsum	9905	0.01		24.07
	Cost of Each	Each				2,431.03
021159	Tri-axial Test					
	Tri-axial Test	Each	0405	2467.00	1.00	2,467.00
						2,467.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		24.67
						2,491.67
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		350.08
						2,841.75
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		426.26
						3,268.01
	Add for Cess @ 1%	Lumpsum	9905	0.01		32.68
	Cost of Each	Each				3,300.69

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
021160	Conducting Laboratory tests on collected ROCK SAMPLES as per relevant IS code					
021161	Density Test					
	Density Test	Each	0406	867.00	1.00	867.00
						867.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		8.67
						875.67
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		123.03
						998.70
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		149.81
						1,148.51
	Add for Cess @ 1%	Lumpsum	9905	0.01		11.49
	Cost of Each	Each				1,159.99
021162	Water Absorption & Porosity					
	Water Absorption & Porosity	Each	0407	543.00	1.00	543.00
						543.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		5.43
						548.43
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		77.05
						625.48
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		93.82
						719.31
	Add for Cess @ 1%	Lumpsum	9905	0.01		7.19
	Cost of Each	Each				726.50
021163	Hardness					
	Hardness Test	Each	0408	407.00	1.00	407.00

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
						407.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		4.07
						411.07
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		57.76
						468.83
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		70.32
						539.15
	Add for Cess @ 1%	Lumpsum	9905	0.01		5.39
	Cost of Each	Each				544.54
021164	Unconfined Compression Test					
	Unconfined Compression Test for rock	Each	0409	1617.00	1.00	1,617.00
						1,617.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		16.17
						1,633.17
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		229.46
						1,862.63
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		279.39
						2,142.02
	Add for Cess @ 1%	Lumpsum	9905	0.01		21.42
	Cost of Each	Each				2,163.45
021165	Point Load Test					
	Point Load Test	Each	0410	725.00	1.00	725.00
						725.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		7.25
						732.25
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		102.88

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
						835.13
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		125.27
						960.40
	Add for Cess @ 1%	Lumpsum	9905	0.01		9.60
	Cost of Each	Each				970.00
021166	Modulus of Elasticity					
	Modulus of Elasticity	Each	0411	3983.00	1.00	3,983.00
						3,983.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		39.83
						4,022.83
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		565.21
						4,588.04
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		688.21
						5,276.24
	Add for Cess @ 1%	Lumpsum	9905	0.01		52.76
	Cost of Each	Each				5,329.01
021167	Abrasion Testing					
	Abrasion Testing	Each	0412	610.00	1.00	610.00
						610.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		6.10
						616.10
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		86.56
						702.66
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		105.40
						808.06
	Add for Cess @ 1%	Lumpsum	9905	0.01		8.08

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Cost of Each	Each				816.14
021170	Conducting chemical analysis of ground water samples to determine suitability for concreting and aggressiveness in relation to attack on concrete / reinforcement including determination of pH value.					
	Conducting chemical analysis of ground water samples to determine suitability for concreting and aggressiveness in relation to attack on concrete / reinforcement including determination of pH value	Each	0413	2000.00	1.00	2,000.00
						2,000.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		20.00
						2,020.00
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		283.81
						2,303.81
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		345.57
						2,649.38
	Add for Cess @ 1%	Lumpsum	9905	0.01		26.49
	Cost of Each	Each				2,675.88
021180	Conducting chemical analysis of soil samples to determine aggressiveness in relation to attack on concrete / reinforcement including determination of pH value					
	Conducting chemical analysis of soil samples to determine aggressiveness in relation to attack on concrete / reinforcement including determination of pH value	Each	0414	1967.00	1.00	1,967.00
						1,967.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		19.67
						1,986.67
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		279.13
						2,265.80
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		339.87

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
						2,605.67
	Add for Cess @ 1%	Lumpsum	9905	0.01		26.06
	Cost of Each	Each				2,631.72
022000	Open Foundation and Pile Foundation					
022010	Earthwork in excavation by mechanical means (Hydraulic Excavator)/Manual Means for foundations and floors of the bridges, retaining walls etc. including setting out, dressing of sides, ramming of bottom, getting out the excavated material, back filling in layers with approved material and consolidation of the layers by ramming and watering etc. including all lift, disposal of surplus soil up to a lead of 300m, all types of shoring and strutting with all labour and material complete as per drawing and technical specification as directed by Engineer in charge. Note: This item will be used for excavation work in connection with other miscellaneous works also like side drains, foundation for OHE masts and other miscellaneous structures in connection with Gauge Conversion, Doubling, New lines.					
022011	All kinds of soils					
	Ordinary soil					
	Unit = cum					
	Taking output = 10 cum					
	Mechanical Means					
	Machinery:					
	Hire Charges of Crawler mounted 3D Hydraulic Excavator 148 HP (0.9 Cum Bucket Capacity)	Day	0501	10423.00	0.04	429.95
	Hire and running charges of Tipper 12 Cum Capacity	Day	0509	6317.85	0.04	260.61
	Labour:					
	Mate (Skilled)	Day	0002	751.00	0.32	240.32
	Coolie (Un skilled)	Day	0026	547.00	1.20	656.40

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
						1,587.28
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		15.87
						1,603.15
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		225.24
						1,828.40
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		274.26
						2,102.66
	Add for Cess @ 1%	Lumpsum	9905	0.01		21.03
	Cost of 10 cum					2,123.68
	Rate per cum	Cum				212.37
022012	Soft rock (not requiring blasting)					
	Depth up to 3 m					
	Unit = cum					
	Taking output = 10 cum					
	Machinery:					
	Hire Charges of Crawler mounted 3D Hydraulic Excavator 148 HP (0.9 Cum Bucket Capacity)	Day	0501	10423.00	0.06	656.65
	Hire and running charges of Tipper 12 Cum Capacity	Day	0509	6317.85	0.06	398.02
	Rock Excavator (Semi skilled)	Day	0014	660.00	0.71	465.30
	Rock Breaker (Semi skilled)	Day	0015	660.00	1.59	1,049.40
	Rock Hole Driller (Semi skilled)	Day	0016	627.00	0.36	222.59
	Labour:					
	Beldar (Un skilled)	Day	0025	547.00	0.50	273.50
	Coolie (Un skilled)	Day	0026	547.00	0.55	300.85
	Sundries	Lumpsum	9901	1.00	10.00	10.00
						3,376.31
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		33.76

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
						3,410.07
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		479.12
						3,889.19
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		583.38
						4,472.56
	Add for Cess @ 1%	Lumpsum	9905	0.01		44.73
	Cost of 10 cum					4,517.29
	Rate per cum	Cum				451.73
022013	Hard rock (requiring blasting)					
	Depth up to 3 m					
	Unit = cum					
	Taking output = 10 cum					
	Machinery:					
	Hire Charges of Crawler mounted 3D Hydraulic Excavator 148 HP (0.9 Cum Bucket Capacity)	Day	0501	10423.00	0.13	1,302.88
	Hire and running charges of Tipper 12 Cum Capacity	Day	0509	6317.85	0.13	789.73
	Rock Excavator (Semi skilled)	Day	0014	660.00	1.06	699.60
	Rock Breaker (Semi skilled)	Day	0015	660.00	2.83	1,864.50
	Rock Hole Driller (Semi skilled)	Day	0016	627.00	0.89	554.90
	Labour:					
	Beldar (Un skilled)	Day	0025	547.00	0.45	246.15
	Coolie (Un skilled)	Day	0026	547.00	0.55	300.85
	Material:					
	Blasting Powder	Kg	0169	98.00	3.93	385.14
	Blasting Fuse (Fuse Wire)	Each	0170	41.00	4.00	164.00
	Sundries	Lumpsum	9901	1.00	20.00	20.00
						6,327.74

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		63.28
						6,391.02
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		897.94
						7,288.96
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		1,093.34
						8,382.30
	Add for Cess @ 1%	Lumpsum	9905	0.01		83.82
	Cost of 10 Cum					8,466.12
	Rate per Cum	Cum				846.61
022014	Hard rock (blasting prohibited)					
	Unit = cum					
	Taking output = 10 cum					
	Machinery:					
	Hire Charges of Crawler mounted 3D Hydraulic Excavator 148 HP (0.9 Cum Bucket Capacity)	Day	0501	10423.00	0.13	1,302.88
	Hire and running charges of Tipper 12 Cum Capacity	Day	0509	6317.85	0.13	789.73
	Rock Excavator (Semi skilled)	Day	0014	660.00	2.47	1,630.20
	Rock Breaker (Semi skilled)	Day	0015	660.00	6.00	3,960.00
	Stone Chiseller (Semi skilled)	Day	0017	627.00	1.06	664.62
	Labour:					
	Blacksmith - 2nd Class (Semi-skilled)	Day	0009	649.00	0.18	113.58
	Beldar (Un skilled)	Day	0025	547.00	0.75	410.25
	Coolie (Un skilled)	Day	0026	547.00	1.00	547.00
	Sundries	Lumpsum	9901	1.00	20.00	20.00
						9,438.25
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		94.38
						9,532.63

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		1,339.34
						10,871.97
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		1,630.80
						12,502.76
	Add for Cess @ 1%	Lumpsum	9905	0.01		125.03
	Cost of 10 Cum					12,627.79
	Rate per Cum	Cum				1,262.78
022020	Extra over item nos. 022011 to 022014 for executing the work under water and/or liquid mud to compensate all additional arrangements including pumping out water as required. Note: The extra percentage rate is applicable only for the quantity of work executed under water.					
	Extra due to slow progress and dewatering of the rate of the item	Cum				20%
022030	Providing and laying in position Plain cement concrete of specified Nominal Mix for miscellaneous works like side drains, foundation for OHE masts and other miscellaneous structures excluding the cost of Cement, centering and shuttering - All work up to plinth level :					
022031	1:1½:3 (1 Cement: 1½ coarse sand (zone-III) : 3 graded stone aggregate 20 mm nominal size)					
	Details of cost for 15 cum.					
	Material:					
	Stone Aggregate (Single size) : 20 mm nominal size	Cum	0204	1017.00	8.55	8,695.35
	Stone Aggregate (Single size) : 10 mm nominal size	Cum	0205	983.00	4.20	4,128.60
	Coarse Sand (Zone III)	Cum	0199	2083.00	6.38	13,289.54
	Labour:					
	Mate (Semi skilled)	Day	0003	619.00	0.64	396.16

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Mason 2nd class (Semi-skilled)	Day	0005	662.00	1.00	662.00
	Coolie (Un skilled)	Day	0026	547.00	15.00	8,205.00
	Machinery:					
	Hire charges of Concrete Mixer 0.25 to 0.40 cubic metre capacity	Day	0069	1250.00	0.75	937.50
	Hire charges of 25 KVA Generator	Day	0073	1817.00	0.75	1,362.75
	Hire charges of Pin Vibrator	Day	0078	483.00	0.75	362.25
	Sundries	Lumpsum	9901	1.00	100.00	100.00
	TOTAL					38,139.15
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		381.39
						38,520.54
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		5,412.14
						43,932.68
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		6,589.90
						50,522.58
	Add for Cess @ 1%	Lumpsum	9905	0.01		505.23
	Cost for 15 Cum.					51,027.81
	Rate per Cum	Cum				3,401.85
022032	1:2:4 (1 cement : 2 coarse sand (zone-III) : 4 graded stone aggregate 20 mm nominal size)					
	Details of cost for 15 cum.					
	Material:					
	Stone Aggregate (Single size) : 20 mm nominal size	Cum	0204	1017.00	8.96	9,112.32
	Stone Aggregate (Single size) : 10 mm nominal size	Cum	0205	983.00	4.48	4,403.84
	Coarse Sand (Zone III)	Cum	0199	2083.00	6.68	13,904.03
	Labour:					
	Mate (Semi skilled)	Day	0003	619.00	0.64	396.16
	Mason 2nd class (Semi-skilled)	Day	0005	662.00	1.00	662.00

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Coolie (Un skilled)	Day	0026	547.00	15.00	8,205.00
	Machinery:					
	Hire charges of Concrete Mixer 0.25 to 0.40 cubic metre capacity	Day	0069	1250.00	0.75	937.50
	Hire charges of 25 KVA Generator	Day	0073	1817.00	0.75	1,362.75
	Hire charges of Pin Vibrator	Day	0078	483.00	0.75	362.25
	Sundries	Lumpsum	9901	1.00	100.00	100.00
						39,445.85
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		394.46
						39,840.30
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		5,597.56
						45,437.87
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		6,815.68
						52,253.55
	Add for Cess @ 1%	Lumpsum	9905	0.01		522.54
	Cost for 15 Cum.					52,776.08
	Rate per Cum	Cum				3,518.41
022033	1:2:4 (1 Cement : 2 coarse sand (zone-III) : 4 graded stone aggregate 40 mm nominal size)					
	Details of cost for 15 cum.					
	Material:					
	Stone Aggregate (Single size) : 40 mm nominal size	Cum	0203	958.00	8.22	7,874.76
	0.56 - (7.5% for voids i.e.) 0.04 = 0.52 cum					
	Stone Aggregate (Single size) : 20 mm nominal size	Cum	0204	1017.00	3.48	3,539.16
	Stone Aggregate (Single size) : 10 mm nominal size	Cum	0205	983.00	1.74	1,710.42
	Coarse Sand (Zone III)	Cum	0199	2083.00	6.75	14,060.25
	Labour:					
	Mate (Semi skilled)	Day	0003	619.00	0.64	396.16

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Mason 2nd class (Semi-skilled)	Day	0005	662.00	1.00	662.00
	Coolie (Un skilled)	Day	0026	547.00	15.00	8,205.00
	Machinery:					
	Hire charges of Concrete Mixer 0.25 to 0.40 cubic metre capacity	Day	0069	1250.00	0.75	937.50
	Hire charges of 25 KVA Generator	Day	0073	1817.00	0.75	1,362.75
	Hire charges of Pin Vibrator	Day	0078	483.00	0.75	362.25
	Sundries	Lumpsum	9901	1.00	100.00	100.00
	TOTAL					39,210.25
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		392.10
						39,602.35
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		5,564.13
						45,166.48
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		6,774.97
						51,941.46
	Add for Cess @ 1%	Lumpsum	9905	0.01		519.41
	Cost for 15 Cum.					52,460.87
	Rate per Cum	Cum				3,497.39
022034	1:3:6 (1 Cement : 3 coarse sand (zone-III) : 6 graded stone aggregate 20 mm nominal size)					
	Details of cost for 15 cum.					
	Material:					
	Stone Aggregate (Single size) : 20 mm nominal size	Cum	0204	1017.00	9.24	9,397.08
	Stone Aggregate (Single size) : 10 mm nominal size	Cum	0205	983.00	4.62	4,541.46
	Coarse Sand (Zone III)	Cum	0199	2083.00	7.05	14,685.15
	Labour:					
	Mate (Semi skilled)	Day	0003	619.00	0.64	396.16
	Mason 2nd class (Semi-skilled)	Day	0005	662.00	1.00	662.00

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Coolie (Un skilled)	Day	0026	547.00	15.00	8,205.00
	Machinery:					
	Hire charges of Concrete Mixer 0.25 to 0.40 cubic metre capacity	Day	0069	1250.00	0.75	937.50
	Hire charges of 25 KVA Generator	Day	0073	1817.00	0.75	1,362.75
	Hire charges of Pin Vibrator	Day	0078	483.00	0.75	362.25
	Sundries	Lumpsum	9901	1.00	100.00	100.00
	TOTAL					40,649.35
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		406.49
						41,055.84
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		5,768.35
						46,824.19
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		7,023.63
						53,847.82
	Add for Cess @ 1%	Lumpsum	9905	0.01		538.48
	Cost for 15 Cum.					54,386.30
	Rate per Cum	Cum				3,625.75
022035	1:3:6 (1 Cement : 3 coarse sand (zone-III): 6 graded stone aggregate 40 mm nominal size).					
	Details of cost for 15 cum.					
	Material:					
	Stone Aggregate (Single size) : 40 mm nominal size	Cum	0203	958.00	9.24	8,851.92
	(0.70 cum - 7.5% for voids i.e. 0.05 = 0.65 cum)					
	Stone Aggregate (Single size) : 20 mm nominal size	Cum	0204	1017.00	4.62	4,698.54
	Coarse Sand (Zone III)	Cum	0199	2083.00	6.75	14,060.25
	Labour:					
	Mate (Semi skilled)	Day	0003	619.00	0.64	396.16
	Mason 2nd class (Semi-skilled)	Day	0005	662.00	1.00	662.00

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Coolie (Un skilled)	Day	0026	547.00	15.00	8,205.00
	Machinery:					
	Hire charges of Concrete Mixer 0.25 to 0.40 cubic metre capacity	Day	0069	1250.00	0.75	937.50
	Hire charges of 25 KVA Generator	Day	0073	1817.00	0.75	1,362.75
	Hire charges of Pin Vibrator	Day	0078	483.00	0.75	362.25
	Sundries	Lumpsum	9901	1.00	100.00	100.00
	TOTAL					39,636.37
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		396.36
						40,032.73
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		5,624.60
						45,657.33
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		6,848.60
						52,505.93
	Add for Cess @ 1%	Lumpsum	9905	0.01		525.06
	Cost for 15 Cum.					53,030.99
	Rate per Cum	Cum				3,535.40
022036	1:4:8 (1 Cement : 4coarse sand (zone-III): 8 graded stone aggregate 40 mm nominal size).					
	Details of cost for 15 cum.					
	Material:					
	Stone Aggregate (Single size) : 40 mm nominal size	Cum	0203	958.00	9.52	9,120.16
	(0.70 cum - 7.5% for voids i.e. 0.05 = 0.65 cum)					
	Stone Aggregate (Single size) : 20 mm nominal size	Cum	0204	1017.00	4.76	4,840.92
	Coarse Sand (Zone III)	Cum	0199	2083.00	6.75	14,060.25
	Labour:					
	Mate (Semi skilled)	Day	0003	619.00	0.64	396.16
	Mason 2nd class (Semi-skilled)	Day	0005	662.00	1.00	662.00

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Coolie (Un skilled)	Day	0026	547.00	15.00	8,205.00
	Machinery:					
	Hire charges of Concrete Mixer 0.25 to 0.40 cubic metre capacity	Day	0069	1250.00	0.75	937.50
	Hire charges of 25 KVA Generator	Day	0073	1817.00	0.75	1,362.75
	Hire charges of Pin Vibrator	Day	0078	483.00	0.75	362.25
	Sundries	Lumpsum	9901	1.00	100.00	100.00
						40,046.99
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		400.47
						40,447.46
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		5,682.87
						46,130.33
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		6,919.55
						53,049.88
	Add for Cess @ 1%	Lumpsum	9905	0.01		530.50
	Cost for 15 Cum.					53,580.38
	Rate per Cum	Cum				3,572.03

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
022040	Providing and laying in position machine batched, machine mixed and machine vibrated Cement Concrete of specified grade as per approved Design Mix (mixed in Mobile Concrete Batching/Mixing Plant at site or RMC from approved plants) using 20mm graded crushed stone aggregate and coarse sand of approved quality in RCC raft foundation & Pile cap including finishing, using Plasticiser in approved proportions (as per IS:9103), to modify workability without impairing strength and durability complete as per specifications and direction of the Engineer in charge. Note: 1. Payment for cement, reinforcement and shuttering shall be made extra under relevant item. 2. Plasticiser shall invariably be used in approved proportion to increase workability with minimum possible quantity of cement for all grade of Design Mix Concrete unless it is specifically approved citing reasons for not using plasticiser at the stage of Mix Design and in that case deduction shall be made as per relevant item.					
	RCC Grade Concrete					
	Using Mobile Concrete Batching/Mixing Plant					
	Taking output = 120 cum					
	Material:					
	Coarse Sand (Zone III)	Cum	0199	2083.00	54.00	112,482.00
	Stone Aggregate (Single size) : 20 mm nominal size	Cum	0204	1017.00	64.80	65,901.60
	Stone Aggregate (Single size) : 10 mm nominal size	Cum	0205	983.00	43.20	42,465.60
	Plasticiser / Super Plasticiser	Kg	0190	140.00	202.56	28,358.40
	Labour:					
	Mate (Semi skilled)	Day	0003	619.00	0.84	519.96
	Mason 1st class (Skilled)	Day	0004	718.00	3.00	2,154.00
	Coolie (Un skilled)	Day	0026	547.00	18.00	9,846.00

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Machinery:					
	Mobile Concrete Batching/Mixing Plant @ 20 cum/hour	Hour	0066	1513.00	6.00	9,078.00
	Hire Charges of Generator 100 KVA/125 KVA	Day	0075	3083.00	0.75	2,312.25
	Hire Charges of JCB 3DX Plus Backhoe Loader	Day	0506	4966.80	0.75	3,725.10
	Hire charges of Pin Vibrator	Day	0078	483.00	4.00	1,932.00
	Hire charges of surface vibrator	Day	0079	483.00	4.00	1,932.00
	Concrete Pump	Hour	0067	900.00	6.00	5,400.00
	Hire charges of Transit Mixer 6 cum capacity	Hour	0068	1700.00	15.00	25,500.00
	Sundries	Lumpsum	9901	1.00	580.00	580.00
	Total					312,186.91
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		3,121.87
						315,308.78
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		44,300.88
						359,609.66
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		53,941.45
						413,551.11
	Add for Cess @ 1%	Lumpsum	9905	0.01		4,135.51
	Cost of 120 Cum					417,686.62
	Rate per Cum	Cum				3,480.72

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
022050	Providing and laying in position machine batched, machine mixed and machine vibrated Cement Concrete of specified grade as per approved Design Mix (mixed in Mobile Concrete Batching/Mixing Plant at site or RMC from approved plants) using 20mm graded crushed stone aggregate and coarse sand of approved quality for the following Reinforced cement concrete structural elements up to height of 9.0 m from foundation top level, including finishing, using Plasticiser in approved proportions (as per IS:9103), to modify workability without impairing strength and durability complete as per specifications and direction of the Engineer in charge. Note: 1. Payment for cement, reinforcement and shuttering shall be made extra under relevant item. 2. Plasticiser shall invariably be used in approved proportion to increase workability with minimum possible quantity of cement for all grade of Design Mix Concrete unless it is specifically approved citing reasons for not using plasticiser at the stage of Mix Design and in that case deduction shall be made as per relevant item.					
022051	Abutment & Pier					
	Rate same as for item 022040	Cum	022040	3480.72	1.00	3,480.72
	Additional cost up to 9 metre average height @10% on the cost of labour and machinery as per analysis item no. 022040 for 1 cum i.e. 10% on Cost of labour and machinery for 120 Cum before adding CPOH, GST etc multiplied by $(1.01*1.1405*1.15*1.01)/120$.	Cum	022040	695.70	0.10	69.57
	Cost per cum	Cum				3,550.29
022052	Wing wall and Return wall					
	Rate same as item no.022051					
	Cost per cum	Cum				3,550.29

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
022053	Abutment cap, Pier Cap, Inspection Platform & Pedestal over Pier cap, Fender wall, Diaphragm wall etc.					
	Rate same as item 022040	Cum	022040	3480.72	1.00	3,480.72
	Add extra for height @15% on the Cost of labour and machinery as per analysis of item no. 022040 for 1 cum i.e. 15% on Cost of labour and machinery for 120 Cum before adding CPOH, GST etc multiplied by $(1.01 \times 1.1405 \times 1.15 \times 1.01) / 120$.	Cum	022040	695.72	0.15	104.36
	Cost per cum	Cum				3,585.08
022054	Approach slab at formation level, Dirt wall/ ballast wall at formation level					
	Rate same as item 022040	Cum	022040	3480.72	1.00	3,480.72
	Additional cost for thin section and slanting height @5% on the cost of labour and machinery as per analysis of item no. 022040 for 1 cum i.e. 5% on Cost of labour and machinery for 120 Cum before adding CPOH, GST etc multiplied by $(1.01 \times 1.1405 \times 1.15 \times 1.01) / 120$.	Cum	022040	695.72	0.05	34.79
	Cost per cum	Cum				3,515.51
022055	Extra for every increase of 1m or part thereof in the height above 9.0 m					
	Taking output = 120 Cum considering increase in cost of labour and machinery in proportion of height i.e. 10% per meter.					
	Additional cost of labour per meter height @10% on Cost of labour and machinery for 120 Cum as per analysis of item no. 022040 before adding overheads and other percentages like GST, CPOH etc.	120 Cum	022040	62399.31	0.10	6,239.93
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		62.40
						6,302.33
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		885.48
						7,187.81
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		1,078.17

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
						8,265.98
	Add for Cess @ 1%	Lumpsum	9905	0.01		82.66
	Cost for 120 Cum					8,348.64
	Cost/Cum/m height or part thereof	Cum				69.57
022060	Providing and laying Plain Cement Concrete 1:3:6 with graded stone aggregate of 40mm nominal size, in foundation and floors, retaining walls of bridges including mechanical mixing, vibrating, pumping and bailing out water where ever required with all materials and labour complete but excluding the cost of cement and shuttering as per drawings and technical specifications as directed by Engineer.					
	CC 1:3:6					
	Taking output = 15 cum					
	Material:					
	Stone Aggregate (Single size) : 40 mm nominal size	Cum	0203	958.00	9.75	9,340.50
	Stone Aggregate (Single size) : 20 mm nominal size	Cum	0204	1017.00	3.60	3,661.20
	Coarse Sand (Zone III)	Cum	0199	2083.00	6.75	14,060.25
	Labour:					
	Mate (Semi skilled)	Day	0003	619.00	0.64	396.16
	Mason 2nd class (Semi-skilled)	Day	0005	662.00	1.00	662.00
	Coolie (Un skilled)	Day	0026	547.00	15.00	8,205.00
	Machinery:					
	Hire charges of Concrete Mixer 0.25 to 0.40 cubic metre capacity	Day	0069	1250.00	0.75	937.50
	Hire charges of 25 KVA Generator	Day	0073	1817.00	0.75	1,362.75
	Hire charges of Pin Vibrator	Day	0078	483.00	1.00	483.00
	Hire charges of surface vibrator	Day	0079	483.00	1.00	483.00
	Sundries	Lumpsum	9901	1.00	500.00	500.00
						40,091.36
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		400.91

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
						40,492.27
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		5,689.16
						46,181.44
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		6,927.22
						53,108.65
	Add for Cess @ 1%	Lumpsum	9905	0.01		531.09
	Cost of 15 Cum					53,639.74
	Rate per Cum	Cum				3,575.98
022070	Providing and fixing Weep Holes in Abutments, Wing walls and Return walls etc., of new bridges with 110mm dia UPVC pipe Type A ISI marked with all contractor's men, material, transportation, all taxes as per specifications and as directed by Engineer-in-Charge.					
	Unit Each Metre					
	Taking output = 30 Metres					
	Material:					
	uPVC Pipe- type A ISI marked 110mm dia (working pressure 4Kg/cm ²)	Metre	0259	222.00	31.50	6,993.00
	Labour:					
	Mason 1st class (Skilled)	Day	0004	718.00	0.10	71.80
	Beldar (Un skilled)	Day	0025	547.00	0.10	54.70
	Machinery:					
	Sundries	Lumpsum	9901	1.00	50.00	50.00
						7,169.50
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		71.70
						7,241.20
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		1,017.39
						8,258.58
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		1,238.79

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
						9,497.37
	Add for Cess @ 1%	Lumpsum	9905	0.01		94.97
	Cost for 30 m					9,592.34
	Cost per m	Metre				319.74
022080	Boring, providing and installation of bored cast in-situ Reinforced Cement Concrete piles of specified diameter and length below pile cap of specified grade with Design Mix Cement Concrete, using 20mm graded crushed stone aggregate and coarse sand of approved quality, to carry a safe working load not less than specified, concreting by machine batching, machine mixing, scaffolding, using Admixture in approved proportion (as per IS:9103), placing with tremie pipe, chipping off of pile top to remove laitance concrete above cut off level etc., pumping and bailing out water, by percussion drilling using Direct Mud Circulation (DMC) or Bailor and Chisel technique by tripod and mechanical Winch machine, complete in all respect as per approved drawing, specification and direction of the Engineer in charge. Note: 1. Payment for only cement, reinforcement and permanent casing pipe (if any) shall be made extra. 2. Length of the pile for payment shall be measured up to the bottom of RCC pile cap. 3. Plasticiser shall invariably be used in approved proportion to increase workability with minimum possible quantity of cement for all grade of Design Mix Concrete unless it is specifically approved citing reasons for not using plasticiser at the stage of Mix Design and in that case deduction shall be made as per relevant item.					
022081	1500 mm diameter					
	Unit = metre					

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Taking output = 9m					
	Machinery:					
	Hire and running charges of Tripod and Mechanical Winch machine complete with power unit and accessories etc. and shifting at site including maintenance and cost of fuel / lubricants & operators for running	Day	0061	3033.00	1.54	4,670.82
	Hire and running charges of light crane 5 MT capacity	Day	0087	4650.00	0.10	465.00
	Hire and running charges of Bentonite pump	Day	0063	3533.00	0.96	3,391.68
	Hire and running charges of Tipper 12 Cum Capacity	Day	0509	6317.85	0.75	4,738.39
	Hire Charges of JCB 3DX Plus Backhoe Loader	Day	0506	4966.80	0.75	3,725.10
	Bentonite powder	MT	0171	5200.00	0.45	2,340.00
	Labour:					
	Mate (Semi skilled)	Day	0003	619.00	0.25	154.75
	Beldar (Un skilled)	Day	0025	547.00	7.04	3,850.88
	Misc.:					
	Sundries	Lumpsum	9901	1.00	600.00	600.00
						23,936.62
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		239.37
						24,175.98
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		3,396.73
						27,572.71
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		4,135.91
						31,708.62
	Add for Cess @ 1%	Lumpsum	9905	0.01		317.09
						32,025.70
	Cost of concrete (quantity required for 9 m = 15.91 cum) except cement as per item no. 022040		022040	3480.72	15.91	55,378.28
	Cost of 9 m					87,403.99
	Rate per metre	Metre				9,711.55

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
022082	1200mm diameter					
	Pile diameter = 1200mm					
	Unit = metre					
	Taking output = 9m					
	Machinery:					
	Hire and running charges of Tripod and Mechanical Winch machine complete with power unit and accessories etc. and shifting at site including maintenance and cost of fuel / lubricants & operators for running	Day	0061	3033.00	1.34	4,064.22
	Hire and running charges of light crane 5 MT capacity	Day	0087	4650.00	0.06	279.00
	Hire and running charges of Bentonite pump	Day	0063	3533.00	0.75	2,649.75
	Hire Charges of JCB 3DX Plus Backhoe Loader	Day	0506	4966.80	0.50	2,483.40
	Hire and running charges of Tipper 12 Cum Capacity	Day	0509	6317.85	0.50	3,158.93
	Bentonite powder	MT	0171	5200.00	0.39	2,028.00
	Labour:					
	Mate (Semi skilled)	Day	0003	619.00	0.18	111.42
	Beldar (Un skilled)	Day	0025	547.00	4.50	2,461.50
	Misc.:					
	Sundries	Lumpsum	9901	1.00	300.00	300.00
						17,536.22
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		175.36
						17,711.58
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		2,488.48
						20,200.05
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		3,030.01
						23,230.06
	Add for Cess @ 1%	Lumpsum	9905	0.01		232.30
						23,462.36

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Cost of concrete (quantity required for 9 m = 10.17 cum) except cement as per item no. 022040		022040	3480.72	10.17	35,398.94
	Cost of 9 m					58,861.30
	Rate per metre	Metre				6,540.14
022083	1000mm diameter					
	Pile diameter = 1000mm					
	Unit = metre					
	Taking output = 10m					
	Machinery:					
	Hire and running charges of Tripod and Mechanical Winch machine complete with power unit and accessories etc. and shifting at site including maintenance and cost of fuel / lubricants & operators for running	Day	0061	3033.00	1.38	4,185.54
	Hire and running charges of light crane 5 MT capacity	Day	0087	4650.00	0.06	279.00
	Hire and running charges of Bentonite pump	Day	0063	3533.00	0.75	2,649.75
	Hire Charges of JCB 3DX Plus Backhoe Loader	Day	0506	4966.80	0.40	1,986.72
	Hire and running charges of Tipper 12 Cum Capacity	Day	0509	6317.85	0.40	2,527.14
	Bentonite powder	MT	0171	5200.00	0.35	1,820.00
	Labour:					
	Mate (Semi skilled)	Day	0003	619.00	0.16	99.04
	Beldar (Un skilled)	Day	0025	547.00	4.00	2,188.00
	Misc.:					
	Sundries	Lumpsum	9901	1.00	200.00	200.00
						15,935.19
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		159.35
						16,094.54
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		2,261.28
						18,355.83

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		2,753.37
						21,109.20
	Add for Cess @ 1%	Lumpsum	9905	0.01		211.09
						21,320.29
	Cost of concrete (quantity required for 10 m = 7.86 cum) except cement as per item no. 022040		022040	3480.72	7.86	27,358.47
	Cost of 10 m					48,678.76
	Rate per metre	Metre				4,867.88
022084	800mm diameter					
	Pile diameter = 800mm					
	Unit = metre					
	Taking output = 15m					
	Machinery:					
	Hire and running charges of Tripod and Mechanical Winch machine complete with power unit and accessories etc. and shifting at site including maintenance and cost of fuel / lubricants & operators for running	Day	0061	3033.00	1.40	4,246.20
	Hire and running charges of light crane 5 MT capacity	Day	0087	4650.00	0.06	279.00
	Hire and running charges of Bentonite pump	Day	0063	3533.00	0.75	2,649.75
	Hire Charges of JCB 3DX Plus Backhoe Loader	Day	0506	4966.80	0.30	1,490.04
	Hire and running charges of Tipper 12 Cum Capacity	Day	0509	6317.85	0.30	1,895.36
	Bentonite powder	MT	0171	5200.00	0.30	1,560.00
	Labour:					
	Mate (Semi skilled)	Day	0003	619.00	0.14	86.66
	Beldar (Un skilled)	Day	0025	547.00	3.50	1,914.50
	Misc.:					
	Sundries	Lumpsum	9901	1.00	150.00	150.00
						14,271.51

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		142.72
						14,414.22
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		2,025.20
						16,439.42
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		2,465.91
						18,905.33
	Add for Cess @ 1%	Lumpsum	9905	0.01		189.05
						19,094.38
	Cost of concrete (quantity required for 15 m = 7.54 cum) except cement as per item no. 022040		022040	3480.72	7.54	26,244.64
	Cost of 15 m					45,339.03
	Rate per metre	Metre				3,022.60
022085	600mm diameter					
	Pile diameter = 600mm					
	Unit = metre					
	Taking output = 22m					
	Machinery:					
	Hire and running charges of Tripod and Mechanical Winch machine complete with power unit and accessories etc. and shifting at site including maintenance and cost of fuel / lubricants & operators for running	Day	0061	3033.00	1.50	4,549.50
	Hire and running charges of light crane 5 MT capacity	Day	0087	4650.00	0.06	279.00
	Hire and running charges of Bentonite pump	Day	0063	3533.00	0.38	1,342.54
	Hire Charges of JCB 3DX Plus Backhoe Loader	Day	0506	4966.80	0.30	1,490.04
	Hire and running charges of Tipper 12 Cum Capacity	Day	0509	6317.85	0.30	1,895.36
	Bentonite powder	MT	0171	5200.00	0.33	1,716.00
	Labour:					
	Mate (Semi skilled)	Day	0003	619.00	0.12	74.28

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Beldar (Un skilled)	Day	0025	547.00	3.00	1,641.00
	Misc.:					
	Sundries	Lumpsum	9901	1.00	350.00	350.00
						13,337.72
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		133.38
						13,471.09
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		1,892.69
						15,363.78
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		2,304.57
						17,668.35
	Add for Cess @ 1%	Lumpsum	9905	0.01		176.68
						17,845.03
	Cost of concrete (quantity required for 22 m = 6.22 cum) except cement as per item no. 022040		022040	3480.72	6.22	21,650.09
	Cost of 22 m					39,495.12
	Rate per metre	Metre				1,795.23

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
022090	Boring, providing and installation of bored cast in-situ Reinforced Cement Concrete piles using Hydraulic piling Rig of specified diameter and length below pile cap of specified grade with Design Mix Cement Concrete, using 20mm graded crushed stone aggregate and coarse sand of approved quality, to carry a safe working load not less than specified, concreting by machine batching, machine mixing, scaffolding, using Admixture in approved proportion (as per IS:9103), placing with tremie pipe, chipping off of pile top to remove laitance concrete above cut off level etc., pumping and bailing out water complete in all respect as per approved drawing, specification and direction of the Engineer in charge. Note: 1. Payment for only cement, reinforcement shall be made extra. 2. Length of the pile for payment shall be measured up to the bottom of RCC pile Cap. 3. Plasticiser shall invariably be used in approved proportion to increase workability with minimum possible quantity of cement for all grade of Design Mix Concrete unless it is specifically approved citing reasons for not using plasticiser at the stage of Mix Design and in that case deduction shall be made as per relevant item.					
022091	1500 mm diameter					
	Unit = metre					
	Taking output = 9m					
	Machinery:					
	Hire and running charges of Hydraulic Piling Rig with power unit etc. including complete accessories and shifting at site	Day	0062	36833.00	0.77	28,361.41
	Hire and running charges of light crane 5 MT capacity	Day	0087	4650.00	0.10	465.00
	Hire and running charges of Bentonite pump	Day	0063	3533.00	0.96	3,391.68
	Hire and running charges of Tipper 12 Cum Capacity	Day	0509	6317.85	0.75	4,738.39
	Hire Charges of JCB 3DX Plus Backhoe Loader	Day	0506	4966.80	0.75	3,725.10
	Bentonite powder	MT	0171	5200.00	0.45	2,340.00

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Labour:					
	Mate (Semi skilled)	Day	0003	619.00	0.25	154.75
	Beldar (Un skilled)	Day	0025	547.00	7.04	3,850.88
	Misc.:					
	Sundries	Lumpsum	9901	1.00	600.00	600.00
						47,627.21
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		476.27
						48,103.48
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		6,758.54
						54,862.02
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		8,229.30
						63,091.32
	Add for Cess @ 1%	Lumpsum	9905	0.01		630.91
						63,722.23
	Cost of concrete (quantity required for 9 m = 15.91 cum) except cement as per item no. 022040		022040	3480.72	15.91	55,378.28
	Cost of 9 m					119,100.52
	Rate per metre	Metre				13,233.39
022092	1200mm diameter					
	Pile diameter = 1200mm					
	Unit = metre					
	Taking output = 9m					
	Machinery:					
	Hire and running charges of Hydraulic Piling Rig with power unit etc. including complete accessories and shifting at site	Day	0062	36833.00	0.67	24,678.11
	Hire and running charges of light crane 5 MT capacity	Day	0087	4650.00	0.06	279.00
	Hire and running charges of Bentonite pump	Day	0063	3533.00	0.75	2,649.75

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Hire Charges of JCB 3DX Plus Backhoe Loader	Day	0506	4966.80	0.50	2,483.40
	Hire and running charges of Tipper 12 Cum Capacity	Day	0509	6317.85	0.50	3,158.93
	Bentonite powder	MT	0171	5200.00	0.39	2,028.00
	Labour:					
	Mate (Semi skilled)	Day	0003	619.00	0.18	111.42
	Beldar (Un skilled)	Day	0025	547.00	4.50	2,461.50
	Misc.:					
	Sundries	Lumpsum	9901	1.00	300.00	300.00
						38,150.11
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		381.50
						38,531.61
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		5,413.69
						43,945.30
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		6,591.79
						50,537.09
	Add for Cess @ 1%	Lumpsum	9905	0.01		505.37
						51,042.46
	Cost of concrete (quantity required for 9 m = 10.17 cum) except cement as per item no. 022040		022040	3480.72	10.17	35,398.94
	Cost of 9 m					86,441.40
	Rate per metre	Metre				9,604.60
022093	1000mm diameter					
	Pile diameter = 1000mm					
	Unit = metre					
	Taking output = 10m					
	Machinery:					

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Hire and running charges of Hydraulic Piling Rig with power unit etc. including complete accessories and shifting at site	Day	0062	36833.00	0.69	25,414.77
	Hire and running charges of light crane 5 MT capacity	Day	0087	4650.00	0.06	279.00
	Hire and running charges of Bentonite pump	Day	0063	3533.00	0.75	2,649.75
	Hire Charges of JCB 3DX Plus Backhoe Loader	Day	0506	4966.80	0.40	1,986.72
	Hire and running charges of Tipper 12 Cum Capacity	Day	0509	6317.85	0.40	2,527.14
	Bentonite powder	MT	0171	5200.00	0.35	1,820.00
	Labour:					
	Mate (Semi skilled)	Day	0003	619.00	0.16	99.04
	Beldar (Un skilled)	Day	0025	547.00	4.00	2,188.00
	Misc.:					
	Sundries	Lumpsum	9901	1.00	200.00	200.00
						37,164.42
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		371.64
						37,536.06
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		5,273.82
						42,809.88
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		6,421.48
						49,231.36
	Add for Cess @ 1%	Lumpsum	9905	0.01		492.31
						49,723.68
	Cost of concrete (quantity required for 10 m = 7.86 cum) except cement as per item no. 022040		022040	3480.72	7.86	27,358.47
	Cost of 10 m					77,082.15
	Rate per metre	Metre				7,708.22
022094	800mm diameter					
	Pile diameter = 800mm					

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Unit = metre					
	Taking output = 15m					
	Machinery:					
	Hire and running charges of Hydraulic Piling Rig with power unit etc. including complete accessories and shifting at site	Day	0062	36833.00	0.70	25,783.10
	Hire and running charges of light crane 5 MT capacity	Day	0087	4650.00	0.06	279.00
	Hire and running charges of Bentonite pump	Day	0063	3533.00	0.75	2,649.75
	Hire Charges of JCB 3DX Plus Backhoe Loader	Day	0506	4966.80	0.30	1,490.04
	Hire and running charges of Tipper 12 Cum Capacity	Day	0509	6317.85	0.30	1,895.36
	Bentonite powder	MT	0171	5200.00	0.30	1,560.00
	Labour:					
	Mate (Semi skilled)	Day	0003	619.00	0.14	86.66
	Beldar (Un skilled)	Day	0025	547.00	3.50	1,914.50
	Misc.:					
	Sundries	Lumpsum	9901	1.00	150.00	150.00
						35,808.41
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		358.08
						36,166.49
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		5,081.39
						41,247.88
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		6,187.18
						47,435.06
	Add for Cess @ 1%	Lumpsum	9905	0.01		474.35
						47,909.41
	Cost of concrete (quantity required for 15 m = 7.54 cum) except cement as per item no. 022040		022040	3480.72	7.54	26,244.64
	Cost of 15 m					74,154.06
	Rate per metre	Metre				4,943.60

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
022095	600mm diameter					
	Pile diameter = 600mm					
	Unit = metre					
	Taking output = 22m					
	Machinery:					
	Hire and running charges of Hydraulic Piling Rig with power unit etc. including complete accessories and shifting at site	Day	0062	36833.00	0.75	27,624.75
	Hire and running charges of light crane 5 MT capacity	Day	0087	4650.00	0.06	279.00
	Hire and running charges of Bentonite pump	Day	0063	3533.00	0.38	1,342.54
	Hire Charges of JCB 3DX Plus Backhoe Loader	Day	0506	4966.80	0.30	1,490.04
	Hire and running charges of Tipper 12 Cum Capacity	Day	0509	6317.85	0.30	1,895.36
	Bentonite powder	MT	0171	5200.00	0.33	1,716.00
	Labour:					
	Mate (Semi skilled)	Day	0003	619.00	0.12	74.28
	Beldar (Un skilled)	Day	0025	547.00	3.00	1,641.00
	Misc.:					
	Sundries	Lumpsum	9901	1.00	350.00	350.00
						36,412.97
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		364.13
						36,777.09
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		5,167.18
						41,944.28
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		6,291.64
						48,235.92
	Add for Cess @ 1%	Lumpsum	9905	0.01		482.36
						48,718.28

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Cost of concrete (quantity required for 22 m = 6.22 cum) except cement as per item no. 022040		022040	3480.72	6.22	21,650.09
	Cost of 22 m					70,368.37
	Rate per metre	Metre				3,198.56
022100	Providing, fabricating and installing permanent casing pipe for bored piles for all diameters with specified thickness of steel plate including all labour, materials, tools & complete as per approved drawing & specifications complete in all respect as per the direction of Engineer in charge. Note: Payment shall be made as per the weight of circular plate of casing pipe only.					
	Unit = 1 MT					
	Taking output = 5 MT = 50 qtl Considering wastage of 5%, quantity required = 50 x 1.05 = 52.50 quintal.					
	Material:					
	Structural Steel Plates conforming to Grade Designation E 250; Quality "A" as per IS 2062	Quintal	0220	7950.00	52.50	417,375.00
	Considering consumables, machinery, tools & plants required for fabrication, placing in position etc. @15% of the cost of plate				0.15	62,606.25
	Labour:					
	Welder (Skilled)	Day	0029	734.00	1.00	734.00
	Fitter Grade - 1 (Skilled)	Day	0010	743.00	5.00	3,715.00
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	5.00	3,745.00
	Fitter Grade - 2 (Semi-skilled)	Day	0011	649.00	5.00	3,245.00
	Beldar (Un skilled)	Day	0025	547.00	30.00	16,410.00
	Sundries	Lumpsum	9901	1.00	230.00	230.00
						508,060.25

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		5,080.60
						513,140.85
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		72,096.29
						585,237.14
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		87,785.57
						673,022.71
	Add for Cess @ 1%	Lumpsum	9905	0.01		6,730.23
	Rate for 5 MT					679,752.94
	Rate per MT	MT				135,950.59
022110	Extra for chiselling in addition to boring of piles, if chiselling is required to be resorted to in hard rock or big stone boulders larger than 30cm, manually or by any other means.					
022111	1200mm diameter pile					
	Details of cost for 0.5 Cum					
	Beldar (Un skilled)	Day	0025	547.00	3.00	1,641.00
	Fitter Grade - 2 (Semi-skilled)	Day	0011	649.00	0.05	32.45
	Sundries	Lumpsum	9901	1.00	20.00	20.00
						1,693.45
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		16.93
						1,710.38
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		240.31
						1,950.69
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		292.60
						2,243.30
	Add for Cess @ 1%	Lumpsum	9905	0.01		22.43
	Details of cost for 0.5 Cum					2,265.73
	Rate per Cum	Cum				4,531.46

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Qty of chiselling in 1 metre length of pile = $22/7 \times 1.2 \times 1.2/4 \times 1 = 1.13$ Cum					
	Rate per metre	Metre				5,120.55
022112	1000mm diameter pile					
	Qty of 1M = $22/7 \times 1.0 \times 1.0/4 \times 1 = 0.786$ Cum	Cum	022111	4531.46	0.79	3,561.73
	Add 10% extra for restricted space in working inside the shaft of pile.				0.10	356.17
	Rate per meter	Metre				3,917.90
022113	800mm diameter pile					
	Qty of 1 M = $22/7 \times 0.8 \times 0.8/4 \times 1 = 0.503$ cum	Cum	022111	4531.46	0.50	2,279.32
	Add 30% extra for restricted space in working inside the shaft of pile.				0.30	683.80
	Rate per meter	Metre				2,963.12
022114	600mm diameter pile					
	Qty of 1 M = $22/7 \times 0.6 \times 0.6/4 \times 1 = 0.283$ cum	Cum	022111	4531.46	0.28	1,282.40
	Add 50% extra for restricted space in working inside the shaft of pile.				0.50	641.20
	Rate per meter	Metre				1,923.61
022120	Conducting load test of a single pile up to specified capacity in accordance with IS:2911 (Part-IV) including installation of loading platform and preparation of pile head or construction of test cap and dismantling of test cap after test etc. with all labour, material, tool & plants, equipment, machinery, etc. complete as per drawing and specification, as directed by the Engineer.					
022121	Initial load test up to 50 ton capacity pile					
	Detail of cost of each					
	Considering requirement of load on loading platform as 150% of pile capacity and further 25% more for stability of the load, total load required on the platform = $50 \times 1.5 \times 1.25 = 93.75$ say 100 MT					

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Material:					
	Empty cement bag polythene 50 Kgs capacity	Each	0490	5.00	2000.00	10,000.00
	Labour:					
	(i) For making preparatory arrangement like erecting platform, kentledge etc. for conducting load test					
	Mate (Semi skilled)	Day	0003	619.00	1.00	619.00
	Coolie (Un skilled)	Day	0026	547.00	24.00	13,128.00
	Fitter Grade - 2 (Semi-skilled)	Day	0011	649.00	1.00	649.00
	(ii) labour for clearing the site after completion of the test and removing and disposing the materials.					
	Mate (Semi skilled)	Day	0003	619.00	1.00	619.00
	Coolie (Un skilled)	Day	0026	547.00	18.00	9,846.00
	Fitter Grade - 2 (Semi-skilled)	Day	0011	649.00	1.00	649.00
						35,510.00
	Cost of use of platform materials, instrumentation and other incidental charges @ 25%			0.25		8,877.50
						44,387.50
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		443.88
						44,831.38
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		6,298.81
						51,130.18
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		7,669.53
						58,799.71
	Add for Cess @ 1%	Lumpsum	9905	0.01		588.00
	Cost of each test	Each				59,387.71
022122	Initial load test above 50 ton and up to 100 T capacity pile					
	Detail of cost of each					

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Considering requirement of load on loading platform as 150% of pile capacity and further 25% more for stability of the load, total load required on the platform on the average of the range i.e. 75 MT = $75 \times 1.5 \times 1.25$ - 140.63 say 140 MT					
	Material:					
	Empty cement bag polythene 50 Kgs capacity	Each	0490	5.00	2800.00	14,000.00
	Labour:					
	(i) For making preparatory arrangement like erecting platform, kentledge etc. for conducting load test					
	Mate (Semi skilled)	Day	0003	619.00	1.00	619.00
	Coolie (Un skilled)	Day	0026	547.00	33.00	18,051.00
	Fitter Grade - 2 (Semi-skilled)	Day	0011	649.00	1.00	649.00
	(ii) labour for clearing the site after completion of the test and removing and disposing the materials.					
	Mate (Semi skilled)	Day	0003	619.00	1.00	619.00
	Coolie (Un skilled)	Day	0026	547.00	22.00	12,034.00
	Mate (Semi skilled)	Day	0003	619.00	1.00	619.00
						46,591.00
	Cost of use of platform materials, instrumentation and other incidental charges @ 25%			0.15		6,988.65
						53,579.65
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		535.80
						54,115.45
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		7,603.22
						61,718.67
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		9,257.80
						70,976.47
	Add for Cess @ 1%	Lumpsum	9905	0.01		709.76
	Cost of each test	Each				71,686.23

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
022123	Initial load test above 100 ton and up to 250 T capacity pile					
	Detail of cost of each					
	Considering requirement of load on loading platform as 150% of pile capacity and further 25% more for stability of the load, total load required on the platform on the average of the range i.e. 175 MT = $175 \times 1.5 \times 1.25$ - 328.125 say 328 MT					
	Material:					
	Empty cement bag polythene 50 Kgs capacity	Each	0490	5.00	3000.00	15,000.00
	Machinery:					
	Hire Charges of JCB 3DX Plus Backhoe Loader	Day	0506	4966.80	1.00	4,966.80
	Labour:					
	(i) For making preparatory arrangement like erecting platform, kentledge etc. for conducting load test					
	Mate (Semi skilled)	Day	0003	619.00	1.00	619.00
	Coolie (Un skilled)	Day	0026	547.00	45.00	24,615.00
	Fitter Grade - 2 (Semi-skilled)	Day	0011	649.00	1.00	649.00
	(ii) labour for clearing the site after completion of the test and removing and disposing the materials.					
	Coolie (Un skilled)	Day	0026	547.00	30.00	16,410.00
	Fitter Grade - 2 (Semi-skilled)	Day	0011	649.00	1.00	649.00
						62,908.80
	Cost of making platforms, instrumentation and other incidental charges @ 15%			0.15		9,436.32
						72,345.12
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		723.45
						73,068.57
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		10,266.13

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
						83,334.71
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		12,500.21
						95,834.91
	Add for Cess @ 1%	Lumpsum	9905	0.01		958.35
	Cost of each test	Each				96,793.26
022124	Extra for every increase of 50 ton in pile capacity or part thereof over 250 ton					
	Additional hours of Loader required for loading and unloading @ 50MT/hour for increase of average of additional loading of 25 MT, machine hour required for both loading/unloading i.e. 25MT + 25 MT = 50 MT is 1 hour					
	Hire Charges of JCB 3DX Plus Backhoe Loader	Day	0506	4966.80	0.12	596.02
	Coolie (Un skilled)	Day	0026	547.00	6.00	3,282.00
	Sundries	Lumpsum	9901	1.00	230.00	230.00
						4,108.02
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		41.08
						4,149.10
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		582.95
						4,732.04
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		709.81
						5,441.85
	Add for Cess @ 1%	Lumpsum	9905	0.01		54.42
	Rate per every increase of 50 ton.	Each				5,496.27
022125	Routine Load Test up to 50 ton capacity pile					
	50% of Rate of Initial Test of Pile vide item No. 022121		022121	59387.71	0.50	29,693.85
	Rate for each test	Each				29,693.85
022126	Routine Load Test above 50 ton capacity up to 100 ton capacity pile					

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	50% of Rate of Initial Test of Pile vide item No. 022122		022122	71686.23	0.50	35,843.12
	Rate for each test	Each				35,843.12
022127	Routine Load Test above 100 ton capacity up to 250 ton capacity pile					
	50% of Rate of Initial Test of Pile vide item No. 022123		022123	96793.26	0.50	48,396.63
	Rate for each test	Each				48,396.63
022130	Lateral load testing of single pile in accordance with "IS Code of practice IS:2911 (Part IV) for determining safe allowable lateral load of pile" with all labour, material, tool & plants, equipment, machinery, etc complete as per drawing and specification as directed by the Engineer.					
022131	Piles with lateral load capacity of up to 50 ton					
	Machinery:					
	Hire Charges of Hydraulic Jack of 50 T capacity for lateral load testing of piles	Day	0110	2042.00	2.00	4,084.00
	Cost of reusable material for arrangement of reactive force @ 20% of Hire charges of jack					816.80
	Labour:					
	Blacksmith - 2nd Class (Semi-skilled)	Day	0009	649.00	4.00	2,596.00
	Coolie (Un skilled)	Day	0026	547.00	16.00	8,752.00
	Sundries	Lumpsum	9901	1.00	500.00	500.00
						16,748.80
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		167.49
						16,916.29
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		2,376.74
						19,293.03
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		2,893.95
						22,186.98

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Add for Cess @ 1%	Lumpsum	9905	0.01		221.87
	Rate per Test	Each				22,408.85
022132	Piles with lateral load capacity of above 50 ton and up to 100 ton					
	Machinery:					
	Hire Charges of Hydraulic Jack of 100 T capacity for lateral load testing of piles	Day	0111	5183.00	2.00	10,366.00
	Cost of reusable material for arrangement of reactive force @ 20% of Hire charges of jack				0.20	2,073.20
	Labour:					
	Blacksmith - 2nd Class (Semi-skilled)	Day	0009	649.00	4.00	2,596.00
	Coolie (Un skilled)	Day	0026	547.00	16.00	8,752.00
						23,787.20
	Sundries	Lumpsum	9901	1.00	700.00	700.00
						24,487.20
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		244.87
						24,732.07
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		3,474.86
						28,206.93
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		4,231.04
						32,437.97
	Add for Cess @ 1%	Lumpsum	9905	0.01		324.38
	Rate per Test	Each				32,762.35

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
022140	Pulse Echo Test (PET) for integrity testing of piles with contractor's men, materials and machines. The rate includes cost of Inspection of site, preparation of pile head and any other unforeseen cost required for the test, submission of reports in triplicate as per satisfaction of the Engineer in Charge.					
	Pulse Echo Test (PET) for integrity testing of piles with contractor's men, materials and machines. The rate includes cost of Inspection of site, preparation of pile head and any other unforeseen cost required for the test, submission of reports in triplicate as per satisfaction of the Engineer in Charge at site.	Each	0109	2183.00	1.00	2,183.00
	Sundries	Lumpsum	9901	1.00	100.00	100.00
						2,283.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		22.83
						2,305.83
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		323.97
						2,629.80
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		394.47
						3,024.27
	Add for Cess @ 1%	Lumpsum	9905	0.01		30.24
	Rate per Test	Each				3,054.51
023000	Well Foundation					
023010	Earth work in OPEN excavation in foundation of bridges, for placing of well curbs of all shapes and designs in all kinds of soil including taking out the excavated soil, levelling, ramming of bottom of excavation and trimming of sides, returning the soil in layers, consolidation, disposal of surplus soil within a lead of 300m, including all lift, dewatering, shoring and strutting complete as per technical specification and as directed by Engineer in charge.					
023011	In all types of soils					

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Unit = 1 Cum					
	Rate Same as item no. 022011			212.37	1.00	212.37
	Add 50% for excavation in river/stream bed			0.50		106.18
	Cost for 1 Cum	Cum				318.55
023012	In Ordinary rock					
	Rate Same as item no. 022012			451.73	1.00	451.73
	Add 10% for excavation in river/stream bed			0.10		45.17
	Cost for 1 Cum	Cum				496.90
023013	Hard rock (blasting prohibited)					
	Rate Same as item no. 022014			1262.78	1.00	1,262.78
	Add 10% for excavation in river/stream bed			0.10		126.28
	Cost for 1 Cum	Cum				1,389.06
023020	Providing and constructing Temporary Earthen Island / coffer dam for construction of well foundations of dia. up to 10m (longest dimension) , including bailing and pumping out of water, provision of sand bags, wooden ballies, sheet piling, earth, sand or any other suitable material, as required with all labour and material complete job.					
023021	For water depth up to 1.00m					
	Providing and Constructing Temporary Island 16 m diameter for construction of Well Foundation for 8m dia. Well					
	Assuming depth of water 1.0 m and height of island to be 1.25 m					
	Unit = 1 No.					
	Taking output = 1 No.					
	Material:					

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Soil Quality Class SQ1 suitable for sub grade of embankment as per RDSO Specifications RDSO/2020/GE: IRS-0004	Cum	0166	184.00	251.20	46,220.80
	Filled sand bags (30 kg weight)	Each	0198	52.00	750.00	39,000.00
	Labour:					
	Mate (Semi skilled)	Day	0003	619.00	0.40	247.60
	Beldar (Un skilled)	Day	0025	547.00	15.00	8,205.00
	Machinery:					
	Hire and running charges of light crane 5 MT capacity	Day	0087	4650.00	1.00	4,650.00
	Sundries	Lumpsum	9901	1.00	420.00	420.00
						98,743.40
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		987.43
						99,730.83
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		14,012.18
						113,743.02
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		17,061.45
						130,804.47
	Add for Cess @ 1%	Lumpsum	9905	0.01		1,308.04
	Rate for water depth of 1.00m	Each				132,112.51
023022	Extra for every 1.00m additional depth and part thereof over item 023021 up to water depth of 4.00m.					
	Assuming depth of water 4m and height of island 4.5 m Island dia = 16m average					
	Assuming depth of water 4.0 m and height of island 4.5 m					
	Unit = 1 No.					
	Taking output = 1No.					
	Material:					

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Soil Quality Class SQ1 suitable for sub grade of embankment as per RDSO Specifications RDSO/2020/GE: IRS-0004	Cum	0166	184.00	904.32	166,394.88
	Filled sand bags (30 kg weight)	Each	0198	52.00	6000.00	312,000.00
	Hollock Ballies 150mm diameter	Metre	0477	194.00	95.00	18,430.00
	Hollock Ballies 80mm diameter	Metre	0476	132.00	190.00	25,080.00
	Labour:					
	Mate (Semi skilled)	Day	0003	619.00	5.60	3,466.40
	Beldar (Un skilled)	Day	0025	547.00	120.00	65,640.00
	Machinery:					
	Hire and running charges of light crane 5 MT capacity	Day	0087	4650.00	2.00	9,300.00
	Sundries	Lumpsum	9901	1.00	2200.00	2,200.00
						602,511.28
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		6,025.11
						608,536.39
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		85,499.36
						694,035.76
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		104,105.36
						798,141.12
	Add for Cess @ 1%	Lumpsum	9905	0.01		7,981.41
	Total cost for 4.00m depth of water					806,122.53
	Cost for 1.00m depth of water as per item No.023021	Each	023021	132112.51		132,112.51
	Extra cost for 3.00m depth of water (A-B)					674,010.02
	Cost for 1.00 additional depth of water					224,670.01
	Rate per every 1.00m additional water depth or part there of	Each				224,670.01
023023	Providing and constructing 10m wide service road to reach island location from one pier location to another pier location.					

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Assuming span length of 30 m, width of service road 10m and depth of water 1m					
	Unit = Running Meter					
	Taking output = 30 metre					
	a) Material					
	Soil Quality Class SQ1 suitable for sub grade of embankment as per RDSO Specifications RDSO/2020/GE: IRS-0004	Cum	0166	184.00	450.00	82,800.00
	Filled sand bags (30 kg weight)	Each	0198	52.00	300.00	15,600.00
	b) Labour					
	Mate (Semi skilled)	Day	0003	619.00	0.24	148.56
	Coolie (Un skilled)	Day	0026	547.00	6.00	3,282.00
	c) Machinery					
	Hire Charges of JCB 3DX Plus Backhoe Loader	Day	0506	4966.80	3.40	16,887.12
	Hire and running charges of Tipper 12 Cum Capacity	Day	0509	6317.85	3.40	21,480.69
						140,198.37
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		1,401.98
						141,600.35
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		19,894.85
						161,495.20
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		24,224.28
						185,719.48
	Add for Cess @ 1%	Lumpsum	9905	0.01		1,857.19
	Cost for 30 m					187,576.68
	Rate per m	RM				6,252.56

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
023030	Supplying, Fabrication, assembly, erection & placing in position the cutting edge of well curb with structural steel including MS sheet/Plates of specified thickness for pier/abutment complete as per approved plans and as per direction of Engineering In charge including all operations like cutting, bending, straightening, drilling holes, bolting, riveting, welding, threading, jointing of steel sections including outer and inner places liners and skin plates, stiffeners, hooks, bottle nuts, bond rods etc. as per design including all ascent, descents, leads, lifts, handing, re-handling, all other obstructions whatsoever, diverting channels, pumping / bailing out of water wherever required including cost of steel such as flats, sheets, angles, steel bars etc. with all labour and material as a complete job.					
	Taking Output = 1 MT					
	Material:					
	Structural Steel Plates conforming to Grade Designation E 250; Quality "A" as per IS 2062	Quintal	0220	7950.00	10.50	83,475.00
	Nut & Bolts with washers of all sizes	Kg	0231	122.00	20.00	2,440.00
	Electrodes, cutting gas and other consumables @10% of cost of Structural Steel and nuts and Bolts above			0.10		8,591.50
	Labour:					
	(for cutting, bending, making holes, joining, welding and erecting in position)					
	Mate (Semi skilled)	Day	0003	619.00	1.32	817.08
	Fitter Grade - 1 (Skilled)	Day	0010	743.00	5.50	4,086.50
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	5.50	4,119.50
	Fitter Grade - 2 (Semi-skilled)	Day	0011	649.00	5.50	3,569.50
	Beldar (Un skilled)	Day	0025	547.00	16.50	9,025.50
						116,124.58
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		1,161.25
						117,285.83
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		16,478.66

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
						133,764.48
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		20,064.67
						153,829.16
	Add for Cess @ 1%	Lumpsum	9905	0.01		1,538.29
	Rate per MT	MT				155,367.45
023040	Dry/Wet Sinking of Circular Wells (Other than pneumatic method) in all types of strata except hard rock requiring blasting, including bailing and pumping out water, removal of excavated soil with all labour and material required for sinking as per drawing and direction of the Engineer in charge, disposal of surplus soil in the adjoining bank/embankment..					
023041	From initial level of cutting edge & up to 3m depth					
	Dia of well (assumed) 9 metre Area 63.64					
	Taking output = 1cum					
	Depth below bed level up to 3.0 M					
	Rate of sinking 0.17 m/hour					
	a) Labour					
	Mate (Semi skilled)	Day	0003	619.00	0.24	148.56
	Beldar (Semi Skilled)	Day	0024	585.00	2.25	1,316.25
	Beldar (Un skilled)	Day	0025	547.00	3.75	2,051.25
	b) Machinery					
	Hire charges of 10MT crane with Grab Bucket of 0.75 cum capacity and accessories	Day	0086	6800.00	0.75	5,100.00
						8,616.06
	Add water charges @ 1% + dewatering charges @5%			0.06		516.96
						9,133.02
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		1,283.19
						10,416.21

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		1,562.43
						11,978.65
	Add for Cess @ 1%	Lumpsum	9905	0.01		119.79
	Rate per Meter for 63.64 Cum					12,098.43
	Rate per Cum	Cum				190.18
023042	Above 3m to 10m depth					
	Beyond 3 m up to 10m depth					
	Rate of sinking 0.15/hour					
	a) Labour					
	Mate (Semi skilled)	Day	0003	619.00	0.34	210.46
	Beldar (Semi Skilled)	Day	0024	585.00	2.50	1,462.50
	Beldar (Un skilled)	Day	0025	547.00	5.00	2,735.00
	b) Machinery					
	Hire charges of 10MT crane with Grab Bucket of 0.75 cum capacity and accessories	Day	0086	6800.00	0.83	5,666.67
	Hire charges of air compressor 250 cfm capacity with two leads for pneumatic cutters / hammers	Day	0064	1550.00	0.83	1,286.50
						11,361.13
	Add water charges @ 1% + dewatering charges @5%			0.06		681.67
						12,042.79
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		1,692.01
						13,734.81
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		2,060.22
						15,795.03
	Add for Cess @ 1%	Lumpsum	9905	0.01		157.95
	Rate per Meter for 63.64 Cum					15,952.98
	Rate per Cum	Cum				250.77

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
023043	Above 10m to 15m depth					
	Add 5 % for every additional meter depth of sinking over the rate of sinking for the previous meter					
	11 th m					263.31
	12 th m					276.48
	13 th m					290.30
	14 th m					304.82
	15 th m					320.06
	Total for 5m					1,454.96
	Rate per Cum	Cum				290.99
023044	Above 15m to 20m depth					
	Add 5% for every additional meter depth of sinking over the rate of sinking for the previous meter					
	16 th m					336.06
	17 th m					352.86
	18 th m					370.50
	19 th m					389.03
	20 th m					408.48
	Total for 5m					1,856.94
	Rate per Cum	Cum				371.39
023045	Above 20m to 25m depth					
	Add 7.5% for every additional meter depth of sinking over the rate of sinking for the previous meter					
	21st m					439.12
	22nd m					472.05

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	23rd m					507.46
	24th m					545.51
	25th m					586.43
	Total for 5m					2,550.57
	Average rate					510.11
	Add 20% for kentledges including supports, loading arrangement and Labour etc			0.20		102.02
	Rate per Cum	Cum				612.14
023046	Above 25m to 30m depth					
	Add 7.5% for every additional meter depth of sinking over the rate of sinking for the previous meter					
	26th m					630.41
	27th m					677.69
	28th m					728.52
	29th m					783.16
	30th m					841.89
	Total for 5m					3,661.67
	Average rate					732.33
	Add 20% for kentledges including supports, loading arrangement and Labour etc			0.20		146.47
	Rate per Cum	Cum				878.80
023047	Above 30m to 35m depth					
	Add 10% for every additional meter depth of sinking over the rate of sinking for the previous meter					
	31st m					926.08
	32nd m					1,018.69
	33rd m					1,120.56
	34th m					1,232.62

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	35th m					1,355.88
	Total for 5m					5,653.83
	Average rate					1,130.77
	Add 20% for kentledges including supports, loading arrangement and Labour etc			0.20		226.15
	Rate per Cum	Cum				1,356.92
023048	Above 35m to 40m depth					
	Add 10% for every additional meter depth of sinking over the rate of sinking for the previous meter					
	36th m					1,491.47
	37th m					1,640.61
	38th m					1,804.67
	39th m					1,985.14
	40th m					2,183.66
	Total for 5m					9,105.55
	Average rate					1,821.11
	Add 20% for kentledges including supports, loading arrangement and Labour etc			0.20		364.22
	Rate per Cum	Cum				2,185.33
023049	Above 40m to 45m depth					
	Add 10% for every additional meter depth of sinking over the rate of sinking for the previous meter					
	41st m					2,402.02
	42nd m					2,642.22
	43rd m					2,906.45
	44th m					3,197.09
	45th m					3,516.80
	Total for 5m					14,664.58

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Average rate					2,932.92
	Add 20% for kentledges including supports, loading arrangement and Labour etc			0.20		586.58
	Rate per Cum	Cum				3,519.50
023050	Above 45 m depth					
	Considering the same cost as on 45th metre					
	Rate of 45th metre					3,516.80
	Add 20% for kentledges including supports, loading arrangement and Labour etc			0.20		703.90
	Rate per Cum	Cum				4,220.70
023060	Dry/Wet Sinking of Twin D type Wells (Other than pneumatic method) in all types of strata except hard rock requiring blasting, including bailing and pumping out water, removal of excavated soil, with all labour and material required for sinking as per drawing and direction of the Engineer in charge including disposal of surplus soil in the adjoining bank/embankment (compaction to be paid separately under the relevant item).					
023061	From initial level of cutting edge & up to 3m depth					
	Considering twin D type well of size 12X6M Area= $22/7 \times 6 \times 6/4 + 6 \times 6 = 64.28$ Sqm					
	Depth below bed level up to 3.0 M					
	Rate of sinking 0.25m/hour with 2 cranes					
	a) Labour					
	Mate (Semi skilled)	Day	0003	619.00	0.52	321.88
	Beldar (Semi Skilled)	Day	0024	585.00	4.00	2,340.00
	Beldar (Un skilled)	Day	0025	547.00	6.00	3,282.00
	b) Machinery					

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Hire charges of 10MT crane with Grab Bucket of 0.75 cum capacity and accessories	Day	0086	6800.00	1.00	6,800.00
						12,743.88
	Add water charges @ 1% + dewatering charges @5%			0.06		764.63
						13,508.51
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		1,897.95
						15,406.46
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		2,310.97
						17,717.43
	Add for Cess @ 1%	Lumpsum	9905	0.01		177.17
	Rate per Meter for 64.28 Cum					17,894.60
	Rate per Cum	Cum				278.39
023062	Above 3m to 10m depth					
	Beyond 3 m up to 10m depth					
	Rate of sinking 0.225m/hour with 2 cranes					
	a) Labour					
	Mate (Semi skilled)	Day	0003	619.00	0.52	321.88
	Beldar (Semi Skilled)	Day	0024	585.00	4.00	2,340.00
	Beldar (Un skilled)	Day	0025	547.00	6.00	3,282.00
	b) Machinery					
	Hire charges of 10MT crane with Grab Bucket of 0.75 cum capacity and accessories	Day	0086	6800.00	1.00	6,800.00
	Hire charges of air compressor 250 cfm capacity with two leads for pneumatic cutters / hammers	Day	0064	1550.00	1.00	1,550.00
						14,293.88
	Add water charges @ 1% + dewatering charges @5%			0.06		857.63
						15,151.51

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		2,128.79
						17,280.30
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		2,592.05
						19,872.35
	Add for Cess @ 1%	Lumpsum	9905	0.01		198.72
	Rate per Meter fro 64.28 Cum					20,071.07
	Rate per Cum	Cum				312.24
023063	Above 10m to 15m depth					
	Add 5 % for every additional meter depth of sinking over the rate of sinking for the previous meter					
	11 th m					327.86
	12 th m					344.25
	13 th m					361.46
	14 th m					379.53
	15 th m					398.51
	Total for 5m					1,811.61
	Rate per Cum	Cum				362.32
023064	Above 15m to 20m depth					
	Add 5% for every additional meter depth of sinking over the rate of sinking for the previous meter					
	16 th m					418.44
	17 th m					439.36
	18 th m					461.33
	19 th m					484.39
	20 th m					508.61
	Total for 5m					2,312.13

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Rate per Cum	Cum				462.43
023065	Above 20m to 25m depth					
	Add 7.5% for every additional meter depth of sinking over the rate of sinking for the previous meter					
	21st m					546.76
	22nd m					587.77
	23rd m					631.85
	24th m					679.24
	25th m					730.18
	Total for 5m					3,175.79
	Average rate					635.16
	Add 20% for kentledges including supports, loading arrangement and Labour etc			0.20		127.03
	Rate per Cum	Cum				762.19
023066	Above 25m to 30m depth					
	Add 7.5% for every additional meter depth of sinking over the rate of sinking for the previous meter					
	26th m					784.94
	27th m					843.81
	28th m					907.10
	29th m					975.13
	30th m					1,048.27
	Total for 5m					4,559.26
	Average rate					911.85
	Add 20% for kentledges including supports, loading arrangement and Labour etc			0.20		182.37
	Rate per Cum	Cum				1,094.22

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
023067	Above 30m to 35m depth					
	Add 10% for every additional meter depth of sinking over the rate of sinking for the previous meter					
	31st m					1,153.09
	32nd m					1,268.40
	33rd m					1,395.24
	34th m					1,534.77
	35th m					1,688.25
	Total for 5m					7,039.76
	Average rate					1,407.95
	Add 20% for kentledges including supports, loading arrangement and Labour etc			0.20		281.59
	Rate per Cum	Cum				1,689.54
023068	Above 35m to 40m depth					
	Add 10% for every additional meter depth of sinking over the rate of sinking for the previous meter					
	36th m					1,857.07
	37th m					2,042.78
	38th m					2,247.06
	39th m					2,471.76
	40th m					2,718.94
	Total for 5m					11,337.60
	Average rate					2,267.52
	Add 20% for kentledges including supports, loading arrangement and Labour etc			0.20		453.50
	Rate per Cum	Cum				2,721.02
023069	Above 40m to 45m depth					

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Add 10% for every additional meter depth of sinking over the rate of sinking for the previous meter					
	41st m					2,990.83
	42nd m					3,289.91
	43rd m					3,618.90
	44th m					3,980.80
	45th m					4,378.87
	Total for 5m					18,259.32
	Average rate					3,651.86
	Add 20% for kentledges including supports, loading arrangement and Labour etc			0.20		730.37
	Rate per Cum	Cum				4,382.24
023070	Above 45 m depth					
	Considering the same rate as applicable for 45th metre					
	Rate for 45th metre					4,378.87
	Add 20% for kentledges including supports, loading arrangement and Labour etc			0.20		875.77
	Rate per Cum	Cum				5,254.65
023080	Extra for sinking of wells in hard rock requiring controlled blasting including cost of explosive, detonators, chiselling including all other ancillary works					
	Taking output = 1m					
	a) Materials					
	Blasting Powder	Kg	0169	98.00	15.00	1,470.00
	Blasting Fuse (Fuse Wire)	Each	0170	41.00	60.00	2,460.00
	b) Labour					
	Mate (Semi skilled)	Day	0003	619.00	2.00	1,238.00
	Rock Hole Driller (Semi skilled)	Day	0016	627.00	4.00	2,508.00
	Rock Breaker (Semi skilled)	Day	0015	660.00	0.40	264.00

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Coolie (Un skilled)	Day	0026	547.00	40.00	21,880.00
	Beldar (Semi Skilled)	Day	0024	585.00	8.00	4,680.00
	c) Machinery					
	Hire charges of air compressor 250 cfm capacity with two leads for pneumatic cutters / hammers	Day	0064	1550.00	2.00	3,100.00
						37,600.00
	Dewatering @5% of cost of b+c			0.05		1,880.00
						39,480.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		394.80
						39,874.80
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		5,602.41
						45,477.21
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		6,821.58
						52,298.79
	Add for Cess @ 1%	Lumpsum	9905	0.01		522.99
	Rate per Running Meter for 63.64 Cum					52,821.78
	Rate per Cum	Cum				830.01

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
023090	Providing and laying in position machine batched, machine mixed and machine vibrated Cement Concrete of specified grade as per approved Design Mix (Cast in-Situ) using 20mm graded crushed stone aggregate and coarse sand of approved quality in the following elements of well including finishing, using Plasticiser in approved proportions (as per IS:9103), to modify workability without impairing strength and durability complete as per drawings and technical specifications as directed by Engineer. Note: 1. Payment for cement, reinforcement and shuttering shall be made extra under relevant item. 2. Plasticiser shall invariably be used in approved proportion to increase workability with minimum possible quantity of cement for all grade of Design Mix Concrete unless it is specifically approved citing reasons at the stage of Mix Design and in that case deduction shall be made as per relevant item.					
023091	In well Curb					
	Additional 10% over rate of item no. 022040 for extra lift					
	Rate as for item no. 022040					3,480.72
	Add extra for lift 10% of 022040			0.10		348.07
	Rate per Cum	Cum				3,828.79
023092	In Steining of wells					
	Same as in Item no. 023091 (in well curb)	Cum				3,828.79
	Rate per Cum	Cum				3,828.79
023093	In Bottom plug for wells including arrangements for placing concrete under water with tremie or bottom opening skips.					
	Bottom Plug					
	Concrete to be placed using tremie pipe					
	Note: 10% extra cement to be added where under water concreting is involved					

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Unit = cum					
	Rate same as for item no. 022040					3,480.72
	Add 10 per cent of cost of material and labour towards cost of forming sump, protective bunds, chiselling and making arrangements for under water concreting with tremie pipe..			0.10		348.07
	Rate per Cum	Cum				3,828.79
023094	In Intermediate/top plug without shuttering					
	Rate same as Item no. 023093 as reinforcement, cement & shuttering are being paid separately and in addition to CC rates.					3,480.72
	Add extra for thin sections and difficult locations			0.05		174.04
	Rate per cum	Cum				3,654.76
023095	In Intermediate/Top plug with internal shuttering					
	Rate same as Item no. 023094 as reinforcement, cement & shuttering are being paid separately and in addition to CC rates.					3,654.76
	Rate per cum	Cum				3,654.76
023096	In Well cap and corbel, if provided					
	Rate same as item no 023095 as reinforcement, cement & shuttering are being paid separately and in addition to CC rates.					3,654.76
	Rate per cum	Cum				3,654.76
023100	Supplying and filling ordinary sand in between bottom plug and top plug in wells including all lead lift handling, re-handling, as a complete job as per specification and guidelines.					
023101	Using Sand from River Bed if suitable for filling					
	Unit = Cum					

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Taking output = 1 cum					
	Rate as per item no. 022011	Cum				212.37
	Add for working under water, ramming in layers and submerging well as required			0.50		106.18
	Rate per Cum	Cum				318.55
023102	Using sand from other than River bed (This item is to be operated if suitable sand is not available in River Bed for filling)					
	Unit = Cum					
	Taking output = 1 cum					
	a) Materials					
	Fine Sand (Zone IV)	Cum	0200	2050.00	1.20	2,460.00
	b) Labour					
	Mate (Semi skilled)	Day	0003	619.00	0.01	6.19
	Beldar (Un skilled)	Day	0025	547.00	0.30	164.10
						2,630.29
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		26.30
						2,656.59
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		373.25
						3,029.84
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		454.48
						3,484.32
	Add for Cess @ 1%	Lumpsum	9905	0.01		34.84
	Rate per Cubic Meter					3,519.16
	Rate per Cum	Cum				3,519.16
024000	RCC Box					

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
024010	Providing and casting machine batched, machine mixed and machine vibrated Cement Concrete of specified grade as per approved Design Mix, mixed in Mobile Concrete Batching/Mixing Plant at site or RMC from approved plants, (Cast in-Situ/Pre-cast) in bottom/top slab, side walls, toe wall and sumps haunch filling head walls, thrust bed or any other component using 20mm graded crushed stone aggregate and coarse sand of approved quality of RCC box of any size including finishing, Plasticiser in approved proportions (as per IS:9103), to modify workability without impairing strength and durability, complete as per drawings and technical specifications as directed by Engineer in charge. Note: 1. Payment for cement, reinforcement and shuttering shall be made extra under relevant item. 2. Plasticiser shall invariably be used in approved proportion to increase workability with minimum possible quantity of cement for all grade of Design Mix Concrete unless it is specifically approved citing reasons at the stage of Mix Design and in that case deduction shall be made as per relevant item.					
	Rate same as item no. 022040			3480.72	1.00	3,480.72
	Add 10% extra for placing of Concrete in thin sections and multiple pours of concrete and congested area			0.10		348.07
	Cost per Cum	Cum				3,828.79

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
024020	Providing and laying in position machine batched, machine mixed and machine vibrated Design Mix Cement Concrete, mixed in Mobile Concrete Batching/Mixing Plant at site or RMC from approved plants, of specified grade (cast in-situ) using 20mm graded crushed stone aggregate and coarse sand of approved quality in Drop and curtain wall and alike structures below bed level, complete in all respect as per drawings and technical specifications to the satisfaction of Engineer-in-Charge. Note: Payment for cement, reinforcement and shuttering shall be made extra.					
	Rate as per item no. 022040	Cum	022040			3,480.72
	Rate per Cum	Cum				3,480.72

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
024030	Launching of precast RCC box segments of any size and barrel length for single/double line as per approved drawings to the correct alignment and position in electrified / non-electrified sections safeguarding all utilities (S&T cable, power cable, OHE, pipelines etc.) including transportation of box segments from casting yard to site of launching, dismantling of the existing track, removing & stacking of ballast, removing surcharge, dismantling of existing bridge built with stone masonry / cement concrete including cutting of formation, placing of Box segments in position either on base slab or prepared foundation, backfilling after launching of precast box segment and compaction of earth in surcharge, ballasting & re-laying of track to correct alignment and geometry, packing and further maintenance till allowing non-stop 20 KMPH over the re-laid track, complete in all respect as per approved drawing to the satisfaction of Engineer-in-charge. The rate is all inclusive except the cost of RCC Box Segments, Base Slabs (if required) and backfill material which shall either be supplied by railway or paid extra under relevant item. Note: Unit of 'Each' here means bridge of span(s) with a total linear waterway up to 3m.					
024031	Single Line Note: Minimum equipment required shall be (i) Crawler mounted Hydraulic excavator of min 200 HP and bucket capacity 2.5 cum - 3 numbers (ii) Cranes minimum 150 T capacity - 3 nos., (iii) Stone Breaker - 1 no., (iv) Road Trailer of 20 MT capacity - 1 no., (v) Tippers - 2 nos. and (vi) Tractors - 2 nos. (vii) Slope Vibratory compactor - 1 no. and other required machineries etc. in good working condition at site of work.					
	Machinery:					

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	{Considering wastage of machinery-days in transportation to site of work as 50%, total nos. for Excavator = 4.5, for Hammer Drill / Compressor = 1.5, for Tipper = 3 and for JCB = 3}					
	Hire Charges of Crawler mounted Hydraulic Excavator 200 HP (2.5 cum bucket)	Day	0502	14586.20	4.50	65,637.90
	Hire charges of air compressor 250 cfm capacity with two leads for pneumatic cutters / hammers	Day	0064	1550.00	1.50	2,325.00
	Hire charges of Power driven hammer drill	Day	0082	1525.00	1.50	2,287.50
	Hire Charges of JCB 3DX Plus Backhoe Loader	Day	0506	4966.80	3.00	14,900.40
	Hire and running charges of Tipper 12 Cum Capacity	Day	0509	6317.85	3.00	18,953.55
	Hiring of trailer truck of 20 MT capacity	Day	0101	14667.00	1.00	14,667.00
	Hire charges of tractor with Ripper arrangement	Day	0081	1833.00	2.00	3,666.00
	{Considering wastage of machinery-days in transportation to site of work as 50%, total nos. for Cranes = 4.5 and for Trailer = 1.5}					
	Hiring charges of 150 MT capacity crane	Day	0096	84667.00	4.50	381,001.50
	For compaction of surcharge after placement of box					
	Hire Charges of Slope Vibrator to be attached to Hydraulic Excavator for rolling of slope surfaces of embankment.	Day	0058	2400.00	1.00	2,400.00
	Hire Charges of Crawler mounted 3D Hydraulic Excavator 148 HP (0.9 Cum Bucket Capacity)	Day	0501	10423.00	1.00	10,423.00
	Labour:					
	Mate (Skilled)	Day	0002	751.00	3.00	2,253.00
	Helper (Semi-skilled)	Day	0021	572.00	5.00	2,860.00
	Mason 1st class (Skilled)	Day	0004	718.00	2.00	1,436.00
	Rock Breaker (Semi skilled)	Day	0015	660.00	2.00	1,320.00
	Labour Unskilled	Day	0020	540.00	40.00	21,600.00
	Sundries	Lumpsum	9901	1.00	1500.00	1,500.00
						547,230.85

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		5,472.31
						552,703.16
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		77,654.79
						630,357.95
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		94,553.69
						724,911.65
	Add for Cess @ 1%	Lumpsum	9905	0.01		7,249.12
	Cost for Single Line	Each				732,160.76
024032	Double Line Note: Minimum equipment required shall be (i) Crawler mounted Hydraulic excavator of min 200 HP and bucket capacity 2.5 cum - 3 numbers (ii) Cranes minimum 200 T capacity - 3 nos., (iii) Stone Breaker - 1 no., (iv) Road Trailer of 20 MT capacity - 1 no., (v) Tippers - 2 nos. and (vi) Tractors - 2 nos. (vii) Slope Vibratory compactor - 2 nos. and other required machineries etc. in good working condition at site of work.					
	Machinery:					
	Considering cost of transportation of Crane to and fro from site as charges for half day, quantity increased by 50%					
	Hire Charges of Crawler mounted Hydraulic Excavator 200 HP (2.5 cum bucket)	Day	0502	14586.20	4.50	65,637.90
	Hire charges of air compressor 250 cfm capacity with two leads for pneumatic cutters / hammers	Day	0064	1550.00	1.50	2,325.00
	Hire charges of Power driven hammer drill	Day	0082	1525.00	1.50	2,287.50
	Hire Charges of JCB 3DX Plus Backhoe Loader	Day	0506	4966.80	3.00	14,900.40
	Hire and running charges of Tipper 12 Cum Capacity	Day	0509	6317.85	3.00	18,953.55
	Hiring of trailer truck of 20 MT capacity	Day	0101	14667.00	1.00	14,667.00
	Hire charges of tractor with Ripper arrangement	Day	0081	1833.00	2.00	3,666.00

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	{Considering wastage of machinery-days in transportation to site of work as 50%, total nos. for Crane days =4.5 and for Trailer = 1.5}					
	Hiring charges of 200 MT capacity crane	Day	0097	170833.00	4.50	768,748.50
	For compaction of surcharge after placement of box					
	Hire Charges of Slope Vibrator to be attached to Hydraulic Excavator for rolling of slope surfaces of embankment.	Day	0058	2400.00	2.00	4,800.00
	Hire Charges of Crawler mounted 3D Hydraulic Excavator 148 HP (0.9 Cum Bucket Capacity)	Day	0501	10423.00	2.00	20,846.00
	Labour:					
	Mate (Skilled)	Day	0002	751.00	5.00	3,755.00
	Helper (Semi-skilled)	Day	0021	572.00	7.00	4,004.00
	Mason 1st class (Skilled)	Day	0004	718.00	4.00	2,872.00
	Rock Breaker (Semi skilled)	Day	0015	660.00	4.00	2,640.00
	Labour Unskilled	Day	0020	540.00	60.00	32,400.00
	Sundries	Lumpsum	9901	1.00	3000.00	3,000.00
						965,502.85
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		9,655.03
						975,157.88
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		137,009.68
						1,112,167.56
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		166,825.13
						1,278,992.69
	Add for Cess @ 1%	Lumpsum	9905	0.01		12,789.93
	Cost for Double Line	Each				1,291,782.62
025000	Miscellaneous					

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
025010	Deduct if Plasticiser has not been used in Design Mix Concrete of any grade as per approved mix design or use of 40mm graded stone aggregate in place of 20mm graded stone aggregate in any grade of concrete. Note: Deduction to be made for quantity of concrete.					
025011	Deduction for not using Plasticiser in approved proportions (as per IS:9103) for any grade of Design Mix Concrete.					
	Considering cost of 120 cum					
	Material:					
	Plasticiser / Super Plasticiser	Kg	0190	140.00	202.56	28,358.40
	Total					-28,358.40
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		-283.58
						-28,641.98
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.1405		-4,024.20
						-32,666.18
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		-4,899.93
						-37,566.11
	Add for Cess @ 1%	Lumpsum	9905	0.01		-375.66
	Cost for 120 cum					-37,941.77
	Cost per Cum	Cum				-316.18
025012	Deduction for using 40mm graded stone aggregate in place of 20mm graded stone aggregate in any grade of concrete.					
	Considering cost of 120 cum					
	Material:					
	Stone Aggregate (Single size) : 20 mm nominal size	Cum	0204	1017.00	1.00	1,017.00
	Stone Aggregate (Single size) : 40 mm nominal size	Cum	0203	958.00	1.00	958.00
	Difference of Cost of 40mm and 20mm size stone aggregates					-59.00

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		-0.59
						-59.59
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		-8.37
						-67.96
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		-10.19
						-78.16
	Add for Cess @ 1%	Lumpsum	9905	0.01		-0.78
	Cost per Cum	Cum				-78.94
025020	Providing and applying two coats of coal tar or bitumen conforming to IS:3117– latest version on the top and sides of RCC box/slabs @ 1.70 kg/sqm after cleaning the surface with all labour and materials complete job as directed by the Engineer.					
	Details of cost for 10 sqm					
	Material:					
	Industrial grade blown type Petroleum Bitumen of grade 85/25 as per IS:702	MT	0314	53750.00	0.02	913.75
	Kerosene Oil	Litre	0183	63.00	1.00	63.00
	Fuel wood	Quintal	0343	5317.00	0.04	186.10
	Labour:					
	Beldar (Un skilled)	Day	0025	547.00	0.50	273.50
	Sundries	Lumpsum	9901	1.00	20.00	20.00
						1,456.35
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		14.56
						1,470.91
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		206.66
						1,677.57
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		251.64
						1,929.21

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Add for Cess @ 1%	Lumpsum	9905	0.01		19.29
	Cost of 10 sqm					1,948.50
	Cost per Sqm	Sqm				194.85
025030	Centering and shuttering including strutting, propping etc. and removal of form for :					
025031	All types of bridge sub-structures, e.g. pier, abutment, wing wall, retaining wall, RCC box type foundations, Abutment cap, Pier Cap, Inspection Platform & Pedestal over Pier cap, Fender wall, Diaphragm wall etc. up to 5m above ground level					
	Details of cost for 10 sqm:					
	Material:					
	Wall form Panel 1250mm x 450mm (Shuttering material)	Each	0254	1442.00	20.00	28,840.00
	MS tube 40mm dia (Shuttering material)	Metre	0253	322.00	20.00	6,440.00
	100mm channel shoulder 2.5 m long (Shuttering material)	Each	0252	1700.00	8.00	13,600.00
	Adjustable telescopic prop 3m (2.02m-3.75m) (Shuttering material)	Each	0255	1508.00	8.00	12,064.00
	Beam Clamp 300-380mm (450mm-1070mm) (Shuttering material)	Set	0256	602.00	12.00	7,224.00
	Total Cost of Making new Shuttering "A".					68,168.00
	Considering the above shuttering material can be used 40 times, Cost of using Once					1,704.20
	G.I. Binding wire	Kg	0219	70.00	2.00	140.00
	Cadmium plated full threaded steel screws (30mm x 4mm dia) (Shuttering material)	100 nos.	0257	58.00	1.00	58.00
	Aluminium washer 2mm thick & 15 mm dia (Shuttering material)	100 nos.	0258	46.00	1.00	46.00
	Sundries	Lumpsum	9901	1.00	100.00	100.00
	Labour:					
	Carpenter (Semi skilled)	Day	0007	637.00	3.00	1,911.00
	Beldar (Un skilled)	Day	0025	547.00	3.00	1,641.00

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Total "B"					5,600.20
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		56.00
						5,656.20
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		794.70
						6,450.90
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		967.63
						7,418.53
	Add for Cess @ 1%	Lumpsum	9905	0.01		74.19
	Cost of 10 sqm					7,492.72
	Cost per sqm	Sqm				749.27
025032	All types of bridge super-structures, e.g. slabs, I-girders, T-girders, Box girders etc. up to 5m above ground level.					
	Details of cost for 10 sqm:					
	Materials:					
	Cost of Shuttering Material:					
	Wall form Panel 1250mm x 450mm (Shuttering material)	Each	0254	1442.00	20.00	28,840.00
	MS tube 40mm dia (Shuttering material)	Metre	0253	322.00	40.00	12,880.00
	100mm channel shoulder 2.5 m long (Shuttering material)	Each	0252	1700.00	8.00	13,600.00
	Adjustable telescopic prop 3m (2.02m-3.75m) (Shuttering material)	Each	0255	1508.00	16.00	24,128.00
	Beam Clamp 300-380mm (450mm-1070mm) (Shuttering material)	Set	0256	602.00	12.00	7,224.00
	Sub-Total:					86,672.00
	Material:					
	Considering the above shuttering material can be used 40 times, Cost of using Once,					2,166.80
	G.I. Binding wire	Kg	0219	70.00	2.00	140.00
	Cadmium plated full threaded steel screws (30mm x 4mm dia) (Shuttering material)	100 nos.	0257	58.00	1.00	58.00

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Aluminium washer 2mm thick & 15 mm dia (Shuttering material)	100 nos.	0258	46.00	1.00	46.00
	Sundries	Lumpsum	9901	1.00	100.00	100.00
	Labour: (Labour element has been increased by 25% of substructure due to slow progress of work)					
	Carpenter (Semi skilled)	Day	0007	637.00	4.00	2,548.00
	Beldar (Un skilled)	Day	0025	547.00	4.00	2,188.00
						7,246.80
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		72.47
						7,319.27
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		1,028.36
						8,347.63
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		1,252.14
						9,599.77
	Add for Cess @ 1%	Lumpsum	9905	0.01		96.00
	Cost of 10 sqm					9,695.77
	Cost per sqm	Sqm				969.58
025033	Extra for additional height over item no. 025031 & 025032 wherever required with adequate bracing, propping etc. over initial height of 5 metres for every additional height of 1 metre or part thereof.					
	Detail of cost for 10 sqm of shuttering for average height of 10 metres - initial heights 5 metres = 5 metres extra height					
	Materials					
	MS tube 40mm dia (Shuttering material)	Metre	0253	322.00	40.00	12,880.00
	Adjustable telescopic prop 3m (2.02m-3.75m) (Shuttering material)	Each	0255	1508.00	12.00	18,096.00
						30,976.00

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Considering the above shuttering material can be used 40 times, Cost of using Once					774.40
	Sundries	Lumpsum	9901	1.00	100.00	100.00
	Labour:					
	Carpenter (Semi skilled)	Day	0007	637.00	3.00	1,911.00
	Beldar (Un skilled)	Day	0025	547.00	3.00	1,641.00
						4,426.40
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		44.26
						4,470.66
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		628.13
						5,098.79
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		764.82
						5,863.61
	Add for Cess @ 1%	Lumpsum	9905	0.01		58.64
	Cost of 10 sqm for 5 m height					5,922.25
	Cost per sqm for 1 metre height	Sqm				118.44

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
025040	Providing and laying in position machine batched, machine mixed and machine vibrated Cement Concrete of specified grade as per approved Design Mix (mixed in Mobile Concrete Batching/Mixing Plant at site using 20mm graded crushed stone aggregate and coarse sand of approved quality in jacketing of piers and abutments from bottom of foundation up to a height of 10m for designed thickness of jacketing including finishing, using Plasticiser in approved proportions (as per IS:9103), to modify workability without impairing strength and durability complete as per specifications and direction of the Engineer in charge. Note: 1. Payment for cement, reinforcement and shuttering shall be paid extra under relevant item. 2. Plasticizer shall invariably be used in approved proportion to increase workability with minimum possible quantity of cement for all grade of Design Mix Concrete unless it is specifically approved citing reasons for not using plasticisers at the stage of Mix Design and in that case deduction shall be made as per relevant item.					
	Considering 10 sqm surface preparation and thickness of 30 cm					
	Labour:					
	Mate (Semi skilled)	Day	0003	619.00	0.75	464.25
	Coolie (Un skilled)	Day	0026	547.00	2.00	1,094.00
	Sundries	Lumpsum	9901	1.00	10.00	10.00
						1,568.25
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		15.68
						1,583.93
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		222.54
						1,806.48
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		270.97
						2,077.45

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Add for Cess @ 1%	Lumpsum	9905	0.01		20.77
	Cost of 10 sqm					2,098.22
	Assuming 30 cm thickness of Jacketing. Qty of Concrete = 3 Cum. Rate as per item 022040			3480.72	3.00	10,442.17
						12,540.39
	Add extra for thinner section, low volume, difficult location and complications involved in river bed.			0.40		5,016.15
	Cost for 3 Cum					17,556.54
	Cost per Cum	Cum				5,852.18
025050	Extra over 025040 for drilling of holes and insertion of dowel bars in case of Jacketing					
025051	Extra for drilling 32mm dia. holes for jacketing / anchoring					
	Taking out put 50 m					
	Labour:					
	Mate (Semi skilled)	Day	0003	619.00	1.00	619.00
	Rock Hole Driller (Semi skilled)	Day	0016	627.00	2.00	1,254.00
	Coolie (Un skilled)	Day	0026	547.00	2.00	1,094.00
	Beldar (Semi Skilled)	Day	0024	585.00	2.00	1,170.00
	Machinery:					
	Hire charges of air compressor 250 cfm capacity with two leads for pneumatic cutters / hammers	Day	0064	1550.00	0.50	775.00
	Sundries	Lumpsum	9901	1.00	60.00	60.00
						4,972.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		49.72
						5,021.72
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		705.55

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
						5,727.27
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		859.09
						6,586.36
	Add for Cess @ 1%	Lumpsum	9905	0.01		65.86
	Cost for 50 m					6,652.23
	Rate per Metre	Metre				133.04
025052	Extra for inserting of dowel bars of specified dia. (cost of rods to be paid extra)					
	Taking output 200 M					
	Labour:					
	Mate (Semi skilled)	Day	0003	619.00	1.00	619.00
	Mason 2nd class (Semi-skilled)	Day	0005	662.00	1.00	662.00
	Coolie (Un skilled)	Day	0026	547.00	2.00	1,094.00
	Sundries	Lumpsum	9901	1.00	20.00	20.00
						2,395.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		23.95
						2,418.95
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		339.86
						2,758.81
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		413.82
						3,172.63
	Add for Cess @ 1%	Lumpsum	9905	0.01		31.73
	Cost for 200 M					3,204.36
	Rate per Metre	Metre				16.02

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
025060	Supplying, spreading and compacting well graded hard stone of 63mm average size (maximum up to 80mm size) in the bottom of foundation of box culverts, bridges etc. including all lead, lift, ascent, descent etc. complete job as per directions of Engineer In-charge.					
	Details of cost for 100 Cum					
	Material:					
	Stone Aggregate (single size) 63mm nominal	Cum	0202	1033.00	100.00	103,300.00
	Sundries	Lumpsum	9901	1.00	100.00	100.00
	Labour:					
	Beldar (Un skilled)	Day	0025	547.00	20.00	10,940.00
	Mate (Semi skilled)	Day	0003	619.00	1.00	619.00
						114,959.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		1,149.59
						116,108.59
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		16,313.26
						132,421.85
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		19,863.28
						152,285.12
	Add for Cess @ 1%	Lumpsum	9905	0.01		1,522.85
	Cost for 100 Cum					153,807.98
	Cost for 1 Cum	Cum				1,538.08
025070	Supply and using Cement at Worksite					
025071	Ordinary Portland Cement 43 grade approved brands/makes					
	Details of Cost per 1 MT					
	Material:					
	Ordinary Portland Cement 43 grade	MT	0186	6113.00	1.00	6,113.00

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		61.13
						6,174.13
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		867.47
						7,041.60
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		1,056.24
						8,097.83
	Add for Cess @ 1%	Lumpsum	9905	0.01		80.98
	Rate Per 1 MT	MT				8,178.81
025072	Ordinary Portland Cement 53 grade of approved brands/makes					
	Details of Cost per 1 MT					
	Material:					
	Ordinary Portland Cement 53 grade	MT	0187	6783.00	1.00	6,783.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		67.83
						6,850.83
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		962.54
						7,813.37
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		1,172.01
						8,985.38
	Add for Cess @ 1%	Lumpsum	9905	0.01		89.85
	Rate Per 1 MT	MT				9,075.23
025073	Pozzolana Portland Cement approved brands/makes					
	Details of Cost per 1 MT					
	Material:					
	Pozzolana Portland Cement	MT	0188	6067.00	1.00	6,067.00

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		60.67
						6,127.67
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		860.94
						6,988.61
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		1,048.29
						8,036.90
	Add for Cess @ 1%	Lumpsum	9905	0.01		80.37
	Rate Per 1 MT	MT				8,117.27
025074	Sulphate Resisting Cement approved brands/makes					
	Details of Cost per 1 MT					
	Material:					
	Sulphate Resisting Cement	MT	0189	7517.00	1.00	7,517.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		75.17
						7,592.17
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		1,066.70
						8,658.87
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		1,298.83
						9,957.70
	Add for Cess @ 1%	Lumpsum	9905	0.01		99.58
	Rate Per 1 MT	MT				10,057.28
025080	Supply of steel reinforcement of approved brands/makes for R.C.C. work including straightening, cutting, bending, placing in position and binding all complete.					
025081	Mild steel bars					
	Details of cost for 1 quintal					
	Material:					

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Mild steel bars = 1.00 quintals					
	Wastage 5% = 0.05 quintals					
	Total = 1.05 quintals					
	MS round bar for reinforcement- average rate for various dia	Quintal	0217	5717.00	1.05	6,002.85
	Cover Blocks @ 1.5% of cost of reinforcement steel	Lumpsum				90.04
	Labour:					
	For straightening, cutting, bending, binding and placing in position-					
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	1.00	749.00
	Beldar (Un skilled)	Day	0025	547.00	1.00	547.00
	Sundries and binding wire	Lumpsum	9901	1.00	50.00	50.00
	Sub - Total					7,438.89
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		74.39
						7,513.28
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		1,055.62
						8,568.90
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		1,285.33
						9,854.23
	Add for Cess @ 1%	Lumpsum	9905	0.01		98.54
	Cost for 1 Qtl					9,952.77
	Rate per Kg	Kg				99.53
025082	Thermo-Mechanically Treated bars of grade Fe-500D or more of approved brands/makes.					
	Details of cost for 1 quintal					
	Material:					
	Mild steel bars = 1.00 q					
	Wastage 5% = 0.05 q					
	Total = 1.05 q					

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Thermo Mechanically Treated Bars grade Fe 500D - or more.(Average of dia 10mm to 25mm) without GST	Quintal	0218	7067.00	1.05	7,420.35
	Cover Blocks @ 1.5% of cost of reinforcement steel	Lumpsum				111.31
	Labour:					
	For straightening, cutting, bending, binding and placing in position-					
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	1.00	749.00
	Beldar (Un skilled)	Day	0025	547.00	1.00	547.00
	Sundries and binding wire	Lumpsum	9901	1.00	50.00	50.00
						8,877.66
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		88.78
						8,966.43
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		1,259.78
						10,226.22
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		1,533.93
						11,760.15
	Add for Cess @ 1%	Lumpsum	9905	0.01		117.60
	Cost for 1 Qtl					11,877.75
	Rate per Kg	Kg				118.78

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CHAPTER - 3 : Bridge Works - Super Structure (RCC)

Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
031010	Providing and laying in position machine batched, machine mixed and machine vibrated Cement Concrete of specified grade as per approved Design Mix (mixed in Mobile Concrete Batching/Mixing Plant at site or RMC from approved plants) using 20mm graded crushed stone aggregate and coarse sand of approved quality for cast in-situ Prestressed (Post-tensioned) concrete girder / Box girders/Slabs for different spans including finishing, using Plasticiser in approved proportions (as per IS:9103), to modify workability without impairing strength and durability complete as per drawings, specifications and direction of the Engineer in-charge. Note: 1. Payment for Staging, Shuttering, Cement, reinforcement, HTS cables, sheathing, anchorage cones, stressing of cables and grouting of the ducts shall be made extra under relevant items. 2. Plasticiser shall invariably be used in approved proportion to increase workability with minimum possible quantity of cement for all grade of Design Mix Concrete unless it is specifically approved citing reasons at the stage of Mix Design and in that case deduction shall be made as per relevant item.					
031011	With Soffit level up to 9m above Bed level					
	RCC Grade Concrete					
	Using Mobile Concrete Batching/Mixing Plant					
	Taking output = 120 cum					
	A) Basic Cost of Concrete					
	Material:					
	Coarse Sand (Zone III)	Cum	0199	2083.00	54.00	112,482.00
	Stone Aggregate (Single size) : 20 mm nominal size	Cum	0204	1017.00	64.80	65,901.60
	Stone Aggregate (Single size) : 10 mm nominal size	Cum	0205	983.00	43.20	42,465.60
	Plasticiser / Super Plasticiser	Kg	0190	140.00	202.56	28,358.40
	Labour:					
	Mate (Semi skilled)	Day	0003	619.00	0.84	519.96
	Mason 1st class (Skilled)	Day	0004	718.00	3.00	2,154.00
	Coolie (Un skilled)	Day	0026	547.00	18.00	9,846.00
	Machinery:					
	Mobile Concrete Batching/Mixing Plant @ 20 cum/hour	Hour	0066	1513.00	6.00	9,078.00
	Hire Charges of Generator 100 KVA/125 KVA	Day	0075	3083.00	0.75	2,312.25
	Hire Charges of JCB 3DX Plus Backhoe Loader	Day	0506	4966.80	0.75	3,725.10
	Hire charges of Pin Vibrator	Day	0078	483.00	4.00	1,932.00
	Hire charges of surface vibrator	Day	0079	483.00	4.00	1,932.00
	Concrete Pump	Hour	0067	900.00	6.00	5,400.00
	Hire charges of Transit Mixer 6 cum capacity	Hour	0068	1700.00	15.00	25,500.00
	Sundries	Lumpsum	9901	1.00	580.00	580.00
						312,186.91
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		3,121.87
						315,308.78
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		44,300.88
						359,609.66
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		53,941.45
						413,551.11
	Add for Cess @ 1%	Lumpsum	9905	0.01		4,135.51
	Cost of 120 Cum					417,686.62
	Basic Rate per Cum	Cum				3,480.72
	B) Additional cost up to 9 mt height @15% on the basic cost of labour and machinery for 1 Cum, i.e. 15% on Cost of labour and machinery for 120 Cum before adding CPOH, GST etc multiplied by (1.01*1.1405*1.15*1.01)/120.	Cum	031011	695.72	0.15	104.36
	Rate per Cum up to 9m height	Cum				3,585.08
031012	With Soffit level From 9m above Bed Level to 12m above Bed Level					
	Cost of concrete as per item 031011 up to 9 m					3,585.08
	Average increase in height beyond 9 metres = (9+12)/2 - 9 m = 1.5 m					
	Additional cost as per item no. 022055 for 1.5 m height	Cum	022055	69.57	1.50	104.36
	Rate per cum	Cum				3,689.44

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
031013	With Soffit level From 12m above Bed Level to 15m above Bed Level					
	Cost of concrete as per item 031011 up to 9 m					3,585.08
	Average increase in height beyond 9 metres = $(15+12)/2 - 9 \text{ m} = 4.5 \text{ m}$					
	Additional cost as per item no. 022055 for 4.5 m height	Cum	022055	69.57	4.50	313.07
	Rate per cum	Cum				3,898.15
031014	Extra over USSOR Item no. 031013 for Soffit level beyond 15m above Bed Level for every 1m or part thereof					
	Same rate as per item no. 022055	Cum	022055	69.57	1.00	69.57
	Rate per cum per metre height	Cum				69.57
031020	Providing and launching in position machine batched, machine mixed and machine vibrated Cement Concrete of specified grade as per approved Design Mix (mixed in Mobile Concrete Batching/Mixing Plant at site or RMC from approved plants) using 20mm graded crushed stone aggregate and coarse sand of approved quality for the Precast Prestressed (Post-tensioned) Concrete Girder/Box Girders/Slabs in contractor's casting yard in the vicinity of worksite, including finishing, using Plasticiser in approved proportions (as per IS:9103), to modify workability without impairing strength and durability, complete as per drawings, specifications and direction of the Engineer. Note: 1. Payment for Shuttering, Cement, Reinforcement, HTS cables, Sheathing, Anchorage Cones, stressing of cables, grouting of the ducts and launching of girder/slab in position shall be made extra under relevant items. However, deduction shall be made in case of slab as per relevant item. 2. For pre-cast item, loading in transport vehicle in casting yard is included and shall not be paid extra. 3. Plasticiser shall invariably be used in approved proportion to increase workability with minimum possible quantity of cement for all grade of Design Mix Concrete unless it is specifically approved citing reasons at the stage of Mix Design and in that case deduction shall be made as per relevant item.					
	Rate Per 1 Cum of Concrete					
	Basic cost of concrete as of item 031011 Sub Total (A)	Cum	031011			3,480.72
	Rate per Cum	Cum				3,480.72
031030	Providing and launching in position machine batched, machine mixed and machine vibrated Cement Concrete of specified grade as per approved Design Mix (mixed in Mobile Concrete Batching/Mixing Plant at site or RMC from approved plants) using 20mm graded crushed stone aggregate and coarse sand of approved quality for the Precast Prestressed (Pre-tensioned) concrete girder/slab in contractor's casting yard, including finishing, using Plasticiser in approved proportions (as per IS:9103), to modify workability without impairing strength and durability, complete as per specifications and direction of the Engineer. Note: 1. Payment for Shuttering, Cement, Reinforcement, HTS cables including stressing and launching of girder/slab in position shall be made extra under relevant items. However, deduction shall be made in case of slab as per relevant item. 2. For pre-cast item, loading in transport vehicle in casting yard is included and shall not be paid extra. 3. Plasticiser shall invariably be used in approved proportion to increase workability with minimum possible quantity of cement for all grade of Design Mix Concrete unless it is specifically approved citing reasons for not using plasticiser at the stage of Mix Design and in that case deduction shall be made as per relevant item.					
	Rate per 1 Cum of Concrete					
	Rate Same as item no. 031011 Sub Total (A)					
	Cost per cum	Cum				3,480.72

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
031040	Providing, fabricating & fixing in position to exact design profiles, H.T.S. cables of all classification made from Low Relaxation strands conforming to IS:14268- latest version in Prestressed (Post-tensioned) Concrete girders/slabs etc. including supplying, cutting, making into cables with necessary spacers, colour coding, protecting with water soluble oil at all time, anchoring of cables, supplying and placing spiral corrugated type galvanized metal steel ducts sheathing made up of Cold Rolled Cold Annealed (CRCA) mild steel conforming to IS:513 of required diameter/ thickness, vent pipe, placing, bending, routing, fixing, stressing & grouting of cable ducts with cement grout, Anchorage sets in required number with provision for future prestressing if any including all lead and lift with contractor's own materials, labour, equipments etc. complete as per drawings & specifications. Rate also includes covering anchorage pads with epoxy mortar of approved quality to avoid corrosion. Cement for grouting to be paid separately. Payment shall be made in terms of weight of HTS cables as per drawing.					
	Unit = 1 MT					
	Taking output for 18.30m span 2 Girder system RDSO Drg = 1.269MT including wastage of 10%. Weight without wastages = 1.269/1.1=1.15 MT					
	Details of cost for 19T13 strand 19 m long cable					
	Material:					
	Low relaxation H T Strands conforming to IS 14268 latest version for prestressed concrete	MT	0213	72167.00	1.27	91,579.92
	(Wastage 10% considered)					
	CRCA Sheathing	Metre	0214	215.00	190.00	40,850.00
	Tube anchorage set complete with bearing plate , permanent wedges etc.	Each	0216	1587.00	20.00	31,740.00
	Cement for grouting including 3 per cent wastage @ 3.00 kg/m = 3 x 1.03 x 152 = 469.68 kg (say, = 470 kg)	MT			0.47	
	Labour:					
	(i) For making and fixing cables, anchorages					
	Mate (Semi skilled)	Day	0003	619.00	0.50	309.50
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	1.00	749.00
	Coolie (Un skilled)	Day	0026	547.00	3.00	1,641.00
	(ii) For prestressing					
	Mate (Semi skilled)	Day	0003	619.00	0.50	309.50
	Fitter Grade - 1 (Skilled)	Day	0010	743.00	1.00	743.00
	Coolie (Un skilled)	Day	0026	547.00	3.00	1,641.00
	(iii) For grouting					
	Mate (Semi skilled)	Day	0003	619.00	1.00	619.00
	Mason 1st class (Skilled)	Day	0004	718.00	1.00	718.00
	Coolie (Un skilled)	Day	0026	547.00	3.00	1,641.00
	Machinery:					
	Hire charges of stressing jack with pump for stressing of HTS cables in PSC girders/slabs.	Day	0107	10500.00	0.50	5,250.00
	Hire charges of grout pump with agitator and accessories	Hour	0108	575.00	2.00	1,150.00
	Hire charges of Generator of 250 KVA capacity	Day	0076	4350.00	0.60	2,610.00
	Sundries	Lumpsum	9901	1.00	1100.00	1,100.00
						182,650.92
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		1,826.51
						184,477.43
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		25,919.08
						210,396.51
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		31,559.48
						241,955.99
	Add for Cess @ 1%	Lumpsum	9905	0.01		2,419.56
	Cost of 1.15 MT					244,375.55
	Rate per MT	MT				212,500.48

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
031050	Providing, fabricating & fixing in position to exact design profiles, H.T.S. cables of all classification made from Low Relaxation strands conforming to IS:14268- latest version in Pretensioned Prestressed Concrete girders/slabs etc. including supplying, cutting, making into cables with necessary spacers, colour coding, protecting with water soluble oil at all time, placing, bending, routing, fixing, stressing including all lead and lift with contractor's own materials, labour, equipments etc. complete as per drawings & specifications. Payment shall be made in terms of weight of HTS cables as per drawing.					
	Unit = 1 MT					
	Taking output for PSC Slab 1.000 MT including wastage of 10%. Weight with wastages = 1.10MT					
	Materials:					
	Low relaxation H T Strands conforming to IS 14268 latest version for prestressed concrete	MT	0213	72167.00	1.10	79,383.70
	(Wastage 10% considered)					
	Labour:					
	(i) For making and fixing cables					
	Mate (Semi skilled)	Day	0003	619.00	0.16	99.04
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	1.00	749.00
	Coolie (Un skilled)	Day	0026	547.00	3.00	1,641.00
	(ii) For prestressing					
	Mate (Semi skilled)	Day	0003	619.00	0.50	309.50
	Fitter Grade - 1 (Skilled)	Day	0010	743.00	1.00	743.00
	Coolie (Un skilled)	Day	0026	547.00	2.00	1,094.00
	Machinery:					
	Hire charges of stressing jack with pump for stressing of HTS cables in PSC girders/slabs.	Day	0107	10500.00	0.50	5,250.00
	Hire charges of Generator of 250 KVA capacity	Day	0076	4350.00	0.60	2,610.00
	Sundries	Lumpsum	9901	1.00	1100.00	1,100.00
						92,979.24
	Add 10% of total cost for component of stressing frame	Lumpsum		0.10		9,297.92
						102,277.16
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		1,022.77
						103,299.94
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		14,513.64
						117,813.58
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		17,672.04
						135,485.61
	Add for Cess @ 1%	Lumpsum	9905	0.01		1,354.86
	Cost of 1.00 MT					136,840.47
	Rate per MT	MT				136,840.47
031060	Extra for using HDPE sheathing in place of CRCA sheathing					
	HDPE Sheathing	Metre	0215	325.00	1.00	325.00
	CRCA Sheathing	Metre	0214	215.00	1.00	-215.00
	Difference of cost of HDPE and CRCA sheathing					110.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		1.10
						111.10
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		15.61
						126.71
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		19.01
						145.72
	Add for Cess @ 1%	Lumpsum	9905	0.01		1.46
	Rate per Metre	Metre				147.17

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
031070	Making suitable designed staging for cast in-situ PSC girders/slabs up to 10.5m height from bed level up to soffit of girder/slab with all contractors materials, machinery, tools and plants, transportation complete in all respects required for casting and removal of the same after completing the work and restoring the site to original. Note: The payment for staging shall be made on the cubical quantity of concrete of main Girders/slabs.					
	Considering cost of staging for 24.4 m PSC Box girder (Concrete qty: 160.00 Cum)					
	Material:					
	Concrete Pedestal for CC cribs as per item no. 022060	Cum	022060	3575.98	18.00	64,367.69
	(PCC 1:3:6) 10.00x4.00x2.00 x 0.75x0.30					
	Ordinary Portland Cement 43 grade	MT	0186	6113.00	4.04	24,702.63
	(18.00x4.49/20=4.041 MT)					
	Quantity of steel used in CC crib and ISMB/ISMC support for centering and shuttering. 1. CC Cribs 244 Nos @ 180kg each =244*180/100 = 439.20 q 2. ISMB 200 length 66m @ 24.2kg/m = 66 x 24.2/100 =15.97 q 3. ISMC 100 length 120m @ 9.56kg/m =120x9.56/100 =11.47q Total weight = 439.20+15.97+11.47 = 466.64 q. Considering 25% salvage value and number of uses before being unserviceable as 20 time, the weight to be charged for using once = 0.75 x 466.64/20 = 17.499 Say 17.50 q. Considering fabrication cost of crib as 50% of the cost of steel, the quantity of steel to be charged for using once = 1.50 x 17.50 = 26.25 q					
	Structural steel such as T, Angles, Channels and R S Joists conforming to Grade Designation E 250; Quality "A" as per IS 2062	Quintal	0221	7050.00	26.25	185,062.50
	Machinery:					
	Transportation of cribs to site of work (One truck, 3 days each for transportation to site and back after dismantling)					
	Hire charges of Diesel Truck - 9 tonne	Day	0508	3794.12	6.00	22,764.72
	Hire charges of 12 MT Hydra	Day	0089	6717.00	4.00	26,868.00
	Hire charges of 12 MT Hydra	Day	0089	6717.00	2.00	13,434.00
	Labour:					
	Beldar (Un skilled)	Day	0025	547.00	60.00	32,820.00
	Sundries	Lumpsum	9901	1.00	1000.00	1,000.00
	Total					371,019.54
	Total except A					306,651.85
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		3,066.52
						309,718.37
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		43,515.43
						353,233.80
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		52,985.07
						406,218.87
	Add for Cess @ 1%	Lumpsum	9905	0.01		4,062.19
	Total except A with water charges, overheads etc.					410,281.06
	Cost including A with water charges, overheads etc.					474,648.75
	Cost for 160 Cum (24.4 metres span)					474,648.75
	Rate per Cum	Cum				2,966.55
031080	Supplying and laying in position specified grade precast prestressed cement concrete ballast retainers of size, as directed by Engineer In-charge. Payment for Shuttering, Cement, reinforcement, HTS cables, anchorage cones, stressing of cables and grouting of the ducts will be done extra.					
	Rate Per 1 Cum of Concrete					
	Rate Same as item no. 031011 Sub Total (A)					
	Rate per Cum	Cum				3,480.72

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
031090	Design, manufacturing, supplying and fixing in position elastomeric bearing true to line and level conforming to IS:3400, IS:226, BS-5400 under prestressed concrete girders/ Steel Girders, for Pre-cast as well as cast-in-situ girders as per approved drawing. The rate shall include cost of load test of one no. bearing from Railway approved firms and all fixing materials, equipments, machineries, labour, taxes, loading, unloading, leading, lifting etc. complete. Rates include getting the drawing approved from Railway and cost of inspection during manufacturing from railway approved organization. Note : 1. The rate is for finished item complete and paid only after fixing in position below the girder. 2. The volume shall be as given in the drawing and no deduction shall be made for inserted steel plates etc.					
	Considering an elastomeric bearing of size 500 x 400 x 96 mm for this analysis.					
	Overall volume of 6 bearings : 19200 X6=115200 cu.cm					
	Volume of 6 nos. 488mm x 388mm x 4mm size reinforcing steel plates = 4545 cu.cm.					
	Hence volume of elastometer = 14655 cu.cm.					
	Material:					
	Elastomeric bearing assembly consisting of 7 layers of Elastomer bonded to 6 nos. internal reinforcing steel laminates by the process of vulcanisation, complete with all components as per drawing and Technical Specification (Each of 19200 Cu Cm)	Each	0268	14703.00	1.00	14,703.00
	Labour:					
	Mate (Semi skilled)	Day	0003	619.00	0.06	37.14
	Mason 1st class (Skilled)	Day	0004	718.00	0.50	359.00
	Coolie (Un skilled)	Day	0026	547.00	0.50	273.50
	Machinery:					
	Hire charges for 200 MT capacity Jack	Day	0105	1478.00	0.50	739.00
	Sundries, adhesives misc. T & P and consumables	Lumpsum	9901	1.00	500.00	500.00
						16,611.64
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		166.12
						16,777.76
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		2,357.27
						19,135.03
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		2,870.25
						22,005.29
	Add for Cess @ 1%	Lumpsum	9905	0.01		220.05
	Cost of volume of elastometer = 19200 cu.cm.					22,225.34
	Rate per cu cm	Cu Cm				1.16
031100	Providing and fixing in position of standard preformed sealed and slab type or strip seal elastomeric type expansion joints for Railway bridge or Road Over Bridges as per approved drawings and latest MORTH/IRC specifications complete in all respect as directed by Engineer in-charge.					
031101	For 40mm expansion					
	Taking output = 12 m					
	Material:					
	Supply of complete assembly of strip seal expansion joint for 40mm expansion , comprising of edge beams, anchorage, strip seal element and complete assembly as per approved specification and drawings	Metre	0326	5500.00	12.00	66,000.00
	Add 5 per cent of cost of material for anchorage reinforcement, welding and other incidentals.			0.05		3,300.00

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Labour:					
	Mate (Semi skilled)	Day	0003	619.00	0.04	24.76
	Mason 1st class (Skilled)	Day	0004	718.00	1.00	718.00
	Fitter Grade - 2 (Semi-skilled)	Day	0011	649.00	0.20	129.80
	Sundries	Lumpsum	9901	1.00	4000.00	4,000.00
						74,172.56
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		741.73
						74,914.29
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		10,525.46
						85,439.74
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		12,815.96
						98,255.70
	Add for Cess @ 1%	Lumpsum	9905	0.01		982.56
	Cost of 12 m					99,238.26
	Rate per metre	Metre				8,269.86
031102	For 80mm expansion					
	Taking output = 12 m					
	Material:					
	Supply of complete assembly of strip seal expansion joint for 80mm expansion , comprising of edge beams, anchorage, strip seal element and complete assembly as per approved specification and drawings	Metre	0327	7000.00	12.00	84,000.00
	Add 5 per cent of cost of material for anchorage reinforcement, welding and other incidentals.			0.05		4,200.00
	Labour:					
	Mate (Semi skilled)	Day	0003	619.00	0.05	30.95
	Mason 1st class (Skilled)	Day	0004	718.00	1.00	718.00
	Fitter Grade - 2 (Semi-skilled)	Day	0011	649.00	0.25	162.25
	Sundries	Lumpsum	9901	1.00	5700.00	5,700.00
						94,811.20
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		948.11
						95,759.31
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		13,454.18
						109,213.50
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		16,382.02
						125,595.52
	Add for Cess @ 1%	Lumpsum	9905	0.01		1,255.96
	Cost of 12 m					126,851.47
	Rate per metre	Metre				10,570.96
031103	For 120mm expansion					
	Unit = Running meter					
	Taking output = 12 m					
	Material:					
	Supply of complete assembly of strip seal expansion joint for 120mm expansion , comprising of edge beams, anchorage, strip seal element and complete assembly as per approved specification and drawings	Metre	0328	7500.00	12.00	90,000.00
	Add 5 per cent of cost of material for anchorage reinforcement, welding and other incidentals.			0.05		4,500.00
	Labour:					
	Mate (Semi skilled)	Day	0003	619.00	0.06	37.14
	Coolie (Un skilled)	Day	0026	547.00	1.00	547.00
	Fitter Grade - 2 (Semi-skilled)	Day	0011	649.00	0.40	259.60
	Sundries	Lumpsum	9901	1.00	7600.00	7,600.00
						102,943.74
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		1,029.44
						103,973.18
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		14,608.23
						118,581.41
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		17,787.21
						136,368.62
	Add for Cess @ 1%	Lumpsum	9905	0.01		1,363.69

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Cost of 12 m					137,732.31
	Rate per metre	Metre				11,477.69
031104	For 160mm expansion					
	Unit = Running meter					
	Taking output = 12 m					
	Material:					
	Supply of complete assembly of strip seal expansion joint for 160mm expansion , comprising of edge beams, anchorage, strip seal element and complete assembly as per approved specification and drawings	Metre	0329	9050.00	12.00	108,600.00
	Add 5 per cent of cost of material for anchorage reinforcement, welding and other incidentals.			0.05		5,430.00
	Labour:					
	Mate (Semi skilled)	Day	0003	619.00	0.07	43.33
	Coolie (Un skilled)	Day	0026	547.00	1.25	683.75
	Fitter Grade - 2 (Semi-skilled)	Day	0011	649.00	0.50	324.50
	Sundries	Lumpsum	9901	1.00	9500.00	9,500.00
						124,581.58
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		1,245.82
						125,827.40
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		17,678.75
						143,506.14
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		21,525.92
						165,032.07
	Add for Cess @ 1%	Lumpsum	9905	0.01		1,650.32
	Cost of 12 m					166,682.39
	Rate per metre	Metre				13,890.20
031110	Load testing of one or more spans of bridge as selected by the Engineer as per approved load test procedure following relevant IS/IRC/Railway codes with contractor's labour, deflection measuring instruments, loading materials, recording and analyzing the load testing results including all lead & lift, etc. complete as required. The rates are all inclusive and will be paid after load test is finished and girder is cleared of the kentledges/loading material etc. The load shall be 1.25 times the stipulated design load.					
031111	For Span design load up to 100 MT					
	Detail of cost of each					
	Considering the load as 100 mt					
	Material:					
	Empty cement bag polythene 50 Kgs capacity	Each	0490	5.00	3000.00	15,000.00
	Add 5 per cent of cost of material for anchorage reinforcement, welding and other incidentals.			0.05		750.00
	Hire charges and cost of instrumentation	Lumpsum	9901	1.00	750.00	750.00
	Labour:					
	(i) For making platform and loading					
	Mate (Semi skilled)	Day	0003	619.00	2.00	1,238.00
	Coolie (Un skilled)	Day	0026	547.00	50.00	27,350.00
	Fitter Grade - 2 (Semi-skilled)	Day	0011	649.00	2.00	1,298.00
	(ii) For clearing the site after completion of the test and removing and disposing the materials.					
	Mate (Semi skilled)	Day	0003	619.00	1.00	619.00
	Coolie (Un skilled)	Day	0026	547.00	30.00	16,410.00
	Fitter Grade - 2 (Semi-skilled)	Day	0011	649.00	1.00	649.00
	Sundries	Lumpsum	9901	1.00	1500.00	1,500.00
						65,564.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		655.64
						66,219.64
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		9,303.86
						75,523.50

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		11,328.52
						86,852.02
	Add for Cess @ 1%	Lumpsum	9905	0.01		868.52
	Rate per test	Each				87,720.54
031112	Extra for every increase of 1 MT or part thereof over 100 MT in the span design load capacity up to 800 MT					
	For 9 MT Additional per MT shall be only due to adding and removing sand bags or any other items for loading. One person can carry 4.5 MT in a day and both for to and fro movement it will be $4.5/2 = 2.25$ MT. Thus for 9 MT, 4 nos. coolie will be required.					
	Labour:					
	Coolie (Un skilled)	Day	0026	547.00	4.00	2,188.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		21.88
						2,209.88
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		310.49
						2,520.37
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		378.06
						2,898.42
	Add for Cess @ 1%	Lumpsum	9905	0.01		28.98
	Cost of 9 MT					2,927.41
	Rate per MT	MT				325.27
031120	Casting and installation of single/twin RCC box of all sizes with or without common web section including design of pushing scheme, thrust bed, casting of all RCC components, with specified grade of controlled concrete, pushing it in correct position and alignment below Railway track/Road following all measures of track safety by "Box pushing technique" as per approved drawings/scheme, with or without surcharge in all types of soils with disposal of surplus earth away from vent up to 1 Km, fixing arrangement for all services & utilities including parapet walls on both sides, wearing course, foot paths, plaques, drainage arrangements etc. and all other incidental works to complete the ROB/RUB/Canal crossing in all respect as per specifications to the satisfaction of Engineer-in-Charge. Note: 1. The rate includes all items of work/supplies for complete job in all respects except "cost of Reinforced cement concrete, cement, reinforcement & shuttering" of (i) main RCC Box; (ii) Thrust Bed; (iii) Footpath (iv) Parapet wall and (v) wearing Course only, which shall be paid extra under relevant items of USSOR. 2. In case Drag Sheet and/or Rail Cluster are to be used as per approved scheme and design, the same shall be paid extra under relevant item. 3. The payment for this item shall be made for the clear inner cross section area of the parent RCC Box/Boxes and barrel length i.e. clear inner volume of parent RCC Box/Boxes.					
	Single RCC Box (Single Vent Way) of 5.50m x 5.00 m Barrel Length 35.3 m i.e. clear inner volume of $5.5 \times 5.0 \times 35.3$ cum = 970.75 cum					
	Box Dimensions					
	Clear span: 5.50M					
	Height of the box : 5.0M					
	Wall thickness: 60 cm					
	Slab thickness: 60 cm					
	Barrel length for three track of BG $(34.8+35.8)/2=35.3$ m					
	Inside dimensions of box: 5.5 X5.0 X35.3m					
	Out side dimensions of box: 6.7 X6.35 X 35.3m					
	Thrust Bed Dimensions					
	Length of thrust bed: 34.8 Mts					
	width of thrust bed: 7.6 mts					
	Thickness of thrust bed: 0.75 Mts					
	Cost of Box pushing except the cost of concrete, cement, reinforcement & shuttering of RCC Box and Thrust Bed.					

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Earth work in excavation all types of soil and disposal of surplus soil up to a lead of 50 M as per item no. 022011 (i) for thrust bed (34.80 X 7.60 X 8.00) = 2115.84 (ii) For Box Portion (6.70 X 6.35 X 35.30) = 1501.84 (iii) for approach formation (8.00 x20.00 x2.00) =320.00	Cum	022011	212.37	3937.68	836,237.92
	Leading of excavated earth up to 1km i.e. average lead of 0.5 km. Cost as per 50% of the rate of item No. 012015 for 70% of the excavated quantity considering 30% as backfill (i) for thrust bed (34.80 X 7.60 X 8.00) =2115.84 (ii) For Box Portion (6.70 X 6.35 X 35.30) = 1501.84 (iii) for approach formation (8.00 x20.00 x2.00) = 320.00 Total quantity of excavation = 3937.68 cum Quantity taken for leading = 70% x 3937.68 cum = 2756.38	Cum	012015	2.82	2756.38	7,766.46
	Dewatering of accumulated water from any location. Payment to be done for horse power of pump multiplied by pumping hour 10 days x 3 hours per day x 5 hp =150 as per item no. 052260	HP Hour	052260	42.81	150.00	6,422.10
	Providing and laying Cement Concrete 1:4:8 using 40 mm aggregate in base course below thrust bed 34.80 X 7.60 X 0.05 = 13.224 Cum as per item no. 022036	Cum	022036	3572.03	13.22	47,236.46
	Providing 50 mm thick screed with CC 1:2:4 using 12.5 mm aggregate thrust bed 34.80 X 7.60 X 0.05 = 13.224 as per item no.022032	Cum	022032	3518.41	13.22	46,527.39
	Cutting edge total qty 12000 kg - 3.00MT for each box out of which 1500 kg will be embedded in concrete and cannot be reused and balance 1500 kg will be useful as scrap after pushing as per item no 023030. - Salvage value of 50% of steel quantity i.e.3000/2 = 1500 kg.@15% Net quantity = 1500 x 1.85 = 2775 kg = 2.775 MT Say 2.78 MT	MT	023030	155367.45	2.78	431,921.51
	Polyvinyl chloride sheet 400 micron.	Sqm	0247	53.00	536.56	28,437.68
	Supplying of polyvinyl chloride sheet 400 micron. Thrust bed area 35.3 X 7.6 X 2 times					
	Grease MP-2 or equivalent of HPCL/BPCL/IOCL	Kg	0185	192.00	120.00	23,040.00
	Structural Steel Plates conforming to Grade Designation E 250; Quality "A" as per IS 2062	Quintal	0220	7950.00	16.00	127,200.00
	(Pins and packings plate total qty 16000 Kgs this can be used for 10 box pushings works Net qty for each box pushing = 16000/10 =1600 Kg- 16 Quintals)					
	Hire charges for 200 MT capacity Jack	Day	0105	1478.00	735.00	1,086,330.00
	(21 Jacks required per day X 35 Days at the rate of 1.0 m length of pushing per day)					
	Hire charges for Power pack with 200 litres capacity tank with 10 HP 3 phase induction motor, inlet, out let valves pressure gauges, hose pipes etc for pushing arrangement including consumables, tools, plants, operator, and transportation to site of work	Day	0077	5467.00	35.00	191,345.00
	Hire charges for 3 phase generator (60 KVA)	Day	0074	2458.00	35.00	86,030.00
	Providing road crane (hydra) of 12 MT capacity for mobilization heavy machinery like pins, packs and jacks etc					
	Hire charges of 12 MT Hydra	Day	0089	6717.00	35	235,095.00
	Providing and removing barricading with the help of portable fencing with self supporting steel angles of size 50 x50x6mm, 1.5m long provided with hooks etc. and embedded in CC reflective tapes in Horizontal & vertical direction. Note : Released material will be the property of the contractor after the completion of work. Cost of cement to be paid separately as per item no 013041	Metre	013041	401.27	100.00	40,127.01
	Hire charges of 7.5 KVA Generator	Day	0072	1133.00	35.00	39,655.00
	Hire Charges of Halogen Lamps 500 Watt	Day	0165	192.00	420.00	80,640.00
	slewing of disturbed track to correct alignment , lifting /lowering of track under traffic condition and maintenance of track to required standard during the entire period of box pushing with all contractors tools and plants (daily 6+1+1 labour for 35 days. Labour shall work for track correction for half day and other works in remaining period.					
	Labour:					
	Highly Skilled labour	Day	0018	747.00	35.00	26,145.00
	Mate (Skilled)	Day	0002	751.00	18.00	13,518.00
	Labour Unskilled	Day	0020	540.00	122.00	65,880.00

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Coolie (Un skilled)	Day	0026	547.00	20.00	10,940.00
	Filled sand bags (30 kg weight)	Each	0198	52.00	10000.00	520,000.00
	Providing cast in situ bridge number plaques as per item 052210	Each	052210	1111.16	2.00	2,222.31
	Providing cast in situ foundation plaques as per item 052220	Each	052220	1492.20	1.00	1,492.20
	Sundries (no rates reqd.) incl conduits etc.	Lumpsum	9901	1.00	15000.00	15,000.00
	Sub total-1					3,969,209.05
	Sub total-2: Sub-Total of items marked as "A" (USSOR items final Rates are adopted)					1,419,953.37
	Sub-Total-3: Total of item without water charges, GST, Contractor profit & Overheads, Cess. = Cost at Sub-Total 1 (-) Cost at Sub-Total -2 of items marked as "A"					2,549,255.68
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		25,492.56
						2,574,748.24
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		361,752.13
						2,936,500.36
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		440,475.05
						3,376,975.42
	Add for Cess @ 1%	Lumpsum	9905	0.01		33,769.75
	Sub- Total-4: Total cost of items except (A) with water charges, GST, Contractor profit & Overheads, Cess					3,410,745.17
	Sub Total-5: Total Cost without Design Charges.					4,830,698.54
	Designing and drawing of RCC thrust bed, cutting edge, drag sheet arrangement etc. as applicable @ 2 % total cost			0.02		96,613.97
	Total Cost for 5.5 x 5.0 x (34.8+35.8)/2 size box (clear inner volume of 970.75 cum) except cost of concrete, cement, reinforcement & shuttering of components of work Specified above.					4,927,312.51
	Rate per cum	Cum				5,075.78
031121	Extra for using GI Drag Sheet, 1.50 mm thick, for protection of track from subsidence while pushing the box as per design over item no. 031120. Note: The payment for this item shall be made for the clear inner cross section area of the parent RCC Box/Boxes and barrel length i.e. clear inner volume of parent RCC Box/Boxes.					
	Material:					
	Drag sheets: 1.50 mm thick GI Sheet in ribbons of 50 cm width 36 x 6.7 = 241.2 Sq.M x 11.77 kg/sq.m=2840 kgs					
	GI Sheet 1.50 mm thick	Quintal	0243	6250.00	28.39	177,437.50
	Supporting frame and ancillary arrangement for fixing of drag sheet Total qty 9000 kg - 9.00MT. After completing the work, 85% of structural steel shall be salvaged and considering scrap value @ 25% of the original cost, quantity to be charged for providing arrangement = 9000 x 0.85 x (1-0.25) = 5737.5 kg Say 5.74 MT. Rate of fabricated arrangement as per item no. 023030.	MT	023030	155367.45	5.74	891,809.15
	Total except "A"					177,437.50
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		1774.38
						179211.88
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		25179.27
						204391.14
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		30658.67
						235049.81
	Add for Cess @ 1%	Lumpsum	9905	0.01		2350.50
	Sub-Total (excluding "A")					237,400.31
	Total Cost for 5.5 x 5.0 x (34.8+35.8)/2 i.e. 970.75 Cum inner volume of RCC Box.					1,129,209.47
	Rate per Cum	Cum				1,163.23

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
031130	Casting and installation of single/twin RCC box of all sizes with or without common web section after supporting the track on temporary girders including design of pushing scheme, thrust bed, casting of all RCC components, with specified grade of controlled concrete, pushing it in correct position and alignment below Railway track/Road following all measures of track safety by "Air pushing technique" as per approved drawings/scheme, in all types of soils with disposal of surplus earth away from vent up to 1 Km, fixing arrangement for all services & utilities including parapet walls on both sides, wearing course, foot paths, plaques, drainage arrangements etc. and all other incidental works to complete the ROB/RUB/Canal crossing in all respect as per specifications to the satisfaction of Engineer-in-Charge. Note: (1) The rate includes all items of work/supplies for complete job in all respects except "cost of Reinforced cement concrete, cement, reinforcement & shuttering" of (i) main RCC Box; (ii) Thrust Bed; (iii) Footpath (iv) Parapet wall and (v) wearing Course only, which shall be paid extra under relevant items of USSOR. (2) The CC Cribs as required and Temporary Girder shall be supplied by Railways at available location. (3) Transportation of Temporary Girder to site shall be paid separately under relevant item.. (4) The payment for this item shall be made for the clear inner cross section area of the parent RCC Box/Boxes and barrel length i.e. clear inner volume of parent RCC Box/Boxes.					
	Box Dimensions					
	Adopting approved GAD Drg No GM/W/SC/BR/RUB/SC/3903/2018 dimensions					
	Clear span: 5.50M					
	Clear Height of the box: 5.0M					
	Wall thickness: 60 cm					
	Slab thickness: 60 cm					
	Barrel length of box: 16.85 M					
	Inside dimensions of box (considering average thickness of wearing course) 5.5 X 5.375 X 16.85 (16.85 is pushing length of box)					
	Out side dimensions of box: 6.7 X 6.575 X 16.85					
	Proposed Casting Bed Dimensions					
	Length of casting bed: 20.875 Mts					
	width of casting bed: 7.6 mts					
	Thickness of casting bed: 0.75 Mts					
	Excavation for casting bed and approaches					
	(i) Earth work in excavation as per item no. 022011 for casting bed and at approaches and disposal of surplus soil up to a lead of 2 km including loading, unloading and pumping out of water if required (casting bed $21 \times 8 \times 1.50 = 252.00$ Cum) + (Approaches $20.00 \times 8.00 \times 2.00 = 320.00$ Cum). Total Quantity = $252.00 + 320.00 = 572.00$ Cum.	Cum	022011	212.37	572.00	121,474.60
	Excavation in formation and insertion of Temporary girder , cribs and for air pushing as per item no. 022011					
	(ii) Main Box Portion = 2500 Cum					
	All kinds of soils	Cum	022011	212.37	2500.00	530,920.44
	Leading of excavated earth up to 1km i.e. average lead of 0.5 km. Cost as per 50% of the rate of item No. 012015 for 70% of the excavated quantity considering 30% as backfill (a) for thrust bed = 572.00 (b) For Box Portion = 2500 (c) for approach formation = 320.00 Total quantity of excavation = 3072.00 cum Quantity taken for leading = $70\% \times 3072.00 \text{ cum} = 2150.40$	Cum	012015	2.82	2150.40	6,059.03
	Providing and laying Cement Concrete 1:4:8 using 40 mm aggregate in base course below thrust bed $20.875.00 \times 7.60 \times 0.05 = 7.933$ Cum as per item no. 022036	Cum	022036	3572.03	7.93	28,326.16
	Providing 50 mm thick screed with CC 1:2:4 using 12.5 mm aggregate thrust bed $20.875 \times 7.60 \times 0.05 = 7.933$ as per item no.022032	Cum	022032	3518.41	7.93	27,900.96

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Supply and filling sand in formation before pushing the boxes 10 x 17 x 0.20 = 34 cum	Cum	052240	3558.76	34.00	120,997.85
	Insertion of temporary girder in place of formation as per item no. 191021.					
	RH /Temporary girder of length varying from 12.2m to 16.3m using road crane capacity of 50 MT	Each	191021	77412.73	1.00	77,412.73
	Removal of temporary girder, crib on both ends and placing temporary girder on crib / cess away from Railway track as directed by engineer at site under traffic block; filling of Railway's earth by ramming, pulling ballast from stack / adjoining track / same track, laying track, linking with approach track and packing of ballast for opening track at 20 kmph speed, boxing & dressing of cess, ballast profiling etc. as per item no. 191041.					
	RH /Temporary girder of length varying from 12.2m to 16.3m using road crane capacity of 50 MT	Each	191041	84439.72	1.00	84,439.72
	Note:- Excavated earth from Rly area will be used					
	Quantity of sleepers for 56 Sleepers= 56 x 2.74 x 0.20 x 0.15 = 4603 Cum = 4.60 Cum					
	Manufacturing and using wooden sleepers/blocks required for matting and bearing as per approved design for use below and above CC Crib for insertion of Temporary Girder etc..Note: The item is for one time use and released wooden sleepers/blocks shall be the property of the Contractor.	Cum	191030	2019.63	4.60	9,296.37
	Rolling of box					
	JACKS					
	Jacks (One jack of 200 MT capacity is required for jacking of 100 MT weight of box. Weight per 1 mt length of 5.5 x 5.375 m box = 37.75 MT for 16.85 mt length 636 Mt +1/4 of 636 MT for friction total 795 MT i.e. 8 jacks + 2spare 10 jacks required x (5+3) days for rolling 10 jacks per day x 8 days =80 jacks					
	Hire charges for 200 MT capacity Jack	Day	0105	1478.00	80.00	118,240.00
	Power pack: 2Nos x (5+3) days					
	Hire charges for Power pack with 200 litres capacity tank with 10 HP 3 phase induction motor, inlet, out let valves pressure gauges, hose pipes etc for pushing arrangement including consumables, tools, plants, operator, and transportation to site of work	Day	0077	5467.00	16.00	87,472.00
	Generator: During pushing period i.e. 5+3 days					
	Hire charges for 3 phase generator (60 KVA)	Day	0074	2458.00	8.00	19,664.00
	Extra Semi skilled labour (5 Nos x 7 days)					
	Helper (Semi-skilled)	Day	0021	572.00	35.00	20,020.00
	Providing road crane (hydra) of 12 MT capacity for mobilization heavy machinery like jacks etc	Day	041201	9991.05	7.00	69,937.35
	Highly skilled labour for air pushing in correct line and level					
	Highly Skilled labour	Day	0018	747.00	8.00	5,976.00
	Girder maintenance work					
	Skilled labour for girder maintenance 9 days x 2 Nos per day					
	Mate (Skilled)	Day	0002	751.00	18.00	13,518.00
	skilled labour for girder maintenance 9 days x 4 Nos per day					
	Fitter Grade - 1 (Skilled)	Day	0010	743.00	36.00	26,748.00
	Semi skilled labour for girder/track maintenance 9 days x 5 N os per day					
	Fitter Grade - 2 (Semi-skilled)	Day	0011	649.00	45.00	29,205.00
	Electrician (Skilled)	Day	0013	749.00	1.00	749.00
	Helper (Semi-skilled)	Day	0021	572.00	2.00	1,144.00
	Hire charges of 7.5 KVA Generator	Day	0072	1133.00	8.00	9,064.00
	Hire Charges of Halogen Lamps 500 Watt	Day	0165	192.00	96.00	18,432.00
	Providing and removing barricading with the help of portable fencing with self supporting steel angles of size 50 x50x6mm, 1.5m long provided with hooks etc. and embedded in CC .With provision of painting verticals & horizontals with red luminous paints / Strips of 30cm each with a gap of 30 cm.	Metre	013041	401.27	100.00	40,127.01
	Cement (0.019 Qtl per metre)	MT	025072	9075.23	1.90	17,242.94
	Providing cast in situ bridge number plaques	Each	052210	1111.16	2.00	2,222.31
	Providing cast in situ foundation plaques	Each	052220	1492.20	2.00	2,984.40
	Sundries	Lumpsum	9901	1.00	50.00	50.00
	Total of all items including marked "A"					1,489,623.87

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Deduct Total of items Marked 'A'					1,139,341.87
	Total of items excluding "A"					350,282.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		3,502.82
						353,784.82
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		49,706.77
						403,491.59
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		60,523.74
						464,015.33
	Add for Cess @ 1%	Lumpsum	9905	0.01		4,640.15
	Total of items excluding "A", with Overheads					468,655.48
	Grand total- of all items					1,607,997.35
	Designing and drawing of RCC casting bed (@ 2 % of sub total cost)			0.02		32,159.95
	for 5.5 m x 5.00 m x 16.85 m = 463.375 Cum					1,640,157.29
	Rate per Cum	Cum				3,539.59
031140	Fabrication, insertion and removal of rail cluster below the running track to ensure safety of track during box pushing in correct position and alignment with Railway rails and contractors MS flats, wooden blocks, and 12 mm dia bolts etc., as per approved drawing including removing and filling back of ballast below track under traffic conditions of Electrified/Non-Electrified section with all contractors, labour, tools, tackles, consumables plants, and 50MT capacity crane and any other material required for execution of work in all respect with all lead and lift, transportation and as directed by Engineer in-charge. Payment quantity shall be as per the weight of rail in rail cluster used at site or as per approved drawing, whichever is minimum.					
	Note: (i) Insulated Elastomeric pad (Railway supplied) shall be used between Running rails and cross rails to prevent failure of track circuit. (ii)CC Cribs will be supplied by the railways at free of cost, if they are required to be inserted under the track. Transportation to the site and back to the required location will be paid by Railways under relevant agreement item (iii)Rail cluster should be properly maintained by proper packing under wooden blocks /mattings during passage of trains and de assemble after completion of work					
	Fabrication of 9 rail cluster of 13.0 mt long by providing clamping arrangement with MS flats (2Nos)					
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	6.00	4,494.00
	Labour Unskilled	Day	0020	540.00	24.00	12,960.00
	Removing and refilling ballast from below the track for insertion/removal of rail cluster					
	Labour Unskilled	Day	0020	540.00	12.00	6,480.00
	Supply of MS flats of 50 x 8 (1.2 x 8 Nos x 3.097 kg/mt=29.730 kg.					
	M S Flat upto 10 mm thickness	Quintal	0227	7017.00	0.30	2,105.10
	Supply of wooden mats (1.5 x.15 x1.2 x 4 Nos +Add sleepers 1.5 x .45 x1.2 x 4 Nos = 4.32 Cum or 4320 cudm) Rate for one time use as per item no. 191030					
	Rate as per item no. 191030	Cum	191030	2019.63	4.32	8,724.82
	Supply of 12 mm dia screws (.35 length 16 Nos)					
	Nut & Bolts with washers of all sizes	Kg	0231	122.00	0.96	116.63
	Providing road crane of 50 MT capacity for insertion /removal of rail cluster and handling of rails	Day	041203	23771.81	3.00	71,315.42
	Handling of rails during insertion /removal and De assembling rail cluster					
	Labour Unskilled	Day	0020	540.00	8.00	4,320.00
	Sundries	Lumpsum	9901	1.00	25.00	25.00
	Sub-Total Including 'A'					110,540.97
	Sub-Total excluding 'A'					30,500.73
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		305.01
						30,805.74
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		4,328.21
						35,133.95

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		5,270.09
						40,404.04
	Add for Cess @ 1%	Lumpsum	9905	0.01		404.04
	Grand total-					40,808.08
	Grand Total including 'A'					120,848.32
	Total cost for Fabrication, insertion and removal of rail cluster below running the track for single track (Weight 19.71 MT)					
	Rate per 1 MT	MT				6,131.32
031150	Launching of precast RCC box segments for RUBs/Limited Height Subways (LHS) of any size and barrel length for single/double line as per approved drawings to the correct alignment and position in electrified / non-electrified sections safeguarding all utilities (S&T cable, power cable, OHE, pipelines etc.) including transportation of box segments from casting yard to site of launching, dismantling of the existing track, removing & stacking of ballast, cutting of formation and approach road below or above bed level, placing of base slabs & Box segments in position, backfilling after launching of precast box segment, ballasting & re-laying of track to correct alignment and geometry, packing and further maintenance till allowing non-stop 20 KMPH over the re-laid track, complete in all respect to the satisfaction of Engineer-in-charge. The rate is all inclusive except the cost of RCC Box Segments, Base Slabs and backfill material which shall either be supplied by railway or paid extra under relevant item. Note: Minimum equipment required during block shall be (i) Crawler mounted Hydraulic excavator of min 200 HP and bucket capacity 2.5 cum - 3 numbers and (ii) 3 cranes of adequate boom length suitable for launching box segments in position (min capacity of each crane - 200 MT for Single Line and 300 MT for Double Line) apart from other equipments, tools, plants and machinery required to complete the job within the allowed block period.					
031151	For Single Line					
	Quantity taken for analysis is for Single Line					
	Labour:					
	Mate (Skilled)	Day	0002	751.00	6.00	4,506.00
	Labour Unskilled	Day	0020	540.00	36.00	19,440.00
	Electrician (Skilled)	Day	0013	749.00	2.00	1,498.00
	Machinery:					
	For calculation of hire charges of 200 MT Capacity Cranes and 200 HP Hydraulic Excavator, 1 day for travel (to & fro) with charges as half of working hire charges, equivalent days shall increase by 50%. Therefore instead of 3 cranes and 3 Hydraulic Excavator for one day of working, it will be taken as 4.5 crane-days and 4.5 excavator days for calculation purpose..					
	Hire Charges of Crawler mounted Hydraulic Excavator 200 HP (2.5 cum bucket)	Day	0502	14586.20	4.50	65,637.90
	Hiring charges of 200 MT capacity crane	Day	0097	170833.00	4.50	768,748.50
	Hire charges of Power driven hammer drill	Day	0082	1525.00	1.50	2,287.50
	Hire charges of air compressor 250 cfm capacity with two leads for pneumatic cutters / hammers	Day	0064	1550.00	1.50	2,325.00
	Hire and running charges of Tipper 12 Cum Capacity	Day	0509	6317.85	1.50	9,476.78
	Hiring of trailer truck of 20 MT capacity	Day	0101	14667.00	1.00	14,667.00
	Hire charges of 7.5 KVA Generator	Day	0072	1133.00	3.00	3,399.00
	Hire Charges of Halogen Lamps 500 Watt	Day	0165	192.00	12.00	2,304.00
	Sundries	Lumpsum	9901	1.00	5000.00	5,000.00
						899,289.68
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		8,992.90
						908,282.57
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		127,613.70
						1,035,896.27
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		155,384.44
						1,191,280.71
	Add for Cess @ 1%	Lumpsum	9905	0.01		11,912.81
	Rate for Single line	Each				#####
031152	For Double Line					

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Quantity for double line					
	Labour:					
	Mate (Skilled)	Day	0002	751.00	6.00	4,506.00
	Labour Unskilled	Day	0020	540.00	54.00	29,160.00
	Electrician (Skilled)	Day	0013	749.00	2.00	1,498.00
	Machinery:					
	Hire Charges of Crawler mounted Hydraulic Excavator 200 HP (2.5 cum bucket)	Day	0502	14586.20	6.00	87,517.20
	Hire Charges of 300MT Capacity Cranes 3 Nos. during block (2 working and 1 standby). Considering 1 day for travel (to & fro) with half the charges of working, Crane days required = $3 \times 1.5 = 4.5$ crane-days.					
	Hiring charges of 300 MT capacity crane	Day	0099	250833.00	4.50	1,128,748.50
	Hiring of trailer truck of 20 MT capacity	Day	0101	14667.00	1.00	14,667.00
	Hire charges of Power driven hammer drill	Day	0082	1525.00	1.50	2,287.50
	Hire charges of air compressor 250 cfm capacity with two leads for pneumatic cutters / hammers	Day	0064	1550.00	1.50	2,325.00
	Hire and running charges of Tipper 12 Cum Capacity	Day	0509	6317.85	1.50	9,476.78
	Hire charges of 7.5 KVA Generator	Day	0072	1133.00	3.00	3,399.00
	Hire Charges of Halogen Lamps 500 Watt	Day	0165	192.00	12.00	2,304.00
	Sundries	Lumpsum	9901	1.00	7500.00	7,500.00
						1,293,388.98
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		12,933.89
						1,306,322.86
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.1405		183,538.36
						1,489,861.23
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		223,479.18
						1,713,340.41
	Add for Cess @ 1%	Lumpsum	9905	0.01		17,133.40
	Rate for Double line	Each				#####
031160	Loading, transportation of Precast RCC Girders / Slabs / Ballast retainers / Steel Girders etc. from Casting Yard to Site of Work, unloading and stacking at site of work at prescribed location as directed by Engineer-in-Charge up to 60 kms.					
	Rate directly connected to Working Sheet for calculation of transportation charges					
031161	Up to 5.00 Km	MT		113.03	1.00	113.03
031162	Above 5 km up to 10 km	MT		148.41	1.00	148.41
031163	Above 10 km up to 15 km	MT		180.15	1.00	180.15
031164	Above 15 km up to 20 km	MT		209.33	1.00	209.33
031165	Above 20 km up to 25 km	MT		236.67	1.00	236.67
031166	Above 25 km up to 30 km	MT		262.61	1.00	262.61
031167	Above 30 km up to 35 km	MT		287.48	1.00	287.48
031168	Above 35 km up to 40 km	MT		311.51	1.00	311.51
031169	Above 40 km up to 60 km	MT		366.67	1.00	366.67
031170	Loading, transportation of Precast RCC Girders / Slabs / Ballast retainers / Steel Girders etc. from Casting Yard to Site of Work, unloading and stacking at site of work at prescribed location as directed by Engineer-in-Charge above 60 kms.					
031171	Above 60 km up to 80 km	MT		453.59	1.00	453.59
031172	Above 80 km up to 100 km	MT		538.68	1.00	538.68
031173	Above 100 km up to 150 km	MT		710.97	1.00	710.97
031174	Above 150 km up to 200 km	MT		959.62	1.00	959.62
031175	Above 200 km	MT KM		5.11	1.00	5.11
031180	Providing Flood Level Gauges on abutments and piers, made by 20mm thick 1:4 cement plaster for a width of not less than 300mm, duly engraving markings & figures in metres, divided into 10 parts commencing from under-side of girders towards bed, painting markings & figures with black enamel paint in three coats on white background including painting HFL Mark in white by side of gauge with year of occurrence with all Contractor's materials, labour, tools, scaffolding and supports, lead & lifts, curing etc. complete as per approved drawing and as directed by the Engineer in- charge excluding cost of cement which shall be paid extra.					

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Details of cost for 100 Sqm					
	Details of cost for 1 cum Cement Mortar					
	20mm thick Cement plaster (1:4) as per following item					
	Material:					
	(0.268 cum of cement = 0.38 tonne)					
	Coarse Sand (Zone III)	Cum	0199	2083.00	1.07	2,228.81
	Labour:					
	For measuring, carrying, depositing and mixing					
	Beldar (Un skilled)	Day	0025	547.00	0.75	410.25
	Bhisti (Semi skilled)	Day	0023	619.00	0.07	43.33
	Hire and running charges of mechanical mixer	Lumpsum	9901	1.00	30.00	30.00
	Sundries	Lumpsum	9901	1.00	15.00	15.00
	Cost of 1 cum	Cum				2,727.39
	a) Details of cost for 10 sqm 20mm thick 1:4 Plaster					
	Materials:					
	Cost of 1 cum 1:4 Cement Mortar	Cum		2727.39	0.22	610.94
	Labour:					
	Mason 2nd class (Semi-skilled)	Day	0005	662.00	0.94	622.28
	Coolie (Un skilled)	Day	0026	547.00	1.02	557.94
	Bhisti (Semi skilled)	Day	0023	619.00	1.10	680.90
	Scaffolding and sundries	Lumpsum	9901	1.00	10.00	10.00
						2,482.06
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		24.82
						2,506.88
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		352.22
						2,859.09
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		428.86
						3,287.96
	Add for Cess @ 1%	Lumpsum	9905	0.01		32.88
	Cost of 10 sqm					3,320.84
	Cost of 1 sqm	Sqm				332.08
	b) Painting two coats (excluding priming coat) with chocolate, red, grey or buff ready mixed paint of approved quality on steel or wood work					
	Details of cost for 10 sqm					
	Materials -					
	Synthetic Enamel Paint in Black or Chocolate shade	Litre	0308	308.00	1.16	357.28
	Material for filling in hole and cracks	Lumpsum	9901	1.00	5.00	5.00
	Labour:					
	Painter (Skilled)	Day	0012	749.00	0.54	404.46
	Coolie (Un skilled)	Day	0026	547.00	0.54	295.38
	Putty ,Brushes ,sand papers etc.	Lumpsum	9901	1.00	10.00	10.00
	Sundries	Lumpsum	9901	1.00	10.00	10.00
						1,082.12
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		10.82
						1,092.94
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		153.56
						1,246.50
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		186.97
						1,433.47
	Add for Cess @ 1%	Lumpsum	9905	0.01		14.33
	Cost of 10.00 sqm					1,447.81
	Cost of 1.00 sqm	Sqm				144.78
	c) Lettering with "Synthetic Enamel" paint (two coats) of approved brand and manufacture					
	Details of cost for 100 letters of 15 cm height					
	Materials -					
	Enamel Paint as per RDSO's Spec. no.M&C/PCN/120-2011	Litre	0304	248.00	0.56	138.88
	Labour-					
	Painter (Skilled)	Day	0012	749.00	6.00	4,494.00
	Coolie (Un skilled)	Day	0026	547.00	2.00	1,094.00
	Painting brushes, turpentine stencil etc.	Lumpsum	9901	1.00	20.00	20.00

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Sundries	Lumpsum	9901	1.00	10.00	10.00
						5,756.88
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		57.57
						5,814.45
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		816.93
						6,631.38
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		994.71
						7,626.09
	Add for Cess @ 1%	Lumpsum	9905	0.01		76.26
	Cost of 100 letters of 15 cm height					7,702.35
	Cost of 1.00 letter of 1 cm height	Each				5.13
	Total cost for 100 Sqm					
	20mm thick Cement Plaster (1:4) as per (a) above.	Sqm		332.08	100.00	33,208.35
	Painting with synthetic enamel as per (b) above.	Sqm		144.78	100.00	14,478.09
	Lettering with "Synthetic Enamel" paint as per (c) above.	Each		5.13	3000.00	15,404.69
	Cost for 100 Sqm					63,091.14
	Rate per Sqm	Sqm				630.91
031190	Providing and fixing in position GI Drainage Spouts of required length with Grating in RCC slab and filling bitumen along kerb as shown in drawing with contractor's pipes, bitumen, tools, equipment, lead, lifts etc. complete as per specifications and as directed by Engineer in-charge.					
031191	50mm dia. Drainage Spouts					
	Details of cost for 10 x 10m = 100m pipe					
	Material:					
	GI Pipe 50 mm dia , B Class Medium duty	Metre	0261	522.00	105.00	54,810.00
	Bitumen Hot sealing compound : Gr. A	MT	0317	38500.00	0.01	385.00
	Clamps and MS stays including bolts and nuts for 50mm dia pipe	Each	0264	68.00	50.00	3,400.00
	C I grating 100mm x 100mm	Each	0265	86.00	10.00	860.00
	Sundries	Lumpsum	9901	1.00	100.00	100.00
	Labour:					
	Mason 2nd class (Semi-skilled)	Day	0005	662.00	2.00	1,324.00
	Beldar (Un skilled)	Day	0025	547.00	4.00	2,188.00
						63,067.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		630.67
						63,697.67
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		8,949.52
						72,647.19
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		10,897.08
						83,544.27
	Add for Cess @ 1%	Lumpsum	9905	0.01		835.44
	Cost for 100 Metre Pipe					84,379.71
	Rate per metre	Metre				843.80
031192	100mm dia. Drainage Spouts					
	Details of cost for 10 x 10m = 100m pipe					
	Material:					
	GI Pipe 100 mm dia , B Class Medium duty	Metre	0262	942.00	105.00	98,910.00
	Bitumen Hot sealing compound : Gr. A	MT	0317	38500.00	0.02	577.50
	Clamps and MS stays including bolts and nuts for 100mm dia pipe	Each	0263	107.00	50.00	5,350.00
	C I grating 100mm x 100mm	Each	0265	86.00	10.00	860.00
	Sundries	Lumpsum	9901	1.00	100.00	100.00
	Labour:					
	Mason 2nd class (Semi-skilled)	Day	0005	662.00	2.00	1,324.00
	Beldar (Un skilled)	Day	0025	547.00	4.00	2,188.00
						109,309.50
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		1,093.10
						110,402.60
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		15,511.56
						125,914.16
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		18,887.12
						144,801.28

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Add for Cess @ 1%	Lumpsum	9905	0.01		1,448.01
	Cost for 100 Metre Pipe					146,249.30
	Rate per metre	Metre				1,462.49
031200	Applying Epoxy Poly-sulphate Paint three coats on existing bottom surface of deck slab including cleaning surface of dirt, dust & other foreign matter, sand papering, wire brushing as required with all contractor's materials tools, machinery, scaffolding, lead, lifts etc. complete as per specifications and as directed by Engineer in-charge					
	Detail of cost for 10 Sqm					
	Material:					
	Epoxy paint as per RDSO Spec M&C/PCN/123-11	Litre	0309	547.00	3.00	1,641.00
	Soft Brush for painting - 25cm long	Each	0312	59.00	1.00	59.00
	Labour:					
	Painter (Skilled)	Day	0012	749.00	1.00	749.00
	Beldar (Un skilled)	Day	0025	547.00	1.00	547.00
						2,996.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		29.96
						3,025.96
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		425.15
						3,451.11
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		517.67
						3,968.77
	Add for Cess @ 1%	Lumpsum	9905	0.01		39.69
	Cost of 10 Sqm					4,008.46
	Rate per Sqm	Sqm				400.85
031210	Supplying and laying 160mm dia. PVC Pipes Class-I, capable for a pressure of 2.5 kg/sqm in footpath of ROB for laying cable with all contractor's materials labour, tools, plant, machinery, vehicles, consumables, lead, lift etc. complete as per specifications and as directed by Engineer in-charge.					
	Detail of cost for 10m pipe					
	Material:					
	uPVC Pipe- type A ISI marked 160mm dia	Metre	0260	450.00	10.00	4,500.00
	Sundries	Lumpsum	9901	1.00	50.00	50.00
	Labour:					
	Mason 1st class (Skilled)	Day	0004	718.00	0.25	179.50
	Beldar (Un skilled)	Day	0025	547.00	0.50	273.50
						5,003.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		50.03
						5,053.03
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		709.95
						5,762.98
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		864.45
						6,627.43
	Add for Cess @ 1%	Lumpsum	9905	0.01		66.27
	Cost of 10 Metre pipe					6,693.70
	Rate per metre	Metre				669.37

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
031220	Deduction in rate of 031010, 031020 and 031030 for casting of slab in place of Girder for any height					
	Considering deduction at the rate 5% of the labour and machinery for item no. 031010.					
	Deduct for less cost of labour and machinery for casting of slabs in place of girders for any height					
	Basic cost for Labour and machinery for 1 cum as of item 031011 Sub Total (A)					695.70
	Deduct 5% for lesser cost in slabs than beams and girders			-0.05		-34.79
	Rate per cum	Cum				-34.79

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CHAPTER - 4 : Bridge Works - Super Structure (Steel)

Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
041010	Supplying, fabrication, assembling of all types of steel girders of specified spans with structural steel conforming to Quality "B0" Grade Designation E250 conforming to IS:2062, erection / slewing / end launching of steel girders with cranes or any other approved launching methods as per site conditions (not requiring traffic block) on sub-structure including provision of trolley refuges etc., complete as per approved QAP and drawings conforming to IRS-B1-2001 and other relevant codes and specifications. Note: 1. Detailed fabrication and erection drawings & launching methodology will be prepared by the contractor and got approved from Railway. 2. The rate is all inclusive including launching in position, complete in all respect except cost of (i) Painting / Metalising; (ii) Bearings & (iii) HSFG bolts which shall be paid extra under relevant item. 3. The payment shall be made on the theoretical weight of main components and gusset plates only. 4. Payment Schedule: (i) Receipt of material at site: 40% (ii) Fabrication of girders: 20% (iii) Erection/Launching: 20% (iv) Completion in all respects: 20%					
041011	Plate Girder/Semi Through Girder/Composite Girder (Steel Work)					
	Basic cost for fabrication, erection, leading , painting primer coats. and final two coats of paint at site.					
	Take a Plate girder of 12.20 m length 25T Loading standard weighing 14.69 Tonnes i.e. 146.90 quintal					
	(A) Material:					
	(a) Structural Steel i.e. Plates & Angles (i) Plate = 140.57 quintal + wastage @5% = 147.60 quintals (ii) Angles = 6.33 quintal + wastage @ 5% = 6.65 quintals					
	Structural steel plates conforming to Grade Designation E250; Quality "B0" as per IS:2062,	Quintal	0222	8133.00	147.60	1,200,430.80
	Structural steel such as T, Angles, Channels and R S Joists conforming to Grade Designation E250; Quality "B0" as per IS:2062,	Quintal	0223	7333.00	6.65	48,764.45
	(B) Cutting:					
	(i) Plates					
	Cutting length : 243.748 m (All Thicknesses)					
	Gas Required for Cutting					
	DA Gas in cylinder @ 1 Cylinder of 19 Kg per 26m length of Cutting					
	Acetylene Gas (in cylinder)	Kg	0339	78.00	178.12	13,893.64
	Oxygen Cylinder @ 7 Cylinders (7 Cum) per 26m length of Cutting (Density of Gas 1.429 Kg/M ³ Qty of Gas in Kgs = 243.748/26*7*1.429 =656.44 Kg)					
	Oxygen Gas (in cylinder)	Kg	0338	83.00	656.44	54,484.64
	Hire Charges of CNC Gas Cutting machine @ 0.400m/1min = 243.748/0.40/60 = 10.15 Hours Say 12 Hours					
	Hire Charges of CNC gas cutting Machine	Day	0113	4400.00	1.50	6,600.00
	Highly Skilled labour	Day	0018	747.00	1.50	1,120.50
	Labour Skilled (Machine Operator/Welder/Machinist/Driver etc.)	Day	0019	729.00	1.50	1,093.50
	(ii) Angles					
	Total Number of Cuts = 120					
	Hack Saw Blades	Each	0454	588.00	2.00	1,176.00
	Time required @ 1 Cut in 5 minutes					
	Labour Skilled (Machine Operator/Welder/Machinist/Driver etc.)	Day	0019	729.00	2.00	1,458.00
	Labour Unskilled	Day	0020	540.00	2.00	1,080.00
	Edge finishing by Grinding					
	Total length for finishing = 2,43,748 mm i.e.243.748m					
	Grinding of 12 meters requires 20 min					
	Time required @ 12m in 20 minutes = 243.748/12*20/60 = 6.77 Hours Say 1 day					
	Cup Grinding Stone	Each	0233	983.00	1.00	983.00

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Labour Skilled (Machine Operator/Welder/Machinist/Driver etc.)	Day	0019	729.00	1.00	729.00
	Labour Unskilled	Day	0020	540.00	1.00	540.00
	Edge Preparation for Welding					
	Length of the Edge for welding 106.40m					
	Edge preparation of 12 meters requires 15 min Time required @ 12m in 15 minutes = $106.40/12 \times 15/60 = 80.14$ Hours =10.01 days Say 10 days Time required for edge preparation = $106.40 \times 15/12 = 2.22$ Hours Say 0.28 days Say 0.3 days					
	Labour Skilled (Machine Operator/Welder/Machinist/Driver etc.)	Day	0019	729.00	0.30	218.70
	Labour Unskilled	Day	0020	540.00	0.30	162.00
	Jig and Fixtures					
	Material Required for Jig 0.302 MT. Considering that the Jigs shall be used 5 times and the salvage value of plate is 30%. The amount of steel to be charged for 1 girder = $0.302/5 \times 0.7 = 0.042$ MT = 0.42 Quintal.					
	Structural steel such as T, Angles, Channels and R S Joists conforming to Grade Designation E 250; Quality "A" as per IS 2062	Quintal	0221	7050.00	0.42	2,961.00
	Cost of Fabrication of Jig and Fixtures considering cost equivalent to the material required for Jig					
	Drilling of Holes					
	Total Number of Holes to be drilled = 498					
	Drill Bit @ 1000 holes / Bit					
	Drill Bit 20-25 mm	Each	0234	425.00	2.00	850.00
	Time required for drilling 498 holes @ 4 holes / 4 minutes with CNC drilling Machine i.e. 1 minute / 1 Hole = $498/60 = 8.30$ Hours Say 1.0 Day					
	Highly Skilled labour	Day	0018	747.00	1.00	747.00
	Labour Skilled (Machine Operator/Welder/Machinist/Driver etc.)	Day	0019	729.00	1.00	729.00
	Hire Charges of CNC drilling machine - 14 to 50mm dia, 100mm thickness, set of spindle - 2 sets, accuracy +/- 0.03mm.	Day	0114	15167.00	1.00	15,167.00
	(C) I-Section Assembly					
	(i) Tack Welding:					
	Tack Welding to be done = 17733 mm of 5mm fillet					
	Volume of material for welding = $1/2 \times 5 \times 5 \times 17733 = 221662.5$ mm ³					
	Length of 4mm dia Electrode required = $221662.5 / (3.14 \times 4 \times 4) = 17648.29$ mm.					
	Electrodes 4 mm dia for steel fabrication work	Metre	0235	70.00	17.65	1,235.50
	A Welder can do 3 to 3.5m length of FCAW/GMAW mig welding per hour					
	No of Welders required = $17.733/3.5 = 5$ Hours					
	Labour Skilled (Machine Operator/Welder/Machinist/Driver etc.)	Day	0019	729.00	1.00	729.00
	Labour Unskilled	Day	0020	540.00	1.00	540.00
	Hire Charges of MMAW machine (Manual Metal Arc Welding Machine) - 80 to 500 Amperes.	Day	0115	550.00	1.00	550.00
	(ii) SAW Welding					
	SAW total length = $13300 \times 4 \times 2 = 106400$ mm of 12mm fillet weld					
	Volume of Wire required = $1/2 \times 12 \times 12 \times 13300 \times 4 \times 2 = 7660800$ mm ³					
	Weight of Wire required = $76,60,800 / 10^9 \times 7850 = 60.137$ Kg					
	SAW Welding Wire	Kg	0237	93.00	60.00	5,580.00
	Flux used = 1/3 rd of weight of wire = 20 kg					
	Flux for SAW Welding	Kg	0238	91.00	20.00	1,820.00
	Root welding in SAW .e 5mm Weld Size for 12m, will take 20-30 Minutes					
	Root Run for 12 mtrs in 30minutes = $106.4 \times 30/12/60 = 4.5$ Hours					
	Highly Skilled labour	Day	0018	747.00	0.50	373.50
	Labour Skilled (Machine Operator/Welder/Machinist/Driver etc.)	Day	0019	729.00	0.50	364.50
	Final Run @ 12 mts run in 45 minutes for 106.4 m = $(106.4/12) \times (45/60) = 6.65$ Hrs = $6.65/8 = 0.83$ days Say 1.0 day					
	Highly Skilled labour	Day	0018	747.00	1.00	747.00
	Labour Skilled (Machine Operator/Welder/Machinist/Driver etc.)	Day	0019	729.00	1.00	729.00
	Hire Charges of SAW machine - Tornado Make, current range - 150 to 1250 Amperes.	Day	0116	6750.00	1.50	10,125.00

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	(iii) CNC End Grinding to achieve final Tolerances of I-Section					
	Highly Skilled labour	Day	0018	747.00	2.00	1,494.00
	Labour Skilled (Machine Operator/Welder/Machinist/Driver etc.)	Day	0019	729.00	2.00	1,458.00
	Hire Charges of Angle grinder - 230mm dia. Disc, 6000 rpm, CP make.	Day	0117	517.00	1.50	775.50
	(iv) HSFG Bolts tightening to fix Stiffener Angles					
	Stiffener HSFG Bolting = 522 Nos					
	5 Persons can fix 250 Bolts in 1 day					
	Highly Skilled labour	Day	0018	747.00	2.00	1,494.00
	Labour Skilled (Machine Operator/Welder/Machinist/Driver etc.)	Day	0019	729.00	3.00	2,187.00
	Hire Charges of Impact wrench - 32mm dia. Bolt, CP Make.	Day	0118	190.00	5.50	1,045.00
	Hire Charges of Torque wrench - 150 kgf-m, Mekaster Make.	Day	0119	157.00	5.50	863.50
	Hire Charges of Power hack saw machine (Angle)	Day	0120	338.00	1.50	507.00
	Hire Charges of CNC end milling machine - (Horizontal Spindle), (1). Longitudinal Traverse of table (X-Axis) - 1500mm (2). Vertical Axis (Y-Axis) - 1000mm, (3). RAM Column Traverses (Z-Axis) - 500mm.	Day	0121	16500.00	2.00	33,000.00
	(v) X-Frame Assembly					
	4 people for one X frame - 2 to 3 Hours say 1/2 day					
	For 4 Frames, 4*4*1/2 = 8 Man days					
	Highly Skilled labour	Day	0018	747.00	4.00	2,988.00
	Labour Skilled (Machine Operator/Welder/Machinist/Driver etc.)	Day	0019	729.00	4.00	2,916.00
	(D) Final Assembly of Girder & Inspection					
	Highly Skilled labour	Day	0018	747.00	1.50	1,120.50
	Labour Skilled (Machine Operator/Welder/Machinist/Driver etc.)	Day	0019	729.00	3.00	2,187.00
	Labour Unskilled	Day	0020	540.00	3.00	1,620.00
	(E) Hire Charges of EOT Crane	Day	0122	1425.00	17.00	24,225.00
	For 12.2 m Plate Girder, Cost of Electric consumption @ 100 Units / MT = 100 * 10.327 = 1032.7 KWH. \					
	Electricity Charges (1 Unit)	KWH	0500	14.00	1032.70	14,457.80
	Total					1,468,320.03
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		14,683.20
						1,483,003.23
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		208,361.95
						1,691,365.18
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		253,704.78
						1,945,069.96
	Add for Cess @ 1%	Lumpsum	9905	0.01		19,450.70
	Cost for 14.69 MT					1,964,520.66
	Cost for 1.00 MT					133,731.84
	Cost for Launching Same as per item no. 041031	MT	041031	15691.82	1.00	15,691.82
	Rate per MT	MT				149,423.65
041012	Open web Girder					
	Basic cost for fabrication, erection, leading , painting primer coats. and final two coats of paint at site. For cost calculation, span of 45.7m has been taken.					
	Take a Open Web Girder of 45.70 m Span 25T Loading standard weighing 137.927 Tonnes weight					
	(A) Materials : Structural Steel					
	(a) Structural Steel i.e. Plates & Angles					
	(i) Plate = 1297.41 quintal + wastage @ 5% = 1362.28 quintals					
	(ii) Angles = 81.86 quintal + wastage @ 5% = 85.96 quintals					
	Structural steel plates conforming to Grade Designation E250; Quality "B0" as per IS:2062,	Quintal	0222	8133.00	1362.28	11,079,423.24
	Structural steel such as T, Angles, Channels and R S Joists conforming to Grade Designation E250; Quality "B0" as per IS:2062,	Quintal	0223	7333.00	85.96	630,344.68
	(B) Cutting:					
	(i) Plates					
	Cutting Area : 205.926 sqm					
	Gas Required for Cutting					

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	DA cylinder @ 19 Kg per 0.65 sqm = 205.926/0.65x19 = 6019.38 kg					
	Acetylene Gas (in cylinder)	Kg	0339	78.00	6019.38	469,511.28
	Oxygen Cylinder @ 7 Cylinders (10 kg/7 cum) Qnty of Gas in Kgs = 205.926/0.65x10x7 =22176.65 kg (15,518.99 cum)					
	Oxygen Gas (in cylinder)	Kg	0338	83.00	22176.65	1,840,661.95
	Hire Charges of CNC Gas Cutting machine @ 0.400m/1min = 8237/0.40/60 = 10.15 Hours Say 12 Hours	Day	0113	4400.00	21.00	92,400.00
	Highly Skilled labour	Day	0018	747.00	21.00	15,687.00
	Labour Skilled (Machine Operator/Welder/Machinist/Driver etc.)	Day	0019	729.00	21.00	15,309.00
	(ii) Angles					
	Total Number of Cuts = 490 nos.					
	cost of blades @ 60 cuts per Blade					
	Hack Saw Blades	Each	0454	588.00	9.00	5,292.00
	Time required @ 1 Cut in 5 minutes, 490*5/60=40.83 = 5.1 days Say 5 days					
	Labour Skilled (Machine Operator/Welder/Machinist/Driver etc.)	Day	0019	729.00	5.00	3,645.00
	Labour Unskilled	Day	0020	540.00	5.00	2,700.00
	Edge finishing by Grinding					
	Total length for finishing = 38,46,544 mm i.e. 3846.544 m					
	Grinding of 12 meters requires 15 min Time required @ 12m in 15 minutes = 3846.544/12*15/60 = 80.14 Hours =10.01 days Say 10 days					
	Cost of Cup Grinding Stones @ 1 Stone per 250m=3846.544/250=15.39 Say 16					
	Cup Grinding Stone	Each	0233	983.00	16.00	15,728.00
	Labour Skilled (Machine Operator/Welder/Machinist/Driver etc.)	Day	0019	729.00	10.00	7,290.00
	Labour Unskilled	Day	0020	540.00	10.00	5,400.00
	Jig and Fixtures					
	Material Required for Jig 2.123 mt. Considering that the Jigs shall be used 5 times and the salvage value of plate is 30%. The amount of steel to be charged for 1 girder = 2.123/5x0.7 = 0.297 MT = 2.97 Quintal					
	Structural Steel Plates conforming to Grade Designation E 250; Quality "A" as per IS 2062	Quintal	0220	7950.00	2.97	23,611.50
	Cost of Fabrication of Jig and Fixtures considering equal cost of material					23,611.50
	Drilling of Holes					
	Total Number of Holes to be drilled = 4500x2.5=11250					
	Cost of Drill Bit @ 1000 holes / Bit					
	Drill Bit 20-25 mm	Each	0234	425.00	12.00	5,100.00
	Time required for drilling 11250 holes @ 4 holes of 21.5mm dia / 4 minutes with CNC drilling Machine i.e. 1 minute / 1 Hole = 11250 /60 = 187.50 Hours = 23.438 Day Say 24 Days					
	Hire Charges of CNC gas cutting Machine	Day	0113	4400.00	23.44	103,125.00
	Highly Skilled labour	Day	0018	747.00	24.00	17,928.00
	Labour Skilled (Machine Operator/Welder/Machinist/Driver etc.)	Day	0019	729.00	24.00	17,496.00
	Labour Unskilled	Day	0020	540.00	24.00	12,960.00
	(C) I Section Assembly					
	(i) Tack Welding:					
	Tack Welding to be done = 24779 Nos of 5mm fillet @ 1 Tack of 50mm @150mm=24779x5=1238950mm=1238.950m					
	Volume of material for welding = 1/2*5*5*1238950 = 15486875 mm ³					
	Length of 5mm dia Electrode required = 15486875 / (3.14*4*4/4) = 1233031.45 mm					
	Electrodes 4 mm dia for steel fabrication work	Metre	0235	70.00	1233.03	86,312.10
	A Welder can do 3m length of FCAW/GMAW mig welding per hour					
	No of Welders required = 1238.95/3.0 = 412.98 Hours i.e. 51.62 Days say 52 Days					
	Highly Skilled labour	Day	0018	747.00	52.00	38,844.00
	Labour Skilled (Machine Operator/Welder/Machinist/Driver etc.)	Day	0019	729.00	52.00	37,908.00
	Labour Unskilled	Day	0020	540.00	52.00	28,080.00
	Hire Charges of MMAW machine (Manual Metal Arc Welding Machine) - 80 to 500 Amperes.	Day	0115	550.00	45.00	24,750.00

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	(ii) SAW Welding					
	SAW total length = 3716908 mm of 6mm fillet weld					
	Volume of Wire required = $1/2 \times 6 \times 37,16,908 = 6,69,04,344 \text{ mm}^3$					
	Weight of Wire required = $6,69,04,344 / 10^3 \times 7850 = 525.199 \text{ Kg}$ Say 525					
	SAW Welding Wire	Kg	0237	93.00	525.00	48,825.00
	Flux used = $1/3$ rd of weight of wire = $575/3 = 175 \text{ kg}$					
	Flux for SAW Welding	Kg	0238	91.00	175.00	15,925.00
	Root welding in SAW .e 6mm Weld Size for 12m, will take 20-30 Minutes					
	Root Run for 12 mtrs in 30minutes = $3716.908 \times 30 / 12 / 60 = 19.35 \text{ Hours}$ Say 20 days					
	Highly Skilled labour	Day	0018	747.00	20.00	14,940.00
	Labour Skilled (Machine Operator/Welder/Machinist/Driver etc.)	Day	0019	729.00	20.00	14,580.00
	Hire Charges of SAW machine - Tornado Make, current range - 150 to 1250 Amperes.	Day	0116	6750.00	20.00	135,000.00
	(iii) GMAW Welding					
	GMAW total Length = 7,84,810mm = 784.810 m					
	Volume of Wire required = $1/2 \times 6 \times 784810 = 14126580 \text{ mm}^3$					
	Weight of Wire required = $14126580 / 10^3 \times 7850 = 110.893 \text{ Kg}$ Say 111					
	Welding Rod for Gas Metal Arc Welding	Kg	0236	165.00	110.89	18,297.35
	Shielding Gas (Co2) required = 1 Cylinder (22.50 Kg) @ Rs 29/-per Kg for 27 Meters. Gas Required = $784.81 / 27 \times 22.5 = 654.01 \text{ Kg}$					
	Shielding Gas (Co2) for fabrication works	Kg	0241	83.00	654.01	54,282.69
	A Welder can do 3 - 3.5m length of GMAW welding per hour					
	@ 3.5m/Hour, No of Hours = $784.810 / 3.5 = 224.231 \text{ hrs} = 28.09 \text{ days}$ Say 29 Days					
	Highly Skilled labour	Day	0018	747.00	29.00	21,663.00
	Labour Skilled (Machine Operator/Welder/Machinist/Driver etc.)	Day	0019	729.00	29.00	21,141.00
	Labour Unskilled	Day	0020	540.00	29.00	15,660.00
	(iii) End Grinding to match tolerances to be done for 76 members @ 2 persons do 2 members per day i.e. $76/2 = 38 \text{ Days}$					
	Cost of Grinding Stones @ 1 Stone per 10 Components i.e. $76/10 = 7.6$ Say 8					
	Cup Grinding Stone	Each	0233	983.00	8.00	7,864.00
	Highly Skilled labour	Day	0018	747.00	38.00	28,386.00
	Labour Skilled (Machine Operator/Welder/Machinist/Driver etc.)	Day	0019	729.00	38.00	27,702.00
	Hire Charges of Angle grinder - 230mm dia. Disc, 6000 rpm, CP make.	Day	0117	517.00	38.00	19,646.00
	(D) Trial Assembly of Girder & Inspection; 1 span will take 25 days for assembly and 5 days for dismantling i.e. total 30 days					
	Cost of Service Bolts for assembling of Girders	Each	0240	53.00	1800.00	95,400.00
	Highly Skilled labour	Day	0018	747.00	60.00	44,820.00
	Labour Skilled (Machine Operator/Welder/Machinist/Driver etc.)	Day	0019	729.00	60.00	43,740.00
	Labour Unskilled	Day	0020	540.00	120.00	64,800.00
	Hire Charges of Impact wrench - 32mm dia. Boit, CP Make.	Day	0118	190.00	30.00	5,700.00
	Hire Charges of Torque wrench - 150 kgf-m, Mekaster Make.	Day	0119	157.00	30.00	4,710.00
	Hire Charges of Power hack saw machine (Angle)	Day	0120	338.00	6.00	2,028.00
	Hire Charges of EOT, 10 ton Capacity, Reva Make	Day	0122	1425.00	45.00	64,125.00
	Hire charges of 12 MT Hydra	Day	0089	6717.00	6.00	40,302.00
	Hire Charges of Air compressor 500 Cfm for fabrication works	Day	0065	1667.00	11.00	18,337.00
	Cost of Drifts	Each	0239	80.00	450.00	36,000.00
	For 45.7m span Open Web Girder, Cost of Electric consumption @ 100 Units / MT = $100 \times 137.927 = 13792.7 \text{ KWH}$.					
	Electricity Charges (1 Unit)	KWH	0500	14.00	13792.70	193,097.80
						15,660,090.09
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		156,600.90
						15,816,690.99
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		2,222,245.08
						18,038,936.07
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		2,705,840.41
						20,744,776.48
	Add for Cess @ 1%	Lumpsum	9905	0.01		207,447.76
	Cost for 137.927 MT					20,952,224.25
	Cost for 1.00 MT for Fabrication					151,908.07

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Cost for Launching Same as per item no. 041032	MT	041032	22546.90	1.00	22,546.90
	Rate per MT	MT				174,454.97
041013	Extra for using steel conforming to Grade Designation E350 instead of Grade Designation E250 of Quality "B0" as per IS: 2062					
	Structural Steel such as T, Angles, Channels and R S Joists Grade Designation E350; Quality 'B0' as per IS 2062	Quintal	0226	7700.00	1.00	7,700.00
	Structural steel such as T, Angles, Channels and R S Joists conforming to Grade Designation E250; Quality "B0" as per IS:2062,	Quintal	0223	7333.00	1.00	7,333.00
	Rate Difference					367.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		3.67
						370.67
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		52.08
						422.75
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		63.41
						486.16
	Add for Cess @ 1%	Lumpsum	9905	0.01		4.86
	Rate for 1 Quintal					491.02
	Rate per MT	MT				4,910.23
041014	Deduct for using steel conforming to Quality "BR" instead of Quality "B0" of Grade designation E250 as per IS:2062.					
	Structural steel such as T, Angles, Channels and R S Joists conforming to Grade Designation E250; Quality "B0" as per IS:2062,	Quintal	0223	7333.00	1.00	7,333.00
	Structural steel such as T, Angles, Channels and R S Joists conforming to Grade Designation E250; Quality "BR" as per IS:2062,	Quintal	0225	7700.00	1.00	7,700.00
	Rate Difference					367.00
	Sub Total					367.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		3.67
						370.67
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		52.08
						422.75
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		63.41
						486.16
	Add for Cess @ 1%	Lumpsum	9905	0.01		4.86
	Rate for 1 Quintal					491.02
	Rate per MT	MT				4,910.23
041015	Extra for using steel conforming to Quality "C" Grade Designation E250 instead of Quality "B0" Grade Designation E250 as per IS: 2062					
	Structural steel such as T, Angles, Channels and R S Joists conforming to Grade Designation E 250; Quality "C" as per IS 2062	Quintal	0224	7467.00	1.00	7,467.00
	Structural steel such as T, Angles, Channels and R S Joists conforming to Grade Designation E250; Quality "B0" as per IS:2062,	Quintal	0223	7333.00	1.00	7,333.00
	Rate Difference					134.00
	Sub Total					134.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		1.34
						135.34
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		19.02
						154.36
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		23.15
						177.51
	Add for Cess @ 1%	Lumpsum	9905	0.01		1.78
	Rate for Qtl	Qtl				179.28
	Rate per MT	MT				1,792.84
041020	Supplying and fixing HSFG bolts of any dia and any length with suitable nuts including DTI washers conforming to IRS-B1-2001 for bridges and steel structures with contractors labour, tools and plants and lead and lift etc., complete.					
	Consider 50 kg of bolts and washer					
	Material:					

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	HSFG bolt with DTI Wasters conforming to IRS B1-2001 with latest Correction Slips	Kg	0228	125.00	50.00	6,250.00
	Labour:					
	Fitter Grade - 1 (Skilled)	Day	0010	743.00	0.50	371.50
	Beldar (Un skilled)	Day	0025	547.00	0.50	273.50
	Sundries	Lumpsum	9901	1.00	100.00	100.00
						6,995.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		69.95
						7,064.95
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		992.63
						8,057.58
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		1,208.64
						9,266.21
	Add for Cess @ 1%	Lumpsum	9905	0.01		92.66
	Cost of 50 Kgs					9,358.87
	Rate per Kg	Kg				187.18
041030	Assembling and erection of fabricated Steel girders on bearings at site with crane/derrick / any other approved means at site on sub structure with labour, equipment, T&P including site bolting with all temporary arrangements, scaffolding etc. with contractors design and scheme for longitudinal launching/side slewing (not requiring traffic block) approved by Railway. Rate includes drifts, service bolts, Holding down bolts etc. as per drawings. Note: Payment for HSFG bolts used if any will be made separately under relevant item.					
041031	Plate Girder/Semi Through Girder /Composite Girder more than 12.2 m span					
	Take a Plate girder of 24.4m of MBG Loading standard weighing 443 Qtl weight					
	Material:					
	Holding down HTS bolts with plates, nuts etc.	Quintal	0232	9500.00	0.25	2,375.00
	20 mm dia holding down bolts 16nos.x460 mm 1840 mm Add wastage @ 5% Total = 7.728 m @ 2.74kg/m = 21.17 kg = 0.21 quintal say 0.25 Qtls with nuts etc.					
	Labour:					
	Labour for erection or launching					
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	10.00	7,490.00
	Blacksmith - 2nd Class (Semi-skilled)	Day	0009	649.00	20.00	12,980.00
	Fitter Grade - 1 (Skilled)	Day	0010	743.00	10.00	7,430.00
	Beldar (Semi Skilled)	Day	0024	585.00	20.00	11,700.00
	Beldar (Un skilled)	Day	0025	547.00	20.00	10,940.00
	Machinery:					
	Hiring charges of Crane 20 MT capacity	Day	0091	7850.00	10.00	78,500.00
	Hire charges of air compressor 250 cfm capacity with two leads for pneumatic cutters / hammers	Day	0064	1550.00	5.00	7,750.00
	Hire charges of Camber Jacks etc.	Day	0106	788.00	30.00	23,640.00
						162,805.00
	Sundries, adhesives misc. T & P and consumables	Lumpsum	9901	1.00	2000.00	2,000.00
						164,805.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		1,648.05
						166,453.05
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		23,386.65
						189,839.70
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		28,475.96
						218,315.66
	Add for Cess @ 1%	Lumpsum	9905	0.01		2,183.16
	cost of 443 Qtls.					220,498.82
	Cost of Staging as per item no. 031070 for 24.40m		031070	474648.75	1.00	474,648.75
	Total cost for 443 qtl					695,147.57
	Rate Per Qtl.	Quintal				1,569.18
	Rate per MT	MT				15,691.82

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
041032	Open web Girder					
	For analysis purpose, take a Open web Girder of 45.7m and 1379.27 Qtl weight					
	Material:					
	Holding down HTS bolts with plates, nuts etc.	Quintal	0232	9500.00	2.00	19,000.00
	36 mm dia holding down bolts 24nos.x920 mm = 22080 mm Add wastage @ 5% Total = 23.184 metres @8.604kg/m = 199.48kg = 1.995 quintal say 2.0 Qtls with nuts etc.					
	Labour:					
	Labour for erection or launching					
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	60.00	44,940.00
	Blacksmith - 2nd Class (Semi-skilled)	Day	0009	649.00	120.00	77,880.00
	Fitter Grade - 1 (Skilled)	Day	0010	743.00	60.00	44,580.00
	Beldar (Semi Skilled)	Day	0024	585.00	600.00	351,000.00
	Beldar (Un skilled)	Day	0025	547.00	600.00	328,200.00
	Bandhani (Semi skilled)	Day	0022	619.00	60.00	37,140.00
	Machinery:					
	Hiring charges of Crane 20 MT capacity	Day	0091	7850.00	60.00	471,000.00
	Hire charges of air compressor 250 cfm capacity with two leads for pneumatic cutters / hammers	Day	0064	1550.00	30.00	46,500.00
	Hire charges of Camber Jacks etc.	Day	0106	788.00	240.00	189,120.00
	Single coil spring washer for bridge bearing for 36 mm dia bolts	Each	0296	20.00	48.00	960.00
						1,610,320.00
	Sundries, adhesives misc. T & P and consumables	Lumpsum	9901	1.00	4500.00	4,500.00
						1,614,820.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		16,148.20
						1,630,968.20
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		229,151.03
						1,860,119.23
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		279,017.88
						2,139,137.12
	Add for Cess @ 1%	Lumpsum	9905	0.01		21,391.37
	Cost of 1379.27 Qtl					2,160,528.49
	Cost of Staging as per item no. 031070 considering double of the cost of staging for 24.40m		031070	474648.75	2.00	949,297.50
	Total cost for 1379.27 qtl					3,109,825.99
	Cost for 1 quintal					2,254.69
	Rate per MT	MT				22,546.90
041040	Metallizing of steel work of girders with sprayed aluminium after surface preparation by Sand/grit blasting, followed by one coat of etch primer (IS:5666) & one coat of Zinc Chrome primer (IS:104) and two coats of aluminium paint (IS:2339) with all labour, T&P and material as a complete job duly conforming to all relevant specifications and process given under Clause 39 of IRS-B1-2001. Note: Nominal Thickness of sprayed Aluminium coating shall be 150 microns. DFT of Zinc chrome primer shall be 25-30 microns and DFT of each coat of Aluminium paint shall be 12-14 microns.					
041041	On new girder during fabrication					
	Qty taken 10 Sqm					
	Metallizing on the steel-					
	Material:					
	Etch primer as per IS: 5666	Litre	0266	475.00	0.84	399.00
	Ready mix Zinc Chromate primer as per IS 104	Litre	0305	128.00	0.90	115.20
	Aluminium paint	Litre	0307	199.00	1.80	358.20
	Labour:					
	Labour for application of paints after aluminium metallizing.					
	Painter (Skilled)	Day	0012	749.00	0.72	539.28
	Coolie (Un skilled)	Day	0026	547.00	0.72	393.84
	Sundries	Lumpsum	9901	1.00	25.00	25.00
	Cost of Metallizing for 10 sqm as per Annexure - X below	10 Sqm				4,443.22
						6,273.74
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		62.74

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
						6,336.48
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		890.28
						7,226.75
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		1,084.01
						8,310.77
	Add for Cess @ 1%	Lumpsum	9905	0.01		83.11
	Cost of 10.00 sqm					8,393.87
	Rate for 1.0 sqm	Sqm				839.39
041042	For maintenance work under running traffic					
	Considering additional cost over item 041041 for working under running traffic					
	Rate as per item no. 041041					839.39
	Add for working under running traffic			0.25		209.85
	Rate per sqm	Sqm				1,049.23
	Annexure - X for use in Item No. 041040					
	Metallization with sprayed Aluminum for bridge girders as per IRS-B1-2001 with latest Correction Slip after thorough cleaning of surface and roughened by compressed air blasting with suitable abrasive material sand/grit as per site conditions and spraying molten aluminium metal with specialized gun to get nominal thickness of 150 microns. The purity of aluminium wire shall be 99.5% conforming to IS :2590.					
	Material:					
	Coarse Sand (Zone III)	Cum	0199	2083.00	0.20	416.60
	(Consumption at the rate of 50sqm/cum; total quantity required-2.0cum)					
	Hire charges of air compressor 250 cfm capacity with two leads for pneumatic cutters / hammers	Day	0064	1550.00	0.20	310.00
	Hire charges for sand receiver and sand blasting pipes with gun and all accessories complete	Day	0127	1025.00	0.20	205.00
	Hire charges for metalising gun with all accessories	Day	0128	608.00	0.20	121.60
	Aluminium wire for spraying	Kg	0267	322.00	5.06	1,629.32
	150 microns thick(The quantity required for 10sqm is-10x0.00015X2700=4.05kg + 25% wastage = 5.06 Kg					
	Oxygen Gas (in cylinder)	Kg	0338	83.00	9.00	747.00
	Commercial LPG (in cylinder)	Kg	0337	99.00	1.60	158.40
	Labour:					
	labour including sand blasting or grit blasting and application of sprayed molten aluminium					
	Coolie (Un skilled)	Day	0026	547.00	1.00	547.00
	Machine Operator (Machine) (Skilled)	Day	0041	738.00	0.35	258.30
	Add extra for grit blasting	Lumpsum	9901	1.00	50.00	50.00
	Cost of labour and material for 10 sqm	10 Sqm				4,443.22
041050	Providing and fixing railing used in rows for footpath or anti-crash barrier railing with B class G.I. pipe 65/50 mm nominal dia including cost of M.S. angle and channels in vertical posts, welding / bolting, priming painting with one coat ready mix Zinc Chromate conforming to IS:104 with DFT of 25-30Microns, followed by one coat of Zinc Chrome red oxide conforming to IS:2074 with DFT of 25 Microns with all material, labour, T&P as a complete job. Note: Cost of painting shall be paid extra under relevant item.					
	Taking output = 2 x 50 m span = 100 m					
	Total wt=2806+2142+180+150=5052Kg					
	Material:					
	Structural steel such as T, Angles, Channels and R S Joists conforming to Grade Designation E 250; Quality "A" as per IS 2062	Quintal	0221	7050.00	29.46	207,714.15
	(ISMC 100 = 2.806 x 1.05 = 2.946 MT) Weight of ISMC 100 = 9.2 Kg/m For 294.6					
	GI Pipe 50 mm dia , B Class Medium duty	Metre	0261	522.00	420.00	219,240.00
	(GI pipe medium grade = 400 X 5.10 x 1.05 = 2.142 MT=400X1.05=420)					
	MS round bar for reinforcement- average rate for various dia	Quintal	0217	5717.00	1.80	10,290.60

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	(MS bars = 0.17 x 1.05 = 0.180 MT)					
	MS bolts & nuts more than 10 mm dia	Quintal	0251	15000.00	1.50	22,500.00
	Labour:					
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	10.00	7,490.00
	Mate (Semi skilled)	Day	0003	619.00	5.00	3,095.00
	Fitter Grade - 1 (Skilled)	Day	0010	743.00	20.00	14,860.00
	Beldar (Un skilled)	Day	0025	547.00	30.00	16,410.00
	Sundries including misc tools and plants	Lumpsum	9901	1.00	1500.00	1,500.00
						503,099.75
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		5,031.00
						508,130.75
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		71,392.37
						579,523.12
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		86,928.47
						666,451.59
	Add for Cess @ 1%	Lumpsum	9905	0.01		6,664.52
	Total for 5052 kgs.					673,116.10
	Rate per Kg.	Kg				133.24
041060	Supplying and fixing M.S. Angles 65mmx 65mmx 8mm or any other size conforming to IS:2062 in the nosing of steps of stair cases of Foot Over Bridges including provision of 10mm dia, anchor bar 600mm c/c and fixing with main girder with M.S. flat, making anti-slip arrangements over the top of nosing as per approved scheme given by Engineer in charge with all material, labour, T&P as a complete job.					
	Taking out put 2 Qtl					
	Material:					
	Structural steel such as T, Angles, Channels and R S Joists conforming to Grade Designation E 250; Quality "A" as per IS 2062	Quintal	0221	7050.00	2.10	14,805.00
	including wastage 5%					
	MS round bar for reinforcement- average rate for various dia	Quintal	0217	5717.00	0.06	343.02
	anchor bars 30X.30X.62=5.58 Kg+5% wastage=5.86 say 6Kg					
	Sundries	Lumpsum	9901	1.00	300.00	300.00
	(Tack welding components and electrodes etc)					
	Labour:					
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	1.00	749.00
	Mate (Semi skilled)	Day	0003	619.00	0.20	123.80
	Fitter Grade - 1 (Skilled)	Day	0010	743.00	1.00	743.00
	Beldar (Un skilled)	Day	0025	547.00	2.00	1,094.00
						18,157.82
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		181.58
						18,339.40
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		2,576.69
						20,916.08
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		3,137.41
						24,053.50
	Add for Cess @ 1%	Lumpsum	9905	0.01		240.53
	Total for 200 kgs.					24,294.03
	Rate per Kg.	Kg				121.47
041070	Providing and fixing various size HTS holding down bolts conforming to relevant Codes/Specification in concrete column or in other structures with proper nuts, bolts, washers/plates, grouting of holes with cement or epoxy concrete with all material, labour, T&P as a complete job.					
041071	With Cement Grout. Cost of cement shall be paid extra.					
	Total Out put 100 Kgs					
	Material:					
	Holding down HTS bolts with plates, nuts etc.	Quintal	0232	9500.00	1.00	9,500.00
	Labour:					
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	0.50	374.50

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Fitter Grade - 1 (Skilled)	Day	0010	743.00	0.50	371.50
	Beldar (Un skilled)	Day	0025	547.00	1.00	547.00
						10,793.00
	Sundries including misc tools and plants	Lumpsum	9901	1.00	50.00	50.00
						10,843.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		108.43
						10,951.43
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		1,538.68
						12,490.11
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		1,873.52
						14,363.62
	Add for Cess @ 1%	Lumpsum	9905	0.01		143.64
	Total for 100 kgs.					14,507.26
	Rate per kg	Kg				145.07
041072	With epoxy concrete grouting.					
	Total Out put 100 Kgs					
	Material:					
	Holding down HTS bolts with plates, nuts etc.	Quintal	0232	9500.00	1.00	9,500.00
	Epoxy, stone chips etc. for grouting of HTS holding down bolts @ 5% of cost of bolts			0.05	9500.00	475.00
	Labour:					
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	0.50	374.50
	Fitter Grade - 1 (Skilled)	Day	0010	743.00	0.50	371.50
	Beldar (Un skilled)	Day	0025	547.00	1.00	547.00
						11,268.00
	Sundries including misc tools and plants	Lumpsum	9901	1.00	250.00	250.00
						11,518.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		115.18
						11,633.18
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		1,634.46
						13,267.64
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		1,990.15
						15,257.79
	Add for Cess @ 1%	Lumpsum	9905	0.01		152.58
	Total for 100 kgs.					15,410.37
	Rate per kg.	Kg				154.10
041080	Supplying, Fabricating and fixing access ladders, inspection platforms, Trolley refuges etc., on bridges with structural steel conforming to IS:2062 including welding / bolting, priming painting with one coat of ready mixed paint of Zinc Chromate (IS:104) with DFT of 25-30 microns followed by one coat of Zinc Chrome Red Oxide (IS:2074) with DFT of 25 microns with all material, labour, T&P as a complete job. Note: Painting shall be paid separately under relevant item.					
	Total weight=2.806+.964+.18+.15=4.10MT					
	Unit = MT					
	Taking output = 2 x 50 m span = 100 m					
	Material:					
	Structural steel such as T, Angles, Channels and R S Joists conforming to Grade Designation E 250; Quality "A" as per IS 2062 (ISM 100 = 2.806 x 1.05 = 2.946 MT)	Quintal	0221	7050.00	29.50	207,975.00
	M S Flat upto 10 mm thickness (MS Flat = 0.964 x 1.05 = 1.012 MT)	Quintal	0227	7017.00	10.10	70,871.70
	MS round bar for reinforcement- average rate for various dia (MS bars = 0.17 x 1.05 = 0.180 MT)	Quintal	0217	5717.00	1.80	10,290.60
	MS bolts & nuts more than 10 mm dia	Quintal	0251	15000.00	1.50	22,500.00
	Add for electricity charges, welding and drilling equipment, electrodes and other consumables @ 1 per cent of cost of material.			311637.30	0.01	3,116.37
	Labour:					
	Mate (Semi skilled)	Day	0003	619.00	2.80	1,733.20

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Fitter Grade - 2 (Semi-skilled)	Day	0011	649.00	30.00	19,470.00
	Coolie (Un skilled)	Day	0026	547.00	40.00	21,880.00
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	5.00	3,745.00
						361,581.87
	Sundries, adhesives misc T & P	Lumpsum	9901	1.00	650.00	650.00
						362,231.87
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		3,622.32
						365,854.19
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		51,402.51
						417,256.71
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		62,588.51
						479,845.21
	Add for Cess @ 1%	Lumpsum	9905	0.01		4,798.45
	cost of 4.10 MT					484,643.66
	Rate per MT	MT				118,205.77
041090	Supplying, fitting and fixing in position true to line and level cast steel rocker/roller bearing of different load bearing capacity conforming to IS :7666, IS:9565, IS:1030, IS:919, IS:3073 and IRS Bridge Code including all accessories as per drawing and Technical Specifications with all material, labour, T&P as a complete job. The payment shall be made for the load bearing capacity in Metric Tonne as per approved drawing.					
	Unit : one tonne capacity					
	Considering a 250 tonne capacity bearing for this analysis					
	Labour:					
	Mate (Semi skilled)	Day	0003	619.00	0.06	37.14
	Mason 1st class (Skilled)	Day	0004	718.00	0.50	359.00
	Coolie (Un skilled)	Day	0026	547.00	1.00	547.00
	Material:					
	Cast steel rocker bearing assembly of 250 tonne design load capacity duly painted complete with all its components as per drawing and specifications	Each	0269	111667.00	1.00	111,667.00
	Add 2 per cent of cost of bearing assembly for foundation anchorage bolts, lifting arrangements, grease and other consumables.			0.02		2,233.34
	Hire charges for 200 MT capacity Jack	Day	0105	1478.00	2.00	2,956.00
						117,799.48
						117,799.48
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		1,177.99
						118,977.47
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		16,716.34
						135,693.81
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		20,354.07
						156,047.88
	Add for Cess @ 1%	Lumpsum	9905	0.01		1,560.48
	Cost of 250 MT Capacity Bearing					157,608.36
	Rate per MT	MT				630.43
041100	Supplying, fitting and fixing in position true to line and level forged steel roller bearing of different load bearing capacity conforming to IS :7666, IS:9565, IS:1030, IS:919, IS:3073 and IRS Bridge Code including all accessories as per drawing and Technical Specifications with all material, labour, T&P as a complete job. The payment shall be made for the load bearing capacity in Metric Tonne as per approved drawing.					
	Unit: one tonne capacity					
	Considering a 250 tonne capacity bearing for this analysis					
	Labour:					
	Mate (Semi skilled)	Day	0003	619.00	0.06	37.14
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	1.00	749.00
	Coolie (Un skilled)	Day	0026	547.00	1.00	547.00
	Material:					
	Forged steel roller bearing of 250 tonne design load capacity duly painted complete with all its components as per drawing and specifications	Each	0270	167167.00	1.00	167,167.00

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Add 2 per cent of cost of bearing assembly for foundation anchorage bolts, lifting arrangements, grease and other consumables.			0.02		3,343.34
	Hire charges for 200 MT capacity Jack	Day	0105	1478.00	2.00	2,956.00
						174,799.48
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		1,747.99
						176,547.47
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		24,804.92
						201,352.40
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		30,202.86
						231,555.25
	Add for Cess @ 1%	Lumpsum	9905	0.01		2,315.55
	Cost of 250 MT Capacity Bearing					233,870.81
	Rate per MT	MT				935.48
041110	Deleted					
041120	Design, supply, fitting and fixing in position true to line and level POT-PTFE bearing of 300MT Capacity, consisting of a metal piston supported by a disc or un reinforced elastomer confined within a metal cylinder, sealing rings, dust seals, PTFE surface sliding against stainless steel mating surface, complete assembly to be of cast steel / fabricated structural steel, metal and elastomer elements complete as per IS:2062, IS:1030, AISI:304, AISI:316, IS:6911, BS:3784, IS:3400, IS:226, BS-5400, Bridge Code and as per approved drawing and Technical Specifications. The design of the bearings shall be submitted by the manufacturers / contractor and got approved from Railway before fixing. Test report after inspection of the bearings shall be submitted and got approved before the materials are lifted from the manufacturer premises.					
041121	POT-cum -PTFE Bearing (Free end)					
	Unit: Each Bearing complete assembly					

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Labour:					
	Mate (Semi skilled)	Day	0003	619.00	0.09	55.71
	Mason 1st class (Skilled)	Day	0004	718.00	1.68	1,206.24
	Beldar (Un skilled)	Day	0025	547.00	0.60	328.20
	Material:					
	300 MT Capacity Pot Cum PTFE Bearing (Free end) assembly consisting of a metal piston supported by a disc of un reinforced elastomer that is confined with in the metal cylinder and sliding assembly comprising of stainless steel attached to metal backing plate sliding in horizontal plane over PTFE confined in recess(s) on the piston with internal seal (Brass laminated rings), hard facings, external seal & wiper seal etc complete with cast steel assemblies/fabricated structural steel assemblies duly painted with all components complete as per drawings and Technical Specifications.	Each	0272	87127.00	1.00	87,127.00
	Add 2 % of cost of bearing assembly, foundation anchorage bolts, transportation and misc. items required during fixing.			0.02		1,742.54
	Hire charges for 200 MT capacity Jack	Day	0105	1478.00	2.00	2,956.00
	Sub Total					93,415.69
						93,415.69
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		934.16
						94,349.85
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		13,256.15
						107,606.00
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		16,140.90
						123,746.90
	Add for Cess @ 1%	Lumpsum	9905	0.01		1,237.47
	Rate of 300 MT Capacity Bearing	Each				124,984.37
041122	POT Bearing-Fixed Type					
	Unit: Each Bearing complete assembly					
	Labour:					
	Mate (Semi skilled)	Day	0003	619.00	0.09	55.71
	Mason 1st class (Skilled)	Day	0004	718.00	1.68	1,206.24
	Beldar (Un skilled)	Day	0025	547.00	0.60	328.20
	Material:					
	300 MT Capacity Pot cum PTFE bearing (Fixed type) assembly consisting of a metal piston supported by un reinforced elastomer confined in the pot with brass ring sealing making with cast steel assemblies/fabricated structural steel assemblies duly painted with all components complete as per drawings and Technical Specifications.	Each	0273	123243.00	1.00	123,243.00
	Add 2 % of cost of bearing assembly, foundation anchorage bolts, transportation and misc. items required during fixing.			0.02		2,464.86
	Hire charges for 200 MT capacity Jack	Day	0105	1478.00	2.00	2,956.00
	Sub Total					130,254.01
						130,254.01
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		1,302.54
						131,556.55
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		18,483.70
						150,040.25
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		22,506.04
						172,546.28
	Add for Cess @ 1%	Lumpsum	9905	0.01		1,725.46
	Rate of 300 MT Capacity Bearing	Each				174,271.75
041123	POT-cum -PTFE Guided (L)Bearing					
	Unit: Each Bearing complete assembly					
	Labour:					
	Mate (Semi skilled)	Day	0003	619.00	0.09	55.71
	Mason 1st class (Skilled)	Day	0004	718.00	1.68	1,206.24
	Beldar (Un skilled)	Day	0025	547.00	0.60	328.20

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Material:					
	300 MT capacity Pot Cum PTFE GUIDED (L) Bearing assembly consisting of a metal piston supported by a disc of un reinforced elastomer that is confined with in the metal cylinder and sliding assembly with guiding arrangement to bear and resist the horizontal force in the desired direction comprising of stain less steel attached to metal backing plate sliding in horizontal plane over PTFE confined in recess (s)on the piston with internal seal (Brass laminated rings),hard facings, external seal & wiper seal etc complete with cast steel assemblies/fabricated structural steel assemblies duly painted with all components complete as per drawings and Technical Specifications.	Each	0274	116750.00	1.00	116,750.00
	Add 2 % of cost of bearing assembly, foundation anchorage bolts, transportation and misc. items required during fixing.			0.02		2,335.00
	Hire charges for 200 MT capacity Jack	Day	0105	1478.00	2.00	2,956.00
	Sub Total					123,631.15
						123,631.15
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		1,236.31
						124,867.46
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		17,543.88
						142,411.34
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		21,361.70
						163,773.04
	Add for Cess @ 1%	Lumpsum	9905	0.01		1,637.73
	Rate of 300 MT Capacity Bearing	Each				165,410.77
041124	POT-cum -PTFE Guided (T)Bearing					
	Unit: Each Bearing complete assembly					
	Labour:					
	Mate (Semi skilled)	Day	0003	619.00	0.09	55.71
	Mason 1st class (Skilled)	Day	0004	718.00	1.68	1,206.24
	Beldar (Un skilled)	Day	0025	547.00	0.60	328.20
	Material:					
	300 MT capacity Pot Cum PTFE GUIDED(T) Bearing assembly consisting of a metal piston supported by a disc of un reinforced elastomer that is confined with in the metal cylinder and sliding assembly with guiding arrangement to bear and resist the horizontal force in the desired direction comprising of stain less steel attached to metal backing plate sliding in horizontal plane over PTFE confined in recess (s)on the piston with internal seal (Brass laminated rings),hard facings ,external seal & wiper seal etc complete with cast steel assemblies/fabricated structural steel assemblies duly painted with all components complete as per drawings and Technical Specifications.	Each	0275	111250.00	1.00	111,250.00
	Add 2 % of cost of bearing assembly, foundation anchorage bolts, transportation and misc. items required during fixing.			0.02		2,225.00
	Hire charges for 200 MT capacity Jack	Day	0105	1478.00	2.00	2,956.00
	Sub Total					118,021.15
						118,021.15
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		1,180.21
						119,201.36
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		16,747.79
						135,949.15
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		20,392.37
						156,341.53
	Add for Cess @ 1%	Lumpsum	9905	0.01		1,563.42
	Rate of 300 MT Capacity Bearing	Each				157,904.94

Note: The figures given in Amount/Rate Column (Which are strikethrough) are not to be taken for estimation or justifying rate. This amount/rate has been given for illustration purpose only.

Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
041130	Design, supply, fitting and fixing in position true to line and level POT-PTFE bearing of 250 MT Capacity, consisting of a metal piston supported by a disc or un reinforced elastomer confined within a metal cylinder, sealing rings, dust seals, PTFE surface sliding against stainless steel mating surface, complete assembly to be of cast steel / fabricated structural steel, metal and elastomer elements complete as per IS:2062, IS:1030, AISI:304, AISI:316, IS:6911, BS:3784, IS:3400, IS:226, BS-5400, Bridge Code and as per approved drawing and Technical Specifications. The design of the bearings shall be submitted by the manufacturers / contractor and got approved from Railway before fixing. Test report after inspection of the bearings shall be submitted and got approved before the materials are lifted from the manufacturer premises.					
041131	POT-cum -PTFE Bearing (Free end)					
	Unit: Each Bearing complete assembly					
	Labour:					
	Mate (Semi skilled)	Day	0003	619.00	0.08	46.43
	Mason 1st class (Skilled)	Day	0004	718.00	1.40	1,005.20
	Beldar (Un skilled)	Day	0025	547.00	0.50	273.50
	Material:					
	250 MT Capacity Pot Cum PTFE Bearing (Free end) assembly consisting of a metal piston supported by a disc of unreinforced elastomer that is confined with in the metal cylinder and sliding assembly comprising of stain less steel attached to metal backing plate sliding in horizontal plane over PTFE confined in recess (s)on the piston with internal seal (Brass laminated rings),hard facings ,external seal & wiper seal etc complete with cast steel assemblies/fabricated structural steel assemblies duly painted with all components complete as per drawings and Technical Specifications.	Each	0276	48250.00	1.00	48,250.00
	Add 2 % of cost of bearing assembly, foundation anchorage bolts, transportation and misc. items required during fixing.			0.02		965.00
	Hire charges for 200 MT capacity Jack	Day	0105	1478.00	2.00	2,956.00
	Sub Total					53,496.13
						53,496.13
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		534.96
						54,031.09
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		7,591.37
						61,622.45
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		9,243.37
						70,865.82
	Add for Cess @ 1%	Lumpsum	9905	0.01		708.66
	Rate of 250 MT Capacity Bearing	Each				71,574.48
041132	POT Bearing-Fixed Type					
	Unit: Each Bearing complete assembly					
	Labour:					
	Mate (Semi skilled)	Day	0003	619.00	0.08	46.43
	Mason 1st class (Skilled)	Day	0004	718.00	1.40	1,005.20
	Beldar (Un skilled)	Day	0025	547.00	0.50	273.50
	Material:					
	250 MT Capacity Pot type bearing (Fixed) assembly consisting of a metal piston supported by un reinforced elastomer confined in the pot with brass ring sealing making with cast steel assemblies/fabricated structural steel assemblies duly painted with all components complete as per drawings and Technical Specifications.	Each	0277	67500.00	1.00	67,500.00
	Add 2 % of cost of bearing assembly, foundation anchorage bolts, transportation and misc. items required during fixing.			0.02		1,350.00
	Hire charges for 200 MT capacity Jack	Day	0105	1478.00	2.00	2,956.00
	Sub Total					73,131.13
						73,131.13
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		731.31
						73,862.44

Note: The figures given in Amount/Rate Column (Which are strikethrough) are not to be taken for estimation or justifying rate. This amount/rate has been given for illustration purpose only.

Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		10,377.67
						84,240.11
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		12,636.02
						96,876.12
	Add for Cess @ 1%	Lumpsum	9905	0.01		968.76
	Rate of 250 MT Capacity Bearing	Each				97,844.89
041133	POT-cum -PTFE Guided (L)Bearing					
	Unit: Each Bearing complete assembly					
	Labour:					
	Mate (Semi skilled)	Day	0003	619.00	0.08	46.43
	Mason 1st class (Skilled)	Day	0004	718.00	1.40	1,005.20
	Beldar (Un skilled)	Day	0025	547.00	0.50	273.50
	Material:					
	250 MT Capacity Pot Cum PTFE GUIDED(L)Bearing assembly consisting of a metal piston supported by a disc of un reinforced elastomer that is confined with in the metal cylinder and sliding assembly with guiding arrangement to bear and resist the horizontal force in the desired direction comprising of stain less steel attached to metal backing plate sliding in horizontal plane over PTFE confined in recess (s)on the piston with internal seal (Brass laminated rings),hard facings ,external seal & wiper seal etc complete with cast steel assemblies/fabricated structural steel assemblies duly painted with all components complete as per drawings and Technical Specifications.	Each	0278	82500.00	1.00	82,500.00
	Add 2 % of cost of bearing assembly, foundation anchorage bolts, transportation and misc. items required during fixing.			0.02		1,650.00
	Hire charges for 200 MT capacity Jack	Day	0105	1478.00	2.00	2,956.00
	Sub Total					88,431.13
						88,431.13
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		884.31
						89,315.44
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		12,548.82
						101,864.26
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		15,279.64
						117,143.89
	Add for Cess @ 1%	Lumpsum	9905	0.01		1,171.44
	Rate of 250 MT Capacity Bearing	Each				118,315.33
041134	POT-cum -PTFE Guided (T)Bearing					
	Unit: Each Bearing complete assembly					
	Labour:					
	Mate (Semi skilled)	Day	0003	619.00	0.08	46.43
	Mason 1st class (Skilled)	Day	0004	718.00	1.40	1,005.20
	Beldar (Un skilled)	Day	0025	547.00	0.50	273.50
	Material:					
	250MT Capacity Pot Cum PTFE GUIDED(T)Bearing assembly consisting of a metal piston supported by a disc of un reinforced elastomer that is confined with in the metal cylinder and sliding assembly with guiding arrangement to bear and resist the horizontal force in the desired direction comprising of stain less steel attached to metal backing plate sliding in horizontal plane over PTFE confined in recess (s)on the piston with internal seal (Brass laminated rings),hard facings ,external seal & wiper seal etc complete with cast steel assemblies/fabricated structural steel assemblies duly painted with all components complete as per drawings and Technical Specifications.	Each	0279	82500.00	1.00	82,500.00
	Add 2 % of cost of bearing assembly, foundation anchorage bolts, transportation and misc. items required during fixing.			0.02		1,650.00
	Hire charges for 200 MT capacity Jack	Day	0105	1478.00	2.00	2,956.00
	Sub Total					88,431.13
						88,431.13
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		884.31
						89,315.44
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		12,548.82

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
						101,864.26
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		15,279.64
						117,143.89
	Add for Cess @ 1%	Lumpsum	9905	0.01		1,171.44
	Rate of 250 MT Capacity Bearing	Each				118,315.33
041140	Design, supply, fitting and fixing in position true to line and level POT-PTFE bearing of 200 MT Capacity, consisting of a metal piston supported by a disc or un reinforced elastomer confined within a metal cylinder, sealing rings, dust seals, PTFE surface sliding against stainless steel mating surface, complete assembly to be of cast steel / fabricated structural steel, metal and elastomer elements complete as per IS:2062, IS:1030, AISI:304, AISI:316, IS:6911, BS:3784, IS:3400, IS:226, BS-5400, Bridge Code and as per approved drawing and Technical Specifications. The design of the bearings shall be submitted by the manufacturers / contractor and got approved from Railway before fixing. Test report after inspection of the bearings shall be submitted and got approved before the materials are lifted from the manufacturer premises.					
041141	POT-cum -PTFE Bearing (Free end)					
	Unit: Each Bearing complete assembly					
	Labour:					
	Mate (Semi skilled)	Day	0003	619.00	0.06	37.14
	Mason 1st class (Skilled)	Day	0004	718.00	1.12	804.16
	Beldar (Un skilled)	Day	0025	547.00	0.40	218.80
	Material:					
	200 MT Capacity Pot Cum PTFE Bearing (Free end) assembly consisting of a metal piston supported by a disc of un reinforced elastomer that is confined with in the metal cylinder and sliding assembly comprising of stain less steel attached to metal backing plate sliding in horizontal plane over PTFE confined in recess (s)on the piston with internal seal (Brass laminated rings),hard facings ,external seal & wiper seal etc complete with cast steel assemblies/fabricated structural steel assemblies duly painted with all components complete as per drawings and Technical Specifications.	Each	0280	56222.00	1.00	56,222.00
	Add 2 % of cost of bearing assembly, foundation anchorage bolts, transportation and misc. items required during fixing.			0.02		1,124.44
	Hire charges for 200 MT capacity Jack	Day	0105	1478.00	2.00	2,956.00
	Sub Total					61,362.54
						61,362.54
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		613.63
						61,976.17
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		8,707.65
						70,683.82
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		10,602.57
						81,286.39
	Add for Cess @ 1%	Lumpsum	9905	0.01		812.86
	Rate of 250 MT Capacity Bearing	Each				82,099.25
041142	POT Bearing-Fixed Type					
	Unit: Each Bearing complete assembly					
	Labour:					
	Mate (Semi skilled)	Day	0003	619.00	0.06	37.14
	Mason 1st class (Skilled)	Day	0004	718.00	1.12	804.16
	Beldar (Un skilled)	Day	0025	547.00	0.40	218.80
	Material:					
	200 MT Capacity Pot type bearing (Fixed type) assembly consisting of a metal piston supported by un reinforced elastomer confined in the pot with brass ring sealing making with cast steel assemblies/fabricated structural steel assemblies duly painted with all components complete as per drawings and Technical Specifications.	Each	0281	50750.00	1.00	50,750.00
	Add 2 % of cost of bearing assembly, foundation anchorage bolts, transportation and misc. items required during fixing.			0.02		1,015.00

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Hire charges for 200 MT capacity Jack	Day	0105	1478.00	2.00	2,956.00
						55,781.10
						55,781.10
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		557.81
						56,338.91
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		7,915.62
						64,254.53
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		9,638.18
						73,892.71
	Add for Cess @ 1%	Lumpsum	9905	0.01		738.93
	Rate per 200 MT Capacity Bearing	Each				74,631.63
041143	POT-cum -PTFE Guided (L)Bearing					
	Unit: Each Bearing complete assembly					
	Labour:					
	Mate (Semi skilled)	Day	0003	619.00	0.06	37.14
	Mason 1st class (Skilled)	Day	0004	718.00	1.12	804.16
	Beldar (Un skilled)	Day	0025	547.00	0.40	218.80
	Material:					
	200 MT Capacity Pot Cum PTFE GUIDED(L)Bearing assembly consisting of a metal piston supported by a disc of un reinforced elastomer that is confined with in the metal cylinder and sliding assembly with guiding arrangement to bear and resist the horizontal force in the desired direction comprising of stain less steel attached to metal backing plate sliding in horizontal plane over PTFE confined in recess (s)on the piston with internal seal (Brass laminated rings),hard facings ,external seal & wiper seal etc complete with cast steel assemblies/fabricated structural steel assemblies duly painted with all components complete as per drawings and Technical Specifications.	Each	0282	66750.00	1.00	66,750.00
	Add 2 % of cost of bearing assembly, foundation anchorage bolts, transportation and misc. items required during fixing.			0.02		1,335.00
	Hire charges for 200 MT capacity Jack	Day	0105	1478.00	2.00	2,956.00
	Sub Total					72,101.10
						72,101.10
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		721.01
						72,822.11
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		10,231.51
						83,053.62
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		12,458.04
						95,511.66
	Add for Cess @ 1%	Lumpsum	9905	0.01		955.12
	Rate per 200 MT Capacity Bearing	Each				96,466.78
041144	POT-cum -PTFE Guided (T)Bearing					
	Unit: Each Bearing complete assembly					
	Labour:					
	Mate (Semi skilled)	Day	0003	619.00	0.06	37.14
	Mason 1st class (Skilled)	Day	0004	718.00	1.12	804.16
	Beldar (Un skilled)	Day	0025	547.00	0.40	218.80
	Material:					
	200 MT Capacity Pot Cum PTFE Guided (T) Bearing assembly consisting of a metal piston supported by a disc of un reinforced elastomer that is confined with in the metal cylinder and sliding assembly with guiding arrangement to bear and resist the horizontal force in the desired direction comprising of stain less steel attached to metal backing plate sliding in horizontal plane over PTFE confined in recess (s)on the piston with internal seal (Brass laminated rings),hard facings ,external seal & wiper seal etc complete with cast steel assemblies/fabricated structural steel assemblies duly painted with all components complete as per drawings and Technical Specifications.	Each	0283	56500.00	1.00	56,500.00
	Add 2 % of cost of bearing assembly, foundation anchorage bolts, transportation and misc. items required during fixing.			0.02		1,130.00

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Hire charges for 200 MT capacity Jack	Day	0105	1478.00	2.00	2,956.00
						61,646.10
						61,646.10
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		616.46
						62,262.56
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		8,747.89
						71,010.45
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		10,651.57
						81,662.02
	Add for Cess @ 1%	Lumpsum	9905	0.01		816.62
	Rate per 200 MT Capacity Bearing	Each				82,478.64
041150	Design, supply, fitting and fixing in position true to line and level POT-PTFE bearing of 150 MT Capacity, consisting of a metal piston supported by a disc or un reinforced elastomer confined within a metal cylinder, sealing rings, dust seals, PTFE surface sliding against stainless steel mating surface, complete assembly to be of cast steel / fabricated structural steel, metal and elastomer elements complete as per IS:2062, IS:1030, AISI:304, AISI:316, IS:6911, BS:3784, IS:3400, IS:226, BS-5400, Bridge Code and as per approved drawing and Technical Specifications. The design of the bearings shall be submitted by the manufacturers / contractor and got approved from Railway before fixing. Test report after inspection of the bearings shall be submitted and got approved before the materials are lifted from the manufacturer premises.					
041151	POT-cum -PTFE Bearing (Free end)					
	Unit: Each Bearing complete assembly					
	Labour:					
	Mate (Semi skilled)	Day	0003	619.00	0.05	27.86
	Mason 1st class (Skilled)	Day	0004	718.00	0.84	603.12
	Beldar (Un skilled)	Day	0025	547.00	0.30	164.10
	Material:					
	150 MT Capacity Pot Cum PTFE Bearing (Free end) assembly consisting of a metal piston supported by a disc of un reinforced elastomer that is confined with in the metal cylinder and sliding assembly comprising of stain less steel attached to metal backing plate sliding in horizontal plane over PTFE confined in recess (s)on the piston with internal seal (Brass laminated rings),hard facings ,external seal & wiper seal etc complete with cast steel assemblies/fabricated structural steel assemblies duly painted with all components complete as per drawings and Technical Specifications.	Each	0284	27250.00	1.00	27,250.00
	Add 2 % of cost of bearing assembly, foundation anchorage bolts, transportation and misc. items required during fixing.			0.02		545.00
	Hire charges for 200 MT capacity Jack	Day	0105	1478.00	2.00	2,956.00
	Sub Total					31,546.08
						31,546.08
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		315.46
						31,861.54
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		4,476.55
						36,338.08
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		5,450.71
						41,788.79
	Add for Cess @ 1%	Lumpsum	9905	0.01		417.89
	Rate per 150 MT Capacity Bearing	Each				42,206.68
041152	POT Bearing-Fixed Type					
	Unit: Each Bearing complete assembly					
	Labour:					
	Mate (Semi skilled)	Day	0003	619.00	0.05	27.86
	Mason 1st class (Skilled)	Day	0004	718.00	0.84	603.12
	Beldar (Un skilled)	Day	0025	547.00	0.30	164.10

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Material:					
	150MT Capacity Pot type bearing (Fixed type) assembly consisting of a metal piston supported by un reinforced elastomer confined in the pot with brass ring sealing making with cast steel assemblies/fabricated structural steel assemblies duly painted with all components complete as per drawings and Technical Specifications.	Each	0285	33750.00	1.00	33,750.00
	Add 2 % of cost of bearing assembly, foundation anchorage bolts, transportation and misc. items required during fixing.			0.02		675.00
	Hire charges for 200 MT capacity Jack	Day	0105	1478.00	2.00	2,956.00
	Sub Total					38,176.08
						38,176.08
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		381.76
						38,557.84
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		5,417.38
						43,975.21
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		6,596.28
						50,571.49
	Add for Cess @ 1%	Lumpsum	9905	0.01		505.71
	Rate per 150 MT Capacity Bearing	Each				51,077.21
041153	POT-cum -PTFE Guided (L)Bearing					
	Unit: Each Bearing complete assembly					
	Labour:					
	Mate (Semi skilled)	Day	0003	619.00	0.05	27.86
	Mason 1st class (Skilled)	Day	0004	718.00	0.84	603.12
	Beldar (Un skilled)	Day	0025	547.00	0.30	164.10
	Material:					
	150MT Capacity Pot Cum PTFE Guided (L) Bearing assembly consisting of a metal piston supported by a disc of un reinforced elastomer that is confined with in the metal cylinder and sliding assembly with guiding arrangement to bear and resist the horizontal force in the desired direction comprising of stain less steel attached to metal backing plate sliding in horizontal plane over PTFE confined in recess (s)on the piston with internal seal (Brass laminated rings),hard facings ,external seal & wiper seal etc complete with cast steel assemblies/fabricated structural steel assemblies duly painted with all components complete as per drawings and Technical Specifications.	Each	0286	43750.00	1.00	43,750.00
	Add 2 % of cost of bearing assembly, foundation anchorage bolts, transportation and misc. items required during fixing.			0.02		875.00
	Hire charges for 200 MT capacity Jack	Day	0105	1478.00	2.00	2,956.00
	Sub Total					48,376.08
						48,376.08
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		483.76
						48,859.84
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		6,864.81
						55,724.64
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		8,358.70
						64,083.34
	Add for Cess @ 1%	Lumpsum	9905	0.01		640.83
	Rate of 150 MT Capacity Bearing	Each				64,724.17
041154	POT-cum -PTFE Guided (T)Bearing					
	Unit: Each Bearing complete assembly					
	Labour:					
	Mate (Semi skilled)	Day	0003	619.00	0.05	27.86
	Mason 1st class (Skilled)	Day	0004	718.00	0.84	603.12
	Beldar (Un skilled)	Day	0025	547.00	0.30	164.10

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Material:					
	150MT Capacity Pot Cum PTFE Guided (T) Bearing assembly consisting of a metal piston supported by a disc of un reinforced elastomer that is confined with in the metal cylinder and sliding assembly with guiding arrangement to bear and resist the horizontal force in the desired direction comprising of stain less steel attached to metal backing plate sliding in horizontal plane over PTFE confined in recess (s)on the piston with internal seal (Brass laminated rings),hard facings ,external seal & wiper seal etc complete with cast steel assemblies/fabricated structural steel assemblies duly painted with all components complete as per drawings and Technical Specifications.	Each	0287	43250.00	1.00	43,250.00
	Add 2 % of cost of bearing assembly, foundation anchorage bolts, transportation and misc. items required during fixing.			0.02		865.00
	Hire charges for 200 MT capacity Jack	Day	0105	1478.00	2.00	2,956.00
	Sub Total					47,866.08
						47,866.08
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		478.66
						48,344.74
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		6,792.44
						55,137.17
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		8,270.58
						63,407.75
	Add for Cess @ 1%	Lumpsum	9905	0.01		634.08
	Rate of 150 MT Capacity Bearing	Each				64,041.82
041160	Design, supply, fitting and fixing in position true to line and level POT-PTFE bearing of 100 MT Capacity, consisting of a metal piston supported by a disc or un reinforced elastomer confined within a metal cylinder, sealing rings, dust seals, PTFE surface sliding against stainless steel mating surface, complete assembly to be of cast steel / fabricated structural steel, metal and elastomer elements complete as per IS:2062, IS:1030, AISI:304, AISI:316, IS:6911, BS:3784, IS:3400, IS:226, BS-5400, Bridge Code and as per approved drawing and Technical Specifications. The design of the bearings shall be submitted by the manufacturers / contractor and got approved from Railway before fixing. Test report after inspection of the bearings shall be submitted and got approved before the materials are lifted from the manufacturer premises.					
041161	POT-cum -PTFE Bearing (Free end)					
	Unit: Each Bearing complete assembly					
	Labour:					
	Mate (Semi skilled)	Day	0003	619.00	0.03	18.57
	Mason 1st class (Skilled)	Day	0004	718.00	0.56	402.08
	Beldar (Un skilled)	Day	0025	547.00	0.20	109.40
	Material:					
	100MT Capacity Pot Cum PTFE Bearing (Free end) assembly consisting of a metal piston supported by a disc of un reinforced elastomer that is confined with in the metal cylinder and sliding assembly comprising of stain less steel attached to metal backing plate sliding in horizontal plane over PTFE confined in recess (s)on the piston with internal seal (Brass laminated rings),hard facings ,external seal & wiper seal etc complete with cast steel assemblies/fabricated structural steel assemblies duly painted with all components complete as per drawings and Technical Specifications.	Each	0288	17500.00	1.00	17,500.00
	Add 2 % of cost of bearing assembly, foundation anchorage bolts, transportation and misc. items required during fixing.			0.02		350.00
	Hire charges for 200 MT capacity Jack	Day	0105	1478.00	2.00	2,956.00
	Sub Total					21,336.05
						21,336.05
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		213.36
						21,549.41
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		3,027.69
						24,577.10
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		3,686.57
						28,263.67

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Add for Cess @ 1%	Lumpsum	9905	0.01		282.64
	Rate of 100 MT Capacity Bearing	Each				28,546.30
041162	POT Bearing-Fixed Type					
	Unit: Each Bearing complete assembly					
	Labour:					
	Mate (Semi skilled)	Day	0003	619.00	0.03	18.57
	Mason 1st class (Skilled)	Day	0004	718.00	0.56	402.08
	Beldar (Un skilled)	Day	0025	547.00	0.20	109.40
	Material:					
	100MT Capacity Pot type bearing (Fixed type) assembly consisting of a metal piston supported by un reinforced elastomer confined in the pot with brass ring sealing making with cast steel assemblies/fabricated structural steel assemblies duly painted with all components complete as per drawings and Technical Specifications.	Each	0289	19500.00	1.00	19,500.00
	Add 2 % of cost of bearing assembly, foundation anchorage bolts, transportation and misc. items required during fixing.			0.02		390.00
	Hire charges for 200 MT capacity Jack	Day	0105	1478.00	2.00	2,956.00
	Sub Total					23,376.05
						23,376.05
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		233.76
						23,609.81
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		3,317.18
						26,926.99
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		4,039.05
						30,966.04
	Add for Cess @ 1%	Lumpsum	9905	0.01		309.66
	Rate of 100 MT Capacity Bearing	Each				31,275.70
041163	POT-cum -PTFE Guided (L)Bearing					
	Unit: Each Bearing complete assembly					
	Labour:					
	Mate (Semi skilled)	Day	0003	619.00	0.03	18.57
	Mason 1st class (Skilled)	Day	0004	718.00	0.56	402.08
	Beldar (Un skilled)	Day	0025	547.00	0.20	109.40
	Material:					
	100MT Capacity Pot Cum PTFE Guided (L) Bearing assembly consisting of a metal piston supported by a disc of un reinforced elastomer that is confined with in the metal cylinder and sliding assembly with guiding arrangement to bear and resist the horizontal force in the desired direction comprising of stain less steel attached to metal backing plate sliding in horizontal plane over PTFE confined in recess (s)on the piston with internal seal (Brass laminated rings),hard facings ,external seal & wiper seal etc complete with cast steel assemblies/fabricated structural steel assemblies duly painted with all components complete as per drawings and Technical Specifications.	Each	0290	27750.00	1.00	27,750.00
	Add 2 % of cost of bearing assembly, foundation anchorage bolts, transportation and misc. items required during fixing.			0.02		555.00
	Hire charges for 200 MT capacity Jack	Day	0105	1478.00	2.00	2,956.00
	Sub Total					31,791.05
						31,791.05
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		317.91
						32,108.96
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		4,511.31
						36,620.27
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		5,493.04
						42,113.31
	Add for Cess @ 1%	Lumpsum	9905	0.01		421.13
	Rate of 100 MT Capacity Bearing	Each				42,534.44

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
041164	POT-cum -PTFE Guided (T)Bearing					
	Unit: Each Bearing complete assembly					
	Labour:					
	Mate (Semi skilled)	Day	0003	619.00	0.03	18.57
	Mason 1st class (Skilled)	Day	0004	718.00	0.56	402.08
	Beldar (Un skilled)	Day	0025	547.00	0.20	109.40
	Material:					
	100MT Capacity Pot Cum PTFE Guided (T) Bearing assembly consisting of a metal piston supported by a disc of un reinforced elastomer that is confined with in the metal cylinder and sliding assembly with guiding arrangement to bear and resist the horizontal force in the desired direction comprising of stain less steel attached to metal backing plate sliding in horizontal plane over PTFE confined in recess (s)on the piston with internal seal (Brass laminated rings),hard facings ,external seal & wiper seal etc complete with cast steel assemblies/fabricated structural steel assemblies duly painted with all components complete as per drawings and Technical Specifications.	Each	0291	25500.00	1.00	25,500.00
	Add 2 % of cost of bearing assembly, foundation anchorage bolts, transportation and misc. items required during fixing.			0.02		510.00
	Hire charges for 200 MT capacity Jack	Day	0105	1478.00	2.00	2,956.00
	Sub Total					29,496.05
						29,496.05
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		294.96
						29,791.01
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		4,185.64
						33,976.65
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		5,096.50
						39,073.14
	Add for Cess @ 1%	Lumpsum	9905	0.01		390.73
	Rate of 100 MT Capacity Bearing	Each				39,463.88
041170	Design, supply and fixing 300MT capacity Spherical Bearing in position true to line and level consisting of set of concave and convex mating steel backing plate with a low friction sliding interface, flat sliding elements ,guides and restraining rings; with all components conforming to approved drawing and technical specifications & Bridge Code including grouting of holes for anchor bolts and underside of base plate with approved non-shrink epoxy grout with all material, labour, T&P as a complete job. Note: Sliding surface with PTFE or UHMWPE low friction thermoplastic material and steel for backing plate of Mild steel in accordance to IS:2062 grade-B. Cast steel in accordance with IS 1030 Grade 280-520W. Stain less steel in accordance with AISI 304/316.Low friction thermo -plastic sliding PTFE material either pure polytetrafluoroethylene (PTFE) Or Ultra High Molecular weight Polyethylene (UHMWPE). Austanitic steel is of stainless steel for the sliding interface shall be in accordance with AISI 316L or O2 Cr17 Ni12 of IS-6911. The thickness of the stain less steel sheet shall be 3mm minimum. The stainless steel sheet shall be attached to its backing plate either by screwing/riveting or by continuous fillet weld. Hard chromium plated surface shall be entire curved surface of the convex steel plate mating with hard chromium plated concave sliding surface .The thickness of the hard chromium plating shall be at least 100 microns and the final surface roughness of the plated surface shall not exceed 3 microns. Bearing manufacturer shall give the guarantee for satisfactory performance of bearing for period specified.					
041171	Spherical Fixed Bearing					
	Unit: Each Bearing complete assembly					
	Labour:					
	Mate (Semi skilled)	Day	0003	619.00	0.09	55.71
	Mason 1st class (Skilled)	Day	0004	718.00	1.68	1,206.24
	Beldar (Un skilled)	Day	0025	547.00	0.60	328.20

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Material:					
	300 MT Capacity Spherical fixed bearing consists of an assembly of precision machined steel components with spherical concave and convex elements in its centre designed and sized according the specific requirements .The bottom plate with a spherically concave top face covered with a recessed PTFE sheet .The top component is a solid stainless steel plate with spherically machined convex bottom face mating with concave curved surface fixed by restraining rings to restrict the horizontal movement as a complete unit made up of with Mild steel/cast iron steel/Stainless steel conforming to IS 2062 Grade -B & IS 1030 Grade 280-520W or 340-570W,AISI 304/316 shall be used for the backing plates with flat or curved surfaces.	Each	0292	70167.00	1.00	70,167.00
	Add 2 % of cost of bearing assembly, foundation anchorage bolts, transportation and misc. items required during fixing.			0.02		1,403.34
	Hire charges for 200 MT capacity Jack	Day	0105	1478.00	2.00	2,956.00
	Sub Total					76,116.49
						76,116.49
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		761.16
						76,877.65
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		10,801.31
						87,678.97
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		13,151.84
						100,830.81
	Add for Cess @ 1%	Lumpsum	9905	0.01		1,008.31
	Rate of 300 MT Capacity Bearing	Each				101,839.12
041172	Spherical Free Float Bearing					
	Unit: Each Bearing complete assembly					
	Labour:					
	Mate (Semi skilled)	Day	0003	619.00	0.09	55.71
	Mason 1st class (Skilled)	Day	0004	718.00	1.68	1,206.24
	Beldar (Un skilled)	Day	0025	547.00	0.60	328.20
	Material:					
	300 MT Capacity Spherical free float bearing consists of an assembly of precision machined steel components with spherical concave and convex elements in its centre designed and sized according the specific requirements .The bottom plate with a spherically concave top face covered with a recessed PTFE sheet .The top component is a solid stainless steel plate with spherically machined convex bottom face mating with concave curved surface . Sliding assembly attached consists of a polished stainless sheet welded to the under side of top steel plate slides on PTFE disc recessed or bonded to the upper surface of convex plate as complete unit made up of with Mild steel/cast iron steel/Stainless steel conforming to IS 2062 Grade -B & IS 1030 Grade 280-520W or 340-570W,AISI 304/316 shall be used for the backing plates with flat or curved surfaces, Stainless sheet shall be in accordance with AISI316L OR of IS 6911 of minimum thick 3mm	Each	0293	71237.00	1.00	71,237.00
	Add 2 % of cost of bearing assembly, foundation anchorage bolts, transportation and misc. items required during fixing.			0.02		1,424.74
	Hire charges for 200 MT capacity Jack	Day	0105	1478.00	2.00	2,956.00
	Sub Total					77,207.89
						77,207.89
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		772.08
						77,979.97
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		10,956.19
						88,936.15
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		13,340.42
						102,276.58
	Add for Cess @ 1%	Lumpsum	9905	0.01		1,022.77
	Rate of 300 MT Capacity Bearing	Each				103,299.34

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
041173	Spherical Slide Guide (L) Bearing					
	Unit: Each Bearing complete assembly					
	Labour:					
	Mate (Semi skilled)	Day	0003	619.00	0.09	55.71
	Mason 1st class (Skilled)	Day	0004	718.00	1.68	1,206.24
	Beldar (Un skilled)	Day	0025	547.00	0.60	328.20
	Material:					
	300 MT Capacity Spherical Slide Guide (L) bearing consists of an assembly of precision machined steel components with spherical concave and convex elements in its centre designed and sized according the specific requirements .The bottom plate with a spherically concave top face covered with a recessed PTFE sheet .The top component is a solid stainless steel plate with spherically machined convex bottom face mating with concave curved surface . Sliding assembly with guiding system bear and transmit the horizontal force in one direction and allowing the movement perpendicular to above (Longitudinal direction) consisting of a polished stainless sheet welded to the under side of top steel plate slides on PTFE disc recessed or bonded to the upper surface of convex plate as complete unit made up of with Mild steel/cast iron steel/Stainless steel conforming to IS 2062 Grade -B & IS 1030 Grade 280-520W or 340-570W,AISI 304/316 shall be used for the backing plates with flat or curved surfaces, Stainless sheet shall be in accordance with AISI316L OR of IS 6911 of minimum thick 3mm.	Each	0294	100343.00	1.00	100,343.00
	Add 2 % of cost of bearing assembly, foundation anchorage bolts, transportation and misc. items required during fixing.			0.02		2,006.86
	Hire charges for 200 MT capacity Jack	Day	0105	1478.00	2.00	2,956.00
	Sub Total					106,896.01
	c) Sundries, adhesives misc. T & P and consumables @ 3 per cent on a+b			0.03		3,206.88
						110,102.89
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		1,101.03
						111,203.92
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		15,624.15
						126,828.07
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		19,024.21
						145,852.28
	Add for Cess @ 1%	Lumpsum	9905	0.01		1,458.52
	Cost of 300 MT Capacity Bearing	Each				147,310.80
041174	Spherical Slide Guide (T) Bearing					
	Unit: Each Bearing complete assembly					
	Labour:					
	Mate (Semi skilled)	Day	0003	619.00	0.09	55.71
	Mason 1st class (Skilled)	Day	0004	718.00	1.68	1,206.24
	Beldar (Un skilled)	Day	0025	547.00	0.60	328.20
	Material:					
	300 MT Capacity Spherical Slide Guide (T) bearing consists of an assembly of precision machined steel components with spherical concave and convex elements in its centre designed and sized according the specific requirements .The bottom plate with a spherically concave top face covered with a recessed PTFE sheet .The top component is a solid stainless steel plate with spherically machined convex bottom face mating with concave curved surface . Sliding assembly with guiding system bear and transmit the horizontal force in one direction and allowing the movement perpendicular to above (Transverse direction) consisting of a polished stainless sheet welded to the under side of top steel plate slides on PTFE disc recessed or bonded to the upper surface of convex plate as complete unit made up of with Mild steel/cast iron steel/Stainless steel conforming to IS 2062 Grade -B & IS 1030 Grade 280-520W or 340-570W,AISI 304/316 shall be used for the backing plates with flat or curved surfaces, Stainless sheet shall be in accordance with AISI316L OR of IS 6911 of minimum thick 3mm	Each	0295	93892.00	1.00	93,892.00
	Add 2 % of cost of bearing assembly, foundation anchorage bolts, transportation and misc. items required during fixing.			0.02		1,877.84
	Hire charges for 200 MT capacity Jack	Day	0105	1478.00	2.00	2,956.00
						100,315.99

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Sundries, adhesives misc. T & P and consumables @ 3 per cent on a+b			0.03		3,009.48
						103,325.47
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		1,033.25
						104,358.72
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		14,662.40
						119,021.13
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		17,853.17
						136,874.29
	Add for Cess @ 1%	Lumpsum	9905	0.01		1,368.74
	Rate of 300 MT Capacity Bearing	Each				138,243.04
041180	Extra over items 041090 to 041170 for fixing bearings under running traffic /traffic block including removing of existing bearings and handing over at location as directed.					
	Add 10% on respective bearing items	Each		0.10		0.10
041190	Supply & applying two coats of bitumen emulsion of Grade RS-1, conforming to IS:8887 on the top surface of concrete deck slab (New bridges) @ 1.70 kg/sqm after cleaning surface with all materials, labour, tools and plants, equipment etc. complete.					
	Cost per 20 sqm					
	Material:					
	Bitumen emulsion for road of grade RS-1 conforming to IS 8887	MT	0316	45167.00	0.034	1,535.68
	Coarse Sand (Zone III)	Cum	0199	2083.00	0.12	249.96
	Labour:					
	Painter (Skilled)	Day	0012	749.00	0.20	149.80
	Coolie (Un skilled)	Day	0026	547.00	0.20	109.40
						2,044.84
	c) Sundries including misc tools and plants	Lumpsum	9901	1.00	30.00	30.00
						2,074.84
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		20.75
						2,095.59
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		294.43
						2,390.02
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		358.50
						2,748.52
	Add for Cess @ 1%	Lumpsum	9905	0.01		27.49
	Cost for 20 Sqm.					2,776.00
	Rate of 1.00 sqm	Sqm				138.80
041200	Providing road crane of specified lifting capacity with specified jib length revolving type for material handling, assembly & erection of girders/slab/RCC Box etc.					
041201	12 MT capacity					
	Hire charges of 12 MT crane and accessories	Day	0090	7250.00	1.00	7,250.00
	Sundries including misc tools and plants (@ 3% of above)			0.03		217.50
						7,467.50
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		74.68
						7,542.18
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		1,059.68
						8,601.85
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		1,290.28
						9,892.13
	Add for Cess @ 1%	Lumpsum	9905	0.01		98.92
	Rate per Day	Day				9,991.05
041202	20 MT capacity					
	Hiring charges of Crane 20 MT capacity	Day	0091	7850.00	1.00	7,850.00
	Sundries including misc tools and plants (@ 3% of above)			0.03		235.50
						8,085.50
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		80.86
						8,166.36

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		1,147.37
						9,313.73
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		1,397.06
						10,710.79
	Add for Cess @ 1%	Lumpsum	9905	0.01		107.11
	Rate per Day	Day				10,817.89
041203	50 MT capacity					
	Hiring charges of Crane 50 MT capacity	Day	0093	17250.00	1.00	17,250.00
	Sundries including misc tools and plants (@ 3% of above)			0.03		517.50
						17,767.50
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		177.68
						17,945.18
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		2,521.30
						20,466.47
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		3,069.97
						23,536.44
	Add for Cess @ 1%	Lumpsum	9905	0.01		235.36
	Rate per Day	Day				23,771.81
041204	80 MT capacity					
	Hiring charges of 80MT capacity crane	Day	0094	27833.00	1.00	27,833.00
	Sundries including misc tools and plants (@ 3% of above)			0.03		834.99
						28,667.99
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		286.68
						28,954.67
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		4,068.13
						33,022.80
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		4,953.42
						37,976.22
	Add for Cess @ 1%	Lumpsum	9905	0.01		379.76
	Rate per Day	Day				38,355.98
041205	100 MT capacity					
	Hiring charges of 100 MT capacity crane	Day	0095	43000.00	1.00	43,000.00
	Sundries including misc tools and plants (@ 3% of above)			0.03		1,290.00
						44,290.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		442.90
						44,732.90
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		6,284.97
						51,017.87
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		7,652.68
						58,670.55
	Add for Cess @ 1%	Lumpsum	9905	0.01		586.71
	Rate per Day	Day				59,257.26
041206	150 MT capacity					
	Hiring charges of 150 MT capacity crane	Day	0096	84667.00	1.00	84,667.00
	Sundries including misc tools and plants (@ 3% of above)			0.03		2,540.01
						87,207.01
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		872.07
						88,079.08
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		12,375.11
						100,454.19
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		15,068.13
						115,522.32
	Add for Cess @ 1%	Lumpsum	9905	0.01		1,155.22
	Rate per Day	Day				116,677.54

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
041207	200 MT capacity					
	Hiring charges of 200 MT capacity crane	Day	0097	170833.00	1.00	170,833.00
	Sundries including misc tools and plants (@ 3% of above)			0.03		5,124.99
						175,957.99
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		1,759.58
						177,717.57
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		24,969.32
						202,686.89
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		30,403.03
						233,089.92
	Add for Cess @ 1%	Lumpsum	9905	0.01		2,330.90
	Rate per Day	Day				235,420.82
041208	250 MT capacity					
	Hiring charges of 250 MT capacity crane	Day	0098	210500.00	1.00	210,500.00
	Sundries including misc tools and plants (@ 3% of above)			0.03		6,315.00
						216,815.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		2,168.15
						218,983.15
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		30,767.13
						249,750.28
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		37,462.54
						287,212.82
	Add for Cess @ 1%	Lumpsum	9905	0.01		2,872.13
	Rate per Day	Day				290,084.95
041209	300 MT capacity					
	Hiring charges of 300 MT capacity crane	Day	0099	250833.00	1.00	250,833.00
	Sundries including misc tools and plants (@ 3% of above)			0.03		7,524.99
						258,357.99
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		2,583.58
						260,941.57
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		36,662.29
						297,603.86
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		44,640.58
						342,244.44
	Add for Cess @ 1%	Lumpsum	9905	0.01		3,422.44
	Rate per Day	Day				345,666.88
041210	Extra for increase in road crane capacity over Item 041209 for every additional 1 MT capacity or part thereof					
	Details of cost for 1 MT					
	Machinery					
	Hiring charges of 400 MT capacity crane	Day	0100	330833.00	1.00	330,833.00
	Hiring charges of 300 MT capacity crane	Day	0099	250833.00	1.00	250,833.00
	Cost difference for 100 MT					80,000.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		800.00
						80,800.00
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		11,352.40
						92,152.40
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		13,822.86
						105,975.26
	Add for Cess @ 1%	Lumpsum	9905	0.01		1,059.75
	Cost for 100 MT					107,035.01
	Rate per 1 MT	Day				1,070.35
041220	Surface preparation of steel work of bridge plate/composite girders by cleaning with scrapers and/or wire brushes to remove all rust and loose or perished paint to prepare perfectly clean & dry bare metal surface free from all dirt/foreign material & ready for initial coat of paint for new or existing steel girders. Rate includes cost of labour, consumables, brushes, tools & plants, ladders, scaffoldings, jhoola, hanging scaffolding staging etc.					

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
041221	Existing girders with old paints					
	a) Taking output=100Sqm					
	Beldar (Un skilled)	Day	0025	547.00	2.00	1,094.00
	Coolie (Un skilled)	Day	0026	547.00	2.00	1,094.00
	Fitter Grade - 2 (Semi-skilled)	Day	0011	649.00	0.50	324.50
	Mate (Semi skilled)	Day	0003	619.00	0.20	123.80
	Mistry (Semi skilled)	Day	0027	619.00	0.20	123.80
	Painter (Skilled)	Day	0012	749.00	1.00	749.00
	Add for providing, maintenance, slow progress and danger element by using jhoola etc.	Lumpsum	9901	1.00	500.00	500.00
	Sub Total					4,009.10
	Sundries	Lumpsum	9901	1.00	40.00	40.00
						4,049.10
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		40.49
						4,089.59
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		574.59
						4,664.18
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		699.63
						5,363.81
	Add for Cess @ 1%	Lumpsum	9905	0.01		53.64
	Cost for 100 sqm					5,417.44
	Rate per Sqm	Sqm				54.17
041222	New girders during fabrication					
	Considering cost of 80 % in comparison to item no. 041221	Sqm	041221	54.17	0.80	43.34
	Rate per Sqm	Sqm				43.34
041230	Surface preparation of steel work of bridge triangulated girders by cleaning with scrappers and/or wire brushes to remove all rust and loose or perished paint to prepare perfectly clean & dry bare metal surface free from all dirt/foreign material & ready for initial coat of paint. Rate includes cost of labour, consumables, brushes, misc. tools and plants, ladders, scaffoldings, jhoola, hanging scaffolding, staging etc.					
041231	Existing girders with old paints					
	Basic cost as for item 041221					54.17
	Add 50% on item 041221 for larger spans and heavier loads and extra height of scaffolding.			0.50		27.09
	Rate per Sqm	Sqm				81.26
041232	New girders during fabrication					
	Considering cost of 80 % in comparison to item no. 041231	Sqm	041231	81.26	0.80	65.01
	Rate per Sqm	Sqm				65.01
041240	Surface preparation for painting of bridge plate/composite girders and other steel structures where the finishing coat shows signs of deterioration; but primer coat of paint is sufficiently in good condition and there are no signs of rusting etc. Surface shall be cleaned free from oil grease, scaling and other foreign matters without disturbing the primer coat {Rate includes cost of labour, consumables, tools & plants, scaffolding, jhoola, ladder etc.}					
	Detail of cost for 100 Sqm					
	Material :					
	Wire Brush - 25cm long	Each	0311	42.00	3.00	126.00
	Soft Brush for painting - 25cm long	Each	0312	59.00	3.00	177.00
	Sand Paper medium-grit (100- to 150-grit), 9" x 11"	Nos.	0491	7.00	10.00	70.00
	Labour :					
	Mistry (Semi skilled)	Day	0027	619.00	0.10	61.90
	Mate (Semi skilled)	Day	0003	619.00	0.10	61.90
	Coolie (Un skilled)	Day	0026	547.00	1.00	547.00
	Fitter Grade - 2 (Semi-skilled)	Day	0011	649.00	0.25	162.25
	Painter (Skilled)	Day	0012	749.00	0.50	374.50

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Beldar (Un skilled)	Day	0025	547.00	1.00	547.00
	Sundries	Lumpsum	9901	1.00	50.00	50.00
						2,177.55
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		21.78
						2,199.33
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		309.01
						2,508.33
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		376.25
						2,884.58
	Add for Cess @ 1%	Lumpsum	9905	0.01		28.85
	Cost for 100 Sqm surface area					2,913.43
	Rate per sqm	Sqm				29.13
041250	Surface preparation for painting of bridge Triangulated girders where the finishing coat shows signs of deterioration; but primer coat of paint is sufficiently in good condition and there are no signs of rusting etc. Surface shall be cleaned free from oil grease, scaling and other foreign matters without disturbing the primer coat.					
	Basic cost as for item 041240					29.13
	Add 50% on item 041240 for larger spans and heavier loads and extra height of scaffolding.			0.50		14.57
	Rate per Sqm	Sqm				43.70
041260	Painting of cleaned plate/composite bridge girders including all scaffolding along with provision of Jhoola / hanging scaffolding ladders etc. where required.					
041261	With one coat ready mix Zinc Chromate conforming to IS:104 with DFT of 25-30 Microns followed by one coat of Zinc Chromate red oxide conforming to IS:2074 DFT of 25 Microns					
	Detail of cost for 10 Sqm					
	Material:					
	Ready mix Zinc Chromate primer as per IS 104	Litre	0305	128.00	1.00	128.00
	Zinc Chromate red oxide Primer to IS:2074	Litre	0306	148.00	0.90	133.20
	Labour:					
	Painter (Skilled)	Day	0012	749.00	0.25	187.25
	Coolie (Un skilled)	Day	0026	547.00	0.25	136.75
	Add for providing, maintenance, slow progress and danger element by using jhoola etc	Lumpsum	9901	1.00	80.00	80.00
						665.20
	Sundries including misc tools and plants (@ 3% of sub-total)			0.03		19.96
						685.16
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		6.85
						692.01
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		97.23
						789.23
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		118.39
						907.62
	Add for Cess @ 1%	Lumpsum	9905	0.01		9.08
	Cost for 10 Sqm.					916.70
	Rate per Sqm	Sqm				91.67
041262	With two cover coats of ready-mixed paint conforming to IS:13607 with colour/shades, as decided by Engineer-in charge Note: DFT of each coat shall be 20-25 microns					
	Detail of cost for 10 Sqm					
	Material:					
	Ready-mixed paint to IS:13607 with colour/shades, as decided by Engineer-in charge					
	Ready Mixed Paint as per IS:13607	Litre	0310	322.00	0.91	293.02
	Ready Mixed Paint as per IS:13607	Litre	0310	322.00	0.77	247.94
	Labour:					
	Painter (Skilled)	Day	0012	749.00	0.25	187.25

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Coolie (Un skilled)	Day	0026	547.00	0.25	136.75
	Add for providing, maintenance, slow progress and danger element by using jhoola etc	Lumpsum	9901	1.00	80.00	80.00
						944.96
	Sundries including misc tools and plants (@ 3% of sub-total)			0.03		28.35
						973.31
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		9.73
						983.04
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		138.12
						1,121.16

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		168.17
						1,289.33
	Add for Cess @ 1%	Lumpsum	9905	0.01		12.89
	Cost for 10 Sqm.					1,302.23
	Rate per Sqm	Sqm				130.22
041263	With two coats of Aluminium paint in dual containers conforming to IS:2339 with DFT of 15 - 20 Microns for each coat.					
	Detail of cost for 10 Sqm					
	Material:					
	Aluminium paint	Litre	0307	199.00	0.91	181.09
	Aluminium paint	Litre	0307	199.00	0.77	153.23
	Labour:					
	Painter (Skilled)	Day	0012	749.00	0.25	187.25
	Coolie (Un skilled)	Day	0026	547.00	0.25	136.75
	Add for providing, maintenance, slow progress and danger element by using jhoola etc	Lumpsum	9901	1.00	80.00	80.00
						738.32
	Sundries including misc tools and plants (@ 3% of sub-total)			0.03		22.15
						760.47
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		7.60
						768.07
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		107.91
						875.99
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		131.40
						1,007.39
	Add for Cess @ 1%	Lumpsum	9905	0.01		10.07
	Cost for 10 Sqm.					1,017.46
	Rate per Sqm	Sqm				101.75
041264	With two coats of epoxy paint conforming to RDSO spec M&C/PCN/123-11 Note: DFT of each coat shall be 60 microns.					
	Detail of cost for 10 Sqm					
	Material:					
	Epoxy paint as per RDSO Spec M&C/PCN/123-11	Litre	0309	547.00	1.25	683.75
	Epoxy paint as per RDSO Spec M&C/PCN/123-11	Litre	0309	547.00	1.10	601.70
	Labour:					
	Painter (Skilled)	Day	0012	749.00	0.25	187.25
	Coolie (Un skilled)	Day	0026	547.00	0.25	136.75
	Add for providing, maintenance, slow progress and danger element by using jhoola etc	Lumpsum	9901	1.00	80.00	80.00
						1,689.45
	Sundries including misc tools and plants (@ 3% of sub-total)			0.03		50.68
						1,740.13
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		17.40
						1,757.53
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		246.93
						2,004.47
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		300.67
						2,305.14
	Add for Cess @ 1%	Lumpsum	9905	0.01		23.05
	Cost for 10 Sqm.					2,328.19
	Rate per Sqm	Sqm				232.82
041265	With one coat Aluminium paint in dual containers conforming to IS:2339 with DFT of 15 - 20 Microns .					
	Detail of cost for 10 Sqm					
	Material:					
	Aluminium paint	Litre	0307	199.00	0.90	179.10
	Labour:					
	Painter (Skilled)	Day	0012	749.00	0.15	112.35

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Coolie (Un skilled)	Day	0026	547.00	0.15	82.05
	Sundries, Add for providing, maintenance, slow progress and danger element by using jhoola etc	Lumpsum	9901	1.00	50.00	50.00
	Sub-total					423.50
	Sundries including misc tools and plants (@ 3% of sub-total)			0.03		12.71
						436.21
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		4.36
						440.57
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		61.90
						502.47
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		75.37
						577.84
	Add for Cess @ 1%	Lumpsum	9905	0.01		5.78
	Cost for 10 Sqm.					583.62
	Rate per Sqm	Sqm				58.36
041270	Painting cleaned triangulated bridge girders including all scaffolding, along with provision of Jhoola / hanging scaffolding ladder where required.					
041271	With one coat ready mix Zinc Chromate conforming to IS:104 with DFT of 25-30 Microns followed by one coat of Zinc Chrome red oxide conforming to IS:2074 with DFT of 25 Microns.					
	Detail of cost for 10 Sqm					
	Material:					
	Ready mix Zinc Chromate primer as per IS 104	Litre	0305	128.00	1.00	128.00
	Zinc Chromate red oxide Primer to IS:2074	Litre	0306	148.00	0.90	133.20
	Labour:					
	Painter (Skilled)	Day	0012	749.00	0.36	269.64
	Coolie (Un skilled)	Day	0026	547.00	0.36	196.92
	Add for providing, maintenance, slow progress and danger element by using jhoola etc	Lumpsum	9901	1.00	80.00	80.00
						807.76
	Sundries including misc tools and plants (@ 3% of sub-total)			0.03		24.23
						831.99
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		8.32
						840.31
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		118.06
						958.38
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		143.76
						1,102.13
	Add for Cess @ 1%	Lumpsum	9905	0.01		11.02
	Cost for 10 Sqm.					1,113.15
	Rate per Sqm	Sqm				111.32
041272	With two cover coats of ready-mixed paint conforming to IS:13607 with colour/shades, as decided by Engineer-in charge. Note: DFT of each coat shall be 20-25 microns.					
	Detail of cost for 10 Sqm					
	Material:					
	Ready Mixed Paint as per IS:13607	Litre	0310	322.00	0.91	293.02
	Ready Mixed Paint as per IS:13607	Litre	0310	322.00	0.77	247.94
	Labour:					
	Painter (Skilled)	Day	0012	749.00	0.36	269.64
	Coolie (Un skilled)	Day	0026	547.00	0.36	196.92
	Add for providing, maintenance, slow progress and danger element by using jhoola etc	Lumpsum	9901	1.00	80.00	80.00
						1,087.52
	Sundries including misc tools and plants (@ 3% of sub-total)			0.03		32.63
						1,120.15
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		11.20
						1,131.35

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		158.95
						1,290.30
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		193.55
						1,483.85
	Add for Cess @ 1%	Lumpsum	9905	0.01		14.84
	Cost for 10 Sqm.					1,498.68
	Rate per Sqm	Sqm				149.87
041273	With two coats Aluminium paint in dual containers conforming to IS:2339 with DFT of 15 - 20 Microns for each coat.					
	Detail of cost for 10 Sqm					
	Material:					
	Aluminium paint	Litre	0307	199.00	0.91	181.09
	Aluminium paint	Litre	0307	199.00	0.77	153.23
	Labour:					
	Painter (Skilled)	Day	0012	749.00	0.36	269.64
	Coolie (Un skilled)	Day	0026	547.00	0.36	196.92
	Add for providing, maintenance, slow progress and danger element by using jhoola etc	Lumpsum	9901	1.00	80.00	80.00
						880.88
	Sundries including misc tools and plants (@ 3% of sub-total)			0.03		26.43
						907.31
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		9.07
						916.38
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		128.75
						1,045.13
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		156.77
						1,201.90
	Add for Cess @ 1%	Lumpsum	9905	0.01		12.02
	Cost for 10 Sqm.					1,213.92
	Rate per Sqm	Sqm				121.39
041274	With two coats of epoxy paint conforming to RDSO spec M&C/PCN/123-11 Note: DFT of each coat shall be 60 microns.					
	Detail of cost for 10 Sqm					
	Material:					
	Epoxy paint as per RDSO Spec M&C/PCN/123-11	Litre	0309	547.00	1.25	683.75
	Epoxy paint as per RDSO Spec M&C/PCN/123-11	Litre	0309	547.00	1.10	601.70
	Labour:					
	Painter (Skilled)	Day	0012	749.00	0.36	269.64
	Coolie (Un skilled)	Day	0026	547.00	0.36	196.92
	Add for providing, maintenance, slow progress and danger element by using jhoola etc	Lumpsum	9901	1.00	80.00	80.00
						1,832.01
	Sundries including misc tools and plants (@ 3% of sub-total)			0.03		54.96
						1,886.97
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		18.87
						1,905.84
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		267.77
						2,173.61
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		326.04
						2,499.65
	Add for Cess @ 1%	Lumpsum	9905	0.01		25.00
	Cost for 10 Sqm.					2,524.65
	Rate per Sqm	Sqm				252.46
041280	Extra for working under traffic conditions over items 041220 to 041274					
	Add 10% over above items	Sqm		0.10		0.10

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
041290	Removing of existing bed plate from existing bed block, supply, fabrication and erection of new bed plate of approved sizes in exact position over bed block of pier/abutments by giving full and even bearing, setting them on the layer of free flow non-shrinkable grouting compound, scrapping or chipping of bed block, if required, fabrication and fixing of holding down HTS bolts of suitable sizes along with nuts, washers etc., drilling holes of required size, grouting of holes by epoxy mortar after fixing holding down bolts. Total work to be done during traffic block. Cost of holding down HTS bolts shall be paid extra under relevant item for supply of HTS holding down bolts.					
041291	Up to 12.2m clear span					
	Consider MBG plate girder rivetted type Drawing No 16007,the weight of the bearings (i.e. Bed plates all together)-0.400MT or 4.00QTL					
	Material:					
	Structural steel plates conforming to Grade Designation E250; Quality "B0" as per IS:2062,	Quintal	0222	8133.00	4.20	34,158.60
	(Steel considering 5% wastage)					
	Araldite GY257	Kg	0320	613.00	20.00	12,260.00
	Epoxy Hardener HY850	Kg	0321	492.00	20.00	9,840.00
	Wooden Blocks of different sizes required: 1) 600mm x 200mm x125mm - 4 Nos. 2) 600mm x 200mm x150mm - 2 Nos. 3) 600mm x 200mm x 25mm - 6 Nos. 4) 600mm x 200mm x12mm - 6 Nos. Total quantity = 0.122 cum Cost of one time use of 0.122 Cum wooden blocks shall be as per item no. 191030					
	Epoxy mortar for concrete repair	kg	0348	35.00	10.00	350.00
	Acrylic polymer bonding coat	Litre	0350	215.00	1.50	322.50
	Labour:					
	a) Fabrication of bed plate					
	Fitter Grade - 1 (Skilled)	Day	0010	743.00	0.50	371.50
	Blacksmith - 2nd Class (Semi-skilled)	Day	0009	649.00	0.75	486.75
	Beldar (Un skilled)	Day	0025	547.00	1.00	547.00
	b) Cleaning and levelling of bed plate seating location					
	Fitter Grade - 1 (Skilled)	Day	0010	743.00	0.50	371.50
	Blacksmith - 2nd Class (Semi-skilled)	Day	0009	649.00	0.75	486.75
	Beldar (Un skilled)	Day	0025	547.00	1.00	547.00
	c)Lifting and lowering of girders					
	Mate (Semi skilled)	Day	0003	619.00	0.64	396.16
	Beldar (Semi Skilled)	Day	0024	585.00	4.00	2,340.00
	Beldar (Un skilled)	Day	0025	547.00	12.00	6,564.00
	Machinery:					
	Hire charges of air compressor 250 cfm capacity with two leads for pneumatic cutters / hammers	Day	0064	1550.00	1.00	1,550.00
	Hire charges for jack of 40 MT lifting capacity	Day	0103	775.00	4.00	3,100.00
	Hire charges of Arc Welding Machine 500 Amp	Day	0129	792.00	1.00	792.00
	Hire charges of gas cutter	Day	0130	325.00	1.00	325.00
	Hire charges of 7.5 KVA Generator	Day	0072	1133.00	1.00	1,133.00
	Hire charges of Diesel Truck - 9 tonne	Day	0508	3794.12	1.00	3,794.12
	Sundries including misc tools and plants	Lumpsum	9901	1.00	5000.00	5,000.00
						84,735.88
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		847.36
						85,583.24
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		12,024.45
						97,607.68
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		14,641.15
						112,248.84
	Add for Cess @ 1%	Lumpsum	9905	0.01		1,122.49
						113,371.32
	Rate as per item No. 191030	Cum	191030	2019.63	0.12	246.40
	Cost for 4 qtl.(400 kg.)					113,617.72

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Rate per Kg	Kg				284.04
041292	More than 12.2m and up to 18.3m clear span					
	Basic cost same as for 041291					284.04
	Add for larger spans and heavier loads and extra height of scaffolding (5% above)			0.05		14.20
						298.25
	Rate per Kg	Kg				298.25
041293	More than 18.3m and up to 30.5m clear span					
	Basic cost same as for 041291					284.04
	Add for larger spans and heavier loads and extra height of scaffolding (10% above)			0.10		28.40
						312.45
	Rate per Kg	Kg				312.45
041294	Supply of HTS holding down bolts with nuts, washer etc.					
	Considering cost of 1 quintal HTS holding down bolts					
	Holding down HTS bolts with plates, nuts etc.	Quintal	0232	9500.00	1.00	9,500.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		95.00
						9,595.00
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		1,348.10
						10,943.10
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		1,641.46
						12,584.56
	Add for Cess @ 1%	Lumpsum	9905	0.01		125.85
	Cost for 1 quintal					12,710.41
	Rate per Kg	Kg				127.10
041300	Assembling and erecting pre-fabricated structures, such as columns, beams, girders, other members of FOBs and sheds; including leading all structural elements within 1 Km lead, bolting, riveting or welding as per approved drawing or as directed by Engineer In-charge. Rate shall include cost of labour, materials, tools & plants and only pre-fabricated structural elements shall be given by Railway. (Work not requiring traffic or power block).					
	Detail of cost for 100 MT of pre-fabricated steel structures					
	Material:					
	Mild steel rivets for steel girders	Quintal	0229	7800.00	30.00	234,000.00
	Welding by Electric Plant	Cm	0336	4.00	7500.00	30,000.00
	Sundries	Lumpsum	9901	1.00	1000.00	1,000.00
	Machinery:					
	Hire charges of Derrick Monkey Rope	Day	0060	867.00	60.00	52,020.00
	Hiring charges of Crane 20 MT capacity	Day	0091	7850.00	30.00	235,500.00
	Labour:					
	Mate (Semi skilled)	Day	0003	619.00	10.00	6,190.00
	Beldar (Un skilled)	Day	0025	547.00	100.00	54,700.00
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	30.00	22,470.00
						635,880.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		6,358.80
						642,238.80
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		90,234.55
						732,473.35
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		109,871.00
						842,344.35
	Add for Cess @ 1%	Lumpsum	9905	0.01		8,423.44
	Cost for 100 MT					850,767.80
	Rate per MT	MT				8,507.68
041301	Extra over item no 041300, if the work is to be executed under traffic or power block.					
	Details of cost for one MT labour cost of item no 041300					
	Cost for 100 MT					

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Labour :					
	25% of labour charges of item no 041300					
	Mate (Semi skilled)	Day	0003	619.00	2.50	1,547.50
	Beldar (Un skilled)	Day	0025	547.00	25.00	13,675.00
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	7.50	5,617.50
						20,840.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		208.40
						21,048.40
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		2,957.30
						24,005.70
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		3,600.86
						27,606.56
	Add for Cess @ 1%	Lumpsum	9905	0.01		276.07
	Cost for 100 MT					27,882.62
	Rate per MT	MT				278.83
041310	Cleaning and greasing of free end and fixed end of steel girder Bridge bearings with Grease Graphite, Kerosene oil and other materials as per Para 222 of Indian Railway Bridge Manual 1998 with painting of Bearing as per requirement complete as directed by engineer in-charge. Note: One unit shall consists of all bearing of one girder.					
041311	Girder of clear span up to 12.2m					
	Details of cost for 2 girders					
	Material:					
	Grease Graphite Grade 'O' (IS:408)	Kg	0182	270.00	11.00	2,970.00
	Kerosene Oil	Litre	0183	63.00	3.00	189.00
	Wooden Blocks of different sizes required: 1) 600mm x 200mm x125mm - 4 Nos. 2) 600mm x 200mm x150mm - 2 Nos. 3) 600mm x 200mm x 25mm - 6 Nos. 4) 600mm x 200mm x12mm - 6 Nos. Total quantity = 0.122 cum Cost of one time use of 0.122 Cum wooden blocks shall be as per item no. 191030. For 2 girders, the quantity shall be 2 x 0.122 = 0.244 Cum					
	Hire charges for jack of 40 MT lifting capacity	Day	0103	775.00	2.00	1,550.00
	Labour:					
	Fitter Grade - 1 (Skilled)	Day	0010	743.00	2.00	1,486.00
	Machine Operator (Machine) (Skilled)	Day	0041	738.00	2.00	1,476.00
	Beldar (Un skilled)	Day	0025	547.00	8.00	4,376.00
	Sundries	Lumpsum	9901	1.00	100.00	100.00
						12,147.00
	Add for working under traffic block @ 5%	Lumpsum	9991	0.05		607.35
						12,754.35
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		127.54
						12,881.89
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		1,809.91
						14,691.80
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		2,203.77
						16,895.57
	Add for Cess @ 1%	Lumpsum	9905	0.01		168.96
	Rate as per item no. 191030	Cum	191030	2019.63	0.24	492.79
	Cost for 2 girders					17,557.32
	Rate per girder	Each				8,778.66
041312	Girder of clear span above 12.20m & up to 24.40m					
	Details of cost for 2 girders					
	Material:					
	Grease Graphite Grade 'O' (IS:408)	Kg	0182	270.00	16.00	4,320.00
	Kerosene Oil	Litre	0183	63.00	4.00	252.00

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Wooden Blocks of different sizes required: 1) 600mm x 200mm x125mm - 4 Nos. 2) 600mm x 200mm x150mm - 2 Nos. 3) 600mm x 200mm x 25mm - 6 Nos. 4) 600mm x 200mm x12mm - 6 Nos. Total quantity = 0.122 cum Cost of one time use of 0.122 Cum wooden blocks shall be as per item no. 191030. For 2 girders, the quantity shall be 2 x 0.122 = 0.244 Cum					
	Hire charges for jack of 40 MT lifting capacity	Day	0103	775.00	2.00	1,550.00
	Labour:					
	Fitter Grade - 1 (Skilled)	Day	0010	743.00	2.00	1,486.00
	Machine Operator (Machine) (Skilled)	Day	0041	738.00	2.00	1,476.00
	Beldar (Un skilled)	Day	0025	547.00	10.00	5,470.00
	Sundries	Lumpsum	9901	1.00	100.00	100.00
						14,654.00
	Add for working under traffic block @ 5%	Lumpsum	9991	0.05		732.70
						15,386.70
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		153.87
						15,540.57
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		2,183.45
						17,724.02
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		2,658.60
						20,382.62
	Add for Cess @ 1%	Lumpsum	9905	0.01		203.83
	Rate as per item no. 191030	Cum	191030	2019.63	0.24	492.79
	Cost for 2 girders					21,079.24
	Rate per girder	Each				10,539.62
041313	Girder of clear span above 24.40m & up to 30.5m					
	Details of cost for 3 girders					
	Material:					
	Grease Graphite Grade 'O' (IS:408)	Kg	0182	270.00	42.00	11,340.00
	Kerosene Oil	Litre	0183	63.00	12.00	756.00
	Wooden Blocks of different sizes required: 1) 750mm x 200mm x125mm - 12 Nos. 2) 750mm x 250mm x150mm - 6 Nos. 3) 750mm x 200mm x 50mm - 10 Nos. 4) 750mm x 250mm x 25mm - 10 Nos. 5) 750mm x 200mm x 40mm - 10 Nos. 6) 750mm x 200mm x 12mm - 10 Nos. Total quantity = 0.598 cum Cost of one time use of 0.598 Cum wooden blocks shall be as per item no. 191030. For 3 girders, the quantity shall be 3 x 0.598 = 1.794 Cum					
	Hire charges for jack of 40 MT lifting capacity	Day	0103	775.00	4.00	3,100.00
	Labour:					
	Fitter Grade - 1 (Skilled)	Day	0010	743.00	5.00	3,715.00
	Machine Operator (Machine) (Skilled)	Day	0041	738.00	4.00	2,952.00
	Beldar (Un skilled)	Day	0025	547.00	20.00	10,940.00
	Sundries	Lumpsum	9901	1.00	100.00	100.00
						32,903.00
	Add for working under traffic block @ 10%	Lumpsum	9992	0.10		3,290.30
						36,193.30
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		361.93
						36,555.23
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		5,136.01
						41,691.24
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		6,253.69
						47,944.93
	Add for Cess @ 1%	Lumpsum	9905	0.01		479.45
	Rate as per item no. 191030	Cum	191030	2019.63	1.794	3,623.22
	Cost for 3 girders					52,047.60

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Rate per girder	Each				17,349.20
041314	Girder of clear span above 30.5m					
	Details of cost for 2 girders					
	Material:					
	Grease Graphite Grade 'O' (IS:408)	Kg	0182	270.00	24.00	6,480.00
	Kerosene Oil	Litre	0183	63.00	6.00	378.00
	Wooden Blocks of different sizes required: 1) 750mm x 200mm x125mm - 12 Nos. 2) 750mm x 250mm x150mm - 6 Nos. 3) 750mm x 200mm x 50mm - 10 Nos. 4) 750mm x 250mm x 25mm - 10 Nos. 5) 750mm x 200mm x 40mm - 10 Nos. 6) 750mm x 200mm x 12mm - 10 Nos. Total quantity = 0.598 cum Cost of one time use of 0.598 Cum wooden blocks shall be as per item no. 191030. For 2 girders, the quantity shall be 2 x 0.598 = 1.196 Cum					
	Labour:					
	Hire charges for jack of 100 MT lifting capacity	Day	0104	1500.00	3.00	4,500.00
	Fitter Grade - 1 (Skilled)	Day	0010	743.00	3.00	2,229.00
	Machine Operator (Machine) (Skilled)	Day	0041	738.00	3.00	2,214.00
	Beldar (Un skilled)	Day	0025	547.00	15.00	8,205.00
	Sundries	Lumpsum	9901	1.00	100.00	100.00
						24,106.00
	Add for working under traffic block @ 25%	Lumpsum	9995	0.25		6,026.50
						30,132.50
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		301.33
						30,433.83
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		4,275.95
						34,709.78
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		5,206.47
						39,916.24
	Add for Cess @ 1%	Lumpsum	9905	0.01		399.16
	Rate as per item no. 191030	Cum	191030	2019.63	1.20	2,415.48
	Cost for 2 girders					42,730.89
	Rate per girder	Each				21,365.44
041320	Launching in position, by any approved method, pre-fabricated Steel Girders, precast PSC girders/slabs, casted at casting bed developed at site, to correct alignment and level over the bed block / pedestal with all required arrangements, complete in all respect.					
041321	PSC girders / slabs					
	Detail of cost for 200.48 MT girder (for 4 spans of 12.2m with 2 Girder system) = 8*25.06=200.48 MT)					
	Machinery:					
	Considering 2 cranes at the site of 150 T capacity for 1 working day.					
	Hiring charges of 150 MT capacity crane	Day	0096	84667.00	2.00	169,334.00
	Hire charges of Derrick Monkey Rope	Day	0060	867.00	5.00	4,335.00
	Hire Charges of JCB 3DX Plus Backhoe Loader	Day	0506	4966.80	1.00	4,966.80
	(Dozer for making approaches)					
	Labour:					
	Beldar (Semi Skilled)	Day	0024	585.00	5.00	2,925.00
	Fitter Grade - 1 (Skilled)	Day	0010	743.00	5.00	3,715.00
	Beldar (Un skilled)	Day	0025	547.00	10.00	5,470.00
	Sundries	Lumpsum	9901	1.00	1000.00	1,000.00
						191,745.80
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		1,917.46
						193,663.26

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		27,209.69
						220,872.95
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		33,130.94
						254,003.89
	Add for Cess @ 1%	Lumpsum	9905	0.01		2,540.04
	Cost for 200.48 MT girder					256,543.93
	Rate per MT	MT				1,279.65
041322	Structural steel plate girders					
	Detail of cost for 114 MT girder (for 4 spans of 18.3m with 2 Girder system) = 4*28.5=114 MT)					
	Machinery:					
	Considering 2 cranes at the site of 100 T capacity for 1 working day.					
	Hiring charges of 100 MT capacity crane	Day	0095	43000.00	2.00	86,000.00
	Hire charges of Derrick Monkey Rope	Day	0060	867.00	5.00	4,335.00
	Hire Charges of JCB 3DX Plus Backhoe Loader	Day	0506	4966.80	1.00	4,966.80
	(Dozer for making approaches)					
	Labour:					
	Beldar (Semi Skilled)	Day	0024	585.00	5.00	2,925.00
	Fitter Grade - 1 (Skilled)	Day	0010	743.00	5.00	3,715.00
	Beldar (Un skilled)	Day	0025	547.00	10.00	5,470.00
	Sundries	Lumpsum	9901	1.00	1000.00	1,000.00
						108,411.80
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		1,084.12
						109,495.92
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		15,384.18
						124,880.09
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		18,732.01
						143,612.11
	Add for Cess @ 1%	Lumpsum	9905	0.01		1,436.12
	Cost for 114 MT girder					145,048.23
	Rate per MT	MT				1,272.35
041330	Delaunching of all types of Steel girders, PSC girders/Slabs and stacking away from river stream or passage as directed by Engineer in charge with all labour, tools and plant, equipment etc., complete.					
041331	PSC girders / slabs					
	Detail of cost for 200.48 MT girder (for 4 spans of 12.2m with 2 Girder system) = 8*25.06=200.48 MT)					
	Machinery:					
	Considering one crane for 1.5 working day.					
	Hiring charges of 150 MT capacity crane	Day	0096	84667.00	1.50	127,000.50
	Hire charges of Derrick Monkey Rope	Day	0060	867.00	5.00	4,335.00
	Hire charges of gas cutter	Day	0130	325.00	8.00	2,600.00
	Hire Charges of JCB 3DX Plus Backhoe Loader	Day	0506	4966.80	1.00	4,966.80
	(Dozer for making approaches)					
	Material:					
	Commercial LPG (in cylinder)	Kg	0337	99.00	10.00	990.00
	Oxygen Gas (in cylinder)	Kg	0338	83.00	9.00	747.00
	Labour:					
	Beldar (Semi Skilled)	Day	0024	585.00	2.00	1,170.00
	Fitter Grade - 1 (Skilled)	Day	0010	743.00	2.00	1,486.00
	Beldar (Un skilled)	Day	0025	547.00	8.00	4,376.00
	Sundries	Lumpsum	9901	1.00	500.00	500.00
	Sub Total					148,171.30
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		1,481.71
						149,653.01
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		21,026.25
						170,679.26
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		25,601.89
						196,281.15

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Add for Cess @ 1%	Lumpsum	9905	0.01		1,962.81
	Cost for 200.48 MT girder					198,243.96
	Rate per MT	MT				988.85
041332	Structural steel plate girders.					
	Detail of cost for 114 MT girder (for 4 spans of 18.3m with 2 Girder system) =4*28.5=114 MT)					
	Machinery:					
	Considering one crane for 1.5 working day.					
	Hiring charges of 100 MT capacity crane	Day	0095	43000.00	1.50	64,500.00
	Hire charges of Derrick Monkey Rope	Day	0060	867.00	5.00	4,335.00
	Hire charges of gas cutter	Day	0130	325.00	8.00	2,600.00
	Hire Charges of JCB 3DX Plus Backhoe Loader	Day	0506	4966.80	1.00	4,966.80
	(Dozer for making approaches)					
	Material:					
	Commercial LPG (in cylinder)	Kg	0337	99.00	10.00	990.00
	Oxygen Gas (in cylinder)	Kg	0338	83.00	9.00	747.00
	Labour:					
	Beldar (Semi Skilled)	Day	0024	585.00	2.00	1,170.00
	Fitter Grade - 1 (Skilled)	Day	0010	743.00	2.00	1,486.00
	Beldar (Un skilled)	Day	0025	547.00	8.00	4,376.00
	Sundries	Lumpsum	9901	1.00	500.00	500.00
						85,670.80
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		856.71
						86,527.51
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		12,157.11
						98,684.62
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		14,802.69
						113,487.32
	Add for Cess @ 1%	Lumpsum	9905	0.01		1,134.87
	Cost for 114 MT girder					114,622.19
	Rate per MT	MT				1,005.46
041340	Delaunching of existing and Launching & fixing of new girder/slab in exact location of all type of steel/PSC girders/Slabs available at site, during block, complete job including lifting to any height as per site requirement, provision of approaches, and placing of released material away from bridge stream or roads as the case may be. Note: Payment under this item shall be made for the total weight of girder removed and newly launched girder.					
041341	Delaunching of existing PSC girders / slabs and Launching New PSC girders / slabs					
	Considering reduction of 20% in cost due to saving in manpower/machinery simultaneous delaunching and launching. Cost for 1 MT delaunching with 1 MT launching					
	Basic cost of Delaunching of existing PSC girders (041331)					988.85
	Basic cost of Launching New PSC girders (041321)					1,279.65
	Total					2,268.50
	Deduct 20% for simultaneous working with the same machinery			0.20		453.70
	Net Cost for 2 MT					1,814.80
	Rate per MT	MT				907.40
041342	Delaunching of existing PSC girders / slabs and Launching New Structural steel plate girders.					
	Considering reduction of 20% in cost due to saving in manpower/machinery simultaneous delaunching and launching. Cost for 1 MT delaunching with 1 MT launching					
	Basic cost of Delaunching of existing PSC girders/Slabs (041331)					988.85
	Basic cost of Launching New Structural steel plate girders (041322)					1,272.35
	Total					2,261.20
	Deduct 20% for simultaneous working with the same machinery			0.20		452.24

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Net Cost for 2 MT					1,808.96
	Rate per MT	MT				904.48
041343	Delaunching of existing Structural steel plate girders / slabs and Launching New Structural steel plate girders					
	Considering reduction of 20% in cost due to saving in manpower/machinery simultaneous delaunching and launching. Cost for 1 MT delaunching with 1 MT launching					
	Basic cost of Delaunching of existing Structural steel plate girders (041332)					1,005.46
	Basic cost of Launching New Structural steel plate girders (041322)					1,272.35
	Total					2,277.81
	Deduct 20% for simultaneous working with the same machinery			0.20		455.56
	Net Cost for 2 MT					1,822.25
	Rate per MT	MT				911.12
041344	Delaunching of existing Structural steel plate girders / slabs and Launching New PSC girders / slabs					
	Considering reduction of 20% in cost due to saving in manpower/machinery simultaneous delaunching and launching. Cost for 1 MT delaunching with 1 MT launching					
	Basic cost of Delaunching of existing Structural steel plate girders (041332)					1,005.46
	Basic cost of Launching New PSC girders / slabs (041321)					1,279.65
	Total					2,285.11
	Deduct 20% for simultaneous working with the same machinery			0.20		457.02
	Net Cost for 2 MT					1,828.09
	Rate per MT	MT				914.04
041350	Longitudinally slewing of steel plate girders of span 12.2m to 24.4m under traffic block at locations where it is found short / excessive expansion gap beyond the bearing to locking strip or the center of the bearing stiffener not in line with the center of the bed plate or where the girders ends are butting each other as directed by the Engineer in charge at site using contractor's own hydraulic jacks of 100 tons capacity for lifting and slewing of girder separately on both ends to suit as per site conditions, consumables and wooden cut blocks including transportation, with all contractors labour, materials, scaffolding/staging arrangements etc complete without damaging the girder and track alignment and cross levels.					
041351	For Span 12.2M to 18.3M					
	One girder per day during block hours					
	Machinery:					
	Hire charges for OEW flat jack of 100 T capacity for longitudinal slewing of girder from both sides	Each	0112	2675.00	2.00	5,350.00
	Hire charges for jack of 100 MT lifting capacity	Day	0104	1500.00	2.00	3,000.00
	Hire charges of gas cutter	Day	0130	325.00	1.00	325.00
	Hire charges of Arc Welding Machine 500 Amp	Day	0129	792.00	1.00	792.00
	Material:					
	Hydraulic oil SS-68 or equivalent of HPCL/BPCL/IOCL	Litre	0181	143.00	3.00	429.00
	Diesel (HSD) Oil	Litre	0179	93.00	5.00	465.00
	Kerosene Oil	Litre	0183	63.00	3.00	189.00
	Wooden Blocks of different sizes required: 1) 600mm x 200mm x125mm - 4 Nos. 2) 600mm x 200mm x150mm - 2 Nos. 3) 600mm x 200mm x 25mm - 6 Nos. 4) 600mm x 200mm x12mm - 6 Nos. Total quantity = 0.122 cum Cost of one time use of 0.122 Cum wooden blocks shall be as per item no. 191030					
	Labour:					
	Mate (Semi skilled)	Day	0003	619.00	1.00	619.00
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	2.00	1,498.00
	Carpenter (Skilled)	Day	0006	734.00	1.00	734.00
	Welder (Skilled)	Day	0029	734.00	1.00	734.00
	Helper (Semi-skilled)	Day	0021	572.00	2.00	1,144.00

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Beldar (Un skilled)	Day	0025	547.00	6.00	3,282.00
	Add for transportation and Misc. items	Lumpsum	9901	1.00	300.00	300.00
						18,861.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		188.61
						19,049.61
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		2,676.47
						21,726.08
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		3,258.91
						24,984.99
	Add for Cess @ 1%	Lumpsum	9905	0.01		249.85
	Rate as per item no. 191030	Cum	191030	2019.63	0.12	246.40
	Cost for 1 span					25,481.24
	Rate per span	Each				25,481.24
041352	For Span above 18.3 M to 24.4 M					
	Basic cost of item 041351					25,481.24
	Add for larger spans and heavier loads and extra height (10% over item 041351)				1.10	28,029.36
	Rate per span	Each				28,029.36
041360	Arresting leakage of oil from oil bath tank of rocker and roller bearings where in segmental rollers immersed in the oil of nominated OWG bridges of all types of spans under traffic conditions with contractor's labour, materials, tools and plants, Machinery like drilling machines and generators, consumables (Engine oil, SAE oil, K-oil, oxygen and acetylene gas etc), including transportation etc. complete, by draining left over residue oil inside of the tank and opening of oil bath tank sides and top dust cover plates and drain pipes completely by dismantling all its bolted joint connections using chisels and drilling out bolts if any found sheared and struck off in the base plate, cleaning of bearings, rollers, base plates by applying kerosene oil and scrapping, wire brushing and polishing by zero grade sand paper, examining the rollers and base plates for any micro cracks with magnifying glasses without causing any damage to rollers and its accessories, refixing the oil bath tank side and top dust cover plates, drain pipes and its all joint connections with new bolts using cork sheet and 2mm thick rubber sheet in between joint connections all along its full length as oil sealant duly correct punching of holes as per site conditions, applying of epoxy grout over the joint connections to required thick and allowed to set, test checking for leakages if any by filling the oil bath tank with water during passage of several trains and after ensuring the pool proof leakage, the Railways supplied oil servo mesh SP 460 BP or equivalent lubricant to be filled up in the oil bath tank and all bolts to be tightened firmly and undulations or uneven surfaces of the pier cap to be made level with cement concrete as directed by the Engineer in charge at site. Note: 1)Oil removed from the bearings should be filled in tins and handed over to SSE/BR concerned, 2)After opening, removal of all existing plates and oil, bearings should be inspected by Engineer in charge for its confirmation of cut blocks and cleaning in all respects					
	Machinery:					
	Hire charges of Rail Drill Machine	Day	0134	442.00	2.00	884.00
	Hire charges of Generator 5 KVA (without POL)	Day	0071	867.00	2.00	1,734.00
	Hire charges of Arc Welding Machine 500 Amp	Day	0129	792.00	2.00	1,584.00
	Hire charges of gas cutter	Day	0130	325.00	2.00	650.00
	Material:					
	Epoxy mortar for concrete repair	kg	0348	35.00	4.00	140.00
	Epoxy resin hardener mix for seal coat	Kg	0349	222.00	2.00	444.00
	Wire Brush - 25cm long	Each	0311	42.00	4.00	168.00
	Soft Brush for painting - 25cm long	Each	0312	59.00	4.00	236.00
	Sand Paper medium-grit (100- to 150-grit), 9" x 11"	Nos.	0491	7.00	20.00	140.00
	Luting Sand for AT welding	Kg	0418	22.00	20.00	440.00
	Nut & Bolts with washers of all sizes	Kg	0231	122.00	10.00	1,220.00
	Diesel (HSD) Oil	Litre	0179	93.00	5.00	465.00
	Kerosene Oil	Litre	0183	63.00	5.00	315.00
	Labour:					
	Mate (Semi skilled)	Day	0003	619.00	1.00	619.00
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	4.00	2,996.00
	Carpenter (Skilled)	Day	0006	734.00	1.00	734.00
	Welder (Skilled)	Day	0029	734.00	2.00	1,468.00

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Helper (Semi-skilled)	Day	0021	572.00	2.00	1,144.00
	Beldar (Un skilled)	Day	0025	547.00	4.00	2,188.00
	Add for Lumpsum for transportation, corck sheet, rubber sheet and misc etc	Lumpsum	9901	1.00	1000.00	1,000.00
						18,569.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		185.69
						18,754.69
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		2,635.03
						21,389.72
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		3,208.46
						24,598.18
	Add for Cess @ 1%	Lumpsum	9905	0.01		245.98
	Rate per oil bath bearing	Each				24,844.16
041370	Supplying fabricating and erecting welded and/or bolted and/or riveted steel work in built up sections, trusses and framed work, staging, racks, Height Gauge etc. for Steel Structures other than bridge girders, using RSJ, tees, angles and channels/flats, plates, gussets, round or square bars, cleats, bolts etc., with contractors own steel including cutting, bending, straightening, drilling, riveting, hoisting, fixing, erecting, welding, bolting etc., with Providing stiffeners wherever required as per approved drawing including applying a priming coat of a approved steel primer with all contractor's materials, labour, tools & plants, lead & lift including crossing of tracks if required etc., complete as per specification and as directed by Engineer-in-charge. Note: The payment shall be made on the theoretical weight of main components and gusset plates only.					
	Consider for 1MT					
	Material:					
	Structural steel such as T, Angles, Channels and R S Joists conforming to Grade Designation E 250; Quality "A" as per IS 2062	Quintal	0221	7050.00	10.50	74,025.00
	Including 5% wastage					
	Nut & Bolts with washers of all sizes	Kg	0231	122.00	12.62	1,539.64
	Mild steel rivets for steel girders	Quintal	0229	7800.00	0.20	1,528.80
	Ready mix Zinc Chromate primer as per IS 104	Litre	0305	128.00	2.10	268.80
	Labour:					
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	4.00	2,996.00
	Fitter Grade - 1 (Skilled)	Day	0010	743.00	4.00	2,972.00
	Welder (Skilled)	Day	0029	734.00	6.00	4,404.00
	Beldar (Semi Skilled)	Day	0024	585.00	4.00	2,340.00
	Beldar (Un skilled)	Day	0025	547.00	6.00	3,282.00
						93,356.24
	Add 3% for consumables and other misc.	Lumpsum		0.03		2,800.69
						96,156.93
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		961.57
						97,118.50
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		13,645.15
						110,763.65
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		16,614.55
						127,378.19
	Add for Cess @ 1%	Lumpsum	9905	0.01		1,273.78
	Rate per MT	MT				128,651.97

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CHAPTER - 5 : Bridge Works - Misc.

Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
051010	Providing and laying boulders apron on river bed for protection against scour with stone boulders weighing not less than 35 kg each with voids filled with spalls complete as per drawing and Technical Specification.					
	Considering cost of 1 Cum finished boulder Apron					
	Material:					
	Stone boulder, weighing minimum 35 kg each	Cum	0210	917.00	1.00	917.00
	Stone Spalls	Cum	0211	575.00	0.20	115.00
	Labour:					
	Mate (Semi skilled)	Day	0003	619.00	0.04	24.76
	Mason 2nd class (Semi-skilled)	Day	0005	662.00	0.35	231.70
	Beldar (Un skilled)	Day	0025	547.00	0.35	191.45
	Sundries	Lumpsum	9901	1.00	20.00	20.00
						1,499.91
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		15.00
						1,514.91
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.1405		212.84
						1,727.75
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		259.16
						1,986.92
	Add for Cess @ 1%	Lumpsum	9905	0.01		19.87
	Rate per cum	Cum				2,006.79
051020	Laying of boulder apron laid in wire crates of approved size including overlaps at joints, laid with stone boulders, all loose ends to be tied with 4mm galvanised steel wire. Payment for boulders & wire crates to be done extra.					
	Considering 5.63 Cum					
	Labour:					
	Mate (Semi skilled)	Day	0003	619.00	0.18	111.42
	Mason 2nd class (Semi-skilled)	Day	0005	662.00	1.00	662.00
	Beldar (Un skilled)	Day	0025	547.00	4.00	2,188.00
	Sundries	Lumpsum	9901	1.00	30.00	30.00
						2,991.42
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		29.91
						3,021.33
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.1405		424.50
						3,445.83
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		516.87
						3,962.71
	Add for Cess @ 1%	Lumpsum	9905	0.01		39.63
	Cost of 5.63 cum					4,002.33
	Rate per cum	Cum				710.89
051030	Supplying of stone boulders weighing not less than 35 kg each at specified bridge locations.					
	Taking output = 1 cum					
	Material:					
	Stone boulder, weighing minimum 35 kg each	Cum	0210	917.00	1.00	917.00
						917.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		9.17
						926.17
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		130.13
						1,056.30
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		158.44
						1,214.74
	Add for Cess @ 1%	Lumpsum	9905	0.01		12.15
	Rate per cum	Cum				1,226.89

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
051040	Manufacture and supplying Galvanized Wire Net Trungers made from 4mm galvanised steel wire @ 32 kg/10sqm having minimum tensile strength of 300 Mpa conforming to IS:280 and galvanizing coating conforming to IS:4826, woven into mesh with double twist, mesh size not exceeding 100mm x 100mm.					
	Taking trunger of size 18.5 Sqm Weight = 18.5 x 32/10 = 59.20 kgs					
	Material:					
	G.I. wire 4mm dia	Kg	0249	118.00	59.20	6,985.60
	Labour:					
	Mate (Semi skilled)	Day	0003	619.00	0.18	111.42
	Mason 2nd class (Semi-skilled)	Day	0005	662.00	1.00	662.00
	Beldar (Un skilled)	Day	0025	547.00	1.00	547.00
	Sundries	Lumpsum	9901	1.00	100.00	100.00
						8,406.02
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		84.06
						8,490.08
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.1405		1,192.86
						9,682.94
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		1,452.44
						11,135.38
	Add for Cess @ 1%	Lumpsum	9905	0.01		111.35
	Cost of 18.5 sqm					11,246.73
	Rate per sqm	Sqm				607.93
051050	Providing and laying of Apron with cement concrete blocks cast in-situ and made with nominal mix of 1:2:4 with all material, labour, tools and plants. Note: (1) Payment to be made for concrete only; (2) Cement and shuttering to be paid extra.					
	Cost of shuttering to be paid extra.					
	Taking output = 15 cum					
	Material:					
	Coarse Sand (Zone III)	Cum	0199	2083.00	6.75	14,060.25
	Stone Aggregate (Single size) : 20 mm nominal size	Cum	0204	1017.00	8.10	8,237.70
	Stone Aggregate (Single size) : 10 mm nominal size	Cum	0205	983.00	4.05	3,981.15
	Labour:					
	Mate (Semi skilled)	Day	0003	619.00	0.64	396.16
	Mason 1st class (Skilled)	Day	0004	718.00	1.00	718.00
	Coolie (Un skilled)	Day	0026	547.00	15.00	8,205.00
	Machinery:					
	Hire charges of Concrete Mixer 0.25 to 0.40 cubic metre capacity	Day	0069	1250.00	0.75	937.50
	Hire charges of 25 KVA Generator	Day	0073	1817.00	0.75	1,362.75
	Hire charges of Pin Vibrator	Day	0078	483.00	1.00	483.00
	Sundries	Lumpsum	9901	1.00	100.00	100.00
						38,481.51
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		384.82
						38,866.33
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.1405		5,460.72
						44,327.04
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		6,649.06
						50,976.10
	Add for Cess @ 1%	Lumpsum	9905	0.01		509.76
	Cost for 15 cum					51,485.86
	Rate per cum	Cum				3,432.39
051060	Providing and laying Pitching with Stone Boulders, weighing not less than 35kg each with voids filled with spalls on slopes, laid over prepared filter media including boulder apron laid dry in front of toe of embankment complete as per drawing and Technical Specifications (filter media to be paid separately under the relevant item).					

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Taking output = 1 cum					
	Material:					
	Stone boulder, weighing minimum 35 kg each	Cum	0210	917.00	1.00	917.00
	Stone Spalls	Cum	0211	575.00	0.20	115.00
	Labour:					
	Mate (Semi skilled)	Day	0003	619.00	0.04	24.76
	Mason 2nd class (Semi-skilled)	Day	0005	662.00	0.25	165.50
	Beldar (Un skilled)	Day	0025	547.00	0.30	164.10
	Sundries	Lumpsum	9901	1.00	20.00	20.00
						1,406.36
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		14.06
						1,420.42
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.1405		199.57
						1,619.99
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		243.00
						1,862.99
	Add for Cess @ 1%	Lumpsum	9905	0.01		18.63
	Rate per cum	Cum				1,881.62
051070	Providing and laying Pitching with Stone Boulders, weighing not less than 35kg each with voids filled with cement sand mortar 1:4 on slopes laid over prepared filter media including boulder apron laid dry in front of toe of embankment complete as per drawing and Technical Specifications (filter media to be paid separately under the relevant item). Rate is excluding cost of cement which shall be paid extra under relevant item.					
	Taking output = 1 cum					
	Material:					
	Stone boulder, weighing minimum 35 kg each	Cum	0210	917.00	1.00	917.00
	Stone Spalls	Cum	0211	575.00	0.20	115.00
	Fine Sand (Zone IV)	Cum	0200	2050.00	0.35	717.50
	Labour:					
	Mate (Semi skilled)	Day	0003	619.00	0.04	24.76
	Mason 2nd class (Semi-skilled)	Day	0005	662.00	0.25	165.50
	Beldar (Un skilled)	Day	0025	547.00	1.00	547.00
	Bhisti (Semi skilled)	Day	0023	619.00	0.10	61.90
	Sundries	Lumpsum	9901	1.00	30.00	30.00
						2,578.66
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		25.79
						2,604.45
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.1405		365.92
						2,970.37
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		445.56
						3,415.93
	Add for Cess @ 1%	Lumpsum	9905	0.01		34.16
	Rate per cum	Cum				3,450.09
051080	Providing and laying Filter Material as per RDSO Specifications underneath pitching in slopes complete as per drawing and Technical Specification.					
	Taking output = 1 cum					
	Material:					
	Filter media of stone aggregate confirming to RDSO specification (12 cum loose to be taken as 10 cum after compaction)	Cum	0212	1300.00	1.20	1,560.00
	Labour:					
	Mate (Semi skilled)	Day	0003	619.00	0.05	30.95
	Mason 2nd class (Semi-skilled)	Day	0005	662.00	0.25	165.50
	Beldar (Un skilled)	Day	0025	547.00	1.00	547.00
	Sundries	Lumpsum	9901	1.00	30.00	30.00
						2,333.45
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		23.33
						2,356.78

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.1405		331.13
						2,687.91
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		403.19
						3,091.10
	Add for Cess @ 1%	Lumpsum	9905	0.01		30.91
	Rate per cum	Cum				3,122.01
051090	Laying Boulder Apron on river bed for protection against scour with stone boulders supplied by Railway with voids filled with spalls complete as per drawings and Technical Specifications.					
	Taking output = 1cum					
	Labour:					
	Mate (Semi skilled)	Day	0003	619.00	0.04	24.76
	Mason 2nd class (Semi-skilled)	Day	0005	662.00	0.04	26.48
	Beldar (Un skilled)	Day	0025	547.00	0.50	273.50
	Sundries	Lumpsum	9901	1.00	20.00	20.00
						344.74
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		3.45
						348.19
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.1405		48.92
						397.11
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		59.57
						456.67
	Add for Cess @ 1%	Lumpsum	9905	0.01		4.57
	Rate per cum	Cum				461.24
051100	Laying Pitching with Stone Boulders supplied by Railway with voids filled with spalls on slopes, laid over prepared filter media including boulder apron laid dry in front of toe of embankment as per drawings and technical specifications. Note: Filter media to be paid under relevant item.					
	Taking output = 1 cum					
	Labour:					
	Mate (Semi skilled)	Day	0003	619.00	0.04	24.76
	Mason 2nd class (Semi-skilled)	Day	0005	662.00	0.25	165.50
	Beldar (Un skilled)	Day	0025	547.00	0.30	164.10
	Sundries	Lumpsum	9901	1.00	20.00	20.00
						374.36
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		3.74
						378.10
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.1405		53.12
						431.23
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		64.68
						495.91
	Add for Cess @ 1%	Lumpsum	9905	0.01		4.96
	Rate per cum	Cum				500.87
051110	Stenciling of Girders with black / blue lettering over yellow background with ready mix paint w.r.t. details of executed inspection, greasing and painting, other details as directed by Engineer in-charge Note: Payment will be per cm height of each letter					
	Details of cost for 100 nos.					
	Material:					
	Enamel Paint as per RDSO's Spec. no.M&C/PCN/120-2011	Litre	0304	248.00	4.00	992.00
	Soft Brush for painting - 25cm long	Each	0312	59.00	1.00	59.00
	Sundries	Lumpsum	9901	1.00	10.00	10.00
	Labour:					
	Painter (Skilled)	Day	0012	749.00	2.00	1,498.00
	Beldar (Un skilled)	Day	0025	547.00	2.00	1,094.00
						3,653.00

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		36.53
						3,689.53
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.1405		518.38
						4,207.91
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		631.19
						4,839.10
	Add for Cess @ 1%	Lumpsum	9905	0.01		48.39
	Cost for 100 nos.					4,887.49
	Rate per stencil	Each				48.87
051120	Cleaning Surface of Abutment and Piers up to bed level under water with brush or any other tools to remove all traces of moss, loose materials, fungus, algae, vegetation growth etc. Cleaning shall be carried out with contractor's trained staff, tools & plants, safety equipments etc. complete job including arranging safe approach.					
	Details of cost for 100 Sqm					
	Labour:					
	Hire charges of boat with boatmen	Day	0159	2217.00	4.00	8,868.00
	Beldar (Un skilled)	Day	0025	547.00	8.00	4,376.00
						13,244.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		132.44
						13,376.44
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.1405		1,879.39
						15,255.83
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		2,288.37
						17,544.20
	Add for Cess @ 1%	Lumpsum	9905	0.01		175.44
	Cost for 100 Sqm					17,719.65
	Rate per sqm	Sqm				177.20
052000	Flooring in Bridges					
052010	Providing and laying flooring with rubble stone, laid over 15cm thick CC 1:2:4 and the voids filled with CC 1:2:4 complete with the joints pointed with 1:2 Cement Sand mortar as per drawing and Technical specifications. Payment for cement to be done separately. Voids in the rubble stone to be taken as 35% of the gross volume of the stone layer. Note: Base concrete shall be paid extra under relevant item.					
	Taking output = 5 cum					
	Material:					
	Stone boulder, weighing minimum 35 kg each	Cum	0210	917.00	5.00	4,585.00
	Stone Aggregate (Single size) : 20 mm nominal size	Cum	0204	1017.00	1.17	1,189.89
	Stone Aggregate (Single size) : 10 mm nominal size	Cum	0205	983.00	0.39	383.37
	Coarse Sand (Zone III)	Cum	0199	2083.00	0.78	1,624.74
	Labour:					
	(i) For laying rubble stone flooring					
	Mate (Semi skilled)	Day	0003	619.00	0.10	61.90
	Mason 2nd class (Semi-skilled)	Day	0005	662.00	0.75	496.50
	Beldar (Un skilled)	Day	0025	547.00	2.25	1,230.75
	(ii) For filling voids with Concrete					
	Mate (Semi skilled)	Day	0003	619.00	0.10	61.90
	Mason 2nd class (Semi-skilled)	Day	0005	662.00	0.20	132.40
	Coolie (Un skilled)	Day	0026	547.00	2.00	1,094.00
	Machinery:					
	Hire charges of Concrete Mixer 0.25 to 0.40 cubic metre capacity	Day	0069	1250.00	0.10	125.00
	Hire charges of Generator of 250 KVA capacity	Day	0076	4350.00	0.10	435.00
	Sundries	Lumpsum	9901	1.00	120.00	120.00
						11,540.45
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		115.40
						11,655.85

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.1405		1,637.65
						13,293.50
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		1,994.03
						15,287.53
	Add for Cess @ 1%	Lumpsum	9905	0.01		152.88
	Cost per 5cum					15,440.40
	Rate per cum	Cum				3,088.08
052020	Providing and laying 300mm thick (average) Dry Stone flooring with boulders of not less than 35kg each in weight, hand packed with surface levelled off to the correct section with hammer dressing as necessary on the ground including filling the gaps with quarry spalls and ordinary sand complete including cost of supply of all materials, labour, lead, lift, tools, plants, crossing of tracks and the like as per drawing and technical specification as directed by Engineer in charge.					
	Taking output = 5 cum					
	Material:					
	Stone boulder, weighing minimum 35 kg each	Cum	0210	917.00	5.00	4,585.00
	Stone Spalls	Cum	0211	575.00	1.00	575.00
	Coarse Sand (Zone III)	Cum	0199	2083.00	0.75	1,562.25
	Labour:					
	(i) For laying dry stone flooring					
	Mate (Semi skilled)	Day	0003	619.00	0.10	61.90
	Mason 2nd class (Semi-skilled)	Day	0005	662.00	0.75	496.50
	Beldar (Un skilled)	Day	0025	547.00	2.25	1,230.75
	(ii) For filling gaps with quarry spalls & ordinary sand					
	Mate (Semi skilled)	Day	0003	619.00	0.10	61.90
	Mason 2nd class (Semi-skilled)	Day	0005	662.00	0.20	132.40
	Coolie (Un skilled)	Day	0026	547.00	1.00	547.00
	Sundries	Lumpsum	9901	1.00	120.00	120.00
						9,372.70
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		93.73
						9,466.43
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.1405		1,330.03
						10,796.46
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		1,619.47
						12,415.93
	Add for Cess @ 1%	Lumpsum	9905	0.01		124.16
	Cost per 5cum					12,540.09
	Rate per cum	Cum				2,508.02
052030	Supply and laying of quarry dust including consolidation, supply of all materials, labour, lead, lift, tools, plants, crossing of tracks as per drawing and technical specification as directed by the Engineer in charge in case loose slush is encountered at site of foundation before casting the foundation or laying the filtering media.					
	Taking output = 10 cum					
	Material:					
	Quarry Dust taking 1.2 Cum for 1cum consolidated thickness.					
	Crusher Screening(Quarry Dust) Conforming to Grading Zone - I to Zone- II	Cum	0208	600.00	12.00	7,200.00
	Labour:					
	Mate (Semi skilled)	Day	0003	619.00	0.10	61.90
	Mason 2nd class (Semi-skilled)	Day	0005	662.00	0.25	165.50
	Beldar (Un skilled)	Day	0025	547.00	0.50	273.50
	Sundries	Lumpsum	9901	1.00	20.00	20.00
						7,720.90
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		77.21
						7,798.11
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.1405		1,095.63
						8,893.74

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		1,334.06
						10,227.80
	Add for Cess @ 1%	Lumpsum	9905	0.01		102.28
	Cost of 10 cum					10,330.08
	Rate per cum	Cum				1,033.01
052040	Supply and laying of coarse sand including consolidation with all labour, lead, lift, tools, plants, crossing of tracks as per drawing and technical specification as directed by the Engineer in charge in case loose slush is encountered at site of foundation before casting the foundation or laying the filtering media.					
	Taking output = 10 cum					
	Material:					
	Coarse Sand (Zone III)	Cum	0199	2083.00	12.00	24,996.00
	Labour:					
	Mate (Semi skilled)	Day	0003	619.00	0.10	61.90
	Mason 2nd class (Semi-skilled)	Day	0005	662.00	0.25	165.50
	Beldar (Un skilled)	Day	0025	547.00	0.50	273.50
	Sundries	Lumpsum	9901	1.00	30.00	30.00
						25,526.90
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		255.27
						25,782.17
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.1405		3,622.39
						29,404.56
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		4,410.68
						33,815.25
	Add for Cess @ 1%	Lumpsum	9905	0.01		338.15
	Cost 10 cum					34,153.40
	Rate per cum	Cum				3,415.34
052050	Guniting concrete surface with cement mortar of average thickness 25mm along with wire mesh 50x50x3mm, applied with compressor after cleaning surface and spraying complete including curing as per procedure and technical specifications given under Para 209.3 of IRBM. Rate is excluding the cost of cement which shall be paid extra.					
	Taking output = 1sqm					
	Assuming thickness 25 mm					
	Material:					
	Coarse Sand (Zone III)	Cum	0199	2083.00	0.04	83.32
	Wire mesh size 50mm x 50mm of 3mm wire	Kg	0352	106.00	2.00	212.00
	Accelerator compound for guniting	Kg	0345	185.00	0.64	118.40
	Labour:					
	Mate (Semi skilled)	Day	0003	619.00	0.01	6.19
	Mason 2nd class (Semi-skilled)	Day	0005	662.00	0.04	26.48
	Beldar (Un skilled)	Day	0025	547.00	0.14	76.58
	Machinery:					
	Hire charges of air compressor 250 cfm capacity with two leads for pneumatic cutters / hammers	Day	0064	1550.00	0.01	19.38
	Sundries	Lumpsum	9901	1.00	20.00	20.00
						562.35
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		5.62
						567.97
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.1405		79.80
						647.77
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		97.17
						744.93
	Add for Cess @ 1%	Lumpsum	9905	0.01		7.45
	Rate per sqm	Sqm				752.38

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
052060	Providing and inserting nipples of size 12 to 20 mm dia. with approved fixing compound after drilling holes for grouting as per Technical Specifications including subsequent cutting/removal and sealing of the hole as necessary after completion of grouting.					
	Taking output = 12 Nos.					
	Assuming thickness 25 mm					
	Material:					
	GI/MS nipple size 20mm dia	Each	0346	27.00	12.00	324.00
	Sundries for Cement, fixing compound and consumables	Lumpsum	9901	1.00	40.00	40.00
	Labour:					
	Mate (Semi skilled)	Day	0003	619.00	0.01	6.19
	Mason 2nd class (Semi-skilled)	Day	0005	662.00	0.20	132.40
	Beldar (Un skilled)	Day	0025	547.00	0.40	218.80
	(Mazdoor for fixing and sealing nipples and cutting and removing of surplus length of nipples.)					
	Machinery:					
	Hire charges of air compressor 250 cfm capacity with two leads for pneumatic cutters / hammers	Day	0064	1550.00	0.01	19.38
	Sundries	Lumpsum	9901	1.00	25.00	25.00
						765.77
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		7.66
						773.42
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.1405		108.67
						882.09
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		132.31
						1,014.40
	Add for Cess @ 1%	Lumpsum	9905	0.01		10.14
	Cost for 12 per nipples					1,024.55
	Rate per nipple	Each				85.38
052070	Grouting of masonry/concrete by injection process duly Sealing of cracks, through nipples complete as per Technical Specification and procedure given in IRBM Para No 209 including necessary admixture. Payment shall be as per use of cement by weight in case of neat cement/cement mortar grouting and weight of Epoxy in case of Epoxy Grouting. (Cement will be paid extra).					
052071	Neat Cement Grout with 20% anti shrinkage compound w.r.t. cement.					
	Taking output for using 1 kg of cement.					
	Material:					
	Admixture (anti shrinkage compound) for CC/RCC work	Kg	0191	210.00	0.22	46.20
	Labour:					
	Mate (Semi skilled)	Day	0003	619.00	0.08	49.52
	Mason 2nd class (Semi-skilled)	Day	0005	662.00	0.10	66.20
	Beldar (Un skilled)	Day	0025	547.00	0.10	54.70
	Machinery:					
	Hire charges of grout pump with agitator and accessories	Hour	0108	575.00	0.10	57.50
	Sundries	Lumpsum	9901	1.00	5.00	5.00
						279.12
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		2.79
						281.91
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		39.61
						321.52
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		48.23
						369.75
	Add for Cess @ 1%	Lumpsum	9905	0.01		3.70
	Rate per kg	Kg				373.45

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
052072	Cement Sand Mortar (1:1) Grout with 20% anti-shrinkage compound w.r.t. cement.					
	Taking output for using 10 kg of cement.					
	Material:					
	Screened Sand	Kg	0201	6.00	11.00	66.00
	Admixture (anti shrinkage compound) for CC/RCC work	Kg	0191	210.00	2.20	462.00
	Labour:					
	Mate (Semi skilled)	Day	0003	619.00	0.25	154.75
	Mason 2nd class (Semi-skilled)	Day	0005	662.00	0.25	165.50
	Beldar (Un skilled)	Day	0025	547.00	0.25	136.75
	Machinery:					
	Hire charges of grout pump with agitator and accessories	Hour	0108	575.00	0.25	143.75
	Sundries	Lumpsum	9901	1.00	5.00	5.00
						1,133.75
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		11.34
						1,145.09
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		160.88
						1,305.97
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		195.90
						1,501.87
	Add for Cess @ 1%	Lumpsum	9905	0.01		15.02
	Cost for 10 kg					1,516.89
	Rate per kg	Kg				151.69
052073	Epoxy Grout					
	Taking output = 1 kg					
	Material:					
	Crack filling epoxy for guniting and pressure grouting work	Kg	0344	773.00	1.10	850.30
	Labour:					
	Mate (Semi skilled)	Day	0003	619.00	0.08	49.52
	Mason 2nd class (Semi-skilled)	Day	0005	662.00	0.10	66.20
	Beldar (Un skilled)	Day	0025	547.00	0.10	54.70
	Machinery:					
	Hire charges of cement / epoxy slurry injection machine	Day	0084	717.00	0.10	71.70
	Sundries	Lumpsum	9901	1.00	10.00	10.00
						1,102.42
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		11.02
						1,113.44
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		156.44
						1,269.88
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		190.48
						1,460.37
	Add for Cess @ 1%	Lumpsum	9905	0.01		14.60
	Rate per kg	Kg				1,474.97
052080	Applying epoxy mortar over leached, honey combed and spalled concrete surface and exposed steel reinforcement complete as per Technical Specification with average thickness of 10mm including priming coat, mortar plaster and seal coat of epoxy.					
	Taking output = 10 sqm					
	Assume average 10mm thickness of epoxy mortar					
	Material:					
	Acrylic polymer bonding coat	Litre	0350	215.00	1.40	301.00
	Epoxy mortar for concrete repair	kg	0348	35.00	120.00	4,200.00
	Epoxy resin hardener mix for seal coat	Kg	0349	222.00	20.00	4,440.00
	Sundries	Lumpsum	9901	1.00	50.00	50.00
	Labour:					
	Mate (Semi skilled)	Day	0003	619.00	0.04	24.76
	Mason 1st class (Skilled)	Day	0004	718.00	0.50	359.00
	Beldar (Un skilled)	Day	0025	547.00	0.50	273.50

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Sundries	Lumpsum	9901	1.00	220.00	220.00
						9,868.26
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		98.68
						9,966.94
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		1,400.36
						11,367.30
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		1,705.09
						13,072.39
	Add for Cess @ 1%	Lumpsum	9905	0.01		130.72
	Cost for 10 sqm					13,203.12
	Rate per sqm	Sqm				1,320.31
052090	Applying shotcrete mixture of average thickness 40mm over masonry / concrete including removal of defective concrete, raking the mortar in joints, cleaning the surface thoroughly, fixing 50x50x3mm wire mesh over the surface for application of grout mixture comprising cement, sand, coarse aggregate, water, quick setting compound complete as per procedures and specifications given in IRBM Para No 209(3) including curing. Rate is excluding the cost of cement which shall be paid extra.					
	Taking output = 1 sqm for an average thickness of 25mm.					
	Material:					
	Coarse Sand (Zone III)	Cum	0199	2083.00	0.02	41.66
	Stone Aggregate (Single size) : 06 mm nominal size	Cum	0206	925.00	0.04	37.00
	Wire mesh size 50mm x 50mm of 3mm wire	Kg	0352	106.00	2.00	212.00
	Accelerator compound for guniting	Kg	0345	185.00	0.64	118.40
	Sundries	Lumpsum	9901	1.00	20.00	20.00
	Labour:					
	Mate (Semi skilled)	Day	0003	619.00	0.01	6.19
	Mason 2nd class (Semi-skilled)	Day	0005	662.00	0.04	26.48
	Beldar (Un skilled)	Day	0025	547.00	0.14	76.58
	Machinery:					
	Hire charges of air compressor 250 cfm capacity with two leads for pneumatic cutters / hammers	Day	0064	1550.00	0.03	38.75
	Sundries	Lumpsum	9901	1.00	20.00	20.00
						597.06
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		5.97
						603.03
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		84.73
						687.76
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		103.16
						790.92
	Add for Cess @ 1%	Lumpsum	9905	0.01		7.91
	Rate per sqm	Sqm				798.83
052100	Applying pre-packed cement based polymer mortar of strength 45 Mpa (28 days) for replacement of spalled concrete with average thickness of 10mm as per manufacturer's specification and approved procedure.					
	Taking output = 10 sqm					
	Assumed thickness - 10 mm maximum					
	Material:					
	Acrylic polymer bonding coat	Litre	0350	215.00	1.40	301.00
	Pre packed cement based polymer mortar of strength 45 Mpa at 28 days	Kg	0351	58.00	120.00	6,960.00
	Labour:					
	Mate (Semi skilled)	Day	0003	619.00	0.04	24.76
	Mason 1st class (Skilled)	Day	0004	718.00	0.50	359.00
	Beldar (Un skilled)	Day	0025	547.00	0.50	273.50
	Sundries	Lumpsum	9901	1.00	70.00	70.00
						7,988.26

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		79.88
						8,068.14
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		1,133.57
						9,201.72
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		1,380.26
						10,581.97
	Add for Cess @ 1%	Lumpsum	9905	0.01		105.82
	Cost for 10 sqm					10,687.79
	Rate per sqm	Sqm				1,068.78
052110	Providing & applying epoxy with pot life not less than 60-90 minutes for bonding of new concrete with old concrete @ 0.80 kg/sqm and as per specifications including cleaning the surfaces complete as per approved procedure.					
	Taking output = 10 sqm					
	Material:					
	Crack filling epoxy for guniting and pressure grouting work	Kg	0344	773.00	8.24	6,369.52
	Labour:					
	Mate (Semi skilled)	Day	0003	619.00	0.04	24.76
	Mason 1st class (Skilled)	Day	0004	718.00	0.50	359.00
	Beldar (Un skilled)	Day	0025	547.00	0.50	273.50
	Sundries	Lumpsum	9901	1.00	40.00	40.00
						7,066.78
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		70.67
						7,137.45
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		1,002.81
						8,140.26
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		1,221.04
						9,361.30
	Add for Cess @ 1%	Lumpsum	9905	0.01		93.61
	Cost for 10 sqm					9,454.91
	Rate per sqm	Sqm				945.49
052120	Providing & fixing 12 mm rabbit wire mesh at the junction of RCC where specifically ordered or as shown in the drawing					
	Taking out put 50 Sqm					
	Material:					
	Rabbit wire mesh considering 10% for overlaps and wastage.					
	Wire mesh (Rabbit)	Sqm	0353	110.00	55.00	6,050.00
	Labour:					
	Mate (Semi skilled)	Day	0003	619.00	0.10	61.90
	Mason 1st class (Skilled)	Day	0004	718.00	1.00	718.00
	Beldar (Un skilled)	Day	0025	547.00	1.00	547.00
	Sundries	Lumpsum	9901	1.00	80.00	80.00
						7,456.90
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		74.57
						7,531.47
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		1,058.17
						8,589.64
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		1,288.45
						9,878.09
	Add for Cess @ 1%	Lumpsum	9905	0.01		98.78
	Cost for 50 sqm					9,976.87
	Rate per sqm	Sqm				199.54
052130	Providing weep holes by making suitable opening or drilling in existing Brick Masonry / Plain / Reinforced Concrete abutment, wing wall/return wall with 110 mm dia UPVC pipe (working pressure 4kg/sqcm) extending through the full width of the structure complete and repairing the same with cement mortar 1:2 (1 cement : 2 coarse sand). Rate is excluding the cost of cement which shall be paid extra.					

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Taking output = 30 Mts					
	Material:					
	uPVC Pipe- type A ISI marked 110mm dia (working pressure 4Kg/cm2)	Metre	0259	222.00	31.50	6,993.00
	For cement mortar 1:2					
	Coarse Sand (Zone III)	Cum	0199	2083.00	0.16	333.28
	Labour:					
	Mate (Semi skilled)	Day	0003	619.00	0.03	18.57
	Mason 1st class (Skilled)	Day	0004	718.00	1.00	718.00
	Beldar (Un skilled)	Day	0025	547.00	2.00	1,094.00
	Rock Hole Driller (Semi skilled)	Day	0016	627.00	1.00	627.00
	Machinery:					
	Hire charges of air compressor 250 cfm capacity with two leads for pneumatic cutters / hammers	Day	0064	1550.00	1.00	1,550.00
	Sundries	Lumpsum	9901	1.00	150.00	150.00
						11,483.85
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		114.84
						11,598.69
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		1,629.62
						13,228.30
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		1,984.25
						15,212.55
	Add for Cess @ 1%	Lumpsum	9905	0.01		152.13
	Cost for 30 m					15,364.68
	Rate per metre	Metre				512.16
052140	Providing and fixing of Drainage Spouts of 110mm UPVC Type A ISI marked (Working pressure 4 kg/sqcm) using suitable clamps and adhesive etc., complete.					
	Taking output = 30 Mts					
	Material:					
	uPVC Pipe- type A ISI marked 110mm dia (working pressure 4Kg/cm2)	Metre	0259	222.00	33.00	7,326.00
	{Including wastage @ 10%}					
	Synthetic Rubber based Adhesive	Litre	0318	290.00	0.50	145.00
	Labour:					
	Mate (Semi skilled)	Day	0003	619.00	0.03	18.57
	Mason 1st class (Skilled)	Day	0004	718.00	1.00	718.00
	Beldar (Un skilled)	Day	0025	547.00	2.00	1,094.00
	Rock Hole Driller (Semi skilled)	Day	0016	627.00	1.00	627.00
	Add sundries for clamps and scaffolding etc.	Lumpsum	9901	1.00	160.00	160.00
						10,088.57
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		100.89
						10,189.46
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		1,431.62
						11,621.07
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		1,743.16
						13,364.24
	Add for Cess @ 1%	Lumpsum	9905	0.01		133.64
	Cost for 30 m					13,497.88
	Rate per metre	Metre				449.93
052150	Providing and laying of filter media consisting of granular materials of GW, GP, SW groups as per IS:1498 (latest) in required profile behind boulder filling of abutments, wing walls / return walls etc. above bed level with all labour and material complete job as per drawing and technical specification of RDSO Guidelines.					
	Taking output = 10 cum					
	Material:					
	Filter Media of stone aggregate conforming to RDSO specifications (12 cum loose to be taken as 10 cum after compaction)					

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Filter media of stone aggregate confirming to RDSO specification (12 cum loose to be taken as 10 cum after compaction)	Cum	0212	1300.00	12.00	15,600.00
	Labour:					
	Mate (Semi skilled)	Day	0003	619.00	0.32	198.08
	Beldar (Un skilled)	Day	0025	547.00	4.00	2,188.00
	Bandhani (Semi skilled)	Day	0022	619.00	1.00	619.00
	Machinery:					
	Hire charges of Vibratory Hand Rammers / compactors	Day	0083	567.00	1.00	567.00
	Sundries	Lumpsum	9901	1.00	300.00	300.00
						19,472.08
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		194.72
						19,666.80
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		2,763.19
						22,429.99
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		3,364.50
						25,794.48
	Add for Cess @ 1%	Lumpsum	9905	0.01		257.94
	Cost of 10 cum					26,052.43
	Rate per cum	Cum				2,605.24
052160	Removing all loose concrete, cleaning rust with dusting compound & water jet, drying, replacing worn out reinforcements by welding new reinforcement for making up lost steel section, applying approved anti-corrosive polymer coating over the damaged area to proper profile, providing polymer mortar (up to 20mm thickness) or polymer concrete (more than 20mm thickness) consisting of cement, sand, 6mm down chips where required and polymer as per manufacturers' specification. The rate includes curing for 14 days, all materials, consumables, labours, tools and plants, scaffolding/staging with all lead and lift. Note: Cost of reinforcement, if used, to be paid separately.					
052161	20mm thick polymer mortar					
	Taking output = 10 sqm for an average thickness of 20 mm.					
	Material:					
	Acrylic polymer bonding coat	Litre	0350	215.00	1.40	301.00
	Pre packed cement based polymer mortar of strength 45 Mpa at 28 days	Kg	0351	58.00	240.00	13,920.00
	Epoxy resin hardener mix for seal coat	Kg	0349	222.00	20.00	4,440.00
	Labour:					
	Mate (Semi skilled)	Day	0003	619.00	0.06	37.14
	Mason 2nd class (Semi-skilled)	Day	0005	662.00	0.75	496.50
	Beldar (Un skilled)	Day	0025	547.00	1.00	547.00
	Machinery:					
	Hire charges of grout pump with agitator and accessories	Hour	0108	575.00	0.50	287.50
	Sundries	Lumpsum	9901	1.00	100.00	100.00
						20,129.14
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		201.29
						20,330.43
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		2,856.43
						23,186.86
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		3,478.03
						26,664.89
	Add for Cess @ 1%	Lumpsum	9905	0.01		266.65
	Cost for 10 sqm					26,931.53
	Rate per sqm	Sqm				2,693.15
052162	20mm - 50mm thick polymer concrete					
	Taking output = 10 sqm for an average thickness of 40 mm.					
	Material:					
	Acrylic polymer bonding coat	Litre	0350	215.00	1.40	301.00
	Pre-packed polymer concrete based on epoxy system complete with curing compound, initiator and promoter	Kg	0347	27.00	500.00	13,500.00

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Epoxy resin hardener mix for seal coat	Kg	0349	222.00	20.00	4,440.00
	Labour:					
	Mate (Semi skilled)	Day	0003	619.00	0.10	61.90
	Mason 2nd class (Semi-skilled)	Day	0005	662.00	1.00	662.00
	Beldar (Un skilled)	Day	0025	547.00	1.00	547.00
	Machinery:					
	Hire charges of grout pump with agitator and accessories	Hour	0108	575.00	0.50	287.50
	Sundries	Lumpsum	9901	1.00	200.00	200.00
						19,999.40
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		199.99
						20,199.39
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		2,838.01
						23,037.41
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		3,455.61
						26,493.02
	Add for Cess @ 1%	Lumpsum	9905	0.01		264.93
	Cost for 10 sqm					26,757.95
	Rate per sqm	Sqm				2,675.80
052170	Supply, fabrication and erection of steel members to replace existing corroded members of built up section made up of MS plate, angles, channels of different thickness and sizes including painting with one coat of ready mix paint Zinc Chromate priming to IS:104 followed by one coat of ready mix paint red-oxide Zinc Chrome priming paint to IS:2074. Structural steel should conform to IS:2062 E250-Grade'B0'. Fabrication and erection to be as per existing design initially by bolts and nuts and finally by rivetting during the sanctioned traffic block. Rate includes cutting of new steel work, removal of rivets by drilling, dismantling of any existing members required for inserting fabricated members, fixing of new fabricated built up members with all tools, plants, labour, consumables, machinery and accessories etc. Work will be executed as per IRS:B 1-2001. Note: Painting shall be paid extra under relevant item.					
	Taking output = 800 kgs = 8 Qtls.					
	Material:					
	Structural steel such as T, Angles, Channels and R S Joists conforming to Grade Designation E250; Quality "B0" as per IS:2062,	Quintal	0223	7333.00	6.09	44,657.97
	M S Flat upto 10 mm thickness	Quintal	0227	7017.00	2.10	14,735.70
	Add 3% of the cost of materials for rivetting			59393.67	0.03	1,781.81
	Cost of making scaffolding, shifting to different locations of work under traffic etc @ 10% of cost of material			59393.67	0.10	5,939.37
	Labour:					
	Mate (Semi skilled)	Day	0003	619.00	4.00	2,476.00
	Blacksmith - 2nd Class (Semi-skilled)	Day	0009	649.00	4.00	2,596.00
	Fitter Grade - 1 (Skilled)	Day	0010	743.00	4.00	2,972.00
	Beldar (Semi Skilled)	Day	0024	585.00	24.00	14,040.00
	Beldar (Un skilled)	Day	0025	547.00	24.00	13,128.00
	Machinery:					
	Hire charges of air compressor 250 cfm capacity with two leads for pneumatic cutters / hammers	Day	0064	1550.00	4.00	6,200.00
	Sundries	Lumpsum	9901	1.00	1200.00	1,200.00
						109,726.85
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		1,097.27
						110,824.12
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		15,570.79
						126,394.90
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		18,959.24
						145,354.14
	Add for Cess @ 1%	Lumpsum	9905	0.01		1,453.54
	Cost for 8 qtl					146,807.68
	Cost per qtl					18,350.96

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Rate per MT	MT				183,509.60
052180	Supplying and changing of corroded worn-out and loose rivets of any size at any location of the bridges with or without traffic blocks including all tools, plants, machinery complete in all respects.					
052181	For Rivets of size up to 25mm dia.					
	Taking Output=100 nos					
	Material:					
	Mild steel rivets for steel girders	Quintal	0229	7800.00	0.50	3,900.00
	Labour:					
	Mate (Semi skilled)	Day	0003	619.00	1.00	619.00
	Blacksmith - 2nd Class (Semi-skilled)	Day	0009	649.00	2.00	1,298.00
	Fitter Grade - 1 (Skilled)	Day	0010	743.00	2.00	1,486.00
	Fitter Grade - 2 (Semi-skilled)	Day	0011	649.00	4.00	2,596.00
	Beldar (Semi Skilled)	Day	0024	585.00	8.00	4,680.00
	Machinery:					
	Hire charges of air compressor 250 cfm capacity with two leads for pneumatic cutters / hammers	Day	0064	1550.00	2.00	3,100.00
	Sundries	Lumpsum	9901	1.00	200.00	200.00
						17,879.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		178.79
						18,057.79
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		2,537.12
						20,594.91
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		3,089.24
						23,684.15
	Add for Cess @ 1%	Lumpsum	9905	0.01		236.84
	cost per 100 Rivets					23,920.99
	Rate per Rivet	Each				239.21
052182	For Rivets of size more than 25mm dia.					
	Taking Output = 100 nos					
	Material:					
	Mild steel rivets for steel girders	Quintal	0229	7800.00	1.18	9,204.00
	Labour:					
	Mate (Semi skilled)	Day	0003	619.00	1.00	619.00
	Blacksmith - 2nd Class (Semi-skilled)	Day	0009	649.00	3.00	1,947.00
	Fitter Grade - 1 (Skilled)	Day	0010	743.00	3.00	2,229.00
	Fitter Grade - 2 (Semi-skilled)	Day	0011	649.00	6.00	3,894.00
	Beldar (Semi Skilled)	Day	0024	585.00	12.00	7,020.00
	Machinery:					
	Hire charges of air compressor 250 cfm capacity with two leads for pneumatic cutters / hammers	Day	0064	1550.00	3.00	4,650.00
	Sundries	Lumpsum	9901	1.00	350.00	350.00
						29,913.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		299.13
						30,212.13
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		4,244.80
						34,456.93
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		5,168.54
						39,625.47
	Add for Cess @ 1%	Lumpsum	9905	0.01		396.25
	cost per 100 Rivets					40,021.73
	Rate per rivet	Each				400.22
052200	Painting the HFL mark and Danger level mark, year of HFL on bridge abutments and piers with ready mixed paint as per standard in two coats over one coat of primer with all materials, labour, tools, scaffolding, all lead and lift etc. including writing complete.					

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Taking progress as 10 marks/day including base and two coats of paint with markings					
	Material:					
	Enamel Paint as per RDSO's Spec. no.M&C/PCN/120-2011	Litre	0304	248.00	1.00	248.00
	Sundries	Lumpsum	9901	1.00	200.00	200.00
	Labour:					
	Painter (Skilled)	Day	0012	749.00	1.00	749.00
	Beldar (Un skilled)	Day	0025	547.00	2.00	1,094.00
	Sundries	Lumpsum	9901	1.00	30.00	30.00
						2,321.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		23.21
						2,344.21
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		329.36
						2,673.57
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		401.04
						3,074.61
	Add for Cess @ 1%	Lumpsum	9905	0.01		30.75
	Cost of 10 mark					3,105.35
	Rate per mark	Each				310.54
052210	Providing cast in situ bridge number plaques as per Railway drawing in cement concrete 1:2:4 mix using 20mm hard stone aggregate embedded in 30mm notch in Bridge parapet coping duly engraving the letter and figures and an arrow indicating the direction of flow and finishing the top exposed surface with cement mortar 1:3, painting letters and figures with two coats of black enamel paint on two coats of white background with all labour, tools, cement, paint etc. with all leads and lifts.					
	Taking progress as 10 Bridge No plaques including first and second coats of paint with markings					
	Material:					
	Enamel Paint as per RDSO's Spec. no.M&C/PCN/120-2011	Litre	0304	248.00	1.00	248.00
	Precast Concrete bridge No. plaque/Stone	Each	0493	502.00	10.00	5,020.00
	Labour:					
	Painter (Skilled)	Day	0012	749.00	1.00	749.00
	Beldar (Un skilled)	Day	0025	547.00	4.00	2,188.00
	Sundries	Lumpsum	9901	1.00	100.00	100.00
						8,305.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		83.05
						8,388.05
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		1,178.52
						9,566.57
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		1,434.99
						11,001.56
	Add for Cess @ 1%	Lumpsum	9905	0.01		110.02
	Cost of 10 plaque					11,111.57
	Rate per plaque	Each				1,111.16
052220	Providing cast in-situ plaques for bridge foundations details of size 45cmx45cmx5cm in cement concrete 1:2:4 mix using 20mm hard stone aggregate embedded in 30mm deep notch over abutment & piers, engraving the letters & figures with CM 1:3 and finished smooth including painting letters and figures with 2 coats of black enamel and plaque with white enamel with all labour, tools, cement, paint, curing etc. as a complete job.					
	Taking progress as 10 foundation detail plaques including engraving numbering and two coats of paint with details of foundations					
	Material:					
	Enamel Paint as per RDSO's Spec. no.M&C/PCN/120-2011	Litre	0304	248.00	1.00	248.00
	Precast Concrete bridge foundation details plaque including engraving complete	Each	0494	713.00	10.00	7,130.00

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Labour:					
	Painter (Skilled)	Day	0012	749.00	1.00	749.00
	Beldar (Un skilled)	Day	0025	547.00	4.00	2,188.00
	Mason 1st class (Skilled)	Day	0004	718.00	1.00	718.00
	Sundries	Lumpsum	9901	1.00	120.00	120.00
						11,153.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		111.53
						11,264.53
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		1,582.67
						12,847.20
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		1,927.08
						14,774.28
	Add for Cess @ 1%	Lumpsum	9905	0.01		147.74
	Cost of 10 plaque					14,922.02
	Rate per plaque	Each				1,492.20
052230	Providing & laying non pressure NP-4 Class RCC pipe with collars, jointing with 1:2 cement and ordinary sand mortar including testing of joints, but excluding earthwork with all labour and material as a complete job. Cement for mortar will be paid separately.(Pipes of 600mm dia and above will be laid using crane/hydra).					
052231	300mm dia.					
	Taking output 100 mts (with 5% wastage)					
	Material:					
	NP 4 Class RCC pipe 300mm dia	Metre	0361	797.00	105.00	83,685.00
	Coarse Sand (Zone III)	Cum	0199	2083.00	0.25	520.75
	Labour:					
	Mate (Semi skilled)	Day	0003	619.00	1.00	619.00
	Mason 2nd class (Semi-skilled)	Day	0005	662.00	2.00	1,324.00
	Beldar (Un skilled)	Day	0025	547.00	10.00	5,470.00
	Sundries	Lumpsum	9901	1.00	150.00	150.00
						91,768.75
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		917.69
						92,686.44
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		13,022.44
						105,708.88
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		15,856.33
						121,565.21
	Add for Cess @ 1%	Lumpsum	9905	0.01		1,215.65
	Cost of 100 metre					122,780.87
	Rate per metre	Metre				1,227.81
052232	450mm dia.					
	Taking output 100 mts (with 5% wastage)					
	Material:					
	NP 4 Class RCC pipe 450mm dia	Metre	0362	1067.00	105.00	112,035.00
	Coarse Sand (Zone III)	Cum	0199	2083.00	0.35	729.05
	Labour:					
	Mate (Semi skilled)	Day	0003	619.00	2.00	1,238.00
	Mason 2nd class (Semi-skilled)	Day	0005	662.00	2.00	1,324.00
	Beldar (Un skilled)	Day	0025	547.00	15.00	8,205.00
	Sundries	Lumpsum	9901	1.00	220.00	220.00
						123,751.05
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		1,237.51
						124,988.56
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		17,560.89
						142,549.45
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		21,382.42
						163,931.87
	Add for Cess @ 1%	Lumpsum	9905	0.01		1,639.32
	Cost of 100 metre					165,571.19
	Rate per metre	Metre				1,655.71

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
052233	600mm dia.					
	Taking output 100 mts (with 5% wastage)					
	Material:					
	NP 4 Class RCC pipe 600mm dia	Metre	0363	1552.00	105.00	162,960.00
	Coarse Sand (Zone III)	Cum	0199	2083.00	0.44	916.52
	Labour:					
	Mate (Semi skilled)	Day	0003	619.00	2.00	1,238.00
	Mason 2nd class (Semi-skilled)	Day	0005	662.00	2.00	1,324.00
	Beldar (Un skilled)	Day	0025	547.00	15.00	8,205.00
	Hire and running charges of light crane 5 MT capacity	Day	0087	4650.00	1.00	4,650.00
	Sundries	Lumpsum	9901	1.00	300.00	300.00
						179,593.52
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		1,795.94
						181,389.46
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		25,485.22
						206,874.67
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		31,031.20
						237,905.87
	Add for Cess @ 1%	Lumpsum	9905	0.01		2,379.06
	Cost of 100 metre					240,284.93
	Rate per metre	Metre				2,402.85
052234	900mm dia.					
	Taking output 100 mts (with 5% wastage)					
	Material:					
	NP 4 Class RCC pipe 900mm dia	Metre	0364	3113.00	105.00	326,865.00
	Coarse Sand (Zone III)	Cum	0199	2083.00	0.68	1,416.44
	Labour:					
	Mate (Semi skilled)	Day	0003	619.00	2.00	1,238.00
	Mason 2nd class (Semi-skilled)	Day	0005	662.00	2.00	1,324.00
	Beldar (Un skilled)	Day	0025	547.00	23.00	12,581.00
	Hire and running charges of light crane 5 MT capacity	Day	0087	4650.00	1.00	4,650.00
	Sundries	Lumpsum	9901	1.00	500.00	500.00
						348,574.44
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		3,485.74
						352,060.18
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		49,464.46
						401,524.64
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		60,228.70
						461,753.34
	Add for Cess @ 1%	Lumpsum	9905	0.01		4,617.53
	Cost of 100 metre					466,370.87
	Rate per metre	Metre				4,663.71
052235	1000mm dia.					
	Taking output 100 mts (with 5% wastage)					
	Material:					
	NP 4 Class RCC pipe 1000mm dia	Metre	0365	3583.00	105.00	376,215.00
	Coarse Sand (Zone III)	Cum	0199	2083.00	0.80	1,666.40
	Labour:					
	Mate (Semi skilled)	Day	0003	619.00	2.00	1,238.00
	Mason 2nd class (Semi-skilled)	Day	0005	662.00	2.00	1,324.00
	Beldar (Un skilled)	Day	0025	547.00	26.00	14,222.00
	Hire and running charges of light crane 5 MT capacity	Day	0087	4650.00	1.50	6,975.00
	Sundries	Lumpsum	9901	1.00	600.00	600.00
						402,240.40
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		4,022.40
						406,262.80

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		57,079.92
						463,342.73
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		69,501.41
						532,844.14
	Add for Cess @ 1%	Lumpsum	9905	0.01		5,328.44
	Cost of 100 metre					538,172.58
	Rate per metre	Metre				5,381.73
052236	1200mm dia.					
	Taking output 100 mts (with 5% wastage)					
	Material:					
	NP 4 Class RCC pipe 1200mm dia	Metre	0366	4350.00	105.00	456,750.00
	Coarse Sand (Zone III)	Cum	0199	2083.00	1.00	2,083.00
	Labour:					
	Mate (Semi skilled)	Day	0003	619.00	2.00	1,238.00
	Mason 2nd class (Semi-skilled)	Day	0005	662.00	2.00	1,324.00
	Beldar (Un skilled)	Day	0025	547.00	34.00	18,598.00
	Hire and running charges of light crane 5 MT capacity	Day	0087	4650.00	1.50	6,975.00
	Sundries	Lumpsum	9901	1.00	750.00	750.00
						487,718.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		4,877.18
						492,595.18
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		69,209.62
						561,804.80
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		84,270.72
						646,075.52
	Add for Cess @ 1%	Lumpsum	9905	0.01		6,460.76
	Cost of 100 metre					652,536.28
	Rate per metre	Metre				6,525.36
052237	1800mm dia.					
	Taking output 100 mts (with 5% wastage)					
	Material:					
	NP 4 Class RCC pipe 1800mm dia	Metre	0367	7950.00	105.00	834,750.00
	{Considering wastage of 5%, quantity = 105 metres}					
	Coarse Sand (Zone III)	Cum	0199	2083.00	1.36	2,832.88
	Labour:					
	Mate (Semi skilled)	Day	0003	619.00	3.00	1,857.00
	Mason 2nd class (Semi-skilled)	Day	0005	662.00	3.00	1,986.00
	Beldar (Un skilled)	Day	0025	547.00	42.00	22,974.00
	Hire and running charges of light crane 5 MT capacity	Day	0087	4650.00	2.00	9,300.00
	Sundries	Lumpsum	9901	1.00	900.00	900.00
						874,599.88
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		8,746.00
						883,345.88
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		124,110.10
						1,007,455.97
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		151,118.40
						1,158,574.37
	Add for Cess @ 1%	Lumpsum	9905	0.01		11,585.74
	Cost of 100 metre					1,170,160.11
	Rate per metre	Metre				11,701.60
052240	Supplying, spreading and filling coarse sand (no cohesive materials to be used) of approved quality including watering and ramming in foundation, behind the abutment, wing wall, retaining wall in layers not exceeding 150mm thick including its compaction as per direction of Engineer-in-charge. The rate includes all lead, lift, ascent, descent, crossing of Railway line etc. complete with contractor's labour, materials, tools and plant.					
	Taking output = 10 cum.					

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Materials:					
	Coarse Sand (Zone III)	Cum	0199	2083.00	12.00	24,996.00
	Labour:					
	Mate (Semi skilled)	Day	0003	619.00	0.89	550.91
	Beldar (Un skilled)	Day	0025	547.00	1.07	585.29
	Bandhani (Semi skilled)	Day	0022	619.00	0.35	216.65
	Sundries	Lumpsum	9901	1.00	250.00	250.00
						26,598.85
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		265.99
						26,864.84
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		3,774.51
						30,639.35
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		4,595.90
						35,235.25
	Add for Cess @ 1%	Lumpsum	9905	0.01		352.35
	Cost of 10 cum					35,587.60
	Rate per metre	Cum				3,558.76
052250	Providing Boulder Backing behind wing wall, return wall, retaining wall with hand packed boulders & cobbles with smaller size boulders toward the back including all lead, lift, labour & other incidental charges as complete work in all respect. Payment for boulder/cobbles will be done extra.					
	Taking output = 10 cum.					
	Labour:					
	Mate (Semi skilled)	Day	0003	619.00	0.32	198.08
	Beldar (Un skilled)	Day	0025	547.00	4.00	2,188.00
	Bandhani (Semi skilled)	Day	0022	619.00	1.00	619.00
	Sundries	Lumpsum	9901	1.00	40.00	40.00
						3,045.08
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		30.45
						3,075.53
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		432.11
						3,507.64
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		526.15
						4,033.79
	Add for Cess @ 1%	Lumpsum	9905	0.01		40.34
	Cost of 10 cum					4,074.13
	Cost per cum	Cum				407.41
052260	Dewatering of natural or accumulated water from any location. Payment to be done for Horse power of pump multiplied by pumping hours.					
	Taking output HP Hours = 5X6 = 30 HP Hours					
	Hire charges of pump set of capacity 4000 litre per hour	Day	0085	950.00	1.00	950.00
	Sundries	Lumpsum	9901	1.00	10.00	10.00
						960.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		9.60
						969.60
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		136.23
						1,105.83
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		165.87
						1,271.70
	Add for Cess @ 1%	Lumpsum	9905	0.01		12.72
	Cost of 30 hrs					1,284.42
	Rate per hour per HP	HP Hour				42.81

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
052270	Supplying & fixing Galvanised Steel Wire Rope net, made of 9mm dia. steel wire rope having aperture size of 45cm x 60cm with 6m long hangs for top anchoring and 5m wide along with chain-link mesh-netting of 80mm x 80mm mesh size made from 2.4mm dia galvanised wire, joining of chain-link mesh & steel wire rope net and joining of adjacent nets with galvanised spiral lock springs of steel wire dia 2.2mm; inner dia. of springs 18mm; total length 50mm ± 0.5mm; pitch 4mm & open end length 60mm including cutting of tree/shrub etc. in rope-netting location and also, excavation / filling-back of trenches in all types of soil after anchoring rope net with RCC pre-cast beam of size 15cm x 15cm x 2m of M-15 concrete & 30cm thick M-10 PCC. This work also includes supply of 200mm x 200mm x 6mm epoxy coated washer plates with 12.5mm / 18mm dia. hole at centre and supplying & fixing of anchor bolts/fasteners of 10mm dia. including drilling of holes up to a depth of 110mm in rock; cleaning of holes; fixing of fasteners with nut & epoxy coated washer plates; applying torque 65 to 70 N/mm for fixing of rope net for intermediate anchoring on the surface of cutting, bottom anchoring up to 1m depth by using 16mm dia. HYSD steel bolts, threaded up to 200mm on top and fixing epoxy coated washer plate, fabrication & fixing of U-pin on top of cutting for top anchoring and joining of adjacent nets with spiral spring and fixing at the ratio of 1 no. per 0.6m in longitudinal direction of net portion and additional locks for lacing chain link netting with rope net with contractor's materials, machinery, tools & plants, cement, steel, labour, lead, lift, transportation, ascent, descent, taxes, royalty etc. complete as per directions of engineer-in-charge. Note: Concrete will be paid separately under relevant item.					
	Material:					
	Galvanised steel wire mesh rope net made of 9mm dia steel wire rope having aperture size of 45cm x 60cm with 6m length hangs	Sqm	0360	530.00	100.00	53,000.00
	Galvanised chain link mesh netting of 80mm x 80mm mesh size	Sqm	0355	288.00	100.00	28,800.00
	Galvanised spiral lock spring	Each	0356	47.00	15.00	705.00
	Epoxy coated washer plate of 200mm x 200mm x 6mm size	Each	0357	185.00	32.00	5,920.00
	Anchor fastener of 10mm dia and 110mm length	Each	0358	133.00	20.00	2,660.00
	Bottom anchors of 16mm dia HYSD & 1m length	Each	0359	204.00	12.00	2,448.00
	U pin of 6mm dia mild steel of 0.3m length for stone cladding work	Each	0488	51.00	33.00	1,683.00
	Labour:					
	Fitter Grade - 1 (Skilled)	Day	0010	743.00	2.00	1,486.00
	Blacksmith - 2nd Class (Semi-skilled)	Day	0009	649.00	2.00	1,298.00
	Rock Hole Driller (Semi skilled)	Day	0016	627.00	2.00	1,254.00
	Beldar (Un skilled)	Day	0025	547.00	8.00	4,376.00
	Mason 2nd class (Semi-skilled)	Day	0005	662.00	2.00	1,324.00
	Sundries	Lumpsum	9901	1.00	10.00	10.00
	Machinery:					
	Hire charges of Generator of 250 KVA capacity	Day	0076	4350.00	0.50	2,175.00
	Hire charges of air compressor 250 cfm capacity with two leads for pneumatic cutters / hammers	Day	0064	1550.00	1.00	1,550.00
						108,689.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		1,086.89
						109,775.89
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		15,423.51
						125,199.40
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		18,779.91
						143,979.31
	Add for Cess @ 1%	Lumpsum	9905	0.01		1,439.79
						145,419.11
	Cost for 100 Sq.m.					145,419.11
	Rate per sqm	Sqm				1,454.19

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
052280	Supplying & placing of Mechanically Woven Double Twisted Hexagonal Shaped Wire Mesh Gabion Boxes of required sizes, Mesh Type 10cm x 12cm, Zn and PVC coated Mesh Wire dia. 2.7/3.7mm (ID/OD), edges of meshes mechanically edged / selvaged with heavy coating of galvanization as per EN 10223-3/ASTM A 975 with partitions at every 1m interval and properly packed with approx. 150mm size boulders including transportation and placing at indicated places as per direction of engineer-in-charge including contractor's tools, plants, labour, royalty charges etc. complete in all respect and stitching with lacing wire of dia. 2.2/3.2mm (ID/OD) @ 5% by weight of Gabion boxes, carrying the material by head load from nearest approach with all safety precautions and all leads and lifts.					
	Cost for 100 cum					
	Material:					
	Mechanically woven double twisted hexagonal shaped wire mesh gabion boxes of required sizes with 10mm x 12mm mesh of wire dia 2.7mm/3.7mm (ID/OD) and Zn & PVC coated	Cum	0178	1642.00	100.00	164,200.00
	Stone boulder, weighing minimum 35 kg each	Cum	0210	917.00	100.00	91,700.00
	Labour:					
	Mate (Semi skilled)	Day	0003	619.00	2.00	1,238.00
	Mason 1st class (Skilled)	Day	0004	718.00	2.00	1,436.00
	Mason 2nd class (Semi-skilled)	Day	0005	662.00	4.00	2,648.00
	Beldar (Un skilled)	Day	0025	547.00	6.00	3,282.00
	Stone Chiseller (Semi skilled)	Day	0017	627.00	4.00	2,508.00
	Coolie (Un skilled)	Day	0026	547.00	6.00	3,282.00
	Sundries	Lumpsum	9901	1.00	10.00	10.00
						270,304.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		2,703.04
						273,007.04
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		38,357.49
						311,364.53
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		46,704.68
						358,069.21
	Add for Cess @ 1%	Lumpsum	9905	0.01		3,580.69
	Cost for 100 cum					361,649.90
	Rate per cum	Cum				3,616.50
052290	Supplying & placing partly or fully underwater of Polypropylene Tarred Rope Gabion, fabricated from 9mm dia. rope, 100mm x 100mm Mesh with partitions at every 1m interval and properly packed with approximately 150mm size boulders including transportation and placing at indicated places as per direction of engineer-in-charge with contractor's tools, plants, labour etc. including royalty charges complete in all respect and stitching with polypropylene lacing rope of minimum dia. 4mm; carrying the material by head load from nearest approach with all safety precautions and all leads and lifts.					
	Cost for 100 Cu.m.					
	Material:					
	Poly propylene tarred rope gabion fabricated from 9mm dia rope 100m x 100m mesh with partition at every 1m interval	Cum	0492	1563.00	100.00	156,300.00
	Stone boulder, weighing minimum 35 kg each	Cum	0210	917.00	100.00	91,700.00
	Labour:					
	Mate (Semi skilled)	Day	0003	619.00	2.00	1,238.00
	Mason 1st class (Skilled)	Day	0004	718.00	2.00	1,436.00
	Mason 2nd class (Semi-skilled)	Day	0005	662.00	4.00	2,648.00
	Beldar (Un skilled)	Day	0025	547.00	10.00	5,470.00
	Stone Chiseller (Semi skilled)	Day	0017	627.00	4.00	2,508.00
	Coolie (Un skilled)	Day	0026	547.00	6.00	3,282.00
	Sundries	Lumpsum	9901	1.00	10.00	10.00
						264,592.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		2,645.92
						267,237.92

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		37,546.93
						304,784.85
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		45,717.73
						350,502.57
	Add for Cess @ 1%	Lumpsum	9905	0.01		3,505.03
	Cost for 100 cum					354,007.60
	Rate per cum	Cum				3,540.08
053000	Miscellaneous					
053010	Designing and developing Detailed structural and working Drawings for following items for ROB/RUB/Bridge based on Railway's approved GADs, duly collecting necessary data from Railways and R&B authorities, duly designing members and submission of check plot duly getting proof-checked by Railway approved institutes, submitting for Railway's verification and approval, making corrections duly incorporating suggestions in drawings/designs, further submission of original in transparent film paper and soft copy (CD) for Railways approval etc. with contractor's technical expertise and instruments, labour, consumables, repeatedly attending till final approval etc., complete as directed by Engineer in-charge.					
053011	Open / Pile / Well Foundation for piers/abutments					
	Detail of cost for one set of design & drawings					
	Material:					
	Designing and developing detailed structural and working Drawings for open / Pile / well foundation for RCC column / piers for ROB/RUB/Bridges, based on Railway's approved GADs, duly designing the members and submission of check plot duly getting proof checked by Railway approved institutes.	Set	0368	33500.00	1.00	33,500.00
	Sundries	Lumpsum	9901	1.00	1000.00	1,000.00
	{Expenses for site visits etc.}					34,500.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		345.00
						34,845.00
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		4,895.72
						39,740.72
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		5,961.11
						45,701.83
	Add for Cess @ 1%	Lumpsum	9905	0.01		457.02
	Rate for one set of design & drawings	Set				46,158.85
053012	RCC Bed Block					
	Detail of cost for one set of design & drawings					
	Material:					
	Designing and developing detailed structural and working Drawings for RCC bed block for ROB/RUB/Bridges, based on Railway's approved GADs, duly designing the members and submission of check plot duly getting proof checked by Railway approved institutes.	Set	0369	10100.00	1.00	10,100.00
	Sundries	Lumpsum	9901	1.00	500.00	500.00
	{Expenses for site visits etc.}					10,600.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		106.00
						10,706.00
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		1,504.19
						12,210.19
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		1,831.53
						14,041.72
	Add for Cess @ 1%	Lumpsum	9905	0.01		140.42
	Rate for one set of design & drawings	Set				14,182.14
053013	Foundation and sub-structure for RCC retaining wall, abutment and approach slab					
	Detail of cost for one set of design & drawings					

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Material:					
	Designing and developing detailed structural and working Drawings for foundation and sub structure for RCC retaining wall, abutment and approach slab for ROB/RUB/Bridges, based on Railway's approved GADs, duly designing the members and submission of check plot duly getting proof checked by Railway approved institutes.	Set	0370	23000.00	1.00	23,000.00
	Sundries	Lumpsum	9901	1.00	500.00	500.00
	{Expenses for site visits etc.}					23,500.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		235.00
						23,735.00
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		3,334.77
						27,069.77
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		4,060.47
						31,130.23
	Add for Cess @ 1%	Lumpsum	9905	0.01		311.30
	Rate for one set of design & drawings	Set				31,441.53
053020	Extra for providing and mixing synthetic Polyester triangular synthetic fibre in specified ratio (@ 0.25% of cement by weight), 6 to 18mm in length, designed for melting point 240°C to 260°C and specific gravity of 1.33 to 1.40 in all types of work CC/RCC/plaster etc., This item shall only be used on specific instructions of Engineer-in-Charge.					
	Material:					
	Synthetic polyester triangular fibre of length 6 mm, effective diameter 10-40 microns and specific gravity of 1.34 to 1.40.	Kg	0192	508	1.000	508.00
						508.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		5.08
						513.08
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		72.09
						585.17
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		87.78
						672.94
	Add for Cess @ 1%	Lumpsum	9905	0.01		6.73
	Rate per 1 kg of fibre	Kg				679.67

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CHAPTER 6 : Rails, Sleepers and Fittings Renewal

Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
061000	Rails					
061010	Pulling & positioning of rails accurately on cess including supporting rails, providing required gap and squaring at ends for renewal preparation, as directed by Engineer in-charge.					
061011	Up to 40 m long rail panel					
	Details of cost for 1040 TRM					
	Labour:					
	Mate (Skilled)	Day	0002	751.00	1.00	751.00
	Look Out Man (Un-skilled)	Day	0033	547.00	1.00	547.00
	Waterman (Un-skilled)	Day	0034	547.00	1.00	547.00
	Labour Unskilled	Day	0020	540.00	24.00	12,960.00
	Misc.:					
	T & P (Rail tongue, Crow bar, Rail Dolly etc.) @1% on labour cost	Lumpsum	9901	1.00	120.00	120.00
						14,925.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		149.25
						15,074.25
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		2,117.93
						17,192.18
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		2,578.83
						19,771.01
	Add for Cess @ 1%	Lumpsum	9905	0.01		197.71
	Cost for 1040 TRM					19,968.72
	Rate per RM	RM				9.60
061012	More than 40 m long rail panel					
	Details of cost for 3120 TRM					
	Labour:					
	Mate (Skilled)	Day	0002	751.00	4.00	3,004.00
	Look Out Man (Un-skilled)	Day	0033	547.00	1.00	547.00
	Waterman (Un-skilled)	Day	0034	547.00	4.00	2,188.00
	Labour Unskilled	Day	0020	540.00	120.00	64,800.00
	Misc.:					
	T & P (Rail tongue, Crow bar, Rail Dolly etc.)	Lumpsum	9901	1.00	240.00	240.00
						70,779.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		707.79
						71,486.79
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		10,043.89
						81,530.68
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		12,229.60
						93,760.29
	Add for Cess @ 1%	Lumpsum	9905	0.01		937.60
	Cost for 3120 TRM					94,697.89
	Cost for 1 Running Metre	RM				15.18
061013	Extra to Item no. 061011 for working on bridge					
	Details of cost for 1040 TRM, i.e. 40 rail panels of 26m each on both sides of track to be tackled in a shift of 8 hrs. working and 6 rail dollies shall work for one rail panel of up to 26m length @ 3 men per rail dolly. Thus, total 36 men required for both side rail panels in one day for tackling 1040 track metre stretch. Since 24 men were taken in item 061011, additional 12 men will be required.					
	Labour:					
	Labour Unskilled	Day	0020	540.00	12.00	6,480.00
	Misc.:					
	T & P (Rail tongue, Crow bar, Rail Dolly etc.)	Lumpsum	9901	1.00	30.00	30.00
						6,510.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		65.10
						6,575.10

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		923.80
						7,498.90
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		1,124.84
						8,623.74
	Add for Cess @ 1%	Lumpsum	9905	0.01		86.24
	Cost for 1040 Track Metre					8,709.97
	Cost for 1 Running Metre	RM				4.19
061014	Extra to Item no. 061012 for working on bridge					
	Details of cost for 3120 TRM, i.e. 24 rail panels of average 130m each on both sides of track to be tackled in a shift of 8 hrs. working needing 30 rail dollies to work for one rail panel of 130m length @ 3 men per rail dolly. Thus, total 180 men required for both side rail panels in one day for tackling 3120 track metre on bridge i.e. 60 more labour than 120 labour provided in 061012.					
	Labour:					
	Labour Unskilled	Day	0020	540.00	60.00	32,400.00
	Misc.:					
	T & P (Rail tongue, Crow bar, Rail Dolly etc.)	Lumpsum	9901	1.00	120.00	120.00
						32,520.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		325.20
						32,845.20
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		4,614.75
						37,459.95
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		5,618.99
						43,078.94
	Add for Cess @ 1%	Lumpsum	9905	0.01		430.79
	Cost for 3120 Track Metre					43,509.73
	Cost for 1 Running Metre	RM				6.97
061020	Dismantling and removing rail of all section & length from track, laid on any type & density of sleeper by removing fish plates, fastenings & fish bolts and other materials including stacking all released materials within an average distance of 500 metres as directed by Engineer in-charge. Note: 1. Cutting of rails shall be paid separately. 2. Work to be done under traffic block.					
061021	For Through Rail Renewal work					
	Details of cost for 520 TRM in one day					
	Labour:					
	(i) For Dismantling of rail during block period					
	Mate (Skilled)	Day	0002	751.00	1.00	751.00
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	0.50	374.50
	Helper (Semi-skilled)	Day	0021	572.00	0.50	286.00
	Look Out Man (Un-skilled)	Day	0033	547.00	1.00	547.00
	Waterman (Un-skilled)	Day	0034	547.00	0.50	273.50
	Labour Unskilled	Day	0020	540.00	20.00	10,800.00
	(ii) For clearing infringement & stacking of released materials, additional labour requirement over (i) above for the activity in non-block period.					
	Labour Unskilled	Day	0020	540.00	8.00	4,320.00
	Misc.:					
	T & P	Lumpsum	9901	1.00	60.00	60.00
						17,412.00
	Add for working under traffic block @ 5%	Lumpsum	9991	0.05		870.60
						18,282.60
						18,282.60
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		182.83
						18,465.43
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		2,594.39
						21,059.82

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		3,158.97
						24,218.79
	Add for Cess @ 1%	Lumpsum	9905	0.01		242.19
	Cost for 520 TRM					24,460.98
	Cost for 1 TRM	TRM				47.04
061022	For Casual/Scattered Rail Renewal work					
	Details of cost for 350 Running Metre in one day					
	Labour:					
	(i) For Dismantling of rail {during block period}					
	Mate (Skilled)	Day	0002	751.00	1.00	751.00
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	0.50	374.50
	Helper (Semi-skilled)	Day	0021	572.00	0.50	286.00
	Look Out Man (Un-skilled)	Day	0033	547.00	0.50	273.50
	Waterman (Un-skilled)	Day	0034	547.00	0.00	0.00
	Labour Unskilled	Day	0020	540.00	12.00	6,480.00
	(ii) For clearing infringement & stacking of released materials, additional labour requirement over (i) above for the activity in non-block period.					
	Labour Unskilled	Day	0020	540.00	2.00	1,080.00
	T & P	Lumpsum	9901	1.00	35.00	35.00
						9,280.00
	Add for working under traffic block @ 5%	Lumpsum	9991	0.05		464.00
						9,744.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		97.44
						9,841.44
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		1,382.72
						11,224.16
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		1,683.62
						12,907.79
	Add for Cess @ 1%	Lumpsum	9905	0.01		129.08
	Cost for 350 Running Metre					13,036.86
	Cost for 1 Running Metre	RM				37.25
061030	Insertion of rails of all types & length in track, laid on any type & density of sleeper to the specified gauge under traffic block. Rates include fastening of rail with sleepers with standard set of fastenings and fixing of fish plates and bolts or, if required, providing gap for welding and stacking of released material without infringement within 250m as directed by Engineer-in-Charge. Note: Rail drilling and cutting to be paid separately.					
061031	For Through Rail Renewal work					
	Details of cost for 520 TRM in one day					
	Labour:					
	Mate (Skilled)	Day	0002	751.00	1.00	751.00
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	0.50	374.50
	Helper (Semi-skilled)	Day	0021	572.00	0.50	286.00
	Look Out Man (Un-skilled)	Day	0033	547.00	0.00	0.00
	Waterman (Un-skilled)	Day	0034	547.00	0.50	273.50
	Labour Unskilled	Day	0020	540.00	30.00	16,200.00
	Misc.:					
	T & P (Rail tongue, Crow bar, Rail Dolly etc.)	Lumpsum	9901	1.00	60.00	60.00
						17,945.00
	Add for working under traffic block @ 5%	Lumpsum	9991	0.05		897.25
						18,842.25
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		188.42
						19,030.67
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		2,673.81
						21,704.48
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		3,255.67
						24,960.15

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Add for Cess @ 1%	Lumpsum	9905	0.01		249.60
	Cost for 520 TRM					25,209.76
	Cost for 1 TRM	TRM				48.48
061032	For Casual/Scattered Rail Renewal work					
	Details of cost for 350 Running Metre in one day					
	Labour:					
	Mate (Skilled)	Day	0002	751.00	1.00	751.00
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	0.50	374.50
	Helper (Semi-skilled)	Day	0021	572.00	0.50	286.00
	Waterman (Un-skilled)	Day	0034	547.00	0.50	273.50
	Labour Unskilled	Day	0020	540.00	15.00	8,100.00
	Misc.:					
	T & P	Lumpsum	9901	1.00	40.00	40.00
						9,825.00
	Add for working under traffic block @ 5%	Lumpsum	9991	0.05		491.25
						10,316.25
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		103.16
						10,419.41
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		1,463.93
						11,883.34
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		1,782.50
						13,665.84
	Add for Cess @ 1%	Lumpsum	9905	0.01		136.66
	Cost for 350 Running Metre					13,802.50
	Rate per Running Metre	RM				39.44
062000	Sleepers					
062010	Through Sleeper Renewal (TSR) with PSC sleepers involving removal existing sleepers of any type along with fittings from track, insertion of PSC sleepers lying along the cess / formation / slope / toe within 5 metres height with all fittings to specified spacing, gauge and squareness, one round of through packing to make track fit for 20 kmph speed, dressing of ballast to standard profile, all in accordance with the latest provisions of IRPWM and stacking of all released material neatly at specified places within an average lead of 100 m as directed by Engineer in-charge.					
062011	For location of work not involving deep screening					
	Details of cost for 80 sleepers considering one group of 2 persons will remove 10 sleepers in a day after making space for removal and another group of 2 persons will insert 16 sleepers in a day.					
	Labour:					
	Mate (Skilled)	Day	0002	751.00	1.00	751.00
	Look Out Man (Un-skilled)	Day	0033	547.00	1.00	547.00
	Waterman (Un-skilled)	Day	0034	547.00	1.00	547.00
	(i) For removing sleeper & fittings					
	Labour Unskilled	Day	0020	540.00	16.00	8,640.00
	(ii) For insertion of sleepers, squaring, greasing of fittings, fixing etc.					
	Labour Unskilled	Day	0020	540.00	10.00	5,400.00
	(iii) For one round packing & dressing (13 Sleeper/man)					
	Labour Unskilled	Day	0020	540.00	6.00	3,240.00
	(iv) For stacking of released materials					
	Labour Unskilled	Day	0020	540.00	4.00	2,160.00
	T & P	Lumpsum	9901	1.00	80.00	80.00
						21,365.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		213.65
						21,578.65
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		3,031.80
						24,610.45
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		3,691.57

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
						28,302.02
	Add for Cess @ 1%	Lumpsum	9905	0.01		283.02
	Cost for 80 sleepers					28,585.04
	Rate of each sleeper	Each				357.31
062012	For location of work involving deep screening (deep screening to be paid separately).					
	Details of cost for 80 sleepers Deep screening involve complete removal of ballast making free space for removal and insertion and initial packing is a part of deep screening, TSR will involve only insertion and removal without obstruction sleepers. Therefore, one group of 2 persons will remove 20 sleepers in a day and another group of 2 persons will insert 16 sleepers in a day.					
	Labour:					
	(i) For removing sleeper & fittings					
	Labour Unskilled	Day	0020	540.00	8.00	4,320.00
	(ii) For inserting sleeper with fixing fittings etc.					
	Labour Unskilled	Day	0020	540.00	10.00	5,400.00
	(iii) For stacking of released materials					
	Labour Unskilled	Day	0020	540.00	4.00	2,160.00
	Misc.:					
	T & P	Lumpsum	9901	1.00	30.00	30.00
						11,910.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		119.10
						12,029.10
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		1,690.09
						13,719.19
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		2,057.88
						15,777.07
	Add for Cess @ 1%	Lumpsum	9905	0.01		157.77
	Cost for 80 sleepers					15,934.84
	Rate of each sleeper	Each				199.19
062013	For PSC wider base sleepers - For location of work not involving deep screening					
	Considering 5% extra over 062011, Cost of Each sleeper					
	Rate of each sleeper	Each	062011	357.31	1.05	375.18
062014	For PSC wider base sleepers - For location of work involving deep screening. (deep screening to be paid separately)					
	Considering 5% Extra over item No 062012, Cost of Each sleeper					
	Rate of each sleeper	Each	062012	199.19	1.05	209.14
062015	Extra to item no. 062011, 062012, 062013 and 062014 for sleepers lying on slope / toe of bank beyond initial height of 5 metres.					
	Details of cost for 100 sleepers					
	Labour:					
	Labour Unskilled	Day	0020	540.00	6.00	3,240.00
						3,240.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		32.40
						3,272.40
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		459.77
						3,732.17
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		559.83
						4,292.00
	Add for Cess @ 1%	Lumpsum	9905	0.01		42.92
	Cost for 100 sleepers					4,334.92
	Rate of each sleeper	Each				43.35

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
062020	Re-spacing of existing PSC sleepers for Increasing Sleeper Density (ISD) work in track after marking of sleeper spacing as per required sleeper density, including fixing all fastenings and initial packing and all associated work required to complete the work, as directed. Note: Insertion of new sleeper will be paid extra under relevant item.					
062021	For location of work not involving deep screening					
	Detail of cost for 192 TRM (1 person will do re-spacing of 10 sleepers of 1660 density in a day){IN 192 TRM = 320 Sleepers}					
	Labour:					
	Mate (Skilled)	Day	0002	751.00	1.00	751.00
	Look Out Man (Un-skilled)	Day	0033	547.00	1.00	547.00
	Waterman (Un-skilled)	Day	0034	547.00	1.00	547.00
	(i) Pre marking of sleeper spacing as per required density					
	Painter (Skilled)	Day	0012	749.00	0.25	187.25
	Helper (Semi-skilled)	Day	0021	572.00	0.25	143.00
	(ii) Re spacing of sleepers with fixing fittings					
	Labour Unskilled	Day	0020	540.00	32.00	17,280.00
	(iii) For initial packing					
	Labour Unskilled	Day	0020	540.00	10.00	5,400.00
	Misc.:					
	T & P and consumables	Lumpsum	9901	1.00	100.00	100.00
						24,955.25
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		249.55
						25,204.80
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		3,541.27
						28,746.08
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		4,311.91
						33,057.99
	Add for Cess @ 1%	Lumpsum	9905	0.01		330.58
	Cost for 192 TRM					33,388.57
	Rate of 1 TRM	TRM				173.90
062022	For location of work involving deep screening (deep screening to be paid considering cost for 240 TRM (For 1660 density, 240 TRM = 400 Sleepers) Group of additional 4 persons will do re-spacing of 80 sleepers. Additional labour required for 400 sleepers = 4 x 400/80 = 20 nos.					
	Labour:					
	(i) Pre marking of sleeper spacing as per required density					
	Painter (Skilled)	Day	0012	749.00	0.25	187.25
	Helper (Semi-skilled)	Day	0021	572.00	0.25	143.00
	(ii) Re spacing of sleepers with fixing fittings					
	Labour Unskilled	Day	0020	540.00	20.00	10,800.00
	Misc.:					
	T & P and consumables	Lumpsum	9901	1.00	100.00	100.00
						11,230.25
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		112.30
						11,342.55
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		1,593.63
						12,936.18
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		1,940.43
						14,876.61
	Add for Cess @ 1%	Lumpsum	9905	0.01		148.77
	Cost for 240 TRM					15,025.37
	Cost for 1 TRM	TRM				62.61

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
062030	Replacement of any type of sleepers in track with PSC sleepers lying on cess or at Bridge Approaches for casual renewal at isolated locations with all fittings complete to specified gauge & cross level with contractor's tools including packing and dressing of ballast, as directed by Engineer in-charge. Released materials shall be neatly stacked and handed over at specified location within an average lead of 250 m or near either side of Bridge approaches as directed.					
062031	Locations other than Ballasted Deck Bridge					
	Details of cost for 40 sleepers (one group of 4 persons will replace 8 sleepers in a					
	Labour:					
	Mate (Skilled)	Day	0002	751.00	1.00	751.00
	Look Out Man (Un-skilled)	Day	0033	547.00	1.00	547.00
	Waterman (Un-skilled)	Day	0034	547.00	1.00	547.00
	(i) For replacement of sleeper including fixing fastenings, packing, dressing etc.					
	Labour Unskilled	Day	0020	540.00	20.00	10,800.00
	(ii) For carting of new sleepers and carting & stacking of released materials.					
	Labour Unskilled	Day	0020	540.00	4.00	2,160.00
	Misc.:					
	T & P (Rail tongue, Crow bar, beater, hammer, wire claws, Rake ballast etc.)	Lumpsum	9901	1.00	50.00	50.00
						14,855.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		148.55
						15,003.55
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		2,108.00
						17,111.55
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		2,566.73
						19,678.28
	Add for Cess @ 1%	Lumpsum	9905	0.01		196.78
	Cost for 40 sleepers					19,875.06
	Rate per sleeper	Each				496.88
062032	Ballasted Deck Bridge					
	Details of cost for 40 sleepers (one group of 5 persons will replace 8 sleepers in a					
	Labour:					
	Mate (Skilled)	Day	0002	751.00	1.00	751.00
	Look Out Man (Un-skilled)	Day	0033	547.00	1.00	547.00
	Waterman (Un-skilled)	Day	0034	547.00	1.00	547.00
	(i) For replacement of sleeper including fixing fastenings, packing, dressing etc.					
	Labour Unskilled	Day	0020	540.00	25.00	13,500.00
	(ii) For carting new and released sleepers from bridge approaches and stacking sleepers					
	Labour Unskilled	Day	0020	540.00	4.00	2,160.00
	Misc.:					
	T & P (Rail tongue, Crow bar, beater, hammer, wire claws, Rake ballast etc.)	Lumpsum	9901	1.00	40.00	40.00
						17,545.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		175.45
						17,720.45
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		2,489.72
						20,210.17
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		3,031.53
						23,241.70
	Add for Cess @ 1%	Lumpsum	9905	0.01		232.42
	Cost for 40 sleepers					23,474.12
	Cost for per sleeper	Each				586.85
063000	Fittings/Lubrication Works					
063010	Fixing of fish plates with fish bolts on a joint of all rail sections duly lubricating fish plates/bolts with contractor's grease graphite in running track condition including transportation of fish plates and fish bolts from nearest station / store / level crossing. Note: Rail cutting & drilling to be paid separately.					

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
063011	Fish plates with 4 fish bolts.					
	Details of cost for 24 Joints					
	Labour:					
	(i) Leading fish plate & nut bolts from Store to site					
	Labour Unskilled	Day	0020	540.00	2.00	1,080.00
	(ii) Fixing fish plate etc.					
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	0.50	374.50
	Helper (Semi-skilled)	Day	0021	572.00	0.50	286.00
	Labour Unskilled	Day	0020	540.00	2.00	1,080.00
	Look Out Man (Un-skilled)	Day	0033	547.00	1.00	547.00
	Material:					
	Grease Graphite Grade 'O' (IS:408)	Kg	0182	270.00	2.50	675.00
	Misc.:					
	T & P	Lumpsum	9901	1.00	10.00	10.00
						4,052.50
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		40.53
						4,093.03
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		575.07
						4,668.10
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		700.21
						5,368.31
	Add for Cess @ 1%	Lumpsum	9905	0.01		53.68
	Cost for 24 Joints					5,421.99
	Rate per Joint	Joint				225.92
063012	Fish plates of 6 bolts.					
	Details of extra cost for 24 Joints for 6 bolt holes over 4 bolt holes					
	Labour:					
	(i) Leading fish plate & nut bolts from Store to site					
	Labour Unskilled	Day	0020	540.00	1.00	540.00
	(ii) Fixing fish plate etc.					
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	0.25	187.25
	Helper (Semi-skilled)	Day	0021	572.00	0.25	143.00
	Labour Unskilled	Day	0020	540.00	0.50	270.00
	Material:					
	Grease Graphite Grade 'O' (IS:408)	Kg	0182	270.00	2.50	675.00
	Misc.:					
	T & P	Lumpsum	9901	1.00	10.00	10.00
						1,825.25
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		18.25
						1,843.50
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		259.01
						2,102.51
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		315.38
						2,417.89
	Add for Cess @ 1%	Lumpsum	9905	0.01		24.18
	Extra cost for 24 Joints over 4 bolt holes					2,442.07
	Extra cost for 1 Joints over 4 bolt holes					101.75
	Cost for 1 Joint for 4 bolt holes as per item no. 063011		063011	225.92	1.00	225.92
	Rate per Joint	Joint				327.67
063020	Through renewal of Metal / GFN liners in running track condition after cleaning of rail foot at liner seat, greasing of liner, liner seat and sealing of liner contact area at rail foot including removing, cleaning & lubrication of ER Clip & Insert Eye and re-driving the same with contractor's grease graphite of approved quality with all lead & lift.					
	Details of cost for 1660 nos. sleeper (For renewal Metal / GFN liners one group of 2 persons will renew liners of 300 sleepers in a day)					

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Material:					
	Grease Graphite Grade 'O' (IS:408)	Kg	0182	270.00	70.00	18,900.00
	Kerosene Oil	Litre	0183	63.00	5.00	315.00
	Cotton Jute	Kg	0489	53.00	2.00	106.00
	Wire Brush - 25cm long	Each	0311	42.00	6.00	252.00
	Sand Paper medium-grit (100- to 150-grit), 9" x 11"	Nos.	0491	7.00	10.00	70.00
	Soft Brush for painting - 25cm long	Each	0312	59.00	6.00	354.00
	Labour:					
	Mate (Skilled)	Day	0002	751.00	2.00	1,502.00
	Look Out Man (Un-skilled)	Day	0033	547.00	1.00	547.00
	Waterman (Un-skilled)	Day	0034	547.00	1.00	547.00
	(i) For Leading & distribution of materials in 1 Km stretch & collection of released materials.					
	Labour Unskilled	Day	0020	540.00	6.00	3,240.00
	(ii) For renewal liners after cleaning rail seat and greasing of liner new liner, rail foot					
	Labour Unskilled	Day	0020	540.00	15.00	8,100.00
	Misc.:					
	T & P (Hammer, Crow bars, Tommy bar, beater, Wire claws, etc.)	Lumpsum	9901	1.00	50.00	50.00
	Hire charges for tractor with trolley	Day	0080	1742.00	1.00	1,742.00
						35,725.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		357.25
						36,082.25
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		5,069.56
						41,151.81
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		6,172.77
						47,324.58
	Add for Cess @ 1%	Lumpsum	9905	0.01		473.25
	Cost for 1660 nos. sleeper					47,797.82
	Rate per Sleeper	Sleeper				28.79
063030	Through Fitting Renewal (TFR) on PSC track, comprising of renewal of Grooved Rubber Pads, Liners and ERCs without damaging PSC sleepers. Scope includes removal of all fittings, cleaning of rail seat, rail flange at liner seats, and eye of Inserts with wire brushes and applying Grease Graphite Grade "O" (IS:408) to eye of insert and central leg of ERC with contractor's grease of Railway's specification, fixing all fittings in correct position and sealing liner edges with grease all complete including collection and stacking of released materials at nominated locations within SSE Jurisdiction as directed by Engineer-in-Charge. Note: All the fittings will be supplied at SSE/Stores/Depot.					
	Details of cost for 1660 nos. sleeper (For TFR on PSC track one group of 3 persons will renew fittings for 185 sleepers in a day).					
	Material:					
	Grease Graphite Grade 'O' (IS:408)	Kg	0182	270.00	70.00	18,900.00
	Kerosene Oil	Litre	0183	63.00	5.00	315.00
	Cotton Jute	Kg	0489	53.00	2.00	106.00
	Wire Brush - 25cm long	Each	0311	42.00	6.00	252.00
	Sand Paper medium-grit (100- to 150-grit), 9" x 11"	Nos.	0491	7.00	10.00	70.00
	Soft Brush for painting - 25cm long	Each	0312	59.00	6.00	354.00
	Labour:					
	(i) For Leading & distribution of materials in 1 Km stretch & collection of released materials.					
	Labour Unskilled	Day	0020	540.00	10.00	5,400.00
	(ii) For Fitting renewal & greasing of ERC's, liners & sealing liner edges.					
	Mate (Skilled)	Day	0002	751.00	2.00	1,502.00
	Waterman (Un-skilled)	Day	0034	547.00	2.00	1,094.00
	Look Out Man (Un-skilled)	Day	0033	547.00	1.00	547.00
	Labour Unskilled	Day	0020	540.00	27.00	14,580.00

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Misc.:					
	T & P (Hammer, Crow bars, Tommy bar, beater, Wire claws, etc.)	Lumpsum	9901	1.00	80.00	80.00
	Hire charges for tractor with trolley	Day	0080	1742.00	1.00	1,742.00
						44,942.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		449.42
						45,391.42
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		6,377.49
						51,768.91
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		7,765.34
						59,534.25
	Add for Cess @ 1%	Lumpsum	9905	0.01		595.34
	Cost for 1660 nos. sleeper					60,129.59
	Rate per Sleeper	Sleeper				36.22
063040	Through replacement of Grooved Rubber Sole pads (GRSP) on PSC sleepers duly removing the ERCs and liners and replacing the GRSP by just lifting the rail after cleaning the rail seat, refixing the liner and ERC after greasing of ERCs, liners and Liner contact area including sealing with Contractor's Grease Graphite Grade 'O' (IS:408) duly cleaning of rust/scale of ERC, Metal /GFN liners & SGCI insert by using wire brush, scrapper/sand emery paper etc., with all contractor's labour, tools, plants including collection and stacking of released materials at nominated locations within SSE Jurisdiction and as directed by Engineer-in-Charge. Note: GRSP will be supplied at SSE/stores/depot.					
	Details of cost for 1660 nos. sleeper (For Through replacement of GRSP one group of 3 persons will renew GRSP for 200 sleepers in a day).					
	Material:					
	Grease Graphite Grade 'O' (IS:408)	Kg	0182	270.00	70.00	18,900.00
	Kerosene Oil	Litre	0183	63.00	5.00	315.00
	Cotton Jute	Kg	0489	53.00	2.00	106.00
	Wire Brush - 25cm long	Each	0311	42.00	6.00	252.00
	Sand Paper medium-grit (100- to 150-grit), 9" x 11"	Nos.	0491	7.00	10.00	70.00
	Soft Brush for painting - 25cm long	Each	0312	59.00	6.00	354.00
	Labour:					
	(i) For Leading & distribution of materials in 1 Km stretch & collection of released					
	Labour Unskilled	Day	0020	540.00	7.00	3,780.00
	(ii) For GRSP renewal & greasing of ERC's, liners & sealing liner edges.					
	Mate (Skilled)	Day	0002	751.00	2.00	1,502.00
	Waterman (Un-skilled)	Day	0034	547.00	1.00	547.00
	Look Out Man (Un-skilled)	Day	0033	547.00	1.00	547.00
	Labour Unskilled	Day	0020	540.00	25.00	13,500.00
	Misc.:					
	T & P (Hammer, Crow bars, Tommy bar, beater, Wire claws, etc.)	Lumpsum	9901	1.00	80.00	80.00
	Hire charges for tractor with trolley	Day	0080	1742.00	1.00	1,742.00
						41,695.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		416.95
						42,111.95
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		5,916.73
						48,028.68
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		7,204.30
						55,232.98
	Add for Cess @ 1%	Lumpsum	9905	0.01		552.33
	Cost for 1660 nos. sleeper					55,785.31
	Rate per Sleeper	Sleeper				33.61

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
063050	Lubrication of fish plated rail joints under traffic, by using Grease Graphite Grade 'O' (IS:408) and Black oil supplied by contractor, for all types of rail sections as per procedure laid down in latest version of IRPWM and as directed by Engineer In charge. Note: Release U/S bolt & nuts is to be deposited back. If any fish bolts is jammed it should be cut with chisel and hammer and replaced with fresh fish bolt supplied.					
063051	For 1.00m long fishplates					
	Details of cost for 200 nos. joints (One group of 1 Blacksmith + 1 Helper + 9 Persons will do 100 joints in a day)					
	Material:					
	For greasing of 1 Fish plated joint required 100 gram grease graphite.					
	Grease Graphite Grade 'O' (IS:408)	Kg	0182	270.00	20.00	5,400.00
	Cotton Jute	Kg	0489	53.00	4.00	212.00
	Wire Brush - 25cm long	Each	0311	42.00	2.00	84.00
	Black Oil (used lubricating oil)	Litre	0471	44.00	5.00	220.00
	Labour:					
	Mate (Skilled)	Day	0002	751.00	1.00	751.00
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	2.00	1,498.00
	Helper (Semi-skilled)	Day	0021	572.00	2.00	1,144.00
	Look Out Man (Un-skilled)	Day	0033	547.00	1.00	547.00
	Waterman (Un-skilled)	Day	0034	547.00	1.00	547.00
	Labour Unskilled	Day	0020	540.00	18.00	9,720.00
	Misc.:					
	T & P (Spanner, Crow bars, beater, Wire claws, Hammer, magnifying glass, mirror	Lumpsum	9901	1.00	45.00	45.00
						20,168.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		201.68
						20,369.68
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		2,861.94
						23,231.62
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		3,484.74
						26,716.36
	Add for Cess @ 1%	Lumpsum	9905	0.01		267.16
	Cost for 200 joints					26,983.53
	Rate per Joint	Joint				134.92
063052	For 610 mm long fish plates.					
	Details of cost for 300 nos. joints (One group of 1 Blacksmith + 1 Helper + 9 Persons will do 150 joints in a day)					
	Material:					
	For greasing of 1 Fish plated joint required 80 gram grease graphite.					
	Grease Graphite Grade 'O' (IS:408)	Kg	0182	270.00	24.00	6,480.00
	Cotton Jute	Kg	0489	53.00	4.00	212.00
	Wire Brush - 25cm long	Each	0311	42.00	2.00	84.00
	Black Oil (used lubricating oil)	Litre	0471	44.00	4.00	176.00
	Labour:					0.00
	Mate (Skilled)	Day	0002	751.00	1.00	751.00
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	2.00	1,498.00
	Helper (Semi-skilled)	Day	0021	572.00	2.00	1,144.00
	Look Out Man (Un-skilled)	Day	0033	547.00	1.00	547.00
	Waterman (Un-skilled)	Day	0034	547.00	1.00	547.00
	Labour Unskilled	Day	0020	540.00	18.00	9,720.00
	Misc.:					
	T & P (Spanner, Crow bars, beater, Wire claws, Hammer, magnifying glass, mirror	Lumpsum	9901	1.00	40.00	40.00
						21,199.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		211.99
						21,410.99
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		3,008.24
						24,419.23

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		3,662.89
						28,082.12
	Add for Cess @ 1%	Lumpsum	9905	0.01		280.82
	Cost for 300 joints					28,362.94
	Rate per Joint	Joint				94.54
063060	Opening and refixing of Joggled fish plates provided to weld joints/rail of any rail section under traffic to enable examination of weld/rail by departmental official nominated by Engineer In charge and lubrication of fishplates by applying departmental Grease graphite grade 'O' (IS:408) to fishing planes and bolts by departmental black oil as per procedure laid down in latest version of IRPWM, including all tools required and as directed by Engineer-in-charge. Note: 1. Grease Graphite, black oil, fish bolts, K.Oil, wire brush, required for work shall be given by department and issued at concerned SSE/PW Stores. 2. Jammed fish bolts shall be cut using chisel and hammer and replaced with new bolt.					
	Details of cost for 40 sets considering 1 group of 3 persons shall do 40 Sets					
	Labour:					
	Labour Unskilled	Day	0020	540.00	3.00	1,620.00
	Misc.:					0.00
	T & P (Spanner set, Chisel, Hammer, Beater etc.)	Lumpsum	9901	1.00	20.00	20.00
						1,640.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		16.40
						1,656.40
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		232.72
						1,889.12
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		283.37
						2,172.49
	Add for Cess @ 1%	Lumpsum	9905	0.01		21.72
	Cost for 40 Sets					2,194.22
	Rate per Set	Set				54.86
063070	Lubrication of Elastic Rail Clips on PSC sleepers with contractor's grease, conforming to Railway's specifications, labour etc. complete as per procedure prescribed in latest edition of IRPWM.					
	Details of cost for 6640 nos. ERC (For Lubrication of ERC's one group of 2 persons will do 800 ERC's in a day)					
	Material:					
	Grease Graphite Grade 'O' (IS:408)	Kg	0182	270.00	40.00	10,800.00
	Kerosene Oil	Litre	0183	63.00	3.00	189.00
	Cotton Jute	Kg	0489	53.00	2.00	106.00
	Wire Brush - 25cm long	Each	0311	42.00	6.00	252.00
	Sand Paper medium-grit (100- to 150-grit), 9" x 11"	Nos.	0491	7.00	10.00	70.00
	Soft Brush for painting - 25cm long	Each	0312	59.00	6.00	354.00
	Labour:					
	Mate (Skilled)	Day	0002	751.00	1.00	751.00
	Look Out Man (Un-skilled)	Day	0033	547.00	1.00	547.00
	Waterman (Un-skilled)	Day	0034	547.00	1.00	547.00
	Labour Unskilled	Day	0020	540.00	17.00	9,180.00
	Misc.:					
	T & P	Lumpsum	9901	1.00	25.00	25.00
						22,821.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		228.21
						23,049.21
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		3,238.41
						26,287.62
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		3,943.14
						30,230.77

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Add for Cess @ 1%	Lumpsum	9905	0.01		302.31
	Cost for 6640 nos. ERC					30,533.08
	Rate per ERC	ERC				4.60
063080	Lubrication of Elastic Rail Clips on PSC sleepers as per procedure prescribed in latest edition of IRPWM with Railway's grease.					
	Details of cost for 6640 nos. ERC (For Lubrication of ERC's one group of 2 persons will do 800 ERC's in a day)					
	Material:					
	Kerosene Oil	Litre	0183	63.00	3.00	189.00
	Cotton Jute	Kg	0489	53.00	2.00	106.00
	Wire Brush - 25cm long	Each	0311	42.00	6.00	252.00
	Sand Paper medium-grit (100- to 150-grit), 9" x 11"	Nos.	0491	7.00	10.00	70.00
	Soft Brush for painting - 25cm long	Each	0312	59.00	6.00	354.00
	Labour:					
	Mate (Skilled)	Day	0002	751.00	1.00	751.00
	Look Out Man (Un-skilled)	Day	0033	547.00	1.00	547.00
	Waterman (Un-skilled)	Day	0034	547.00	1.00	547.00
	Labour Unskilled	Day	0020	540.00	17.00	9,180.00
	Misc.:					
	T & P	Lumpsum	9901	1.00	25.00	25.00
						12,021.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		120.21
						12,141.21
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		1,705.84
						13,847.05
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		2,077.06
						15,924.11
	Add for Cess @ 1%	Lumpsum	9905	0.01		159.24
	Cost for 6640 nos. ERC					16,083.35
	Rate per ERC	ERC				2.42
063090	Lubrication of ERCs and its liner contact area by removal of ERCs and Metal / GFN liners in rail panel, cleaning of rust / scale of ERC, Metal / GFN liners & SGCI insert by using wire brush, scrapper / sand emery paper etc supply and application of graphite grease, as prescribed by Railway for under side of liners & corresponding area of rail foot & SGCI insert with ERCs and re-fixing the same as per procedure prescribed in latest edition of IRPWM with contractors grease and all other tools & plants complete and as directed. Note: Each ERC in this item shall constitute 1 ERC and its Liner Contact area.					
	Details of cost for 1660 sleepers i.e. 6640 nos. ERC (For Lubrication of ERC with liner contact area one group of 4 persons will do 1000 ERC's in a day)					
	Material:					
	For greasing of ERCs and liner contact area of 1 sleeper requires 35 gram grease graphite.					
	Grease Graphite Grade 'O' (IS:408)	Kg	0182	270.00	58.00	15,660.00
	Wire Brush - 25cm long	Each	0311	42.00	6.00	252.00
	Soft Brush for painting - 25cm long	Each	0312	59.00	6.00	354.00
	Sand Paper medium-grit (100- to 150-grit), 9" x 11"	Nos.	0491	7.00	10.00	70.00
	Cotton Jute	Kg	0489	53.00	4.00	212.00
	Labour:					
	Mate (Skilled)	Day	0002	751.00	1.00	751.00
	Look Out Man (Un-skilled)	Day	0033	547.00	1.00	547.00
	Labour Unskilled	Day	0020	540.00	26.00	14,040.00
	Misc.:					
	T & P	Lumpsum	9901	1.00	20.00	20.00
						31,906.00

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		319.06
						32,225.06
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		4,527.62
						36,752.68
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		5,512.90
						42,265.58
	Add for Cess @ 1%	Lumpsum	9905	0.01		422.66
	Cost for 6640 ERC					42,688.24
	Rate per ERC	ERC				6.43
063100	Removing seized ERC from SGCI inserts of existing track by using suitable approved chemicals and re-fixing after greasing of insert eye and ERC with Contractor's grease of specified quality as per provisions of IRPWM, as directed by Engineer in-charge. Note: 1. List of Seized ERC along with location shall be prepared after inspection of SSE/P. Way and marked prior to execution of this item. 2. Due care shall be taken to avoid any damage to the sleeper 3. A penalty of 50% of the basic cost of new sleeper in nearest sleeper factory shall be levied on each, if SGCI insert is broken or sleeper gets cracked in the process.					
	Details of cost for 100 Nos. ERC					
	Material:					
	Kerosene Oil	Litre	0183	63.00	2.00	126.00
	Cotton Jute	Kg	0489	53.00	1.00	53.00
	Sand Paper medium-grit (100- to 150-grit), 9" x 11"	Nos.	0491	7.00	5.00	35.00
	Grease Graphite Grade 'O' (IS:408)	Kg	0182	270.00	1.00	270.00
	Wire Brush - 25cm long	Each	0311	42.00	1.00	42.00
	Soft Brush for painting - 25cm long	Each	0312	59.00	1.00	59.00
	Labour:					
	Mate (Skilled)	Day	0002	751.00	1.00	751.00
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	1.00	749.00
	Helper (Semi-skilled)	Day	0021	572.00	1.00	572.00
	Look Out Man (Un-skilled)	Day	0033	547.00	1.00	547.00
	Labour Unskilled	Day	0020	540.00	1.00	540.00
	Misc.:					
	T & P	Lumpsum	9901	1.00	10.00	10.00
	Hire charges of Heavy Duty Hydraulic Extractor (10 Tonnes)	Day	0142	625.00	1.00	625.00
						4,379.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		43.79
						4,422.79
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		621.40
						5,044.19
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		756.63
						5,800.82
	Add for Cess @ 1%	Lumpsum	9905	0.01		58.01
	Cost for 100 Nos. ERC					5,858.83
	Rate per ERC	ERC				58.59
063110	Lubrication of gauge face of rail on curves, cross overs, points & crossings, turn-in curves and at locations as required with contractor's grease graphite grade "O" IS 408 and as directed.					
	Details of cost for 1000 RM					
	Material:					
	Grease Graphite Grade 'O' (IS:408)	Kg	0182	270.00	10.00	2,700.00
	Cotton Jute	Kg	0489	53.00	0.25	13.25
	Wire Brush - 25cm long	Each	0311	42.00	1.00	42.00
	Labour:					
	Mate (Skilled)	Day	0002	751.00	0.25	187.75

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Look Out Man (Un-skilled)	Day	0033	547.00	1.00	547.00
	Labour Unskilled	Day	0020	540.00	2.00	1,080.00
	Misc.:					
	T & P	Lumpsum	9901	1.00	10.00	10.00
						4,580.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		45.80
						4,625.80
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		649.92
						5,275.72
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		791.36
						6,067.08
	Add for Cess @ 1%	Lumpsum	9905	0.01		60.67
	Cost for 1000 RM					6,127.75
	Rate per RM	RM				6.13
063120	Lubrication of Plate/Rail screws of Points and crossings, SEJs, Bridges, Curves etc., with greases graphite, including removal of screws carefully without damaging sleepers, cleaning with wire brush etc., both screws and dowel hole, applying grease graphite, refixing the screw and sealing the top and sides of screw with grease graphite to prevent ingress of moisture and corrosion with contractors labour, tools, consumables under traffic condition all lead and lift complete.					
063121	By using Railway's Grease graphite					
	Details of Cost for 200 Screws					
	Labour:					
	Mate (Skilled)	Day	0002	751.00	1.00	751.00
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	1.00	749.00
	Helper (Semi-skilled)	Day	0021	572.00	1.00	572.00
	Waterman (Un-skilled)	Day	0034	547.00	1.00	547.00
	Look Out Man (Un-skilled)	Day	0033	547.00	1.00	547.00
	Labour Unskilled	Day	0020	540.00	3.00	1,620.00
	Misc.:					
	T&P (Crow bar, Hammer, Box Spanner, Wire brush etc.)	Lumpsum	9901	1.00	50.00	50.00
						4,836.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		48.36
						4,884.36
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		686.25
						5,570.61
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		835.59
						6,406.20
	Add for Cess @ 1%	Lumpsum	9905	0.01		64.06
	Cost for 200 Screws					6,470.27
	Rate per screw	Each				32.35
063122	By using Contractor's Grease Graphite					
	Details of Cost for 200 Screws					
	Material:					
	Grease Graphite Grade 'O' (IS:408)	Kg	0182	270.00	5.00	1,350.00
	Wire Brush - 25cm long	Each	0311	42.00	1.00	42.00
	Man Power					
	Mate (Skilled)	Day	0002	751.00	1.00	751.00
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	1.00	749.00
	Helper (Semi-skilled)	Day	0021	572.00	1.00	572.00
	Waterman (Un-skilled)	Day	0034	547.00	1.00	547.00
	Look Out Man (Un-skilled)	Day	0033	547.00	1.00	547.00
	Labour Unskilled	Day	0020	540.00	3.00	1,620.00
	Misc					
	T&P (Crow bar, Hammer, Box Spanner, Wire brush, etc.)	Lumpsum	9901	1.00	60.00	60.00
						6,238.00

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		62.38
						6,300.38
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		885.20
						7,185.58
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		1,077.84
						8,263.42
	Add for Cess @ 1%	Lumpsum	9905	0.01		82.63
	Cost for 200 Screws					8,346.06
	Rate per screw	Each				41.73
063130	Scattered renewal or replacement of missing / worn-out fittings with Railway's fittings for track/Points & Crossings sleepers including leading to required location for the work and the released fittings shall be collected and neatly stacked, as directed by the Engineer In charge. Note: New fittings shall be supplied from and released material shall be deposited at, nearest P.Way Stores.					
063131	GRSP					
	Details of cost for 200 nos					
	Labour:					
	Look Out Man (Un-skilled)	Day	0033	547.00	1.00	547.00
	Labour Unskilled	Day	0020	540.00	5.00	2,700.00
	Misc.:					
	T & P (Hammer, Crow bars, Tommy bar, beater, etc.)	Lumpsum	9901	1.00	10.00	10.00
						3,257.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		32.57
						3,289.57
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		462.18
						3,751.75
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		562.76
						4,314.52
	Add for Cess @ 1%	Lumpsum	9905	0.01		43.15
	Cost for 200 nos					4,357.66
	Rate per GRSP	Each				21.79
063132	ERCs					
	Details of cost for 400 nos					
	Labour:					
	Look Out Man (Un-skilled)	Day	0033	547.00	1.00	547.00
	Labour Unskilled	Day	0020	540.00	3.00	1,620.00
	Misc.:					
	T & P (Hammer, Crow bars, Tommy bar, beater, etc.)	Lumpsum	9901	1	10.00	10.00
						2,177.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		21.77
						2,198.77
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		308.93
						2,507.70
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		376.15
						2,883.85
	Add for Cess @ 1%	Lumpsum	9905	0.01		28.84
	Cost for 400 nos					2,912.69
	Rate per ERC	Each				7.28
063133	Metal/GFN Liners					
	Details of cost for 600 nos					
	Labour:					
	Look Out Man (Un-skilled)	Day	0033	547.00	1.00	547.00
	Labour Unskilled	Day	0020	540.00	3.00	1,620.00
	Misc.:					
	T & P (Hammer, Crow bars, Tommy bar, beater, etc.)	Lumpsum	9901	1.00	10.00	10.00
						2,177.00

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		21.77
						2,198.77
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		308.93
						2,507.70
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		376.15
						2,883.85
	Add for Cess @ 1%	Lumpsum	9905	0.01		28.84
	Cost for 600 nos					2,912.69
	Rate per Metal/GFN Liner	Each				4.85
063140	Renewal of seized Plate/Rail screws on PSC Sleepers by using gas or any approved methods, duly drilling holes in broken screw and removing existing screw pieces from the holes along with existing dowels and fixing new contractor's dowels (procured from RDSO approved sources) and grouting around dowel with Epoxy materials of approved specification and refixing new Railway's rail/Plate screws duly greasing the screw with specified grease with all contractor's materials, consumables, tools & plants, labour with all lead, lift. Note: 1. Seized screws shall be identified and marked by JE/P.Way and verified at minimum SSE/P.Way In charge) level. 2. Due care shall be taken to avoid any damage to the sleeper 3. A penalty of 50% of the basic cost of new sleeper in nearest sleeper factory shall be levied on each, if sleeper gets damaged in the process.					
	Detail of cost for 60 holes					
	Material:					
	Commercial LPG (in cylinder)	Kg	0337	99.00	6.00	594.00
	Oxygen Gas (in cylinder)	Kg	0338	83.00	18.00	1,494.00
	Grease Graphite Grade 'O' (IS:408)	Kg	0182	270.00	6.00	1,620.00
	Epoxy for fixing HDPE dowel, Rubber Pads as per RDSO approved specification	Kg	0319	622.00	5.00	3,110.00
	HDPE Dowels	Each	0452	185.00	60.00	11,100.00
	Labour:					
	Welder (Skilled)	Day	0029	734.00	1.00	734.00
	Helper (Semi-skilled)	Day	0021	572.00	1.00	572.00
	Misc.:					
	T & P	Lumpsum	9901	1.00	10.00	10.00
						19,234.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		192.34
						19,426.34
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		2,729.40
						22,155.74
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		3,323.36
						25,479.10
	Add for Cess @ 1%	Lumpsum	9905	0.01		254.79
	Cost for 60 holes					25,733.89
	Rate per hole	Each				428.90
064000	Drilling and Cutting Works					
064010	Cutting / cropping of rail of 52Kg – 72 UTS or lighter section, manually and perfectly vertical with contractor's labour, hacksaw blade and tools & plants. Note: 1. Manual cutting should be used only in emergencies with prior permission of sectional ADEN where machine cutting can not be arranged in time. 2. Cutting of Rails with blade and forcing to part by using other means to break the rails is prohibited. 3. Rails should be cut right through hacksaw blades only.					
064011	On Cess					
	Details of cost for 15 cuts in a day					

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Material:					
	High Speed Hacksaw Blade of size 300mm x 12.5mm x 0.63mm (18TPI) as per as per RDSO's Spec. no. TM/SM/26 (latest Rev.)	Each	0453	182.00	2.00	364.00
	Labour:					
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	1.00	749.00
	Helper (Semi-skilled)	Day	0021	572.00	1.00	572.00
	Labour Unskilled	Day	0020	540.00	1.50	810.00
	Misc.:					
	T & P	Lumpsum	9901	1.00	10.00	10.00
						2,505.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		25.05
						2,530.05
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		355.47
						2,885.52
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		432.83
						3,318.35
	Add for Cess @ 1%	Lumpsum	9905	0.01		33.18
	Cost for 15 cuts					3,351.53
	Rate per cut	Each				223.44
064012	In-situ situation					
	Details of cost for 13 cuts in a day					
	Material:					
	High Speed Hacksaw Blade of size 300mm x 12.5mm x 0.63mm (18TPI) as per as per RDSO's Spec. no. TM/SM/26 (latest Rev.)	Each	0453	182.00	2.00	364.00
	Labour:					
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	1.00	749.00
	Helper (Semi-skilled)	Day	0021	572.00	1.00	572.00
	Labour Unskilled	Day	0020	540.00	1.50	810.00
	Look Out Man (Un-skilled)	Day	0033	547.00	1.00	547.00
	Misc.:					
	T & P	Lumpsum	9901	1.00	10.00	10.00
						3,052.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		30.52
						3,082.52
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		433.09
						3,515.61
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		527.34
						4,042.96
	Add for Cess @ 1%	Lumpsum	9905	0.01		40.43
	Cost for 13 cuts					4,083.39
	Rate per cut	Each				314.11
064020	Cutting / cropping of rail of 52Kg – 90 UTS, manually and perfectly vertical with contractor's labour, hacksaw blade and tools & plants - Note: 1.Manual cutting should be used only in emergencies with prior permission of sectional ADEN where machine cutting can not be arranged in time. 2. Cutting of Rails with blade and forcing to part by using other means to break the rails is prohibited. 3.Rails should be cut right through hacksaw blades only.					
064021	On Cess					
	Details of cost for 13 cuts in a day					
	Material:					
	High Speed Hacksaw Blade of size 300mm x 12.5mm x 0.63mm (18TPI) as per as per RDSO's Spec. no. TM/SM/26 (latest Rev.)	Each	0453	182.00	2.00	364.00
	Labour:					
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	1.00	749.00
	Helper (Semi-skilled)	Day	0021	572.00	1.00	572.00
	Labour Unskilled	Day	0020	540.00	1.50	810.00

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Misc.:					
	T & P	Lumpsum	9901	1.00	10.00	10.00
						2,505.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		25.05
						2,530.05
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		355.47
						2,885.52
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		432.83
						3,318.35
	Add for Cess @ 1%	Lumpsum	9905	0.01		33.18
	Cost for 13 cuts					3,351.53
	Rate per cut	Each				257.81
064022	In-situ situation					
	Details of cost for 11 cuts in a day					
	Material:					
	High Speed Hacksaw Blade of size 300mm x 12.5mm x 0.63mm (18TPI) as per as per RDSO's Spec. no. TM/SM/26 (latest Rev.)	Each	0453	182.00	2.00	364.00
	Labour:					
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	1.00	749.00
	Helper (Semi-skilled)	Day	0021	572.00	1.00	572.00
	Labour Unskilled	Day	0020	540.00	1.50	810.00
	Look Out Man (Un-skilled)	Day	0033	547.00	1.00	547.00
	Misc.:					
	T & P	Lumpsum	9901	1.00	10.00	10.00
						3,052.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		30.52
						3,082.52
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		433.09
						3,515.61
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		527.34
						4,042.96
	Add for Cess @ 1%	Lumpsum	9905	0.01		40.43
	Cost for 11 cuts					4,083.39
	Rate per cut	Each				371.22
064030	Cutting / cropping of rail of 60Kg – 90 UTS, manually and perfectly vertical with contractor's labour, hacksaw blade and tools & plants - Note: 1.Manual cutting should be used only in emergencies with prior permission of sectional ADEN where machine cutting can not be arranged in time. 2. Cutting of Rails with blade and forcing to part by using other means to break the rails is prohibited. 3.Rails should be cut right through hacksaw blades only.					
064031	On Cess					
	Details of cost for 10 cuts in a day					
	Material:					
	High Speed Hacksaw Blade of size 300mm x 12.5mm x 0.63mm (18TPI) as per as per RDSO's Spec. no. TM/SM/26 (latest Rev.)	Each	0453	182.00	2.00	364.00
	Labour:					
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	1.00	749.00
	Helper (Semi-skilled)	Day	0021	572.00	1.00	572.00
	Labour Unskilled	Day	0020	540.00	1.50	810.00
	Misc.:					
	T & P	Lumpsum	9901	1.00	10.00	10.00
						2,505.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		25.05
						2,530.05

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		355.47
						2,885.52
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		432.83
						3,318.35
	Add for Cess @ 1%	Lumpsum	9905	0.01		33.18
	Cost for 10 cuts					3,351.53
	Rate per cut	Each				335.15
064032	In-situ situation					
	Details of cost for 8 cuts in a day					
	Material:					
	High Speed Hacksaw Blade of size 300mm x 12.5mm x 0.63mm (18TPI) as per as per RDSO's Spec. no. TM/SM/26 (latest Rev.)	Each	0453	182.00	1.50	273.00
	Labour:					
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	1.00	749.00
	Helper (Semi-skilled)	Day	0021	572.00	1.00	572.00
	Labour Unskilled	Day	0020	540.00	1.50	810.00
	Look Out Man (Un-skilled)	Day	0033	547.00	1.00	547.00
	Misc.:					
	T & P	Lumpsum	9901	1.00	10.00	10.00
						2,961.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		29.61
						2,990.61
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		420.18
						3,410.79
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		511.62
						3,922.41
	Add for Cess @ 1%	Lumpsum	9905	0.01		39.22
	Cost for 8 cuts					3,961.63
	Rate per cut	Each				495.20
064033	Extra to item no. 064031 for cutting 110 UTS rail					
	Take 15% of relevant item rate					
	Extra Rate per cut	Each				50.27
064034	Extra to item no. 064032 for cutting 110 UTS rail					
	Take 15 % of relevant item rate					
	Extra Rate per cut	Each				74.28
064040	Drilling of hole of different diameter and chamfering, in rail of any section and any UTS manually only in emergencies with contractor's labours, tools & plants, consumables etc.					
064041	Hole of dia. 26.5mm and above					
	Details of cost for 15 holes in a day					
	Material:					
	Drill twist made of high speed steel for size 26.5mm dia of Addison / I T make	Each	0462	2517.00	0.50	1,258.50
	Labour:					
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	1.00	749.00
	Helper (Semi-skilled)	Day	0021	572.00	1.00	572.00
	Labour Unskilled	Day	0020	540.00	1.00	540.00
	Misc.:					
	T & P (Ratchet & Chamfering kit etc.)	Lumpsum	9901	1.00	10.00	10.00
						3,129.50
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		31.30
						3,160.80
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		444.09
						3,604.89
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		540.73
						4,145.62

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Add for Cess @ 1%	Lumpsum	9905	0.01		41.46
	Cost for 15 Holes					4,187.08
	Rate per Hole	Each				279.14
064042	Hole of dia. below 26.5mm					
	Details of cost for 20 holes in a day					
	Material:					
	Drill twist made of high speed steel for size 18mm dia of Addison / I T make	Each	0463	1633.00	0.50	816.50
	Labour:					
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	1.00	749.00
	Helper (Semi-skilled)	Day	0021	572.00	1.00	572.00
	Labour Unskilled	Day	0020	540.00	1.00	540.00
	Misc.:					
	T & P (Ratchet & Chamfering kit etc.)	Lumpsum	9901	1.00	10.00	10.00
						2,687.50
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		26.88
						2,714.38
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		381.37
						3,095.74
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		464.36
						3,560.11
	Add for Cess @ 1%	Lumpsum	9905	0.01		35.60
	Cost for 20 Holes					3,595.71
	Rate per Hole	Each				179.79
064050	Gas cutting of rail of various sections with contractor's tools & plants, as directed by engineer in-charge :					
064051	Rail section of 90R and below					
	Details of cost for 60 Cut					
	Material:					
	Oxygen Gas (in cylinder)	Kg	0338	83.00	30.00	2,490.00
	Commercial LPG (in cylinder)	Kg	0337	99.00	8.00	792.00
	Labour:					
	Welder (Skilled)	Day	0029	734.00	1.00	734.00
	Helper (Semi-skilled)	Day	0021	572.00	1.00	572.00
	Labour Unskilled	Day	0020	540.00	2.00	1,080.00
	Misc.:					
	T & P (Gas Cutting equipments)	Lumpsum	9901	1.00	20.00	20.00
						5,688.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		56.88
						5,744.88
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		807.16
						6,552.04
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		982.81
						7,534.84
	Add for Cess @ 1%	Lumpsum	9905	0.01		75.35
	Cost for 60 Cut					7,610.19
	Rate per Cut	Each				126.84
064052	Rail section of 52Kg and above					
	Details of cost for 50 Cut					
	Material:					
	Oxygen Gas (in cylinder)	Kg	0338	83.00	30.00	2,490.00
	Commercial LPG (in cylinder)	Kg	0337	99.00	8.00	792.00
	Labour:					
	Welder (Skilled)	Day	0029	734.00	1.00	734.00
	Helper (Semi-skilled)	Day	0021	572.00	1.00	572.00
	Labour Unskilled	Day	0020	540.00	2.00	1,080.00

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Misc.:					
	T & P (Gas Cutting equipments)	Lumpsum	9901	1.00	20.00	20.00
						5,688.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		56.88
						5,744.88
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		807.16
						6,552.04
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		982.81
						7,534.84
	Add for Cess @ 1%	Lumpsum	9905	0.01		75.35
	Cost for 50 Cut					7,610.19
	Rate per Cut	Each				152.20
065000	Switch Expansion Joints (SEJs)					
065010	Renewal of existing SEJ along with PSC sleepers under traffic block conditions as per approved drawing including fixing of special size bearing plate, rubber pad and other sleeper / rail fittings, greasing to the fittings, leading all new materials to site, transportation of released materials within a lead of 250m, cutting of Rails, drilling of holes, fixing of related fittings, providing temporary connection with fishplates till welding of SEJ is done and sleepers shall be given initial packing to make track fit for 20KMPH speed. Note: (1) Rail cutting and hole drilling shall be paid separately. (2) One set comprise complete SEJ on both rails at SEJ.					
	Details of cost for 2 sets					
	Material:					
	Grease Graphite Grade 'O' (IS:408)	Kg	0182	270.00	2.00	540.00
	Labour:					
	(i) Leading of all fitting, fish plate, nut & bolt, SEJ, sleepers, fittings etc. along with transportation of released materials					
	Labour Unskilled	Day	0020	540.00	6.00	3,240.00
	(ii) Assembling and Insertion in track SEJ with sleepers by removing the existing					
	Labour Unskilled	Day	0020	540.00	6.00	3,240.00
	(iii) Fixing of fish plate with nut & bolt and packing of SEJ, aligning, levelling etc.					
	Mate (Skilled)	Day	0002	751.00	1.00	751.00
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	1.00	749.00
	Helper (Semi-skilled)	Day	0021	572.00	1.00	572.00
	Look Out Man (Un-skilled)	Day	0033	547.00	1.00	547.00
	Waterman (Un-skilled)	Day	0034	547.00	1.00	547.00
	Labour Unskilled	Day	0020	540.00	2.00	1,080.00
	Misc.:					
	T & P (Crow bar, Spanner, Hammer, beater, Rail tongue etc.)	Lumpsum	9901	1.00	30.00	30.00
						11,296.00
	Add for working under traffic block @ 10%	Lumpsum	9992	0.10		1,129.60
						12,425.60
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		124.26
						12,549.86
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		1,763.25
						14,313.11
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		2,146.97
						16,460.08
	Add for Cess @ 1%	Lumpsum	9905	0.01		164.60
	Cost for 2 sets					16,624.68
	Rate per set	Set				8,312.34

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
065020	Renewal of existing SEJ with improved SEJ with PSC sleepers under traffic block conditions as per approved drawing including fixing of special size bearing plate, rubber pad and other sleeper / rail fittings, greasing to the fittings, leading rails, sleepers & fittings to site, leading and stacking of released materials within a lead of 250m, cutting of Rails, drilling of holes, fixing of related fittings, providing temporary connection with fishplates till welding of SEJ is done and sleepers shall be given initial packing to make track fit for 20KMPH speed. Note: (1) Rail cutting and hole drilling shall be paid separately. (2) One set comprise complete SEJ on both rails at SEJ.					
	Details of cost for 2 sets					
	Material:					
	Grease Graphite Grade 'O' (IS:408)	Kg	0182	270.00	2.00	540.00
	Labour:					
	(i) Leading of all fitting, fish plate, nut & bolt and SEJ rail, sleeper fitting etc. along					
	Labour Unskilled	Day	0020	540.00	6.00	3,240.00
	(ii) Assembling and Insertion in track SEJ with sleepers by removing the existing					
	Labour Unskilled	Day	0020	540.00	6.00	3,240.00
	(iii) Fixing of fish plate with nut & bolt and packing of SEJ, aligning, levelling etc.					
	Mate (Skilled)	Day	0002	751.00	1.00	751.00
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	1.00	749.00
	Helper (Semi-skilled)	Day	0021	572.00	1.00	572.00
	Look Out Man (Un-skilled)	Day	0033	547.00	1.00	547.00
	Waterman (Un-skilled)	Day	0034	547.00	1.00	547.00
	Labour Unskilled	Day	0020	540.00	4.00	2,160.00
	Misc.:					
	T & P (Crow bar, Spanner, Hammer, beater, Rail tongue etc.)	Lumpsum	9901	1.00	50.00	50.00
						12,396.00
	Add for working under traffic block @ 10%	Lumpsum	9992	0.10		1,239.60
						13,635.60
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		136.36
						13,771.96
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		1,934.96
						15,706.92
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		2,356.04
						18,062.95
	Add for Cess @ 1%	Lumpsum	9905	0.01		180.63
	Cost for 2 sets					18,243.58
	Rate per set	Set				9,121.79
065030	Assembling and Laying of Improved Switch Expansion Joint (SEJ) on PSC sleepers of any rail section as per RDSO drawing including leading of SEJ rails, sleepers, fittings for a free lead of 250 metres, cutting of rails, drilling of holes as required and lubrication of SEJ, gauging, aligning rails, providing temporary connection with adequate welding gap with adjoining rails, providing reference posts at SEJ, first through packing of SEJ portion to make track geometry fit for 30 kmph speed and making ballast profile as per IRPWM. Note: (1) Rail cutting and hole drilling shall be paid separately. (2) One set comprise complete SEJ on both rails at SEJ.					
065031	Under Conditions not requiring Traffic Block					
	Details of cost for 2 sets					
	Material:					
	Grease Graphite Grade 'O' (IS:408)	Kg	0182	270.00	2.00	540.00
	Labour:					
	Mate (Skilled)	Day	0002	751.00	1.00	751.00
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	1.00	749.00
	Helper (Semi-skilled)	Day	0021	572.00	1.00	572.00
	Waterman (Un-skilled)	Day	0034	547.00	1.00	547.00

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	(i) Leading of all fitting, fish plate, nut & bolt and SEJ rail, sleeper fitting etc.					
	Labour Unskilled	Day	0020	540.00	6.00	3,240.00
	(ii) Assembling and Insertion in track SEJ with sleepers					
	Labour Unskilled	Day	0020	540.00	6.00	3,240.00
	(iii) Fixing of fish plate with nut & bolt and packing of SEJ, aligning, levelling etc.					
	Labour Unskilled	Day	0020	540.00	2.00	1,080.00
	Misc.:					0.00
	T & P (Crow bar, Tommy bar, beater, hammer, Rail dolly, Spanner, Rail Tongue etc.)	Lumpsum	9901	1.00	30.00	30.00
						10,749.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		107.49
						10,856.49
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		1,525.34
						12,381.83
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		1,857.27
						14,239.10
	Add for Cess @ 1%	Lumpsum	9905	0.01		142.39
	Cost for 2 sets					14,381.49
	Rate per set	Set				7,190.75
065032	Under Traffic Block Conditions					
	Details of cost for 2 sets					
	Material:					
	Grease Graphite Grade 'O' (IS:408)	Kg	0182	270.00	2.00	540.00
	Labour:					
	Mate (Skilled)	Day	0002	751.00	1.00	751.00
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	1.00	749.00
	Helper (Semi-skilled)	Day	0021	572.00	1.00	572.00
	Waterman (Un-skilled)	Day	0034	547.00	1.00	547.00
	(i) Leading of all fitting, fish plate, nut & bolt and SEJ rail, sleeper fitting etc.					
	Labour Unskilled	Day	0020	540.00	6.00	3,240.00
	(ii) Assembling and Insertion in track SEJ with sleepers					
	Labour Unskilled	Day	0020	540.00	6.00	3,240.00
	(iii) Fixing of fish plate with nut & bolt and packing of SEJ, aligning, levelling etc.					
	Labour Unskilled	Day	0020	540.00	2.00	1,080.00
	Misc.:					
	T & P (Crow bar, Tommy bar, beater, hammer, Rail dolly, Spanner, Rail Tongue etc.)	Lumpsum	9901	1.00	30.00	30.00
						10,749.00
	Add for working under traffic block @ 10%	Lumpsum	9992	0.10		1,074.90
						11,823.90
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		118.24
						11,942.14
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		1,677.87
						13,620.01
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		2,043.00
						15,663.01
	Add for Cess @ 1%	Lumpsum	9905	0.01		156.63
	Cost for 2 sets					15,819.64
	Rate per set	Set				7,909.82
065040	Dismantling & removing existing SEJ (Switch Expansion Joint) assembly during line block and its replacement with plain track as of adjoining section with all fittings including rail cutting and drilling of holes and renewal of special sleepers with PSC Sleepers as directed and aligning rails, providing fishplates and bolts/ temporary connection with adequate welding gap with adjoining rail and ensuring proper track geometry for 30 kmph speed. The release material shall be stacked as directed by Engineer in charge.					
	Details of cost for 2 set					
	Material:					
	Kerosene Oil	Litre	0183	63.00	2.50	157.50
	Normal unleaded Petrol	Litre	0180	108.00	0.50	54.00

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	High Speed Hacksaw Blade of size 300mm x 12.5mm x 0.63mm (18TPI) as per as per RDSO's Spec. no. TM/SM/26 (latest Rev.)	Each	0453	182.00	1.00	182.00
	Drill twist made of high speed steel for size 26.5mm dia of Addison / I T make	Each	0462	2517.00	0.50	1,258.50
	Labour:					
	(i) Cutting SEJ, Drilling rails & removing SEJ etc.					
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	1.00	749.00
	Helper (Semi-skilled)	Day	0021	572.00	1.00	572.00
	Labour Unskilled	Day	0020	540.00	6.00	3,240.00
	(ii) Fixing required length of same rail section and fixing fish plate & nut bolt etc.					
	Labour Unskilled	Day	0020	540.00	6.00	3,240.00
	(iii) Sleeper insertion against SEJ sleeper through packing, aligning, fixing fitting &					
	Mate (Skilled)	Day	0002	751.00	1.00	751.00
	Look Out Man (Un-skilled)	Day	0033	547.00	1.00	547.00
	Waterman (Un-skilled)	Day	0034	547.00	1.00	547.00
	Labour Unskilled	Day	0020	540.00	2.00	1,080.00
	Misc.:					
	T & P (Crow bar, Spanner, Hammer, beater, Rail tongue etc.)	Lumpsum	9901	1.00	40.00	40.00
	Hire charges of Rail Drill Machine	Day	0134	442.00	0.50	221.00
	Hire charges of Rail Cutting Machine	Day	0139	633.00	0.50	316.50
						12,955.50
	Add for working under traffic block @ 10%	Lumpsum	9992	0.10		1,295.55
						14,251.05
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		142.51
						14,393.56
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		2,022.30
						16,415.86
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		2,462.38
						18,878.23
	Add for Cess @ 1%	Lumpsum	9905	0.01		188.78
	Cost for 2 set					19,067.02
	Rate per set	Set				9,533.51

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CHAPTER - 7 : Turnouts and Renewals

Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
071000	Dismantling Works					
071010	Under Traffic Block: Dismantling of existing BG turnouts, diamond crossings and derailing switches with all types of rails and sleeper layout, removing rails, switches, crossings, sleepers & fastenings, leveling of ballast to correct profile & stacking all the released materials, sleepers, fastenings, rails, switches & crossings including segregating & stacking at specified locations in a neat and countable manner, within the lead of 250m & all lift, clear of infringements, crossing of track, if any complete, as directed. Note: 1. This item shall be operated only when existing turnout is replaced either with new turnout in case of TTR or with plain track when existing turnout is no more required at that location. 2. Rail cutting will be paid extra under relevant item. 3. Laying of new turnout or plain track on prepared ballast bed, as required, shall be paid separately under relevant item.					
071011	1 in 8½ Turnout (Under Traffic Block)					
	Details of cost for 1 set					
	Labour:					
	Mate (Skilled)	Day	0002	751.00	1.00	751.00
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	1.00	749.00
	Helper (Semi-skilled)	Day	0021	572.00	1.00	572.00
	Look Out Man (Un-skilled)	Day	0033	547.00	1.00	547.00
	Waterman (Un-skilled)	Day	0034	547.00	1.00	547.00
	(i) Removing Lead Rails, Switches, Crossing, Fittings and stacking etc.					
	Labour Unskilled	Day	0020	540.00	12.00	6,480.00
	(ii) Removing Sleepers, Transporting & Stacking at store.					
	Labour Unskilled	Day	0020	540.00	12.00	6,480.00
	(iii) Levelling of ballast					
	Labour Unskilled	Day	0020	540.00	8.00	4,320.00
	Misc.:					
	T & P (Crow bar, Tommy bar, beater, Rake ballast, hammer etc.)	Lumpsum	9901	1.00	90.00	90.00
	Hire charges for tractor with trolley	Day	0080	1742.00	1.00	1,742.00
						22,278.00
	Add for working under traffic block @ 10%	Lumpsum	9992	0.10		2,227.80
						24,505.80
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		245.06
						24,750.86
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		3,477.50
						28,228.35
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		4,234.25
						32,462.61
	Add for Cess @ 1%	Lumpsum	9905	0.01		324.63
	Rate per set	Set				32,787.23
071012	1 in 12 Turnout (Under Traffic Block)					
	Details of cost for 1 set					
	Labour:					
	Mate (Skilled)	Day	0002	751.00	1.00	751.00
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	1.00	749.00
	Helper (Semi-skilled)	Day	0021	572.00	1.00	572.00
	Look Out Man (Un-skilled)	Day	0033	547.00	1.00	547.00
	Waterman (Un-skilled)	Day	0034	547.00	1.00	547.00
	(i) Removing Lead Rails, Switches, Crossing, Fittings and stacking etc.					
	Labour Unskilled	Day	0020	540.00	14.00	7,560.00
	(ii) Removing Sleepers, Transporting & Stacking at store.					
	Labour Unskilled	Day	0020	540.00	14.00	7,560.00
	(iii) Levelling of ballast					
	Labour Unskilled	Day	0020	540.00	10.00	5,400.00

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Misc.:					
	T & P (Crow bar, Tommy bar, beater, Rake ballast , hammer etc.)	Lumpsum	9901	1.00	100.00	100.00
	Hire charges for tractor with trolley	Day	0080	1742.00	1.00	1,742.00
						25,528.00
	Add for working under traffic block @ 10%	Lumpsum	9992	0.10		2,552.80
						28,080.80
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		280.81
						28,361.61
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		3,984.81
						32,346.41
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		4,851.96
						37,198.38
	Add for Cess @ 1%	Lumpsum	9905	0.01		371.98
	Rate per set	Set				37,570.36
071013	1 in 16 Turnout (Under Traffic Block)					
	Details of cost for 1 set					
	Labour:					
	Mate (Skilled)	Day	0002	751.00	1.00	751.00
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	1.00	749.00
	Helper (Semi-skilled)	Day	0021	572.00	1.00	572.00
	Look Out Man (Un-skilled)	Day	0033	547.00	1.00	547.00
	Waterman (Un-skilled)	Day	0034	547.00	1.00	547.00
	(i) Removing Lead Rails, Switches, Crossing, Fittings and stacking etc.					
	Labour Unskilled	Day	0020	540.00	16.00	8,640.00
	(ii) Removing Sleepers, Transporting & Stacking at store.					
	Labour Unskilled	Day	0020	540.00	16.00	8,640.00
	(iii) Levelling of ballast					
	Labour Unskilled	Day	0020	540.00	12.00	6,480.00
	Misc.:					
	T & P (Crow bar, Tommy bar, beater, Rake ballast , hammer etc.)	Lumpsum	9901	1.00	120.00	120.00
	Hire charges for tractor with trolley	Day	0080	1742.00	1.00	1,742.00
						28,788.00
	Add for working under traffic block @ 10%	Lumpsum	9992	0.10		2,878.80
						31,666.80
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		316.67
						31,983.47
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		4,493.68
						36,477.15
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		5,471.57
						41,948.72
	Add for Cess @ 1%	Lumpsum	9905	0.01		419.49
	Cost for 1 set	Set				42,368.20
071014	1 in 20 Turnout (Under Traffic Block)					
	Details of cost for 1 set					
	Labour:					
	Mate (Skilled)	Day	0002	751.00	1.00	751.00
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	1.00	749.00
	Helper (Semi-skilled)	Day	0021	572.00	1.00	572.00
	Look Out Man (Un-skilled)	Day	0033	547.00	1.00	547.00
	Waterman (Un-skilled)	Day	0034	547.00	1.00	547.00
	(i) Removing Lead Rails, Switches, Fittings and stacking etc.					
	Labour Unskilled	Day	0020	540.00	18.00	9,720.00
	(ii) Removing Sleepers, Transporting & Stacking at store.					
	Labour Unskilled	Day	0020	540.00	18.00	9,720.00
	(iii) Levelling of ballast					
	Labour Unskilled	Day	0020	540.00	14.00	7,560.00
	Misc.:					
	T & P (Crow bar, Tommy bar, beater, Rake ballast , hammer etc.)	Lumpsum	9901	1.00	135.00	135.00

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Hire charges for tractor with trolley	Day	0080	1742.00	1.00	1,742.00
						32,043.00
	Add for working under traffic block @ 10%	Lumpsum	9992	0.10		3,204.30
						35,247.30
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		352.47
						35,599.77
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		5,001.77
						40,601.54
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		6,090.23
						46,691.77
	Add for Cess @ 1%	Lumpsum	9905	0.01		466.92
	Rate per set	Set				47,158.69
071015	Diamond Crossing (Under Traffic Block)					
	Details of cost for 1 set					
	Labour:					
	Mate (Skilled)	Day	0002	751.00	1.00	751.00
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	1.00	749.00
	Helper (Semi-skilled)	Day	0021	572.00	1.00	572.00
	Look Out Man (Un-skilled)	Day	0033	547.00	1.00	547.00
	Waterman (Un-skilled)	Day	0034	547.00	1.00	547.00
	(i) Removing Lead Rails, Switches, Fittings and stacking etc.					
	Labour Unskilled	Day	0020	540.00	20.00	10,800.00
	(ii) Removing Sleepers, Transporting & Stacking at store.					
	Labour Unskilled	Day	0020	540.00	20.00	10,800.00
	(iii) Levelling of ballast					
	Labour Unskilled	Day	0020	540.00	14.00	7,560.00
	Misc.:					
	T & P (Crow bar, Tommy bar, beater, Rake ballast, hammer etc.)	Lumpsum	9901	1.00	145.00	145.00
	Hire charges for tractor with trolley	Day	0080	1742.00	1.00	1,742.00
						34,213.00
	Add for working under traffic block @ 10%	Lumpsum	9992	0.10		3,421.30
						37,634.30
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		376.34
						38,010.64
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		5,340.50
						43,351.14
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		6,502.67
						49,853.81
	Add for Cess @ 1%	Lumpsum	9905	0.01		498.54
	Rate per set	Set				50,352.35
071020	Under conditions not requiring Traffic Block: Dismantling of existing BG turnouts, diamond crossings and derailing switches with all types of rails and sleeper layout, removing rails, switches, crossings, sleepers & fastenings, leveling of ballast to correct profile & stacking all the released materials, sleepers, fastenings, rails, switches & crossings including segregating & stacking at specified locations in a neat and countable manner, within the lead of 250m & all lift, clear of infringements, crossing of track, if any complete, as directed - Note: 1. This item shall be operated only when existing turnout is replaced either with new turnout in case of TTR or with plain track when existing turnout is no more required at that location. 2. Rail cutting will be paid extra under relevant item. 3. Laying of new turnout or plain track on prepared ballast bed, as required, shall be paid separately under relevant item.					
071021	1 in 8½ Turnout (Under conditions not requiring Traffic Block).					
	Details of cost for 1 set					
	Labour:					

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Mate (Skilled)	Day	0002	751.00	1.00	751.00
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	1.00	749.00
	Helper (Semi-skilled)	Day	0021	572.00	1.00	572.00
	Waterman (Un-skilled)	Day	0034	547.00	1.00	547.00
	(i) Removing Lead Rails, Switches, Crossing, Fittings and stacking etc.					
	Labour Unskilled	Day	0020	540.00	10.00	5,400.00
	(ii) Removing Sleepers, Transporting & Stacking at store.					
	Labour Unskilled	Day	0020	540.00	10.00	5,400.00
	(iii) Levelling of ballast					
	Labour Unskilled	Day	0020	540.00	8.00	4,320.00
	Misc.:					
	T & P (Crow bar, Tommy bar, beater, Rake ballast , hammer etc.)	Lumpsum	9901	1.00	80.00	80.00
	Hire charges for tractor with trolley	Day	0080	1742.00	1.00	1,742.00
						19,561.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		195.61
						19,756.61
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		2,775.80
						22,532.41
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		3,379.86
						25,912.28
	Add for Cess @ 1%	Lumpsum	9905	0.01		259.12
	Cost for 1 set	Set				26,171.40
071022	1 in 12 Turnout (Under conditions not requiring Traffic Block).					
	Details of cost for 1 set					
	Labour:					
	Mate (Skilled)	Day	0002	751.00	1.00	751.00
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	1.00	749.00
	Helper (Semi-skilled)	Day	0021	572.00	1.00	572.00
	Waterman (Un-skilled)	Day	0034	547.00	1.00	547.00
	(i) Removing Lead Rails, Switches, Crossing, Fittings and stacking etc.					
	Labour Unskilled	Day	0020	540.00	11.00	5,940.00
	(ii) Removing Sleepers, Transporting & Stacking at store.					
	Labour Unskilled	Day	0020	540.00	11.00	5,940.00
	(iii) Levelling of ballast					
	Labour Unskilled	Day	0020	540.00	9.00	4,860.00
	Misc.:					
	T & P (Crow bar, Tommy bar, beater, Rake ballast , hammer etc.)	Lumpsum	9901	1.00	88.00	88.00
	Hire charges for tractor with trolley	Day	0080	1742.00	1.00	1,742.00
						21,189.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		211.89
						21,400.89
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		3,006.83
						24,407.72
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		3,661.16
						28,068.87
	Add for Cess @ 1%	Lumpsum	9905	0.01		280.69
	Cost for 1 set	Set				28,349.56
071023	1 in 16 Turnout (Under conditions not requiring Traffic Block).					
	Details of cost for 1 set					
	Labour:					
	Mate (Skilled)	Day	0002	751.00	1.00	751.00
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	1.00	749.00
	Helper (Semi-skilled)	Day	0021	572.00	1.00	572.00
	Waterman (Un-skilled)	Day	0034	547.00	1.00	547.00
	(i) Removing Lead Rails, Switches, Crossing, Fittings and stacking etc.					
	Labour Unskilled	Day	0020	540.00	14.00	7,560.00

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	(ii) Removing Sleepers, Transporting & Stacking at store.					
	Labour Unskilled	Day	0020	540.00	12.00	6,480.00
	(iii) Levelling of ballast					
	Labour Unskilled	Day	0020	540.00	10.00	5,400.00
	Misc.:					
	T & P (Crow bar, Tommy bar, beater, Rake ballast , hammer etc.)	Lumpsum	9901	1.00	100.00	100.00
	Hire charges for tractor with trolley	Day	0080	1742.00	1.00	1,742.00
						23,901.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		239.01
						24,140.01
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		3,391.67
						27,531.68
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		4,129.75
						31,661.43
	Add for Cess @ 1%	Lumpsum	9905	0.01		316.61
	Cost for 1 set	Set				31,978.05
071024	1 in 20 Turnout (Under conditions not requiring Traffic Block).					
	Details of cost for 1 set					
	Labour:					
	Mate (Skilled)	Day	0002	751.00	1.00	751.00
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	1.00	749.00
	Helper (Semi-skilled)	Day	0021	572.00	1.00	572.00
	Waterman (Un-skilled)	Day	0034	547.00	1.00	547.00
	(i) Removing Lead Rails, Switches, Fittings and stacking etc.					
	Labour Unskilled	Day	0020	540.00	16.00	8,640.00
	(ii) Removing Sleepers, Transporting & Stacking at store.					
	Labour Unskilled	Day	0020	540.00	13.00	7,020.00
	(iii) Levelling of ballast					
	Labour Unskilled	Day	0020	540.00	12.00	6,480.00
	Misc.:					
	T & P (Crow bar, Tommy bar, beater, Rake ballast , hammer etc.)	Lumpsum	9901	1.00	110.00	110.00
	Hire charges for tractor with trolley	Day	0080	1742.00	1.00	1,742.00
						26,611.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		266.11
						26,877.11
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		3,776.23
						30,653.34
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		4,598.00
						35,251.35
	Add for Cess @ 1%	Lumpsum	9905	0.01		352.51
	Cost for 1 set	Set				35,603.86
071025	Diamond Crossing (Under conditions not requiring Traffic Block).					
	Details of cost for 1 set					
	Labour:					
	Mate (Skilled)	Day	0002	751.00	1.00	751.00
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	2.00	1,498.00
	Helper (Semi-skilled)	Day	0021	572.00	2.00	1,144.00
	Waterman (Un-skilled)	Day	0034	547.00	2.00	1,094.00
	(i) Removing Lead Rails, Switches, Fittings and stacking etc.					
	Labour Unskilled	Day	0020	540.00	18.00	9,720.00
	(ii) Removing Sleepers, Transporting & Stacking at store.					
	Labour Unskilled	Day	0020	540.00	18.00	9,720.00
	(iii) Levelling of ballast					
	Labour Unskilled	Day	0020	540.00	14.00	7,560.00
	Misc.:					
	T & P (Crow bar, Tommy bar, beater, Rake ballast , hammer etc.)	Lumpsum	9901	1.00	140.00	140.00
	Hire charges for tractor with trolley	Day	0080	1742.00	1.00	1,742.00
						33,369.00

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		333.69
						33,702.69
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		4,735.23
						38,437.92
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		5,765.69
						44,203.61
	Add for Cess @ 1%	Lumpsum	9905	0.01		442.04
	Cost for 1 set	Set				44,645.64
071026	Derailing Switch (Under conditions not requiring Traffic Block).					
	Details of cost for 2 set					
	Labour:					
	Mate (Skilled)	Day	0002	751.00	1.00	751.00
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	1.00	749.00
	Helper (Semi-skilled)	Day	0021	572.00	1.00	572.00
	Waterman (Un-skilled)	Day	0034	547.00	1.00	547.00
	(i) Removing Lead Rails, Switches, Crossing, Fittings and stacking etc.					
	Labour Unskilled	Day	0020	540.00	4.00	2,160.00
	(ii) Removing Sleepers, Transporting & Stacking at store.					
	Labour Unskilled	Day	0020	540.00	3.00	1,620.00
	(iii) Levelling of ballast					
	Labour Unskilled	Day	0020	540.00	3.00	1,620.00
	Misc.:					
	T & P (Crow bar, Tommy bar, beater, Rake ballast, hammer etc.)	Lumpsum	9901	1.00	30.00	30.00
	Hire charges for tractor with trolley	Day	0080	1742.00	0.50	871.00
						8,920.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		89.20
						9,009.20
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		1,265.79
						10,274.99
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		1,541.25
						11,816.24
	Add for Cess @ 1%	Lumpsum	9905	0.01		118.16
	Cost for 2 set					11,934.40
	Cost for 1 set	Set				5,967.20
071030	Dismantling the existing BG Buffer-stop laid with rails & wooden/ST sleepers including leading the dismantled Buffer stop materials to nominated places within station yard limits and stacking as material-wise and classification-wise duly releasing all fittings carefully without causing any damage with all contractor's labour, tools, with all lead and lifts, crossing of tracks if any, etc., complete as directed by the Engineer-in-charge.					
	Details of cost for 4 sets					
	Labour:					
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	1.00	749.00
	Helper (Semi-skilled)	Day	0021	572.00	2.00	1,144.00
	Waterman (Un-skilled)	Day	0034	547.00	1.00	547.00
	Labour Unskilled	Day	0020	540.00	15.00	8,100.00
	(i) Stacking rails, and fittings etc.					
	Labour Unskilled	Day	0020	540.00	4.00	2,160.00
	Misc.:					
	T & P (Crow bar, Tommy bar, beater, Rake ballast, hammer etc.)	Lumpsum	9901	1.00	20.00	20.00
	Hire charges for tractor with trolley	Day	0080	1742.00	1.00	1,742.00
						14,462.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		144.62
						14,606.62
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		2,052.23
						16,658.85
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		2,498.83
						19,157.68

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Add for Cess @ 1%	Lumpsum	9905	0.01		191.58
	Cost for 4 sets					19,349.25
	Rate per set	Set				4,837.31
072000	Assembling, Insertion and laying Works					
072010	Assembling complete BG Turnout on staging , clear of infringements, to correct gauge and alignment as per standard drawings with all types of rail sections over PSC sleepers at specified locations, duly leading rails, special sleepers, switches, crossings with a maximum lead of 500m, all lift & crossing of track as required and testing points with S&T staff for throw of switch etc. at station yard after levelling surface complete including lubrication of all fastenings, complete in all respect. Note: 1. Rail cutting and Drilling shall be paid separately 2. Required P.Way fittings/fastenings shall be supplied at the SSE/P.Way stores.					
072011	1 in 8½ Turnout					
	Details of cost for 1 set					
	Labour:					
	Mate (Skilled)	Day	0002	751.00	1.00	751.00
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	2.00	1,498.00
	Helper (Semi-skilled)	Day	0021	572.00	2.00	1,144.00
	Waterman (Un-skilled)	Day	0034	547.00	1.00	547.00
	(i) Leading of rails, special size PSC sleepers, switches, crossing, fitting, fastenings etc.					
	Labour Unskilled	Day	0020	540.00	16.00	8,640.00
	(ii) Preparing stage for putting new PSC sleepers, Switches, Lead rails, crossings etc.					
	Labour Unskilled	Day	0020	540.00	6.00	3,240.00
	(iii) Fixing fitting & linking of switch, lead, crossing portion etc.					
	Labour Unskilled	Day	0020	540.00	24.00	12,960.00
	Misc.:					
	T & P (Crow bar, Tommy bar, beater, hammer, Rail dolly etc.)	Lumpsum	9901	1.00	130.00	130.00
	Hire charges for tractor with trolley	Day	0080	1742.00	1.00	1,742.00
						30,652.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		306.52
						30,958.52
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		4,349.67
						35,308.19
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		5,296.23
						40,604.42
	Add for Cess @ 1%	Lumpsum	9905	0.01		406.04
	Rate per set	Set				41,010.47
072012	1 in 12 Turnout					
	Details of cost for 1 set					
	Labour:					
	Mate (Skilled)	Day	0002	751.00	1.00	751.00
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	2.00	1,498.00
	Helper (Semi-skilled)	Day	0021	572.00	2.00	1,144.00
	Waterman (Un-skilled)	Day	0034	547.00	1.00	547.00
	(i) Leading of rails, special size PSC sleepers, switches, crossing, fitting, fastenings etc.					
	Labour Unskilled	Day	0020	540.00	16.00	8,640.00
	(ii) Preparing stage for putting new PSC sleepers, Switches, Lead rails, crossings etc.					
	Labour Unskilled	Day	0020	540.00	7.00	3,780.00
	(iii) Fixing fitting & linking of switch, lead, crossing portion etc.					
	Labour Unskilled	Day	0020	540.00	30.00	16,200.00

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Misc.:					
	T & P (Crow bar, Tommy bar, beater, hammer, Rail dolly etc.)	Lumpsum	9901	1.00	150.00	150.00
	Hire charges for tractor with trolley	Day	0080	1742.00	1.00	1,742.00
						34,452.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		344.52
						34,796.52
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		4,888.91
						39,685.43
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		5,952.81
						45,638.25
	Add for Cess @ 1%	Lumpsum	9905	0.01		456.38
	Rate per set	Set				46,094.63
072013	1 in 16 Turnout					
	Details of cost for 1 set					
	Labour:					
	Mate (Skilled)	Day	0002	751.00	1.00	751.00
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	2.00	1,498.00
	Helper (Semi-skilled)	Day	0021	572.00	2.00	1,144.00
	Waterman (Un-skilled)	Day	0034	547.00	1.00	547.00
	(i) Leading of rails, special size PSC sleepers, switches, crossing, fitting, fastenings					
	Labour Unskilled	Day	0020	540.00	16.00	8,640.00
	(ii) Preparing stage for putting new PSC sleepers, Switches, Lead rails, crossings etc.					
	Labour Unskilled	Day	0020	540.00	8.00	4,320.00
	(iii) Fixing fitting & linking of switch, lead, crossing portion etc.					
	Labour Unskilled	Day	0020	540.00	34.00	18,360.00
	Misc.:					
	T & P (Crow bar, Tommy bar, beater, hammer, Rail dolly etc.)	Lumpsum	9901	1.00	160.00	160.00
	Hire charges for tractor with trolley	Day	0080	1742.00	1.00	1,742.00
						37,162.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		371.62
						37,533.62
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		5,273.47
						42,807.09
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		6,421.06
						49,228.16
	Add for Cess @ 1%	Lumpsum	9905	0.01		492.28
	Rate per set	Set				49,720.44
072014	1 in 20 Turnout					
	Details of cost for 1 set					
	Labour:					
	Mate (Skilled)	Day	0002	751.00	1.00	751.00
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	2.00	1,498.00
	Helper (Semi-skilled)	Day	0021	572.00	2.00	1,144.00
	Waterman (Un-skilled)	Day	0034	547.00	1.00	547.00
	(i) Leading of rails, special size PSC sleepers, switches, crossing, fitting, fastenings etc.					
	Labour Unskilled	Day	0020	540.00	16.00	8,640.00
	(ii) Preparing stage for putting new PSC sleepers, Switches, Lead rails, crossings etc.					
	Labour Unskilled	Day	0020	540.00	10.00	5,400.00
	(iii) Fixing fitting & linking of switch, lead, crossing portion etc.					
	Labour Unskilled	Day	0020	540.00	40.00	21,600.00
	Misc.:					
	T & P (Crow bar, Tommy bar, beater, hammer, Rail dolly etc.)	Lumpsum	9901	1.00	180.00	180.00
	Hire charges for tractor with trolley	Day	0080	1742.00	1.00	1,742.00
						41,502.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		415.02

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
						41,917.02
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		5,889.34
						47,806.36
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		7,170.95
						54,977.32
	Add for Cess @ 1%	Lumpsum	9905	0.01		549.77
	Rate per set	Set				55,527.09
072020	Assembling all types of Switches on staging, clear of infringements, to correct gauge and alignment as per standard drawings with all types of rail sections over PSC sleepers at specified locations, duly leading rails, special sleepers, switches with a maximum lead of 500m, all lift & crossing of track as required including cutting, drilling, fixing of all components, fittings etc. with housing of tongue rails as per requirement of signaling including lubrication of fittings/fastenings, complete in all respect. Note: Required P.Way fittings shall be supplied at SSE/P.Way stores.					
072021	1 in 8½ Turnouts					
	Details of cost for 1 set					
	Material:					
	Drill twist made of high speed steel for size 26.5mm dia of Addison / I T make	Each	0462	2517.00	0.50	1,258.50
	High Speed Hacksaw Blade of size 300mm x 12.5mm x 0.63mm (18TPI) as per as per RDSO's Spec. no. TM/SM/26 (latest Rev.)	Each	0453	182.00	0.50	91.00
	Normal unleaded Petrol	Litre	0180	108.00	0.50	54.00
	Kerosene Oil	Litre	0183	63.00	3.00	189.00
	Labour:					
	(i)preparation of staging, leading rails, sleepers and fittings and assembling of switch including rail cutting and hole drilling					
	Mate (Skilled)	Day	0002	751.00	0.50	375.50
	Waterman (Un-skilled)	Day	0034	547.00	1.00	547.00
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	1.00	749.00
	Helper (Semi-skilled)	Day	0021	572.00	1.00	572.00
	Labour Unskilled	Day	0020	540.00	18.00	9,720.00
	Misc.:					
	T & P (Crow bar, Spanner, Hammer, Rail Tongue, Pan iron mortar etc.)	Lumpsum	9901	1.00	80.00	80.00
	Hire charges of Rail Drill Machine	Day	0134	442.00	0.50	221.00
	Hire charges of Rail Cutting Machine	Day	0139	633.00	0.50	316.50
						14,173.50
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		141.74
						14,315.24
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		2,011.29
						16,326.53
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		2,448.98
						18,775.50
	Add for Cess @ 1%	Lumpsum	9905	0.01		187.76
	Cost for 1 set					18,963.26
	Rate per set	Set				18,963.26
072022	1 in 12 Turnouts					
	Details of cost for 1 set					
	Material:					
	Drill twist made of high speed steel for size 26.5mm dia of Addison / I T make	Each	0462	2517.00	0.50	1,258.50
	High Speed Hacksaw Blade of size 300mm x 12.5mm x 0.63mm (18TPI) as per as per RDSO's Spec. no. TM/SM/26 (latest Rev.)	Each	0453	182.00	0.50	91.00
	Normal unleaded Petrol	Litre	0180	108.00	0.50	54.00
	Kerosene Oil	Litre	0183	63.00	3.00	189.00
	Labour:					
	(i)preparation of staging, leading rails, sleepers and fittings and assembling of switch including rail cutting and hole drilling					
	Mate (Skilled)	Day	0002	751.00	0.50	375.50

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Waterman (Un-skilled)	Day	0034	547.00	1.00	547.00
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	1.00	749.00
	Helper (Semi-skilled)	Day	0021	572.00	1.00	572.00
	Labour Unskilled	Day	0020	540.00	22.00	11,880.00
	Misc.:					
	T & P (Crow bar, Spanner, Hammer, Rail Tongue, Pan iron mortar etc.)	Lumpsum	9901	1.00	90.00	90.00
	Hire charges of Rail Drill Machine	Day	0134	442.00	0.50	221.00
	Hire charges of Rail Cutting Machine	Day	0139	633.00	0.50	316.50
						16,343.50
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		163.44
						16,506.94
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		2,319.22
						18,826.16
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		2,823.92
						21,650.08
	Add for Cess @ 1%	Lumpsum	9905	0.01		216.50
	Rate per set	Set				21,866.58
072023	1 in 16 Turnouts					
	Details of cost for 1 set					
	Material:					
	Drill twist made of high speed steel for size 26.5mm dia of Addison / I T make	Each	0462	2517.00	0.50	1,258.50
	High Speed Hacksaw Blade of size 300mm x 12.5mm x 0.63mm (18TPI) as per as per RDSO's Spec. no. TM/SM/26 (latest Rev.)	Each	0453	182.00	0.50	91.00
	Normal unleaded Petrol	Litre	0180	108.00	0.50	54.00
	Kerosene Oil	Litre	0183	63.00	3.00	189.00
	Labour:					
	(i)preparation of staging, leading rails, sleepers and fittings and assembling of switch including rail cutting and hole drilling					
	Mate (Skilled)	Day	0002	751.00	1.00	751.00
	Waterman (Un-skilled)	Day	0034	547.00	1.00	547.00
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	1.00	749.00
	Helper (Semi-skilled)	Day	0021	572.00	1.00	572.00
	Labour Unskilled	Day	0020	540.00	24.00	12,960.00
	Misc.:					
	T & P (Crow bar, Spanner, Hammer, Rail Tongue, Pan iron mortar etc.)	Lumpsum	9901	1.00	100.00	100.00
	Hire charges of Rail Drill Machine	Day	0134	442.00	0.50	221.00
	Hire charges of Rail Cutting Machine	Day	0139	633.00	0.50	316.50
						17,809.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		178.09
						17,987.09
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		2,527.19
						20,514.28
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		3,077.14
						23,591.42
	Add for Cess @ 1%	Lumpsum	9905	0.01		235.91
	Rate per set	Set				23,827.33
072024	1 in 20 Turnouts					
	Details of cost for 1 set					
	Material:					
	Drill twist made of high speed steel for size 26.5mm dia of Addison / I T make	Each	0462	2517.00	0.50	1,258.50
	High Speed Hacksaw Blade of size 300mm x 12.5mm x 0.63mm (18TPI) as per as per RDSO's Spec. no. TM/SM/26 (latest Rev.)	Each	0453	182.00	0.50	91.00
	Normal unleaded Petrol	Litre	0180	108.00	0.50	54.00
	Kerosene Oil	Litre	0183	63.00	3.00	189.00
	Labour:					
	(i)preparation of staging, leading rails, sleepers and fittings and assembling of switch including rail cutting and hole drilling					
	Mate (Skilled)	Day	0002	751.00	1.00	751.00

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Waterman (Un-skilled)	Day	0034	547.00	1.00	547.00
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	1.00	749.00
	Helper (Semi-skilled)	Day	0021	572.00	1.00	572.00
	Labour Unskilled	Day	0020	540.00	26.00	14,040.00
	Misc.:					
	T & P (Crow bar, Spanner, Hammer, Rail Tongue, Pan iron mortar etc.)	Lumpsum	9901	1.00	105.00	105.00
	Hire charges of Rail Drill Machine	Day	0134	442.00	0.50	221.00
	Hire charges of Rail Cutting Machine	Day	0139	633.00	0.50	316.50
						18,894.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		188.94
						19,082.94
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		2,681.15
						21,764.09
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		3,264.61
						25,028.71
	Add for Cess @ 1%	Lumpsum	9905	0.01		250.29
	Rate per set	Set				25,278.99
072025	Derailing Switch					
	Details of cost for 2 set					
	Material:					
	Drill twist made of high speed steel for size 26.5mm dia of Addison / I T make	Each	0462	2517.00	0.25	629.25
	High Speed Hacksaw Blade of size 300mm x 12.5mm x 0.63mm (18TPI) as per as per RDSO's Spec. no. TM/SM/26 (latest Rev.)	Each	0453	182.00	0.25	45.50
	Normal unleaded Petrol	Litre	0180	108.00	0.50	54.00
	Kerosene Oil	Litre	0183	63.00	2.50	157.50
	Labour:					
	(i)preparation of staging, leading rails, sleepers and fittings and assembling of switch including rail cutting and hole drilling					
	Mate (Skilled)	Day	0002	751.00	0.50	375.50
	Waterman (Un-skilled)	Day	0034	547.00	0.50	273.50
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	0.50	374.50
	Helper (Semi-skilled)	Day	0021	572.00	0.50	286.00
	Labour Unskilled	Day	0020	540.00	20.00	10,800.00
	Misc.:					
	T & P (Crow bar, Spanner, Hammer, Rail Tongue, Pan iron mortar etc.)	Lumpsum	9901	1.00	60.00	60.00
	Hire charges of Rail Drill Machine	Day	0134	442.00	0.25	110.50
	Hire charges of Rail Cutting Machine	Day	0139	633.00	0.25	158.25
						13,324.50
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		133.25
						13,457.75
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		1,890.81
						15,348.56
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		2,302.28
						17,650.84
	Add for Cess @ 1%	Lumpsum	9905	0.01		176.51
	Cost for 2 set					17,827.35
	Rate per set	Set				8,913.68

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
072030	Assembling on temporary staging and insertion of all types of turnouts including diamond crossings and derailing switches on prepared ballast bed during traffic block, manually or by contractor's cranes, at specified location with 52Kg / 60Kg rail section on PSC sleepers with Railways rails/sleepers available anywhere within 500m as per standard drawing, duly leading sleepers, rails, switches, crossings, fastenings etc. including rail cutting, drilling, fixing of all components, fittings etc. with housing of tongue rails as per requirement of signaling including crossing of track, filling and spreading of ballast in crib and shoulder as required, linking of turnout with existing track, attending track parameters including lifting, providing one round of packing to make track fit for 20 kmph speed including lubrication of fittings/fastenings, complete in all respect and as directed by Engineer in-charge. Note: Required P.Way fittings shall be supplied at the SSE/P.Way stores.					
072031	1 in 8½ Turnouts					
	Details of cost for 1 set					
	Material:					
	Drill twist made of high speed steel for size 26.5mm dia of Addison / I T make	Each	0462	2517.00	1.00	2,517.00
	High Speed Hacksaw Blade of size 300mm x 12.5mm x 0.63mm (18TPI) as per as per RDSO's Spec. no. TM/SM/26 (latest Rev.)	Each	0453	182.00	1.00	182.00
	Normal unleaded Petrol	Litre	0180	108.00	1.00	108.00
	Kerosene Oil	Litre	0183	63.00	5.00	315.00
	Labour:					
	Mate (Skilled)	Day	0002	751.00	2.00	1,502.00
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	2.00	1,498.00
	Helper (Semi-skilled)	Day	0021	572.00	2.00	1,144.00
	Look Out Man (Un-skilled)	Day	0033	547.00	1.00	547.00
	Waterman (Un-skilled)	Day	0034	547.00	1.00	547.00
	(i) Leading of sleepers, switches, rails, crossings and fittings					
	Labour Unskilled	Day	0020	540.00	16.00	8,640.00
	(ii) Preparing stage for assembling turnout					
	Labour Unskilled	Day	0020	540.00	6.00	3,240.00
	(iii) Linking of switch, lead and crossing portion on stage					
	Labour Unskilled	Day	0020	540.00	16.00	8,640.00
	(iv) Filling of ballast in crib and shoulder portion					
	Labour Unskilled	Day	0020	540.00	4.00	2,160.00
	(v) Insertion of assembled Turnout					
	Labour Unskilled	Day	0020	540.00	12.00	6,480.00
	(vi) Linking of Track and initial packing					
	Labour Unskilled	Day	0020	540.00	8.00	4,320.00
	Misc.:					
	T & P (Crow bar, Spanner, Hammer, Rail Tongue, Pan iron mortar etc.)	Lumpsum	9901	1.00	200.00	200.00
	Hire charges for tractor with trolley	Day	0080	1742.00	1.00	1,742.00
	Hire charges of Rail Drill Machine	Day	0134	442.00	0.50	221.00
	Hire charges of Rail Cutting Machine	Day	0139	633.00	0.50	316.50
						44,319.50
	Add for working under traffic block @ 5%	Lumpsum	9991	0.05		2,215.98
						46,535.48
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		465.35
						47,000.83
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		6,603.62
						53,604.45
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		8,040.67
						61,645.11
	Add for Cess @ 1%	Lumpsum	9905	0.01		616.45
	Rate per set	Set				62,261.56
072032	1 in 12 Turnouts					
	Details of cost for 1 set					
	Material:					
	Drill twist made of high speed steel for size 26.5mm dia of Addison / I T make	Each	0462	2517.00	1.00	2,517.00

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	High Speed Hacksaw Blade of size 300mm x 12.5mm x 0.63mm (18TPI) as per as per RDSO's Spec. no. TM/SM/26 (latest Rev.)	Each	0453	182.00	1.00	182.00
	Normal unleaded Petrol	Litre	0180	108.00	1.25	135.00
	Kerosene Oil	Litre	0183	63.00	5.50	346.50
	Labour:					
	Mate (Skilled)	Day	0002	751.00	2.00	1,502.00
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	2.00	1,498.00
	Helper (Semi-skilled)	Day	0021	572.00	2.00	1,144.00
	Look Out Man (Un-skilled)	Day	0033	547.00	1.00	547.00
	Waterman (Un-skilled)	Day	0034	547.00	1.00	547.00
	(i) Leading of sleepers, switches, rails, crossings and fittings					
	Labour Unskilled	Day	0020	540.00	18.00	9,720.00
	(ii) Preparing stage for assembling turnout					
	Labour Unskilled	Day	0020	540.00	7.00	3,780.00
	(iii) Linking of switch, lead and crossing portion on stage					
	Labour Unskilled	Day	0020	540.00	20.00	10,800.00
	(iv) Filling of ballast in crib and shoulder portion					
	Labour Unskilled	Day	0020	540.00	5.00	2,700.00
	(v) Insertion of assembled Turnout					
	Labour Unskilled	Day	0020	540.00	14.00	7,560.00
	(vi) Linking of Track and initial packing					
	Labour Unskilled	Day	0020	540.00	11.00	5,940.00
	Misc.:					
	T & P (Crow bar, Spanner, Hammer, Rail Tongue, Pan iron mortar etc.)	Lumpsum	9901	1.00	250.00	250.00
	Hire charges for tractor with trolley	Day	0080	1742.00	1.00	1,742.00
	Hire charges of Rail Drill Machine	Day	0134	442.00	0.50	221.00
	Hire charges of Rail Cutting Machine	Day	0139	633.00	0.50	316.50
						51,448.00
	Add for working under traffic block @ 5%	Lumpsum	9991	0.05		2,572.40
						54,020.40
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		540.20
						54,560.60
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		7,665.76
						62,226.37
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		9,333.96
						71,560.32
	Add for Cess @ 1%	Lumpsum	9905	0.01		715.60
	Rate per set	Set				72,275.93
072033	1 in 16 Turnouts					
	Details of cost for 1 set					
	Material:					
	Drill twist made of high speed steel for size 26.5mm dia of Addison / I T make	Each	0462	2517.00	1.25	3,146.25
	High Speed Hacksaw Blade of size 300mm x 12.5mm x 0.63mm (18TPI) as per as per RDSO's Spec. no. TM/SM/26 (latest Rev.)	Each	0453	182.00	1.50	273.00
	Normal unleaded Petrol	Litre	0180	108.00	1.50	162.00
	Kerosene Oil	Litre	0183	63.00	6.00	378.00
	Labour:					
	Mate (Skilled)	Day	0002	751.00	2.00	1,502.00
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	2.00	1,498.00
	Helper (Semi-skilled)	Day	0021	572.00	2.00	1,144.00
	Look Out Man (Un-skilled)	Day	0033	547.00	1.00	547.00
	Waterman (Un-skilled)	Day	0034	547.00	1.00	547.00
	(i) Leading of sleepers, switches, rails, crossings and fittings					
	Labour Unskilled	Day	0020	540.00	20.00	10,800.00
	(ii) Preparing stage for assembling turnout					
	Labour Unskilled	Day	0020	540.00	10.00	5,400.00
	(iii) Linking of switch, lead and crossing portion on stage					
	Labour Unskilled	Day	0020	540.00	21.00	11,340.00

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	(iv) Filling of ballast in crib and shoulder portion					
	Labour Unskilled	Day	0020	540.00	6.00	3,240.00
	(v) Insertion of assembled Turnout					
	Labour Unskilled	Day	0020	540.00	15.00	8,100.00
	(vi) Linking of Track and initial packing					
	Labour Unskilled	Day	0020	540.00	12.00	6,480.00
	Misc.:					
	T & P (Crow bar, Spanner, Hammer, Rail Tongue, Pan iron mortar etc.)	Lumpsum	9901	1.00	275.00	275.00
	Hire charges for tractor with trolley	Day	0080	1742.00	1.00	1,742.00
	Hire charges of Rail Drill Machine	Day	0134	442.00	0.50	221.00
	Hire charges of Rail Cutting Machine	Day	0139	633.00	0.50	316.50
						57,111.75
	Add for working under traffic block @ 5%	Lumpsum	9991	0.05		2,855.59
						59,967.34
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		599.67
						60,567.01
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		8,509.67
						69,076.68
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		10,361.50
						79,438.18
	Add for Cess @ 1%	Lumpsum	9905	0.01		794.38
	Rate per set	Set				80,232.56
072034	1 in 20 Turnouts					
	Details of cost for 1 set					
	Material:					
	Drill twist made of high speed steel for size 26.5mm dia of Addison / I T make	Each	0462	2517.00	1.50	3,775.50
	High Speed Hacksaw Blade of size 300mm x 12.5mm x 0.63mm (18TPI) as per as per RDSO's Spec. no. TM/SM/26 (latest Rev.)	Each	0453	182.00	2.00	364.00
	Normal unleaded Petrol	Litre	0180	108.00	1.75	189.00
	Kerosene Oil	Litre	0183	63.00	6.50	409.50
	Labour:					
	Mate (Skilled)	Day	0002	751.00	2.00	1,502.00
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	2.00	1,498.00
	Helper (Semi-skilled)	Day	0021	572.00	2.00	1,144.00
	Look Out Man (Un-skilled)	Day	0033	547.00	1.00	547.00
	Waterman (Un-skilled)	Day	0034	547.00	1.00	547.00
	(i) Leading of sleepers, switches, rails, crossings and fittings					
	Labour Unskilled	Day	0020	540.00	21.00	11,340.00
	(ii) Preparing stage for assembling turnout					
	Labour Unskilled	Day	0020	540.00	13.00	7,020.00
	(iii) Linking of switch, lead and crossing portion on stage					
	Labour Unskilled	Day	0020	540.00	24.00	12,960.00
	(iv) Filling of ballast in crib and shoulder portion					
	Labour Unskilled	Day	0020	540.00	7.00	3,780.00
	(v) Insertion of assembled Turnout					
	Labour Unskilled	Day	0020	540.00	15.00	8,100.00
	(vi) Linking of Track and initial packing					
	Labour Unskilled	Day	0020	540.00	14.00	7,560.00
	Misc.:					
	T & P (Crow bar, Spanner, Hammer, Rail Tongue, Pan iron mortar etc.)	Lumpsum	9901	1.00	275.00	275.00
	Hire charges for tractor with trolley	Day	0080	1742.00	1.00	1,742.00
	Hire charges of Rail Drill Machine	Day	0134	442.00	0.50	221.00
	Hire charges of Rail Cutting Machine	Day	0139	633.00	0.50	316.50
						63,290.50
	Add for working under traffic block @ 5%	Lumpsum	9991	0.05		3,164.53
						66,455.03
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		664.55
						67,119.58

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		9,430.30
						76,549.88
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		11,482.48
						88,032.36
	Add for Cess @ 1%	Lumpsum	9905	0.01		880.32
	Rate per set	Set				88,912.68
072035	Diamond Crossing					
	Details of cost for 1 set					
	Material:					
	Drill twist made of high speed steel for size 26.5mm dia of Addison / I T make	Each	0462	2517.00	1.50	3,775.50
	High Speed Hacksaw Blade of size 300mm x 12.5mm x 0.63mm (18TPI) as per as per RDSO's Spec. no. TM/SM/26 (latest Rev.)	Each	0453	182.00	2.00	364.00
	Normal unleaded Petrol	Litre	0180	108.00	1.75	189.00
	Kerosene Oil	Litre	0183	63.00	6.50	409.50
	Labour:					
	Mate (Skilled)	Day	0002	751.00	2.00	1,502.00
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	2.00	1,498.00
	Helper (Semi-skilled)	Day	0021	572.00	2.00	1,144.00
	Look Out Man (Un-skilled)	Day	0033	547.00	1.00	547.00
	Waterman (Un-skilled)	Day	0034	547.00	1.00	547.00
	(i) Leading of sleepers, rails, crossings and fittings					
	Labour Unskilled	Day	0020	540.00	22.00	11,880.00
	(ii) Preparing stage for assembling diamond					
	Labour Unskilled	Day	0020	540.00	14.00	7,560.00
	(iii) Linking of diamond on stage					
	Labour Unskilled	Day	0020	540.00	24.00	12,960.00
	(iv) Filling of ballast in crib and shoulder portion					
	Labour Unskilled	Day	0020	540.00	8.00	4,320.00
	(v) Insertion of Diamond					
	Labour Unskilled	Day	0020	540.00	15.00	8,100.00
	(vi) Linking of Track and initial packing					
	Labour Unskilled	Day	0020	540.00	16.00	8,640.00
	Misc.:					
	T & P (Crow bar, Spanner, Hammer, Rail Tongue, Pan iron mortar etc.)	Lumpsum	9901	1.00	300.00	300.00
	Hire charges for tractor with trolley	Day	0080	1742.00	1.00	1,742.00
	Hire charges of Rail Drill Machine	Day	0134	442.00	0.50	221.00
	Hire charges of Rail Cutting Machine	Day	0139	633.00	0.50	316.50
						66,015.50
	Add for working under traffic block @ 5%	Lumpsum	9991	0.05		3,300.78
						69,316.28
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		693.16
						70,009.44
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		9,836.33
						79,845.76
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		11,976.86
						91,822.63
	Add for Cess @ 1%	Lumpsum	9905	0.01		918.23
	Rate per set	Set				92,740.85
072036	Derailing Switch					
	Details of cost for 2 sets					
	Material:					
	Drill twist made of high speed steel for size 26.5mm dia of Addison / I T make	Each	0462	2517.00	0.25	629.25
	High Speed Hacksaw Blade of size 300mm x 12.5mm x 0.63mm (18TPI) as per as per RDSO's Spec. no. TM/SM/26 (latest Rev.)	Each	0453	182.00	0.25	45.50
	Normal unleaded Petrol	Litre	0180	108.00	0.25	27.00
	Kerosene Oil	Litre	0183	63.00	1.00	63.00
	Labour:					
	Mate (Skilled)	Day	0002	751.00	1.00	751.00

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	1.00	749.00
	Helper (Semi-skilled)	Day	0021	572.00	1.00	572.00
	Look Out Man (Un-skilled)	Day	0033	547.00	1.00	547.00
	Waterman (Un-skilled)	Day	0034	547.00	1.00	547.00
	(i) Leading of sleepers, switches, rails, crossings and fittings					
	Labour Unskilled	Day	0020	540.00	6.00	3,240.00
	(ii) Preparing stage for assembling turnout					
	Labour Unskilled	Day	0020	540.00	6.00	3,240.00
	(iii) Linking of switch, lead and crossing portion on stage					
	Labour Unskilled	Day	0020	540.00	6.00	3,240.00
	(iv) Filling of ballast in crib and shoulder portion					
	Labour Unskilled	Day	0020	540.00	2.00	1,080.00
	(v) Insertion of assembled Turnout					
	Labour Unskilled	Day	0020	540.00	6.00	3,240.00
	(vi) Linking of Track and initial packing					
	Labour Unskilled	Day	0020	540.00	6.00	3,240.00
	Misc.:					
	T & P (Crow bar, Spanner, Hammer, Rail Tongue, Pan iron mortar etc.)	Lumpsum	9901	1.00	50.00	50.00
	Hire charges for tractor with trolley	Day	0080	1742.00	0.25	435.50
	Hire charges of Rail Drill Machine	Day	0134	442.00	0.25	110.50
	Hire charges of Rail Cutting Machine	Day	0139	633.00	0.25	158.25
						21,965.00
	Add for working under traffic block @ 5%	Lumpsum	9991	0.05		1,098.25
						23,063.25
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		230.63
						23,293.88
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		3,272.79
						26,566.67
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		3,985.00
						30,551.67
	Add for Cess @ 1%	Lumpsum	9905	0.01		305.52
	Cost for 2 sets					30,857.19
	Rate per set	Set				15,428.60
072040	Laying and linking of turnouts of all types including diamond crossings & Derailing switches with 52Kg / 60Kg rail section on PSC sleepers on prepared ballast bed for New lines or during total closure of section at indicated location as per standard drawing, duly leading sleepers, rails, switches, crossings, fastenings including rail cutting, drilling, fixing of all components, fittings with housing of tongue rails as per requirement of signaling, preparing ballast bed, filling and spreading of ballast as required, linking of turnout with track, attending track parameters including lifting, providing one round of packing to make track fit for 20 kmph speed including lubrication of fittings/fastenings, complete as directed by Engineer in-charge.					
072041	1 in 8½ Turnouts					
	Details of cost for 1 set					
	Material:					
	Drill twist made of high speed steel for size 26.5mm dia of Addison / I T make	Each	0462	2517.00	1.00	2,517.00
	High Speed Hacksaw Blade of size 300mm x 12.5mm x 0.63mm (18TPI) as per as per RDSO's Spec. no. TM/SM/26 (latest Rev.)	Each	0453	182.00	1.00	182.00
	Normal unleaded Petrol	Litre	0180	108.00	1.00	108.00
	Kerosene Oil	Litre	0183	63.00	5.00	315.00
	Labour:					
	Mate (Skilled)	Day	0002	751.00	2.00	1,502.00
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	2.00	1,498.00
	Helper (Semi-skilled)	Day	0021	572.00	2.00	1,144.00
	Waterman (Un-skilled)	Day	0034	547.00	1.00	547.00
	(i) Leading of sleepers, switches, rails, crossings and fittings					
	Labour Unskilled	Day	0020	540.00	16.00	8,640.00

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	(ii) Linking of switch, lead and crossing portion on stage					
	Labour Unskilled	Day	0020	540.00	16.00	8,640.00
	(iii) Filling ballast in crib and shoulder for initial packing					
	Labour Unskilled	Day	0020	540.00	4.00	2,160.00
	(iv) Linking of Track and initial packing					
	Labour Unskilled	Day	0020	540.00	8.00	4,320.00
	Misc :					
	T & P (Crow bar, Spanner, Hammer, Rail Tongue, Pan iron mortar etc.)	Lumpsum	9901	1.00	200.00	200.00
	Hire charges for tractor with trolley	Day	0080	1742.00	1.00	1,742.00
	Hire charges of Rail Drill Machine	Day	0134	442.00	1.00	442.00
	Hire charges of Rail Cutting Machine	Day	0139	633.00	1.00	633.00
						34,590.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		345.90
						34,935.90
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		4,908.49
						39,844.39
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		5,976.66
						45,821.05
	Add for Cess @ 1%	Lumpsum	9905	0.01		458.21
	Cost for 1 set	Set				46,279.26
072042	1 in 12 Turnouts					
	Details of cost for 1 set					
	Material:					
	Drill twist made of high speed steel for size 26.5mm dia of Addison / I T make	Each	0462	2517.00	1.00	2,517.00
	High Speed Hacksaw Blade of size 300mm x 12.5mm x 0.63mm (18TPI) as per as per RDSO's Spec. no. TM/SM/26 (latest Rev.)	Each	0453	182.00	1.00	182.00
	Normal unleaded Petrol	Litre	0180	108.00	1.25	135.00
	Kerosene Oil	Litre	0183	63.00	5.50	346.50
	Labour:					
	Mate (Skilled)	Day	0002	751.00	2.00	1,502.00
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	2.00	1,498.00
	Helper (Semi-skilled)	Day	0021	572.00	2.00	1,144.00
	Waterman (Un-skilled)	Day	0034	547.00	1.00	547.00
	(i) Leading of sleepers, switches, rails, crossings and fittings					
	Labour Unskilled	Day	0020	540.00	18.00	9,720.00
	(ii) Linking of switch, lead and crossing portion on stage					
	Labour Unskilled	Day	0020	540.00	20.00	10,800.00
	(iii) Filling ballast in crib and shoulder for initial packing					
	Labour Unskilled	Day	0020	540.00	6.00	3,240.00
	(iv) Linking of Track and initial packing					
	Labour Unskilled	Day	0020	540.00	11.00	5,940.00
	Misc.:					
	T & P (Crow bar, Spanner, Hammer, Rail Tongue, Pan iron mortar etc.)	Lumpsum	9901	1.00	250.00	250.00
	Hire charges for tractor with trolley	Day	0080	1742.00	1.00	1,742.00
	Hire charges of Rail Drill Machine	Day	0134	442.00	0.50	221.00
	Hire charges of Rail Cutting Machine	Day	0139	633.00	0.50	316.50
						40,101.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		401.01
						40,502.01
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		5,690.53
						46,192.54
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		6,928.88
						53,121.42
	Add for Cess @ 1%	Lumpsum	9905	0.01		531.21
	Rate per set	Set				53,652.64
072043	1 in 16 Turnouts					
	Details of cost for 1 set					

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Material:					
	Drill twist made of high speed steel for size 26.5mm dia of Addison / I T make	Each	0462	2517.00	1.25	3,146.25
	High Speed Hacksaw Blade of size 300mm x 12.5mm x 0.63mm (18TPI) as per as per RDSO's Spec. no. TM/SM/26 (latest Rev.)	Each	0453	182.00	1.50	273.00
	Normal unleaded Petrol	Litre	0180	108.00	1.50	162.00
	Kerosene Oil	Litre	0183	63.00	6.00	378.00
	Labour:					
	Mate (Skilled)	Day	0002	751.00	2.00	1,502.00
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	2.00	1,498.00
	Helper (Semi-skilled)	Day	0021	572.00	2.00	1,144.00
	Waterman (Un-skilled)	Day	0034	547.00	1.00	547.00
	(i) Leading of sleepers, switches, rails, crossings and fittings					
	Labour Unskilled	Day	0020	540.00	20.00	10,800.00
	(ii) Linking of switch, lead and crossing portion on stage					
	Labour Unskilled	Day	0020	540.00	21.00	11,340.00
	(iii) Filling ballast in crib and shoulder for initial packing					
	Labour Unskilled	Day	0020	540.00	7.00	3,780.00
	(iv) Linking of Track and initial packing					
	Labour Unskilled	Day	0020	540.00	12.00	6,480.00
	Misc.:					
	T & P (Crow bar, Spanner, Hammer, Rail Tongue, Pan iron mortar etc.)	Lumpsum	9901	1.00	275.00	275.00
	Hire charges for tractor with trolley	Day	0080	1742.00	1.00	1,200.00
	Hire charges of Rail Drill Machine	Day	0134	442.00	0.50	150.00
	Hire charges of Rail Cutting Machine	Day	0139	633.00	0.50	150.00
						42,825.25
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		428.25
						43,253.50
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		6,077.12
						49,330.62
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		7,399.59
						56,730.21
	Add for Cess @ 1%	Lumpsum	9905	0.01		567.30
	Rate per set	Set				57,297.51
072044	1 in 20 Turnouts					
	Details of cost for 1 set					
	Material:					
	Drill twist made of high speed steel for size 26.5mm dia of Addison / I T make	Each	0462	2517.00	1.50	3,775.50
	High Speed Hacksaw Blade of size 300mm x 12.5mm x 0.63mm (18TPI) as per as per RDSO's Spec. no. TM/SM/26 (latest Rev.)	Each	0453	182.00	2.00	364.00
	Normal unleaded Petrol	Litre	0180	108.00	1.75	189.00
	Kerosene Oil	Litre	0183	63.00	6.50	409.50
	Labour:					
	Mate (Skilled)	Day	0002	751.00	2.00	1,502.00
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	2.00	1,498.00
	Helper (Semi-skilled)	Day	0021	572.00	2.00	1,144.00
	Waterman (Un-skilled)	Day	0034	547.00	1.00	547.00
	(i) Leading of sleepers, switches, rails, crossings and fittings					
	Labour Unskilled	Day	0020	540.00	21.00	11,340.00
	(ii) Linking of switch, lead and crossing portion on stage					
	Labour Unskilled	Day	0020	540.00	24.00	12,960.00
	(iii) Filling ballast in crib and shoulder for initial packing					
	Labour Unskilled	Day	0020	540.00	7.00	3,780.00
	(iv) Linking of Track and initial packing					
	Labour Unskilled	Day	0020	540.00	14.00	7,560.00
	Misc.:					
	T & P (Crow bar, Spanner, Hammer, Rail Tongue, Pan iron mortar etc.)	Lumpsum	9901	1.00	275.00	275.00
	Hire charges for tractor with trolley	Day	0080	1742.00	1.00	1,200.00
	Hire charges of Rail Drill Machine	Day	0134	442.00	0.50	150.00

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Hire charges of Rail Cutting Machine	Day	0139	633.00	0.50	150.00
						46,844.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		468.44
						47,312.44
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		6,647.40
						53,959.84
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		8,093.98
						62,053.81
	Add for Cess @ 1%	Lumpsum	9905	0.01		620.54
	Rate per set	Set				62,674.35
072045	Diamond Crossing					
	Details of cost for 1 set					
	Material:					
	Drill twist made of high speed steel for size 26.5mm dia of Addison / I T make	Each	0462	2517.00	1.50	3,775.50
	High Speed Hacksaw Blade of size 300mm x 12.5mm x 0.63mm (18TPI) as per as per RDSO's Spec. no. TM/SM/26 (latest Rev.)	Each	0453	182.00	2.00	364.00
	Normal unleaded Petrol	Litre	0180	108.00	1.75	189.00
	Kerosene Oil	Litre	0183	63.00	6.50	409.50
	Labour:					
	Mate (Skilled)	Day	0002	751.00	2.00	1,502.00
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	2.00	1,498.00
	Helper (Semi-skilled)	Day	0021	572.00	2.00	1,144.00
	Waterman (Un-skilled)	Day	0034	547.00	1.00	547.00
	(i) Leading of sleepers, switches, rails, crossings and fittings					
	Labour Unskilled	Day	0020	540.00	22.00	11,880.00
	(ii) Linking of switch, lead and crossing portion on stage					
	Labour Unskilled	Day	0020	540.00	24.00	12,960.00
	(iii) Filling ballast in crib and shoulder for initial packing					
	Labour Unskilled	Day	0020	540.00	8.00	4,320.00
	(iv) Linking of Track and initial packing					
	Labour Unskilled	Day	0020	540.00	16.00	8,640.00
	Misc.:					
	T & P (Crow bar, Spanner, Hammer, Rail Tongue, Pan iron mortar etc.)	Lumpsum	9901	1.00	300.00	300.00
	Hire charges for tractor with trolley	Day	0080	1742.00	1.00	1,742.00
	Hire charges of Rail Drill Machine	Day	0134	442.00	0.50	221.00
	Hire charges of Rail Cutting Machine	Day	0139	633.00	0.50	316.50
						49,808.50
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		498.09
						50,306.59
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		7,068.08
						57,374.66
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		8,606.20
						65,980.86
	Add for Cess @ 1%	Lumpsum	9905	0.01		659.81
	Rate per set	Set				66,640.67
072046	Derailing Switch					
	Details of cost for 2 sets					
	Material:					
	Drill twist made of high speed steel for size 26.5mm dia of Addison / I T make	Each	0462	2517.00	0.25	629.25
	High Speed Hacksaw Blade of size 300mm x 12.5mm x 0.63mm (18TPI) as per as per RDSO's Spec. no. TM/SM/26 (latest Rev.)	Each	0453	182.00	0.25	45.50
	Normal unleaded Petrol	Litre	0180	108.00	0.25	27.00
	Kerosene Oil	Litre	0183	63.00	1.00	63.00
	Labour:					
	Mate (Skilled)	Day	0002	751.00	1.00	751.00
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	1.00	749.00
	Helper (Semi-skilled)	Day	0021	572.00	1.00	572.00
	Waterman (Un-skilled)	Day	0034	547.00	1.00	547.00

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	(i) Leading of sleepers, switches, rails, crossings and fittings					
	Labour Unskilled	Day	0020	540.00	6.00	3,240.00
	(ii) Linking of switch, lead and crossing portion on stage					
	Labour Unskilled	Day	0020	540.00	6.00	3,240.00
	(iii) Filling ballast in crib and shoulder for initial packing					
	Labour Unskilled	Day	0020	540.00	3.00	1,620.00
	(iv) Linking of Track and initial packing					
	Labour Unskilled	Day	0020	540.00	6.00	3,240.00
	Misc.:					
	T & P (Crow bar, Spanner, Hammer, Rail Tongue, Pan iron mortar etc.)	Lumpsum	9901	1.00	50.00	50.00
	Hire charges for tractor with trolley	Day	0080	1742.00	0.25	435.50
	Hire charges of Rail Drill Machine	Day	0134	442.00	0.25	110.50
	Hire charges of Rail Cutting Machine	Day	0139	633.00	0.25	158.25
						15,478.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		154.78
						15,632.78
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		2,196.41
						17,829.19
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		2,674.38
						20,503.56
	Add for Cess @ 1%	Lumpsum	9905	0.01		205.04
	Cost for 2 sets					20,708.60
	Rate per set	Set				10,354.30
072050	Laying and linking all types of turnouts, diamond crossings and Derailing switches with 52Kg / 60Kg rail section on PSC sleepers on ballast bed, prepared after dismantling & removal of existing turnout/normal line during TTR/yard remodeling under traffic block, as per standard drawing, duly leading sleepers, rails, switches, crossings, fastenings including rail cutting, drilling, fixing of all components, fittings with housing of tongue rails as per requirement of signaling, preparing ballast bed, filling and spreading of ballast as required, linking of turnout with track, attending track parameters including lifting, providing one round of packing to make track fit for 20 kmph speed including lubrication of fittings/fastening, complete as directed by Engineer-in-charge. Note: Payment for dismantling & removal of existing turnout/normal line, transportation/stacking of released material and preparing of ballast bed is not included in this item and shall be paid under relevant item.					
072051	1 in 8½ Turnouts					
	Considering 10% additional for working under block over similar items where there is no need of traffic block					
	Rate per set	Set	072041	46279.26	1.10	50,907.19
072052	1 in 12 Turnouts					
	Considering 10% additional for working under block over similar items where there is no need of traffic block					
	Rate per set	Set	072042	53652.64	1.10	59,017.90
072053	1 in 16 Turnouts					
	Considering 10% additional for working under block over similar items where there is no need of traffic block					
	Rate per set	Set	072043	57297.51	1.10	63,027.27
072054	1 in 20 Turnouts					
	Considering 10% additional for working under block over similar items where there is no need of traffic block					
	Rate per set	Set	072044	62674.35	1.10	68,941.79

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
072055	Diamond Crossing					
	Considering 10% additional for working under block over similar items where there is no need of traffic block					
	Rate per set	Set	072045	66640.67	1.10	73,304.73
072056	Derailing Switch					
	Considering 10% additional for working under block over similar items where there is no need of traffic block					
	Rate per set	Set	072046	10354.30	1.10	11,389.73
072060	Assembling on temporary staging and insertion of all types of switches including TVS on prepared ballast bed during traffic block, manually or by contractor's cranes, at specified location with 52Kg / 60Kg rail section on PSC sleepers with Railways rails/sleepers available within 250m as per standard drawing, duly leading sleepers, rails, switches, fastenings etc. including rail cutting, drilling, fixing of all components, fittings etc. with housing of tongue rails as per requirement of signaling etc. including preparation for operation of traffic block, including crossing of track, filling and spreading of ballast in crib and shoulder as required, linking with existing track, attending track parameters including lifting, providing one round of packing to make track fit for 20 kmph speed lubrication of fittings/fastenings, complete as directed by Engineer in-charge. Note: Required P.Way fittings shall be supplied at the SSE/P.Way stores.					
072061	1 in 8½ Turnouts					
	Details of cost for 1 set					
	Material:					
	Drill twist made of high speed steel for size 18mm dia of Addison / I T make	Each	0463	1633.00	0.50	816.50
	High Speed Hacksaw Blade of size 300mm x 12.5mm x 0.63mm (18TPI) as per as per RDSO's Spec. no. TM/SM/26 (latest Rev.)	Each	0453	182.00	0.50	91.00
	Normal unleaded Petrol	Litre	0180	108.00	0.50	54.00
	Kerosene Oil	Litre	0183	63.00	3.00	189.00
	Labour:					
	i) Leading switches, sleepers etc., assembling switches on temporary staging, removing ballast muck up to required level, and					
	Labour Unskilled	Day	0020	540.00	6.00	3,240.00
	ii) Fixing, inserting of switch, filling ballast, levelling & packing					
	Mate (Skilled)	Day	0002	751.00	1.00	751.00
	Waterman (Un-skilled)	Day	0034	547.00	1.00	547.00
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	1.00	749.00
	Helper (Semi-skilled)	Day	0021	572.00	1.00	572.00
	Look Out Man (Un-skilled)	Day	0033	547.00	1.00	547.00
	Labour Unskilled	Day	0020	540.00	10.00	5,400.00
	Misc.:					
	T & P (Crow bar, Spanner, Hammer, Rail Tongue, Pan iron mortar etc.)	Lumpsum	9901	1.00	75.00	75.00
	Hire charges of Rail Drill Machine	Day	0134	442.00	0.50	221.00
	Hire charges of Rail Cutting Machine	Day	0139	633.00	0.50	316.50
						13,569.00
	Add for working under traffic block @ 5%	Lumpsum	9991	0.05		678.45
						14,247.45
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		142.47
						14,389.92
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		2,021.78
						16,411.71
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		2,461.76
						18,873.47
	Add for Cess @ 1%	Lumpsum	9905	0.01		188.73
	Rate per set	Set				19,062.20
072062	1 in 12 Turnouts					
	Details of cost for 1 set					

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Material:					
	Drill twist made of high speed steel for size 18mm dia of Addison / I T make	Each	0463	1633.00	0.50	816.50
	High Speed Hacksaw Blade of size 300mm x 12.5mm x 0.63mm (18TPI) as per as per RDSO's Spec. no. TM/SM/26 (latest Rev.)	Each	0453	182.00	0.50	91.00
	Normal unleaded Petrol	Litre	0180	108.00	0.50	54.00
	Kerosene Oil	Litre	0183	63.00	3.00	189.00
	Labour:					
	i) Assembling switch, removing ballast muck up to required level, and leading switches and sleepers etc					
	Labour Unskilled	Day	0020	540.00	12.00	6,480.00
	(ii) Fixing, laying of switch, filling ballast, levelling & packing					
	Mate (Skilled)	Day	0002	751.00	1.00	751.00
	Waterman (Un-skilled)	Day	0034	547.00	1.00	547.00
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	1.00	749.00
	Helper (Semi-skilled)	Day	0021	572.00	1.00	572.00
	Look Out Man (Un-skilled)	Day	0033	547.00	1.00	547.00
	Labour Unskilled	Day	0020	540.00	12.00	6,480.00
	Misc.:					
	T & P (Crow bar, Spanner, Hammer, Rail Tongue, Pan iron mortar etc.)	Lumpsum	9901	1.00	80.00	80.00
	Hire charges of Rail Drill Machine	Day	0134	442.00	0.50	221.00
	Hire charges of Rail Cutting Machine	Day	0139	633.00	0.50	316.50
						17,894.00
	Add for working under traffic block @ 5%	Lumpsum	9991	0.05		894.70
						18,788.70
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		187.89
						18,976.59
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		2,666.21
						21,642.80
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		3,246.42
						24,889.22
	Add for Cess @ 1%	Lumpsum	9905	0.01		248.89
	Rate per set	Set				25,138.11
072063	1 in 16 Turnouts					
	Details of cost for 1 set					
	Material:					
	Drill twist made of high speed steel for size 18mm dia of Addison / I T make	Each	0463	1633.00	0.50	816.50
	High Speed Hacksaw Blade of size 300mm x 12.5mm x 0.63mm (18TPI) as per as per RDSO's Spec. no. TM/SM/26 (latest Rev.)	Each	0453	182.00	0.50	91.00
	Normal unleaded Petrol	Litre	0180	108.00	0.50	54.00
	Kerosene Oil	Litre	0183	63.00	3.00	189.00
	Labour:					
	i) Assembling switch, removing ballast muck up to required level ,and leading switches and sleepers etc					
	Labour Unskilled	Day	0020	540.00	14.00	7,560.00
	(ii) Fixing, laying of switch, filling ballast, levelling & packing					
	Mate (Skilled)	Day	0002	751.00	1.00	751.00
	Waterman (Un-skilled)	Day	0034	547.00	1.00	547.00
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	1.00	749.00
	Helper (Semi-skilled)	Day	0021	572.00	1.00	572.00
	Look Out Man (Un-skilled)	Day	0033	547.00	1.00	547.00
	Labour Unskilled	Day	0020	540.00	14.00	7,560.00
	Misc.:					
	T & P (Crow bar, Spanner, Hammer, Rail Tongue, Pan iron mortar etc.)	Lumpsum	9901	1.00	100.00	100.00
	Hire charges of Rail Drill Machine	Day	0134	442.00	0.50	221.00
	Hire charges of Rail Cutting Machine	Day	0139	633.00	0.50	316.50
						20,074.00
	Add for working under traffic block @ 5%	Lumpsum	9991	0.05		1,003.70
						21,077.70

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		210.78
						21,288.48
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		2,991.03
						24,279.51
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		3,641.93
						27,921.43
	Add for Cess @ 1%	Lumpsum	9905	0.01		279.21
	Rate per set	Set				28,200.65
072064	1 in 20 Turnouts					
	Details of cost for 1 set					
	Material:					
	Drill twist made of high speed steel for size 26.5mm dia of Addison / I T make	Each	0462	2517.00	0.50	1,258.50
	High Speed Hacksaw Blade of size 300mm x 12.5mm x 0.63mm (18TPI) as per as per RDSO's Spec. no. TM/SM/26 (latest Rev.)	Each	0453	182.00	0.50	91.00
	Normal unleaded Petrol	Litre	0180	108.00	0.50	54.00
	Kerosene Oil	Litre	0183	63.00	3.00	189.00
	Labour:					
	i) Assembling switch, removing ballast muck up to required level ,and leading switches and sleepers etc					
	Labour Unskilled	Day	0020	540.00	15.00	8,100.00
	(ii) Fixing, laying of switch, filling ballast, levelling & packing					
	Mate (Skilled)	Day	0002	751.00	1.00	751.00
	Waterman (Un-skilled)	Day	0034	547.00	1.00	547.00
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	1.00	749.00
	Helper (Semi-skilled)	Day	0021	572.00	1.00	572.00
	Look Out Man (Un-skilled)	Day	0033	547.00	1.00	547.00
	Labour Unskilled	Day	0020	540.00	15.00	8,100.00
	Misc.:					
	T & P (Crow bar, Spanner, Hammer, Rail Tongue, Pan iron mortar etc.)	Lumpsum	9901	1.00	100.00	100.00
	Hire charges of Rail Drill Machine	Day	0134	442.00	0.50	221.00
	Hire charges of Rail Cutting Machine	Day	0139	633.00	0.50	316.50
						21,596.00
	Add for working under traffic block @ 5%	Lumpsum	9991	0.05		1,079.80
						22,675.80
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		226.76
						22,902.56
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		3,217.81
						26,120.37
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		3,918.06
						30,038.42
	Add for Cess @ 1%	Lumpsum	9905	0.01		300.38
	Rate per set	Set				30,338.81
073000	Lifting Works					
073010	Lifting for increase in ballast cushion of existing points & crossing layouts up to 75mm or part thereof including approach and exit sleepers including one round of through packing, correcting the disturbed sleeper spacing, tightening of fittings, boxing of ballast and ramping out on either side at slope not steeper than 1 in 1000 or as directed. Note: Item will be paid only when lifting is 50mm or more.					
073011	1 in 8½ Points & Crossing					
	Details of cost for 1 set					
	Labour:					
	Mate (Skilled)	Day	0002	751.00	0.50	375.50
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	0.50	374.50
	Look Out Man (Un-skilled)	Day	0033	547.00	0.50	273.50
	Waterman (Un-skilled)	Day	0034	547.00	0.50	273.50

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	(i) Opening ballast at packing zone lifting & packing					
	Labour Unskilled	Day	0020	540.00	15.00	8,100.00
	(ii) Adjust sleeper spacing, tightening fitting, boxing etc.					
	Labour Unskilled	Day	0020	540.00	2.00	1,080.00
	Misc.:					
	T & P (Crow bar, Jacks, beater, Rake ballast, Pan iron mortar etc.)	Lumpsum	9901	1.00	45.00	45.00
						10,522.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		105.22
						10,627.22
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		1,493.12
						12,120.34
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		1,818.05
						13,938.40
	Add for Cess @ 1%	Lumpsum	9905	0.01		139.38
	Rate per set	Set				14,077.78
073012	1 in 12 Points & Crossing					
	Details of cost for 1 set					
	Labour:					
	Mate (Skilled)	Day	0002	751.00	0.50	375.50
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	0.50	374.50
	Look Out Man (Un-skilled)	Day	0033	547.00	0.50	273.50
	Waterman (Un-skilled)	Day	0034	547.00	0.50	273.50
	(i) Opening ballast at packing zone lifting & packing					
	Labour Unskilled	Day	0020	540.00	20.00	10,800.00
	(ii) Adjust sleeper spacing, tightening fitting, boxing etc.					
	Labour Unskilled	Day	0020	540.00	4.00	2,160.00
	Misc.:					
	T & P (Crow bar, Jacks, beater, Rake ballast, Pan iron mortar etc.)	Lumpsum	9901	1.00	50.00	50.00
						14,307.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		143.07
						14,450.07
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		2,030.23
						16,480.30
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		2,472.05
						18,952.35
	Add for Cess @ 1%	Lumpsum	9905	0.01		189.52
	Rate per set	Set				19,141.87
073013	1 in 16 Points & Crossing					
	Details of cost for 1 set					
	Labour:					
	Mate (Skilled)	Day	0002	751.00	0.50	375.50
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	0.50	374.50
	Look Out Man (Un-skilled)	Day	0033	547.00	0.50	273.50
	Waterman (Un-skilled)	Day	0034	547.00	0.50	273.50
	(i) Opening ballast at packing zone lifting & packing					
	Labour Unskilled	Day	0020	540.00	22.00	11,880.00
	(ii) Adjust sleeper spacing, tightening fitting, boxing etc.					
	Labour Unskilled	Day	0020	540.00	6.00	3,240.00
	Misc.:					
	T & P (Crow bar, Jacks, beater, Rake ballast, Pan iron mortar etc.)	Lumpsum	9901	1.00	65.00	65.00
						16,482.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		164.82
						16,646.82
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		2,338.88
						18,985.70
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		2,847.85
						21,833.55

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Add for Cess @ 1%	Lumpsum	9905	0.01		218.34
	Rate per set	Set				22,051.89
073014	1 in 20 Points & Crossing					
	Details of cost for 1 set					
	Labour:					
	Mate (Skilled)	Day	0002	751.00	1.00	751.00
	Look Out Man (Un-skilled)	Day	0033	547.00	1.00	547.00
	Waterman (Un-skilled)	Day	0034	547.00	1.00	547.00
	(i) Opening ballast at packing zone lifting & packing					
	Labour Unskilled	Day	0020	540.00	24.00	12,960.00
	(ii) Adjust sleeper spacing, tightening fitting, boxing etc.					
	Labour Unskilled	Day	0020	540.00	8.00	4,320.00
	Misc.:					
	T & P (Crow bar, Jacks, beater, Rake ballast, Pan iron mortar etc)	Lumpsum	9901	1.00	80.00	80.00
						19,205.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		192.05
						19,397.05
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		2,725.29
						22,122.34
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		3,318.35
						25,440.69
	Add for Cess @ 1%	Lumpsum	9905	0.01		254.41
	Rate per set	Set				25,695.09
073015	Diamond Crossing					
	Details of cost for 1 set					
	Labour:					
	Mate (Skilled)	Day	0002	751.00	1.00	751.00
	Look Out Man (Un-skilled)	Day	0033	547.00	1.00	547.00
	Waterman (Un-skilled)	Day	0034	547.00	1.00	547.00
	(i) Opening ballast at packing zone lifting & packing					
	Labour Unskilled	Day	0020	540.00	30.00	16,200.00
	(ii) Adjust sleeper spacing, tightening fitting, boxing etc.					
	Labour Unskilled	Day	0020	540.00	12.00	6,480.00
	Misc.:					
	T & P (Crow bar, Jacks, beater, Rake ballast, Pan iron mortar etc)	Lumpsum	9901	1.00	85.00	85.00
						24,610.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		246.10
						24,856.10
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		3,492.28
						28,348.38
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		4,252.26
						32,600.64
	Add for Cess @ 1%	Lumpsum	9905	0.01		326.01
	Rate per set	Set				32,926.65
073016	Derailing Switch					
	Details of cost for 2 set					
	Labour:					
	Mate (Skilled)	Day	0002	751.00	1.00	751.00
	Waterman (Un-skilled)	Day	0034	547.00	1.00	547.00
	(i) Opening ballast at packing zone lifting & packing					
	Labour Unskilled	Day	0020	540.00	6.00	3,240.00
	(ii) Adjust sleeper spacing, tightening fitting, boxing etc.					
	Labour Unskilled	Day	0020	540.00	3.00	1,620.00
	Misc.:					
	T & P (Crow bar, Jacks, beater, Rake ballast, Pan iron mortar etc)	Lumpsum	9901	1.00	20.00	20.00
						6,178.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		61.78

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
						6,239.78
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		876.69
						7,116.47
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		1,067.47
						8,183.94
	Add for Cess @ 1%	Lumpsum	9905	0.01		81.84
	Cost for 2 set					8,265.78
	Rate per set	Set				4,132.89
073017	Extra over item nos. 073011 to 073015 for additional lift beyond 75mm for every 50mm or part thereof up to 225mm for each set	Each				15%
073020	Lifting the newly inserted BG 60 Kg. / 52 Kg. turnouts/ trap switches to required level to provide full ballast cushion as per approved drawings after initial laying with Railway's stone ballast in convenient stages including one round of through packing after completion of final stage of lift, levelling, aligning, gauging and boxing to standard profile to make it fit for 20 kmph with all lead and lifts, complete in all respect and as directed by the Engineer-in-charge. Note: 1. The item shall be used only when UNIMAT is not available for the work before the turnout is opened for operation. 2. Leading and dumping of ballast will be paid separately under relevant item.					
073021	For 1 in 8½ Points & Crossing					
	Details of cost for 1 set					
	Labour:					
	Mate (Skilled)	Day	0002	751.00	1.00	751.00
	Waterman (Un-skilled)	Day	0034	547.00	1.00	547.00
	(i) lifting & packing, boxing					
	Labour Unskilled	Day	0020	540.00	9.00	4,860.00
	Misc.:					
	T & P (Crow bar, Jacks, beater, Rake ballast, Pan iron mortar etc.)	Lumpsum	9901	1.00	25.00	25.00
						6,183.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		61.83
						6,244.83
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		877.40
						7,122.23
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		1,068.33
						8,190.56
	Add for Cess @ 1%	Lumpsum	9905	0.01		81.91
	Rate per set	Set				8,272.47
073022	For 1 in 12 Points & Crossing					
	Details of cost for 1 set					
	Labour:					
	Mate (Skilled)	Day	0002	751.00	1.00	751.00
	Waterman (Un-skilled)	Day	0034	547.00	1.00	547.00
	(i) lifting & packing, boxing					
	Labour Unskilled	Day	0020	540.00	12.00	6,480.00
	Misc.:					
	T & P (Crow bar, Jacks, beater, Rake ballast, Pan iron mortar etc.)	Lumpsum	9901	1.00	25.00	25.00
						7,803.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		78.03
						7,881.03
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		1,107.28
						8,988.31
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		1,348.25
						10,336.56
	Add for Cess @ 1%	Lumpsum	9905	0.01		103.37
	Rate per set	Set				10,439.93

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
073023	For 1 in 16 Points & Crossing					
	Details of cost for 1 set					
	Labour:					
	Mate (Skilled)	Day	0002	751.00	1.00	751.00
	Waterman (Un-skilled)	Day	0034	547.00	1.00	547.00
	(i) lifting & packing, boxing					
	Labour Unskilled	Day	0020	540.00	16.00	8,640.00
	Misc.:					
	T & P (Crow bar, Jacks, beater, Rake ballast, Pan iron mortar etc.)	Lumpsum	9901	1.00	25.00	25.00
						9,963.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		99.63
						10,062.63
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		1,413.80
						11,476.43
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		1,721.46
						13,197.89
	Add for Cess @ 1%	Lumpsum	9905	0.01		131.98
	Rate per set	Set				13,329.87
073024	For Derailing Switch					
	Details of cost for 1 set					
	Labour:					
	Mate (Skilled)	Day	0002	751.00	1.00	751.00
	Waterman (Un-skilled)	Day	0034	547.00	1.00	547.00
	(i) lifting & packing, boxing					
	Labour Unskilled	Day	0020	540.00	6.00	3,240.00
	Misc.:					
	T & P (Crow bar, Jacks, beater, Rake ballast, Pan iron mortar etc.)	Lumpsum	9901	1.00	25.00	25.00
						4,563.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		45.63
						4,608.63
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		647.51
						5,256.14
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		788.42
						6,044.56
	Add for Cess @ 1%	Lumpsum	9905	0.01		60.45
	Rate per set	Set				6,105.01
074000	Renewal Works					
074010	Casual renewal of PSC sleepers on points and crossings, derailing switches and diamonds portion of any layout including packing under new sleepers. All the released materials shall be stacked at specified location in a countable manner within the lead of 250m & all lift, clear of infringements, crossing of track, if any complete, as directed with contractor's vehicles, consumables, stores, labour etc. complete, as directed by Engineer in-charge. Note: Approach and Exit sleepers shall be paid as normal sleepers under relevant item.					
074011	Sleepers up to 2.85 m length					
	Details of cost for 30 nos. (One group of two persons will replace 3 sleepers in a day)					
	Labour:					
	Mate (Skilled)	Day	0002	751.00	1.00	751.00
	Waterman (Un-skilled)	Day	0034	547.00	1.00	547.00
	Look Out Man (Un-skilled)	Day	0033	547.00	1.00	547.00
	(i) For replacement of sleeper including fixing fastenings, packing, dressing etc.					
	Labour Unskilled	Day	0020	540.00	20.00	10,800.00
	(ii) For stacking of released materials					
	Labour Unskilled	Day	0020	540.00	3.00	1,620.00
	Misc.:					

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	T & P (Crow bar, beater, Rake ballast etc.)	Lumpsum	9901	1.00	50.00	50.00
						14,315.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		143.15
						14,458.15
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		2,031.37
						16,489.52
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		2,473.43
						18,962.95
	Add for Cess @ 1%	Lumpsum	9905	0.01		189.63
	Cost for 30 nos.					19,152.58
	Rate per sleeper	Each				638.42
074012	Sleepers of length more than 2.85 m and up to 4.20 m					
	Details of cost for 30 nos.(One group of two persons will replace 2 sleepers in a day)					
	Labour:					
	Mate (Skilled)	Day	0002	751.00	1.00	751.00
	Waterman (Un-skilled)	Day	0034	547.00	1.00	547.00
	Look Out Man (Un-skilled)	Day	0033	547.00	1.00	547.00
	(i) For replacement of sleeper including fixing fastenings, packing, dressing etc.					
	Labour Unskilled	Day	0020	540.00	30.00	16,200.00
	(ii) For stacking of released materials					
	Labour Unskilled	Day	0020	540.00	3.00	1,620.00
	Misc.:					
	T & P (Crow bar, beater, Rake ballast etc.)	Lumpsum	9901	1.00	50.00	50.00
						19,715.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		197.15
						19,912.15
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		2,797.66
						22,709.81
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		3,406.47
						26,116.28
	Add for Cess @ 1%	Lumpsum	9905	0.01		261.16
						26,377.44
	Rate per sleeper	Each				879.25
074013	Sleepers of more than 4.20 m length					
	Details of cost for 30 nos.(One group of 5 persons will replace 3 sleepers in a day)					
	Labour:					
	Mate (Skilled)	Day	0002	751.00	1.00	751.00
	Waterman (Un-skilled)	Day	0034	547.00	1.00	547.00
	Look Out Man (Un-skilled)	Day	0033	547.00	1.00	547.00
	(i) For replacement of sleeper including fixing fastenings, packing, dressing etc.					
	Labour Unskilled	Day	0020	540.00	50.00	27,000.00
	(ii) For stacking of released materials					
	Labour Unskilled	Day	0020	540.00	4.00	2,160.00
	Misc.:					
	T & P (Crow bar, beater, Rake ballast etc.)	Lumpsum	9901	1.00	55.00	55.00
						31,060.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		310.60
						31,370.60
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		4,407.57
						35,778.17
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		5,366.73
						41,144.89
	Add for Cess @ 1%	Lumpsum	9905	0.01		411.45
	Cost for 30 nos.					41,556.34
	Rate per sleeper	Each				1,385.21

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
074020	Renewal of CMS Crossing of all rail sections with CMS crossing or with WCMS crossing complete with fastenings including replacement of worn-out rubber pads, liners and ERC, as required. All the released materials shall be stacked at specified location in a countable manner within the lead of 500m & all lift, clear of infringements, crossing of track, if any complete, as directed. with contractor's vehicles, consumables, stores, labour etc. complete, as directed by engineer in-charge. Note: Rail cutting and drilling shall be paid separately under relevant item.					
074021	1 in 8½ Turnout					
	Details of cost for 2 sets					
	Labour:					
	Leading of CMS Crossing, opening of fittings, renewal of X-ing, fittings, packing etc.					
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	1.00	749.00
	Helper (Semi-skilled)	Day	0021	572.00	1.00	572.00
	Look Out Man (Un-skilled)	Day	0033	547.00	1.00	547.00
	Labour Unskilled	Day	0020	540.00	7.00	3,780.00
	Misc.:					
	T & P	Lumpsum	9901	1.00	20.00	20.00
						5,668.00
	Add for working under traffic block @ 5%	Lumpsum	9991	0.05		283.40
						5,951.40
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		59.51
						6,010.91
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		844.53
						6,855.45
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		1,028.32
						7,883.76
	Add for Cess @ 1%	Lumpsum	9905	0.01		78.84
	Cost for 2 sets					7,962.60
	Rate per set	Set				3,981.30
074022	1 in 12 Turnout					
	Details of cost for 2 sets					
	Labour:					
	Leading of CMS Crossing, opening of fittings, renewal of X-ing, fittings, packing etc.					
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	1.00	749.00
	Helper (Semi-skilled)	Day	0021	572.00	1.00	572.00
	Look Out Man (Un-skilled)	Day	0033	547.00	1.00	547.00
	Labour Unskilled	Day	0020	540.00	8.00	4,320.00
	Misc.:					
	T & P	Lumpsum	9901	1.00	20.00	20.00
						6,208.00
	Add for working under traffic block @ 5%	Lumpsum	9991	0.05		310.40
						6,518.40
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		65.18
						6,583.58
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		924.99
						7,508.58
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		1,126.29
						8,634.86
	Add for Cess @ 1%	Lumpsum	9905	0.01		86.35
	Cost for 2 sets					8,721.21
	Rate per set	Set				4,360.61

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
074023	1 in 16 Turnout					
	Details of cost for 2 sets					
	Labour:					
	Leading of CMS Crossing, opening of fittings, renewal of X-ing, fittings, packing etc.					
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	1.00	749.00
	Helper (Semi-skilled)	Day	0021	572.00	1.00	572.00
	Look Out Man (Un-skilled)	Day	0033	547.00	1.00	547.00
	Labour Unskilled	Day	0020	540.00	9.00	4,860.00
	Misc.:					
	T & P	Lumpsum	9901	1.00	20.00	20.00
						6,748.00
	Add for working under traffic block @ 5%	Lumpsum	9991	0.05		337.40
						7,085.40
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		70.85
						7,156.25
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		1,005.45
						8,161.71
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		1,224.26
						9,385.96
	Add for Cess @ 1%	Lumpsum	9905	0.01		93.86
	Cost for 2 sets					9,479.82
	Cost for 1 set	Set				4,739.91
074024	1 in 20 Turnout					
	Details of cost for 2 sets					
	Labour:					
	Leading of CMS Crossing, opening of fittings, renewal of X-ing, fittings, packing etc.					
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	1.00	749.00
	Helper (Semi-skilled)	Day	0021	572.00	1.00	572.00
	Look Out Man (Un-skilled)	Day	0033	547.00	1.00	547.00
	Labour Unskilled	Day	0020	540.00	10.00	5,400.00
	Misc.:					
	T & P	Lumpsum	9901	1.00	25.00	25.00
						7,293.00
	Add for working under traffic block @ 5%	Lumpsum	9991	0.05		364.65
						7,657.65
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		76.58
						7,734.23
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		1,086.66
						8,820.89
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		1,323.13
						10,144.02
	Add for Cess @ 1%	Lumpsum	9905	0.01		101.44
	Cost for 2 sets					10,245.46
	Rate per set	Set				5,122.73

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
074030	Renewal of Switch Rails (Tongue rails, Stock rails and fittings) of all rail sections, under line block conditions ensuring proper housing & changing of stretcher bars and fittings as required. Work also includes drilling of hole, if any, and leading of rails laying anywhere in station yard to site of work. Released switch rails shall be stacked at indicated place in a countable manner within the lead of 250m & all lift, clear of infringements, crossing of track, if any complete, as directed. with contractor's vehicles, consumables, stores, labour etc. complete, as directed by engineer in-charge. Note: 1) One set means Two Tongue rails and Two Stock rails (2) One tongue & stock rail shall be considered as 1/2 set. (3) One tongue rail or one Stock rail shall be considered as 1/4 Set.					
074031	1 in 8½ Switch Assembly					
	Details of cost for 1 set					
	Material:					
	Drill twist made of high speed steel for size 18mm dia of Addison / I T make	Each	0463	1633.00	0.10	163.30
	Normal unleaded Petrol	Litre	0180	108.00	0.50	54.00
	Kerosene Oil	Litre	0183	63.00	2.50	157.50
	Labour:					
	Leading of stock & tongue rail, opening of fittings, removing rails, fixing stock & tongue rail etc.					
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	1.00	749.00
	Helper (Semi-skilled)	Day	0021	572.00	2.00	1,144.00
	Look Out Man (Un-skilled)	Day	0033	547.00	1.00	547.00
	Labour Unskilled	Day	0020	540.00	12.00	6,480.00
	Misc.:					
	T & P (Crow bar, Spanner, Hammer, beater, Rake ballast, Rail Tongue etc.)	Lumpsum	9901	1.00	20.00	20.00
	Hire charges of Rail Drill Machine	Day	0134	442.00	0.25	110.50
						9,425.30
	Add for working under traffic block @ 10%	Lumpsum	9992	0.10		942.53
						10,367.83
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		103.68
						10,471.51
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		1,471.25
						11,942.76
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		1,791.41
						13,734.17
	Add for Cess @ 1%	Lumpsum	9905	0.01		137.34
	Rate per set	Set				13,871.51
074032	1 in 12 Switch Assembly					
	Details of cost for 1 set					
	Material:					
	Drill twist made of high speed steel for size 18mm dia of Addison / I T make	Each	0463	1633.00	0.10	163.30
	Normal unleaded Petrol	Litre	0180	108.00	0.50	54.00
	Kerosene Oil	Litre	0183	63.00	2.50	157.50
	Labour:					
	Leading of stock & tongue rail, opening of fittings, removing rails, fixing stock & tongue rail etc.					
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	1.00	749.00
	Helper (Semi-skilled)	Day	0021	572.00	2.00	1,144.00
	Look Out Man (Un-skilled)	Day	0033	547.00	1.00	547.00
	Labour Unskilled	Day	0020	540.00	14.00	7,560.00
	Misc.:					
	T & P (Crow bar, Spanner, Hammer, beater, Rake ballast, Rail Tongue etc.)	Lumpsum	9901	1.00	30.00	30.00
	Hire charges of Rail Drill Machine	Day	0134	442.00	0.25	110.50
						10,515.30
	Add for working under traffic block @ 10%	Lumpsum	9992	0.10		1,051.53
						11,566.83

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		115.67
						11,682.50
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		1,641.39
						13,323.89
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		1,998.58
						15,322.47
	Add for Cess @ 1%	Lumpsum	9905	0.01		153.22
	Rate per set	Set				15,475.70
074033	1 in 16 Switch Assembly					
	Details of cost for 1 set					
	Material:					
	Drill twist made of high speed steel for size 18mm dia of Addison / I T make	Each	0463	1633.00	0.15	244.95
	Normal unleaded Petrol	Litre	0180	108.00	0.50	54.00
	Kerosene Oil	Litre	0183	63.00	2.50	157.50
	Labour:					
	Leading of stock & tongue rail, opening of fittings, removing rails, fixing stock & tongue rail etc.					
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	1.00	749.00
	Helper (Semi-skilled)	Day	0021	572.00	2.00	1,144.00
	Look Out Man (Un-skilled)	Day	0033	547.00	1.00	547.00
	Labour Unskilled	Day	0020	540.00	16.00	8,640.00
	Misc.:					
	T & P (Crow bar, Spanner, Hammer, beater, Rake ballast, Rail Tongue etc.)	Lumpsum	9901	1.00	30.00	30.00
	Hire charges of Rail Drill Machine	Day	0134	442.00	0.25	110.50
						11,676.95
	Add for working under traffic block @ 10%	Lumpsum	9992	0.10		1,167.70
						12,844.65
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		128.45
						12,973.09
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		1,822.72
						14,795.81
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		2,219.37
						17,015.18
	Add for Cess @ 1%	Lumpsum	9905	0.01		170.15
	Rate per set	Set				17,185.33
074034	1 in 20 Switch Assembly					
	Details of cost for 1 set					
	Material:					
	Drill twist made of high speed steel for size 18mm dia of Addison / I T make	Each	0463	1633.00	0.15	244.95
	Normal unleaded Petrol	Litre	0180	108.00	0.50	54.00
	Kerosene Oil	Litre	0183	63.00	2.50	157.50
	Labour:					
	Leading of stock & tongue rail, opening of fittings, removing rails, fixing stock & tongue rail etc.					
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	1.00	749.00
	Helper (Semi-skilled)	Day	0021	572.00	2.00	1,144.00
	Look Out Man (Un-skilled)	Day	0033	547.00	1.00	547.00
	Labour Unskilled	Day	0020	540.00	18.00	9,720.00
	Misc.:					
	T & P (Crow bar, Spanner, Hammer, beater, Rake ballast, Rail Tongue etc.)	Lumpsum	9901	1.00	35.00	35.00
	Hire charges of Rail Drill Machine	Day	0134	442.00	0.25	110.50
						12,761.95
	Add for working under traffic block @ 10%	Lumpsum	9992	0.10		1,276.20
						14,038.15
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		140.38
						14,178.53
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		1,992.08
						16,170.61

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		2,425.59
						18,596.20
	Add for Cess @ 1%	Lumpsum	9905	0.01		185.96
	Rate per set	Set				18,782.16
074040	Through Switches Renewals of existing curved/Thick web switches with Thick Web Switches on 60Kg Points and crossings including approach rails as required, on PSC sleepers, removing and re-fixing or replacing fittings, fastenings, stretcher bar, blocks etc., with housing of tongue rails as per requirement of signaling etc. including preparation for operation of traffic block, under line block conditions and packing of any disturbed sleepers and boxing of ballast to profile, picking of slacks of track at switch portion, crossing of track wherever necessary. All the released materials shall be stacked at specified location in a countable manner within the lead of 250m & all lift, clear of infringements, crossing of track, if any complete, as directed with contractor's vehicles, consumables, stores, labour etc. complete, as directed by engineer in-charge. Note: Rail cutting and Hole Drilling shall be paid under relevant item.					
074041	For 1 in 12 Turnouts					
	Details of Cost for 1 set					
	Labour:					
	Mate (Skilled)	Day	0002	751.00	1.00	751.00
	Look Out Man (Un-skilled)	Day	0033	547.00	1.00	547.00
	Waterman (Un-skilled)	Day	0034	547.00	1.00	547.00
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	2.00	1,498.00
	Helper (Semi-skilled)	Day	0021	572.00	2.00	1,144.00
	(i) Leading of all fitting, fish plate, nut & bolt, Switch rails and approach rails, along with transportation of released materials					
	Labour Unskilled	Day	0020	540.00	16.00	8,640.00
	(ii) Assembling and Insertion of switches in track with approach rails by removing the existing switches and rails					
	Labour Unskilled	Day	0020	540.00	16.00	8,640.00
	Misc.:					
	T & P (Crow bar, Tommy bar, beater, Rake ballast, hammer, Auger, Spanner, Rail tongue etc.)	Lumpsum	9901	1.00	50.00	50.00
						21,817.00
	Add for working under traffic block @ 10%	Lumpsum	9992	0.10		2,181.70
						23,998.70
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		239.99
						24,238.69
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		3,405.54
						27,644.22
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		4,146.63
						31,790.86
	Add for Cess @ 1%	Lumpsum	9905	0.01		317.91
	Rate per Set	Set				32,108.76
074042	For 1 in 16 Turnouts					
	Considering rate as 20% more than that for 1 in 12 turnout					
	Rate per set	Set	074041	32108.76	1.20	38,530.52
074043	For 1 in 8.5 Turnouts					
	Considering rate as 20% less than that for 1 in 12 turnout					
	Rate per set	Set	074041	32108.76	0.80	25,687.01

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
074050	Through renewal of Liners and ERCs on PSC turnouts without damaging PSC sleepers. Scope includes removal of all ERCs and Liners, cleaning rail seat, rail flange at liner seats, and eye of Inserts with wire brushes and applying grease to liner contact area, eye of insert and central leg of ERC with contractor's grease of Railway's specification, fixing all fittings in correct position and sealing liner edges with grease all complete including collection and stacking of released materials at nominated locations within SSE Jurisdiction as directed by Engineer-in-Charge. Note: All the fittings will be supplied at SSE/Stores/Depot.					
074051	1 in 8.5 Turnouts					
	Details of cost for 4 set's (In one set having 350 ERC's approximately) 10 gram grease required for 1 ERC, For 4 sets 4 X 350 X 10 = 14 Kg grease.					
	Material:					
	Grease Graphite Grade 'O' (IS:408)	Kg	0182	270.00	14.00	3,780.00
	Kerosene Oil	Litre	0183	63.00	1.00	63.00
	Cotton Jute	Kg	0489	53.00	1.00	53.00
	Wire Brush - 25cm long	Each	0311	42.00	2.00	84.00
	Sand Paper medium-grit (100- to 150-grit), 9" x 11"	Nos.	0491	7.00	8.00	56.00
	Soft Brush for painting - 25cm long	Each	0312	59.00	2.00	118.00
	Labour:					
	(i) For leading & distribution of materials & collection of released materials					
	Labour Unskilled	Day	0020	540.00	1.00	540.00
	(ii) For Fitting renewal & greasing of ERC's, liners & sealing liner edges.(one group of Five persons will renew 200 rail seats / 1 T/out in a day)					
	Mate (Skilled)	Day	0002	751.00	0.50	375.50
	Waterman (Un-skilled)	Day	0034	547.00	0.50	273.50
	Look Out Man (Un-skilled)	Day	0033	547.00	0.50	273.50
	Labour Unskilled	Day	0020	540.00	6.00	3,240.00
	Misc.:					
	T & P (Hammer, Crow bars, Tommy bar, beater, Wire claws, etc.)	Lumpsum	9901	1.00	40.00	40.00
	LS for Transportation Charges	Lumpsum	9901	1.00	150.00	150.00
						9,046.50
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		90.47
						9,136.97
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		1,283.74
						10,420.71
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		1,563.11
						11,983.81
	Add for Cess @ 1%	Lumpsum	9905	0.01		119.84
	Cost for 4 set's					12,103.65
	Rate per set	Set				3,025.91
074052	1 in 12 Turnout					
	Details of cost for 3 set's (In one set having 480 ERC's approximately) 10 gram grease required for 1 ERC, For 3 sets 3 X 480 X 10 = 15 Kg grease.					
	Material:					
	Grease Graphite Grade 'O' (IS:408)	Kg	0182	270.00	15.00	4,050.00
	Kerosene Oil	Litre	0183	63.00	1.00	63.00
	Cotton Jute	Kg	0489	53.00	1.00	53.00
	Wire Brush - 25cm long	Each	0311	42.00	2.00	84.00
	Sand Paper medium-grit (100- to 150-grit), 9" x 11"	Nos.	0491	7.00	8.00	56.00
	Soft Brush for painting - 25cm long	Each	0312	59.00	2.00	118.00
	Labour:					
	(i) For leading & distribution of materials & collection of released materials					
	Labour Unskilled	Day	0020	540.00	2.00	1,080.00
	(ii) For Fitting renewal & greasing of ERC's, liners & sealing liner edges.(one group of four persons will renew 200 rail seats in a day)					
	Mate (Skilled)	Day	0002	751.00	0.50	375.50
	Waterman (Un-skilled)	Day	0034	547.00	0.50	273.50
	Look Out Man (Un-skilled)	Day	0033	547.00	0.50	273.50

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Labour Unskilled	Day	0020	540.00	8.00	4,320.00
	Misc.:					
	T & P (Hammer, Crow bars, Tommy bar, beater, Wire claws, etc.)	Lumpsum	9901	1.00	40.00	40.00
	LS for Transportation Charges	Lumpsum	9901	1.00	175.00	175.00
						10,961.50
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		109.62
						11,071.12
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		1,555.49
						12,626.61
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		1,893.99
						14,520.60
	Add for Cess @ 1%	Lumpsum	9905	0.01		145.21
	Cost for 3 set's					14,665.80
	Rate per set	Set				4,888.60
074053	1 in 16 Turnout					
	Details of cost for 3 set's (In one set having 580 ERC's approximately) 10 gram grease required for 1 ERC, For 3 sets 3 X 580 X 10 = 18 Kg grease.					
	Material:					
	Grease Graphite Grade 'O' (IS:408)	Kg	0182	270.00	18.00	4,860.00
	Kerosene Oil	Litre	0183	63.00	1.00	63.00
	Cotton Jute	Kg	0489	53.00	1.00	53.00
	Wire Brush - 25cm long	Each	0311	42.00	2.00	84.00
	Sand Paper medium-grit (100- to 150-grit), 9" x 11"	Nos.	0491	7.00	8.00	56.00
	Soft Brush for painting - 25cm long	Each	0312	59.00	2.00	118.00
	Labour:					
	(i) For leading & distribution of materials & collection of released materials					
	Labour Unskilled	Day	0020	540.00	2.00	1,080.00
	(ii) For Fitting renewal & greasing of ERC's, liners & sealing liner edges.(one group of four persons will renew 200 rail seats in a day)					
	Mate (Skilled)	Day	0002	751.00	0.50	375.50
	Waterman (Un-skilled)	Day	0034	547.00	0.50	273.50
	Look Out Man (Un-skilled)	Day	0033	547.00	0.50	273.50
	Labour Unskilled	Day	0020	540.00	8.00	4,320.00
	Misc.:					
	T & P (Hammer, Crow bars, Tommy bar, beater, Wire claws, etc.)	Lumpsum	9901	1.00	45.00	45.00
	LS for Transportation Charges	Lumpsum	9901	1.00	200.00	200.00
						11,801.50
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		118.02
						11,919.52
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		1,674.69
						13,594.21
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		2,039.13
						15,633.34
	Add for Cess @ 1%	Lumpsum	9905	0.01		156.33
	Cost for 3 set's					15,789.67
	Rate per set	Set				5,263.22
074054	1 in 20 Turnout					
	Details of cost for 3 set's (In one set having 660 ERC's approximately) 10 gram grease required for 1 ERC, For 3 sets 3 X 660 X 10 = 20 Kg grease.					
	Material:					
	Grease Graphite Grade 'O' (IS:408)	Kg	0182	270.00	20.00	5,400.00
	Kerosene Oil	Litre	0183	63.00	1.00	63.00
	Cotton Jute	Kg	0489	53.00	1.00	53.00
	Wire Brush - 25cm long	Each	0311	42.00	2.00	84.00
	Sand Paper medium-grit (100- to 150-grit), 9" x 11"	Nos.	0491	7.00	8.00	56.00
	Soft Brush for painting - 25cm long	Each	0312	59.00	2.00	118.00
	Labour:					
	(i) For leading & distribution of materials & collection of released materials					

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Labour Unskilled	Day	0020	540.00	2.00	1,080.00
	(ii) For Fitting renewal & greasing of ERC's, liners & sealing liner edges.(one group of four persons will renew 200 rail seats in a day)					
	Mate (Skilled)	Day	0002	751.00	2.00	1,502.00
	Waterman (Un-skilled)	Day	0034	547.00	0.50	273.50
	Look Out Man (Un-skilled)	Day	0033	547.00	0.50	273.50
	Labour Unskilled	Day	0020	540.00	10.00	5,400.00
	Misc.:					
	T & P (Hammer, Crow bars, Tommy bar, beater, Wire claws, etc.)	Lumpsum	9901	1.00	50.00	50.00
	LS for Transportation Charges	Lumpsum	9901	1.00	250.00	250.00
						14,603.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		146.03
						14,749.03
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		2,072.24
						16,821.27
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		2,523.19
						19,344.46
	Add for Cess @ 1%	Lumpsum	9905	0.01		193.44
	Cost for 3 set's					19,537.90
	Rate per set	Set				6,512.63
074060	Through fitting renewal (TFR) with new Grooved Rubber Sole pads(GRSP), Liners and ERC or through renewal with new GRSPs using existing ERCs and liners after cleaning and greasing on entire Turnout of PSC Fan shaped layout including approach & exit sleepers comprising of removing & refixing or replacement of plate screws, ERCs and liners including seized ERCs, replacing the GRSP after cleaning rail seat, refixing slide chairs, lubrication of ERCs, applying grease to plate screws and Liner contact area with contractor's Grease Graphite Grade 'O' (IS:408) after cleaning of rust/scale on liner contact area etc., as per provisions of IRPWM of latest version with all contractor's labour, tools, plants and stacking all the released materials etc .complete and as directed by Engineer in charge. Note: GRSP will be supplied at SSE/stores/depot.					
074061	For 1 in 12 Turnouts					
	Details of cost for 3 set's					
	Material:					
	(In one set having 480 ERC's & 180 plate screws approximately) 15 gram grease required for ERC & Plate screws, For 3 sets 3 X 560 X 15 = 25.20 Kg grease.					
	Grease Graphite Grade 'O' (IS:408)	Kg	0182	270.00	25.20	6,804.00
	Kerosene Oil	Litre	0183	63.00	1.00	63.00
	Cotton Jute	Kg	0489	53.00	1.00	53.00
	Wire Brush - 25cm long	Each	0311	42.00	2.00	84.00
	Sand Paper medium-grit (100- to 150-grit), 9" x 11"	Nos.	0491	7.00	8.00	56.00
	Soft Brush for painting - 25cm long	Each	0312	59.00	2.00	118.00
	Labour:					
	(i) For leading & distribution of materials & collection of released materials					
	Mate (Skilled)	Day	0002	751.00	1.00	751.00
	Waterman (Un-skilled)	Day	0034	547.00	1.00	547.00
	Look Out Man (Un-skilled)	Day	0033	547.00	1.00	547.00
	Labour Unskilled	Day	0020	540.00	15.00	8,100.00
	Misc.:					
	T & P (Hammer, Crow bars, Tommy bar, beater, Wire claws, etc.)	Lumpsum	9901	1.00	40.00	40.00
						17,163.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		171.63
						17,334.63
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		2,435.52
						19,770.15
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		2,965.52
						22,735.67

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Add for Cess @ 1%	Lumpsum	9905	0.01		227.36
	Cost for 3 set's					22,963.02
	Rate per set	Set				7,654.34
074062	For 1 in 8.5 Turnouts					
	Considering rate as 20% more than that for 1 in 12 turnout					
	Rate per set	Set	074061	7654.34	0.80	6,123.47
074063	For 1 in 16 Turnouts					
	Considering rate as 20% less than that for 1 in 12 turnout					
	Rate per set	Set	074061	7654.34	1.20	9,185.21
074070	Through renewal of Grooved Rubber Sole pads (GRSP) on Switch portion of PSC fan shaped layout comprising of removing & refixing Plate screws, ERCs including seized ERCs and liners, and replacing the GRSP after cleaning rail seat, refixing Slide chairs, liner and ERC after greasing and lubrication of ERCs, applying grease to liners and Liner contact area with contractor's Grease Graphite Grade 'O' (IS:408) after cleaning of rust/scale on liner contact area and on ERC, with all contractor's labour, tools, plants, leading of GRSP and stacking all the released materials etc .complete and as directed by Engineer in charge. Note: GRSP will be supplied at SSE/stores/depot.					
074071	For 1 in 12 Turnouts (Sleeper No 1 to 25 and 5 approach sleepers)					
	Details of cost for 3 set's					
	Material:					
	(In one set having 50 ERC's approximately) 10 gram grease required for 1 ERC, For 3 sets 3 X 50 X 10 = 1.5 Kg grease.					
	Grease Graphite Grade 'O' (IS:408)	Kg	0182	270.00	1.50	405.00
	Kerosene Oil	Litre	0183	63.00	0.20	12.60
	Cotton Jute	Kg	0489	53.00	1.00	53.00
	Wire Brush - 25cm long	Each	0311	42.00	1.00	42.00
	Sand Paper medium-grit (100- to 150-grit), 9" x 11"	Nos.	0491	7.00	2.00	14.00
	Soft Brush for painting - 25cm long	Each	0312	59.00	1.00	59.00
	Labour:					
	(i) For leading & distribution of materials ,renewal & collection of released materials					
	Mate (Skilled)	Day	0002	751.00	0.50	375.50
	Waterman (Un-skilled)	Day	0034	547.00	0.50	273.50
	Look Out Man (Un-skilled)	Day	0033	547.00	0.50	273.50
	Labour Unskilled	Day	0020	540.00	5.00	2,700.00
	Misc.:					
	T & P (Hammer, Crow bars, Tommy bar, beater, Wire claws, etc.)	Lumpsum	9901	1.00	20.00	20.00
						4,228.10
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		42.28
						4,270.38
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		599.99
						4,870.37
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		730.56
						5,600.92
	Add for Cess @ 1%	Lumpsum	9905	0.01		56.01
	Cost for 3 set's					5,656.93
	Rate per set	Set				1,885.64
074072	For 1 in 8.5 Turnouts & Derailing switches (Sleeper No 1 to 22 and 5 approach sleepers)					
	Considering rate as 20% more less that for 1 in 12 turnout					
	Rate per set	Set	074071	1885.64	0.80	1,508.52

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
074073	For 1 in 16 Turnouts (Sleeper No 1 to 31 and 5 approach sleepers)					
	Considering rate as 20% more than that for 1 in 12 turnout					
	Rate per set	Set	074071	1885.64	1.20	2,262.77
074080	Through renewal of Grooved Rubber Sole pads (GRSP) on lead portion of PSC fan shaped layout comprising of removing & refixing ERCs, Liners including seized ERCs and replacing the GRSP after cleaning rail seat, refixing the liner and ERC after lubrication of ERCs, liners and Liner contact area with contractor's Grease Graphite Grade 'O' (IS:408) after cleaning of rust/scale on liner contact area and on ERC, etc., with all contractor's labour, tools, plants, leading of GRSP and stacking all the released materials etc. complete and as directed by Engineer in charge. Note: GRSP will be supplied at SSE/stores/depot.					
074081	For 1 in 12 Lead portion (Sleeper Nos 26 to 64 & 74 to 83 and 8 approach sleepers) :					
	Details of cost for 3 set's					
	Material:					
	(In one set having 400 ERC's approximately) 10 gram grease required for 1 ERC, For 3 sets 3 X 40 X 10 = 12 Kg grease.					
	Grease Graphite Grade 'O' (IS:408)	Kg	0182	270.00	12.00	3,240.00
	Kerosene Oil	Litre	0183	63.00	1.00	63.00
	Cotton Jute	Kg	0489	53.00	1.00	53.00
	Wire Brush - 25cm long	Each	0311	42.00	1.00	42.00
	Sand Paper medium-grit (100- to 150-grit), 9" x 11"	Nos.	0491	7.00	6.00	42.00
	Soft Brush for painting - 25cm long	Each	0312	59.00	1.00	59.00
	Labour:					
	(i) For leading & distribution of materials & collection of released materials and renewal of materials					
	Mate (Skilled)	Day	0002	751.00	1.00	751.00
	Waterman (Un-skilled)	Day	0034	547.00	1.00	547.00
	Look Out Man (Un-skilled)	Day	0033	547.00	1.00	547.00
	Labour Unskilled	Day	0020	540.00	10.00	5,400.00
	Misc.:					
	T & P (Hammer, Crow bars, Tommy bar, beater, Wire claws, etc.)	Lumpsum	9901	1.00	30.00	30.00
						10,774.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		107.74
						10,881.74
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		1,528.88
						12,410.62
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		1,861.59
						14,272.22
	Add for Cess @ 1%	Lumpsum	9905	0.01		142.72
	Cost for 3 sets					14,414.94
	Cost for 1 set	Set				4,804.98
074082	For 1 in 8.5 Turnouts (Sleeper No 23 to 42 & 59 to 54 and 8 approach sleepers)					
	Take 20% less of Relevant item rate 074081	Set	074081	4804.98	0.80	3,843.98
074083	For 1 in 16 Turnouts (Sleeper No 32 to 76 & 87 to 101 and 8 approach sleepers)					
	Take 20% extra of Relevant item rate 074081	Set	074081	4804.98	1.20	5,765.98
074090	Through renewal of Grooved Rubber Sole pads (GRSP) on Crossing portion of PSC Sleeper turnout duly removing the Liners, ERCs including seized ERCs, and replacing the GRSP after cleaning rail seat, refixing the liner and ERC after lubrication of ERCs, liners and Liner contact area with contractor's Grease Graphite Grade 'O' (IS:408) after cleaning of rust/scale on liner contact area etc., with all contractor's labour, tools, plants, transportation of GRSP, and stacking all the released materials etc. complete and as directed by Engineer in charge. Note: GRSP will be supplied at SSE/stores/depot.					

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
074091	For 1 in 12 Turnouts (Sleeper No 65 to 73)					
	Details of cost for 3 set's					
	Material:					
	(In one set having 48 ERC's approximately) 10 gram grease required for 1 ERC, For 3 sets 3 X 48 X 10 = 1.5 Kg grease.					
	Grease Graphite Grade 'O' (IS:408)	Kg	0182	270.00	1.50	405.00
	Kerosene Oil	Litre	0183	63.00	0.20	12.60
	Cotton Jute	Kg	0489	53.00	1.00	53.00
	Wire Brush - 25cm long	Each	0311	42.00	1.00	42.00
	Sand Paper medium-grit (100- to 150-grit), 9" x 11"	Nos.	0491	7.00	2.00	14.00
	Soft Brush for painting - 25cm long	Each	0312	59.00	1.00	59.00
	Labour:					
	(i) For leading & distribution of materials & collection of released materials					
	Mate (Skilled)	Day	0002	751.00	0.50	375.50
	Waterman (Un-skilled)	Day	0034	547.00	0.50	273.50
	Look Out Man (Un-skilled)	Day	0033	547.00	0.50	273.50
	Labour Unskilled	Day	0020	540.00	3.00	1,620.00
	Misc.:					
	T & P (Hammer, Crow bars, Tommy bar, beater, Wire claws, etc.)	Lumpsum	9901	1.00	20.00	20.00
						3,148.10
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		31.48
						3,179.58
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		446.73
						3,626.31
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		543.95
						4,170.26
	Add for Cess @ 1%	Lumpsum	9905	0.01		41.70
	Cost for 3 Sets					4,211.96
	Cost for 1 set	Set				1,403.99
074092	For 1 in 8.5 Turnouts (Sleeper No 43 to 48)					
	Take 20% less of Relevant item rate 074091	Set	074091	1403.99	0.80	1,123.19
074093	For 1 in 16 Turnouts (Sleeper No 77 to 86)					
	Take 20% extra of Relevant item rate 074091	Set	074091	1403.99	1.20	1,684.78
074100	Renewal of corroded slide chairs duly removing the old slide chairs by heating using contractors gas and equipments or by any approved methods and inserting Railways new slide chairs and plate screws including crossing of tracks, leading all required materials to site, stacking all released materials, with all contractor's tools, consumables, labour, lead, lift and incidental charges etc complete as directed by the Engineer in charge. Note: 1. All the fittings will be supplied at nearest SSE/Stores. 2. In case of damage of PSC sleeper, penalty at the rate of 25% of the current cost of sleeper shall be levied.					
	Details of cost for 12 Slide chairs					
	Material:					
	Oxygen Gas (in cylinder)	Kg	0338	83.00	3.00	249.00
	Acetylene Gas (in cylinder)	Kg	0339	78.00	1.00	78.00
	Labour:					
	Mate (Skilled)	Day	0002	751.00	0.50	375.50
	Welder (Skilled)	Day	0029	734.00	0.50	367.00
	Helper (Semi-skilled)	Day	0021	572.00	0.50	286.00
	Look Out Man (Un-skilled)	Day	0033	547.00	0.50	273.50
	Waterman (Un-skilled)	Day	0034	547.00	1.00	547.00
	Labour Unskilled	Day	0020	540.00	2.00	1,080.00

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Misc.:					
	T & P (Includes Gas cutting torch)	Lumpsum	9901	1.00	60.00	60.00
						3,316.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		33.16
						3,349.16
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		470.56
						3,819.72
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		572.96
						4,392.67
	Add for Cess @ 1%	Lumpsum	9905	0.01		43.93
	Cost for 12 Nos.					4,436.60
	Rate per Slide chair	Each				369.72
074110	Fabrication, supply and fixing of hand operated lever boxes with pull rod of 33mm dia to Drg.No. MA3040 including lead, lift, loading, unloading, tools and plants, transportation, crossing of track wherever necessary as directed by Engineer-in-charge at site. Note: 1. Rate including Fabrication, Supply and Fixing of hand operated boxes. 2. Spring point lever (Self reversing type) as per drawing no. TMC-12 (Sheet 1,2,3).					
	Details of Cost of 2 sets					
	Material:					
	Hand lever box full set BG	Each	0468	12100.00	2.00	24,200.00
	Labour:					
	Mate (Skilled)	Day	0002	751.00	1.00	751.00
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	1.00	749.00
	Helper (Semi-skilled)	Day	0021	572.00	2.00	1,144.00
	Look Out Man (Un-skilled)	Day	0033	547.00	1.00	547.00
	Misc.:					
	T & P (Crow bar, Hammer, Box spanner, cleaning brush etc.)	Lumpsum	9901	1.00	30.00	30.00
						27,421.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		274.21
						27,695.21
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		3,891.18
						31,586.39
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		4,737.96
						36,324.35
	Add for Cess @ 1%	Lumpsum	9905	0.01		363.24
	Cost of 2 sets					36,687.59
	Rate per set	Set				18,343.79
074120	Fabrication, supply and fixing of MS lock pins/bolts for stock and tongue rails made out of MS 40mm dia of length 200mm with head cutting, lathe machining, milling, drilling, welding the rod with MS flat of 6mm thick of suitable size as required at site with MS split pins/bolts and supplying of remaining ancillary materials required at for locking, including all taxes, lead, lift, loading and un loading , tools and plants, transportation, crossing of track whenever necessary etc., complete and as directed by Engineer-in-charge at site.					
	Details of cost for 10 pins					
	Material:					
	Point lock pin full set BG	Each	0469	777.00	10.00	7,770.00
	Man power:					
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	1.00	749.00
	Helper (Semi-skilled)	Day	0021	572.00	1.00	572.00
	Look Out Man (Un-skilled)	Day	0033	547.00	1.00	547.00
	Misc.:					
	T & P (Crow bar, Hammer, Box spanner, cleaning brush etc.)	Lumpsum	9901	1.00	20.00	20.00
						9,658.00

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		96.58
						9,754.58
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		1,370.52
						11,125.10
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		1,668.76
						12,793.86
	Add for Cess @ 1%	Lumpsum	9905	0.01		127.94
	Cost of 10 sets					12,921.80
	Rate per set	Set				1,292.18
074130	Re-spacing of PSC sleepers of existing turnout after pre-marking of sleeper locations as per standard layout drawings, removing ballast and all other fittings/fastenings to clear obstruction for shifting as required, shifting of sleeper at correct location, fixing of all fittings/fastenings, ballasting, requisite packing, boxing and profiling, complete as directed by Engineer-in-charge. Note: Prior inspection and recording defective spacing and approval of Engineer-in-Charge shall be mandatory for operating this item.					
074131	Turnout sleepers of length up to 2.85 m					
	Consider 48 sleepers of 1 in 12 turnout, 2 persons will do re-spacing of 12 sleepers					
	Labour:					
	Mate (Skilled)	Day	0002	751.00	0.50	375.50
	Waterman (Un-skilled)	Day	0034	547.00	0.50	273.50
	(i) Pre marking of sleeper spacing as required					
	Painter (Skilled)	Day	0012	749.00	0.25	187.25
	(ii) Re spacing of sleepers with fixing fittings and packing					
	Labour Unskilled	Day	0020	540.00	8.00	4,320.00
	Misc.:					
	T & P and consumables	Lumpsum	9901	1.00	30.00	30.00
						5,186.25
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		51.86
						5,238.11
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		735.95
						5,974.07
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		896.11
						6,870.18
	Add for Cess @ 1%	Lumpsum	9905	0.01		68.70
	Cost for 48 Sleepers					6,938.88
	Rate per sleeper	Each				144.56
074132	Sleepers of length more than 2.85 m and up to 4.20 m					
	Considering 20% more that over rate up to 2.85 m					
	Rate per sleeper	Each	074131	144.56	1.20	173.47
074133	Sleepers of length more than 4.20 m					
	Considering 30% more that over rate up to 2.85 m					
	Rate per sleeper	Each	074131	144.56	1.30	187.93

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CHAPTER - 8 : Deep Screening and Ballast Related Activities

Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
081000	Deep Screening Works					
081010	Manual deep screening of Plain track/ turnouts under traffic as per procedure prescribed in IRPWM, June 2020 or latest, in other than PSC sleepers of any density and throwing away screened muck arising out of screening on toe of bank or on cess, if low or on spoil banks above top of cutting (including throwing and leveling, if required beyond minimum 5m from the edge of cutting which are up to 3m deep or alternatively carting it up to 50m for disposing it off beyond cutting or platforms) as per direction of Engineer in-charge, including cutting cess for effective drainage on both sides, one round of kutcha packing with screened ballast and further attending to track parameter to make track fit for 20 kmph speed complete in all respect. Note : Payment shall be made for length along main line only for turnouts.					
081011	Depth of 150 mm below bottom of sleeper of Plain Track					
	Considering 120 men on work site in a day Details of cost for 293 Track Metres of deep screening (sleeper density of 1540 sleepers/km)					
	Considering output of 3.75 sleepers per person (450 sleepers in 293 TRM)					
	Labour:					
	Mate (Skilled)	Day	0002	751.00	6.00	4,506.00
	Look Out Man (Un-skilled)	Day	0033	547.00	1.00	547.00
	Waterman (Un-skilled)	Day	0034	547.00	2.00	1,094.00
	(i) Deep Screening including one round kutcha packing					
	Labour Unskilled	Day	0020	540.00	120.00	64,800.00
	(ii) Other Works, e.g. removal/spreading of muck, cess attention etc. (@ one man per 16 TRM) :					
	Labour Unskilled	Day	0020	540.00	18.00	9,720.00
	Misc.:					
	T & P for Wooden Blocks	Lumpsum	9901	1.00	240.00	240.00
						80,907.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		809.07
						81,716.07
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		11,481.11
						93,197.18
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		13,979.58
						107,176.75
	Add for Cess @ 1%	Lumpsum	9905	0.01		1,071.77
	Cost for 293 TRM					108,248.52
	Rate per TRM	TRM				369.45
081012	Depth of 200 mm below bottom of sleeper of Plain Track					
	Considering 120 men on work site in a day Details of cost for 260 Track Metres of deep screening (sleeper density of 1540 sleepers/km)					
	Considering output of 3.5 sleepers per person (400 sleepers in 260 TRM)					
	Labour:					
	Mate (Skilled)	Day	0002	751.00	6.00	4,506.00
	Look Out Man (Un-skilled)	Day	0033	547.00	1.00	547.00
	Waterman (Un-skilled)	Day	0034	547.00	2.00	1,094.00
	(i) Deep Screening including one round kutcha packing					
	Labour Unskilled	Day	0020	540.00	114.00	61,560.00
	(ii) Other Works, e.g. removal/spreading of muck, cess attention etc. (@ one man per 14 TRM) :					
	Labour Unskilled	Day	0020	540.00	19.00	10,260.00
	Misc.:					
	T & P for Wooden Blocks	Lumpsum	9901	1.00	240.00	240.00
						78,207.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		782.07
						78,989.07
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		11,097.96
						90,087.03

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		13,513.06
						103,600.09
	Add for Cess @ 1%	Lumpsum	9905	0.01		1,036.00
	Cost for 260 TRM					104,636.09
	Rate per TRM	TRM				402.45
081013	Depth of 250 mm below bottom of sleeper of Plain Track					
	Considering 120 men on work site in a day Details of cost for 244 Track Metres of deep screening (sleeper density of 1540 sleepers/km)					
	Considering output of 3.25 sleepers per person (375 sleepers in 244 TRM)					
	Labour:					
	Mate (Skilled)	Day	0002	751.00	6.00	4,506.00
	Look Out Man (Un-skilled)	Day	0033	547.00	1.00	547.00
	Waterman (Un-skilled)	Day	0034	547.00	2.00	1,094.00
	(i) Deep Screening including one round kutcha packing					
	Labour Unskilled	Day	0020	540.00	115.00	62,100.00
	(ii) Other Works, e.g. removal/spreading of muck, cess attention etc. (@ one man per 12 TRM) :					
	Labour Unskilled	Day	0020	540.00	20.00	10,800.00
	Misc.:					
	T & P for Wooden Blocks	Lumpsum	9901	1.00	240.00	240.00
						79,287.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		792.87
						80,079.87
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		11,251.22
						91,331.09
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		13,699.66
						105,030.76
	Add for Cess @ 1%	Lumpsum	9905	0.01		1,050.31
	Cost for 244 TRM					106,081.06
	Rate per TRM	TRM				434.76
081014	Depth of 300 mm below bottom of sleeper of Plain Track					
	Considering 120 men on work site in a day Details of cost for 228 Track Metres of deep screening (sleeper density of 1540 sleepers/km)					
	Considering output of 3.00 sleepers per person (350 sleepers in 228 TRM)					
	Labour:					
	Mate (Skilled)	Day	0002	751.00	6.00	4,506.00
	Look Out Man (Un-skilled)	Day	0033	547.00	1.00	547.00
	Waterman (Un-skilled)	Day	0034	547.00	2.00	1,094.00
	(i) Deep Screening including one round kutcha packing					
	Labour Unskilled	Day	0020	540.00	116.00	62,640.00
	(ii) Other Works, e.g. removal/spreading of muck, cess attention etc. (@ one man per 10 TRM) :					
	Labour Unskilled	Day	0020	540.00	23.00	12,420.00
	Misc.:					
	T & P for Wooden Blocks	Lumpsum	9901	1.00	250.00	250.00
						81,457.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		814.57
						82,271.57
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		11,559.16
						93,830.73
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		14,074.61
						107,905.33
	Add for Cess @ 1%	Lumpsum	9905	0.01		1,079.05
	Cost for 228 TRM					108,984.39
	Rate per TRM	TRM				478.00

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
081015	Depth of 150 mm below bottom of sleeper for Turnouts					
	Take 60% extra on 081011	TRM	081011	369.45	1.60	591.12
	Rate per TRM	TRM				591.12
081016	Depth of 200 mm below bottom of sleeper for Turnouts					
	Take 60% extra on 081012	TRM	081012	402.45	1.60	643.91
	Rate per TRM	TRM				643.91
081017	Depth of 250 mm below bottom of sleeper for Turnouts					
	Take 60% extra on 081013	TRM	081013	434.76	1.60	695.61
	Rate per TRM	TRM				695.61
081018	Depth of 300 mm below bottom of sleeper for Turnouts					
	Take 60% extra on 081014	TRM	081014	478.00	1.60	764.80
	Rate per TRM	TRM				764.80
081020	Manual deep screening of Plain track/ turnouts as per procedure prescribed in IRPWM, June 2020 or latest, on PSC sleepers of any density and throwing away screened muck arising out of screening on toe of bank or on cess, if low or on spoil banks above top of cutting (including throwing and leveling, if required beyond minimum 5m from the edge of cutting which are up to 3m deep or alternatively carting it up to 50m for disposing it off beyond cutting or platforms) as per direction of Engineer in-charge, including cutting cess for effective drainage on both sides, one round of kutcha packing with screened ballast and further attending to track parameter to make track fit for 20 kmph speed complete in all respect. Note : Payment shall be made for length along main line only for turnouts.					
081021	Depth of 150 mm below bottom of sleeper - For Plain Track :					
	Considering 120 men on work site in a day Details of cost for 260 Track Metres of deep screening (sleeper density of 1540 sleepers/km)					
	Considering output of 3 sleepers per person (400 sleepers in 260 TRM)					
	Labour:					
	Mate (Skilled)	Day	0002	751.00	6.00	4,506.00
	Look Out Man (Un-skilled)	Day	0033	547.00	1.00	547.00
	Waterman (Un-skilled)	Day	0034	547.00	2.00	1,094.00
	(i) Deep Screening including one round kutcha packing					
	Labour Unskilled	Day	0020	540.00	133.00	71,820.00
	(ii) Other Works, e.g. removal/spreading of muck, cess attention etc. (@ one man per 16 TRM) :					
	Labour Unskilled	Day	0020	540.00	16.00	8,640.00
	Misc.:					
	T & P for Wooden Blocks	Lumpsum	9901	1.00	230.00	230.00
						86,837.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		868.37
						87,705.37
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		12,322.60
						100,027.97
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		15,004.20
						115,032.17
	Add for Cess @ 1%	Lumpsum	9905	0.01		1,150.32
	Cost for 260 TRM					116,182.49
	Rate per TRM	TRM				446.86
081022	Depth of 200 mm below bottom of sleeper - For Plain Track :					
	Considering 120 men on work site in a day Details of cost for 228 Track Metres of deep screening (sleeper density of 1540 sleepers/km)					
	Considering output of 2.75 sleepers per person (350 sleepers in 228 TRM)					
	Labour:					
	Mate (Skilled)	Day	0002	751.00	6.00	4,506.00
	Look Out Man (Un-skilled)	Day	0033	547.00	1.00	547.00
	Waterman (Un-skilled)	Day	0034	547.00	2.00	1,094.00

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	(i) Deep Screening including one round kutchha packing					
	Labour Unskilled	Day	0020	540.00	127.00	68,580.00
	(ii) Other Works, e.g. removal/spreading of muck, cess attention etc. (@ one man per 14 TRM) :					
	Labour Unskilled	Day	0020	540.00	16.00	8,640.00
	Misc.:					
	T & P for Wooden Blocks	Lumpsum	9901	1.00	230.00	230.00
						83,597.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		835.97
						84,432.97
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		11,862.83
						96,295.80
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		14,444.37
						110,740.17
	Add for Cess @ 1%	Lumpsum	9905	0.01		1,107.40
	Cost for 228 TRM					111,847.57
	Rate per TRM	TRM				490.56
081023	Depth of 250 mm below bottom of sleeper - For Plain Track :					
	Considering 120 men on work site in a day Details of cost for 216 Track Metres of deep screening (sleeper density of 1540 sleepers/km)					
	Considering output of 2.50 sleepers per person (332 sleepers in 216 TRM)					
	Labour:					
	Mate (Skilled)	Day	0002	751.00	6.00	4,506.00
	Look Out Man (Un-skilled)	Day	0033	547.00	1.00	547.00
	Waterman (Un-skilled)	Day	0034	547.00	2.00	1,094.00
	(i) Deep Screening including one round kutchha packing					
	Labour Unskilled	Day	0020	540.00	132.00	71,280.00
	(ii) Other Works, e.g. removal/spreading of muck, cess attention etc. (@ one man per 12 TRM) :					
	Labour Unskilled	Day	0020	540.00	18.00	9,720.00
	Misc.:					
	T & P for Wooden Blocks	Lumpsum	9901	1.00	240.00	240.00
						87,387.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		873.87
						88,260.87
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		12,400.65
						100,661.52
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		15,099.23
						115,760.75
	Add for Cess @ 1%	Lumpsum	9905	0.01		1,157.61
	Cost for 216 TRM					116,918.36
	Rate per TRM	TRM				541.29
081024	Depth of 300 mm below bottom of sleeper - For Plain Track :					
	Considering 120 men on work site in a day Details of cost for 200 Track Metres of deep screening (sleeper density of 1540 sleepers/km)					
	Considering output of 2.25 sleepers per person (308 sleepers in 200 TRM)					
	Labour:					
	Mate (Skilled)	Day	0002	751.00	6.00	4,506.00
	Look Out Man (Un-skilled)	Day	0033	547.00	1.00	547.00
	Waterman (Un-skilled)	Day	0034	547.00	2.00	1,094.00
	(i) Deep Screening including one round kutchha packing					
	Labour Unskilled	Day	0020	540.00	137.00	73,980.00
	Other Works, e.g. removal/spreading of muck, cess attention etc. (@ one man per 10 TRM) :					
	Labour Unskilled	Day	0020	540.00	20.00	10,800.00
	Misc.:					
	T & P for Wooden Blocks	Lumpsum	9901	1.00	250.00	250.00
						91,177.00

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		911.77
						92,088.77
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		12,938.47
						105,027.24
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		15,754.09
						120,781.33
	Add for Cess @ 1%	Lumpsum	9905	0.01		1,207.81
	Cost for 200 TRM					121,989.14
	Rate per TRM	TRM				609.95
081025	Depth of 150 mm below bottom of sleeper for Turnouts					
	Take 60% extra on 081021	TRM	081021	446.86	1.60	714.97
	Rate per TRM	TRM				714.97
081026	Depth of 200 mm below bottom of sleeper for Turnouts					
	Take 60% extra on 081022	TRM	081022	490.56	1.60	784.90
	Rate per TRM	TRM				784.90
081027	Depth of 250 mm below bottom of sleeper for Turnouts					
	Take 60% extra on 081023	TRM	081023	541.29	1.60	866.06
	Rate per TRM	TRM				866.06
081028	Depth of 300 mm below bottom of sleeper for Turnouts					
	Take 60% extra on 081024	TRM	081024	609.95	1.60	975.91
	Rate per TRM	TRM				975.91
081030	Extra to item nos. from 081011 to 081018 and from 081021 to 081028 for disposal of muck at a distance beyond 50m for every additional lead of 50 metres or part thereof up to 500 metres for 1 TRM in station yard / cutting.					
	Details of cost for 250 Track Metre (Extra labour element required for additional average lead of 250 metre for disposal of muck)(@ one man per 25 TRM)					
	Labour:					
	Labour Unskilled	Day	0020	540.00	10.00	5,400.00
	Misc.:					
	T & P	Lumpsum	9901	1.00	20.00	20.00
						5,420.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		54.20
						5,474.20
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		769.13
						6,243.33
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		936.50
						7,179.82
	Add for Cess @ 1%	Lumpsum	9905	0.01		71.80
	Cost for 250 TRM / 250 metres lead					7,251.62
	Cost for 250 TRM / every 50 metres lead					1,450.32
	Rate per TRM for every 50 metres	Each				5.80
081040	Extra to item nos. from 081011 to 081018 and from 081021 to 081028 for disposal of muck for additional lift of 1 metre or part thereof beyond 3 metre lift in case of disposal of muck from track for 1 TRM in station yard / cutting.					
	Details of cost for 200 Track Metre (Extra labour element required for additional average lift of 3 metre for disposal of muck)(@ one man per 20 TRM)					
	Labour:					
	Labour Unskilled	Day	0020	540.00	10.00	5,400.00

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Misc.:					
	T & P	Lumpsum	9901	1.00	20.00	20.00
						5,420.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		54.20
						5,474.20
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		769.13
						6,243.33
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		936.50
						7,179.82
	Add for Cess @ 1%	Lumpsum	9905	0.01		71.80
	Cost for 200 TRM / 3 metre lift					7,251.62
	Cost for 200 TRM / every 1 metre lift					2,417.21
	Rate per TRM for every 1 metre LIFT	Each				12.09
081050	Deep screening of turnout under line block within stipulated time by way of removing the Points and Crossing assembly by using T-28 cranes, removing the entire stone ballast bed by excavators up to shoulders to depth of 200/250/300 mm, limiting the digging up to original formation level only, screening the ballast so removed and stacking, spreading ballast on the formation in uniform layer from stack of new/screened ballast, placing the points and crossing assembly in designed position, dumping and spreading ballast in cribs and shoulders, lifting of track as required so as to get a clean cushion of 300mm, shifting of sleepers to correct spacing including removal and re-fixing of fittings wherever necessary, aligning of sleepers as per prescribed layout, initial packing, aligning, dressing/ lowering the cess to deep screened depth up to the edge of bank with a slope of 1 in 30, boxing of ballast to profile and making fit to run the trains at a speed of non stop 20 KMPH as specified in IRPWM - June 2020 or latest complete in all respect as directed by the Engineer - in - charge. Note: 1. Rail cutting and Rail hole drilling shall be paid under relevant items. 2. Scooped ballast shall be screened and the unused quantity of screened ballast shall be stacked for use in future.					
081051	For 1 in 12 points and Crossings					
	Details of cost for one Points and crossing					
	Labour:					
	Mate (Skilled)	Day	0002	751.00	2.00	1,502.00
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	1.00	749.00
	Helper (Semi-skilled)	Day	0021	572.00	1.00	572.00
	Waterman (Un-skilled)	Day	0034	547.00	1.00	547.00
	Look Out Man (Un-skilled)	Day	0033	547.00	1.00	547.00
	For Pre Block activity: Opening of ballast, screening of ballast & stacking					
	Labour Unskilled	Day	0020	540.00	10.00	5,400.00
	For During Block activity: Assisting T-28 machine operation, Screening of ballast, putting back ballast, levelling of ballast, shifting of sleepers, lifting & initial packing of track.					
	Labour Unskilled	Day	0020	540.00	20.00	10,800.00
	For Post Block activity: Dumping ballast, removing of muck, squaring of sleepers, re-driving of fittings, boxing of ballast					
	Labour Unskilled	Day	0020	540.00	10.00	5,400.00
	Machinery:					
	Hire Charges of JCB 3DX Plus Backhoe Loader	Day	0506	4966.80	1.50	7,450.20
	Misc.:					
	T&P (no rates reqd.)	Lumpsum	9901	1.00	400.00	400.00
						33,367.20
	Add for working under traffic block @ 15%	Lumpsum	9993	0.15		5,005.08
						38,372.28
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		383.72
						38,756.00

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		5,445.22
						44,201.22
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		6,630.18
						50,831.40
	Add for Cess @ 1%	Lumpsum	9905	0.01		508.31
	Cost for one set of points & Crossing					51,339.72
	Rate per set	Set				51,339.72
081052	For 1 in 8.5 Points & Crossings					
	For 1 in 8.5 Points & Crossings, considering deduction of 20% from 081051	Set	081051	51339.72	0.80	41,071.77
	Rate per set	Set				41,071.77
081053	For 1 in 16 Points & Crossings					
	For 1 in 16 Points & Crossings considering extra 20% over item no. 081051	Set	081051	51339.72	1.20	61,607.66
	Rate per set	Set				61,607.66
082000	Spreading of Ballast					
082010	Recoupment of ballast in running line with railway's stone ballast from existing stacks available along alignment either on top of cutting or on cess or at toe of bank by head leads or by any other means and spreading to make up deficiency in the required profile with contractor's labour, tools & plants, as directed by Engineer-in-charge. Note: Payment shall be made based on ballast stack measurement.					
082011	For average lead up to 50m and lift up to 5m					
	Details of cost for 200 cum					
	Labour:					
	Mate (Skilled)	Day	0002	751.00	1.00	751.00
	Waterman (Un-skilled)	Day	0034	547.00	1.00	547.00
	Labour Unskilled	Day	0020	540.00	10.00	5,400.00
	T & P (Rake iron ballast, fork only)	Lumpsum	9901	1.00	10.00	10.00
	Hire charges for tractor with trolley	Day	0080	1742.00	3.00	5,226.00
	Hire Charges of JCB 3DX Plus Backhoe Loader	Day	0506	4966.80	1.00	4,966.80
						16,900.80
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		169.01
						17,069.81
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		2,398.31
						19,468.12
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		2,920.22
						22,388.33
	Add for Cess @ 1%	Lumpsum	9905	0.01		223.88
	Cost for 200 cum					22,612.22
	Rate per cum	Cum				113.06
082012	Extra over item no. 082011 for each additional average lead of 50m or part thereof when total average lead exceeds 50m, but up to 250m. Note: This item may be used only in exceptional circumstance under prior order on record.					
	Details of cost for 200 cum per 50m Lead					
	Labour:					
	Mate (Skilled)	Day	0002	751.00	1.00	751.00
	Labour Unskilled	Day	0020	540.00	4.00	2,160.00
	Misc.:					
	T & P	Lumpsum	9901	1.00	10.00	10.00
	Hire Charges of JCB 3DX Plus Backhoe Loader	Day	0506	4966.80	0.25	1,241.70
						4,162.70
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		41.63
						4,204.33
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		590.71
						4,795.03

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		719.26
						5,514.29
	Add for Cess @ 1%	Lumpsum	9905	0.01		55.14
	Cost for 200 cum per 50m Lead					5,569.43
	Rate per cum / 50m Lead	Each				27.85
082013	Extra to item no. 082011 for each additional average lift of 1m or part thereof when total average lift exceeds 5m.					
	Details of cost for 200 cum per 2m Lift					
	Labour:					
	Mate (Skilled)	Day	0002	751.00	0.50	375.50
	Labour Unskilled	Day	0020	540.00	4.00	2,160.00
	Misc.:					
	T & P	Lumpsum	9901	1.00	10.00	10.00
	Hire Charges of JCB 3DX Plus Backhoe Loader	Day	0506	4966.80	0.25	1,241.70
						3,787.20
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		37.87
						3,825.07
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		537.42
						4,362.49
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		654.37
						5,016.87
	Add for Cess @ 1%	Lumpsum	9905	0.01		50.17
	Cost for 200 cum per 2m Lift					5,067.04
	Cost for 200 cum per 1m Lift					2,533.52
	Rate per cum / average 1 m Lift	Each				12.67
083000	Lifting, Packing & Boxing Works					
083010	Lifting and packing for regrading the existing PSC sleeper track to required height / level in stages not exceeding 75mm or part thereof at a time, providing permissible ramp for the track, insertion of moorum / sand / stone ballast uniformly under the existing track and placing the same to safe approved gradient, gauge, cushion including levelling and one round of through packing to allow train movement at restricted speed of 30 kmph for a specified length with all leads & lifts and fixing, marking, painting rail level pegs at every 30m interval. Note: Lifting of track shall be done in stages as per procedure prescribed in latest edition of IRPWM to get the proposed final level as per approved working profile, as directed by Engineer in-charge.					
	Details of cost for 250 Track Metres for regrading by lifting and packing of track (sleeper density of 1540 sleepers/km)					
	Material:					
	Enamel Paint as per RDSO's Spec. no.M&C/PCN/120-2011	Litre	0304	248.00	0.25	62.00
	Labour:					
	Mate (Skilled)	Day	0002	751.00	2.00	1,502.00
	Look Out Man (Un-skilled)	Day	0033	547.00	1.00	547.00
	Waterman (Un-skilled)	Day	0034	547.00	2.00	1,094.00
	(i) Fixing & marking of rail level posts (Tie bar at every 30 m)					
	Painter (Skilled)	Day	0012	749.00	0.10	74.90
	Helper (Semi-skilled)	Day	0021	572.00	0.10	57.20
	Labour Unskilled	Day	0020	540.00	0.50	270.00
	(ii) Lifting of track up to 75 mm at a time including insertion of moorum/sand/stone ballast Considering output of 12 sleepers per man (385 sleeper in 250 TRM)					
	Labour Unskilled	Day	0020	540.00	32.00	17,280.00
	(iii) For one round Through packing (For Through packing 15 sleeper per man)					
	Labour Unskilled	Day	0020	540.00	26.00	14,040.00

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Misc.:					
	T & P (Hydraulic Jack, Crow bars, Wire claws, cane basket, Rake ballast, Cross level etc.)	Lumpsum	9901	1.00	120.00	120.00
						35,047.10
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		350.47
						35,397.57
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		4,973.36
						40,370.93
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		6,055.64
						46,426.57
	Add for Cess @ 1%	Lumpsum	9905	0.01		464.27
	Cost for 250 TRM					46,890.83
	Rate per TRM	TRM				187.56
083011	Extra for additional lift over 75mm for every 50mm lift or part thereof up to 275mm for item nos. 083010 for each TRM.					
	Taking average Lift of 100mm					
	Detail of cost for 250 TRM for 100mm Lift(@ one man per 12.5 TRM)					
	Labour:					
	For Filling extra ballast in packing zone, lifting & packing					
	Labour Unskilled	Day	0020	540.00	20.00	10,800.00
	Misc.:					
	T & P (Hydraulic Jack, Crow bars, Wire claws, Ballast dolly, Rake ballast, Cross level etc.)	Lumpsum	9901	1.00	40.00	40.00
						10,840.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		108.40
						10,948.40
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		1,538.25
						12,486.65
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		1,873.00
						14,359.65
	Add for Cess @ 1%	Lumpsum	9905	0.01		143.60
	Cost for 250 TRM for 100mm Lift					14,503.24
	Cost for 1 TRM for 100mm Lift					58.01
	Rate per TRM for 50mm Lift	TRM				29.01
083020	Regrading the existing track by lowering up to required depth in stages by cutting the formation top maintaining the depth of existing cushion finally, not exceeding 75mm in one stage including one round of through packing and making track fit for 30kmph speed at each stage of lowering as per procedure prescribed in latest edition of IRPWM and subsequent picking up of sags / slacks and attending to misalignment / cross level defects during train operation, providing required ramp-in and ramp-out for safe passage of trains, including cutting trenches across track at every 30m interval to the required final formation level complete, and fixing, marking, painting rail level posts, tie bars at every 30m interval as directed by engineer in-charge. Note: The item shall be only operated only when formation is required to be cut for lowering of existing track.					
	Details of cost for 250 Track Metres for regrading by lowering of track (sleeper density of 1540 sleepers/km)					
	Material:					
	Enamel Paint as per RDSO's Spec. no.M&C/PCN/120-2011	Litre	0304	248.00	0.25	62.00
	Labour:					
	Mate (Skilled)	Day	0002	751.00	2.00	1,502.00
	Look Out Man (Un-skilled)	Day	0033	547.00	1.00	547.00
	Waterman (Un-skilled)	Day	0034	547.00	2.00	1,094.00
	(i) Fixing & marking of rail level posts (Tie bar at every 30 m)					
	Painter (Skilled)	Day	0012	749.00	0.10	74.90
	Helper (Semi-skilled)	Day	0021	572.00	0.10	57.20

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Labour Unskilled	Day	0020	540.00	0.50	270.00
	(ii) Removal of ballast, cutting of top of formation and levelling as per designed profile, potting back ballast as per designed profile and Lowering of track up to 75 mm. Considering output of 2 sleepers per man (384 sleeper in 250 TRM)					
	Labour Unskilled	Day	0020	540.00	192.00	103,680.00
	(iii) For one round Through packing (For Through packing 15 sleeper per man)					
	Labour Unskilled	Day	0020	540.00	26.00	14,040.00
	Misc.:					
	T & P (Hydraulic Jack, Crow bars, Wire claws, Ballast dolly, Rake ballast, Cross level etc.)	Lumpsum	9901	1.00	130.00	130.00
						121,457.10
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		1,214.57
						122,671.67
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		17,235.37
						139,907.04
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		20,986.06
						160,893.10
	Add for Cess @ 1%	Lumpsum	9905	0.01		1,608.93
	Cost for 250 TRM					162,502.03
	Rate per TRM	TRM				650.01
083030	Boxing and profiling of ballast as per procedure prescribed in latest edition of IRPWM including cess dressing on both sides of track. The work will include removing excess ballast from track and putting the same in crib and shoulder by leading to a maximum of 50m including crossing of track, dewatering on ballast section etc and as directed by Engineer-In charge.					
	Details of cost for 510Track Metre (Considering output of 30 TRM per man on both sides)					
	Labour:					
	Mate (Skilled)	Day	0002	751.00	1.00	751.00
	Waterman (Un-skilled)	Day	0034	547.00	1.00	547.00
	Labour Unskilled	Day	0020	540.00	17.00	9,180.00
	Misc.:					
	T & P (Rake iron ballast, fork, beater, Phowrah, etc.)	Lumpsum	9901	1.00	40.00	40.00
						10,518.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		105.18
						10,623.18
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		1,492.56
						12,115.74
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		1,817.36
						13,933.10
	Add for Cess @ 1%	Lumpsum	9905	0.01		139.33
	Cost for 510 Track Metre					14,072.43
	Rate per TRM	TRM				27.59
083040	Removing, screening and salvaging ballast from track, duly digging / scarifying ballast by beaters / wire brushes or any mechanical means, leveling and dressing formation with specified cross slope after salvaging ballast, separating muck by screening the salvaged ballast with contractor's 20mm size sieve, stacking of screened ballast for measurement, disposing off muck at specified locations with all lead & lifts as directed by Engineer-in-charge. Note: Payment shall be made for quantity of ballast stacked after screening of retrieved ballast from track.					
	Details of cost for 50 cum					
	Labour:					
	Mate (Skilled)	Day	0002	751.00	1.00	751.00
	Waterman (Un-skilled)	Day	0034	547.00	1.00	547.00

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Labour Unskilled	Day	0020	540.00	20.00	10,800.00
	Misc.:					
	T & P	Lumpsum	9901	1.00	40.00	40.00
						12,138.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		121.38
						12,259.38
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		1,722.44
						13,981.82
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		2,097.27
						16,079.10
	Add for Cess @ 1%	Lumpsum	9905	0.01		160.79
	Cost for 50 cum					16,239.89
	Rate per Cum	Cum				324.80
084000	Loading & Unloading of Ballast					
084010	Loading Railway's ballast, collected at yard / depot into Railway's BOB / BKH / any other type of open wagon, using Mechanical Loader or any other method with all lead and lifts, as directed by Engineer in-charge.					
	Under Conditions not requiring Traffic Block:					
	Details of cost for 1400 cum (1 BOBYN = 35 cum) considering 40 BOBYN					
	Labour:					
	(i) For loading of ballast					
	Mate (Skilled)	Day	0002	751.00	1.00	751.00
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	2.00	1,498.00
	Helper (Semi-skilled)	Day	0021	572.00	2.00	1,144.00
	Labour Unskilled	Day	0020	540.00	12.00	6,480.00
	Machinery:					
	Hire Charges of Wheel loader 3.1 Cum bucket capacity 165 HP (without POL)	Day	0503	4285.00	2.50	10,712.50
	Diesel (HSD) Oil	Litre	0179	93.00	220.00	20,460.00
	Lubricant and Hydraulic oil @ 10% of the cost of fuel i.e. Diesel					2,046.00
	Misc.:					
	T & P	Lumpsum	9901	1.00	30.00	30.00
						43,121.50
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		431.22
						43,552.72
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		6,119.16
						49,671.87
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		7,450.78
						57,122.65
	Add for Cess @ 1%	Lumpsum	9905	0.01		571.23
	Cost for 1400 cum					57,693.88
	Rate per Cum	Cum				41.21
084020	Leading and loading Railway's Ballast collected at yard / depot into Railway's covered wagon using any approved method with lead up to 250m & all lifts as directed by Engineer in-charge.					
	Details of cost for 800 cum for 20 BCN (1 BCN covered wagon = 40 cum)					
	Labour:					
	Mate (Skilled)	Day	0002	751.00	1.00	751.00
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	0.50	374.50
	Helper (Semi-skilled)	Day	0021	572.00	0.50	286.00
	(i) For loading of ballast(Considering 4 persons for one BCN)					
	Labour Unskilled	Day	0020	540.00	80.00	43,200.00
	Machinery:					
	Hire Charges of JCB 3DX Plus Backhoe Loader	Day	0506	4966.80	5.00	24,834.00

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Misc.:					
	T & P	Lumpsum	9901	1.00	160.00	160.00
						69,605.50
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		696.06
						70,301.56
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		9,877.37
						80,178.92
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		12,026.84
						92,205.76
	Add for Cess @ 1%	Lumpsum	9905	0.01		922.06
	Cost for 800 cum					93,127.82
	Rate per Cum	Cum				116.41
084030	Leading and loading Railway's Sand collected at yard / depot into Railway's covered wagon using any approved method with lead up to 250m & all lifts as directed by Engineer in-charge.					
	Details of cost for 700 cum for 20 BCN (1 BCN covered wagon = 35 cum)					
	Labour:					
	Mate (Skilled)	Day	0002	751.00	1.00	751.00
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	0.50	374.50
	Helper (Semi-skilled)	Day	0021	572.00	0.50	286.00
	(i) For loading of Sand(Considering 6 persons all the time with JCB)					
	Labour Unskilled	Day	0020	540.00	22.00	11,880.00
	Machinery:					
	Hire Charges of JCB 3DX Plus Backhoe Loader	Day	0506	4966.80	3.75	18,625.50
	Misc.:					
	T & P	Lumpsum	9901	1.00	120.00	120.00
						32,037.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		320.37
						32,357.37
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		4,546.21
						36,903.58
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		5,535.54
						42,439.12
	Add for Cess @ 1%	Lumpsum	9905	0.01		424.39
	Cost for 700 cum					42,863.51
	Rate per Cum	Cum				61.23
084040	Unloading of ballast from Railway's Hopper Wagons, quantity distribution as per pre-defined site requirement, clearing infringements/jammed ballast, distributing the unloaded ballast uniformly over the track, profiling and boxing following all prescribed safety norms.					
084041	Under Traffic Block Conditions:					
	Details of cost for 700 cum / 20 hoppers (1 hopper = 35 cum)					
	Labour:					
	Mate (Skilled)	Day	0002	751.00	2.00	1,502.00
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	1.00	749.00
	Helper (Semi-skilled)	Day	0021	572.00	1.00	572.00
	Look Out Man (Un-skilled)	Day	0033	547.00	1.00	547.00
	Waterman (Un-skilled)	Day	0034	547.00	2.00	1,094.00
	(i) For unloading of ballast in block and joining for profiling and boxing thereafter.					
	Labour Unskilled	Day	0020	540.00	20.00	10,800.00
	(ii) For distributing unloaded ballast & clearing of track, profiling and boxing					
	Labour Unskilled	Day	0020	540.00	20.00	10,800.00
	Misc.:					
	T & P	Lumpsum	9901	1.00	125.00	125.00
						26,189.00

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Add for working under traffic block @ 10%	Lumpsum	9992	0.10		2,618.90
						28,807.90
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		288.08
						29,095.98
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		4,087.99
						33,183.96
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		4,977.59
						38,161.56
	Add for Cess @ 1%	Lumpsum	9905	0.01		381.62
	Cost for 700 cum					38,543.17
	Rate per Cum	Cum				55.06
084042	Under Conditions not requiring Traffic Block:					
	Details of cost for 700 cum / 20 hoppers (1 hopper = 35 cum)					
	Labour:					
	Mate (Skilled)	Day	0002	751.00	2.00	1,502.00
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	1.00	749.00
	Helper (Semi-skilled)	Day	0021	572.00	1.00	572.00
	Look Out Man (Un-skilled)	Day	0033	547.00	1.00	547.00
	Waterman (Un-skilled)	Day	0034	547.00	4.00	2,188.00
	(i) For unloading of ballast and joining for profiling and boxing thereafter.					
	Labour Unskilled	Day	0020	540.00	20.00	10,800.00
	(ii) For distributing unloaded ballast & clearing of track, profiling and boxing					
	Labour Unskilled	Day	0020	540.00	10.00	5,400.00
	Misc.:					
	T & P	Lumpsum	9901	1.00	125.00	125.00
						21,883.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		218.83
						22,101.83
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		3,105.31
						25,207.14
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		3,781.07
						28,988.21
	Add for Cess @ 1%	Lumpsum	9905	0.01		289.88
	Cost for 700 cum					29,278.09
	Rate per Cum	Cum				41.83
084050	Unloading of Ballast from Railway's wagons other than Hopper wagons by opening the doors of boxes and pulling & pushing down ballast with rake irons / phowrahs and distributing unloaded ballast uniformly over the track as required, clearing infringements/jammed ballast, profiling and boxing following all prescribed safety norms.					
084051	Under Traffic Block Conditions:					
	Details of cost for 800 cum for 20 BCN (1 BCN covered wagon = 40 cum)					
	Labour:					
	Mate (Skilled)	Day	0002	751.00	2.00	1,502.00
	Look Out Man (Un-skilled)	Day	0033	547.00	1.00	547.00
	Waterman (Un-skilled)	Day	0034	547.00	2.00	1,094.00
	(i) For unloading of ballast (Considering 4 persons for one BCN) and joining for profiling and boxing after unlading					
	Labour Unskilled	Day	0020	540.00	80.00	43,200.00
	(ii) Additional labour for distributing and profiling					
	Labour Unskilled	Day	0020	540.00	40.00	21,600.00
	Misc.:					
	T & P	Lumpsum	9901	1.00	240.00	240.00
						68,183.00
	Add for working under traffic block @ 10%	Lumpsum	9992	0.10		6,818.30
						75,001.30
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		750.01

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
						75,751.31
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		10,643.06
						86,394.37
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		12,959.16
						99,353.53
	Add for Cess @ 1%	Lumpsum	9905	0.01		993.54
	Cost for 800 cum					100,347.06
	Rate per Cum	Cum				125.43
084052	Under Conditions not requiring Traffic Block:					
	Details of cost for 800 cum for 20 BCN (1 BCN covered wagon = 40 cum)					
	Labour:					
	Mate (Skilled)	Day	0002	751.00	4.00	3,004.00
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	1.00	749.00
	Helper (Semi-skilled)	Day	0021	572.00	1.00	572.00
	Look Out Man (Un-skilled)	Day	0033	547.00	1.00	547.00
	Waterman (Un-skilled)	Day	0034	547.00	4.00	2,188.00
	(i) For unloading of ballast (Considering 4 persons for one BCN) and joining for profiling and boxing after unloading					
	Labour Unskilled	Day	0020	540.00	80.00	43,200.00
	(ii) Additional distributing unloaded ballast & profiling					
	Labour Unskilled	Day	0020	540.00	20.00	10,800.00
	Misc.:					
	T & P	Lumpsum	9901	1.00	240.00	240.00
						61,300.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		613.00
						61,913.00
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		8,698.78
						70,611.78
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		10,591.77
						81,203.54
	Add for Cess @ 1%	Lumpsum	9905	0.01		812.04
	Cost for 800 cum					82,015.58
	Rate per cum	Cum				102.52
084060	Unloading of sand / quarry dust during block from Railway's wagons other than Hopper wagons by opening the doors of boxes and pulling & pushing down sand with rake irons / phowrahs taking out jammed sand and distributing unloaded sand uniformly over the track.					
	Details of cost for 700 cum for 20 BCN (1 BCN covered wagon = 35 cum)					
	Labour:					
	Mate (Skilled)	Day	0002	751.00	4.00	3,004.00
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	1.00	749.00
	Helper (Semi-skilled)	Day	0021	572.00	1.00	572.00
	Look Out Man (Un-skilled)	Day	0033	547.00	1.00	547.00
	Waterman (Un-skilled)	Day	0034	547.00	4.00	2,188.00
	(i) For unloading of sand (Considering 3 persons for one BCN)					
	Labour Unskilled	Day	0020	540.00	60.00	32,400.00
	(ii) For distributing unloaded sand & clearing of track					
	Labour Unskilled	Day	0020	540.00	30.00	16,200.00
	Misc.:					
	T & P	Lumpsum	9901	1.00	185.00	185.00
						55,845.00
	Add for working under traffic block @ 10%	Lumpsum	9992	0.10		5,584.50
						61,429.50
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		614.30
						62,043.80
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		8,717.15
						70,760.95

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		10,614.14
						81,375.09
	Add for Cess @ 1%	Lumpsum	9905	0.01		813.75
	Cost for 700 cum					82,188.84
	Rate per cum	Cum				117.41
085000	Supply of Ballast					
085010	Manufacturing, supply and stacking of machine crushed Track Ballast conforming to RDSO Specification (IRS-GE-1) with latest correction slips at Railway depot or nominated location. Note: Distance of nearest quarry mentioned in each sub-item is only for the purpose of selecting the items for preparation of estimates/tender schedule, based on the minimum distance between nearest quarry and centre of supply points and will not affect the selection of quarry during physical supply in any way till prescribed specification is met fully.					
085011	When distance of nearest quarry is up to 10 km					
	Details of Ballast for 100Cum					
	Material:					
	Production cost of Track Ballast in quarry including loading in truck	Cum	0209	717.00	100.00	71,700.00
	Transportation:					
	Considering average distance of 5 km. Quantity = 100 x 5 = 500 cum.Km. Rate as per Working Sheet " Tr. Ballast"					
	Cost of transportation for 100 Cum	Cum/km		8.54	500	4,270.28
	Labour:					
	For stacking					
	Coolie (Un skilled)	Day	0026	547.00	3.00	1,641.00
						77,611.28
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		776.11
						78,387.39
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.1405		11,013.43
						89,400.82
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		13,410.12
						102,810.95
	Add for Cess @ 1%	Lumpsum	9905	0.01		1,028.11
	Cost for 100 Cum					103,839.06
	Rate per Cum	Cum				1,038.39
085012	When distance of nearest quarry is more than 10 km and up to 20 km					
	Details of Ballast for 100Cum					
	Material:					
	Production cost of Track Ballast in quarry including loading in truck	Cum	0209	717.00	100.00	71,700.00
	Transportation:					
	Considering average distance of 15 km. Quantity = 100 x 15 = 1500 cum.Km Rate as per Working Sheet " Tr. Ballast"					
	Cost of transportation for 100 Cum	Cum/km		6.12	1500	9,186.06
	Labour:					
	For stacking					
	Coolie (Un skilled)	Day	0026	547.00	3.00	1,641.00
						82,527.06
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		825.27
						83,352.33
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.1405		11,711.00
						95,063.33
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		14,259.50
						109,322.83
	Add for Cess @ 1%	Lumpsum	9905	0.01		1,093.23
	Cost for 100 Cum					110,416.06
	Rate per Cum	Cum				1,104.16

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
085013	When distance of nearest quarry is more than 20 km and up to 30 km					
	Details of Ballast for 100Cum					
	Material:					
	Production cost of Track Ballast in quarry including loading in truck	Cum	0209	717.00	100.00	71,700.00
	Transportation:					
	Considering average distance of 25 km. Quantity = 100 x 25 = 2500 cum.Km Rate as per Working Sheet " Tr. Ballast"					
	Cost of transportation for 100 Cum	Cum/km		5.84	2500	14,591.76
	Labour:					
	For stacking					
	Coolie (Un skilled)	Day	0026	547.00	3.00	1,641.00
						87,932.76
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		879.33
						88,812.09
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.1405		12,478.10
						101,290.19
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		15,193.53
						116,483.72
	Add for Cess @ 1%	Lumpsum	9905	0.01		1,164.84
	Cost for 100 Cum					117,648.56
	Rate per Cum	Cum				1,176.49
085014	When distance of nearest quarry is more than 30 km and up to 40 km					
	Details of Ballast for 100Cum					
	Material:					
	Production cost of Track Ballast in quarry including loading in truck	Cum	0209	717.00	100.00	71,700.00
	Transportation:					
	Considering average distance of 35 km. Quantity = 100 x 35 = 3500 cum.Km Rate as per Working Sheet " Tr. Ballast"					
	Cost of transportation for 100 Cum	Cum/km		4.93	3500	17,241.23
	Labour:					
	For stacking					
	Coolie (Un skilled)	Day	0026	547.00	3.00	1,641.00
						90,582.23
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		905.82
						91,488.05
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.1405		12,854.07
						104,342.12
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		15,651.32
						119,993.44
	Add for Cess @ 1%	Lumpsum	9905	0.01		1,199.93
						121,193.37
	Cost for 100 Cum					121,193.37
	Rate per Cum	Cum				1,211.93
085015	When distance of nearest quarry is more than 40 km and up to 50 km					
	Details of Ballast for 100Cum					
	Material:					
	Production cost of Track Ballast in quarry including loading in truck	Cum	0209	717.00	100.00	71,700.00
	Transportation:					
	Considering average distance of 45 km. Quantity = 100 x 45 = 4500 cum.Km Rate as per Working Sheet " Tr. Ballast"					
	Cost of transportation for 100 Cum	Cum/km		4.63	4500	20,842.02
	Labour:					
	For stacking					
	Coolie (Un skilled)	Day	0026	547.00	3.00	1,641.00
						94,183.02
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		941.83
						95,124.85

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.1405		13,365.04
						108,489.89
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		16,273.48
						124,763.37
	Add for Cess @ 1%	Lumpsum	9905	0.01		1,247.63
						126,011.00
	Cost for 100 Cum					126,011.00
	Rate per Cum	Cum				1,260.11
085016	When distance of nearest quarry is more than 50 km and up to 100 km					
	Details of Ballast for 100Cum					
	Material:					
	Production cost of Track Ballast in quarry including loading in truck	Cum	0209	717.00	100.00	71,700.00
	Transportation:					
	Considering average distance of 75 km. Quantity = 100 x 75 = 7500 cum.Km Rate as per Working Sheet " Tr. Ballast"					
	Cost of transportation for 100 Cum	Cum/km		4.13	7500	30,965.78
	Labour:					
	For stacking					
	Coolie (Un skilled)	Day	0026	547.00	3.00	1,641.00
						104,306.78
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		1,043.07
						105,349.85
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.1405		14,801.65
						120,151.50
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		18,022.73
						138,174.23
	Add for Cess @ 1%	Lumpsum	9905	0.01		1,381.74
						139,555.97
	Cost for 100 Cum					139,555.97
	Rate per Cum	Cum				1,395.56
085017	When distance of nearest quarry is more than 100 km and up to 150 km					
	Details of Ballast for 100Cum					
	Material:					
	Production cost of Track Ballast in quarry including loading in truck	Cum	0209	717.00	100.00	71,700.00
	Transportation:					
	Considering average distance of 125 km. Quantity = 100 x 125 = 12500 cum.Km Rate as per Working Sheet " Tr. Ballast"					
	Cost of transportation for 100 Cum	Cum/km		3.94	12500	49,228.24
	Labour:					
	For stacking					
	Coolie (Un skilled)	Day	0026	547.00	3.00	1,641.00
						122,569.24
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		1,225.69
						123,794.94
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.1405		17,393.19
						141,188.13
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		21,178.22
						162,366.34
	Add for Cess @ 1%	Lumpsum	9905	0.01		1,623.66
						163,990.01
	Cost for 100 Cum					163,990.01
	Rate per Cum	Cum				1,639.90
085018	When distance of nearest quarry is more than 150 km and up to 200 km					
	Details of Ballast for 100Cum					
	Material:					
	Production cost of Track Ballast in quarry including loading in truck	Cum	0209	717.00	100.00	71,700.00

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Transportation:					
	Considering average distance of 175 km. Quantity = 100 x 175 = 17500 cum.Km Rate as per Working Sheet " Tr. Ballast"					
	Cost of transportation for 100 Cum	Cum/km		3.91	17500	68,380.55
	Labour:					
	For stacking					
	Coolie (Un skilled)	Day	0026	547.00	3.00	1,641.00
						141,721.55
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		1,417.22
						143,138.77
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.1405		20,111.00
						163,249.76
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		24,487.46
						187,737.23
	Add for Cess @ 1%	Lumpsum	9905	0.01		1,877.37
						189,614.60
	Cost for 100 Cum					189,614.60
	Rate per Cum	Cum				1,896.15
085019	When distance of nearest quarry is more than 200 km and up to 250 km					
	Details of Ballast for 100Cum					
	Material:					
	Production cost of Track Ballast in quarry including loading in truck	Cum	0209	717.00	100.00	71,700.00
	Transportation:					
	Considering average distance of 225 km. Quantity = 100 x 225 = 22500 cum.Km Rate as per Working Sheet " Tr. Ballast"					
	Cost of transportation for 100 Cum	Cum/km		3.89	22500	87,532.86
	Labour:					
	For stacking					
	Coolie (Un skilled)	Day	0026	547.00	3.00	1,641.00
						160,873.86
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		1,608.74
						162,482.60
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.1405		22,828.80
						185,311.40
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		27,796.71
						213,108.11
	Add for Cess @ 1%	Lumpsum	9905	0.01		2,131.08
						215,239.19
	Cost for 100 Cum					215,239.19
	Rate per Cum	Cum				2,152.39

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CHAPTER - 9 : Welding Activities

(Note: Items of this chapter shall be executed only through special tender)						
Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
091000	Supply of Alumino Thermic Welding Portions					
091010	Manufacturing and Supply of Alumino thermic welding portions of 52Kg/60 Kg/60EI-R260 as approved by RDSO for welding of rails 52Kg/60Kg/60EI-R260 kg for 25mm gap by the process of AT welding along with complete accessories conforming to the specification laid down in Indian Railway Standard specification No.IRST-19-2020 up to date correction slips with Single shot crucible fitted with Automatic Tapping Thimble, 3 pieces pre fabricated mould (Zircon washed) manually pressed using compressed air petrol/LPG pre heating for execution of welding of rail joint as directed by the engineer in charge at site. Note: 1. The accessories along with welding portion shall be supplied as per Annexure-I of the IRUSSOR - 2021. 2. Rate is inclusive of transportation of above to SSE/P.Way stores.					
091011	For 60Kg 90 UTS Rails					
	Details of cost for 10 portions					
	Material:					
	Supply of Alumino Thermit Welding Portions, 3 piece prefabricated mould (ZIRCON WASHED) manually pressed, Single shot cricible fitted with auto tapping thimble as per RDSO Specification No IRST/19-2020 and as amended for 60 Kg/90UTS-25mm gap with accessories as per Annexure -I of IRUSSOR - 2021.	Each	0415	1675.00	10.00	16,750.00
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		2,353.38
						19,103.38
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		2,865.51
						21,968.88
	Add for Cess @ 1%	Lumpsum	9905	0.01		219.69
	Cost for 10 portion					22,188.57
	Rate per portion	Each				2,218.86
091012	For 52Kg 90 UTS Rails					
	Details of cost for 10 portions					
	Material:					
	Supply of Alumino Thermit Welding Portions, 3 piece prefabricated mould (ZIRCON WASHED) manually pressed, Single shot cricible fitted with auto tapping thimble as per RDSO Specification No IRST/19-2020 and as amended for 52 Kg/90UTS-25mm gap with accessories as per Annexure -I of IRUSSOR - 2021.	Each	0416	1700.00	10.00	17,000.00
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		2,388.50
						19,388.50
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		2,908.28
						22,296.78
	Add for Cess @ 1%	Lumpsum	9905	0.01		222.97
	Cost for 10 portion					22,519.74
	Rate per portion	Each				2,251.97
091013	For 60Kg/60EI- R260 rails					
	Details of cost for 10 portion					
	Material:					
	Supply of Alumino Thermit Welding Portions, 3 piece prefabricated mould (ZIRCON WASHED) manually pressed, Single shot cricible fitted with auto tapping thimble as per RDSO Specification No IRST/19-2020 and as amended for 60 Kg/60EI-R260 grade Rail-25mm gap with accessories as per Annexure -I of IRUSSOR - 2021.	Each	0417	3025.00	10.00	30,250.00
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		4,250.13
						34,500.13
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		5,175.02
						39,675.14

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Add for Cess @ 1%	Lumpsum	9905	0.01		396.75
	Cost for 10 portion					40,071.90
	Rate per portion	Each				4,007.19
092000	Alumino Thermic Welding Works					
092010	25mm gap 'in-situ' welding during traffic block and finishing of weld to meet the prescribed tolerances and pass all stipulated tests with all required labour, materials, consumables, tools, equipments etc. to complete the work in all respect as per IR's "Manual for Fusion Welding of Rails by Alumino - Thermic Process" with latest correction slips, including marking of welded joint, painting weld collar with anticorrosive paint, restoration of track near weld joint to original position and fixing of joggled fish plate at new weld, to be removed after passing of weld in USFD test as directed by Engineer in charge. Note: 1. Welding shall be carried out only by trained welder having valid competency certificate using RDSO approved Alumino Thermit Welding Portions, 3 piece prefabricated mould (ZIRCON WASHED) manually pressed, Single shot crucible fitted with auto tapping thimble and Compressed Air Petrol/LPG preheating technique as per RDSO Specification No IRST/19-2020 with latest amendment. 2. Hydraulic Weld trimmer shall be used for chipping and profile Grinder for finishing. 3. Only required nos. of Joggled fish plates shall be supplied by Railway at nearest P. Way Stores and the same shall be returned at nearest P. Way Store or at other location as per direction of Engineer-in-Charge after release from track. All other items required shall be supplied by the Contractor.					
092011	For 60 Kg - 90 UTS Rail					
	Details of cost for 5 Joints					
	Material:					
	Kerosene Oil	Litre	0183	63.00	1.25	78.75
	Normal unleaded Petrol	Litre	0180	108.00	9.00	972.00
	Supply of Alumino Thermit Welding Portions, 3 piece prefabricated mould (ZIRCON WASHED) manually pressed, Single shot crucible fitted with auto tapping thimble as per RDSO Specification No IRST/19-2020 and as amended for 60 Kg/90UTS-25mm gap with accessories as per Annexure -I of IRUSSOR - 2021.	Each	0415	1675.00	5.00	8,375.00
	Anti-corrosive Bituminous Paint (Black) confirming to IS:9862	Litre	0302	100.00	0.25	25.00
	Enamel Paint as per RDSO's Spec. no.M&C/PCN/120-2011	Litre	0304	248.00	0.10	24.80
	Soft Brush for painting - 25cm long	Each	0312	59.00	0.10	5.90
	Labour:					
	Welder (Skilled)	Day	0029	734.00	1.00	734.00
	Chipper (Skilled)	Day	0030	743.00	1.00	743.00
	Luter (Skilled)	Day	0031	743.00	1.00	743.00
	Look Out Man (Un-skilled)	Day	0033	547.00	1.00	547.00
	Labour Unskilled	Day	0020	540.00	5.00	2,700.00
	Machinery:					
	Hire charges of Generator 5 KVA (without POL)	Day	0071	867.00	0.20	173.40
	Hire charges of Weld Trimmer Machine	Day	0149	458.00	0.50	229.00
	Hire charges of Rail Profile Weld Grinder	Day	0148	444.00	0.20	88.80
	Sundries	Lumpsum	9901	1.00	10.00	10.00
						15,449.65
	Add for working under traffic block @ 10%	Lumpsum	9992	0.10		1,544.97
						16,994.62
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		169.95
						17,164.56
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		2,411.62
						19,576.18
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		2,936.43
						22,512.61

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Add for Cess @ 1%	Lumpsum	9905	0.01		225.13
	Cost of 5 joints					22,737.74
	Rate per joint	Each				4,547.55
092012	For 60 Kg/60EI - R260 grade Rail					
	Details of cost for 5 Joints					
	Material:					
	Kerosene Oil	Litre	0183	63.00	1.25	78.75
	Normal unleaded Petrol	Litre	0180	108.00	9.00	972.00
	Supply of Alumino Thermit Welding Portions, 3 piece prefabricated mould (ZIRCON WASHED) manually pressed, Single shot cricible fitted with auto tapping thimble as per RDSO Specification No IRST/19-2020 and as amended for 60 Kg/60EI-R260 grade Rail-25mm gap with accessories as per Annexure -I of IRUSSOR - 2021.	Each	0417	3025.00	5.00	15,125.00
	Anti-corrosive Bituminous Paint (Black) confirming to IS:9862	Litre	0302	100.00	0.25	25.00
	Enamel Paint as per RDSO's Spec. no.M&C/PCN/120-2011	Litre	0304	248.00	0.10	24.80
	Soft Brush for painting - 25cm long	Each	0312	59.00	0.10	5.90
	Labour:					
	Welder (Skilled)	Day	0029	734.00	1.00	734.00
	Chipper (Skilled)	Day	0030	743.00	1.00	743.00
	Luter (Skilled)	Day	0031	743.00	1.00	743.00
	Look Out Man (Un-skilled)	Day	0033	547.00	1.00	547.00
	Labour Unskilled	Day	0020	540.00	5.00	2,700.00
	Machinery:					
	Hire charges of Generator 5 KVA (without POL)	Day	0071	867.00	0.20	173.40
	Hire charges of Weld Trimmer Machine	Day	0149	458.00	0.50	229.00
	Hire charges of Rail Profile Weld Grinder	Day	0148	444.00	0.20	88.80
	Sundries	Lumpsum	9901	1.00	10.00	10.00
						22,199.65
	Add for working under traffic block @ 10%	Lumpsum	9992	0.10		2,219.97
						24,419.62
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		244.20
						24,663.81
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		3,465.27
						28,129.08
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		4,219.36
						32,348.44
	Add for Cess @ 1%	Lumpsum	9905	0.01		323.48
	Cost for 5 joints					32,671.92
	Rate per joint	Each				6,534.38
092013	For 52 Kg - 90/72 UTS Rail					
	Details of cost for 5 Joints					
	Material:					
	Kerosene Oil	Litre	0183	63.00	1.25	78.75
	Normal unleaded Petrol	Litre	0180	108.00	9.00	972.00
	Supply of Alumino Thermit Welding Portions, 3 piece prefabricated mould (ZIRCON WASHED) manually pressed, Single shot cricible fitted with auto tapping thimble as per RDSO Specification No IRST/19-2020 and as amended for 52 Kg/90UTS-25mm gap with accessories as per Annexure -I of IRUSSOR - 2021.	Each	0416	1700.00	5.00	8,500.00
	Anti-corrosive Bituminous Paint (Black) confirming to IS:9862	Litre	0302	100.00	0.25	25.00
	Enamel Paint as per RDSO's Spec. no.M&C/PCN/120-2011	Litre	0304	248.00	0.10	24.80
	Soft Brush for painting - 25cm long	Each	0312	59.00	0.10	5.90
	Labour:					
	Welder (Skilled)	Day	0029	734.00	1.00	734.00
	Chipper (Skilled)	Day	0030	743.00	1.00	743.00
	Luter (Skilled)	Day	0031	743.00	1.00	743.00
	Look Out Man (Un-skilled)	Day	0033	547.00	1.00	547.00
	Labour Unskilled	Day	0020	540.00	5.00	2,700.00

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Machinery:					
	Hire charges of Generator 5 KVA (without POL)	Day	0071	867.00	0.20	173.40
	Hire charges of Weld Trimmer Machine	Day	0149	458.00	0.50	229.00
	Hire charges of Rail Profile Weld Grinder	Day	0148	444.00	0.20	88.80
	Sundries	Lumpsum	9901	1.00	10.00	10.00
						15,574.65
	Add for working under traffic block @ 10%	Lumpsum	9992	0.10		1,557.47
						17,132.12
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		171.32
						17,303.44
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		2,431.13
						19,734.57
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		2,960.19
						22,694.75
	Add for Cess @ 1%	Lumpsum	9905	0.01		226.95
	Cost for 5 Joints					22,921.70
	Rate per joint	Each				4,584.34
092014	For 90R Rail					
	Rate same as 52 Kg rail					
	Rate per joint	Each	092013			4,584.34
092020	25mm gap 'in-situ' welding during traffic block using Railway's welding portion and finishing of weld to meet the prescribed tolerances and pass all stipulated tests with all required labour, materials, consumables, tools, equipments etc. to complete the work in all respect as per IR's "Manual for Fusion Welding of Rails by Alumino - Thermic Process" with latest correction slips, including marking of welded joint, painting weld collar with anticorrosive paint, restoration of track near weld joint to original position and fixing of joggled fish plate at new weld, to be removed after passing of weld in USFD test as directed by Engineer in charge. Note: 1. Welding portion and related accessories as per Annexure - I shall be supplied by Railways. All other items required shall be supplied by the Contractor. 2. Welding shall be carried out only by trained welder having valid competency certificate. 3. Hydraulic Weld trimmer shall be used for chipping and profile Grinder for finishing. 4. Required nos. of Joggled fish plates shall be supplied by Railway at nearest P. Way Stores and the same shall be returned at nearest P. Way Store or at other location as per direction of Engineer-in-Charge after release from track.					
092021	For 60 Kg Rail, Single shot crucible fitted with Automatic Tapping Thimble , 3 pieces Mould (Zircon washed) and Compressed Air Petrol/LPG pre heating technique					
	Details of cost for 5 Joints					
	Material:					
	Normal unleaded Petrol	Litre	0180	108.00	9.00	972.00
	Kerosene Oil	Litre	0183	63.00	1.25	78.75
	Anti-corrosive Bituminous Paint (Black) confirming to IS:9862	Litre	0302	100.00	0.25	25.00
	Enamel Paint as per RDSO's Spec. no.M&C/PCN/120-2011	Litre	0304	248.00	0.10	24.80
	Soft Brush for painting - 25cm long	Each	0312	59.00	0.10	5.90
	Hydraulic oil SS-68 or equivalent of HPCL/BPCL/IOCL	Litre	0181	143.00	0.13	18.59
	Labour:					
	Welder (Skilled)	Day	0029	734.00	1.00	734.00
	Chipper (Skilled)	Day	0030	743.00	1.00	743.00
	Luter (Skilled)	Day	0031	743.00	1.00	743.00
	Look Out Man (Un-skilled)	Day	0033	547.00	1.00	547.00
	Labour Unskilled	Day	0020	540.00	5.00	2,700.00

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Machinery:					
	Hire charges of Weld Trimmer Machine	Day	0149	458.00	0.50	229.00
	Hire charges of Generator 5 KVA (without POL)	Day	0071	867.00	0.20	173.40
	Hire charges of Rail Profile Weld Grinder	Day	0148	444.00	0.20	88.80
	Sundries	Lumpsum	9901	1.00	50.00	50.00
						7,133.24
	Add for working under traffic block @ 10%	Lumpsum	9992	0.10		713.32
						7,846.56
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		78.47
						7,925.03
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		1,113.47
						9,038.50
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		1,355.77
						10,394.27
	Add for Cess @ 1%	Lumpsum	9905	0.01		103.94
	Cost for 5 Joints					10,498.21
	Rate per joint	Each				2,099.64
092022	For 60 Kg/60EI-R260 grade Rail, Single shot crucible fitted with Automatic Tapping Thimble Technology, 3 pieces Mould (Zircon washed) and Compressed Air Petrol heating technique.					
	Details of cost for 5 Joints					
	Material:					
	Normal unleaded Petrol	Litre	0180	108.00	9.00	972.00
	Kerosene Oil	Litre	0183	63.00	1.25	78.75
	Anti-corrosive Bituminous Paint (Black) confirming to IS:9862	Litre	0302	100.00	0.25	25.00
	Enamel Paint as per RDSO's Spec. no.M&C/PCN/120-2011	Litre	0304	248.00	0.10	24.80
	Soft Brush for painting - 25cm long	Each	0312	59.00	0.10	5.90
	Hydraulic oil SS-68 or equivalent of HPCL/BPCL/IOCL	Litre	0181	143.00	0.13	18.59
	Labour:					
	Welder (Skilled)	Day	0029	734.00	1.00	734.00
	Chipper (Skilled)	Day	0030	743.00	1.00	743.00
	Luter (Skilled)	Day	0031	743.00	1.00	743.00
	Look Out Man (Un-skilled)	Day	0033	547.00	1.00	547.00
	Labour Unskilled	Day	0020	540.00	4.00	2,160.00
	Machinery:					
	Hire charges of Weld Trimmer Machine	Day	0149	458.00	0.50	229.00
	Hire charges of Generator 5 KVA (without POL)	Day	0071	867.00	0.20	173.40
	Hire charges of Rail Profile Weld Grinder	Day	0148	444.00	0.20	88.80
	Sundries	Lumpsum	9901	1.00	50.00	50.00
						6,593.24
	Add for working under traffic block @ 10%	Lumpsum	9992	0.10		659.32
						7,252.56
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		72.53
						7,325.09
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		1,029.18
						8,354.26
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		1,253.14
						9,607.40
	Add for Cess @ 1%	Lumpsum	9905	0.01		96.07
	Cost for 5 Joints					9,703.48
	Rate per joint	Each				1,940.70
092023	For 52 Kg - 90 UTS or 52 Kg 72UTS Rail, Single shot crucible fitted with Automatic Tapping Thimble Technology, 3 pieces Mould (Zircon washed) and Compressed Air Petrol heating technique.					
	Details of cost for 5 Joints					
	Material:					
	Normal unleaded Petrol	Litre	0180	108.00	9.00	972.00
	Kerosene Oil	Litre	0183	63.00	1.25	78.75

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Anti-corrosive Bituminous Paint (Black) confirming to IS:9862	Litre	0302	100.00	0.25	25.00
	Enamel Paint as per RDSO's Spec. no.M&C/PCN/120-2011	Litre	0304	248.00	0.10	24.80
	Soft Brush for painting - 25cm long	Each	0312	59.00	0.10	5.90
	Hydraulic oil SS-68 or equivalent of HPCL/BPCL/IOCL	Litre	0181	143.00	0.13	18.59
	Labour:					
	Welder (Skilled)	Day	0029	734.00	1.00	734.00
	Chipper (Skilled)	Day	0030	743.00	1.00	743.00
	Luter (Skilled)	Day	0031	743.00	1.00	743.00
	Look Out Man (Un-skilled)	Day	0033	547.00	1.00	547.00
	Labour Unskilled	Day	0020	540.00	4.00	2,160.00
	Machinery:					
	Hire charges of Weld Trimmer Machine	Day	0149	458.00	0.50	229.00
	Hire charges of Generator 5 KVA (without POL)	Day	0071	867.00	0.20	173.40
	Hire charges of Rail Profile Weld Grinder	Day	0148	444.00	0.20	88.80
	Sundries	Lumpsum	9901	1.00	50.00	50.00
						6,593.24
	Add for working under traffic block @ 10%	Lumpsum	9992	0.10		659.32
						7,252.56
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		72.53
						7,325.09
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		1,029.18
						8,354.26
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		1,253.14
						9,607.40
	Add for Cess @ 1%	Lumpsum	9905	0.01		96.07
	Cost for 5 Joints					9,703.48
	Rate per joint	Each				1,940.70
092024	For 90R Rail, Single shot crucible fitted with Automatic Tapping Thimble Technology, 3 pieces Mould (Zircon washed) and Compressed Air Petrol heating technique.					
	Rate same as 52 Kg rail					
	Rate per joint	Each	092023			1,940.70
092030	25mm gap 'in-situ' welding during traffic block using Railway's welding portion & Welder and finishing of weld to meet the prescribed tolerances and pass all stipulated tests with all required labour, materials, consumables, tools, equipments etc. to complete the work in all respect as per IR's "Manual for Fusion Welding of Rails by Alumino - Thermic Process" with latest correction slips, including marking of welded joint, painting weld collar with anticorrosive paint, restoration of track near weld joint to original position and fixing of joggled fish plate at new weld, to be removed after passing of weld in USFD test as directed by Engineer in charge. Note: 1. Only welding portion and related accessories as per Annexure - I and Welder shall be supplied by Railways. 2. Hydraulic Weld trimmer shall be used for chipping and profile Grinder for finishing. 3. Required nos. of Joggled fish plates shall be supplied by Railway at nearest P. Way Stores and the same shall be returned at nearest P. Way Store or at other location as per direction of Engineer-in-Charge after release from track.					
	Details of cost for 5 Joints					
	Material:					
	Normal unleaded Petrol	Litre	0180	108.00	9.00	972.00
	Kerosene Oil	Litre	0183	63.00	1.25	78.75
	Anti-corrosive Bituminous Paint (Black) confirming to IS:9862	Litre	0302	100.00	0.25	25.00
	Enamel Paint as per RDSO's Spec. no.M&C/PCN/120-2011	Litre	0304	248.00	0.10	24.80
	Soft Brush for painting - 25cm long	Each	0312	59.00	0.10	5.90
	Hydraulic oil SS-68 or equivalent of HPCL/BPCL/IOCL	Litre	0181	143.00	0.13	18.59

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Labour:					
	Chipper (Skilled)	Day	0030	743.00	1.00	743.00
	Luter (Skilled)	Day	0031	743.00	1.00	743.00
	Look Out Man (Un-skilled)	Day	0033	547.00	1.00	547.00
	Labour Unskilled	Day	0020	540.00	4.00	2,160.00
	Machinery:					
	Hire charges of Weld Trimmer Machine	Day	0149	458.00	0.50	229.00
	Hire charges of Generator 5 KVA (without POL)	Day	0071	867.00	0.20	173.40
	Hire charges of Rail Profile Weld Grinder	Day	0148	444.00	0.20	88.80
	Sundries	Lumpsum	9901	1.00	50.00	50.00
						5,859.24
	Add for working under traffic block @ 10%	Lumpsum	9992	0.1		585.92
						6,445.16
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		64.45
						6,509.62
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.1405		914.60
						7,424.22
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		1,113.63
						8,537.85
	Add for Cess @ 1%	Lumpsum	9905	0.01		85.38
	Cost for 5 Joints					8,623.23
	Rate per joint	Each				1,724.65
092040	25mm gap Cess Welding and finishing of weld to meet the prescribed tolerances and pass all stipulated tests with Contractor's labour, materials, consumables, tools, equipments etc. to complete the work in all respect as per IR's "Manual for Fusion Welding of Rails by Alumino - Thermic Process" with latest correction slips, including all required handling and rehandling of rails, marking of welded joint, painting weld collar with anticorrosive paint, as directed by Engineer in charge. Note: 1. Welding shall be carried out only by trained welder having valid competency certificate using RDSO approved Alumino Thermit Welding Portions, 3 piece prefabricated mould (Zircon washed) manually pressed, Single shot crucible fitted with auto tapping thimble and Compressed Air Petrol/LPG preheating technique as per RDSO Specification No IRST/19-2020 with latest amendment. 2. Hydraulic Weld trimmer shall be used for chipping and profile Grinder for finishing.					
092041	For 60 Kg - 90 UTS Rail					
	Details of cost for 10 Joints					
	Material:					
	Supply of Alumino Thermit Welding Portions, 3 piece prefabricated mould (ZIRCON WASHED) manually pressed, Single shot crucible fitted with auto tapping thimble as per RDSO Specification No IRST/19-2020 and as amended for 60 Kg/90UTS-25mm gap with accessories as per Annexure -I of IRUSSOR - 2021.	Each	0415	1675.00	10.00	16,750.00
	Anti-corrosive Bituminous Paint (Black) confirming to IS:9862	Litre	0302	100.00	0.50	50.00
	Normal unleaded Petrol	Litre	0180	108.00	18.00	1,944.00
	Kerosene Oil	Litre	0183	63.00	2.50	157.50
	Enamel Paint as per RDSO's Spec. no.M&C/PCN/120-2011	Litre	0304	248.00	0.20	49.60
	Soft Brush for painting - 25cm long	Each	0312	59.00	0.10	5.90
	Labour:					
	Welder (Skilled)	Day	0029	734.00	1.00	734.00
	Chipper (Skilled)	Day	0030	743.00	1.00	743.00
	Luter (Skilled)	Day	0031	743.00	1.00	743.00
	Labour Unskilled	Day	0020	540.00	6.00	3,240.00
	Machinery:					
	Hire charges of Weld Trimmer Machine	Day	0149	458.00	1.00	458.00
	Hire charges of Generator 5 KVA (without POL)	Day	0071	867.00	0.50	433.50
	Hire charges of Rail Profile Weld Grinder	Day	0148	444.00	0.50	222.00

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Sundries	Lumpsum	9901	1.00	10.00	10.00
						25,540.50
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		255.41
						25,795.91
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		3,624.32
						29,420.23
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		4,413.03
						33,833.26
	Add for Cess @ 1%	Lumpsum	9905	0.01		338.33
	Cost for 10 Joints					34,171.60
	Rate per Joint	Each				3,417.16
092042	For 60 Kg/60EI - R260 grade Rail					
	Details of cost for 10 Joints					
	Material:					
	Supply of Alumino Thermit Welding Portions, 3 piece prefabricated mould (ZIRCON WASHED) manually pressed, Single shot cricible fitted with auto tapping thimble as per RDSO Specification No IRST/19-2020 and as amended for 60 Kg/60EI-R260 grade Rail-25mm gap with accessories as per Annexure -I of IRUSSOR - 2021.	Each	0417	3025.00	10.00	30,250.00
	Anti-corrosive Bituminous Paint (Black) confirming to IS:9862	Litre	0302	100.00	0.50	50.00
	Normal unleaded Petrol	Litre	0180	108.00	18.00	1,944.00
	Kerosene Oil	Litre	0183	63.00	2.50	157.50
	Enamel Paint as per RDSO's Spec. no.M&C/PCN/120-2011	Litre	0304	248.00	0.10	24.80
	Soft Brush for painting - 25cm long	Each	0312	59.00	0.10	5.90
	Labour:					
	Welder (Skilled)	Day	0029	734.00	1.00	734.00
	Chipper (Skilled)	Day	0030	743.00	1.00	743.00
	Luter (Skilled)	Day	0031	743.00	1.00	743.00
	Labour Unskilled	Day	0020	540.00	6.00	3,240.00
	Machinery:					
	Hire charges of Weld Trimmer Machine	Day	0149	458.00	1.00	458.00
	Hire charges of Generator 5 KVA (without POL)	Day	0071	867.00	0.50	433.50
	Hire charges of Rail Profile Weld Grinder	Day	0148	444.00	0.50	222.00
	Sundries	Lumpsum	9901	1.00	100.00	100.00
						39,105.70
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		391.06
						39,496.76
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		5,549.29
						45,046.05
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		6,756.91
						51,802.96
	Add for Cess @ 1%	Lumpsum	9905	0.01		518.03
	Cost for 10 Joints					52,320.99
	Rate per Joint	Each				5,232.10
092043	For 52 Kg - 90/72 UTS Rail					
	Details of cost for 10 Joints					
	Material:					
	Supply of Alumino Thermit Welding Portions, 3 piece prefabricated mould (ZIRCON WASHED) manually pressed, Single shot cricible fitted with auto tapping thimble as per RDSO Specification No IRST/19-2020 and as amended for 52 Kg/90UTS-25mm gap with accessories as per Annexure -I of IRUSSOR - 2021.	Each	0416	1700.00	10.00	17,000.00
	Anti-corrosive Bituminous Paint (Black) confirming to IS:9862	Litre	0302	100.00	0.50	50.00
	Normal unleaded Petrol	Litre	0180	108.00	18.00	1,944.00
	Kerosene Oil	Litre	0183	63.00	2.50	157.50
	Enamel Paint as per RDSO's Spec. no.M&C/PCN/120-2011	Litre	0304	248.00	0.10	24.80
	Soft Brush for painting - 25cm long	Each	0312	59.00	0.10	5.90

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Labour:					
	Welder (Skilled)	Day	0029	734.00	1.00	734.00
	Chipper (Skilled)	Day	0030	743.00	1.00	743.00
	Luter (Skilled)	Day	0031	743.00	1.00	743.00
	Labour Unskilled	Day	0020	540.00	6.00	3,240.00
	Machinery:					
	Hire charges of Weld Trimmer Machine	Day	0149	458.00	1.00	458.00
	Hire charges of Generator 5 KVA (without POL)	Day	0071	867.00	0.50	433.50
	Hire charges of Rail Profile Weld Grinder	Day	0148	444.00	0.50	222.00
	Sundries	Lumpsum	9901	1.00	100.00	100.00
						25,855.70
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		258.56
						26,114.26
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		3,669.05
						29,783.31
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		4,467.50
						34,250.81
	Add for Cess @ 1%	Lumpsum	9905	0.01		342.51
	Cost for 10 Joints					34,593.31
	Rate per Joint	Each				3,459.33
092044	For 90R Rail					
	Rate same as 52 Kg rail as per item no 092043.					
	Rate per Joint	Each	092043			3,459.33
092050	25mm gap Cess Welding with Railway's welding portion and finishing of weld to meet the prescribed tolerances and pass all stipulated tests with Contractor's labour, materials, consumables, tools, equipments etc. to complete the work in all respect as per IR's "Manual for Fusion Welding of Rails by Alumino - Thermic Process" with latest correction slips, including all required handling and rehandling of rails, marking of welded joint, painting weld collar with anticorrosive paint, as directed by Engineer in charge. Note: 1. Only welding portion and related accessories as per Annexure - I shall be supplied by Railways. 2. Welding shall be carried out only by trained welder having valid competency certificate. 3. Hydraulic Weld trimmer shall be used for chipping and profile Grinder for finishing.					
092051	For 60 Kg Rail, Single shot crucible fitted with Automatic Tapping Thimble, 3 pieces Mould (Zircon washed) and Compressed Air Petrol/LPG pre heating technique					
	Details of cost for 10 Joints					
	Material:					
	Normal unleaded Petrol	Litre	0180	108.00	18.00	1,944.00
	Kerosene Oil	Litre	0183	63.00	2.50	157.50
	Anti-corrosive Bituminous Paint (Black) conforming to IS:9862	Litre	0302	100.00	0.50	50.00
	Enamel Paint as per RDSO's Spec. no.M&C/PCN/120-2011	Litre	0304	248.00	0.10	24.80
	Soft Brush for painting - 25cm long	Each	0312	59.00	0.10	5.90
	Hydraulic oil SS-68 or equivalent of HPCL/BPCL/IOCL	Litre	0181	143.00	0.25	35.75
	Labour:					
	Welder (Skilled)	Day	0029	734.00	1.00	734.00
	Chipper (Skilled)	Day	0030	743.00	1.00	743.00
	Luter (Skilled)	Day	0031	743.00	1.00	743.00
	Labour Unskilled	Day	0020	540.00	6.00	3,240.00
	Machinery:					
	Hire charges of Weld Trimmer Machine	Day	0149	458.00	1.00	458.00
	Hire charges of Generator 5 KVA (without POL)	Day	0071	867.00	0.50	433.50
	Hire charges of Rail Profile Weld Grinder	Day	0148	444.00	0.50	222.00

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Sundries	Lumpsum	9901	1.00	100.00	100.00
						8,891.45
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		88.91
						8,980.36
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		1,261.74
						10,242.11
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		1,536.32
						11,778.42
	Add for Cess @ 1%	Lumpsum	9905	0.01		117.78
	Cost for 10 Joints					11,896.21
	Rate per Joint	Each				1,189.62
092052	For 60 Kg/60EI-R260 grade Rail, Single shot crucible fitted with Automatic Tapping Thimble, 3 pieces Mould (Zircon washed) and Compressed Air Petrol/LPG pre heating technique.					
	Details of cost for 10 Joints					
	Material:					
	Normal unleaded Petrol	Litre	0180	108.00	18.00	1,944.00
	Kerosene Oil	Litre	0183	63.00	2.50	157.50
	Anti-corrosive Bituminous Paint (Black) confirming to IS:9862	Litre	0302	100.00	0.50	50.00
	Enamel Paint as per RDSO's Spec. no.M&C/PCN/120-2011	Litre	0304	248.00	0.10	24.80
	Soft Brush for painting - 25cm long	Each	0312	59.00	0.10	5.90
	Hydraulic oil SS-68 or equivalent of HPCL/BPCL/IOCL	Litre	0181	143.00	0.25	35.75
	Labour:					
	Welder (Skilled)	Day	0029	734.00	1.00	734.00
	Chipper (Skilled)	Day	0030	743.00	1.00	743.00
	Luter (Skilled)	Day	0031	743.00	1.00	743.00
	Labour Unskilled	Day	0020	540.00	6.00	3,240.00
	Machinery:					
	Hire charges of Weld Trimmer Machine	Day	0149	458.00	1.00	458.00
	Hire charges of Generator 5 KVA (without POL)	Day	0071	867.00	0.50	433.50
	Hire charges of Rail Profile Weld Grinder	Day	0148	444.00	0.50	222.00
	Sundries	Lumpsum	9901	1.00	100.00	100.00
						8,891.45
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		88.91
						8,980.36
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		1,261.74
						10,242.11
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		1,536.32
						11,778.42
	Add for Cess @ 1%	Lumpsum	9905	0.01		117.78
	Cost for 10 Joints					11,896.21
	Rate per Joint	Each				1,189.62
092053	For 52 Kg - 90 UTS or 52 Kg-72 UTS Rail, Single shot crucible fitted with Automatic Tapping Thimble Technology, 3 pieces Mould (Zircon washed) and Compressed Air Petrol heating technique.					
	Details of cost for 10 Joints					
	Material:					
	Normal unleaded Petrol	Litre	0180	108.00	18.00	1,944.00
	Kerosene Oil	Litre	0183	63.00	2.50	157.50
	Anti-corrosive Bituminous Paint (Black) confirming to IS:9862	Litre	0302	100.00	0.50	50.00
	Enamel Paint as per RDSO's Spec. no.M&C/PCN/120-2011	Litre	0304	248.00	0.10	24.80
	Soft Brush for painting - 25cm long	Each	0312	59.00	0.10	5.90
	Hydraulic oil SS-68 or equivalent of HPCL/BPCL/IOCL	Litre	0181	143.00	0.25	35.75
	Labour:					
	Welder (Skilled)	Day	0029	734.00	1.00	734.00
	Chipper (Skilled)	Day	0030	743.00	1.00	743.00
	Luter (Skilled)	Day	0031	743.00	1.00	743.00

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Labour Unskilled	Day	0020	540.00	6.00	3,240.00
	Machinery:					
	Hire charges of Weld Trimmer Machine	Day	0149	458.00	1.00	458.00
	Hire charges of Generator 5 KVA (without POL)	Day	0071	867.00	0.50	433.50
	Hire charges of Rail Profile Weld Grinder	Day	0148	444.00	0.50	222.00
	Sundries	Lumpsum	9901	1.00	100.00	100.00
						8,891.45
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		88.91
						8,980.36
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		1,261.74
						10,242.11
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		1,536.32
						11,778.42
	Add for Cess @ 1%	Lumpsum	9905	0.01		117.78
	Cost for 10 Joints					11,896.21
	Rate per Joint	Each				1,189.62
093000	Flash Butt Welding Works					
093010	Flash Butt Welding of 90 UTS rails and finishing of weld to meet the prescribed tolerances and pass all stipulated tests, conforming to IR's Manual for Flash Butt Welding of Rails with latest amendment, using contractor's self-propelled rail cum road / Mobile FBW Plants, tools, equipments and consumables. Item also includes painting with anticorrosive paint as approved and marking of welded joints, pre-straightening & post-straightening of panels and USFD testing of finished weld as directed by Engineer in-charge.					
093011	52 Kg on Cess					
	Details of cost for 40 welds					
	Material:					
	Grinding Stone wheel GQ6 of 150mm dia	Nos.	0457	608.00	2.50	1,520.00
	Anti-corrosive Paint as per RDSO's Specn. No. M&C/PCN/123/2012	Litre	0303	310.00	2.00	620.00
	Normal unleaded Petrol	Litre	0180	108.00	1.00	108.00
	Black Oil (used lubricating oil)	Litre	0471	44.00	3.00	132.00
	Diesel (HSD) Oil	Litre	0179	93.00	200.00	18,600.00
	Cotton Jute	Kg	0489	53.00	2.00	106.00
	Labour:					
	(a) For welding					
	Machinist (operator) (Skilled)	Day	0040	738.00	2.00	1,476.00
	Helper (Semi-skilled)	Day	0021	572.00	2.00	1,144.00
	Hammer man (Semi-skilled)	Day	0032	614.00	1.00	614.00
	Grinderman (Skilled)	Day	0028	734.00	1.00	734.00
	Track Machine Maintainer (Semi skilled)	Day	0042	654.00	2.00	1,308.00
	Labour Unskilled	Day	0020	540.00	16.00	8,640.00
	(b) For USFD testing					
	USFD Operator (With approved Certificate)	Day	0043	1392.00	1.00	1,392.00
	Helper (Semi-skilled)	Day	0021	572.00	2.00	1,144.00
	Labour Unskilled	Day	0020	540.00	2.00	1,080.00
	Machinery:					
	Hire Charges for Mobile Flash Butt Welding Plant	Day	0124	61250.00	1.00	61,250.00
	Hire charges for tractor with trolley	Day	0080	1742.00	1.00	1,742.00
	Hire charges of Road Cum Rail vehicle for transporting Flash Butt Welding plant	Day	0123	1500.00	1.00	1,500.00
	Hire charges of Crane 10T capacity	Day	0088	5583.00	1.00	5,583.00
	Hire charges of Rail Profile Weld Grinder	Day	0148	444.00	1.00	444.00
	Hire charges of Angle Grinder	Day	0147	411.00	1.00	411.00
	Hire charges of USFD testing machine	Day	0126	1192.00	1.00	1,192.00
	Misc.:					
	T & P	Lumpsum	9901	1.00	500.00	500.00
	LS for Training charges at LKO	Lumpsum	9901	1.00	200.00	200.00
						111,440.00

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		1,114.40
						112,554.40
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		15,813.89
						128,368.29
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		19,255.24
						147,623.54
	Add for Cess @ 1%	Lumpsum	9905	0.01		1,476.24
	Cost for 40 welds					149,099.77
	Rate per weld	Each				3,727.49
093012	60 Kg on Cess					
	Details of cost for 35 welds					
	Material:					
	Grinding Stone wheel GQ6 of 150mm dia	Nos.	0457	608.00	2.50	1,520.00
	Anti-corrosive Bituminous Paint (Black) conforming to IS:9862	Litre	0302	100.00	2.00	200.00
	Normal unleaded Petrol	Litre	0180	108.00	1.00	108.00
	Black Oil (used lubricating oil)	Litre	0471	44.00	3.00	132.00
	Diesel (HSD) Oil	Litre	0179	93.00	150.00	13,950.00
	Cotton Jute	Kg	0489	53.00	2.00	106.00
	Hydraulic oil SS-68 or equivalent of HPCL/BPCL/IOCL	Litre	0181	143.00	5.00	715.00
	Labour:					
	(a) For welding					
	Machinist (operator) (Skilled)	Day	0040	738.00	1.00	738.00
	Helper (Semi-skilled)	Day	0021	572.00	2.00	1,144.00
	Grinderman (Skilled)	Day	0028	734.00	1.00	734.00
	Track Machine Maintainer (Semi skilled)	Day	0042	654.00	2.00	1,308.00
	Labour Unskilled	Day	0020	540.00	16.00	8,640.00
	(b) For USFD testing					
	USFD Operator (With approved Certificate)	Day	0043	1392.00	1.00	1,392.00
	Helper (Semi-skilled)	Day	0021	572.00	2.00	1,144.00
	Labour Unskilled	Day	0020	540.00	2.00	1,080.00
	Machinery:					
	Hire Charges for Mobile Flash Butt Welding Plant	Day	0124	61250.00	1.00	61,250.00
	Hire charges for tractor with trolley	Day	0080	1742.00	1.00	1,742.00
	Hire charges of Road Cum Rail vehicle for transporting Flash Butt Welding plant	Day	0123	1500.00	1.00	1,500.00
	Hire charges of Crane 10T capacity	Day	0088	5583.00	1.00	5,583.00
	Hire charges of Rail Profile Weld Grinder	Day	0148	444.00	1.00	444.00
	Hire charges of Angle Grinder	Day	0147	411.00	1.00	411.00
	Hire charges of USFD testing machine	Day	0126	1192.00	1.00	1,192.00
	Misc.:					
	LS for Training charges at LKO	Lumpsum	9901	1.00	200.00	200.00
	T & P	Lumpsum	9901	1.00	500.00	500.00
						105,733.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		1,057.33
						106,790.33
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		15,004.04
						121,794.37
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		18,269.16
						140,063.53
	Add for Cess @ 1%	Lumpsum	9905	0.01		1,400.64
	Cost for 35 welds					141,464.16
	Rate per weld	Each				4,041.83
093013	52 Kg 'in-situ' under traffic block					
	Details of cost for 30 welds					
	Material:					
	Grinding Stone wheel GQ6 of 150mm dia	Nos.	0457	608.00	2.00	1,216.00
	Anti-corrosive Bituminous Paint (Black) conforming to IS:9862	Litre	0302	100.00	1.50	150.00
	Normal unleaded Petrol	Litre	0180	108.00	1.00	108.00

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Black Oil (used lubricating oil)	Litre	0471	44.00	2.00	88.00
	Diesel (HSD) Oil	Litre	0179	93.00	125.00	11,625.00
	Cotton Jute	Kg	0489	53.00	1.50	79.50
	Hydraulic oil SS-68 or equivalent of HPCL/BPCL/IOCL	Litre	0181	143.00	5.00	715.00
	Labour:					
	(a) For welding					
	Machinist (operator) (Skilled)	Day	0040	738.00	1.00	738.00
	Helper (Semi-skilled)	Day	0021	572.00	2.00	1,144.00
	Grinderman (Skilled)	Day	0028	734.00	1.00	734.00
	Track Machine Maintainer (Semi skilled)	Day	0042	654.00	2.00	1,308.00
	Look Out Man (Un-skilled)	Day	0033	547.00	2.00	1,094.00
	Labour Unskilled	Day	0020	540.00	8.00	4,320.00
	(b) For USFD testing					
	USFD Operator (With approved Certificate)	Day	0043	1392.00	0.50	696.00
	Helper (Semi-skilled)	Day	0021	572.00	0.50	286.00
	Labour Unskilled	Day	0020	540.00	0.50	270.00
	Machinery:					
	Hire Charges for Mobile Flash Butt Welding Plant	Day	0124	61250.00	1.00	61,250.00
	Hire charges of Rail Profile Weld Grinder	Day	0148	444.00	1.00	444.00
	Hire charges of Angle Grinder	Day	0147	411.00	1.00	411.00
	Hire charges of USFD testing machine	Day	0126	1192.00	1.00	1,192.00
	Misc.:					
	T & P	Lumpsum	9901	1.00	500.00	500.00
	LS for Training charges at LKO	Lumpsum	9901	1.00	200.00	200.00
						88,568.50
	Add for working under traffic block @ 10%	Lumpsum	9992	0.10		8,856.85
						97,425.35
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		974.25
						98,399.60
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		13,825.14
						112,224.75
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		16,833.71
						129,058.46
	Add for Cess @ 1%	Lumpsum	9905	0.01		1,290.58
	Cost for 30 welds					130,349.04
	Rate per weld	Each				4,344.97
093014	60 Kg 'in-situ' under traffic block					
	Details of cost for 25 welds					
	Material:					
	Grinding Stone wheel GQ6 of 150mm dia	Nos.	0457	608.00	2.00	1,216.00
	Anti-corrosive Bituminous Paint (Black) confirming to IS:9862	Litre	0302	100.00	1.50	150.00
	Normal unleaded Petrol	Litre	0180	108.00	1.00	108.00
	Black Oil (used lubricating oil)	Litre	0471	44.00	4.00	176.00
	Diesel (HSD) Oil	Litre	0179	93.00	100.00	9,300.00
	Cotton Jute	Kg	0489	53.00	1.50	79.50
	Hydraulic oil SS-68 or equivalent of HPCL/BPCL/IOCL	Litre	0181	143.00	5.00	715.00
	Labour:					
	(a) For welding					
	Machinist (operator) (Skilled)	Day	0040	738.00	1.00	738.00
	Helper (Semi-skilled)	Day	0021	572.00	2.00	1,144.00
	Grinderman (Skilled)	Day	0028	734.00	2.00	1,468.00
	Track Machine Maintainer (Semi skilled)	Day	0042	654.00	2.00	1,308.00
	Look Out Man (Un-skilled)	Day	0033	547.00	0.00	0.00
	Labour Unskilled	Day	0020	540.00	8.00	4,320.00
	(b) For USFD testing					
	USFD Operator (With approved Certificate)	Day	0043	1392.00	0.50	696.00
	Helper (Semi-skilled)	Day	0021	572.00	0.50	286.00
	Labour Unskilled	Day	0020	540.00	0.50	270.00

Note: The figures given in Amount/Rate Column (Which are strikethrough) are not to be taken for estimation or justifying rate. This amount/rate has been given for illustration purpose only.

Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Machinery:					
	Hire Charges for Mobile Flash Butt Welding Plant	Day	0124	61250.00	1.00	61,250.00
	Hire charges of Rail Profile Weld Grinder	Day	0148	444.00	1.00	444.00
	Hire charges of Angle Grinder	Day	0147	411.00	1.00	411.00
	Hire charges of USFD testing machine	Day	0126	1192.00	1.00	1,192.00
	Misc :					
	T & P	Lumpsum	9901	1.00	500.00	500.00
	LS for Training charges at LKO	Lumpsum	9901	1.00	200.00	200.00
						85,971.50
	Add for working under traffic block @ 10%	Lumpsum	9992	0.10		8,597.15
						94,568.65
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		945.69
						95,514.34
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		13,419.76
						108,934.10
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		16,340.12
						125,274.22
	Add for Cess @ 1%	Lumpsum	9905	0.01		1,252.74
	Cost for 25 welds					126,526.96
	Rate per weld	Each				5,061.08

Note: The figures given in Amount/Rate Column (Which are strikethrough) are not to be taken for estimation or justifying rate. This amount/rate has been given for illustration purpose only.

CHAPTER - 10 : Reconditioning of Points and Crossings

Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
101000	Built-Up Crossing					
101010	In-situ re-conditioning of worn out 1:8½ built-up / fabricated crossing on all types of rail sections under traffic by RDSO approved agency, as prescribed in 'IR's Reconditioning of Points & Crossings Manual' with RDSO approved electrodes and suppliers, finishing & grinding within permissible tolerance limit, as directed by engineer in-charge. Note : One obtuse crossing shall be considered equivalent to two nos. of 1:8½ crossing for payment.					
101011	Using H3B electrodes					
	Details of cost for 3 crossings (40 nos. electrodes are required for each crossing)					
	Material:					
	H3 B Electrodes as per RDSO's Spec. no. IRS M:28-2011	Nos.	0423	76.00	120.00	9,120.00
	Grinding Stone wheel GQ6 of 150mm dia	Nos.	0457	608.00	1.00	608.00
	Labour:					
	Welder (Skilled)	Day	0029	734.00	1.00	734.00
	Helper (Semi-skilled)	Day	0021	572.00	2.00	1,144.00
	Look Out Man (Un-skilled)	Day	0033	547.00	1.00	547.00
	Grinderman (Skilled)	Day	0028	734.00	1.00	734.00
	Labour Unskilled	Day	0020	540.00	2.00	1,080.00
	Machinery:					
	Hire charges of Arc Welding Machine 500 Amp	Day	0129	792.00	1.00	792.00
	Hire charges of Grinding Machine for 150 mm dia wheel	Day	0146	485.00	1.00	485.00
	Hire charges of Generator 5 KVA (without POL)	Day	0071	867.00	1.00	867.00
	Diesel (HSD) Oil	Litre	0179	93.00	4.50	418.50
	T & P	Lumpsum	9901	1.00	10.00	10.00
						16,539.50
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		165.40
						16,704.90
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		2,347.04
						19,051.93
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		2,857.79
						21,909.72
	Add for Cess @ 1%	Lumpsum	9905	0.01		219.10
	Cost for 3 crossings					22,128.82
	Rate per crossing	Each				7,376.27
101012	Using H3C electrodes					
	Details of cost for 3 crossings (40 nos. electrodes are required for each crossing)					
	Material:					
	H3 C Electrodes as per RDSO's Spec. no. IRS M:28-2011	Nos.	0422	78.00	120.00	9,360.00
	Grinding Stone wheel GQ6 of 150mm dia	Nos.	0457	608.00	1.00	608.00
	Labour:					
	Welder (Skilled)	Day	0029	734.00	1.00	734.00
	Helper (Semi-skilled)	Day	0021	572.00	2.00	1,144.00
	Look Out Man (Un-skilled)	Day	0033	547.00	1.00	547.00
	Grinderman (Skilled)	Day	0028	734.00	1.00	734.00
	Labour Unskilled	Day	0020	540.00	2.00	1,080.00
	Machinery:					
	Hire charges of Arc Welding Machine 500 Amp	Day	0129	792.00	1.00	792.00
	Hire charges of Grinding Machine for 150 mm dia wheel	Day	0146	485.00	1.00	485.00
	Hire charges of Generator 5 KVA (without POL)	Day	0071	867.00	1.00	867.00
	Diesel (HSD) Oil	Litre	0179	93.00	4.50	418.50
	T & P	Lumpsum	9901	1.00	10.00	10.00
						16,779.50
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		167.80
						16,947.30
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		2,381.09
						19,328.39

Note: The figures given in Amount/Rate Column (Which are strikethrough) are not to be taken for estimation or justifying rate. This amount/rate has been given for illustration purpose only.

Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		2,899.26
						22,227.65
	Add for Cess @ 1%	Lumpsum	9905	0.01		222.28
	Cost for 3 crossings					22,449.92
	Rate per crossing	Each				7,483.31
101020	In-situ reconditioning of worn out 1:12 or flatter built-up / fabricated crossing on all types of rail sections under traffic condition by RDSO approved agency, as prescribed in 'IR's Reconditioning of Points & Crossings Manual' with RDSO approved electrodes and suppliers, finishing & grinding within permissible tolerance limit, as directed by engineer in-charge :					
101021	Using H3B electrodes					
	Details of cost for 3 crossings (50 nos. electrodes are required for each crossing)					
	Material:					
	H3 B Electrodes as per RDSO's Spec. no. IRS M:28-2011	Nos.	0423	76.00	150.00	11,400.00
	Grinding Stone wheel GQ6 of 150mm dia	Nos.	0457	608.00	1.00	608.00
	Labour:					
	Welder (Skilled)	Day	0029	734.00	1.00	734.00
	Helper (Semi-skilled)	Day	0021	572.00	2.00	1,144.00
	Look Out Man (Un-skilled)	Day	0033	547.00	1.00	547.00
	Grinderman (Skilled)	Day	0028	734.00	1.00	734.00
	Labour Unskilled	Day	0020	540.00	2.00	1,080.00
	Machinery:					
	Hire charges of Arc Welding Machine 500 Amp	Day	0129	792.00	1.00	792.00
	Hire charges of Grinding Machine for 150 mm dia wheel	Day	0146	485.00	1.00	485.00
	Hire charges of Generator 5 KVA (without POL)	Day	0071	867.00	1.00	867.00
	Diesel (HSD) Oil	Litre	0179	93.00	6.00	558.00
	T & P	Lumpsum	9901	1.00	10.00	10.00
						18,959.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		189.59
						19,148.59
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		2,690.38
						21,838.97
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		3,275.85
						25,114.81
	Add for Cess @ 1%	Lumpsum	9905	0.01		251.15
	Cost for 3 crossings					25,365.96
	Rate per crossing	Each				8,455.32
101022	Using H3C electrodes					
	Details of cost for 3 crossings (50 nos. electrodes are required for each crossing)					
	Material:					
	H3 C Electrodes as per RDSO's Spec. no. IRS M:28-2011	Nos.	0422	78.00	150.00	11,700.00
	Grinding Stone wheel GQ6 of 150mm dia	Nos.	0457	608.00	1.00	608.00
	Labour:					
	Welder (Skilled)	Day	0029	734.00	1.00	734.00
	Helper (Semi-skilled)	Day	0021	572.00	2.00	1,144.00
	Look Out Man (Un-skilled)	Day	0033	547.00	1.00	547.00
	Grinderman (Skilled)	Day	0028	734.00	1.00	734.00
	Labour Unskilled	Day	0020	540.00	2.00	1,080.00
	Machinery:					
	Hire charges of Arc Welding Machine 500 Amp	Day	0129	792.00	1.00	792.00
	Hire charges of Grinding Machine for 150 mm dia wheel	Day	0146	485.00	1.00	485.00
	Hire charges of Generator 5 KVA (without POL)	Day	0071	867.00	1.00	867.00
	Diesel (HSD) Oil	Litre	0179	93.00	6.00	558.00
	T & P	Lumpsum	9901	1.00	10.00	10.00
						19,259.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		192.59
						19,451.59

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		2,732.95
						22,184.54
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		3,327.68
						25,512.22
	Add for Cess @ 1%	Lumpsum	9905	0.01		255.12
	Cost for 3 crossings					25,767.34
	Rate per crossing	Each				8,589.11
102000	CMS Crossing					
102010	Reconditioning of worn-out 1:8½ CMS (Cast Manganese Steel) crossing on all types of rail sections on Cess or Depot by RDSO approved agency, as prescribed in 'IR's Reconditioning of Points & Crossings Manual' with RDSO approved electrodes and suppliers, finishing & grinding within permissible tolerance limit, as directed by engineer in-charge. Note: One obtuse crossing shall be considered equivalent to two nos. of 1:8½ crossing for payment.					
102011	Using H3B electrodes					
	Details of cost for 3 crossings (50 nos. electrodes are required for each crossing)					
	Material:					
	H3 B Electrodes as per RDSO's Spec. no. IRS M:28-2011	Nos.	0423	76.00	150.00	11,400.00
	Grinding Stone wheel GQ6 of 150mm dia	Nos.	0457	608.00	1.00	608.00
	Labour:					
	Welder (Skilled)	Day	0029	734.00	1.00	734.00
	Helper (Semi-skilled)	Day	0021	572.00	2.00	1,144.00
	Grinderman (Skilled)	Day	0028	734.00	1.00	734.00
	Labour Unskilled	Day	0020	540.00	4.00	2,160.00
	Machinery:					
	Hire charges of Arc Welding Machine 500 Amp	Day	0129	792.00	1.00	792.00
	Hire charges of Grinding Machine for 150 mm dia wheel	Day	0146	485.00	1.00	485.00
	Hire charges of Generator 5 KVA (without POL)	Day	0071	867.00	1.00	867.00
	Diesel (HSD) Oil	Litre	0179	93.00	4.50	418.50
	T & P (Cooling tub, etc.,)	Lumpsum	9901	1.00	30.00	30.00
						19,372.50
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		193.73
						19,566.23
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		2,749.05
						22,315.28
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		3,347.29
						25,662.57
	Add for Cess @ 1%	Lumpsum	9905	0.01		256.63
	Cost for 3 crossings					25,919.20
	Rate per crossing	Each				8,639.73
102012	Using H3C electrodes					
	Details of cost for 3 crossings (50 nos. electrodes are required for each crossing)					
	Material:					
	H3 C Electrodes as per RDSO's Spec. no. IRS M:28-2011	Nos.	0422	78.00	150.00	11,700.00
	Grinding Stone wheel GQ6 of 150mm dia	Nos.	0457	608.00	1.00	608.00
	Labour:					
	Welder (Skilled)	Day	0029	734.00	1.00	734.00
	Helper (Semi-skilled)	Day	0021	572.00	2.00	1,144.00
	Grinderman (Skilled)	Day	0028	734.00	1.00	734.00
	Labour Unskilled	Day	0020	540.00	4.00	2,160.00
	Machinery:					
	Hire charges of Arc Welding Machine 500 Amp	Day	0129	792.00	1.00	792.00
	Hire charges of Grinding Machine for 150 mm dia wheel	Day	0146	485.00	1.00	485.00
	Hire charges of Generator 5 KVA (without POL)	Day	0071	867.00	1.00	867.00
	Diesel (HSD) Oil	Litre	0179	93.00	4.50	418.50

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	T & P (Cooling tub, etc.,)	Lumpsum	9901	1.00	30.00	30.00
						19,672.50
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		196.73
						19,869.23
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		2,791.63
						22,660.85
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		3,399.13
						26,059.98
	Add for Cess @ 1%	Lumpsum	9905	0.01		260.60
	Cost for 3 crossings					26,320.58
	Rate per crossing	Each				8,773.53
102020	Reconditioning of worn out 1:12 or flatter CMS (Cast Manganese Steel) crossing on all types of rail sections on Cess or Depot, as prescribed in 'IR's Reconditioning of Points & Crossings Manual' with RDSO approved electrodes and suppliers, finishing & grinding within permissible tolerance limit, as directed by engineer in-charge.					
102021	Using H3B electrodes					
	Details of cost for 3 crossings (60 nos. electrodes are required for each crossing)					
	Material:					
	H3 B Electrodes as per RDSO's Spec. no. IRS M:28-2011	Nos.	0423	76.00	180.00	13,680.00
	Grinding Stone wheel GQ6 of 150mm dia	Nos.	0457	608.00	1.00	608.00
	Labour:					
	Welder (Skilled)	Day	0029	734.00	1.00	734.00
	Helper (Semi-skilled)	Day	0021	572.00	2.00	1,144.00
	Grinderman (Skilled)	Day	0028	734.00	1.00	734.00
	Labour Unskilled	Day	0020	540.00	5.00	2,700.00
	Machinery:					
	Hire charges of Generator 5 KVA (without POL)	Day	0071	867.00	1.00	867.00
	Diesel (HSD) Oil	Litre	0179	93.00	6.00	558.00
	Hire charges of Arc Welding Machine 500 Amp	Day	0129	792.00	1.00	792.00
	Hire charges of Grinding Machine for 150 mm dia wheel	Day	0146	485.00	1.00	485.00
	T & P (Cooling tub, etc.,)	Lumpsum	9901	1.00	30.00	30.00
						22,332.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		223.32
						22,555.32
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		3,169.02
						25,724.34
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		3,858.65
						29,582.99
	Add for Cess @ 1%	Lumpsum	9905	0.01		295.83
	Cost for 3 crossings					29,878.82
	Rate per crossing	Each				9,959.61
102022	Using H3C electrodes					
	Details of cost for 3 crossings (60 nos. electrodes are required for each crossing)					
	Material:					
	H3 C Electrodes as per RDSO's Spec. no. IRS M:28-2011	Nos.	0422	78.00	180.00	14,040.00
	Grinding Stone wheel GQ6 of 150mm dia	Nos.	0457	608.00	1.00	608.00
	Labour:					
	Welder (Skilled)	Day	0029	734.00	1.00	734.00
	Helper (Semi-skilled)	Day	0021	572.00	2.00	1,144.00
	Grinderman (Skilled)	Day	0028	734.00	1.00	734.00
	Labour Unskilled	Day	0020	540.00	5.00	2,700.00
	Machinery:					
	Hire charges of Arc Welding Machine 500 Amp	Day	0129	792.00	1.00	792.00
	Hire charges of Grinding Machine for 150 mm dia wheel	Day	0146	485.00	1.00	485.00
	Hire charges of Generator 5 KVA (without POL)	Day	0071	867.00	1.00	867.00
	Diesel (HSD) Oil	Litre	0179	93.00	6.00	558.00

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	T & P (Cooling tub, etc.,)	Lumpsum	9901	1.00	30.00	30.00
						22,692.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		226.92
						22,918.92
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		3,220.11
						26,139.03
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		3,920.85
						30,059.88
	Add for Cess @ 1%	Lumpsum	9905	0.01		300.60
	Cost for 3 crossings					30,360.48
	Rate per crossing	Each				10,120.16
102030	In-situ reconditioning of worn-out CMS (Cast Manganese Steel) crossings of all types as per reconditioning manual and "Work Procedure for In-Situ Reconditioning of CMS Crossing using Robotic Welding Machine" of RDSO through approved agency, finishing & grinding within permissible tolerance limit, as directed by engineer in-charge. Note: (1) One obtuse crossing shall be considered equivalent to two nos. of crossing for payment. (2) Reconditioned crossing shall have Guaranteed service life of minimum 80 GMT. In case of pre-mature reconditioning, it shall be done by the contractor free of cost.					
	Details of cost for 1 crossing (6.5 Kg of 1.6mm dia core flux wire required for each crossing)					
	Material:					
	1.6mm dia core flux wire of cast manganese steel	Kg	0425	1100.00	6.50	7,150.00
	Grinding Stone wheel GQ6 of 150mm dia	Nos.	0457	608.00	1.00	608.00
	Labour:					
	Welder (Skilled)	Day	0029	734.00	1.00	734.00
	Machinist (operator) (Skilled)	Day	0040	738.00	1.00	738.00
	Helper (Semi-skilled)	Day	0021	572.00	2.00	1,144.00
	Grinderman (Skilled)	Day	0028	734.00	1.00	734.00
	Look Out Man (Un-skilled)	Day	0033	547.00	1.00	547.00
	Labour Unskilled	Day	0020	540.00	2.00	1,080.00
	Machinery:					
	Hire charges of Diesel Truck - 9 tonne	Day	0508	3794.12	0.25	948.53
	Hire charges of translamatic robotic welding machine	Day	0131	6117.00	1.00	6,117.00
	Hire charges of Grinding Machine for 150 mm dia wheel	Day	0146	485.00	1.00	485.00
	T & P	Lumpsum	9901	1.00	1000.00	1,000.00
						21,285.53
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		212.86
						21,498.39
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		3,020.52
						24,518.91
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		3,677.84
						28,196.74
	Add for Cess @ 1%	Lumpsum	9905	0.01		281.97
	Cost for 1 crossing					28,478.71
	Rate per crossing	Each				28,478.71
103000	Switches / Tongue Rails					
103010	In-situ reconditioning of worn out 1:8½ tongue rail (only one tongue rail along with connected stock rail) of all rail sections under traffic, as prescribed in 'IR's Reconditioning of Points & Crossings Manual' with RDSO approved electrodes and suppliers, finishing & grinding within permissible tolerance limit, with all contractor's own power T&P, men and materials including crossing the track, lead lift and as directed by engineer in-charge.					

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
103011	Using H3B electrodes					
	Details of cost for 12 Tongue rail (18 nos. electrodes are required for each Tongue Rail)					
	Material:					
	H3 B Electrodes as per RDSO's Spec. no. IRS M:28-2011	Nos.	0423	76.00	216.00	16,416.00
	Grinding Stone wheel GQ6 of 150mm dia	Nos.	0457	608.00	1.00	608.00
	Labour:					
	Welder (Skilled)	Day	0029	734.00	1.00	734.00
	Helper (Semi-skilled)	Day	0021	572.00	2.00	1,144.00
	Grinderman (Skilled)	Day	0028	734.00	1.00	734.00
	Look Out Man (Un-skilled)	Day	0033	547.00	1.00	547.00
	Labour Unskilled	Day	0020	540.00	2.00	1,080.00
	Machinery:					
	Hire charges of Arc Welding Machine 500 Amp	Day	0129	792.00	1.00	792.00
	Hire charges of Grinding Machine for 150 mm dia wheel	Day	0146	485.00	1.00	485.00
	Hire charges of Generator 5 KVA (without POL)	Day	0071	867.00	1.00	867.00
	Diesel (HSD) Oil	Litre	0179	93.00	4.50	418.50
	T & P	Lumpsum	9901	1.00	10.00	10.00
						23,835.50
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		238.36
						24,073.86
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		3,382.38
						27,456.23
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		4,118.43
						31,574.67
	Add for Cess @ 1%	Lumpsum	9905	0.01		315.75
	Cost for 12 Tongue Rails					31,890.41
	Rate per Tongue Rail	Each				2,657.53
103012	Using H3C electrodes					
	Details of cost for 12 Tongue rail (18 nos. electrodes are required for each Tongue Rail)					
	Material:					
	H3 C Electrodes as per RDSO's Spec. no. IRS M:28-2011	Nos.	0422	78.00	216.00	16,848.00
	Grinding Stone wheel GQ6 of 150mm dia	Nos.	0457	608.00	1.00	608.00
	Labour:					
	Welder (Skilled)	Day	0029	734.00	1.00	734.00
	Helper (Semi-skilled)	Day	0021	572.00	2.00	1,144.00
	Grinderman (Skilled)	Day	0028	734.00	1.00	734.00
	Look Out Man (Un-skilled)	Day	0033	547.00	1.00	547.00
	Labour Unskilled	Day	0020	540.00	2.00	1,080.00
	Machinery:					
	Hire charges of Arc Welding Machine 500 Amp	Day	0129	792.00	1.00	792.00
	Hire charges of Grinding Machine for 150 mm dia wheel	Day	0146	485.00	1.00	485.00
	Hire charges of Generator 5 KVA (without POL)	Day	0071	867.00	1.00	867.00
	Diesel (HSD) Oil	Litre	0179	93.00	4.50	418.50
	T & P	Lumpsum	9901	1.00	10.00	10.00
						24,267.50
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		242.68
						24,510.18
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		3,443.68
						27,953.85
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		4,193.08
						32,146.93
	Add for Cess @ 1%	Lumpsum	9905	0.01		321.47
	Cost for 12 Tongue Rails					32,468.40
	Rate per Tongue Rail	Each				2,705.70

Note: The figures given in Amount/Rate Column (Which are strikethrough) are not to be taken for estimation or justifying rate. This amount/rate has been given for illustration purpose only.

Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
103020	In-situ reconditioning of worn out 1:12 or flatter tongue rail (only one tongue rail along with connected stock rail) of all rail sections under traffic, as prescribed in 'IR's Reconditioning of Points & Crossings Manual' with RDSO approved electrodes and suppliers, finishing & grinding within permissible tolerance limit, as directed by engineer in-charge :					
103021	Using H3B electrodes					
	Details of cost for 10 Tongue rail (20 nos. electrodes are required for each Tongue Rail)					
	Material:					
	H3 B Electrodes as per RDSO's Spec. no. IRS M:28-2011	Nos.	0423	76.00	200.00	15,200.00
	Grinding Stone wheel GQ6 of 150mm dia	Nos.	0457	608.00	1.00	608.00
	Labour:					
	Welder (Skilled)	Day	0029	734.00	1.00	734.00
	Helper (Semi-skilled)	Day	0021	572.00	2.00	1,144.00
	Grinderman (Skilled)	Day	0028	734.00	1.00	734.00
	Look Out Man (Un-skilled)	Day	0033	547.00	1.00	547.00
	Labour Unskilled	Day	0020	540.00	2.00	1,080.00
	Machinery:					
	Hire charges of Arc Welding Machine 500 Amp	Day	0129	792.00	1.00	792.00
	Hire charges of Grinding Machine for 150 mm dia wheel	Day	0146	485.00	1.00	485.00
	Hire charges of Generator 5 KVA (without POL)	Day	0071	867.00	1.00	867.00
	Diesel (HSD) Oil	Litre	0179	93.00	6.00	558.00
	T & P	Lumpsum	9901	1.00	10.00	10.00
						22,759.00
	Add for working under traffic block @ 10%	Lumpsum	9992	0.10		2,275.90
						25,034.90
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		250.35
						25,285.25
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		3,552.58
						28,837.83
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		4,325.67
						33,163.50
	Add for Cess @ 1%	Lumpsum	9905	0.01		331.64
	Cost for 10 Tongue Rails					33,495.14
	Rate per Tongue Rail	Each				3,349.51
103022	Using H3C electrodes					
	Details of cost for 10 Tongue rail (20 nos. electrodes are required for each Tongue Rail)					
	Material:					
	H3 C Electrodes as per RDSO's Spec. no. IRS M:28-2011	Nos.	0422	78.00	200.00	15,600.00
	Grinding Stone wheel GQ6 of 150mm dia	Nos.	0457	608.00	1.00	608.00
	Labour:					
	Welder (Skilled)	Day	0029	734.00	1.00	734.00
	Helper (Semi-skilled)	Day	0021	572.00	2.00	1,144.00
	Look Out Man (Un-skilled)	Day	0033	547.00	1.00	547.00
	Grinderman (Skilled)	Day	0028	734.00	1.00	734.00
	Labour Unskilled	Day	0020	540.00	2.00	1,080.00
	Machinery:					
	Hire charges of Arc Welding Machine 500 Amp	Day	0129	792.00	1.00	792.00
	Hire charges of Grinding Machine for 150 mm dia wheel	Day	0146	485.00	1.00	485.00
	Hire charges of Generator 5 KVA (without POL)	Day	0071	867.00	1.00	867.00
	Diesel (HSD) Oil	Litre	0179	93.00	6.00	558.00
	T & P	Lumpsum	9901	1.00	10.00	10.00
						23,159.00
	Add for working under traffic block @ 10%	Lumpsum	9992	0.10		2,315.90
						25,474.90
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		254.75
						25,729.65

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		3,615.02
						29,344.66
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		4,401.70
						33,746.36
	Add for Cess @ 1%	Lumpsum	9905	0.01		337.46
	Cost for 10 Tongue Rails					34,083.83
	Rate per Tongue Rail	Each				3,408.38
103030	Reconditioning of worn out 1:8½ tongue rail (only one tongue rail along with connected stock rail) of all rail sections on Cess or Depot, as prescribed in 'IR's Reconditioning of Points & Crossings Manual' with RDSO approved electrodes and suppliers, finishing & grinding within permissible tolerance limit, as directed by engineer in-charge.					
103031	Using H3B electrodes					
	Details of cost for 16 Tongue rail (16 nos. electrodes are required for each Tongue Rail)					
	Material:					
	H3 B Electrodes as per RDSO's Spec. no. IRS M:28-2011	Nos.	0423	76.00	256.00	19,456.00
	Grinding Stone wheel GQ6 of 150mm dia	Nos.	0457	608.00	1.00	608.00
	Labour:					
	Welder (Skilled)	Day	0029	734.00	2.00	1,468.00
	Helper (Semi-skilled)	Day	0021	572.00	3.00	1,716.00
	Grinderman (Skilled)	Day	0028	734.00	1.00	734.00
	Labour Unskilled	Day	0020	540.00	4.00	2,160.00
	Machinery:					
	Hire charges of Arc Welding Machine 500 Amp	Day	0129	792.00	1.00	792.00
	Hire charges of Grinding Machine for 150 mm dia wheel	Day	0146	485.00	1.00	485.00
	Hire charges of Generator 5 KVA (without POL)	Day	0071	867.00	2.00	1,734.00
	Diesel (HSD) Oil	Litre	0179	93.00	9.00	837.00
	T & P	Lumpsum	9901	1.00	10.00	10.00
						30,000.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		300.00
						30,300.00
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		4,257.15
						34,557.15
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		5,183.57
						39,740.72
	Add for Cess @ 1%	Lumpsum	9905	0.01		397.41
	Cost for 16 Tongue Rails					40,138.13
	Rate per Tongue Rail	Each				2,508.63
103032	Using H3C electrodes					
	Details of cost for 16 Tongue rail (16 nos. electrodes are required for each Tongue Rail)					
	Material:					
	H3 C Electrodes as per RDSO's Spec. no. IRS M:28-2011	Nos.	0422	78.00	256.00	19,968.00
	Grinding Stone wheel GQ6 of 150mm dia	Nos.	0457	608.00	1.00	608.00
	Labour:					
	Welder (Skilled)	Day	0029	734.00	2.00	1,468.00
	Helper (Semi-skilled)	Day	0021	572.00	3.00	1,716.00
	Grinderman (Skilled)	Day	0028	734.00	1.00	734.00
	Labour Unskilled	Day	0020	540.00	4.00	2,160.00
	Machinery:					
	Hire charges of Arc Welding Machine 500 Amp	Day	0129	792.00	1.00	792.00
	Hire charges of Grinding Machine for 150 mm dia wheel	Day	0146	485.00	1.00	485.00
	Hire charges of Generator 5 KVA (without POL)	Day	0071	867.00	2.00	1,734.00
	Diesel (HSD) Oil	Litre	0179	93.00	9.00	837.00
	T & P	Lumpsum	9901	1.00	10.00	10.00
						30,512.00

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		305.12
						30,817.12
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		4,329.81
						35,146.93
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		5,272.04
						40,418.96
	Add for Cess @ 1%	Lumpsum	9905	0.01		404.19
	Cost for 16 Tongue Rails					40,823.15
	Rate per Tongue Rail	Each				2,551.45
103040	Reconditioning of worn out 1:12 or flatter tongue rail (only one tongue rail along with connected stock rail) of all rail sections on Cess or Depot, as prescribed in 'IR's Reconditioning of Points & Crossings Manual' with RDSO approved electrodes and suppliers, finishing & grinding within permissible tolerance limit, as directed by engineer in-charge.					
103041	Using H3B electrodes					
	Details of cost for 14 Tongue rail (18 nos. electrodes are required for each Tongue Rail)					
	Material:					
	H3 B Electrodes as per RDSO's Spec. no. IRS M:28-2011	Nos.	0423	76.00	252.00	19,152.00
	Grinding Stone wheel GQ6 of 150mm dia	Nos.	0457	608.00	1.00	608.00
	Labour:					
	Welder (Skilled)	Day	0029	734.00	2.00	1,468.00
	Helper (Semi-skilled)	Day	0021	572.00	3.00	1,716.00
	Grinderman (Skilled)	Day	0028	734.00	1.00	734.00
	Labour Unskilled	Day	0020	540.00	4.00	2,160.00
	Machinery:					
	Hire charges of Arc Welding Machine 500 Amp	Day	0129	792.00	1.00	792.00
	Hire charges of Grinding Machine for 150 mm dia wheel	Day	0146	485.00	1.00	485.00
	Hire charges of Generator 5 KVA (without POL)	Day	0071	867.00	2.00	1,734.00
	Diesel (HSD) Oil	Litre	0179	93.00	9.00	837.00
	T & P	Lumpsum	9901	1.00	10.00	10.00
						29,696.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		296.96
						29,992.96
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		4,214.01
						34,206.97
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		5,131.05
						39,338.02
	Add for Cess @ 1%	Lumpsum	9905	0.01		393.38
	Cost for 14 Tongue Rails					39,731.40
	Rate per Tongue Rail	Each				2,837.96
103042	Using H3C electrodes					
	Details of cost for 14 Tongue rail (18 nos. electrodes are required for each Tongue Rail)					
	Material:					
	H3 C Electrodes as per RDSO's Spec. no. IRS M:28-2011	Nos.	0422	78.00	252.00	19,656.00
	Grinding Stone wheel GQ6 of 150mm dia	Nos.	0457	608.00	1.00	608.00
	Labour:					
	Welder (Skilled)	Day	0029	734.00	2.00	1,468.00
	Helper (Semi-skilled)	Day	0021	572.00	3.00	1,716.00
	Grinderman (Skilled)	Day	0028	734.00	1.00	734.00
	Labour Unskilled	Day	0020	540.00	4.00	2,160.00
	Machinery:					
	Hire charges of Arc Welding Machine 500 Amp	Day	0129	792.00	1.00	792.00
	Hire charges of Grinding Machine for 150 mm dia wheel	Day	0146	485.00	1.00	485.00
	Hire charges of Generator 5 KVA (without POL)	Day	0071	867.00	2.00	1,734.00
	Diesel (HSD) Oil	Litre	0179	93.00	9.00	837.00

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	T & P	Lumpsum	9901	1.00	10.00	10.00
						30,200.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		302.00
						30,502.00
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		4,285.53
						34,787.53
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		5,218.13
						40,005.66
	Add for Cess @ 1%	Lumpsum	9905	0.01		400.06
	Cost for 14 Tongue Rails					40,405.72
	Rate per Tongue Rail	Each				2,886.12
104000	SEJ, Weld and Rail					
104010	Re-conditioning of worn out all types of SEJs of all rail sections to the standard profile by using H3B electrodes as per RDSO drawing and prescribed in 'IR's Reconditioning of Points & Crossings Manual' including grinding to finished tolerances etc. complete. Note: Two stock rails + Two tongue rails will constitute one set of SEJ.					
104011	On Cess condition					
	Details of cost for 4 set SEJ (60 nos. electrodes are required for each SEJ)					
	Material:					
	H3 B Electrodes as per RDSO's Spec. no. IRS M:28-2011	Nos.	0423	76.00	240.00	18,240.00
	Grinding Stone wheel GQ6 of 150mm dia	Nos.	0457	608.00	1.00	608.00
	Labour:					
	Welder (Skilled)	Day	0029	734.00	2.00	1,468.00
	Helper (Semi-skilled)	Day	0021	572.00	3.00	1,716.00
	Grinderman (Skilled)	Day	0028	734.00	1.00	734.00
	Labour Unskilled	Day	0020	540.00	6.00	3,240.00
	Machinery:					
	Hire charges of Arc Welding Machine 500 Amp	Day	0129	792.00	1.00	792.00
	Hire charges of Angle Grinder	Day	0147	411.00	1.00	411.00
	Hire charges of Generator 5 KVA (without POL)	Day	0071	867.00	2.00	1,734.00
	Diesel (HSD) Oil	Litre	0179	93.00	9.00	837.00
	T & P	Lumpsum	9901	1.00	10.00	10.00
						29,790.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		297.90
						30,087.90
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		4,227.35
						34,315.25
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		5,147.29
						39,462.54
	Add for Cess @ 1%	Lumpsum	9905	0.01		394.63
	Cost for 4 set SEJ					39,857.16
	Rate per set	Set				9,964.29
104012	In-situ under traffic condition					
	Details of cost for 3 set SEJ (64 nos. electrodes are required for each SEJ)					
	Material:					
	H3 B Electrodes as per RDSO's Spec. no. IRS M:28-2011	Nos.	0423	76.00	192.00	14,592.00
	Grinding Stone wheel GQ6 of 150mm dia	Nos.	0457	608.00	1.00	608.00
	Labour:					
	Welder (Skilled)	Day	0029	734.00	2.00	1,468.00
	Helper (Semi-skilled)	Day	0021	572.00	2.00	1,144.00
	Look Out Man (Un-skilled)	Day	0033	547.00	1.00	547.00
	Grinderman (Skilled)	Day	0028	734.00	1.00	734.00
	Labour Unskilled	Day	0020	540.00	2.00	1,080.00
	Machinery:					
	Hire charges of Arc Welding Machine 500 Amp	Day	0129	792.00	1.00	792.00
	Hire charges of Angle Grinder	Day	0147	411.00	1.00	411.00

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Hire charges of Generator 5 KVA (without POL)	Day	0071	867.00	2.00	1,734.00
	Diesel (HSD) Oil	Litre	0179	93.00	9.00	837.00
	T & P	Lumpsum	9901	1.00	10.00	10.00
						23,957.00
	Add for working under traffic block @ 10%	Lumpsum	9992	0.10		2,395.70
						26,352.70
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		263.53
						26,616.23
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		3,739.58
						30,355.81
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		4,553.37
						34,909.18
	Add for Cess @ 1%	Lumpsum	9905	0.01		349.09
	Cost for 3 set SEJ					35,258.27
	Rate per set	Set				11,752.76
104020	Re-conditioning of cupped welded joints 'in-situ' by using CP-3032 powder under traffic conditions as per RDSO's guidelines for 'IR's Reconditioning Of Scabs, Wheel Burns of Rail And Cupped AT Welded Joint'					
	Details of cost for 30 Welds					
	Material:					
	CP-3032 Powder for reconditioning of scabs, wheel burns of rails and cupped AT welded joints	Kg	0420	1250.00	8.00	10,000.00
	Kerosene Oil	Litre	0183	63.00	5.00	315.00
	Sand Paper medium-grit (100- to 150-grit), 9" x 11"	Nos.	0491	7.00	8.00	56.00
	Cotton Jute	Kg	0489	53.00	2.00	106.00
	Labour:					
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	1.00	749.00
	Helper (Semi-skilled)	Day	0021	572.00	1.00	572.00
	Look Out Man (Un-skilled)	Day	0033	547.00	1.00	547.00
	Waterman (Un-skilled)	Day	0034	547.00	1.00	547.00
	Misc.:					
	T & P	Lumpsum	9901	1.00	50.00	50.00
						12,942.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		129.42
						13,071.42
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		1,836.53
						14,907.95
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		2,236.19
						17,144.15
	Add for Cess @ 1%	Lumpsum	9905	0.01		171.44
	Cost for 30 welds					17,315.59
	Rate per weld	Each				577.19
104030	Repairs/Reconditioning of scabbed rails & wheel burns on tongue rails / running rails/stock rails etc in situ using Micro flow thermal spray technology by using CP – 3032 powder as approved and as per RDSO / LKO and as per specifications with all Contractor's material, labour, tools, powder, equipment and consumable, with all lead and lift complete and as per the instructions of the Engineer-in-charge at site. Note: Inventory of scabs/wheel burn area should be prepared duly test checked at ADEN level before starting of the work.					
	Details of cost for 1000 Sq cm					
	Material:					
	CP-3032 Powder for reconditioning of scabs, wheel burns of rails and cupped AT welded joints	Kg	0420	1250.00	8.00	10,000.00
	Kerosene Oil	Litre	0183	63.00	5.00	315.00
	Sand Paper medium-grit (100- to 150-grit), 9" x 11"	Nos.	0491	7.00	8.00	56.00
	Cotton Jute	Kg	0489	53.00	2.00	106.00

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Labour:					
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	1.00	749.00
	Helper (Semi-skilled)	Day	0021	572.00	1.00	572.00
	Look Out Man (Un-skilled)	Day	0033	547.00	1.00	547.00
	Waterman (Un-skilled)	Day	0034	547.00	1.00	547.00
	Misc.:					
	T & P	Lumpsum	9901	1.00	50.00	50.00
						12,942.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		129.42
						13,071.42
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		1,836.53
						14,907.95
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		2,236.19
						17,144.15
	Add for Cess @ 1%	Lumpsum	9905	0.01		171.44
	Cost for 1000 Sq.cm					17,315.59
	Rate per Sq.cm	Sq cm				17.32
104040	In-situ reconditioning of MCI insert of points & crossings sleeper by reclaiming the worn-out portion to the desired height, grinding of the finished profile for regaining the toe load lost. The reconditioning to be done by using TERRA C I-94 - Electrodes of make L & T, Advani Oerlicon, Diffusion, SHARP - 650, or equivalent approved by RDSO for reconditioning of Cast iron alloys. removing and refixing the required fittings for reconditioning in traffic condition. The cost includes all labour, lead lift, transportation of men and material, cost of consumables, hiring of machinery required etc, complete and as directed by the Engineer-in -charge.					
	Cost Considering for 70 Nos for reconditioning of inserts in one day					
	Each 4 electrodes will do 5 insert reconditioning					
	Material:					
	TERRA C I-94 - Electrodes of make L & T, Advani Oerlicon, Diffusion, SHARP - 650, or equivalent for reconditioning of MCI insert of points & crossings sleeper	Each	0421	245.00	56.00	13,720.00
	Labour:					
	Welder (Skilled)	Day	0029	734.00	1.00	734.00
	Helper (Semi-skilled)	Day	0021	572.00	1.00	572.00
	Grinderman (Skilled)	Day	0028	734.00	1.00	734.00
	Look Out Man (Un-skilled)	Day	0033	547.00	1.00	547.00
	Misc.:					
	T & P (Welding plant misc tools) and grinding blades etc	Lumpsum	9901	1.00	20	20.00
	Hire charges of Arc Welding Machine 500 Amp	Day	0129	792.00	1.00	792.00
	Hire charges of Generator 5 KVA (without POL)	Day	0071	867.00	1.00	867.00
	Diesel (HSD) Oil	Litre	0179	93.00	9.00	837.00
	Hire charges of Angle Grinder	Day	0147	411.00	1.00	411.00
						19,234.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		192.34
						19,426.34
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		2,729.40
						22,155.74
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		3,323.36
						25,479.10
	Add for Cess @ 1%	Lumpsum	9905	0.01		254.79
	Cost for 70 inserts					25,733.89
	Rate per insert	Each				367.63

Note: The figures given in Amount/Rate Column (Which are strikethrough) are not to be taken for estimation or justifying rate. This amount/rate has been given for illustration purpose only.

CHAPTER - 11 : Formation Rehabilitation
(Items only for Rehabilitation of poor formation of running line)

Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)	
111000	Rehabilitation of weak formation by Replacement of Weak Soil						
111010	Rehabilitation of existing weak formation by replacing top layers of existing formation only with mechanically manufactured blanketing material of specified formation width and thickness under traffic/power block or without traffic block by blocking the line for longer period by diverting the traffic or otherwise. The item includes all things necessary to complete the work, all in accordance with the latest applicable specifications, guidelines, manuals instructions and includes, more particularly, and without in any way limiting the generality of liability to complete the work in all respect e.g. (i) dismantling/lifting of track panel by crane, (ii) scooping of ballast from track, screening & stacking along track (iii) removal of top layers of existing formation up to 550 mm (iv) spreading of blanketing material in layers not exceeding in 30 cm in thickness in loose conditions, leveling by motor grader & compacting by vibro roller of required capacity up to specified degree of compaction to achieve a compacted blanket thickness of 550 mm & finishing to correct profile.						
	(v) placing 4m width of Non-woven Needle Punched and Mechanically or Thermally bonded type Geo-textile with minimum strengths in Grab test, Trapezoidal Tear test and Puncture test of 1750N, 800 N and 5800 N respectively (vi) spreading new/screened ballast layer of 200mm uniform thickness over it and compaction by rollers (vii) linking of track panels with Crane and connecting at both ends, initial packing and leveling (viii) screening of scooped ballast, stacking and using the same at the same location or adjacent location along with additional ballast to provide specified cushion and profile (ix) disposal of waste material at nominated place (x) all pre and post attention during required nos. of machine tamping (xi) removal of service rails with rail panel and de-stressing of track after final packing & surfacing and all other incidental works required to complete the work in all respect.						
	Note: 1. Net quantity of blanketing material considered under this item as 4.455 cum per TRM as per assumed teoretical profile of 7.0m formation width and 0.55m depth (excluding extra quantity required for compaction) . If the net quantity required as per approved designed cross section is different, extra payment or deduction shall be made as per relevant item. 2. Minimum number of Machineries and plants to be available at site in working order is as under: (i) Crawler Crane 20 MT - 2 nos. (ii) Crawler mounted Hydraulic Excavator 0.92 cum bucket capacity - 4 nos. (iii) Motor Grader 3.71 m Blade - 1 no. (iv) Tandem Vibratory roller 8 - 10 tonne capacity - 2 nos. (v) Water Tanker 5 to 6 KL Capacity - 1 no.						
111011	Under Traffic Block						
	This is a long duration work and captive machines are to be available at site for working during planned blocks, analysis is done for the out put with a fleet of machines and manpower for a month i.e. 30 days. Considering 20 blocks of 4 hrs duration each per month and catering 7 service rail panels of 12.5m each, total output per month = $20 \times 7 \times 12.5 = 1750\text{m}$ for fleet of machinery as under: (i) Crane 20 MT - 2 nos. (ii) Hydraulic Excavator 0.92 cum bucket capacity - 4 nos. (iii) Motor Grader - 1 no. (iv) Vibratory Compacter - 2 nos. Cost shall be based on monthly charges of equipments without POL and cost of POL during working hours of block period i.e. 4 hours for excavator, 2 hours for crane, 2 hours for grader and 2 hours for roller for each block.						
	SOR Items:						

Note: The figures given in Amount/Rate Column (Which are strikethrough) are not to be taken for estimation or justifying rate. This amount/rate has been given for illustration purpose only.

Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)	
	Mechanical manufacturing and supply of blanketing material by using only hard and durable stone crushed in mechanical crusher to different gradations, wet mixing of the same in designed proportion in Pug mill or wet mix plant to have uniform gradation as per RDSO Specification No. RDSO/2020/GE: IRS-0004 with latest correction slips including transportation to nominated place and stacking as per item no. 012050. Quantity: 7m x 0.55m x 1750m + 2 x 0.5 x 0.55 x 1750 + 1750m x 2 x 0.5 x 0.55m x 1.1m = 8758.75 cum Loose quantity required = 1.20 x 8758.75 = 10510.5 Cum Say 10511 Cum	Cum	012050	1377.70	10511.00	14,480,992.47	X
	Considering screened quantity of existing ballast will be 50% i.e. about 1.25 cum/track metre and cost of screening, stacking and putting into track is the same as taking out ballast from track, screening and stacking.						
	Screening of track ballast taken out and again putting back into track & profiling	Cum	083040	324.80	2187.50	710,495.07	X
	Through rail renewal with panel	TRM	061031	48.48	1750.00	84,840.52	X
	Destressing of Track	TRM	135012	59.49	1750.00	104,107.61	X
	Machinery & fuel:						
	Cost of machinery shall be in two parts i.e. (1) Hire Charges without POL for 30 days and (2) fuel and Lubricant Charges during running : (A) Crane @ 2 hour per block = 2 x 20 x 2 x 8 = 640 litres (B) Excavator @ 4 hours per block = 4 x 20 x 4 x 9.2 = 2944 litres (C) Grader @ 2 Hour per block = 1 x 20 x 2 x 22 = 880 litres (D) Roller @ 2 Hour per block = 2 x 20 x 2 x 8 = 640 litres Total Diesel Consumption = 5104 litres						
	(A) Crane						
	Hiring charges of Crane 20 MT capacity	Day	0091	7850.00	1.00	7,850.00	
	HSD @ 8.0 litre per hour for 8 hours = 64 litres per day. Cost of diesel to be reduced to workout hire charges without POL per day						
	Cost of Diesel	Litre	0179	93.00	64.00	-5,952.00	
	Hiring charges of Crane 20 MT capacity without POL	Day				1,898.00	A
	(B) Excavator						
	Hire Charges of Crawler mounted 3D Hydraulic Excavator 148 HP (0.9 Cum Bucket Capacity)	Day	0501	10423.00	1.00	10,423.00	
	HSD @ 9.2 litre per hour for 8 hours = 73.60 litres per day. Cost of diesel to be reduced to workout hire charges without POL per day						
	Cost of Diesel consumption per day	Litre	0179	93.00	73.60	-6,844.80	
	Hire charges of Hydraulic Excavator (0.9 Cum Bucket Capacity) without POL	Day				3,578.20	B
	(C) Motor Grader						
	Hire charges of Motor grader (3.67 metre blade)	Day	0504	17894.50	1.00	17,894.50	
	HSD @ 22 litre per hour. Cost of diesel to be reduced to workout hire charges without POL per day						
	Cost of Diesel per day	Litre	0179	93.00	176.00	-16,368.00	
	Hire charges of Motor grader (3.71 metre blade) without POL per day	Day				1,526.50	C
	(D) Vibratory Roller:						
	Hire Charges of Vibratory roller 8 to 10 tonne	Hour	0056	823.00	1.00	823.00	
	HSD @ 8.0 litre per hour. Cost of diesel to be reduced to workout hire charges without POL per hour						
	Cost of Diesel	Litre	0179	93.00	8.00	-744.00	
	Hire charges of Vibratory roller without POL per Hour	Hour				79.00	
	Hire charges of Vibratory roller without POL per Day	Day				632.00	D
	(E) Water Tanker						
	Hire charges of Water tanker 5 to 6 KL capacity	Hour	0055	241.00	1.00	241.00	
	Hire charges of Water tanker 5 to 6 KL capacity per day	Day				1,928.00	E
	Total Cost of machinery per month without POL = (2A + 4B + 1C +2D+E)X30					684,819.00	
	Diesel (HSD) Oil	Litre	0179	93.00	5104.00	474,672.00	
	Manpower:						
	Mate (Skilled)	Day	0002	751.00	40.00	30,040.00	
	Blacksmith - 2nd Class (Semi-skilled)	Day	0009	649.00	20.00	12,980.00	
	Helper (Semi-skilled)	Day	0021	572.00	20.00	11,440.00	
	Look Out Man (Un-skilled)	Day	0033	547.00	40.00	21,880.00	
	Labour Unskilled	Day	0020	540.00	600.00	324,000.00	
	Material:						

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)	
	Non-woven Needle Punched and Mechanically or Thermally bonded type Geotextile for use as Separator/Filtration for Railway formation as per RDSO Specification No. RDSO/2018/GE:IRS-0004 - Part I with minimum strengths in Grab test, Trapezoidal Tear test and Puncture test of 1750N, 800 N and 5800 N respectively.	Sqm	0176	232.00	7000.00	1,624,000.00	P
	Add 10 % of P for wastage and accessories for joining elements, overlap, transportation etc.			0.10		162,400.00	
	T & P	Lumpsum	9901	1.00	10000.00	10,000.00	
	Total without Blanketing Material					3,356,231.00	
	Add for working under traffic block @ 15%	Lumpsum	9993	0.15		503,434.65	
						3,859,665.65	
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		38,596.66	
						3,898,262.31	
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		547,705.85	
						4,445,968.16	
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		666,895.22	
						5,112,863.38	
	Add for Cess @ 1%	Lumpsum	9905	0.01		51,128.63	
	Cost for 1750 m without items marked as "X"					5,163,992.02	
	Total cost for 1750 m					20,544,427.68	
	Rate per track metre	TRM				11,739.67	
111012	Not requiring Traffic Block by diverting traffic on diversion or blocking the line for longer duration till completion of rehabilitation work. Note: Cost of diversion, if any, is not included in this item.						
	This is a long duration work and captive machines are to be available at site for working during planned blocks, analysis is done for the out put with a fleet of machines and manpower for a month i.e. 30 days. Considering 20 blocks of 4 hrs duration each per month and catering 7 service rail panels of 12.5m each, total output per month = $20 \times 7 \times 12.5 = 1750\text{m}$ for fleet of machinery as under: (i) Crane 20 MT - 2 nos. (ii) Hydraulic Excavator 0.92 cum bucket capacity - 4 nos. (iii) Motor Grader - 1 no. (iv) Vibratory Compacter - 2 nos. Cost shall be based on monthly charges of equipments without POL and cost of POL during working hours of block period i.e. 4 hours for excavator, 2 hours for crane, 2 hours for grader and 2 hours for roller for each block.						
	SOR Items:						
	Mechanical manufacturing and supply of blanketing material by using only hard and durable stone crushed in mechanical crusher to different gradations, wet mixing of the same in designed proportion in Pug mill or wet mix plant to have uniform gradation as per RDSO Specification No. RDSO/2020/GE: IRS-0004 with latest correction slips including transportation to nominated place and stacking as per item no. 012050. Quantity: $7\text{m} \times 0.55\text{m} \times 5200\text{m} + 2 \times 0.5 \times 0.55 \times 5200\text{m} + 5200\text{m} \times 2 \times 0.5 \times 0.55\text{m} \times 1.1\text{m} = 26026.00\text{ cum}$ Loose quantity required = $1.20 \times 26026 = 31231.20\text{ Cum}$ Say 31231 Cum	Cum	012050	1377.70	31231.00	43,026,912.35	X
	Considering screened quantity of existing ballast will be 50% i.e. about 1.25 cum/track metre and cost of screening, stacking and putting into track is the same as taking out ballast from track, screening and stacking.						
	Screening of track ballast taken out and again putting back into track & profiling	Cum	083040	324.80	6500.00	2,111,185.35	X
	Through rail renewal with panel	TRM	061031	48.48	5200.00	252,097.56	X
	Destressing of Track	TRM	135012	59.49	5200.00	309,348.31	X
	Machinery & fuel:						

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)	
	Cost of machinery shall be in two parts i.e. (1) Hire Charges without POL for 30 days and (2) fuel and Lubricant Charges during running for 26 days : (A) Crane @ 4 hour per working days = 2 x 26 x 4 x 8 = 1664 litres (B) Excavator @ 6 hours per working days = 4 x 26 x 6 x 9.2 = 5741 litres (C) Grader @ 4 Hour per working days = 1 x 26 x 4 x 22 = 2288 litres (D) Roller @ 4 Hour per working days = 2 x 26 x 4 x 8 = 1664 litres Total Diesel Consumption = 11357 litres						
	(A) Crane						
	Hire charges of Electronic Toe load measuring device	Day	0091	7,850.00	1.00	7,850.00	
	HSD @ 8.0 litre per hour for 8 hours = 64 litres per day. Cost of diesel to be reduced to workout hire charges without POL per day						
	Cost of Diesel	Litre	0179	93.00	64.00	-5,952.00	
	Hiring charges of Crane 20 MT capacity without POL	Day				1,898.00	A
	(B) Excavator						
	Hire Charges of Crawler mounted 3D Hydraulic Excavator 148 HP (0.9 Cum Bucket Capacity)	Day	0501	10423.00	1.00	10,423.00	
	HSD @ 9.2 litre per hour for 8 hours = 73.60 litres per day. Cost of diesel to be reduced to workout hire charges without POL per day						
	Cost of Diesel consumption per day	Litre	0179	93.00	73.60	-6,844.80	
	Hire charges of Hydraulic Excavator (0.9 Cum Bucket Capacity) without POL	Day				3,578.20	B
	(C) Motor Grader						
	Hire charges of Motor grader (3.67 metre blade)	Day	0504	17894.50	1.00	17,894.50	
	HSD @ 22 litre per hour. Cost of diesel to be reduced to workout hire charges without POL per day						
	Cost of Diesel per day	Litre	0179	93.00	176.00	-16,368.00	
	Hire charges of Motor grader (3.71 metre blade) without POL per day	Day				1,526.50	C
	(D) Vibratory Roller:						
	Hire Charges of Vibratory roller 8 to 10 tonne	Hour	0056	823.00	1.00	823.00	
	HSD @ 8.0 litre per hour. Cost of diesel to be reduced to workout hire charges without POL per hour						
	Diesel (HSD) Oil	Litre	0179	93.00	8.00	-744.00	
	Hire charges of Vibratory roller without POL per Hour	Hour				79.00	
	Hire charges of Vibratory roller without POL per Day	Day				632.00	D
	(E) Water Tanker						
	Hire charges of Water tanker 5 to 6 KL capacity	Hour	0055	241.00	1.00	241.00	
	Hire charges of Water tanker 5 to 6 KL capacity per day	Day				1,928.00	E
	Total Cost of machinery per month without POL = (2A + 4B + 1C +2D+E)X30					684,819.00	
	Diesel (HSD) Oil	Litre	0179	93.00	11357.00	1,056,201.00	
	Manpower:						
	Mate (Skilled)	Day	0002	751.00	52.00	39,052.00	
	Blacksmith - 2nd Class (Semi-skilled)	Day	0009	649.00	26.00	16,874.00	
	Helper (Semi-skilled)	Day	0021	572.00	26.00	14,872.00	
	Labour Unskilled	Day	0020	540.00	780.00	421,200.00	
	Material:						
	Non-woven Needle Punched and Mechanically or Thermally bonded type Geotextile for use as Separator/Filtration for Railway formation as per RDSO Specification No. RDSO/2018/GE:IRS-0004 - Part I with minimum strengths in Grab test, Trapezoidal Tear test and Puncture test of 1750N, 800 N and 5800 N respectively.	Sqm	0176	232.00	21000.00	4,872,000.00	P
	Add 10 % of P for wastage and accessories for joining elements, overlap, transportation etc.			0.10		487,200.00	
	T & P	Lumpsum	9901	1.00	20000.00	20,000.00	
	Total without SOR Items marked as "X"					7,612,218.00	
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		76,122.18	
						7,688,340.18	

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)	
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		1,080,211.80	
						8,768,551.98	
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		1,315,282.80	
						10,083,834.77	
	Add for Cess @ 1%	Lumpsum	9905	0.01		100,838.35	
	Cost for 5200 m without items marked as "X"					10,184,673.12	
	Total cost for 5200 m					55,884,216.69	
	Rate per track metre	TRM				10,746.96	
111020	Extra/Deduction in the rate of item nos. 111011 & 111012 for increase / decrease in net compacted quantity of blanketing material required as per approved designed cross section over net compacted quantity of 4.455 cum per TRM considered in above items, for theoretical profile of 7.0m formation width and 0.55m depth (excluding extra quantity required for compaction).						
111021	Extra for increase in compacted quantity						
	Rate of supply of blanketing material in loose stage as per item no. 012050 considering 1.20 cum loose stage produce 1.0 cum compact blanketing material.						
	Rate per cum per TRM	Cum	012050	1,377.70	1.20	1653.24	
111022	Deduction for decrease in compacted quantity						
	Rate of supply of blanketing material in loose stage as per item no. 012050 considering 1.20 cum loose stage produce 1.0 cum compact blanketing material.						
	Rate per cum per TRM	Cum	012050	1,377.70	1.20	-1653.24	
111030	Extra/Deduction in the rate of item nos. 111011 & 111012 for increase / decrease in area of Non-woven Needle Punched and Mechanically or Thermally bonded type Geo-textile required as per approved design over net quantity of 4.0 Sqm per TRM considered in above items.						
111031	Extra for increase in area						
	Rate as per item no. 013092	Sqm	013092	364.39	1.00	364.39	
	Rate per Sqm per TRM	Sqm				364.39	
111032	Deduction for decrease in area						
	Rate as per item no. 013092	Sqm	013092	364.39	-1.00	-364.39	
	Rate per Sqm per TRM	Sqm				-364.39	
112000	Soil Testing						
112010	Slope stability calculation and design for Railways Embankment / Cutting more than 6 meters height based on soil materials & parameters as per RDSO's latest standards and specifications, duly conducting relevant lab test, e.g. cohesion and angle of internal friction etc. and submitting report for approval duly showing the cross-section dimensions for embankment / cutting for each cross section.						
112011	Embankment						
	For Lab test on collected soil samples as per relevant IS code Rates are available in Works SOR item no. 021140						
	Detail of cost for samples of 20 cross sections						
	Labour:						
	Draftsman / Surveyor	Day	0001	1333.00	2.00	2,666.00	
	Helper (Semi-skilled)	Day	0021	572.00	5.00	2,860.00	
	Labour Unskilled	Day	0020	540.00	2.00	1,080.00	
	Waterman (Un-skilled)	Day	0034	547.00	1.00	547.00	
	Misc.:						
	T & P	Lumpsum	9901	1.00	50.00	50.00	
	Hire charges of Laptop / Computer with software & Printer	Day	0163	350.00	1.00	350.00	
						7,553.00	

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)	
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		75.53	
						7,628.53	
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		1,071.81	
						8,700.34	
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		1,305.05	
						10,005.39	
	Add for Cess @ 1%	Lumpsum	9905	0.01		100.05	
	Cost for samples of 20 cross sections					10,105.44	
	Rate for each cross sections	Each				505.27	
112012	Cutting						
	For Lab test on collected soil samples as per relevant IS code Rates are available in Works SOR item no. 021140						
	Detail of cost for samples of 20 cross sections						
	Labour:						
	Draftsman / Surveyor	Day	0001	1333.00	2.00	2,666.00	
	Helper (Semi-skilled)	Day	0021	572.00	6.00	3,432.00	
	Labour Unskilled	Day	0020	540.00	4.00	2,160.00	
	Waterman (Un-skilled)	Day	0034	547.00	1.00	547.00	
	Misc.:						
	Hire charges of Laptop / Computer with software & Printer	Day	0163	350.00	1.00	350.00	
						9,155.00	
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		91.55	
						9,246.55	
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		1,299.14	
						10,545.69	
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		1,581.85	
						12,127.54	
	Add for Cess @ 1%	Lumpsum	9905	0.01		121.28	
	Cost for samples of 20 cross sections					12,248.82	
	Rate for each cross sections	Each				612.44	
113000	Miscellaneous						
113010	Cess repair/widening work as per RDSO Specifications and guidelines RDSO/2020/GE: IRS-0004 or latest in running line with suitable soil to the designed profile The work shall include uprooting and disposing of all the vegetation, benching at every 30 Cm vertical height, earthwork in benching portion and compaction using suitable slope vibratory Rollers/Compactors etc. to achieve prescribed MDD. Note: 1. Payment of cess repairs shall be based on the quantities worked out from the cross sectional calculations only and worked out from the initial ground levels before doing benching and final levels as done for new embankment. The earth work in benching portion shall not be paid extra as the same has been included in the rate. 2. The earth work shall be started only after Completing of the benching and certified. 3. The benching Work shall be done for a maximum height of 1.50 m at any time based on the progress of earthwork starting from toe of the embankment.						
	Detail of cost for 100 cum Add Extra for earth work for benching and Wastage						
	Assuming 3m Height of Bank, Number of Steps of Benching = 10 Area of 10 Steps of Benching = $10 \times 0.5 \times 0.30 \times 0.60 = 0.90$ Sqm Assuming width of Earth work to be done = 1.00 m Area of Earthwork to be done = $3.00 \times 1.00 = 3.00$ Sqm. % of earthwork for benching = $0.90/3.00 \times 100 = 30\%$						
	Material:						
	Soil Quality Class SQ1 suitable for sub grade of embankment as per RDSO Specifications RDSO/2020/GE: IRS-0004	Cum	0166	184.00	130.00	23,920.00	
	Labour:						

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)	
	Unskilled Labour for removing vegetation and Benching Benching quantity for 33m length (100 Cum /3.00 sqm) = 33.33* 0.90 =30.00 Cum						
	Labour Unskilled	Day	0020	540.00	10.00	5,400.00	
	Machinery:						
	Hire Charges of Crawler mounted 3D Hydraulic Excavator 148 HP (0.9 Cum Bucket Capacity)	Day	0501	10423.00	0.40	4,169.20	
	Hire Charges of Slope Vibrator to be attached to Hydralic Excavator for rolling of slope surfaces of embankment.	Day	0058	2400.00	0.40	960.00	
	Misc.:						
	T & P	Lumpsum	9901	1.00	50.00	50.00	
						34,499.20	
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		344.99	
						34,844.19	
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		4,895.61	
						39,739.80	
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		5,960.97	
						45,700.77	
	Add for Cess @ 1%	Lumpsum	9905	0.01		457.01	
	Cost for 100 cum					46,157.78	
	Rate per Cum	Cum				461.58	
113020	Extra over item 113010 for earth-work for making cess on other side of the track (when no approaches available along track or no road vehicles to work at site) by dumping contractor's own earth, collected along toe of bank of any height on to other side of track & side slope of the existing bank by head load, duly crossing of tracks with all contractor's materials, labour, tools, plant including loading of earth in baskets, lifting, leading to the non-cess side of bank including crossing of tracks & dumping etc. and as directed by the Engineer-in-charge.						
	Take 10% of rate of item no. 113010						
	Rate per Cum	Cum	113010	461.58	0.10	46.16	
113030	Excavation for widening of existing formation in cuttings in hard soils which require picks or crow bars for hacking including soils containing stones or boulders of size under 0.03 cum without infringing the nearby track, as directed by engineer-in-charge at site including cutting of earth, loading, leading by contractor's vehicles, unloading at site, dumping on spoil bank by head loads and utilising same excavated earth for widening of existing formation in embankment as per standards, duly rolling manually at 2:1 slope and levelling bank to the required profile including watering and compaction with contractor's labour or mechanically operated rollers with all contractor's labour, clearing of jungle, benching etc., tools, plants, vehicles etc. complete with lead up to 1000m and all lifts including crossing of track, wherever necessary.						
	Detail of cost for 40 cum						
	Labour:						
	Mate (Skilled)	Day	0002	751.00	1.00	751.00	
	Labour Unskilled	Day	0020	540.00	10.00	5,400.00	
	Misc.:						
	T & P	Lumpsum	9901	1.00	20.00	20.00	
	Hire charges for tractor with trolley	Day	0080	1742.00	3.00	5,226.00	
	Hire Charges of JCB 3DX Plus Backhoe Loader	Day	0506	4966.80	1.00	4,966.80	
						16,363.80	
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		163.64	
						16,527.44	
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		2,322.11	
						18,849.54	
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		2,827.43	
						21,676.97	
	Add for Cess @ 1%	Lumpsum	9905	0.01		216.77	
	Cost for 40 cum					21,893.74	

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)	
	Rate per Cum	Cum				547.34	

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CHAPTER - 12 : Activities at Construction Sites

Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
121000	Dismantling Works					
121010	Dismantling of existing LWR/SWR track of any structure, removing rails, sleepers, fish plates, cutting of rails, segregation and stacking of released Rails, Sleepers and fitting at nominated location in countable manner within a free lead of 500m, levelling of ballast to correct profile for laying new track over it, all as per direction of Engineer-in-Charge.					
	Details of cost for 500 TRM					
	Material:					
	Oxygen Gas (in cylinder)	Kg	0338	83.00	80.00	6,640.00
	Commercial LPG (in cylinder)	Kg	0337	99.00	26.00	2,574.00
	Labour:					
	Mate (Skilled)	Day	0002	751.00	2.00	1,502.00
	Welder (Skilled)	Day	0029	734	1.00	734.00
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	1.00	749.00
	Helper (Semi-skilled)	Day	0021	572.00	2.00	1,144.00
	Waterman (Un-skilled)	Day	0034	547.00	1.00	547.00
	(i) Opening ballast, fitting, fastening, joint fish plate and gas cutting if LWR					
	Labour Unskilled	Day	0020	540.00	20.00	10,800.00
	(ii) Removing rail from sleeper					
	Labour Unskilled	Day	0020	540.00	12.00	6,480.00
	(iii) Collecting fitting, fastening, fish plate, nut & bolt etc.					
	Labour Unskilled	Day	0020	540.00	4.00	2,160.00
	(iv) Collecting rails, sleepers, leading and stacking near store depot in countable manner					
	Labour Unskilled	Day	0020	540.00	50.00	27,000.00
	(v) Levelling of ballast to correct profile					
	Labour Unskilled	Day	0020	540.00	16.00	8,640.00
	Misc.:					
	T & P (Crow bar, Spanner, Hammer, beater, Rail tongue etc.)	Lumpsum	9901	1.00	200.00	200.00
	Hire charges for tractor with trolley	Day	0080	1742.00	3.00	5,226.00
						74,396.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		743.96
						75,139.96
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		10,557.16
						85,697.12
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		12,854.57
						98,551.69
	Add for Cess @ 1%	Lumpsum	9905	0.01		985.52
	Cost for 500 TRM					99,537.21
	Rate per TRM	TRM				199.07
121020	Dismantling existing sand humps in yards from end of turnout to end of sand hump. Scope includes dismantling of track and brick / stone masonry on either sides of track, removing sand and earth to the required level including clearing site and stacking released materials within maximum lead of 250m, clear of infringement, complete and as directed.					
	Details of cost for each					
	Signal over lap 120 m considering from SRJ, Turnout length 40 m Total length of track = 120 - 40 = 80 M {1 unskilled required for 10 metre length}					
	Labour:					
	Mate (Skilled)	Day	0002	751.00	1.00	751.00
	Look Out Man (Un-skilled)	Day	0033	547.00	1.00	547.00
	Waterman (Un-skilled)	Day	0034	547.00	1.00	547.00
	Labour Unskilled	Day	0020	540.00	8.00	4,320.00
	For Dismantling masonry and collecting and stacking released materials and for removing sand and earth to the required level.					
	Labour Unskilled	Day	0020	540.00	8.00	4,320.00

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Misc.:					
	T & P (Crow bar, Rail tongue, Chisel, Hammer, Spanner, etc.)	Lumpsum	9901	1.00	15.00	15.00
						10,500.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		105.00
						10,605.00
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		1,490.00
						12,095.00
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		1,814.25
						13,909.25
	Add for Cess @ 1%	Lumpsum	9905	0.01		139.09
	Cost for each					14,048.35
	Rate per Sand Hump	Each				14,048.35
122000	Shifting & Pairing Works					
122010	Shifting & pairing of rails / panels unloaded alongside existing running track to adjoining formation of a new line including crossing of one track, duly lifting & pushing rail / panel without damaging it and taking all necessary precautions, so as not to infringe the running track, as directed by Engineer in-charge. Note: The rail barricading, if disturbed during working, should be restored to its original condition by the agency including re-fixing & concreting as required.					
122011	Rail length up to 13m - Under Traffic Block					
	Details of cost for 1000 RM					
	Labour:					
	Mate (Skilled)	Day	0002	751.00	1.00	751.00
	Waterman (Un-skilled)	Day	0034	547.00	1.00	547.00
	Look Out Man (Un-skilled)	Day	0033	547.00	1.00	547.00
	Labour Unskilled	Day	0020	540.00	24.00	12,960.00
	Misc.:					
	T & P	Lumpsum	9901	1.00	80.00	80.00
						14,885.00
	Add for working under traffic block @ 5%	Lumpsum	9991	0.05		744.25
						15,629.25
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		156.29
						15,785.54
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		2,217.87
						18,003.41
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		2,700.51
						20,703.92
	Add for Cess @ 1%	Lumpsum	9905	0.01		207.04
	Cost for 1000 RM					20,910.96
	Rate per RM	RM				20.91
122012	Rail length up to 13m - Under Conditions not requiring Traffic Block					
	Details of cost for 1000 RM					
	Labour:					
	Mate (Skilled)	Day	0002	751.00	1.00	751.00
	Waterman (Un-skilled)	Day	0034	547.00	1.00	547.00
	Labour Unskilled	Day	0020	540.00	21.00	11,340.00
	Misc.:					
	T & P	Lumpsum	9901	1.00	80.00	80.00
						12,718.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		127.18
						12,845.18
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		1,804.75
						14,649.93
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		2,197.49
						16,847.42
	Add for Cess @ 1%	Lumpsum	9905	0.01		168.47
	Cost for 1000 RM					17,015.89
	Rate per RM	RM				17.02

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
122013	For rails/panels of more than 13m and up to 40m length - Under Traffic Block					
	Details of cost for 1000 RM					
	Labour:					
	Mate (Skilled)	Day	0002	751.00	2.00	1,502.00
	Waterman (Un-skilled)	Day	0034	547.00	2.00	1,094.00
	Look Out Man (Un-skilled)	Day	0033	547.00	1.00	547.00
	Labour Unskilled	Day	0020	540.00	33.00	17,820.00
	Misc.:					
	T & P	Lumpsum	9901	1.00	80.00	80.00
						21,043.00
	Add for working under traffic block @ 10%	Lumpsum	9992	0.10		2,104.30
						23,147.30
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		231.47
						23,378.77
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		3,284.72
						26,663.49
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		3,999.52
						30,663.01
	Add for Cess @ 1%	Lumpsum	9905	0.01		306.63
	Cost for 1000 RM					30,969.64
	Rate per RM	RM				30.97
122014	For rails/panels of more than 13m and up to 40m length - Under Conditions not requiring Traffic Block					
	Details of cost for 1000 RM					
	Labour:					
	Mate (Skilled)	Day	0002	751.00	1.00	751.00
	Waterman (Un-skilled)	Day	0034	547.00	1.00	547.00
	Look Out Man (Un-skilled)	Day	0033	547.00	1.00	547.00
	Labour Unskilled	Day	0020	540.00	27.00	14,580.00
	Misc.:					
	T & P	Lumpsum	9901	1.00	80.00	80.00
						16,505.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		165.05
						16,670.05
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		2,342.14
						19,012.19
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		2,851.83
						21,864.02
	Add for Cess @ 1%	Lumpsum	9905	0.01		218.64
	Cost for 1000 RM					22,082.66
	Rate per RM	RM				22.08
122015	For rails/panels of more than 40m length - Under Traffic					
	Details of cost for 1000 RM					
	Labour:					
	Mate (Skilled)	Day	0002	751.00	1.00	751.00
	Waterman (Un-skilled)	Day	0034	547.00	1.00	547.00
	Look Out Man (Un-skilled)	Day	0033	547.00	1.00	547.00
	Labour Unskilled	Day	0020	540.00	51.00	27,540.00
	Misc.:					
	T & P	Lumpsum	9901	1.00	80.00	80.00
						29,465.00
	Add for working under traffic block @ 15%	Lumpsum	9993	0.15		4,419.75
						33,884.75
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		338.85
						34,223.60
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		4,808.42
						39,032.01
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		5,854.80
						44,886.81

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Add for Cess @ 1%	Lumpsum	9905	0.01		448.87
	Cost for 1000 RM					45,335.68
	Rate per RM	RM				45.34
122016	For rails/panels of more than 40m length - Under Conditions not requiring Traffic Block					
	Details of cost for 1000 RM					
	Labour:					
	Mate (Skilled)	Day	0002	751.00	1.00	751.00
	Waterman (Un-skilled)	Day	0034	547.00	1.00	547.00
	Labour Unskilled	Day	0020	540.00	42.00	22,680.00
	Misc.:					
	T & P	Lumpsum	9901	1.00	80.00	80.00
						24,058.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		240.58
						24,298.58
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		3,413.95
						27,712.53
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		4,156.88
						31,869.41
	Add for Cess @ 1%	Lumpsum	9905	0.01		318.69
	Cost for 1000 RM					32,188.10
	Rate per RM	RM				32.19
122017	Extra over item No 122011 for crossing each additional line					
	Rate as per Item No 122011					
	Considering additional cost per crossing one line at the rate of 10% of item no 122011					
	Rate for crossing each additional line per Running metre	RM	122011	20.91	10%	2.09
122018	Extra over item No 122013 for crossing each additional line					
	Rate as per Item No 122013					
	Considering additional cost per crossing one line at the rate of 10% of item no 122013					
	Rate for crossing each additional line per Running metre	RM	122013	30.97	10%	3.10
122019	Extra over item No 122015 for crossing each additional line					
	Rate as per Item No 122015					
	Considering additional cost per crossing one line at the rate of 10% of item no 122015					
	Rate for crossing each additional line per Running metre	RM	122015	45.34	10%	4.53
123000	Laying & Linking Works					
123010	Providing Centre Line / Rail Level, reference Pegs on formation at an interval of 30 metres on one side or at centre of proposed / existing track, as directed by engineer in-charge for linking of new track / CTR / Deep Screening / Lifting / Lowering works, duly embedding in formation including marking with contractor's paint. Note: (1) Rails/tie bar of suitable size bar shall be supplied by the Railways from nearest Stores Depot. In case of hard wood peg, the hard wood will be supplied by the contractor. (2) Excavation and concrete work, if required, will be paid separately.					
123011	With Rail pegs					
	Details of cost for 66 pegs (at every 30m interval, for 1KM 33 pegs are required)					
	Material:					
	Paint Brush (writing) of any size	Each	0313	120.00	0.50	60.00
	Enamel Paint as per RDSO's Spec. no.M&C/PCN/120-2011	Litre	0304	248.00	0.50	124.00
	Labour:					
	(i) For carting of Rail pegs					

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Mate (Skilled)	Day	0002	751.00	1.00	751.00
	Labour Unskilled	Day	0020	540.00	6.00	3,240.00
	(ii) For fixing of Rail pegs					
	Labour Unskilled	Day	0020	540.00	3.00	1,620.00
	(iii) Painting of Rail pegs					
	Painter (Skilled)	Day	0012	749.00	1.00	749.00
	Helper (Semi-skilled)	Day	0021	572.00	1.00	572.00
	Misc.:					
	T & P	Lumpsum	9901	1.00	20.00	20.00
						7,136.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		71.36
						7,207.36
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		1,012.63
						8,219.99
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		1,233.00
						9,452.99
	Add for Cess @ 1%	Lumpsum	9905	0.01		94.53
	Cost for 66 Pegs					9,547.52
	Rate per Pegs	Each				144.66
123012	With Tie bar pegs					
	Details of cost for 100 pegs (at every 30m interval, for 1KM 33pegs are required)					
	Material:					
	Paint Brush (writing) of any size	Each	0313	120.00	0.50	60.00
	Enamel Paint as per RDSO's Spec. no.M&C/PCN/120-2011	Litre	0304	248.00	0.50	124.00
	Labour:					
	(i) For carting of Tie bar pegs					
	Mate (Skilled)	Day	0002	751.00	1.00	751.00
	Labour Unskilled	Day	0020	540.00	6.00	3,240.00
	(ii) For fixing of Tie bar pegs					
	Labour Unskilled	Day	0020	540.00	3.00	1,620.00
	(iii) Painting of Tie bar pegs					
	Painter (Skilled)	Day	0012	749.00	1.00	749.00
	Helper (Semi-skilled)	Day	0021	572.00	1.00	572.00
	Misc.:					
	T & P	Lumpsum	9901	1.00	20.00	20.00
						7,136.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		71.36
						7,207.36
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		1,012.63
						8,219.99
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		1,233.00
						9,452.99
	Add for Cess @ 1%	Lumpsum	9905	0.01		94.53
	Cost for 100 Pegs					9,547.52
	Rate per Pegs	Each				95.48
123013	With contractor's hard wood pegs of 50 mm dia and 60 cm long					
	Details of cost for 100 pegs (at every 30m interval, for 1KM 33pegs are required)					
	Material:					
	Hard Wood Peg of 50mm dia & 60 cm long	Each	0485	43.00	100.00	4,300.00
	Enamel Paint as per RDSO's Spec. no.M&C/PCN/120-2011	Litre	0304	248.00	0.50	124.00
	Paint Brush (writing) of any size	Each	0313	120.00	0.50	60.00
	Labour:					
	(i) For carting & fixing of wooden pegs					
	Mate (Skilled)	Day	0002	751.00	1.00	751.00
	Carpenter (Skilled)	Day	0006	734.00	1.00	734.00
	Helper (Semi-skilled)	Day	0021	572.00	1.00	572.00
	Labour Unskilled	Day	0020	540.00	6.00	3,240.00

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	(ii) Painting of wooden pegs					
	Painter (Skilled)	Day	0012	749.00	1.00	749.00
	Helper (Semi-skilled)	Day	0021	572.00	1.00	572.00
	Misc.:					
	T & P	Lumpsum	9901	1.00	20.00	20.00
						11,122.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		111.22
						11,233.22
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		1,578.27
						12,811.49
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		1,921.72
						14,733.21
	Add for Cess @ 1%	Lumpsum	9905	0.01		147.33
	Cost for 100 Pegs					14,880.54
	Rate per Pegs	Each				148.81
123020	Installation of reference points for track centre line in main and loop lines, in straight or curve portion, SRJ for turnouts, heel of crossing (HOC), locations of derailing switches, switch expansion joints etc. away from formation on firm ground at known offset with MS Angles of 50mmx50mmx5mm thick of length 1.80 m each, founded in concrete block of size 30cm x 30cm x 45cm of nominal mix 1:3:6, including painting to reference pegs with two coats of enamel paints on exposed surface, as directed by Engineer In charge. Note: Earth work and Cement concrete will be paid under relevant items.					
	Details of cost for 80 pegs For one peg requires 50mmx50mmx5mm angle of 1.80 m length = 3.80 Kgs/metre length 1.80m x 80 Nos = 144Rm x 3.80 = 547.2 Kg. Including wastage of 5%, total quantity required = 574.56 Kg					
	Material:					
	Structural steel such as T, Angles, Channels and R S Joists conforming to Grade Designation E 250; Quality "A" as per IS 2062	Quintal	0221	7050.00	5.75	40,537.50
	Enamel Paint as per RDSO's Spec. no.M&C/PCN/120-2011	Litre	0304	248.00	4.00	992.00
	Paint Brush 25 mm	Each	0325	50.00	1.00	50.00
	Man Power : (For providing Pegs)					
	Draftsman / Surveyor	Day	0001	1333.00	1.00	1,333.00
	Helper (Semi-skilled)	Day	0021	572.00	2.00	1,144.00
	Labour Unskilled	Day	0020	540.00	2.00	1,080.00
	Misc.:					
	T & P Including required stationery	Lumpsum	9901	1.00	50.00	50.00
	Hire Charges of Total Station instrument	Day	0499	2417.00	1.00	2,417.00
						47,603.50
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		476.04
						48,079.54
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		6,755.17
						54,834.71
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		8,225.21
						63,059.92
	Add for Cess @ 1%	Lumpsum	9905	0.01		630.60
	Cost for 80 Pegs					63,690.52
	Rate per Pegs	Each				796.13

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
123030	Spreading of ballast, from existing stacks available along formation on top or at cess, in required uniform thickness, compaction of ballast layer laid on new formation at all the locations with smooth wheeled power roller of 8-10 tonne capacity to sufficient number of passes to form consolidated ballast bed of approximately 250mm thickness to a width of 4m symmetrical to centre line of proposed track in correct line & level with all ascents & descents, as directed by Engineer in-charge. Note: Item is inclusive of (a) providing ramp for taking roller to formation and removing the same & making good formation after completion of work; (b) redistribution & leveling of excess ballast while rolling to obtain uniform plane cambered surface.					
	Considering ballast heaped over top of formation in stacks as required for 250 mm of ballast layer. One Dozer D-6 R2 can doze 1550 sqm/hrs i.e. $0.25 \times 1550 = 387.50$ cum/hour.					
	Details of cost for 1000 m (For 250 mm thickness, 4 metre width and 1km length, quantity of ballast to be spread and rolled = $0.25 \times 4 \times 1000 = 1000$ cum)					
	Labour:					
	Mate (Skilled)	Day	0002	751.00	1.00	751.00
	Labour Unskilled	Day	0020	540.00	10.00	5,400.00
	Machinery:					
	Hire charges of dozer 166 HP capacity	Day	0505	17504.00	0.50	8,752.00
	Hire Charges of JCB 3DX Plus Backhoe Loader	Day	0506	4966.80	3.00	14,900.40
	Hire charges of Road Roller 8 to 10 tonnes	Hour	0057	665.00	8.00	5,320.00
						35,123.40
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		351.23
						35,474.63
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.1405		4,984.19
						40,458.82
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		6,068.82
						46,527.64
	Add for Cess @ 1%	Lumpsum	9905	0.01		465.28
	Cost for 1000 cum					46,992.92
	Rate per cum	Cum				46.99
123040	Linking of BG track (except at LC, Bridges and SEJs) with any type of rail section and sleeper of specified density, on ballast bed spread and compacted with suitable roller, over prepared formation including leading free rails/welded panels available along the alignment on to formation, leading and spreading all fittings and fastenings, spreading of sleepers at specified spacing, squaring, placing of rails over sleepers and fixing rails to sleepers with all types of fittings and fastenings to correct gauge & alignment, lubrication of fittings and fastenings with contractor's grease as per IRPWM standards with contractors labour, tools, consumables, with all lead, lifts etc. complete and raising, levelling and initial packing of track to make it fit for 30 kmph and meet other prerequisites prescribed in Indian Railway Track Machine Manual for deployment of Tamping Machine. Note: 1.Rail cutting and Hole drilling shall be paid separately. 2.Spreading of ballast and compaction shall be paid separately under relevant item.					
123041	For sleeper density of 1660 sleepers per km					
	Details of cost for 1000 TRM					
	Material:					
	Grease Graphite Grade 'O' (IS:408)	Kg	0182	270.00	67.00	18,090.00
	Labour:					
	(i) Spreading Sleepers at specified spacings					
	Mate (Skilled)	Day	0002	751.00	9.00	6,759.00
	Labour Unskilled	Day	0020	540.00	166.00	89,640.00
	Waterman (Un-skilled)	Day	0034	547.00	9.00	4,923.00
	(ii) Fixing rails to sleepers with fittings & fastenings					

Note: The figures given in Amount/Rate Column (Which are strikethrough) are not to be taken for estimation or justifying rate. This amount/rate has been given for illustration purpose only.

Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Mate (Skilled)	Day	0002	751.00	2.00	1,502.00
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	3.00	2,247.00
	Helper (Semi-skilled)	Day	0021	572.00	3.00	1,716.00
	Waterman (Un-skilled)	Day	0034	547.00	2.00	1,094.00
	Labour Unskilled	Day	0020	540.00	40.00	21,600.00
	(iii)Raising, leveling and initial packing (s) with spreading of ballast to make it fit for 30 kmph and minimum cushion of 250 mm for deployment of track machine.					
	Mate (Skilled)	Day	0002	751.00	5.00	3,755.00
	Waterman (Un-skilled)	Day	0034	547.00	5.00	2,735.00
	Labour Unskilled	Day	0020	540.00	100.00	54,000.00
	(iv) Oiling & greasing of joints & ERC's					
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	2.00	1,498.00
	Helper (Semi-skilled)	Day	0021	572.00	2.00	1,144.00
	Labour Unskilled	Day	0020	540.00	12.00	6,480.00
	Misc.:					
	T & P	Lumpsum	9901	1.00	650.00	650.00
	Hire charges for tractor with trolley	Day	0080	1742.00	9.00	15,678.00
						233,511.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		2,335.11
						235,846.11
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		33,136.38
						268,982.49
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		40,347.37
						309,329.86
	Add for Cess @ 1%	Lumpsum	9905	0.01		3,093.30
	Cost for 1000 TRM					312,423.16
	Rate per TRM	TRM				312.42
123042	For sleeper density of 1540 sleepers per km					
	Details of cost for 1000 TRM					
	Material:					
	Grease Graphite Grade 'O' (IS:408)	Kg	0182	270.00	62.00	16,740.00
	Labour:					
	(i) Spreading Sleepers at specified spacings					
	Mate (Skilled)	Day	0002	751.00	8.00	6,008.00
	Labour Unskilled	Day	0020	540.00	154.00	83,160.00
	Waterman (Un-skilled)	Day	0034	547.00	8.00	4,376.00
	(ii) Fixing rails to sleepers with fittings & fastenings					
	Mate (Skilled)	Day	0002	751.00	2.00	1,502.00
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	3.00	2,247.00
	Helper (Semi-skilled)	Day	0021	572.00	3.00	1,716.00
	Waterman (Un-skilled)	Day	0034	547.00	2.00	1,094.00
	Labour Unskilled	Day	0020	540.00	40.00	21,600.00
	(iii)Raising, leveling and initial packing (s) with spreading of ballast to make it fit for 30 kmph and minimum cushion of 250 mm for deployment of track machine.					
	Mate (Skilled)	Day	0002	751.00	5.00	3,755.00
	Waterman (Un-skilled)	Day	0034	547.00	5.00	2,735.00
	Labour Unskilled	Day	0020	540.00	90.00	48,600.00
	(iv) Oiling & greasing of joints & ERC's					
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	2.00	1,498.00
	Helper (Semi-skilled)	Day	0021	572.00	2.00	1,144.00
	Labour Unskilled	Day	0020	540.00	11.00	5,940.00
	Misc.:					
	T & P	Lumpsum	9901	1.00	610.00	610.00
	Hire charges for tractor with trolley	Day	0080	1742.00	8.00	13,936.00
						216,661.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		2,166.61
						218,827.61

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		30,745.28
						249,572.89
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		37,435.93
						287,008.82
	Add for Cess @ 1%	Lumpsum	9905	0.01		2,870.09
	Cost for 1000 TRM					289,878.91
	Rate per TRM	TRM				289.88
123050	Linking of track at level crossing locations as per RDSO drawings with any type of rail section and sleeper on prepared formation including leading free rails/welded panels available along the alignment on to formation, spreading of sleepers at specified spacing, squaring, placing of rails over sleepers and fixing rails to sleepers with all types of fittings and fastenings to correct gauge & alignment, excavating level crossing portion as necessary, fixing check rails to running rails, providing C.C blocks, chairs, anti corrosive painting to running rails and check rails, lubrication of fittings and fastenings with contractor's grease as per IRPWM standards with contractors labour, tools, consumables, with all lead, lifts etc. complete and raising, levelling and initial packing of track to make it fit for 30 kmph and meet other prerequisites prescribed in Indian Railway Track Machine Manual for deployment of Tamping Machine. Note: Rail cutting and hole drilling, if required, shall be paid separately under relevant item.					
	Details of cost for 50 TRM					
	Material:					
	Grease Graphite Grade 'O' (IS:408)	Kg	0182	270.00	2.00	540.00
	Anti-corrosive Bituminous Paint (Black) confirming to IS:9862	Litre	0302	100.00	4.00	400.00
	Soft Brush for painting - 25cm long	Each	0312	59.00	2.00	118.00
	Labour:					
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	1.00	749.00
	Painter (Skilled)	Day	0012	749.00	1.00	749.00
	Helper (Semi-skilled)	Day	0021	572.00	2.00	1,144.00
	Waterman (Un-skilled)	Day	0034	547.00	1.00	547.00
	Labour Unskilled	Day	0020	540.00	24.00	12,960.00
	Misc.:					
	T & P (Hydraulic Jacks, Crow bar, Beater, Wire claws, Rake ballast, Rail Tongue	Lumpsum	9901	1.00	90.00	90.00
						17,297.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		172.97
						17,469.97
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		2,454.53
						19,924.50
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		2,988.68
						22,913.18
	Add for Cess @ 1%	Lumpsum	9905	0.01		229.13
	Cost for 50 TRM					23,142.31
	Rate per TRM	TRM				462.85

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
123060	Linking of BG track (with guard rail) over ballasted deck bridges with any type of rail section and PSC sleeper including leading free rails/welded panels available along the alignment on to bridge, leading and spreading all fittings and fastenings, leading & spreading of sleepers at specified spacing, squaring, placing of rails over sleepers and fixing rails & guard rails to sleepers with all types of fittings and fastenings to correct gauge & alignment, lubrication of fittings and fastenings with contractor's grease as per IRPWM standards with contractors labour, tools, consumables, with all lead, lifts etc. complete and raising, levelling and initial packing of track to make it fit for 30 kmph and meet other prerequisites prescribed in Indian Railway Track Machine Manual for deployment of Tamping Machine. Note: 1.Rail cutting and Hole drilling shall be paid separately. 2.Spreading of ballast and compaction shall be paid separately under relevant item. 3. This item shall be applicable only when track is with Guard Rail. Linking without guard rail be paid under relevant item for plain track linking.					
	Details of cost for 100 TRM					
	Material:					
	Grease Graphite Grade 'O' (IS:408)	Kg	0182	270.00	8.00	2,160.00
	Labour:					
	Mate (Skilled)	Day	0002	751.00	1.00	751.00
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	1.00	749.00
	Helper (Semi-skilled)	Day	0021	572.00	1.00	572.00
	Look Out Man (Un-skilled)	Day	0033	547.00	1.00	547.00
	Waterman (Un-skilled)	Day	0034	547.00	1.00	547.00
	(i) Leading & spreading of sleeper at proper spacing over bridge and approaches, leading rail and fixing them					
	Labour Unskilled	Day	0020	540.00	30.00	16,200.00
	(ii) Leading of guard rails & fixing on sleeper, aligning etc.					
	Labour Unskilled	Day	0020	540.00	8.00	4,320.00
	(iii) For initial packing					
	Labour Unskilled	Day	0020	540.00	14.00	7,560.00
	Misc.:					
	T & P	Lumpsum	9901	1.00	130.00	130.00
						33,536.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		335.36
						33,871.36
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		4,758.93
						38,630.29
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		5,794.54
						44,424.83
	Add for Cess @ 1%	Lumpsum	9905	0.01		444.25
	Cost for 100 TRM					44,869.08
	Rate per TRM	TRM				448.69
123070	Linking of track on Girder Bridge with Steel Channel/H-beam sleepers as per approved drawings including leading of running and guard rails, sleepers and fittings, bending of guard rails, notching, drilling of holes, cutting of rails etc. as per IRPWM with latest correction slips and making track structure fit for normal speed. Note: 1) Rails, Steel Channel/H-beam sleeper and all fittings will be supplied by Railways. 2)Transportation of track material if supplied beyond 250m of bridge approaches, shall be paid separately under relevant item.					
	Detail of cost for 50 TRM					
	Material:					
	Acetylene Gas (in cylinder)	Kg	0339	78	4.00	312.00
	Oxygen Gas (in cylinder)	Kg	0338	83	12.00	996.00
	Kerosene Oil	Litre	0183	63	8.00	504.00
	Normal unleaded Petrol	Litre	0180	108	1.00	108.00

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Drill twist made of high speed steel for size 26.5mm dia of Addison / I T make	Each	0462	2517	1.00	2,517.00
	High Speed Hacksaw Blade of size 300mm x 12.5mm x 0.63mm (18TPI) as per as per RDSO's Spec. no. TM/SM/26 (latest Rev.)	Each	0453	182	1.00	182.00
	Labour:					
	(i) Leading Channel sleepers, running Rails & Guard Rails ,fittings over the bridge and leading back the released rails & fittings to bridge approaches over the bridge					
	Labour Unskilled	Day	0020	540	9.00	4,860.00
	(ii) Fixing Channel sleepers along with fittings					
	Labour Unskilled	Day	0020	540	3.00	1,620.00
	(iii) Fixing rail with Fitting Clips					
	Labour Unskilled	Day	0020	540	3.00	1,620.00
	(iv) Fixing Guard rail					
	Mate (Skilled)	Day	0002	751	1.00	751.00
	Blacksmith - 1st Class (Skilled)	Day	0008	749	2.00	1,498.00
	Welder (Skilled)	Day	0029	734	0.50	367.00
	Helper (Semi-skilled)	Day	0021	572	1.50	858.00
	Waterman (Un-skilled)	Day	0034	547	1.00	547.00
	Labour Unskilled	Day	0020	540	8.00	4,320.00
	Misc.:					
	T & P (Crow bar, Tommy bar, beater, hammer, Rail Tongue, Spanner etc.)	Lumpsum	9901	1	115.00	115.00
	Hire charges of Rail Cutting Machine	Day	0139	633	0.50	316.50
	Hire charges of Rail Drill Machine	Day	0134	442	0.50	221.00
	Hire charges for pillar drilling machine	Day	0135	957	0.50	478.50
						22,191.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		221.91
						22,412.91
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		3,149.01
						25,561.92
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		3,834.29
						29,396.21
	Add for Cess @ 1%	Lumpsum	9905	0.01		293.96
	Cost for 50 Track Metre					29,690.17
	Rate per TRM	TRM				593.80
123080	Carrying out cut & connection to the existing PSC sleeper track under line block of any rail section and sleeper density to connect the same to newly linked track which is laid by the side, duly carrying out cutting of rails, insertion of additional PSC sleepers, if required, providing fish plated joints including drilling of holes, slewing required length of both tracks to prescribed alignment, adjusting sleeper spacing, providing continuity to track, spreading of ballast to provide cushion, shoulder ballast to the track stretch, giving one round of initial packing to make track fit for 20 kmph speed and boxing of ballast to profile as directed by Engineer in charge.					
	Details of cost for 1 cut & connection					
	Material:					
	Kerosene Oil	Litre	0183	63.00	4.00	252.00
	Normal unleaded Petrol	Litre	0180	108.00	1.00	108.00
	High Speed Hacksaw Blade of size 300mm x 12.5mm x 0.63mm (18TPI) as per as per RDSO's Spec. no. TM/SM/26 (latest Rev.)	Each	0453	182.00	1.00	182.00
	Drill twist made of high speed steel for size 26.5mm dia of Addison / I T make	Each	0462	2517.00	0.50	1,258.50
	Labour:					
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	2.00	1,498.00
	Helper (Semi-skilled)	Day	0021	572.00	2.00	1,144.00
	Look Out Man (Un-skilled)	Day	0033	547.00	1.00	547.00
	Waterman (Un-skilled)	Day	0034	547.00	1.00	547.00
	(i) Opening of track & spreading of existing ballast on shifted alignment.					
	Labour Unskilled	Day	0020	540.00	20.00	10,800.00
	(ii) For cutting, drilling holes & insertion of additional PSC sleepers					
	Labour Unskilled	Day	0020	540.00	10.00	5,400.00

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	(iii) Slewing of both track for uniform alignment, adjusting of sleeper spacing, insertion of ballast					
	Mate (Skilled)	Day	0002	751.00	1.00	751.00
	Labour Unskilled	Day	0020	540.00	30.00	16,200.00
	(iii) One round packing, boxing etc.					
	Mate (Skilled)	Day	0002	751.00	1.00	751.00
	Labour Unskilled	Day	0020	540.00	10.00	5,400.00
	Misc.:					
	T & P (Crow bar, Tommy bar, beater, hammer, Rail dolly etc.)	Lumpsum	9901	1.00	150.00	150.00
	Hire charges of Rail Cutting Machine	Day	0139	633.00	0.50	316.50
	Hire charges of Rail Drill Machine	Day	0134	442.00	0.50	221.00
						45,526.00
	Add for working under traffic block @ 10%	Lumpsum	9992	0.10		4,552.60
						50,078.60
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		500.79
						50,579.39
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		7,106.40
						57,685.79
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		8,652.87
						66,338.66
	Add for Cess @ 1%	Lumpsum	9905	0.01		663.39
	Cost for 1 cut & connection					67,002.04
	Rate per cut & connection	Each				67,002.04
123090	Shifting / Slewing the existing or newly assembled track of any rail section with any type of sleepers and any density under line block to correct locations & alignment and attending to one round kutch packing to run safely at 20KMPH speed with all contractors tools and consumables complete and as directed by Engineer in-charge.					
123091	Maximum Shifting / Slewing up to 1 metre					
	Details of cost for 100 TRM					
	Labour:					
	Mate (Skilled)	Day	0002	751.00	1.00	751.00
	Waterman (Un-skilled)	Day	0034	547.00	1.00	547.00
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	1.00	749.00
	Helper (Semi-skilled)	Day	0021	572.00	1.00	572.00
	Look Out Man (Un-skilled)	Day	0033	547.00	1.00	547.00
	Labour Unskilled	Day	0020	540.00	24.00	12,960.00
	Misc.:					
	T & P	Lumpsum	9901	1.00	65.00	65.00
						16,191.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		161.91
						16,352.91
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		2,297.58
						18,650.49
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		2,797.57
						21,448.07
	Add for Cess @ 1%	Lumpsum	9905	0.01		214.48
	Cost for 100 TRM					21,662.55
	Rate per TRM	TRM				216.63
123092	Maximum Shifting / Slewing for more than 1 metre & up to 2 metres					
	Details of cost for 100 TRM					
	Labour:					
	Mate (Skilled)	Day	0002	751.00	1.00	751.00
	Waterman (Un-skilled)	Day	0034	547.00	1.00	547.00
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	1.00	749.00
	Helper (Semi-skilled)	Day	0021	572.00	1.00	572.00
	Look Out Man (Un-skilled)	Day	0033	547.00	1.00	547.00
	Labour Unskilled	Day	0020	540.00	30.00	16,200.00

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Misc.:					
	T & P	Lumpsum	9901	1.00	80.00	80.00
						19,446.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		194.46
						19,640.46
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		2,759.48
						22,399.94
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		3,359.99
						25,759.94
	Add for Cess @ 1%	Lumpsum	9905	0.01		257.60
	Cost for 100 TRM					26,017.54
	Rate per TRM	TRM				260.18
123100	Assembling, laying and linking of Broad Gauge track over CC apron, RCC/CC Bed Blocks etc. to correct level & alignment, fixing of all fittings with rails / panels, aligning & leveling correctly, as directed by engineer in-charge. Rate is inclusive of cutting rails, drilling holes for fixing fish plates, lubrication of fittings & fastenings, fixing reference pillars, arrangement for keeping assembly in correct position while concreting, as required.					
	Details of cost for 500 TRM (i.e. 770 nos. Sleepers)					
	Material:					
	Grease Graphite Grade 'O' (IS:408)	Kg	0182	270.00	35.00	9,450.00
	Kerosene Oil	Litre	0183	63.00	5.00	315.00
	Normal unleaded Petrol	Litre	0180	108.00	1.00	108.00
	Drill twist made of high speed steel for size 26.5mm dia of Addison / I T make	Each	0462	2517.00	1.00	2,517.00
	High Speed Hacksaw Blade of size 300mm x 12.5mm x 0.63mm (18TPI) as per as per RDSO's Spec. no. TM/SM/26 (latest Rev.)	Each	0453	182.00	1.00	182.00
	Labour:					
	(i) Spreading sleeper at specified spacings					
	Mate (Skilled)	Day	0002	751.00	4.00	3,004.00
	Labour Unskilled	Day	0020	540.00	83.00	44,820.00
	Waterman (Un-skilled)	Day	0034	547.00	1.00	547.00
	(ii) Leading of rails & providing rails on sleepers with fixing all fittings etc.					
	Mate (Skilled)	Day	0002	751.00	2.00	1,502.00
	Labour Unskilled	Day	0020	540.00	20.00	10,800.00
	Waterman (Un-skilled)	Day	0034	547.00	1.00	547.00
	(iii) Fixing fish plate with Lubrication of MCI insert & ERC etc.					
	Mate (Skilled)	Day	0002	751.00	1.00	751.00
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	2.00	1,498.00
	Helper (Semi-skilled)	Day	0021	572.00	2.00	1,144.00
	Labour Unskilled	Day	0020	540.00	12.00	6,480.00
	Misc.:					
	T & P	Lumpsum	9901	1.00	240.00	240.00
	Hire charges of Rail Drill Machine	Day	0134	442.00	1.00	442.00
	Hire charges of Rail Cutting Machine	Day	0139	633.00	1.00	633.00
						84,980.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		849.80
						85,829.80
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		12,059.09
						97,888.89
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		14,683.33
						112,572.22
	Add for Cess @ 1%	Lumpsum	9905	0.01		1,125.72
	Cost for 500 TRM					113,697.94
	Rate per TRM	TRM				227.40

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
123110	Fixing all types of free rails / rail panels over pit line for BG track with inserts, elastic rail clips, MS liners and grooved rubber pads below rail to correct spacing, gauge, alignment and level with above fittings & fastenings in position, duly providing full complements of rail fittings. Required nos. of inserts per bearing shall be fixed at the time of concreting bed block over pit wall to correct spacing, centre to centre, alignment & levels as per IR's approved drawing.					
	Details of cost for 100 TRM					
	Labour:					
	(i) Fixing rails over pit on RCC/bed block.					
	Labour Unskilled	Day	0020	540.00	12.00	6,480.00
	(ii) Correcting gauge, alignment & level					
	Mate (Skilled)	Day	0002	751.00	1.00	751.00
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	1.00	749.00
	Helper (Semi-skilled)	Day	0021	572.00	1.00	572.00
	Waterman (Un-skilled)	Day	0034	547.00	1.00	547.00
	Labour Unskilled	Day	0020	540.00	4.00	2,160.00
	Misc.:					
	T & P (Crow bar, Spanner, Hammer, beater, Rail tongue, Rake ballast etc.)	Lumpsum	9901	1.00	35.00	35.00
						11,294.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		112.94
						11,406.94
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		1,602.68
						13,009.62
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		1,951.44
						14,961.06
	Add for Cess @ 1%	Lumpsum	9905	0.01		149.61
	Cost for 100 TRM					15,110.67
	Rate per TRM	TRM				151.11
124000	Miscellaneous					
124010	Construction of Sanded Dead End as per RDSO's Drawing no. RT-347 (with all amendments) with brick-work using country bricks or CC bricks in mud mortar and filling with river coarse sand, surrounding rails and filling around. Note: Cost of brick and sand is not included in the rate.					
	Details of cost for 1 dead end					
	Labour:					
	Mate (Skilled)	Day	0002	751.00	1.00	751.00
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	1.00	749.00
	Helper (Semi-skilled)	Day	0021	572.00	1.00	572.00
	Labour Unskilled	Day	0020	540.00	12.00	6,480.00
	Misc.:					
	T & P	Lumpsum	9901	1.00	30.00	30.00
						8,582.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		85.82
						8,667.82
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		1,217.83
						9,885.65
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		1,482.85
						11,368.50
	Add for Cess @ 1%	Lumpsum	9905	0.01		113.68
	Cost for 1 dead end					11,482.18
	Rate per dead end	Each				11,482.18

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
124020	Working of the Railway Push Trolley by arranging one Head trolleyman along with 3 trollymen as per Railway's rules and stipulations for conducting inspections by Railway officials and as directed by Engineer in-charge. Note: 1) Labourers supplied should be of skilled in case of head trolleyman and semiskilled in case of trollymen and capable of pushing trolley in all gradients, and levels duly observing all safety precautions as per the manual. 2) The labour engaged should be physically fit for strenuous work, literate and meeting prescribed medical category.					
124021	For Full day (8 hrs)					
	Details of cost for full day.					
	Labour:					
	Head Trolley man (Skilled)	Day	0036	734.00	1.00	734.00
	Trolley man (Semi-skilled)	Day	0037	629.00	3.00	1,887.00
	Misc.:					
	T & P (5% with contingency)	Lumpsum	9901	1.00	45.00	45.00
						2,666.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		26.66
						2,692.66
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		378.32
						3,070.98
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		460.65
						3,531.63
	Add for Cess @ 1%	Lumpsum	9905	0.01		35.32
	Cost for full day					3,566.94
	Rate per day	Each				3,566.94
124022	For Half day (4 hours)					
	Details of cost for half day.					
	Labour:					
	Head Trolley man (Skilled)	Day	0036	734.00	1.00	734.00
	Trolley man (Semi-skilled)	Day	0037	629.00	1.50	943.50
	Misc.:					
	T & P (5% with contingency)	Lumpsum	9901	1.00	30.00	30.00
						1,707.50
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		17.08
						1,724.58
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		242.30
						1,966.88
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		295.03
						2,261.91
	Add for Cess @ 1%	Lumpsum	9905	0.01		22.62
	Cost for half day					2,284.53
	Rate per Half-Day	Each				2,284.53
124030	Providing Caution Watchman at a location where caution order is imposed and ensuring to be on continuous vigil and exhibit necessary hand signals to the trains for their passage over caution spot. Note: 1) Prescribed protection equipment shall be supplied by Railways and the same shall be returned after work is over. 2) If Contractor fails to post watchman at any time during one day, penalty at double the accepted rates will be levied and 3) The watchman nominated by the contractor will be screened for suitability as per Railway norms.					
124031	For one shift (12 Hrs)					
	Details of cost for one Shift 1 man required)					
	Labour:					
	Caution man (Semi-skilled)	Day	0038	629.00	1.50	943.50

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Misc.:					
	T & P	Lumpsum	9901	1.00	20.00	20.00
						963.50
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		9.64
						973.14
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		136.73
						1,109.86
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		166.48
						1,276.34
	Add for Cess @ 1%	Lumpsum	9905	0.01		12.76
	Cost for per day & night					1,289.10
	Rate per Shift	Each				1,289.10
124032	For Half Shift (4 hours)					
	Details of cost for Half Shift					
	Labour:					
	Caution man (Semi-skilled)	Day	0038	629.00	0.50	314.50
	Misc.:					
	T & P	Lumpsum	9901	1.00	10.00	10.00
						324.50
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		3.25
						327.75
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		46.05
						373.79
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		56.07
						429.86
	Add for Cess @ 1%	Lumpsum	9905	0.01		4.30
	Cost for Half Shift					434.16
	Rate per Half-Shift	Each				434.16
124040	Preparation of completion drawings of yard in AutoCAD, showing all the details, such as circulating area, approach road, platform shelter, platform, FOB etc., showing relevant particulars to appropriate scale as per IR's Engineering Code on approved quality, transparent media as per details supplied by Railways, including submission of check print for proof checking, duly incorporating the suggested corrections and modifications and supplying the final plot on approved quality & transparent media with six copies of ammonia prints complete and soft copy, as directed by Engineer in-charge Note: (i) Drawings shall be prepared by using latest drawing making softwares AutoCAD, Work station etc. and printing shall be done on high end latest plotters. (ii) Stage Payment - (a) For check print - 40% (b) For Paper tracing - 40% (c) For Ammonia print & soft copy - 20%.					
124041	Completion drawing of yard at junction station					
	Details of cost for each					
	Material:					
	Tracing paper in roll with specification- weight 95gm/m2 width 914mm and length 45.7m	Each	0497	390.00	0.30	117.00
	Ammonia Print Sheet of 55 to 60 GSM, 914mm wide and 10m long	Each	0498	308.00	0.40	123.20
	Labour:					
	Draftsman / Surveyor	Day	0001	1333.00	3.00	3,999.00
	Misc.:					
	T & P	Lumpsum	9901	1.00	40.00	40.00
	Hire charges of Laptop / Computer with software & Printer	Day	0163	350.00	1.00	350.00
						4,629.20
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		46.29
						4,675.49
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		656.91
						5,332.40

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		799.86
						6,132.26
	Add for Cess @ 1%	Lumpsum	9905	0.01		61.32
	Cost for each					6,193.58
	Rate per Yard	Each				6,193.58
124042	Completion drawing of building					
	Details of cost for each					
	Material:					
	Tracing paper in roll with specification- weight 95gm/m2 width 914mm and length 45.7m	Each	0497	390.00	0.30	117.00
	Ammonia Print Sheet of 55 to 60 GSM, 914mm wide and 10m long	Each	0498	308.00	0.40	123.20
	Labour:					
	Draftsman / Surveyor	Day	0001	1333.00	2.00	2,666.00
	Misc.:					
	T & P	Lumpsum	9901	1.00	50.00	50.00
	Hire charges of Laptop / Computer with software & Printer	Day	0163	350.00	1.00	350.00
						3,306.20
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		33.06
						3,339.26
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		469.17
						3,808.43
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		571.26
						4,379.69
	Add for Cess @ 1%	Lumpsum	9905	0.01		43.80
	Cost for each					4,423.49
	Rate per building	Each				4,423.49
124043	Completion drawing of land plan					
	Details of cost for 1 Kilometer					
	Material:					
	Tracing paper in roll with specification- weight 95gm/m2 width 914mm and length 45.7m	Each	0497	390.00	0.30	117.00
	Ammonia Print Sheet of 55 to 60 GSM, 914mm wide and 10m long	Each	0498	308.00	0.40	123.20
	Labour:					
	Draftsman / Surveyor	Day	0001	1333.00	2.00	2,666.00
	Misc.:					
	T & P	Lumpsum	9901	1.00	20.00	20.00
	Hire charges of Laptop / Computer with software & Printer	Day	0163	350.00	1.00	350.00
						3,276.20
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		32.76
						3,308.96
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		464.91
						3,773.87
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		566.08
						4,339.95
	Add for Cess @ 1%	Lumpsum	9905	0.01		43.40
	Cost for 1 Kilometer					4,383.35
	Rate per km	Km				4,383.35
124044	Completion drawing of way side station					
	Details of cost for each					
	Material:					
	Tracing paper in roll with specification- weight 95gm/m2 width 914mm and length 45.7m	Each	0497	390.00	0.30	117.00
	Ammonia Print Sheet of 55 to 60 GSM, 914mm wide and 10m long	Each	0498	308.00	0.30	92.40
	Labour:					
	Draftsman / Surveyor	Day	0001	1333.00	1.00	1,333.00
	Misc.:					
	T & P	Lumpsum	9901	1.00	25.00	25.00

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Hire charges of Laptop / Computer with software & Printer	Day	0163	350.00	1.00	350.00
						1,917.40
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		19.17
						1,936.57
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		272.09
						2,208.66
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		331.30
						2,539.96
	Add for Cess @ 1%	Lumpsum	9905	0.01		25.40
	Cost for each					2,565.36
	Rate per Station	Each				2,565.36
124050	Dismantling / removing the existing bearing plate and fixing new bearing plates supplied by Railways in pit lines, duly breaking / chiselling CC to required depth, so as to fix new bearing plates etc. with all contractor's labour, tools, lead, lift, transportation etc. including crossing of tracks complete and as directed by Engineer in-charge (concrete work for fixing will be paid separately)					
	Detail of cost for 40 no's bearing plate					
	Labour:					
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	1.00	749.00
	Helper (Semi-skilled)	Day	0021	572.00	1.00	572.00
	Labour Unskilled	Day	0020	540.00	1.00	540.00
	Misc.:					
	T & P	Lumpsum	9901	1.00	100.00	100.00
	Hire charges of Hammer Breaker	Day	0145	468.00	1.00	468.00
						2,429.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		24.29
						2,453.29
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		344.69
						2,797.98
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		419.70
						3,217.67
	Add for Cess @ 1%	Lumpsum	9905	0.01		32.18
	Cost for 40 no's bearing plate					3,249.85
	Rate per bearing plate	Each				81.25

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CHAPTER - 13 : Maintenance Activities

Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
131000	Through Packing Works					
131010	Through packing of track, as per procedure prescribed in latest edition of Indian Railways Permanent Way Manual					
	For PSC sleeper Track					
131011	For PSC sleeper Track with Sleeper Density of 1540 Sleepers/Km or more					
	Details of cost for 156 TRM (1 Person will do Through packing 12 sleepers of 1540 density in a day)					
	Labour:					
	Mate (Skilled)	Day	0002	751.00	1.00	751.00
	Waterman (Un-skilled)	Day	0034	547.00	1.00	547.00
	Labour Unskilled	Day	0020	540.00	21.00	11,340.00
	Misc.:					
	T & P (Crow bar, Wire claws, Rake ballast, Hydraulic jacks, Gauge cum level, Shovel etc.)	Lumpsum	9901	1.00	120.00	120.00
						12,758.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		127.58
						12,885.58
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		1,810.42
						14,696.00
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		2,204.40
						16,900.40
	Add for Cess @ 1%	Lumpsum	9905	0.01		169.00
	Cost for 156 TRM Sleepers					17,069.41
	Rate per TRM	TRM				109.42
131012	For PSC sleeper Track with Sleeper Density of less than 1540 Sleepers/Km					
	Details of cost for 180 TRM (1 Person will do Through packing 12 sleepers of 1340 density in a day)					
	Labour:					
	Mate (Skilled)	Day	0002	751.00	1.00	751.00
	Waterman (Un-skilled)	Day	0034	547.00	1.00	547.00
	Labour Unskilled	Day	0020	540.00	21.00	11,340.00
	Misc.:					
	T & P (Beater, Wire claws, Rake ballast, Hydraulic jacks etc.)	Lumpsum	9901	1.00	40.00	40.00
						12,678.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		126.78
						12,804.78
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		1,799.07
						14,603.85
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		2,190.58
						16,794.43
	Add for Cess @ 1%	Lumpsum	9905	0.01		167.94
	Cost for 180 TRM Sleepers					16,962.37
	Rate per TRM	TRM				94.24
	For other than PSC Sleeper Track					
131013	For other than PSC Sleeper Track with Sleeper Density of 1540 Sleepers/Km or more					
	Details of cost for 182 TRM (1 Person will do Through packing 14 sleepers of 1540 density in a day)					
	Labour:					
	Mate (Skilled)	Day	0002	751.00	1.00	751.00
	Waterman (Un-skilled)	Day	0034	547.00	1.00	547.00
	Labour Unskilled	Day	0020	540.00	21.00	11,340.00
	Misc.:					
	T & P (Crow bar, Wire claws, Rake ballast, Hydraulic jacks, Gauge cum level, Shovel etc.)	Lumpsum	9901	1.00	120.00	120.00
						12,758.00

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		127.58
						12,885.58
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		1,810.42
						14,696.00
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		2,204.40
						16,900.40
	Add for Cess @ 1%	Lumpsum	9905	0.01		169.00
	Cost for 182 TRM					17,069.41
	Rate per TRM	TRM				93.79
131014	For other than PSC Sleeper Track with Sleeper Density of 1340 Sleepers/Km (M+4)					
	Details of cost for 209 TRM (1 Person will do Through packing 14 sleepers of 1340 density in a day)					
	Labour:					
	Mate (Skilled)	Day	0002	751.00	1.00	751.00
	Look Out Man (Un-skilled)	Day	0033	547.00	1.00	547.00
	Waterman (Un-skilled)	Day	0034	547.00	1.00	547.00
	Labour Unskilled	Day	0020	540.00	21.00	11,340.00
	Misc.:					
	T & P (Beater, Wire claws, Rake ballast, Hydraulic jacks etc.)	Lumpsum	9901	1.00	40.00	40.00
						13,225.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		132.25
						13,357.25
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		1,876.69
						15,233.94
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		2,285.09
						17,519.04
	Add for Cess @ 1%	Lumpsum	9905	0.01		175.19
	Cost for 209 TRM					17,694.23
	Rate per TRM	TRM				84.66
131020	Picking up of slacks in track of all sleeper density, duly opening up ballast, gauging, alignment, correcting longitudinal & cross levels, packing, boxing of ballast and dressing the same under traffic conditions as per procedure prescribed in latest edition of IRPWM and as directed by Engineer in-charge. Note: In-charge section Engineer should identify locations requiring packing and obtain prior approval of DEN/XEN before execution of the work when there is no Zonal Track Maintenance agency deployed in the section.					
131021	For PSC Sleeper					
	Details of cost for 182 TRM (1 Person will do Picking up of slacks 14 sleepers of 1540 density in a day)					
	Labour:					
	Mate (Skilled)	Day	0002	751.00	1.00	751.00
	Look Out Man (Un-skilled)	Day	0033	547.00	1.00	547.00
	Waterman (Un-skilled)	Day	0034	547.00	1.00	547.00
	Labour Unskilled	Day	0020	540.00	20.00	10,800.00
	Misc.:					
	T & P (Crow bar, Wire claws, Rake ballast, Hydraulic jacks, Gauge cum level, Shovel etc.)	Lumpsum	9901	1.00	120.00	120.00
						12,765.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		127.65
						12,892.65
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		1,811.42
						14,704.07
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		2,205.61
						16,909.68
	Add for Cess @ 1%	Lumpsum	9905	0.01		169.10
	Cost for 182 TRM					17,078.77

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Rate per TRM	TRM				93.84
131022	For other than PSC Sleeper					
	Details of cost for 208 TRM (1 Person will do Picking up of slacks 16 sleepers of 1540 density in a day)					
	Labour:					
	Mate (Skilled)	Day	0002	751.00	1.00	751.00
	Look Out Man (Un-skilled)	Day	0033	547.00	1.00	547.00
	Waterman (Un-skilled)	Day	0034	547.00	1.00	547.00
	Labour Unskilled	Day	0020	540.00	20.00	10,800.00
	Misc.:					
	T & P (Crow bars, beater, Wire claws, Cross level etc.)	Lumpsum	9901	1.00	40.00	40.00
						12,685.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		126.85
						12,811.85
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		1,800.06
						14,611.91
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		2,191.79
						16,803.70
	Add for Cess @ 1%	Lumpsum	9905	0.01		168.04
	Cost for 208 TRM					16,971.74
	Rate per TRM	TRM				81.59
131030	First or Second Through Packing of track of all sleeper density including giving a general lift, as desired to eliminate sag after Deep Screening work, lifting of track, lowering of track and major realignment of curves and formation rehabilitation as per procedure prescribed in latest edition of IRPWM. Note: General lift is normally 25 mm and isolated lift may be up to 50 mm.					
131031	For PSC Sleeper Track with Sleeper Density of 1540					
	Details of cost for 130 TRM (1 Person will do Through packing 10 sleepers of 1540 density in a day)					
	Labour:					
	Mate (Skilled)	Day	0002	751.00	1.00	751.00
	Look Out Man (Un-skilled)	Day	0033	547.00	1.00	547.00
	Waterman (Un-skilled)	Day	0034	547.00	1.00	547.00
	Labour Unskilled	Day	0020	540.00	20.00	10,800.00
	Misc.:					
	T & P (Crow bar, Wire claws, Rake ballast, Hydraulic jacks, Gauge cum level, Shovel etc.)	Lumpsum	9901	1.00	120.00	120.00
						12,765.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		127.65
						12,892.65
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		1,811.42
						14,704.07
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		2,205.61
						16,909.68
	Add for Cess @ 1%	Lumpsum	9905	0.01		169.10
	Cost for 130 TRM					17,078.77
	Rate per TRM	TRM				131.38
131032	For PSC Sleeper Track with Sleeper Density of 1660					
	Rate 10% extra over item no. 131031					
	Rate per TRM	TRM	131031	131.38	1.10	144.51
131033	For PSC Sleeper Track with Sleeper Density of 1340					
	Rate 20% less than item no. 131031					
	Rate per TRM	TRM	131031	131.38	0.80	105.10

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
131034	For other than PSC Sleeper Track with Sleeper Density of 1540					
	Details of cost for 156 TRM (1 Person will do Through packing 12 sleepers of 1540 density in a day)					
	Labour:					
	Mate (Skilled)	Day	0002	751.00	1.00	751.00
	Look Out Man (Un-skilled)	Day	0033	547.00	1.00	547.00
	Waterman (Un-skilled)	Day	0034	547.00	1.00	547.00
	Labour Unskilled	Day	0020	540.00	20.00	10,800.00
	Misc.:					
	T & P (Beater, Wire claws, Rake ballast, Hydraulic jacks etc.)	Lumpsum	9901	1.00	40.00	40.00
						12,685.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		126.85
						12,811.85
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		1,800.06
						14,611.91
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		2,191.79
						16,803.70
	Add for Cess @ 1%	Lumpsum	9905	0.01		168.04
	Cost for 156 TRM					16,971.74
	Rate per TRM	TRM				108.79
131035	For other than PSC Sleeper Track with Sleeper Density of 1660					
	Rate 10% extra over item no. 131034					
	Rate per TRM	TRM	131034	108.79	1.10	119.67
131036	For other than PSC Sleeper Track with Sleeper Density of 1340					
	Rate 20% less than item no. 131034					
	Rate per TRM	TRM	131034	108.79	0.80	87.03
131040	Third or subsequent Through Packing of track for all sleeper density including picking of slacks, as required after second through packing, subsequent to Deep Screening work as per procedure prescribed in latest edition of IRPWW. This item can also be used after lifting/regrading/realignment works also. Note: General lift is normally 25 mm and isolated lift may be up to 50 mm.					
131041	For PSC Sleeper Track with Sleeper Density of 1540					
	Details of cost for 169 TRM (1 Person will do Through packing 13 sleepers of 1540 density in a day)					
	Labour:					
	Mate (Skilled)	Day	0002	751.00	1.00	751.00
	Look Out Man (Un-skilled)	Day	0033	547.00	1.00	547.00
	Waterman (Un-skilled)	Day	0034	547.00	1.00	547.00
	Labour Unskilled	Day	0020	540.00	20.00	10,800.00
	Misc.:					
	T & P (Crow bar, Wire claws, Rake ballast, Hydraulic jacks, Gauge cum level, Shovel etc.)	Lumpsum	9901	1.00	120.00	120.00
						12,765.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		127.65
						12,892.65
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		1,811.42
						14,704.07
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		2,205.61
						16,909.68
	Add for Cess @ 1%	Lumpsum	9905	0.01		169.10
	Cost for 169 TRM					17,078.77
	Rate per TRM	TRM				101.06
131042	For PSC Sleeper Track with Sleeper Density of 1660					
	Rate 10% extra over item no. 131041					
	Rate per TRM	TRM	131041	101.06	1.10	111.16

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
131043	For PSC Sleeper Track with Sleeper Density of 1340					
	Rate 20% less than item no. 131041					
	Rate per TRM	TRM	131041	101.06	0.80	80.85
131044	For other than PSC Sleeper Track with Sleeper Density of 1540					
	Details of cost for 195 TRM (1 Person will do Through packing 15 sleepers of 1540 density in a day)					
	Labour:					
	Mate (Skilled)	Day	0002	751.00	1.00	751.00
	Look Out Man (Un-skilled)	Day	0033	547.00	1.00	547.00
	Waterman (Un-skilled)	Day	0034	547.00	1.00	547.00
	Labour Unskilled	Day	0020	540.00	20.00	10,800.00
	Misc.:					
	T & P (Beater, Wire claws, Rake ballast, Hydraulic jacks etc.)	Lumpsum	9901	1.00	40.00	40.00
						12,685.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		126.85
						12,811.85
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		1,800.06
						14,611.91
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		2,191.79
						16,803.70
	Add for Cess @ 1%	Lumpsum	9905	0.01		168.04
	Cost for 195 TRM					16,971.74
	Rate per TRM	TRM				87.03
131045	For other than PSC Sleeper Track with Sleeper Density of 1660					
	Rate 10% extra over item no. 131044					
	Rate per TRM	TRM	131044	87.03	1.10	95.74
131046	For other than PSC Sleeper Track with Sleeper Density of 1340					
	Rate 20% less than item no. 131044					
	Rate per TRM	TRM	131044	87.03	0.80	69.63
131050	Through packing of points and crossings, derailing switches including gauging, fittings recouplement, ballasting as required, elimination of sag and to the required alignment after Deep Screening as per procedure prescribed in latest edition of IRPWM complete as per direction of Engineer-in-charge. Note: This work shall be operated in exceptional cases with written approval at DEN level when UNIMAT is not available and immediate packing is required to pass train over it.					
131051	1 in 8½ PSC layout					
	Details of cost for one set Total length is 28.54 metre (approx.), For Through packing Sleeper no. 1 to 13 (2 persons), Sleeper no. 14 to 66 (53 sleepers @ 5 sleepers/person i.e. 11 persons) including filling ballast in the packing zone and operation of mechanical jack as required.					
	Labour:					
	Mate (Skilled)	Day	0002	751.00	1.00	751.00
	Look Out Man (Un-skilled)	Day	0033	547.00	1.00	547.00
	Waterman (Un-skilled)	Day	0034	547.00	1.00	547.00
	Labour Unskilled	Day	0020	540.00	13.00	7,020.00
	Misc.:					
	T & P (Crow bar, Wire claws, Rake ballast, Hydraulic jacks, Gauge cum level, Shovel etc.)	Lumpsum	9901	1.00	120.00	120.00
						8,985.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		89.85
						9,074.85

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		1,275.02
						10,349.87
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		1,552.48
						11,902.35
	Add for Cess @ 1%	Lumpsum	9905	0.01		119.02
	Rate per set	Set				12,021.37
131052	1 in 12 PSC layout					
	Details of cost for one set Total length is 39 metre (approx.), For Through packing Sleeper no. 1 to 20 (3 persons), Sleeper no. 21 to 95 (75 sleepers @ 5 sleepers/person i.e. 15 persons) including filling ballast in the packing zone and operation of mechanical jack as required.					
	Labour:					
	Mate (Skilled)	Day	0002	751.00	1.00	751.00
	Look Out Man (Un-skilled)	Day	0033	547.00	1.00	547.00
	Waterman (Un-skilled)	Day	0034	547.00	1.00	547.00
	Labour Unskilled	Day	0020	540.00	18.00	9,720.00
	Misc.:					
	T & P (Crow bar, Wire claws, Rake ballast, Hydraulic jacks, Gauge cum level, Shovel etc.)	Lumpsum	9901	1.00	125.00	125.00
						11,690.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		116.90
						11,806.90
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		1,658.87
						13,465.77
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		2,019.87
						15,485.63
	Add for Cess @ 1%	Lumpsum	9905	0.01		154.86
	Rate per set	Set				15,640.49
131053	1 in 16 PSC layout					
	Details of cost for one set Total length is 54.50 metre (approx.), For Through packing Sleeper no. 1 to 22 (4 persons), Sleeper no. 23 to 106 (83 sleepers @ 5 sleepers/person i.e. 17 persons) including filling ballast in the packing zone and operation of mechanical jack as required.					
	Labour:					
	Mate (Skilled)	Day	0002	751.00	1.00	751.00
	Look Out Man (Un-skilled)	Day	0033	547.00	1.00	547.00
	Waterman (Un-skilled)	Day	0034	547.00	1.00	547.00
	Labour Unskilled	Day	0020	540.00	21.00	11,340.00
	Misc.:					
	T & P (Crow bar, Wire claws, Rake ballast, Hydraulic jacks, Gauge cum level, Shovel etc.)	Lumpsum	9901	1.00	150.00	150.00
						13,335.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		133.35
						13,468.35
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		1,892.30
						15,360.65
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		2,304.10
						17,664.75
	Add for Cess @ 1%	Lumpsum	9905	0.01		176.65
	Rate per set	Set				17,841.40
131054	1 in 8½ Derailing Switch					
	Details of cost for one set Total length is 9.00 metre and 13 sleepers needing 2 labour.					
	Labour:					
	Mate (Skilled)	Day	0002	751.00	0.25	187.75

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Labour Unskilled	Day	0020	540.00	2.00	1,080.00
	Misc.:					
	T & P (Beater, Wire claws, Rake ballast, Hydraulic jacks etc.)	Lumpsum	9901	1.00	10.00	10.00
						1,277.75
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		12.78
						1,290.53
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		181.32
						1,471.85
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		220.78
						1,692.62
	Add for Cess @ 1%	Lumpsum	9905	0.01		16.93
	Rate per set	Set				1,709.55
131055	1 in 12 Derailing Switch					
	Details of cost for one set Total length is 13.00 metre (approx.) and 20 sleepers needing 3 persons with mechanical jack.					
	Labour:					
	Mate (Skilled)	Day	0002	751.00	0.25	187.75
	Labour Unskilled	Day	0020	540.00	3.00	1,620.00
	Misc.:					
	T & P (Beater, Wire claws, Rake ballast, Hydraulic jacks etc.)	Lumpsum	9901	1.00	15.00	15.00
						1,822.75
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		18.23
						1,840.98
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		258.66
						2,099.63
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		314.95
						2,414.58
	Add for Cess @ 1%	Lumpsum	9905	0.01		24.15
	Rate per set	Set				2,438.73
131060	Packing of isolated loose PSC sleepers on plain track below the bottom of the sleepers and surrounding through out its length duly opening two galas on either side of the renewed sleepers and packing the sleeper to bring the track to normal speed including gauging, aligning, squaring of sleepers and sectioning of ballast to the required profile with all contractor's labour, tools and plant etc. including all lead and lift and crossing of tracks where ever necessary complete and as directed by the Engineer-in-charge.					
	Rate analysis for 80 sleepers					
	Labour:					
	Mate (Skilled)	Day	0002	751.00	1.00	751.00
	Labour Unskilled	Day	0020	540.00	8.00	4,320.00
	Misc.:					
	T & P (Crow bar, Hammer, Jack, spanner, mortar pan etc.)	Lumpsum	9901	1.00	10.00	10.00
						5,081.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		50.81
						5,131.81
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		721.02
						5,852.83
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		877.92
						6,730.75
	Add for Cess @ 1%	Lumpsum	9905	0.01		67.31
	Cost of 80 sleepers					6,798.06
	Rate per sleeper	Sleeper				84.98
131070	Slack picking of joint sleepers and 3 approach sleepers on either sides giving required lift to make up general track level, packing and profiling as directed.					
	Details of cost for 30 Joints. (One group of two persons will do 3 joints in a day)					

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Labour:					
	Mate (Skilled)	Day	0002	751.00	1.00	751.00
	Helper (Semi-skilled)	Day	0021	572.00	1.00	572.00
	Look Out Man (Un-skilled)	Day	0033	547.00	1.00	547.00
	Waterman (Un-skilled)	Day	0034	547.00	1.00	547.00
	Labour Unskilled	Day	0020	540.00	20.00	10,800.00
	Misc.:					
	T & P (Crow bar, Beater, Wire claws, Rake ballast, jack etc.)	Lumpsum	9901	1.00	40.00	40.00
						13,257.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		132.57
						13,389.57
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		1,881.23
						15,270.80
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		2,290.62
						17,561.43
	Add for Cess @ 1%	Lumpsum	9905	0.01		175.61
	Cost for 30 Joints.					17,737.04
	Rate per Joint.	Each				591.23
132000	Systematic Overhauling Works					
132010	Systemic overhauling of track under traffic as per procedure prescribed in latest edition of IRPWM, including removing the crib ballast in 50mm to 75mm depth below bottom of sleeper and complete shoulder ballast without breaking core under the bottom of sleeper, to recover clean ballast by screening on wire mesh and disposing off the muck including throwing & leveling, if required beyond minimum 5m from the edge of cutting which are up to 3m deep or alternatively carting it up to 50m for disposing it off beyond cutting or platforms away from the track, as directed by Engineer in-charge including cutting & making up the cess and ensuring proper drainage slope and then re-inserting cleaned ballast into track and compaction of shoulder and crib ballast by wooden mallet and dressing / profiling ballast as per railway specifications.					
	For PSC sleeper Track :					
132011	For PSC sleeper Track with Sleeper Density of 1540 sleepers/Km or more					
	Details of cost for 91 TRM (7 sleeper per head sleeper density of 1540 sleepers/km)					
	Labour:					
	Mate (Skilled)	Day	0002	751.00	1.00	751.00
	Look Out Man (Un-skilled)	Day	0033	547.00	1.00	547.00
	Waterman (Un-skilled)	Day	0034	547.00	1.00	547.00
	Labour Unskilled	Day	0020	540.00	20.00	10,800.00
	Misc.:					
	T & P (Beater, Wire claws, Rake ballast, Pan iron mortar, Hydraulic jacks etc.)	Lumpsum	9901	1.00	55.00	55.00
						12,700.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		127.00
						12,827.00
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		1,802.19
						14,629.19
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		2,194.38
						16,823.57
	Add for Cess @ 1%	Lumpsum	9905	0.01		168.24
	Cost for 91 TRM					16,991.81
	Rate per TRM	TRM				186.72
132012	For PSC sleeper Track with Sleeper Density less than 1540 sleepers/Km					
	Details of cost for 120 TRM (8 sleeper per head sleeper density of 1340 sleepers/km)					
	Labour:					
	Mate (Skilled)	Day	0002	751.00	1.00	751.00
	Look Out Man (Un-skilled)	Day	0033	547.00	1.00	547.00

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Waterman (Un-skilled)	Day	0034	547.00	1.00	547.00
	Labour Unskilled	Day	0020	540.00	20.00	10,800.00
	Misc.:					
	T & P (Beater, Wire claws, Rake ballast, Pan iron mortar, Hydraulic jacks etc.)	Lumpsum	9901	1.00	60.00	60.00
						12,705.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		127.05
						12,832.05
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		1,802.90
						14,634.95
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		2,195.24
						16,830.20
	Add for Cess @ 1%	Lumpsum	9905	0.01		168.30
	Cost for 120 TRM					16,998.50
	Rate per TRM	TRM				141.65
	For other than PSC sleeper Track :					
132013	For other than PSC sleeper Track with Sleeper Density of 1540 sleepers/Km or more (M+7)					
	Details of cost for 104 TRM (8 sleeper per head sleeper density of 1540 sleepers/km)					
	Labour:					
	Mate (Skilled)	Day	0002	751.00	1.00	751.00
	Look Out Man (Un-skilled)	Day	0033	547.00	1.00	547.00
	Waterman (Un-skilled)	Day	0034	547.00	1.00	547.00
	Labour Unskilled	Day	0020	540.00	20.00	10,800.00
	Misc.:					
	T & P (Beater, Wire claws, Rake ballast, Pan iron mortar, Hydraulic jacks etc.)	Lumpsum	9901	1.00	55.00	55.00
						12,700.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		127.00
						12,827.00
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		1,802.19
						14,629.19
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		2,194.38
						16,823.57
	Add for Cess @ 1%	Lumpsum	9905	0.01		168.24
	Cost for 104 TRM					16,991.81
	Rate per TRM	TRM				163.38
132014	For other than PSC sleeper Track with Sleeper Density of 1340 sleepers/Km (M+4)					
	Details of cost for 135 TRM (9 sleeper per head sleeper density of 1340 sleepers/km)					
	Labour:					
	Mate (Skilled)	Day	0002	751.00	1.00	751.00
	Look Out Man (Un-skilled)	Day	0033	547.00	1.00	547.00
	Waterman (Un-skilled)	Day	0034	547.00	1.00	547.00
	Labour Unskilled	Day	0020	540.00	20.00	10,800.00
	Misc.:					
	T & P (Beater, Wire claws, Rake ballast, Pan iron mortar, Hydraulic jacks etc.)	Lumpsum	9901	1.00	60.00	60.00
						12,705.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		127.05
						12,832.05
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		1,802.90
						14,634.95
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		2,195.24
						16,830.20

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Add for Cess @ 1%	Lumpsum	9905	0.01		168.30
	Cost for 135 TRM					16,998.50
	Rate per TRM	TRM				125.91
132015	Extra over Items 132011 to 132014 for working in yards					
	Details of cost for 150 TRM (1 extra man provided for 15 track metre length for working in yard)					
	Labour:					
	(i) For overhauling & removal of muck :					
	Labour Unskilled	Day	0020	540.00	10.00	5,400.00
	Misc.:					
	T & P (Beater, Wire claws, Rake ballast, Pan iron mortar, Hydraulic jacks etc.)	Lumpsum	9901	1.00	20.00	20.00
						5,420.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		54.20
						5,474.20
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		769.13
						6,243.33
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		936.50
						7,179.82
	Add for Cess @ 1%	Lumpsum	9905	0.01		71.80
	Cost for 150 TRM					7,251.62
	Rate per TRM	TRM				48.34
132020	Overhauling of fish plated / welded joint track sleepers including 3 approach sleepers on either sides up to 50mm below bottom of sleepers in crib & shoulder, replacing rounded ballast, recouping deficient ballast within 50m lead, replacement of worn-out fittings supplied by Railway, as directed as per procedure prescribed in latest edition of IRPWM.					
	Details of cost for 16 Joints. (One group of four persons will do 4 joints in a day)					
	Labour:					
	(i) For overhauling of joint sleepers including 3 approach sleepers:					
	Mate (Skilled)	Day	0002	751.00	1.00	751.00
	Look Out Man (Un-skilled)	Day	0033	547.00	1.00	547.00
	Waterman (Un-skilled)	Day	0034	547.00	1.00	547.00
	Labour Unskilled	Day	0020	540.00	16.00	8,640.00
	(ii) For recouping of ballast:					
	Labour Unskilled	Day	0020	540.00	10.00	5,400.00
	Misc.:					
	T & P (Crow bar, Beater, Wire claws, Wire basket, Rake ballast, Hydraulic jacks, off track tamper etc.)	Lumpsum	9901	1.00	60.00	60.00
						15,945.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		159.45
						16,104.45
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		2,262.68
						18,367.13
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		2,755.07
						21,122.19
	Add for Cess @ 1%	Lumpsum	9905	0.01		211.22
	Cost for 16 Joints					21,333.42
	Rate per Joint	Each				1,333.34
133000	Pulling Back & End Cropping Works					
133010	Pulling back of rails / panels on running track for creep adjustment or other incidental activities by removing and re-fixing all the fittings, and fastenings including squaring of sleepers and slack picking of displaced sleepers, as directed.					
133011	For rails up to 13 metre length					
	Details of cost for 1000 TRM					
	Labour:					

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Mate (Skilled)	Day	0002	751.00	2.00	1,502.00
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	2.00	1,498.00
	Helper (Semi-skilled)	Day	0021	572.00	2.00	1,144.00
	Waterman (Un-skilled)	Day	0034	547.00	2.00	1,094.00
	Labour Unskilled	Day	0020	540.00	40.00	21,600.00
	Misc.:					
	T & P (Spanner, Rail Tongue, Hammer, Crow bars, Tommy bar, beater, Wire claws, etc.)	Lumpsum	9901	1.00	70.00	70.00
						26,908.00
	Add for working under traffic block @ 5%	Lumpsum	9991	0.05		1,345.40
						28,253.40
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		282.53
						28,535.93
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		4,009.30
						32,545.23
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		4,881.78
						37,427.02
	Add for Cess @ 1%	Lumpsum	9905	0.01		374.27
	Cost for 1000 TRM.					37,801.29
	Rate per TRM	TRM				37.80
133012	For rail panel above 13 metre & up to 40 metre length					
	Details of cost for 1000 TRM					
	Labour:					
	Mate (Skilled)	Day	0002	751.00	2.00	1,502.00
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	2.00	1,498.00
	Helper (Semi-skilled)	Day	0021	572.00	2.00	1,144.00
	Waterman (Un-skilled)	Day	0034	547.00	2.00	1,094.00
	Labour Unskilled	Day	0020	540.00	45.00	24,300.00
	Misc.:					
	T & P (Spanner, Rail Tongue, Hammer, Crow bars, Tommy bar, beater, Wire claws, etc.)	Lumpsum	9901	1.00	80.00	80.00
						29,618.00
	Add for working under traffic block @ 5%	Lumpsum	9991	0.05		1,480.90
						31,098.90
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		310.99
						31,409.89
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		4,413.09
						35,822.98
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		5,373.45
						41,196.43
	Add for Cess @ 1%	Lumpsum	9905	0.01		411.96
	Cost for 1000 TRM.					41,608.39
	Rate per TRM	TRM				41.61
133013	For rail panel more than 40 metre length					
	Details of cost for 1000 TRM					
	Labour:					
	Mate (Skilled)	Day	0002	751.00	2.00	1,502.00
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	2.00	1,498.00
	Helper (Semi-skilled)	Day	0021	572.00	2.00	1,144.00
	Waterman (Un-skilled)	Day	0034	547.00	2.00	1,094.00
	Labour Unskilled	Day	0020	540.00	50.00	27,000.00
	Misc.:					
	T & P (Spanner, Rail Tongue, Hammer, Crow bars, Tommy bar, beater, Wire claws, etc.)	Lumpsum	9901	1.00	90.00	90.00
						32,328.00

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Add for working under traffic block @ 5%	Lumpsum	9991	0.05		1,616.40
						33,944.40
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		339.44
						34,283.84
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		4,816.88
						39,100.72
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		5,865.11
						44,965.83
	Add for Cess @ 1%	Lumpsum	9905	0.01		449.66
	Cost for 1000 TRM.					45,415.49
	Rate per TRM	TRM				45.42
133020	Pulling of welded rail panels to create a specified gap under traffic block, including opening of fittings & fastenings and re-fixing them on track after pulling of rail and creating standard gap for welding.					
133021	For Rail panel more than 13m and up to 40m length					
	Details of cost for 400 RM					
	Labour:					
	Mate (Skilled)	Day	0002	751.00	1.00	751.00
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	1.00	749.00
	Helper (Semi-skilled)	Day	0021	572.00	1.00	572.00
	Labour Unskilled	Day	0020	540.00	8.00	4,320.00
	Misc.:					
	T & P	Lumpsum	9901	1.00	20.00	20.00
						6,412.00
	Add for working under traffic block @ 5%	Lumpsum	9991	0.05		320.60
						6,732.60
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		67.33
						6,799.93
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		955.39
						7,755.32
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		1,163.30
						8,918.61
	Add for Cess @ 1%	Lumpsum	9905	0.01		89.19
	Cost for 400 RM					9,007.80
	Rate per RM	RM				22.52
133022	For Rail panel more than 40m length					
	Details of cost for 400 RM					
	Labour:					
	Mate (Skilled)	Day	0002	751.00	1.00	751.00
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	1.00	749.00
	Helper (Semi-skilled)	Day	0021	572.00	1.00	572.00
	Labour Unskilled	Day	0020	540.00	10.00	5,400.00
	Misc.:					
	T & P	Lumpsum	9901	1.00	30.00	30.00
						7,502.00
	Add for working under traffic block @ 5%	Lumpsum	9991	0.05		375.10
						7,877.10
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		78.77
						7,955.87
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		1,117.80
						9,073.67
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		1,361.05
						10,434.72
	Add for Cess @ 1%	Lumpsum	9905	0.01		104.35
						10,539.07
	Cost for 400 RM					10,539.07
	Rate per RM	RM				26.35

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
134000	Re-Alignment of Curves					
134010	Slewing and realigning of curves under traffic line block condition, as directed by Engineer in-charge with contractor's labour, tools & plants, as required with general lift up to 25mm including one round of through packing, ballast profiling, loosening/tightening of P.Way fittings, if required and other incidental works. Note: Payment will be made based on average slew calculated in each 50m length of track by averaging absolute values of positive and negative value of slews.					
134011	Other than PSC Sleeper track - Maximum slew up to 50mm					
	Details of cost for 390 TRM (1 Person will do Through packing including slewing 12 sleepers of 1540 density in a day)					
	Labour:					
	Mate (Skilled)	Day	0002	751.00	1.00	751.00
	Look Out Man (Un-skilled)	Day	0033	547.00	1.00	547.00
	Waterman (Un-skilled)	Day	0034	547.00	2.00	1,094.00
	Labour Unskilled	Day	0020	540.00	50.00	27,000.00
	Misc.:					
	T & P	Lumpsum	9901	1.00	100.00	100.00
						29,492.00
	Add for working under traffic block @ 10%	Lumpsum	9992	0.10		2,949.20
						32,441.20
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		324.41
						32,765.61
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		4,603.57
						37,369.18
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		5,605.38
						42,974.56
	Add for Cess @ 1%	Lumpsum	9905	0.01		429.75
	Cost for 390 TRM					43,404.30
	Rate per TRM	TRM				111.29
134012	Other than PSC Sleeper track - Maximum slew more than 50mm and up to 100mm					
	Details of cost for 364 TRM (1 Person will do Through packing including slewing 10 sleepers of 1540 density in a day)					
	Labour:					
	Mate (Skilled)	Day	0002	751.00	1.00	751.00
	Look Out Man (Un-skilled)	Day	0033	547.00	1.00	547.00
	Waterman (Un-skilled)	Day	0034	547.00	2.00	1,094.00
	Labour Unskilled	Day	0020	540.00	56.00	30,240.00
	T & P	Lumpsum	9901	1.00	110.00	110.00
						32,742.00
	Add for working under traffic block @ 10%	Lumpsum	9992	0.10		3,274.20
						36,016.20
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		360.16
						36,376.36
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		5,110.88
						41,487.24
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		6,223.09
						47,710.33
	Add for Cess @ 1%	Lumpsum	9905	0.01		477.10
	Cost for 364 TRM					48,187.43
	Rate per TRM	TRM				132.38
134013	Other than PSC Sleeper track - Maximum slew more than 100mm and up to 150mm					
	Details of cost for 338 TRM (1 Person will do Through packing including slewing 9 sleepers of 1540 density in a day)					

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Labour:					
	Mate (Skilled)	Day	0002	751.00	1.00	751.00
	Waterman (Un-skilled)	Day	0034	547.00	2.00	1,094.00
	Look Out Man (Un-skilled)	Day	0033	547.00	1.00	547.00
	Labour Unskilled	Day	0020	540.00	58.00	31,320.00
	Misc.:					
	T & P	Lumpsum	9901	1.00	115.00	115.00
						33,827.00
	Add for working under traffic block @ 10%	Lumpsum	9992	0.10		3,382.70
						37,209.70
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		372.10
						37,581.80
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		5,280.24
						42,862.04
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		6,429.31
						49,291.35
	Add for Cess @ 1%	Lumpsum	9905	0.01		492.91
	Cost for 338 TRM					49,784.26
	Rate per TRM	TRM				147.29
134014	Other than PSC Sleeper track - Maximum slew more than 150mm					
	Details of cost for 312 TRM (1 Person will do Through packing including slewing 8 sleepers of 1540 density in a day)					
	Labour:					
	Mate (Skilled)	Day	0002	751.00	1.00	751.00
	Look Out Man (Un-skilled)	Day	0033	547.00	1.00	547.00
	Waterman (Un-skilled)	Day	0034	547.00	2.00	1,094.00
	Labour Unskilled	Day	0020	540.00	60.00	32,400.00
	Misc.:					
	T & P	Lumpsum	9901	1.00	120.00	120.00
						34,912.00
	Add for working under traffic block @ 10%	Lumpsum	9992	0.10		3,491.20
						38,403.20
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		384.03
						38,787.23
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		5,449.61
						44,236.84
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		6,635.53
						50,872.36
	Add for Cess @ 1%	Lumpsum	9905	0.01		508.72
	Cost for 312 TRM					51,381.09
	Rate per TRM	TRM				164.68
134015	PSC Sleeper track - Maximum slew up to 50mm					
	Details of cost for 312 TRM (1 Person will do Through packing including slewing 10 sleepers of 1540 density in a day)					
	Labour:					
	Mate (Skilled)	Day	0002	751.00	1.00	751.00
	Look Out Man (Un-skilled)	Day	0033	547.00	1.00	547.00
	Waterman (Un-skilled)	Day	0034	547.00	1.00	547.00
	Labour Unskilled	Day	0020	540.00	48.00	25,920.00
	Misc.:					
	T & P	Lumpsum	9901	1.00	95.00	95.00
						27,860.00
	Add for working under traffic block @ 10%	Lumpsum	9992	0.10		2,786.00
						30,646.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		306.46
						30,952.46
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		4,348.82
						35,301.28

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		5,295.19
						40,596.47
	Add for Cess @ 1%	Lumpsum	9905	0.01		405.96
	Cost for 312 TRM					41,002.44
	Rate per TRM	TRM				131.42
134016	PSC Sleeper track - Maximum slew more than 50mm and up to 100mm					
	Details of cost for 286 TRM (1 Person will do Through packing including slewing 8 sleepers of 1540 density in a day)					
	Labour:					
	Mate (Skilled)	Day	0002	751.00	1.00	751.00
	Look Out Man (Un-skilled)	Day	0033	547.00	1.00	547.00
	Waterman (Un-skilled)	Day	0034	547.00	2.00	1,094.00
	Labour Unskilled	Day	0020	540.00	55.00	29,700.00
	Misc.:					
	T & P	Lumpsum	9901	1.00	110.00	110.00
						32,202.00
	Add for working under traffic block @ 10%	Lumpsum	9992	0.10		3,220.20
						35,422.20
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		354.22
						35,776.42
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		5,026.59
						40,803.01
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		6,120.45
						46,923.46
	Add for Cess @ 1%	Lumpsum	9905	0.01		469.23
	Cost for 286 TRM					47,392.70
	Rate per TRM	TRM				165.71
134017	PSC Sleeper track - Maximum slew more than 100mm and up to 150mm					
	Details of cost for 260 TRM (1 Person will do Through packing including slewing 7 sleepers of 1540 density in a day)					
	Labour:					
	Mate (Skilled)	Day	0002	751.00	1.00	751.00
	Look Out Man (Un-skilled)	Day	0033	547.00	1.00	547.00
	Waterman (Un-skilled)	Day	0034	547.00	2.00	1,094.00
	Labour Unskilled	Day	0020	540.00	58.00	31,320.00
	Misc.:					
	T & P	Lumpsum	9901	1.00	115.00	115.00
						33,827.00
	Add for working under traffic block @ 10%	Lumpsum	9992	0.10		3,382.70
						37,209.70
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		372.10
						37,581.80
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		5,280.24
						42,862.04
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		6,429.31
						49,291.35
	Add for Cess @ 1%	Lumpsum	9905	0.01		492.91
	Cost for 260 TRM					49,784.26
	Rate per TRM	TRM				191.48
134018	PSC Sleeper track - Maximum slew more than 150mm					
	Details of cost for 234 TRM (1 Person will do Through packing including slewing 6 sleepers of 1540 density in a day)					
	Labour:					
	Mate (Skilled)	Day	0002	751.00	1.00	751.00
	Look Out Man (Un-skilled)	Day	0033	547.00	1.00	547.00
	Waterman (Un-skilled)	Day	0034	547.00	2.00	1,094.00
	Labour Unskilled	Day	0020	540.00	60.00	32,400.00

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Misc.:					
	T & P	Lumpsum	9901	1.00	120.00	120.00
						34,912.00
	Add for working under traffic block @ 10%	Lumpsum	9992	0.10		3,491.20
						38,403.20
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		384.03
						38,787.23
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		5,449.61
						44,236.84
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		6,635.53
						50,872.36
	Add for Cess @ 1%	Lumpsum	9905	0.01		508.72
	Cost for 234 TRM					51,381.09
	Rate per TRM	TRM				219.58
135000	Destressing Works					
135010	De-stressing of LWR/CWR track of any density under traffic line block with contractor's labours, tools, equipments and consumables inclusive of all lead & lift. Activities include cutting of LWR/CWR into convenient panels of specified length, removal of ERCs, liners, greasing of ERCs and liner contact area, lifting rails and keeping them on rollers provided at every 15 sleepers, working out elongation of rail ends depending on prevailing site conditions, pulling rails with the help of Hydraulic Tensor to achieve the desired elongation, cutting rails, as required, removing rollers and placing rail in position, re-fixing ERCs & liners and adjustment of gap at SEJs : Note: (1) Welding of rail joints will be paid separately. (2) Rail cutting and Hole drilling shall be paid separately. (3) Opening and closing of LC if required will be paid separately. (4) As per procedure prescribed in latest edition of IRPWM & CE's Circulars for destressing of LWR/CWR, if any.					
135011	With Railway's Hydraulic Rail tensor					
	Details of cost for 1000 TRM (3 Persons deputed in between 100 Track Metre length)					
	Material:					
	For greasing of ERCs and liner contact area of 1 sleeper required 35 gram grease graphite.(Cost for 1660 sleeper/Km)					
	Grease Graphite Grade 'O' (IS:408)	Kg	0182	270.00	60.00	16,200.00
	Labour:					
	(i) For removal of ERCs, lifting the rails and keeping them on rollers, greasing and refixing of fastenings after destressing.					
	Mate (Skilled)	Day	0002	751.00	2.00	1,502.00
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	1.00	749.00
	Helper (Semi-skilled)	Day	0021	572.00	1.00	572.00
	Waterman (Un-skilled)	Day	0034	547.00	1.00	547.00
	Look Out Man (Un-skilled)	Day	0033	547.00	1.00	547.00
	Labour Unskilled	Day	0020	540.00	33.00	17,820.00
	(ii) Additional labour for operating Rail Tensor					
	Helper (Semi-skilled)	Day	0021	572.00	2.00	1,144.00
	Misc.:					
	T & P (Rail Tongue, Crow bars, Hammer, Beater, etc.)	Lumpsum	9901	1.00	130.00	130.00
						39,211.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		392.11
						39,603.11
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		5,564.24
						45,167.35
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		6,775.10
						51,942.45
	Add for Cess @ 1%	Lumpsum	9905	0.01		519.42

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Cost for 1000 TRM					52,461.87
	Rate per TRM	TRM				52.46
135012	With Contractor's Hydraulic Rail tensor					
	Details of cost for 1000 TRM (3 Persons deputed in between 100 Track Metre length)					
	Material:					
	For greasing of ERCs and liner contact area of 1 sleeper required 35 gram grease graphite.(Cost for 1660 sleeper/Km)					
	Grease Graphite Grade 'O' (IS:408)	Kg	0182	270.00	60.00	16,200.00
	Hydraulic oil SS-68 or equivalent of HPCL/BPCL/IOCL	Litre	0181	143.00	5.00	715.00
	Labour:					
	(i) For removal of ERCs, lifting the rails and keeping them on rollers, greasing and refixing of fastenings after destressing.					
	Mate (Skilled)	Day	0002	751.00	2.00	1,502.00
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	1.00	749.00
	Helper (Semi-skilled)	Day	0021	572.00	1.00	572.00
	Look Out Man (Un-skilled)	Day	0033	547.00	1.00	547.00
	Waterman (Un-skilled)	Day	0034	547.00	1.00	547.00
	Labour Unskilled	Day	0020	540.00	33.00	17,820.00
	(ii) Additional labour for operating Rail Tensor					
	Helper (Semi-skilled)	Day	0021	572.00	2.00	1,144.00
	Misc.:					
	T & P (Rail Tongue, Crow bars, Hammer, Beater, etc.)	Lumpsum	9901	1.00	300.00	300.00
	Hire charges of Hydraulic Rail tensor	Day	0143	1092.00	4.00	4,368.00
						44,464.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		444.64
						44,908.64
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		6,309.66
						51,218.30
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		7,682.75
						58,901.05
	Add for Cess @ 1%	Lumpsum	9905	0.01		589.01
	Cost for 1000 TRM					59,490.06
	Rate per TRM	TRM				59.49
135013	Without Rail tensor					
	Details of cost for 1000 TRM (3 Persons deputed in between 100 Track Metre length)					
	Material:					
	For greasing of ERCs and liner contact area of 1 sleeper required 35 gram grease graphite.(Cost for 1660 sleeper/Km)					
	Grease Graphite Grade 'O' (IS:408)	Kg	0182	270.00	60.00	16,200.00
	Labour:					
	(i) For removal of ERCs, lifting the rails and keeping them on rollers, greasing and refixing of fastenings after destressing. 2persons extra for hammering rails by wooden mallet.					
	Mate (Skilled)	Day	0002	751.00	2.00	1,502.00
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	1.00	749.00
	Helper (Semi-skilled)	Day	0021	572.00	1.00	572.00
	Look Out Man (Un-skilled)	Day	0033	547.00	1.00	547.00
	Waterman (Un-skilled)	Day	0034	547.00	1.00	547.00
	Labour Unskilled	Day	0020	540.00	33.00	17,820.00
	Misc.:					
	T & P (Rail Tongue, Crow bars, Hammer, Beater, etc.)	Lumpsum	9901	1.00	110.00	110.00
						38,047.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		380.47
						38,427.47
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		5,399.06
						43,826.53

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		6,573.98
						50,400.51
	Add for Cess @ 1%	Lumpsum	9905	0.01		504.01
	Cost for 1000 TRM					50,904.51
	Rate per TRM	TRM				50.90
135020	Providing temporary Buffer Rails of fish plated joints of 3 pairs, measuring 6.5m each, duly removing rails of the existing track including cutting & drilling of rails as required for isolating LWR/CWR on all types of track structure. Work will be done under traffic block condition. Note: 1. Each set comprises of 3 pairs of rails 6.5 m long only. 2. Only Rails fish plate and fish bolts will be supplied free by Railway within free lead of 250m.					
	Details of cost for each set					
	Material:					
	Kerosene Oil	Litre	0183	63.00	4.00	252.00
	Normal unleaded Petrol	Litre	0180	108.00	1.00	108.00
	High Speed Hacksaw Blade of size 300mm x 12.5mm x 0.63mm (18TPI) as per as per RDSO's Spec. no. TM/SM/26 (latest Rev.)	Each	0453	182.00	1.00	182.00
	Drill twist made of high speed steel for size 26.5mm dia of Addison / I T make	Each	0462	2517.00	0.25	629.25
	Labour:					
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	1.00	749.00
	Helper (Semi-skilled)	Day	0021	572.00	1.00	572.00
	Look Out Man (Un-skilled)	Day	0033	547.00	1.00	547.00
	Labour Unskilled	Day	0020	540.00	4.00	2,160.00
	Misc.:					
	T & P	Lumpsum	9901	1.00	20.00	20.00
	Hire charges of Rail Cutting Machine	Day	0139	633.00	0.50	316.50
	Hire charges of Rail Drill Machine	Day	0134	442.00	0.50	221.00
						5,756.75
	Add for working under traffic block @ 10%	Lumpsum	9992	0.10		575.68
						6,332.43
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		63.32
						6,395.75
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		898.60
						7,294.35
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		1,094.15
						8,388.50
	Add for Cess @ 1%	Lumpsum	9905	0.01		83.89
	Cost for each set					8,472.39
	Rate per set	Set				8,472.39
136000	Renewal and Miscellaneous Works					
136010	Fixing Joggled Fish Plates with bolt / clamp (supplied by Railway from nearest SSE Store) in running track conditions at welds on rail, as directed by engineer in-charge (drilling of holes in rail, if required, shall be paid separately).					
136011	With 2 bolts					
	Details of cost for 40 sets					
	Labour:					
	(i) Fixing of Joggled Fish Plate.					
	Mate (Skilled)	Day	0002	751.00	0.50	375.50
	Look Out Man (Un-skilled)	Day	0033	547.00	1.00	547.00
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	0.50	374.50
	Labour Unskilled	Day	0020	540.00	4.00	2,160.00
	Misc.:					
	T & P (Spanner, Hammer, Crow bars, Tommy bar etc.)	Lumpsum	9901	1.00	10.00	10.00
						3,467.00

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		34.67
						3,501.67
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		491.98
						3,993.65
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		599.05
						4,592.70
	Add for Cess @ 1%	Lumpsum	9905	0.01		45.93
	Cost for 40 sets					4,638.63
	Rate per set	Set				115.97
136012	With 4 bolts					
	Details of cost for 40 sets					
	Labour:					
	(ii) Fixing of Joggled Fish Plate.					
	Mate (Skilled)	Day	0002	751.00	0.50	375.50
	Look Out Man (Un-skilled)	Day	0033	547.00	1.00	547.00
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	1.00	749.00
	Labour Unskilled	Day	0020	540.00	4.00	2,160.00
	Misc.:					
	T & P (Spanner, Hammer, Crow bars, Tommy bar etc.)	Lumpsum	9901	1.00	15.00	15.00
						3,846.50
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		38.47
						3,884.97
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		545.84
						4,430.80
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		664.62
						5,095.42
	Add for Cess @ 1%	Lumpsum	9905	0.01		50.95
	Cost for 40 sets					5,146.38
	Rate per set	Set				128.66
136013	With Clamps					
	Details of cost for 40 sets					
	Labour:					
	(ii) Fixing of Joggled Fish Plate.					
	Mate (Skilled)	Day	0002	751.00	0.50	375.50
	Look Out Man (Un-skilled)	Day	0033	547.00	1.00	547.00
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	1.00	749.00
	Labour Unskilled	Day	0020	540.00	6.00	3,240.00
	Misc.:					
	T & P (Spanner, Hammer, Crow bars, Tommy bar etc.)	Lumpsum	9901	1.00	20.00	20.00
						4,931.50
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		49.32
						4,980.82
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		699.80
						5,680.62
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		852.09
						6,532.71
	Add for Cess @ 1%	Lumpsum	9905	0.01		65.33
	Cost for 40 sets					6,598.04
	Rate per set	Set				164.95
136020	Providing wooden blocks under weld joint duly transporting Railway's released wooden blocks with rail screw / dog spikes and doing packing, as directed under traffic condition. Note: Wooden blocks, rail screws/dog spikes will be supplied free at SSE/P.Way depot.					
	Detail of cost for 50 joints					
	Material:					
	Auger Carpenter	Each	0467	125.00	3.00	375.00

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Labour:					
	Mate (Skilled)	Day	0002	751.00	1.00	751.00
	Carpenter (Skilled)	Day	0006	734.00	1.00	734.00
	Helper (Semi-skilled)	Day	0021	572.00	1.00	572.00
	Look Out Man (Un-skilled)	Day	0033	547.00	1.00	547.00
	Labour Unskilled	Day	0020	540.00	6.00	3,240.00
	Misc.:					
	T & P (Crow bars, Hammer, Beater, Wooden Saw, etc.)	Lumpsum	9901	1.00	100.00	100.00
						6,319.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		63.19
						6,382.19
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		896.70
						7,278.89
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		1,091.83
						8,370.72
	Add for Cess @ 1%	Lumpsum	9905	0.01		83.71
	Cost for 50 joints					8,454.43
	Rate per joint	Each				169.09
136030	Removing the existing wooden blocks under joint, duly removing fittings, transporting and stacking material wise in a countable manner and handing over the wooden blocks & fittings at PWI's Depot or as directed by Engineer in charge.					
	Details of cost for 150 nos.					
	Labour:					
	Mate (Skilled)	Day	0002	751.00	0.50	375.50
	Look Out Man (Un-skilled)	Day	0033	547.00	1.00	547.00
	Waterman (Un-skilled)	Day	0034	547.00	1.00	547.00
	Labour Unskilled	Day	0020	540.00	6.00	3,240.00
	Misc.:					
	T & P (Hammer, Crow bars, Tommy bar, beater, Wire claws, etc.)	Lumpsum	9901	1.00	25.00	25.00
	Hire charges for tractor with trolley	Day	0080	1742.00	0.50	871.00
						5,605.50
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		56.06
						5,661.56
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		795.45
						6,457.00
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		968.55
						7,425.55
	Add for Cess @ 1%	Lumpsum	9905	0.01		74.26
	Cost for 150 nos. joints					7,499.81
	Rate per joint	Each				50.00
136040	Maintenance of track on main line & loops, Points & crossings etc. including special attention to section for carrying out various maintenance works listed in Indian Railways P.Way Manual / Bridge Manual for safe running of goods and passenger trains with contractor's tools / labours etc. complete, as directed by Engineer in-charge. Note: Contractor shall arrange one gang at any point of time comprising of minimum specified labours with sufficient experience in P.Way working.					
136041	One mobile Gang comprising of 15 physically fit labours plus 1 Mate. Note: (1) In case, contractor provides less no. of Labour/Mate or for non availability of vehicle, payment will be deducted for each such person or non-availability of vehicle @ 20% of the accepted item rate, separately for each shortfall. (2) The Contractor shall keep one pick up Truck of minimum 1.5T payload capacity with Driver all the time and all expenditures for running at an average of 80 kms per day shall be born by the Contractor.					
	Details of cost for per day per Gang of 15 labours					
	Labour:					

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Labour Unskilled	Day	0020	540.00	15.00	8,100.00
	Mate (Skilled)	Day	0002	751.00	1.00	751.00
	Machinery:					
	Hire Charges of 1.5 tonne Pickup Truck (without POL)	Day	0512	1173.50	1.00	1,173.50
	Diesel @ 14 km/litre for 80 KM = 18/14 = 5.71 litres					
	Diesel (HSD) Oil	Litre	0179	93.00	5.71	531.03
	Misc.					
	T & P (Hydraulic Jack, Crow bars, Wire claws, Rake ballast, Rail cutting machine etc. @ 5% of the cost of labour	Lumpsum		8100.00	5%	405.00
						10,960.53
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		109.61
						11,070.14
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		1,555.35
						12,625.49
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		1,893.82
						14,519.31
	Add for Cess @ 1%	Lumpsum	9905	0.01		145.19
	Rate per day per Gang	Gang Day				14,664.51
136042	One Gang comprising of 20 physically fit labours plus 1 Mate. Note: In case, contractor provides less no. of Labour/Mate, payment will be deducted for each such labour @ 10% of the accepted item rate.					
	Details of cost for per day per Gang of 20 labours					
	Labour:					
	Labour Unskilled	Day	0020	540.00	20.00	10,800.00
	Mate (Skilled)	Day	0002	751.00	1.00	751.00
	Misc.:					
	T & P (Hydraulic Jack, Crow bars, Wire claws, Rake ballast, Rail cutting machine etc. @ 5% of the cost of labour	Lumpsum		10800.00	5%	540.00
						12,091.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		120.91
						12,211.91
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		1,715.77
						13,927.68
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		2,089.15
						16,016.84
	Add for Cess @ 1%	Lumpsum	9905	0.01		160.17
	Rate per day per Gang	Gang Day				16,177.00
136050	Interchanging gauge face of rails of any section in traffic line block including removal of fittings and re-fixing the same after changing of gauge face, cutting of rails, joining the rails with fish plate & drilling holes as directed by engineer in-charge.					
	Details of cost for 260 TRM					
	Material:					
	Normal unleaded Petrol	Litre	0180	108.00	1.00	108.00
	Kerosene Oil	Litre	0183	63.00	4.00	252.00
	High Speed Hacksaw Blade of size 300mm x 12.5mm x 0.63mm (18TPI) as per as per RDSO's Spec. no. TM/SM/26 (latest Rev.)	Each	0453	182.00	1.00	182.00
	Labour:					
	Mate (Skilled)	Day	0002	751.00	1.00	751.00
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	1.00	749.00
	Helper (Semi-skilled)	Day	0021	572.00	1.00	572.00
	Look Out Man (Un-skilled)	Day	0033	547.00	1.00	547.00
	Waterman (Un-skilled)	Day	0034	547.00	1.00	547.00
	Labour Unskilled	Day	0020	540.00	25.00	13,500.00
	Misc.:					
	T & P (Crow bars, beater, Wire claws, Hammer, Spanner etc.)	Lumpsum	9901	1.00	70.00	70.00
	Hire charges of Rail Drill Machine	Day	0134	442.00	0.50	221.00

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Hire charges of Rail Cutting Machine	Day	0139	633.00	1.00	633.00
						18,132.00
	Add for working under traffic block @ 10%	Lumpsum	9992	0.10		1,813.20
						19,945.20
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		199.45
						20,144.65
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		2,830.32
						22,974.98
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		3,446.25
						26,421.22
	Add for Cess @ 1%	Lumpsum	9905	0.01		264.21
	Cost for 260 TRM					26,685.43
	Rate per TRM	TRM				102.64
136060	Replacing existing glued joint rail with cut rails or with glued joint rail or insertion of glued joint by cutting existing track under traffic condition by cutting rails, refixing with all rail sleeper fastenings and providing required gaps for carrying out welding as an alternative to drilling holes or joining rails with fish plates duly drilling holes as required including stacking of released material and as directed by engineer in-charge. Note: (1) Drilling holes & rail cutting will be paid separately. (2) Transportation of materials to the site of work from supply points, if more than 250m, shall be paid separately.					
	Details of cost for 4 joints					
	Material:					
	Labour:					
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	1.00	749.00
	Helper (Semi-skilled)	Day	0021	572.00	1.00	572.00
	Look Out Man (Un-skilled)	Day	0033	547.00	1.00	547.00
	For leading of rail, replacement of glued joint & carting released glued joints back					
	Labour Unskilled	Day	0020	540.00	6.00	3,240.00
	Misc.:					
	T & P	Lumpsum	9901	1.00	15.00	15.00
						5,123.00
	Add for working under traffic block @ 10%	Lumpsum	9992	0.10		512.30
						5,635.30
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		56.35
						5,691.65
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		799.68
						6,491.33
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		973.70
						7,465.03
	Add for Cess @ 1%	Lumpsum	9905	0.01		74.65
	Cost for 4 joints					7,539.68
	Rate per joint	Each				1,884.92
136070	Fixing of Wooden Distance Block of size 1.0m x 0.3m x 0.15m between track and platform wall.					
136071	With Railway's wooden block (by cutting Railway's wooden sleepers into blocks by sawing to size)					
	Details of cost for 60 nos.					
	Labour:					
	(i) Cutting of wooden blocks from sleepers (1 carpenter + 1 helper prepare 20 Blocks in a day)					
	Carpenter (Skilled)	Day	0006	734.00	3.00	2,202.00
	Helper (Semi-skilled)	Day	0021	572.00	3.00	1,716.00

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	(ii) Fixing of wooden blocks					
	Mate (Skilled)	Day	0002	751.00	0.50	375.50
	Labour Unskilled	Day	0020	540.00	10.00	5,400.00
	Misc.:					
	T & P	Lumpsum	9901	1.00	50.00	50.00
						9,743.50
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		97.44
						9,840.94
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		1,382.65
						11,223.59
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		1,683.54
						12,907.12
	Add for Cess @ 1%	Lumpsum	9905	0.01		129.07
	Cost for 60 nos					13,036.20
	Rate per distance piece	Each				217.27
136072	With Contractor's hard wood block.					
	Details of cost for 60 nos.					
	Material:					
	Volume of 1 no. Wooden Block (size : 1.0 m x 0.3m x 0.15m) = 0.045 cum Volume for 60 nos. = 60 x 0.045 cum = 2.70 cum = 2700 Cudm					
	Hard Variety Jungle Wood blocks	10 Cudm	0341	462.00	270.00	124,740.00
	Labour:					
	(i) Fixing of wooden blocks					
	Mate (Skilled)	Day	0002	751.00	0.50	375.50
	Carpenter (Skilled)	Day	0006	734.00	1.00	734.00
	Helper (Semi-skilled)	Day	0021	572.00	1.00	572.00
	Labour Unskilled	Day	0020	540.00	10.00	5,400.00
	Misc.:					
	T & P	Lumpsum	9901	1.00	25.00	25.00
						131,846.50
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		1,318.47
						133,164.97
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		18,709.68
						151,874.64
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		22,781.20
						174,655.84
	Add for Cess @ 1%	Lumpsum	9905	0.01		1,746.56
	Cost for 60 nos					176,402.40
	Rate per distance piece	Each				2,940.04
136080	Drilling holes of 16mm to 22mm dia. on all types of PSC sleepers and fixing the dowels with adhesive of RDSO approved quality for fixing check rails & guard rails, as directed by Engineer in-charge.					
	Details of cost for 60 holes					
	Material:					
	Drill twist made of high speed steel for size 18mm dia of Addison / I T make	Each	0463	1633.00	1.00	1,633.00
	Normal unleaded Petrol	Litre	0180	108.00	1.00	108.00
	Kerosene Oil	Litre	0183	63.00	5.00	315.00
	Epoxy for fixing HDPE dowel, Rubber Pads as per RDSO approved specification	Kg	0319	622.00	3.00	1,866.00
	HDPE Dowels	Each	0452	185.00	60.00	11,100.00
	Labour:					
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	1.00	749.00
	Helper (Semi-skilled)	Day	0021	572.00	1.00	572.00
	Look Out Man (Un-skilled)	Day	0033	547.00	1.00	547.00
	Labour Unskilled	Day	0020	540.00	1.00	540.00
	Misc.:					
	T & P	Lumpsum	9901	1.00	10.00	10.00
	Hire charges of Concrete Sleeper Drilling Machine	Day	0137	475.00	1.00	475.00

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Hire charges of Generator 5 KVA (without POL)	Day	0071	867.00	1.00	867.00
						18,782.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		187.82
						18,969.82
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		2,665.26
						21,635.08
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		3,245.26
						24,880.34
	Add for Cess @ 1%	Lumpsum	9905	0.01		248.80
	Cost for 60 holes					25,129.15
	Rate per hole	Each				418.82
136090	Cleaning of side drains along the track including disposing of muck beyond Railway boundary as per instructions of Engineer in-charge to keep drains clean and clear in cuttings etc.					
	Details of cost for 500 RM (One group of two persons will clean 50 Running metre in a day)					
	Labour:					
	Mate (Skilled)	Day	0002	751.00	1.00	751.00
	Waterman (Un-skilled)	Day	0034	547.00	1.00	547.00
	Look Out Man (Un-skilled)	Day	0033	547.00	1.00	547.00
	Labour Unskilled	Day	0020	540.00	20.00	10,800.00
	Misc.:					
	T & P	Lumpsum	9901	1.00	40.00	40.00
						12,685.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		126.85
						12,811.85
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		1,800.06
						14,611.91
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		2,191.79
						16,803.70
	Add for Cess @ 1%	Lumpsum	9905	0.01		168.04
	Cost for 500 RM					16,971.74
	Rate per RM	RM				33.94
136100	Removing weeds & bushes in ballast section and cess up to 3.95m from centre line of track in mid section & station yard, as specified by Engineer in-charge including disposal of branches, bushes outside cess/yard.					
	Details of cost for 1040 TRM (One persons will Remove weeds & bushes 52 Running metre in a day)					
	Labour:					
	Mate (Skilled)	Day	0002	751.00	1.00	751.00
	Waterman (Un-skilled)	Day	0034	547.00	1.00	547.00
	Labour Unskilled	Day	0020	540.00	20.00	10,800.00
	Misc.:					
	T & P	Lumpsum	9901	1.00	40.00	40.00
						12,138.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		121.38
						12,259.38
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		1,722.44
						13,981.82
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		2,097.27
						16,079.10
	Add for Cess @ 1%	Lumpsum	9905	0.01		160.79
	Cost for 1040 RM					16,239.89
	Rate per TRM	TRM				15.62

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
136110	Trimming of tree branches coming within 6m of centre line of track & those obstructing views of Curves/LCs / Signal / Indicator at locations in section & station yard, as specified by Engineer in-charge including disposal of branches, bushes outside cess/yard. Note: Girth of more than 20 cm will only be considered as tree branch.					
	Details of cost for 50 Tree branches					
	Labour:					
	Mate (Skilled)	Day	0002	751.00	1.00	751.00
	Waterman (Un-skilled)	Day	0034	547.00	1.00	547.00
	Labour Unskilled	Day	0020	540.00	10.00	5,400.00
	Misc.:					
	T & P	Lumpsum	9901	1.00	20.00	20.00
						6,718.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		67.18
						6,785.18
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		953.32
						7,738.50
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		1,160.77
						8,899.27
	Add for Cess @ 1%	Lumpsum	9905	0.01		88.99
	Cost for 50 Tree branches					8,988.27
	Rate per tree branch	Each				179.77
136120	Making kutchra trapezoidal side drain of bottom width as 300mm and depth of 450mm in cutting section by excavation in all types of soil including utilising excavated muck for dressing of cess, slopes etc. in Railway land.					
	Details of cost for 100 RM (One group of two persons will make kutchra trapezoidal side drain of bottom width 300mm and depth of 450mm, 12 Running metre in a day)					
	Labour:					
	Mate (Skilled)	Day	0002	751.00	1.00	751.00
	Waterman (Un-skilled)	Day	0034	547.00	1.00	547.00
	Labour Unskilled	Day	0020	540.00	16.00	8,640.00
	Misc.:					
	T & P	Lumpsum	9901	1.00	65.00	65.00
						10,003.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		100.03
						10,103.03
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		1,419.48
						11,522.51
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		1,728.38
						13,250.88
	Add for Cess @ 1%	Lumpsum	9905	0.01		132.51
	Cost for 100 RM					13,383.39
	Rate per RM	RM				133.83
136130	Providing Assistant to Patrol man for patrolling during cold / hot weather on track for protecting track as per IRPWM. Note: 1.The person deployed for patrolling must have the following items: • Valid certificate of competency issued by Railways. • Fit for A-3 medical category - certificate issued by registered medical practitioner 2.Necessary equipments prescribed shall be supplied by Railways for each patrolman and same to be handed over back to Railways in good condition. 3.The following equipment to be arranged by contractor for each patrol man: H.S.Flags Green -1 No (Standard size), H.S Flags Red- 2 Nos. (Standard size),Torch light 3 cell -1 no., Staff for flags -1 no., Whistle Thunder - 1no, Protective clothing to withstand climate, Gum boots, Haver sack.					

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
136131	For duration of 8 hrs.					
	Details of cost for 2 Persons					
	Labour:					
	Patrolman (Semi-skilled)	Day	0035	614.00	2.00	1,228.00
	Misc.:					
	T & P, Training costs etc.	Lumpsum	9901	1.00	70.00	70.00
						1,298.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		12.98
						1,310.98
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		184.19
						1,495.17
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		224.28
						1,719.45
	Add for Cess @ 1%	Lumpsum	9905	0.01		17.19
	Cost for 2 Persons					1,736.64
	Rate per Person	Each				868.32
136132	For 12 hrs. duration					
	Details of cost for 24 Hrs @ 1 person 12 Hours i.e.2 Persons for 24hrs { Take 3 person for 24 hrs}					
	Labour:					
	Patrolman (Semi-skilled)	Day	0035	614.00	3.00	1,842.00
	Misc.:					
	T & P, Training costs etc.	Lumpsum	9901	1.00	80.00	80.00
						1,922.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		19.22
						1,941.22
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		272.74
						2,213.96
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		332.09
						2,546.06
	Add for Cess @ 1%	Lumpsum	9905	0.01		25.46
	Cost for 24 Hours for 2 Persons, @ 1 person 12 Hours i.e.2 Persons for 24hrs					2,571.52
	Rate per Person	Each				1,285.76
136140	Providing Assistant to Patrolman for monsoon / security patrolling whenever required for protection of track as per IRPWM (for a duration of 12 hours). Note: 1.The person deployed for patrolling must have the following items: • Valid certificate of competency issued by Railways. • Fit for A-3 medical category - certificate issued by registered medical practitioner. 2.The equipment supplied by Railways shall be handed over back to Railways in good condition:					
	3.The following equipment to be arranged by contractor for each patrol man: • H.S.flags (standard size): Green – 1 no. & Red - 2 Nos. • Torch (3 cell) – 1no.; Staff for flags – 1no.; Whistle thunder – 1no. •Protective cloth to withstand the climate; Gum boots; Haver sack					
136141	For Day shift					
	Details of cost for 1 Person					
	Labour:					
	Patrolman (Semi-skilled)	Day	0035	614.00	1.00	614.00
	Misc.:					
	T & P, Training costs etc.	Lumpsum	9901	1.00	35.00	35.00
						649.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		6.49
						655.49
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		92.10
						747.59

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		112.14
						859.72
	Add for Cess @ 1%	Lumpsum	9905	0.01		8.60
	Cost for 1 Person					868.32
	Rate per Person	Each				868.32
136142	For Night shift					
	Details of cost for 2 Person					
	Labour:					
	Patrolman (Semi-skilled)	Day	0035	614.00	2.50	1,535.00
	Considering 25% extra wages for night duty					
	Misc.:					
	T & P, Training costs etc.	Lumpsum	9901	1.00	80.00	80.00
						1,615.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		16.15
						1,631.15
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		229.18
						1,860.33
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		279.05
						2,139.38
	Add for Cess @ 1%	Lumpsum	9905	0.01		21.39
	Cost for 2 Persons					2,160.77
	Rate per Person	Each				1,080.38
137000	Marking and Painting Works					
137010	Anti-corrosive painting of rail outside track on rail bottom, web, foot and fishing plane with two coats of thickness of 100 microns each by bituminous black paint confirms to IS-9862 of reputed make including surface preparation, as a complete job as per procedure prescribed in latest edition of IRPWM.					
137011	For 60 Kg Rails					
	Details of cost for 104 RM (One group of 1 Painter + 1 helper + 1 Labour will paint two coat 104 RM i.e.4 Rails of 13 metre in a day)					
	Material:					
	Anti-corrosive Bituminous Paint (Black) confirming to IS:9862	Litre	0302	100.00	30.00	3,000.00
	Cotton Jute	Kg	0489	53.00	1.00	53.00
	Sand Paper medium-grit (100- to 150-grit), 9" x 11"	Nos.	0491	7.00	12.00	84.00
	Wire Brush - 25cm long	Each	0311	42.00	2.00	84.00
	Soft Brush for painting - 25cm long	Each	0312	59.00	2.00	118.00
	Labour:					
	Painter (Skilled)	Day	0012	749.00	1.00	749.00
	Labour Unskilled	Day	0020	540.00	1.00	540.00
	Misc.:					
	T & P	Lumpsum	9901	1.00	10.00	10.00
						4,638.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		46.38
						4,684.38
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		658.16
						5,342.54
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		801.38
						6,143.92
	Add for Cess @ 1%	Lumpsum	9905	0.01		61.44
	Cost for 104 RM					6,205.35
	Rate per RM	RM				59.67
137012	For 52 Kg Rails					
	Considering cost reduction of 11.15% in the rate for 60Kg					
	Rate per RM	RM	137011	59.67	0.89	53.01

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
137020	Anti-corrosive painting of rail on running track of any sleeper density on web, foot etc. including liner contact area (excluding bottom of foot) and fishing plane as per requirement with two coats of thickness of 100 microns each by bituminous black paint confirms to IS-9862 of reputed make including painting of liners, ERCs and including surface preparation, as a complete job as per procedure prescribed in latest edition of IRPWM Note: 60% of payment shall be made if painting on only gauge face side is done.					
137021	For 60 Kg Rails					
	Details of cost for 104 TRM (One group of 1 Painter + 2 Labour will paint two coat 104 RM i.e.8 Rails of 13 metre in a day)					
	Material:					
	Anti-corrosive Bituminous Paint (Black) confirming to IS:9862	Litre	0302	100.00	42.00	4,200.00
	Cotton Jute	Kg	0489	53.00	1.00	53.00
	Sand Paper medium-grit (100- to 150-grit), 9" x 11"	Nos.	0491	7.00	8.00	56.00
	Wire Brush - 25cm long	Each	0311	42.00	2.00	84.00
	Soft Brush for painting - 25cm long	Each	0312	59.00	2.00	118.00
	Labour:					
	Painter (Skilled)	Day	0012	749.00	1.00	749.00
	Labour Unskilled	Day	0020	540.00	2.00	1,080.00
	Misc.:					
	T & P	Lumpsum	9901	1.00	10.00	10.00
						6,350.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		63.50
						6,413.50
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		901.10
						7,314.60
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		1,097.19
						8,411.79
	Add for Cess @ 1%	Lumpsum	9905	0.01		84.12
	Cost for 104 TRM					8,495.90
	Rate per TRM	TRM				81.69
137022	For 52 Kg Rails					
	Considering cost reduction of 11.15% in the rate for 60Kg					
	Rate per TRM	TRM	137021	81.69	0.89	72.58
137030	Anti-corrosive painting to weld collar for Thermit welded rail joints on track or on cess for new welded joints to protect against normal corrosion for any rail section with two coats of ready mixed bituminous black paint of reputed make confirming to latest IS:9862 on welded area up to 10cm on either side including on the underside of rail foot by brush including surface preparation as per Railway's AT Weld Manual including lettering / weld numbering with approved enamel paint as directed Note: Before painting, dust, loose rust and mill scale and dirt shall be removed thoroughly by wire brushing. Scrubbing welded area with water to make it free from slag and other water soluble compounds to make it dry.					
	Details of cost for 200 welds					
	Material:					
	Anti-corrosive Bituminous Paint (Black) confirming to IS:9862	Litre	0302	100.00	8.00	800.00
	Enamel Paint as per RDSO's Spec. no.M&C/PCN/120-2011	Litre	0304	248.00	1.00	248.00
	Cotton Jute	Kg	0489	53.00	2.00	106.00
	Sand Paper medium-grit (100- to 150-grit), 9" x 11"	Nos.	0491	7.00	20.00	140.00
	Wire Brush - 25cm long	Each	0311	42.00	2.00	84.00
	Paint Brush 75 mm	Each	0323	108.00	2.00	216.00
	Labour:					
	Painter (Skilled)	Day	0012	749.00	1.00	749.00
	Labour Unskilled	Day	0020	540.00	2.00	1,080.00

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Misc.:					
	T&P	Lumpsum	9901	1.00	10.00	10.00
						3,433.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		34.33
						3,467.33
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		487.16
						3,954.49
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		593.17
						4,547.66
	Add for Cess @ 1%	Lumpsum	9905	0.01		45.48
	Cost for 200 welds					4,593.14
	Rate per weld	Each				22.97
137040	Anti-corrosive painting to weld collar for Thermit welded rail joints on track for old painted joints in normal corrosive prone area for any rail section with two coats of ready mixed bituminous black paint of reputed make confirming to IS:9862 latest version on welded area up to 10cm on either side including on the underside of rail foot by brush including surface preparation as per Railway's AT Weld Manual including lettering / weld numbering with approved enamel paint as directed Note: 1.Before painting, dust, dirt and flaked paint from the welded joint shall be removed thoroughly by scrapping with wire brush. Grease and oil shall be removed by use of appropriate solvent confirming to latest IS:1745. 2.Use of detergent followed by water washing should also be done to ensure removal of oil and grease apart from the greasing compound. 3.The paint should be procured along with the thinner recommended by the manufacturer of the paint. 4.No other thinner like kerosene oil should be used.					
	Details of cost for 200 welds					
	Material:					
	Solvent confirming to IS Specification 1745-1976.	Litre	0300	165.00	2.00	330.00
	Anti-corrosive Bituminous Paint (Black) confirming to IS:9862	Litre	0302	100.00	8.00	800.00
	Enamel Paint as per RDSO's Spec. no.M&C/PCN/120-2011	Litre	0304	248.00	1.00	248.00
	Cotton Jute	Kg	0489	53.00	2.00	106.00
	Sand Paper medium-grit (100- to 150-grit), 9" x 11"	Nos.	0491	7.00	20.00	140.00
	Wire Brush - 25cm long	Each	0311	42.00	2.00	84.00
	Paint Brush 75 mm	Each	0323	108.00	2.00	216.00
	Labour:					
	Painter (Skilled)	Day	0012	749.00	1.00	749.00
	Labour Unskilled	Day	0020	540.00	2.00	1,080.00
	Misc.:					
	T&P	Lumpsum	9901	1.00	10.00	10.00
						3,763.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		37.63
						3,800.63
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		533.99
						4,334.62
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		650.19
						4,984.81
	Add for Cess @ 1%	Lumpsum	9905	0.01		49.85
	Cost for 200 welds					5,034.66
	Rate per weld	Each				25.17

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
137050	Anti-corrosive painting to weld collar for Thermit welded rail joints on track or on cess for new welded joints to protect against severe corrosion for any rail section with one coat of high build epoxy paint (two pack) of reputed make confirming to RDSO Specification M&C/PCN-111/99 on welded area up to 10cm on either side including on the underside of rail foot by brush including surface preparation as per Railway's AT Weld Manual including lettering / weld numbering with approved enamel paint as directed Note: Before painting, dust, loose rust and mill scale and dirt shall be removed thoroughly by wire brushing. Scrubbing welded area with water to make it free from slag and other water soluble compounds to make it dry.					
	Details of cost for 200 welds					
	Material:					
	High build epoxy paint (two pack) as per RDSO's Specn. No. M&C/PCN/111/88	Litre	0301	478.00	8.00	3,824.00
	Enamel Paint as per RDSO's Spec. no.M&C/PCN/120-2011	Litre	0304	248.00	1.00	248.00
	Cotton Jute	Kg	0489	53.00	2.00	106.00
	Sand Paper medium-grit (100- to 150-grit), 9" x 11"	Nos.	0491	7.00	20.00	140.00
	Wire Brush - 25cm long	Each	0311	42.00	2.00	84.00
	Paint Brush 75 mm	Each	0323	108.00	2.00	216.00
	Labour:					
	Painter (Skilled)	Day	0012	749.00	1.00	749.00
	Labour Unskilled	Day	0020	540.00	2.00	1,080.00
	Misc.:					
	T&P	Lumpsum	9901	1.00	10.00	10.00
						6,457.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		64.57
						6,521.57
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		916.28
						7,437.85
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		1,115.68
						8,553.53
	Add for Cess @ 1%	Lumpsum	9905	0.01		85.54
	Cost for 200 welds					8,639.06
	Rate per weld	Each				43.20
137060	Anti-corrosive painting to weld collar for Thermit welded rail joints on track for old painted joints in severe corrosive prone area for any rail section with one coat of high build epoxy paint (two pack) of reputed make confirming to RDSO Specification M&C/PCN-111/99 on welded area up to 10cm on either side including on the underside of rail foot by brush including surface preparation as per Railway's AT Weld Manual including lettering / weld numbering with approved enamel paint as directed Note: 1.Before painting, dust, dirt and flaked paint from the welded joint shall be removed thoroughly by scrapping with wire brush. Grease and oil shall be removed by use of appropriate solvent confirming to latest IS:1745: 2.Use of detergent followed by water washing should also be done to ensure removal of oil and grease apart from the greasing compound. 3.The paint should be procured along with the thinner recommended by the manufacturer of the paint 4.No other thinner like kerosene oil should be used					
	Details of cost for 200 welds					
	Material:					
	Solvent confirming to IS Specification 1745-1976.	Litre	0300	165.00	2.00	330.00
	High build epoxy paint (two pack) as per RDSO's Specn. No. M&C/PCN/111/88	Litre	0301	478.00	8.00	3,824.00
	Enamel Paint as per RDSO's Spec. no.M&C/PCN/120-2011	Litre	0304	248.00	1.00	248.00
	Cotton Jute	Kg	0489	53.00	2.00	106.00
	Sand Paper medium-grit (100- to 150-grit), 9" x 11"	Nos.	0491	7.00	20.00	140.00
	Wire Brush - 25cm long	Each	0311	42.00	2.00	84.00

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Paint Brush 75 mm	Each	0323	108.00	2.00	216.00
	Labour:					
	Painter (Skilled)	Day	0012	749.00	1.00	749.00
	Labour Unskilled	Day	0020	540.00	2.00	1,080.00
	Misc.:					
	T&P	Lumpsum	9901	1.00	10.00	10.00
						6,787.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		67.87
						6,854.87
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		963.11
						7,817.98
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		1,172.70
						8,990.68
	Add for Cess @ 1%	Lumpsum	9905	0.01		89.91
	Cost for 200 welds					9,080.58
	Rate per weld	Each				45.40
137070	Marking, inscribing, painting, writing, bordering etc. on new / old iron surface at various locations of Points & Crossings with details of turn-in / turn-out reference station mark on rail web for one set, duly preparing surface with contractor's wire brush and applying two coats of yellow synthetic enamel paint of approved quality as background and stenciling the details to suitable size, as described for every curve reference station mark / switch / crossing details with black enamel paint of approved quality complete, as directed : Note: Stenciling of letters is only permitted. No hand written letters are accepted.					
137071	1 in 16 Turnout					
	Details of cost for 2 sets. (Yellow & Black paint)					
	Material:					
	Enamel Paint as per RDSO's Spec. no.M&C/PCN/120-2011	Litre	0304	248.00	4.00	992.00
	Cotton Jute	Kg	0489	53.00	0.50	26.50
	Soft Brush for painting - 25cm long	Each	0312	59.00	0.50	29.50
	Paint Brush (writing) of any size	Each	0313	120.00	0.50	60.00
	Wire Brush - 25cm long	Each	0311	42.00	2.00	84.00
	Labour:					
	Painter (Skilled)	Day	0012	749.00	1.00	749.00
	Helper (Semi-skilled)	Day	0021	572.00	1.00	572.00
	Labour Unskilled	Day	0020	540.00	1.00	540.00
	Misc.:					
	T & P	Lumpsum	9901	1.00	10.00	10.00
						3,063.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		30.63
						3,093.63
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		434.66
						3,528.29
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		529.24
						4,057.53
	Add for Cess @ 1%	Lumpsum	9905	0.01		40.58
	Cost for 2 sets.					4,098.10
	Rate per set	Set				2,049.05
137072	1 in 12 Turnout					
	Details of cost for 3 sets. (Yellow & Black paint)					
	Material:					
	Enamel Paint as per RDSO's Spec. no.M&C/PCN/120-2011	Litre	0304	248.00	4.00	992.00
	Cotton Jute	Kg	0489	53.00	0.50	26.50
	Paint Brush 25 mm	Each	0325	50.00	0.50	25.00
	Paint Brush (writing) of any size	Each	0313	120.00	0.50	60.00
	Wire Brush - 25cm long	Each	0311	42.00	2.00	84.00

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Labour:					
	Painter (Skilled)	Day	0012	749.00	1.00	749.00
	Helper (Semi-skilled)	Day	0021	572.00	1.00	572.00
	Labour Unskilled	Day	0020	540.00	1.00	540.00
	Misc.:					
	T & P	Lumpsum	9901	1.00	10.00	10.00
						3,058.50
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		30.59
						3,089.09
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		434.02
						3,523.10
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		528.47
						4,051.57
	Add for Cess @ 1%	Lumpsum	9905	0.01		40.52
	Cost for 3 sets.					4,092.08
	Rate per set	Set				1,364.03
137073	1 in 8½ Turnout					
	Details of cost for 5 sets. (Yellow & Black paint)					
	Material:					
	Enamel Paint as per RDSO's Spec. no.M&C/PCN/120-2011	Litre	0304	248.00	5.00	1,240.00
	Cotton Jute	Kg	0489	53.00	0.50	26.50
	Paint Brush 25 mm	Each	0325	50.00	0.50	25.00
	Paint Brush (writing) of any size	Each	0313	120.00	0.50	60.00
	Wire Brush - 25cm long	Each	0311	42.00	2.00	84.00
	Labour:					
	Painter (Skilled)	Day	0012	749.00	1.00	749.00
	Helper (Semi-skilled)	Day	0021	572.00	1.00	572.00
	Labour Unskilled	Day	0020	540.00	1.00	540.00
	Misc.:					
	T & P	Lumpsum	9901	1.00	10.00	10.00
						3,306.50
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		33.07
						3,339.57
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		469.21
						3,808.77
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		571.32
						4,380.09
	Add for Cess @ 1%	Lumpsum	9905	0.01		43.80
	Cost for 5 sets.					4,423.89
	Rate per set	Set				884.78
137074	Derailing Switch					
	Details of cost for 10 sets. (Yellow & Black paint)					
	Material:					
	Enamel Paint as per RDSO's Spec. no.M&C/PCN/120-2011	Litre	0304	248.00	5.00	1,240.00
	Cotton Jute	Kg	0489	53.00	0.50	26.50
	Paint Brush 25 mm	Each	0325	50.00	0.50	25.00
	Paint Brush (writing) of any size	Each	0313	120.00	0.50	60.00
	Wire Brush - 25cm long	Each	0311	42.00	2.00	84.00
	Labour:					
	Painter (Skilled)	Day	0012	749.00	1.00	749.00
	Helper (Semi-skilled)	Day	0021	572.00	1.00	572.00
	Labour Unskilled	Day	0020	540.00	1.00	540.00
	Misc.:					
	T & P	Lumpsum	9901	1.00	10.00	10.00
						3,306.50
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		33.07
						3,339.57

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		469.21
						3,808.77
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		571.32
						4,380.09
	Add for Cess @ 1%	Lumpsum	9905	0.01		43.80
	Cost for 10 sets.					4,423.89
	Rate per set	Set				442.39
137080	Painting 2 coats to various P.Way Reference Post, Structures etc. with enamel paint of approved make with 2 coats of different colours & letters, as directed by Engineer in-charge.					
137081	Kilometre & Gradient post					
	Details of cost for 15 posts (1.0 litre white & 0.25 litre black paint reqd.)					
	Material:					
	Enamel Paint as per RDSO's Spec. no.M&C/PCN/120-2011	Litre	0304	248.00	1.25	310.00
	Paint Brush 25 mm	Each	0325	50.00	0.50	25.00
	Paint Brush (writing) of any size	Each	0313	120.00	0.50	60.00
	Labour:					
	Painter (Skilled)	Day	0012	749.00	1.00	749.00
	Misc.:					
	T & P	Lumpsum	9901	1.00	10.00	10.00
						1,154.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		11.54
						1,165.54
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		163.76
						1,329.30
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		199.39
						1,528.69
	Add for Cess @ 1%	Lumpsum	9905	0.01		15.29
	Cost for 15 posts					1,543.98
	Rate per post	Each				102.93
137082	Hectometre Post					
	Details of cost for 15 posts (1.5 litre white & 0.50 litre black paint reqd.)					
	Material:					
	Enamel Paint as per RDSO's Spec. no.M&C/PCN/120-2011	Litre	0304	248.00	2.00	496.00
	Paint Brush 25 mm	Each	0325	50.00	0.50	25.00
	Paint Brush (writing) of any size	Each	0313	120.00	0.50	60.00
	Labour:					
	Painter (Skilled)	Day	0012	749.00	1.00	749.00
	Misc.:					
	T & P	Lumpsum	9901	1.00	10.00	10.00
						1,340.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		13.40
						1,353.40
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		190.15
						1,543.55
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		231.53
						1,775.09
	Add for Cess @ 1%	Lumpsum	9905	0.01		17.75
	Cost for 15 posts					1,792.84
	Rate per post	Each				119.52
137083	LWR / SEJ Board					
	Details of cost for 10 Boards (1.50 litre white & 0.5 litre black paint reqd.)					
	Material:					
	Enamel Paint as per RDSO's Spec. no.M&C/PCN/120-2011	Litre	0304	248.00	2.00	496.00
	Soft Brush for painting - 25cm long	Each	0312	59.00	1.00	59.00
	Paint Brush (writing) of any size	Each	0313	120.00	0.50	60.00
	Labour:					

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Painter (Skilled)	Day	0012	749.00	1.00	749.00
	Misc.:					
	T & P	Lumpsum	9901	1.00	10.00	10.00
						1,374.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		13.74
						1,387.74
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		194.98
						1,582.72
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		237.41
						1,820.13
	Add for Cess @ 1%	Lumpsum	9905	0.01		18.20
	Cost for 10 Boards					1,838.33
	Rate per board	Each				183.83
137084	Level Crossing Boards including Road Sign Boards					
	Details of cost for 10 boards (1.0 litre yellow, 1.00 litre white & .50 litre black paint)					
	Material:					
	Enamel Paint as per RDSO's Spec. no.M&C/PCN/120-2011	Litre	0304	248.00	2.50	620.00
	Luminous Paint as per RDSO's Spec. no. M&C/PCN/120-2011	Litre	0298	362.00	0.20	72.40
	Soft Brush for painting - 25cm long	Each	0312	59.00	1.00	59.00
	Paint Brush (writing) of any size	Each	0313	120.00	0.50	60.00
	Labour:					
	Painter (Skilled)	Day	0012	749.00	1.00	749.00
	Misc.:					
	T & P	Lumpsum	9901	1.00	10.00	10.00
						1,570.40
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		15.70
						1,586.10
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		222.85
						1,808.95
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		271.34
						2,080.29
	Add for Cess @ 1%	Lumpsum	9905	0.01		20.80
	Cost for 10 Boards					2,101.10
	Rate per board	Each				210.11
137085	Level Crossing Post					
	Details of cost for 8 Posts (1.0 litre white & 0.5 litre black paint reqd.)					
	Material:					
	Enamel Paint as per RDSO's Spec. no.M&C/PCN/120-2011	Litre	0304	248.00	1.50	372.00
	Soft Brush for painting - 25cm long	Each	0312	59.00	0.50	29.50
	Paint Brush (writing) of any size	Each	0313	120.00	0.50	60.00
	Labour:					
	Painter (Skilled)	Day	0012	749.00	1.00	749.00
	Misc.:					
	T & P	Lumpsum	9901	1.00	10.00	10.00
						1,220.50
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		12.21
						1,232.71
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		173.20
						1,405.90
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		210.89
						1,616.79
	Add for Cess @ 1%	Lumpsum	9905	0.01		16.17
	Cost for 8 Posts					1,632.95
	Rate per post	Each				204.12
137086	Curve Post					
	Details of cost for 15 posts (1.0 litre yellow & 0.50 litre black paint reqd.)					
	Enamel Paint as per RDSO's Spec. no.M&C/PCN/120-2011	Litre	0304	248.00	1.50	372.00

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Soft Brush for painting - 25cm long	Each	0312	59.00	0.50	29.50
	Paint Brush (writing) of any size	Each	0313	120.00	0.50	60.00
	Labour:					
	Painter (Skilled)	Day	0012	749.00	1.00	749.00
	Misc.:					
	T & P	Lumpsum	9901	1.00	10.00	10.00
						1,220.50
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		12.21
						1,232.71
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		173.20
						1,405.90
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		210.89
						1,616.79
	Add for Cess @ 1%	Lumpsum	9905	0.01		16.17
	Cost for 15 posts					1,632.95
	Rate per post	Each				108.86
137087	Level Crossing Boom including fringe					
	Details of cost for 10 Metre Boom (1.0 litre yellow & 1.0 litre black paint reqd.)					
	Material:					
	Enamel Paint as per RDSO's Spec. no.M&C/PCN/120-2011	Litre	0304	248.00	2.00	496.00
	Soft Brush for painting - 25cm long	Each	0312	59.00	1.00	59.00
	Labour:					
	Painter (Skilled)	Day	0012	749.00	1.00	749.00
	Misc.:					
	T & P	Lumpsum	9901	1.00	10.00	10.00
						1,314.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		13.14
						1,327.14
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		186.46
						1,513.60
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		227.04
						1,740.64
	Add for Cess @ 1%	Lumpsum	9905	0.01		17.41
	Cost for 10 Metre					1,758.05
	Rate per metre	Metre				175.81
137088	Level Crossing Boom without fringe					
	Details of cost for 10 Metre Boom (.50 litre yellow & .50 litre black paint reqd.)					
	Material:					
	Enamel Paint as per RDSO's Spec. no.M&C/PCN/120-2011	Litre	0304	248.00	1.00	248.00
	Soft Brush for painting - 25cm long	Each	0312	59.00	1.00	59.00
	Labour:					
	Painter (Skilled)	Day	0012	749.00	1.00	749.00
	Misc.:					
	T & P	Lumpsum	9901	1.00	10.00	10.00
						1,066.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		10.66
						1,076.66
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		151.27
						1,227.93
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		184.19
						1,412.12
	Add for Cess @ 1%	Lumpsum	9905	0.01		14.12
	Cost for 10 Metre					1,426.24
	Rate per metre	Metre				142.62
137089	Curve Board					

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Details of cost for 10 Boards (1.50 litre white & 0.5 litre black paint reqd.)					

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Material:					
	Enamel Paint as per RDSO's Spec. no.M&C/PCN/120-2011	Litre	0304	248.00	2.00	496.00
	Soft Brush for painting - 25cm long	Each	0312	59.00	1.00	59.00
	Paint Brush (writing) of any size	Each	0313	120.00	0.50	60.00
	Labour:					
	Painter (Skilled)	Day	0012	749.00	1.00	749.00
	Misc.:					
	T & P	Lumpsum	9901	1.00	10.00	10.00
						1,374.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		13.74
						1,387.74
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		194.98
						1,582.72
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		237.41
						1,820.13
	Add for Cess @ 1%	Lumpsum	9905	0.01		18.20
	Cost for 10 Boards					1,838.33
	Rate per board	Each				183.83
137090	Curve details, SE, Versine, Station Nos. etc. per station.					
	Details of cost for 75 Stn.(2.0 litre yellow & 1.0 litre black paint reqd.)					
	Material:					
	Enamel Paint as per RDSO's Spec. no.M&C/PCN/120-2011	Litre	0304	248.00	3.00	744.00
	Cotton Jute	Kg	0489	53.00	0.50	26.50
	Wire Brush - 25cm long	Each	0311	42.00	2.00	84.00
	Soft Brush for painting - 25cm long	Each	0312	59.00	0.50	29.50
	Paint Brush (writing) of any size	Each	0313	120.00	0.25	30.00
	Labour:					
	Painter (Skilled)	Day	0012	749.00	1.00	749.00
	Helper (Semi-skilled)	Day	0021	572.00	1.00	572.00
	Look Out Man (Un-skilled)	Day	0033	547.00	1.00	547.00
	Labour Unskilled	Day	0020	540.00	1.00	540.00
	T & P	Lumpsum	9901	1.00	10.00	10.00
						3,332.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		33.32
						3,365.32
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		472.83
						3,838.15
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		575.72
						4,413.87
	Add for Cess @ 1%	Lumpsum	9905	0.01		44.14
	Cost for 75 Stn.					4,458.01
	Rate per station	Each				59.44
137100	Painting 2 coats to Bridge Reference / Boards, Structures etc. along track with enamel paint of approved make with different colours & letters, as directed by Engineer in-charge.					
137101	Bridge Board					
	Details of cost for 10 bridge boards (1.5 litre White & 0.50 litre black paint reqd.)					
	Material:					
	Enamel Paint as per RDSO's Spec. no.M&C/PCN/120-2011	Litre	0304	248.00	2.00	496.00
	Soft Brush for painting - 25cm long	Each	0312	59.00	1.00	59.00
	Paint Brush (writing) of any size	Each	0313	120.00	0.50	60.00
	Labour:					
	Painter (Skilled)	Day	0012	749.00	1.00	749.00
	Misc.:					
	T & P	Lumpsum	9901	1.00	10.00	10.00
						1,374.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		13.74

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
						1,387.74
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		194.98
						1,582.72
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		237.41
						1,820.13
	Add for Cess @ 1%	Lumpsum	9905	0.01		18.20
	Cost for 10 Boards					1,838.33
	Rate per board	Each				183.83
137102	Bridge Tablet					
	Details of cost for 30 bridge tablet (1.0 litre white & .25 litre black paint reqd.)					
	Material:					
	Enamel Paint as per RDSO's Spec. no.M&C/PCN/120-2011	Litre	0304	248.00	1.25	310.00
	Soft Brush for painting - 25cm long	Each	0312	59.00	0.50	29.50
	Paint Brush (writing) of any size	Each	0313	120.00	0.50	60.00
	Labour:					
	Painter (Skilled)	Day	0012	749.00	1.00	749.00
	T & P	Lumpsum	9901	1.00	10.00	10.00
						1,158.50
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		11.59
						1,170.09
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		164.40
						1,334.48
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		200.17
						1,534.65
	Add for Cess @ 1%	Lumpsum	9905	0.01		15.35
	Cost for 30 bridge tablet					1,550.00
	Rate per bridge tablet	Each				51.67
137103	Bridge Height Gauge					
	Details of cost for 1 bridge (2.00 litre white & 2.00 litre black paint reqd.)					
	Material:					
	Enamel Paint as per RDSO's Spec. no.M&C/PCN/120-2011	Litre	0304	248.00	4.00	992.00
	Soft Brush for painting - 25cm long	Each	0312	59.00	1.00	59.00
	Paint Brush (writing) of any size	Each	0313	120.00	0.25	30.00
	Labour:					
	Painter (Skilled)	Day	0012	749.00	1.00	749.00
	Labour Unskilled	Day	0020	540.00	1.00	540.00
	T & P	Lumpsum	9901	1.00	10.00	10.00
						2,380.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		23.80
						2,403.80
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		337.73
						2,741.53
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		411.23
						3,152.76
	Add for Cess @ 1%	Lumpsum	9905	0.01		31.53
	Cost for 1 bridge					3,184.29
	Rate per bridge	Each				3,184.29
137104	HFL, FSL & DL on Bridge Pier / Abutment					
	Details of cost for 3 bridge (0.50 litre white , 0.10 red & 0.50 black paint reqd.)					
	Material:					
	Enamel Paint as per RDSO's Spec. no.M&C/PCN/120-2011	Litre	0304	248.00	1.10	272.80
	Paint Brush (writing) of any size	Each	0313	120.00	1.00	120.00
	Labour:					
	Painter (Skilled)	Day	0012	749.00	1.00	749.00
	Labour Unskilled	Day	0020	540.00	1.00	540.00
	T & P	Lumpsum	9901	1.00	10.00	10.00
						1,691.80

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		16.92
						1,708.72
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		240.07
						1,948.79
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		292.32
						2,241.11
	Add for Cess @ 1%	Lumpsum	9905	0.01		22.41
	Cost for 3 bridge					2,263.52
	Rate per bridge	Each				754.51
137105	Miscellaneous General Boards, Jurisdiction Boards, Structures etc.					
	Details of cost for 9 Sqm i.e. Considering 6 Boards of size 1.5m x 1.0m each (required 1.50 litre white / yellow & 0.50 litre black paint)					
	Material:					
	Enamel Paint as per RDSO's Spec. no.M&C/PCN/120-2011	Litre	0304	248.00	2.00	496.00
	Soft Brush for painting - 25cm long	Each	0312	59.00	1.00	59.00
	Paint Brush (writing) of any size	Each	0313	120.00	0.50	60.00
	Labour:					
	Painter (Skilled)	Day	0012	749.00	0.25	187.25
	Helper (Semi-skilled)	Day	0021	572.00	0.25	143.00
	T & P	Lumpsum	9901	1.00	10.00	10.00
						955.25
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		9.55
						964.80
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		135.55
						1,100.36
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		165.05
						1,265.41
	Add for Cess @ 1%	Lumpsum	9905	0.01		12.65
	Cost for 9 Sqm					1,278.06
	Rate per Sqm	Sqm				142.01
137110	Attending the CC apron repairs under the sleeper where there is separation of PSC Sleeper along whole periphery and puncturing of apron under the sleepers, chiselling as required including removal of foreign materials from the sleeper trench and dewatering duly filling cement concrete with CONBEXTRA-GP2 or similar, the narrow gaps completely including pouring, finishing, curing to match with the existing C.C.apron surface and slopes complete, labour charges in traffic block and as per the direction of Engineer In charge.					
	Details of cost for 4 Sleepers					
	Material:					
	Fosroc conbextra-GP2 grout or similar make in 25 Kg bag	Each	0470	642.00	8.00	5,136.00
	Labour:					
	Mason 1st class (Skilled)	Day	0004	718.00	0.50	359.00
	Labour Unskilled	Day	0020	540.00	2.00	1,080.00
	Misc.:					
	T&P	Lumpsum	9901	1.00	20.00	20.00
						6,595.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		65.95
						6,660.95
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		935.86
						7,596.81
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		1,139.52
						8,736.34
	Add for Cess @ 1%	Lumpsum	9905	0.01		87.36
	Cost for 4 Sleepers					8,823.70
	Rate per sleeper	Each				2,205.92

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CHAPTER - 14 : Testing of Rails and other Components

Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
141000	USFD Testing of Rails					
141010	Ultrasonic testing of single rails, required for fabrication of points and crossings by using double crystal normal probe 4.0 MHz frequency with water / oil couplant. The rails shall be tested by probing from the rail head top, rail head side and web with typical oscillogram pattern for various probe positions as per 'Indian Railways Standard Specification for Ultrasonic Testing of Rails and Welds', as applicable to rails for fabrication of points & crossings. The rates are inclusive of contractor's men, materials & machines complete and as directed.					
	Detail of cost for 12 Nos. of 13 metres i.e. 156m					
	Material:					
	Kerosene Oil	Litre	0183	63.00	2.00	126.00
	Sand Paper medium-grit (100- to 150-grit), 9" x 11"	Nos.	0491	7.00	16.00	112.00
	Wire Brush - 25cm long	Each	0311	42.00	2.00	84.00
	Black Oil (used lubricating oil)	Litre	0471	44.00	5.00	220.00
	Cotton Jute	Kg	0489	53.00	2.00	106.00
	Enamel Paint as per RDSO's Spec. no.M&C/PCN/120-2011	Litre	0304	248.00	0.25	62.00
	Labour:					
	USFD Operator (With approved Certificate)	Day	0043	1392.00	1.00	1,392.00
	Helper (Semi-skilled)	Day	0021	572.00	1.00	572.00
	Labour Unskilled	Day	0020	540.00	2.00	1,080.00
	Misc.:					
	T & P (Training charges at LKO)	Lumpsum	9901	1.00	100.00	100.00
	Hire charges of USFD testing machine	Day	0126	1192.00	1.00	1,192.00
						5,046.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		50.46
						5,096.46
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		716.05
						5,812.51
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		871.88
						6,684.39
	Add for Cess @ 1%	Lumpsum	9905	0.01		66.84
	Cost for 156 running metres					6,751.23
	Rate per running metre	RM				43.28
141020	Carrying out Through USFD testing of running rails & welds (excluding flange testing) including level crossings, lead portion of points and crossings and scabbed rail testing of all types of rails by NBC (Need Based Concept) method under traffic conditions as per provisions of IR's "USFD Manual & Specifications for Ultrasonic Testing of Rails and Welds" with latest correction slips & related instructions, duly marking defects, submission of daily reports and storing back-up data, as specified & directed. Note: The SRT/DRT machine should have minimum of 9 probes (including 37° forward /backward probe for detecting bolt hole cracks.					
141021	With Contractor's USFD machine					
	Detail of cost for 3 TKM					
	Material:					
	Enamel Paint as per RDSO's Spec. no.M&C/PCN/120-2011	Litre	0304	248.00	0.15	37.20
	Paint Brush 25 mm	Each	0325	50.00	0.25	12.50
	Cotton Jute	Kg	0489	53.00	0.20	10.60
	Labour:					
	USFD Operator (With approved Certificate)	Day	0043	1392.00	2.00	2,784.00
	Helper (Semi-skilled)	Day	0021	572.00	2.00	1,144.00
	Look Out Man (Un-skilled)	Day	0033	547.00	1.00	547.00
	Labour Unskilled	Day	0020	540.00	4.00	2,160.00
	Allowances for carriage of equipment and Travel/Stay for the team @ 50% labour cost					3,317.50

Note: The figures given in Amount/Rate Column (Which are strikethrough) are not to be taken for estimation or justifying rate. This amount/rate has been given for illustration purpose only.

Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Misc.:					
	T & P (Training charges at LKO and Transportation of machinery)	Lumpsum	9901	1.00	400.00	400.00
	Hire charges of USFD testing machine(B-Scan)	Day	0125	2433.00	1.00	2,433.00
						12,845.80
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		128.46
						12,974.26
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		1,822.88
						14,797.14
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		2,219.57
						17,016.71
	Add for Cess @ 1%	Lumpsum	9905	0.01		170.17
	Cost for 3 TKM					17,186.88
	Rate per TRM	TRM				5.73
141022	With Railway's USFD machine including related T&P and probes					
	Detail of cost for 3 TKM					
	Material:					
	Enamel Paint as per RDSO's Spec. no.M&C/PCN/120-2011	Litre	0304	248.00	0.15	37.20
	Paint Brush 25 mm	Each	0325	50.00	0.25	12.50
	Cotton Jute	Kg	0489	53.00	0.20	10.60
	Labour:					
	USFD Operator (With approved Certificate)	Day	0043	1392.00	2.00	2,784.00
	Helper (Semi-skilled)	Day	0021	572.00	2.00	1,144.00
	Look Out Man (Un-skilled)	Day	0033	547.00	1.00	547.00
	Labour Unskilled	Day	0020	540.00	4.00	2,160.00
	Allowances for carriage of equipment and Travel/Stay for the team @ 50% labour cost					3,317.50
	Misc.:					
	T & P (Training charges at LKO and Transportation of machinery)	Lumpsum	9901	1.00	400.00	400.00
						10,412.80
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		104.13
						10,516.93
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		1,477.63
						11,994.56
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		1,799.18
						13,793.74
	Add for Cess @ 1%	Lumpsum	9905	0.01		137.94
	Cost for 3 TKM					13,931.68
	Rate per TRM	TRM				4.64
142000	USFD Testing of A.T. Welds					
142010	Carrying out USFD testing of Alumino Thermic (AT) welds on all types of rails, using 0° (2 MHz) double crystal; 70° (2 MHz) 20mm x 20mm single crystal probe for head & flange testing; 2 nos. 45° (2 MHz) single crystal with tandom rig for testing from rail top to bottom & for half moon testing and 70° (2 MHz) 20mm x 20mm side looking probe by NBC (Need Based Concept) method under traffic conditions as per provisions of IR's "Manual & Specifications for Ultrasonic Testing of Rails and Welds" & related instructions duly marking the defects, submission of daily reports and storing back-up data as specified & directed. The rates are inclusive of contractor's men, materials & machines complete unless otherwise specified and directed.					
142011	Track having up to 3 rail panels - With Contractor's USFD machine :					
	Details of cost for 55 welds					
	Material:					
	Enamel Paint as per RDSO's Spec. no.M&C/PCN/120-2011	Litre	0304	248.00	0.20	49.60
	Sand Paper medium-grit (100- to 150-grit), 9" x 11"	Nos.	0491	7.00	8.00	56.00
	Paint Brush 25 mm	Each	0325	50.00	0.25	12.50
	Wire Brush - 25cm long	Each	0311	42.00	1.00	42.00
	Cotton Jute	Kg	0489	53.00	1.00	53.00

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Labour:					
	USFD Operator (With approved Certificate)	Day	0043	1392.00	2.00	2,784.00
	Helper (Semi-skilled)	Day	0021	572.00	2.00	1,144.00
	Look Out Man (Un-skilled)	Day	0033	547.00	1.00	547.00
	Labour Unskilled	Day	0020	540.00	3.00	1,620.00
	Misc.:					
	T & P (Training charges at LKO and Transportation of machinery)	Lumpsum	9901	1.00	200.00	200.00
	Hire charges of USFD testing machine	Day	0126	1192.00	1.00	1,192.00
						7,700.10
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		77.00
						7,777.10
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		1,092.68
						8,869.78
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		1,330.47
						10,200.25
	Add for Cess @ 1%	Lumpsum	9905	0.01		102.00
	Cost for 55 welds					10,302.25
	Rate per weld	Each				187.31
142012	Track having more than 3 Rail panels - With Contractor's USFD machine.					
	Details of cost for 60 welds					
	Material:					
	Enamel Paint as per RDSO's Spec. no.M&C/PCN/120-2011	Litre	0304	248.00	0.20	49.60
	Sand Paper medium-grit (100- to 150-grit), 9" x 11"	Nos.	0491	7.00	8.00	56.00
	Paint Brush 25 mm	Each	0325	50.00	0.25	12.50
	Wire Brush - 25cm long	Each	0311	42.00	1.00	42.00
	Cotton Jute	Kg	0489	53.00	1.00	53.00
	Labour:					
	USFD Operator (With approved Certificate)	Day	0043	1392.00	2.00	2,784.00
	Helper (Semi-skilled)	Day	0021	572.00	2.00	1,144.00
	Look Out Man (Un-skilled)	Day	0033	547.00	1.00	547.00
	Labour Unskilled	Day	0020	540.00	3.00	1,620.00
	Misc.:					
	T & P (Training charges at LKO and Transportation of machinery)	Lumpsum	9901	1.00	200.00	200.00
	Hire charges of USFD testing machine	Day	0126	1192.00	1.00	1,192.00
						7,700.10
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		77.00
						7,777.10
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		1,092.68
						8,869.78
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		1,330.47
						10,200.25
	Add for Cess @ 1%	Lumpsum	9905	0.01		102.00
	Cost for 60 welds					10,302.25
	Rate per weld	Each				171.70
142013	Track having up to 3 rail panels - With Railways' USFD machine including related T&P and probes :					
	Details of cost for 55 welds					
	Material:					
	Enamel Paint as per RDSO's Spec. no.M&C/PCN/120-2011	Litre	0304	248.00	0.20	49.60
	Sand Paper medium-grit (100- to 150-grit), 9" x 11"	Nos.	0491	7.00	8.00	56.00
	Paint Brush 25 mm	Each	0325	50.00	0.25	12.50
	Wire Brush - 25cm long	Each	0311	42.00	1.00	42.00
	Cotton Jute	Kg	0489	53.00	1.00	53.00
	Labour:					
	USFD Operator (With approved Certificate)	Day	0043	1392.00	2.00	2,784.00
	Helper (Semi-skilled)	Day	0021	572.00	2.00	1,144.00
	Look Out Man (Un-skilled)	Day	0033	547.00	1.00	547.00
	Labour Unskilled	Day	0020	540.00	3.00	1,620.00

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Misc.:					
	T & P (Training charges at LKO and Transportation of machinery)	Lumpsum	9901	1.00	200.00	200.00
						6,508.10
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		65.08
						6,573.18
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		923.53
						7,496.71
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		1,124.51
						8,621.22
	Add for Cess @ 1%	Lumpsum	9905	0.01		86.21
	Cost for 55 welds					8,707.43
	Rate per weld	Each				158.32
142014	Track having more than 3 rail panels - With Railways' USFD machine including related T&P and probes :					
	Details of cost for 60 welds					
	Material:					
	Enamel Paint as per RDSO's Spec. no.M&C/PCN/120-2011	Litre	0304	248.00	0.20	49.60
	Sand Paper medium-grit (100- to 150-grit), 9" x 11"	Nos.	0491	7.00	8.00	56.00
	Paint Brush 25 mm	Each	0325	50.00	0.25	12.50
	Wire Brush - 25cm long	Each	0311	42.00	1.00	42.00
	Cotton Jute	Kg	0489	53.00	1.00	53.00
	Labour:					
	USFD Operator (With approved Certificate)	Day	0043	1392.00	2.00	2,784.00
	Helper (Semi-skilled)	Day	0021	572.00	2.00	1,144.00
	Look Out Man (Un-skilled)	Day	0033	547.00	1.00	547.00
	Labour Unskilled	Day	0020	540.00	3.00	1,620.00
	Misc.:					
	T & P (Training charges at LKO and Transportation of machinery)	Lumpsum	9901	1.00	100.00	100.00
						6,408.10
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		64.08
						6,472.18
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		909.34
						7,381.52
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		1,107.23
						8,488.75
	Add for Cess @ 1%	Lumpsum	9905	0.01		84.89
	Cost for 60 welds					8,573.64
	Rate per weld	Each				142.89
143000	USFD Testing of Flash Butt Weld					
143010	Carrying out USFD testing of Flash Butt (FB) & Gas Pressure (GP) welds on all types of rails using 2 single crystal 45° (2 MHz) for head testing and one single crystal 70° (2 MHz) probe for web & flange testing by NBC (Need Based Concept) method under traffic conditions as per provisions of IR's "Manual & Specifications for Ultrasonic Testing of Rails and Welds" & related instructions, duly marking the defects, submission of daily reports and storing back-up data as specified & directed. The rates are inclusive of contractor's men, materials & machines complete unless otherwise specified and directed.					
143011	Track having up to 3 rail panels - With Contractor's USFD machine :					
	Details of cost for 55 welds					
	Material:					
	Sand Paper medium-grit (100- to 150-grit), 9" x 11"	Nos.	0491	7.00	8.00	56.00
	Cotton Jute	Kg	0489	53.00	1.00	53.00
	Enamel Paint as per RDSO's Spec. no.M&C/PCN/120-2011	Litre	0304	248.00	0.20	49.60
	Wire Brush - 25cm long	Each	0311	42.00	1.00	42.00
	Paint Brush 25 mm	Each	0325	50.00	0.25	12.50
	Labour:					
	USFD Operator (With approved Certificate)	Day	0043	1392.00	2.00	2,784.00

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Helper (Semi-skilled)	Day	0021	572.00	2.00	1,144.00
	Look Out Man (Un-skilled)	Day	0033	547.00	1.00	547.00
	Labour Unskilled	Day	0020	540.00	4.00	2,160.00
	Misc.:					
	Training charges at LKO and Transportation of machinery	Lumpsum	9901	1.00	200.00	200.00
	Hire charges of USFD testing machine	Day	0126	1192.00	1.00	1,192.00
						8,240.10
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		82.40
						8,322.50
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		1,169.31
						9,491.81
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		1,423.77
						10,915.58
	Add for Cess @ 1%	Lumpsum	9905	0.01		109.16
	Cost for 55 welds					11,024.74
	Rate per weld	Each				200.45
143012	Track having more than 3 rail panels - With Contractor's USFD machine :					
	Details of cost for 60 welds					
	Material:					
	Sand Paper medium-grit (100- to 150-grit), 9" x 11"	Nos.	0491	7.00	8.00	56.00
	Cotton Jute	Kg	0489	53.00	1.00	53.00
	Enamel Paint as per RDSO's Spec. no.M&C/PCN/120-2011	Litre	0304	248.00	0.20	49.60
	Wire Brush - 25cm long	Each	0311	42.00	1.00	42.00
	Paint Brush 25 mm	Each	0325	50.00	0.25	12.50
	Labour:					
	USFD Operator (With approved Certificate)	Day	0043	1392.00	2.00	2,784.00
	Helper (Semi-skilled)	Day	0021	572.00	2.00	1,144.00
	Look Out Man (Un-skilled)	Day	0033	547.00	1.00	547.00
	Labour Unskilled	Day	0020	540.00	4.00	2,160.00
	Misc.:					
	Training charges at LKO and Transportation of machinery	Lumpsum	9901	1.00	200.00	200.00
	Hire charges of USFD testing machine	Day	0126	1192.00	1.00	1,192.00
						8,240.10
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		82.40
						8,322.50
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		1,169.31
						9,491.81
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		1,423.77
						10,915.58
	Add for Cess @ 1%	Lumpsum	9905	0.01		109.16
	Cost for 60 welds					11,024.74
	Rate per weld	Each				183.75
143013	Track having up to 3 rail panels -With Railway's USFD machine including related T&P and probes :					
	Details of cost for 55 welds					
	Material:					
	Sand Paper medium-grit (100- to 150-grit), 9" x 11"	Nos.	0491	7.00	8.00	56.00
	Cotton Jute	Kg	0489	53.00	1.00	53.00
	Enamel Paint as per RDSO's Spec. no.M&C/PCN/120-2011	Litre	0304	248.00	0.20	49.60
	Wire Brush - 25cm long	Each	0311	42.00	1.00	42.00
	Paint Brush 25 mm	Each	0325	50.00	0.25	12.50
	Labour:					
	USFD Operator (With approved Certificate)	Day	0043	1392.00	2.00	2,784.00
	Helper (Semi-skilled)	Day	0021	572.00	2.00	1,144.00
	Look Out Man (Un-skilled)	Day	0033	547.00	1.00	547.00
	Labour Unskilled	Day	0020	540.00	4.00	2,160.00

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Misc.:					
	Training charges at LKO and Transportation of machinery	Lumpsum	9901	1.00	200.00	200.00
						7,048.10
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		70.48
						7,118.58
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		1,000.16
						8,118.74
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		1,217.81
						9,336.55
	Add for Cess @ 1%	Lumpsum	9905	0.01		93.37
	Cost for 55 welds					9,429.92
	Rate per weld	Each				171.45
143014	Track having more than 3 rail panels - With Railway's USFD machine including related T&P and probes :					
	Details of cost for 60 welds					
	Material:					
	Sand Paper medium-grit (100- to 150-grit), 9" x 11"	Nos.	0491	7.00	8.00	56.00
	Cotton Jute	Kg	0489	53.00	1.00	53.00
	Enamel Paint as per RDSO's Spec. no.M&C/PCN/120-2011	Litre	0304	248.00	0.20	49.60
	Wire Brush - 25cm long	Each	0311	42.00	1.00	42.00
	Paint Brush 25 mm	Each	0325	50.00	0.25	12.50
	Labour:					
	USFD Operator (With approved Certificate)	Day	0043	1392.00	2.00	2,784.00
	Helper (Semi-skilled)	Day	0021	572.00	2.00	1,144.00
	Look Out Man (Un-skilled)	Day	0033	547.00	1.00	547.00
	Labour Unskilled	Day	0020	540.00	4.00	2,160.00
	Misc.:					
	Training charges at LKO and Transportation of machinery	Lumpsum	9901	1.00	200.00	200.00
						7,048.10
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		70.48
						7,118.58
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		1,000.16
						8,118.74
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		1,217.81
						9,336.55
	Add for Cess @ 1%	Lumpsum	9905	0.01		93.37
	Cost for 60 welds					9,429.92
	Cost for 1 weld	Each				157.17
144000	USFD Testing of SEJ					
144010	USFD testing of Switch Expansion Joint (SEJ) by NBC (Need Based Concept) method under traffic conditions as per provisions of "IR's Manual & Specifications for Ultrasonic Testing of Rails and Welds" with latest amendments & related instructions, duly marking the defects, submission of daily reports and storing back-up data, as specified in the special conditions, as applicable to rail testing. The rates are inclusive of contractor's men, materials & machines complete unless otherwise specified and directed. Note: One set consists of both SEJ on left and right rail.					
144011	With Contractor's USFD machine					
	Details of cost for 8 set SEJ'S					
	Material:					
	Kerosene Oil	Litre	0183	63.00	4.00	252.00
	Enamel Paint as per RDSO's Spec. no.M&C/PCN/120-2011	Litre	0304	248.00	0.15	37.20
	Wire Brush - 25cm long	Each	0311	42.00	1.00	42.00
	Cotton Jute	Kg	0489	53.00	2.00	106.00
	Paint Brush 25 mm	Each	0325	50.00	0.25	12.50
	Labour:					
	USFD Operator (With approved Certificate)	Day	0043	1392.00	2.00	2,784.00
	Helper (Semi-skilled)	Day	0021	572.00	2.00	1,144.00

Note: The figures given in Amount/Rate Column (Which are strikethrough) are not to be taken for estimation or justifying rate. This amount/rate has been given for illustration purpose only.

Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Look Out Man (Un-skilled)	Day	0033	547.00	1.00	547.00
	Labour Unskilled	Day	0020	540.00	4.00	2,160.00
	Misc.:					
	T & P (Training charges at LKO and Transportation of machinery)	Lumpsum	9901	1.00	200.00	200.00
	Hire charges of USFD testing machine	Day	0126	1192.00	1.00	1,192.00
						8,476.70
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		84.77
						8,561.47
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		1,202.89
						9,764.35
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		1,464.65
						11,229.01
	Add for Cess @ 1%	Lumpsum	9905	0.01		112.29
	Cost for 8 set SEJ'S					11,341.30
	Rate per set	Set				1,417.66
144012	With Railway's USFD machine including related T&P and probes					
	Details of cost for 8 set SEJ'S					
	Material:					
	Kerosene Oil	Litre	0183	63.00	4.00	252.00
	Enamel Paint as per RDSO's Spec. no.M&C/PCN/120-2011	Litre	0304	248.00	0.15	37.20
	Wire Brush - 25cm long	Each	0311	42.00	1.00	42.00
	Cotton Jute	Kg	0489	53.00	2.00	106.00
	Paint Brush 25 mm	Each	0325	50.00	0.25	12.50
	Labour:					
	USFD Operator (With approved Certificate)	Day	0043	1392.00	2.00	2,784.00
	Helper (Semi-skilled)	Day	0021	572.00	2.00	1,144.00
	Look Out Man (Un-skilled)	Day	0033	547.00	1.00	547.00
	Labour Unskilled	Day	0020	540.00	4.00	2,160.00
	Misc.:					
	T & P (Training charges at LKO and Transportation of machinery)	Lumpsum	9901	1.00	200.00	200.00
						7,284.70
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		72.85
						7,357.55
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		1,033.74
						8,391.28
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		1,258.69
						9,649.97
	Add for Cess @ 1%	Lumpsum	9905	0.01		96.50
	Cost for 8 set SEJ'S					9,746.47
	Rate per set	Set				1,218.31
144020	Providing an assisting gang comprising of 4 men per day with SSE/P.Way/ USFD for carrying out ancillary works viz., lookout, watering, paint marking and handling machine for USFD test with Single Rail Tester (SRT) machine and as directed by Engineer in charge. Note: 1. This item shall be operated only when there is no departmental staff available and only with the prior approval of concerned Sr. DEN/Co-ordination. 2. In case, contractor provides less no. of Labour, payment will be deducted for each such person @ 50% of the accepted item rate.					
	Details of Cost per one day per SRT					
	Labour:					
	Labour Unskilled	Day	0020	540.00	4.00	2,160.00
	Misc.:					
	T & P	Lumpsum	9901	1.00	10.00	10.00
						2,170.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		21.70
						2,191.70

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		307.93
						2,499.63
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		374.95
						2,874.58
	Add for Cess @ 1%	Lumpsum	9905	0.01		28.75
	Cost for one machine per day					2,903.32
	Rate per Gang per Day	Gang Day				2,903.32
144030	Providing an assisting gang comprising of 6 men per day with SSE/P.Way/ USFD for carrying out ancillary works viz., lookout, watering, paint marking and handling machine for USFD test with Double Rail Tester (DRT) machine and as directed by Engineer in charge. Note: 1. This item shall be operated only when there is no departmental staff available and only with the prior approval of concerned Sr. DEN/Co-ordination. 2. In case, contractor provides less no. of Labour, payment will be deducted for each such person @ 1/3 rd of the accepted item rate.					
	Details of Cost per one day per DRT					
	Labour:					
	Labour Unskilled	Day	0020	540.00	6.00	3,240.00
	Misc.:					
	T & P	Lumpsum	9901	1.00	10.00	10.00
						3,250.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		32.50
						3,282.50
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		461.19
						3,743.69
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		561.55
						4,305.24
	Add for Cess @ 1%	Lumpsum	9905	0.01		43.05
	Cost for one DRT per day					4,348.30
	Rate per Gang per day	Gang Day				4,348.30

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CHAPTER - 15 : Heavy Track Machines

Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
151000	PQRS Related Works					
151010	Unloading of mono-block PSC sleepers in PQRS Depot using Railway's Portal crane from wagons and stacking them at the end of Assembling Line with all leads & lift. Note: 1.Unloading to be done within the stipulated time as and when loaded BFRs are received, so as to hand over empty BFRs without demurrage; 2.If unloading is not done within the stipulated time, the demurrage raised by the Railways shall be borne by the Contractor. 3.Contractor has to arrange necessary tools etc., complete for unloading from BFR's and stacking.					
	Details of cost for unloading 1660 sleepers with 2 portal cranes					
	Labour:					
	Helper (Semi-skilled)	Day	0021	572.00	1.00	572.00
	Labour Unskilled	Day	0020	540.00	14.00	7,560.00
	Misc.:					
	T & P (Beater, Rail Tongue, Hammer, Crow bars, Tommy bar etc.)	Lumpsum	9901	1.00	20.00	20.00
						8,152.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		81.52
						8,233.52
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		1,156.81
						9,390.33
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		1,408.55
						10,798.88
	Add for Cess @ 1%	Lumpsum	9905	0.01		107.99
	Cost for 1660 sleepers					10,906.87
	Rate per sleeper	Each				6.57
151020	Assembling of 13m / 12.6m long track panels in PQRS Depot by spreading PSC sleepers already unloaded and stacked, to correct spacing as per specified sleeper density per km, using Railway's portal crane, placing service rails on them and fixing rails to sleepers with standard fastening properly to get correct gauge with all contractor's labour, tools, plants etc.					
	Details of cost for 520 TRM by 2 portal cranes . On each portal crane, one helper (semi skilled) for operation of crane, 1 persons for assistance during work, 8 persons for spreading PSC sleepers, 4 placing rails and fixing fastenings work.					
	Labour:					
	Mate (Skilled)	Day	0002	751.00	1.00	751.00
	Helper (Semi-skilled)	Day	0021	572.00	2.00	1,144.00
	Labour Unskilled	Day	0020	540.00	26.00	14,040.00
	Misc.:					
	T & P (Beater, Rail tongue, Hammer, Crow bars, Tommy bar etc.)	Lumpsum	9901	1.00	35.00	35.00
						15,970.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		159.70
						16,129.70
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		2,266.22
						18,395.92
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		2,759.39
						21,155.31
	Add for Cess @ 1%	Lumpsum	9905	0.01		211.55
	Cost for 520 TRM					21,366.86
	Rate per TRM	TRM				41.09

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
151030	Loading pre-assembled panels with PSC sleepers in layers on BFR with Railway's Portal Crane in PQRS Depot, complete in such a manner that it may be dispatched in train formation to mid section, as directed by engineer in-charge.					
	Details of cost for 520 TRM by 2 portal cranes [On each portal crane one helper (semi skilled) for operation of crane, 1 person for assistance during work]					
	Labour:					
	Helper (Semi-skilled)	Day	0021	572.00	2.00	1,144.00
	Labour Unskilled	Day	0020	540.00	2.00	1,080.00
	Misc.:					
	T & P (Rail Tongue, Hammer, Crow bars, Tommy bar etc.)	Lumpsum	9901	1.00	10.00	10.00
						2,234.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		22.34
						2,256.34
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		317.02
						2,573.36
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		386.00
						2,959.36
	Add for Cess @ 1%	Lumpsum	9905	0.01		29.59
	Cost for 520 TRM					2,988.95
	Rate per TRM	TRM				5.75
151040	PQRS: Pre Block activity: Removing of the existing ballast from crib portion of the full length of existing PSC sleeper and further up to the bottom of sleepers to accommodate new sleeper and dumping the ballast so removed on the shoulders/cess with contractor own labour, tools and plants etc, complete with all lead and lift and as directed by the Engineer-in-charge at site including crossing of track wherever necessary.					
	Details of cost for 260 TRM					
	Labour:					
	Labour Unskilled	Day	0020	540.00	12.00	6,480.00
	T & P (Rake ballast, Pans, Crow bars, Beater etc.)	Lumpsum	9901	1.00	100.00	100.00
						6,580.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		65.80
						6,645.80
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		933.73
						7,579.53
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		1,136.93
						8,716.47
	Add for Cess @ 1%	Lumpsum	9905	0.01		87.16
	Cost for 260 TRM					8,803.63
	Rate per TRM	TRM				33.86
151050	PQRS: During line block activity: Dismantling existing track, levelling disturbed and uneven surface of bed up to bottom of sleeper, Loading the released panels in to BFR with Railway's portal cranes, Placing new panels from BFRs on to track with Railway's portal crane, Linking of Track with all fittings, placing ballast as required in crib and shoulders, aligning and surfacing of track, attending track parameters and initial packing to track to allow traffic at restricted speed of 20 kmph with contractor's labour, tools etc, complete and lead & lift as directed by the Engineer-in-charge at site including crossing of track wherever necessary. Note: The PQRS cranes with fuel and operators will be provided by Railway.					
	Details of cost for 260 TRM					
	Labour:					
	Labour Unskilled	Day	0020	540.00	14.00	7,560.00
	T & P (Rake ballast, Pans, Crow bars, Beater etc.)	Lumpsum	9901	1.00	40.00	40.00
						7,600.00
	Add for working under traffic block @ 10%	Lumpsum	9992	0.10		760.00
						8,360.00

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		83.60
						8,443.60
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		1,186.33
						9,629.93
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		1,444.49
						11,074.41
	Add for Cess @ 1%	Lumpsum	9905	0.01		110.74
	Cost for 260 TRM					11,185.16
	Rate per TRM	TRM				43.02
151060	PQRS: Post Block activity, Pulling back the left over ballast from shoulders/cess in to track and dumping in cribs and shoulders, regulating and boxing with available ballast to facilitate surfacing of track during lifting with contractors own labour, tools etc, complete and lead & lift as directed by the Engineer-in-charge at site including crossing of track wherever necessary.					
	Details of cost for 260 TRM					
	Labour:					
	Labour Unskilled	Day	0020	540.00	8.00	4,320.00
	T & P (Rake ballast, Pans, Crow bars, Beater etc.)	Lumpsum	9901	1.00	100.00	100.00
						4,420.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		44.20
						4,464.20
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		627.22
						5,091.42
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		763.71
						5,855.13
	Add for Cess @ 1%	Lumpsum	9905	0.01		58.55
	Cost for 260 TRM					5,913.68
	Rate per TRM	TRM				22.74
151070	Unloading of released track panels consisting of all types of rails & sleepers from Railway wagon at PQRS Depot, using portal cranes including dismantling of released panels to rails, sleepers & fastenings and stacking them material-wise and classification-wise at nominated locations within the yard limits with all leads, lift and crossing of tracks.					
151071	With Railway's portal crane for PSC sleeper track					
	Details of cost for 390 TRM by 2 portal cranes [On each portal crane one helper (semi skilled) for operation of crane, 1 person for assistance during work]					
	Labour:					
	Mate (Skilled)	Day	0002	751.00	1.00	751.00
	Helper (Semi-skilled)	Day	0021	572.00	2.00	1,144.00
	Labour Unskilled	Day	0020	540.00	2.00	1,080.00
	For dismantling panels & stacking in a countable manner					
	Labour Unskilled	Day	0020	540.00	15.00	8,100.00
	Misc.:					
	T & P (Beater, Rail Tongue, Hammer, Crow bars, Tommy bar etc.)	Lumpsum	9901	1.00	50.00	50.00
	Hire charges of 12 MT Hydra	Day	0089	6717.00	1.00	6,717.00
						17,842.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		178.42
						18,020.42
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		2,531.87
						20,552.29
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		3,082.84
						23,635.13
	Add for Cess @ 1%	Lumpsum	9905	0.01		236.35
	Details of cost for 390 TRM					23,871.48
	Rate per TRM	TRM				61.21

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
151072	With Railway's portal crane for other than PSC sleeper track					
	Details of cost for 520 TRM by 2 portal cranes [On each portal crane one helper (semi skilled) for operation of crane, 1 person for assistance during work]					
	Labour:					
	Mate (Skilled)	Day	0002	751.00	1.00	751.00
	Helper (Semi-skilled)	Day	0021	572.00	2.00	1,144.00
	Labour Unskilled	Day	0020	540.00	2.00	1,080.00
	For dismantling panels & stacking in a countable manner					
	Labour Unskilled	Day	0020	540.00	20.00	10,800.00
	Misc.:					
	T & P (Beater, Rail Tongue, Hammer, Crow bars, Tommy bar etc.)	Lumpsum	9901	1.00	50.00	50.00
						13,825.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		138.25
						13,963.25
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		1,961.84
						15,925.09
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		2,388.76
						18,313.85
	Add for Cess @ 1%	Lumpsum	9905	0.01		183.14
	Details of cost for 520 TRM					18,496.99
	Rate per TRM	TRM				35.57
151080	Mechanised loading of all types of rails on BFRs in PQRS Depot with Railway's cranes, as directed by engineer in-charge.					
	Details of cost for 520 RM by 2 portal cranes [On each portal crane one helper (semi skilled) for operation of crane, 2 person for assistance during work]					
	Labour:					
	Mate (Skilled)	Day	0002	751.00	1.00	751.00
	Helper (Semi-skilled)	Day	0021	572.00	2.00	1,144.00
	Labour Unskilled	Day	0020	540.00	4.00	2,160.00
	Misc.:					
	T & P (Beater, Rail Tongue, Hammer, Crow bars, Tommy bar etc.)	Lumpsum	9901	1.00	10.00	10.00
						4,065.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		40.65
						4,105.65
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		576.84
						4,682.49
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		702.37
						5,384.87
	Add for Cess @ 1%	Lumpsum	9905	0.01		53.85
	Cost for 520 RM					5,438.72
	Rate per RM	RM				10.46
151090	Providing group of 2 men for doing various miscellaneous works for Railway's PQRS cranes (one set of 2 portals) for proper upkeep of crew rest van / rest room, as directed by the machine in-charge by : (1) Fuelling the machine, duly bringing diesel / hydraulic oil from the stacked drums; (2) Bringing water to the staff rest van or staff rest room, cleaning rest van / rest room, cooking food for Track Machine staff or bringing food from outside (cost of food shall be borne by the staff concerned).					
	Details of cost for 1 day for one Machine / Crew rest van					
	Labour:					
	Labour Unskilled	Day	0020	540.00	2.00	1,080.00
	Misc.:					
	T & P	Lumpsum	9901	1.00	10.00	10.00
						1,090.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		10.90

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
						1,100.90
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		154.68
						1,255.58
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		188.34
						1,443.91
	Add for Cess @ 1%	Lumpsum	9905	0.01		14.44
	Cost for per day for one machine / crew rest van					1,458.35
	Cost for Per day per machine / crew rest van	Day				1,458.35
151100	Guarding and watching the Track machine / group of machines, spare parts, oils, grease etc. of PQRS cranes (one set of 2 portals) during day and night time in a shift of 12 hours each, at all locations wherever necessary, as instructed by the machine in-charge. Note: One shift comprises of 12 hours.					
	Details of cost for 1 day for Guarding & watching Track machine / Group of machines considering 2 chowkidars for 1 day i.e. (12 hr's Shift)					
	Labour:					
	Chowkidar (Semi skilled)	Day	0039	595.00	2.00	1,190.00
	Misc.:					
	T & P	Lumpsum	9901	1.00	10.00	10.00
						1,200.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		12.00
						1,212.00
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		170.29
						1,382.29
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		207.34
						1,589.63
	Add for Cess @ 1%	Lumpsum	9905	0.01		15.90
	Cost for per day for one track machine / group of machines					1,605.53
	Rate per shift	Shift				802.76
151110	Laying of auxiliary track with all types of rails, already available on cess, fixing rails on wooden blocks / CST-9 pots at 2m interval, true to square, to required alignment & level, fixing with spikes / screws / keys, linking rails with fish plates, bolts & nuts to a gauge of 3400mm (with reference to centre line of existing BG track), levelling both the rails to same plane as that of BG track over stone ballast by way of removing ballast from shoulders of existing track, providing one round of packing. Subsequently, dismantling auxiliary track after completion of PQRS work at site by way of removing wooden blocks / CST-9 pots and carrying same to next stretch / location, if required, where auxiliary track has to be laid and spreading the same at required locations and leaving rails there itself for carrying out TRR work later.					
	Details of cost for 260 Track Metre					
	Labour:					
	(i) Ballast bed levelling for CST-9/Wooden Block					
	Labour Unskilled	Day	0020	540.00	6.00	3,240.00
	(ii) Positioning & Fixing Rails on CST-9/Wooden Block					
	Mate (Skilled)	Day	0002	751.00	1.00	751.00
	Helper (Semi-skilled)	Day	0021	572.00	1.00	572.00
	Labour Unskilled	Day	0020	540.00	8.00	4,320.00
	Misc.:					
	T & P (Rail dolly, Dip lorry, Spanner, Hammer, Crow bars, Tommy bar, Beater,	Lumpsum	9901	1.00	40.00	40.00
						8,923.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		89.23
						9,012.23
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		1,266.22
						10,278.45
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		1,541.77
						11,820.22

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Add for Cess @ 1%	Lumpsum	9905	0.01		118.20
	Cost for 260 Track Metre					11,938.42
	Rate per TRM	TRM				45.92
151120	In PQRS work, through rail renewal of BG track on PSC sleepers of any density with all types of rails / rail panels lying in auxiliary track or on cess for replacement of service rails including handling of rails by way of dragging, pairing etc. and leading released service rails to load into BFR / Lorry or to shift to next location including crossing of track with lead & lift and any other incidental works as required.					
151121	For rails up to 13m length					
	Details of cost for 260 TRM					
	Labour:					
	For removal of existing rail and Re fixing the rails taken from auxiliary track					
	Mate (Skilled)	Day	0002	751.00	1.00	751.00
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	2.00	1,498.00
	Helper (Semi-skilled)	Day	0021	572.00	2.00	1,144.00
	Waterman (Un-skilled)	Day	0034	547.00	1.00	547.00
	Labour Unskilled	Day	0020	540.00	18.00	9,720.00
	For carting of service rails etc.					
	Labour Unskilled	Day	0020	540.00	18.00	9,720.00
	Misc.:					
	T & P (Rail Tongue, Spanner, Hammer, Crow bars, Beater etc.)	Lumpsum	9901	1.00	80.00	80.00
						23,460.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		234.60
						23,694.60
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		3,329.09
						27,023.69
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		4,053.55
						31,077.24
	Add for Cess @ 1%	Lumpsum	9905	0.01		310.77
	Cost for 260 TRM					31,388.02
	Rate per TRM	TRM				120.72
151122	For rails of more than 13m and up to 40m length					
	Details of cost for 390 TRM					
	Labour:					
	For removal of existing rail and Re fixing the rails taken from auxiliary track					
	Mate (Skilled)	Day	0002	751.00	1.00	751.00
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	2.00	1,498.00
	Helper (Semi-skilled)	Day	0021	572.00	2.00	1,144.00
	Waterman (Un-skilled)	Day	0034	547.00	1.00	547.00
	Labour Unskilled	Day	0020	540.00	27.00	14,580.00
	For carting of service rails etc.					
	Labour Unskilled	Day	0020	540.00	27.00	14,580.00
	Misc.:					
	T & P (Rail Tongue, Spanner, Hammer, Crow bars, Beater etc.)	Lumpsum	9901	1.00	115.00	115.00
						33,215.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		332.15
						33,547.15
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		4,713.37
						38,260.52
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		5,739.08
						43,999.60
	Add for Cess @ 1%	Lumpsum	9905	0.01		440.00
	Cost for 390 TRM					44,439.60
	Rate per TRM	TRM				113.95
151123	For rails above 40m length					
	Details of cost for 520 TRM					

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Labour:					
	For removal of existing rail and Re fixing the rails taken from auxiliary track					
	Mate (Skilled)	Day	0002	751.00	2.00	1,502.00
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	2.00	1,498.00
	Helper (Semi-skilled)	Day	0021	572.00	2.00	1,144.00
	Waterman (Un-skilled)	Day	0034	547.00	2.00	1,094.00
	Labour Unskilled	Day	0020	540.00	36.00	19,440.00
	For carting of service rails etc.					
	Labour Unskilled	Day	0020	540.00	36.00	19,440.00
	Misc.:					
	T & P (Rail Tongue, Spanner, Hammer, Crow bars, Beater etc.)	Lumpsum	9901	1.00	150.00	150.00
						44,268.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		442.68
						44,710.68
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		6,281.85
						50,992.53
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		7,648.88
						58,641.41
	Add for Cess @ 1%	Lumpsum	9905	0.01		586.41
	Cost for 520 TRM					59,227.82
	Rate per TRM	TRM				113.90
151130	Through Rail renewal with free service rails of all types by removing existing running rails, already cut into free rails / rail panels for making auxiliary track, including attending alignment, cross level, gauging, packing; wherever required including crossing of track, as directed.					
	Details of cost for 260 TRM					
	Labour:					
	For removal of existing rail and Re fixing free service rails					
	Mate (Skilled)	Day	0002	751.00	1.00	751.00
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	2.00	1,498.00
	Helper (Semi-skilled)	Day	0021	572.00	2.00	1,144.00
	Waterman (Un-skilled)	Day	0034	547.00	1.00	547.00
	Labour Unskilled	Day	0020	540.00	18.00	9,720.00
	For carting of service rails etc.					
	Labour Unskilled	Day	0020	540.00	18.00	9,720.00
	Misc.:					
	T & P (Rail Tongue, Spanner, Hammer, Crow bars, Beater etc.)	Lumpsum	9901	1.00	80.00	80.00
						23,460.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		234.60
						23,694.60
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		3,329.09
						27,023.69
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		4,053.55
						31,077.24
	Add for Cess @ 1%	Lumpsum	9905	0.01		310.77
	Cost for 260 TRM					31,388.02
	Rate per TRM	TRM				120.72

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
152000	Track Relaying Train (TRT) Related Works					
152010	Carrying out preparatory works before operation of Track Relaying Train (TRT), such as – (1) Broken corroded sleepers to be removed and fastenings to be loosened; (2) Excess ballast to be removed up to bottom of sleepers; (3) Check rails of level crossings falling in the range of work to be removed; (4) In case of CTR, rail panels placed at 1.5m away from existing track centre; (5) All existing longer wooden sleepers if available or interlaced sleepers of different height to be removed; (6) Cutting of existing rails to 6m piece closure at work site from where Track Relaying Train (TRT) will start working on that day; (7) Removal of Reverse jaw type CST-9 sleeper if available joggled fish plates, OHE bonds & other obstructions etc. 8. Removal of Guard Rails at bridge locations other than Girder Bridges. 9. Rail cutting and drilling shall be paid separately under relevant item.					
	Details of cost for 1000 TRM					
	Labour:					
	Mate (Skilled)	Day	0002	751.00	1.00	751.00
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	1.00	749.00
	Helper (Semi-skilled)	Day	0021	572.00	1.00	572.00
	Waterman (Un-skilled)	Day	0034	547.00	1.00	547.00
	Look Out Man (Un-skilled)	Day	0033	547.00	1.00	547.00
	Labour Unskilled	Day	0020	540.00	40.00	21,600.00
	Misc.:					
	T & P (Hammer, Chisel, Spanner, Crow bars, Tommy bar, Beater etc.)	Lumpsum	9901	1.00	45.00	45.00
						24,811.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		248.11
						25,059.11
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		3,520.80
						28,579.91
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		4,286.99
						32,866.90
	Add for Cess @ 1%	Lumpsum	9905	0.01		328.67
	Cost for 1000 TRM					33,195.57
	Rate per TRM	TRM				33.20
152020	Loading of PSC sleepers in layers on BRH (special type modified BFR for TRT / PQRS working) by using contractor's Gantry (Crane) in TRT / PQRS Base Depot, placing dunnage (wooden beddings / wedges) between sleepers to cover entire layer of sleepers, complete in such a manner that it may be dispatched in train formation.					
152021	Mechanised loading with Railway's cranes					
	Details of cost for 1660 sleepers by 2 portal cranes On each portal crane 1 crane operator, 1 Assistant crane operator (semi skilled) & 1 helper for operation of crane during work.					
	Labour:					
	Mate (Skilled)	Day	0002	751.00	1.00	751.00
	Helper (Semi-skilled)	Day	0021	572.00	4.00	2,288.00
	For providing dunnage (wooden beddings) between layers					
	Labour Unskilled	Day	0020	540.00	4.00	2,160.00
	Waterman (Un-skilled)	Day	0034	547.00	1.00	547.00
	Misc.:					
	T & P (Beater, Rail Tongue, Hammer, Crow bars, Tommy bar etc.)	Lumpsum	9901	1.00	20.00	20.00
						5,766.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		57.66
						5,823.66
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		818.22
						6,641.88

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		996.28
						7,638.17
	Add for Cess @ 1%	Lumpsum	9905	0.01		76.38
	Cost for 1660 sleepers					7,714.55
	Rate per sleeper	Each				4.65
152022	Mechanised loading with Contractor's cranes /Hydra					
	Labour:					
	Mate (Skilled)	Day	0002	751.00	1.00	751.00
	Labour Unskilled	Day	0020	540.00	6.00	3,240.00
	Machinery:					
	Hire charges of 12 MT Hydra	Day	0089	6717	1.50	10,075.50
	Misc.:					
	T & P (Beater, Rail Tongue, Hammer, Crow bars, Tommy bar etc.)	Lumpsum	9901	1.00	20.00	20.00
						14,086.50
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		140.87
						14,227.37
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		1,998.94
						16,226.31
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		2,433.95
						18,660.26
	Add for Cess @ 1%	Lumpsum	9905	0.01		186.60
	Cost for 1660 sleepers					18,846.86
	Rate per sleeper	Each				11.35
152030	Unloading of released sleepers from BRH (special type modified BFR for TRT working) in Depot by using contractor's Gantry (Crane) and stacking them at nominated locations within the yard limits with all leads & lift.					
	Details of cost for 1660 sleepers by 2 portal cranes [On each portal crane 1 crane operator, 1 Assistant crane operator (semi skilled) & 1 helper for operation of crane during work]					
	Labour:					
	Mate (Skilled)	Day	0002	751.00	1.00	751.00
	Helper (Semi-skilled)	Day	0021	572.00	4.00	2,288.00
	For stacking sleepers in a countable manner					
	Labour Unskilled	Day	0020	540.00	8.00	4,320.00
	Waterman (Un-skilled)	Day	0034	547.00	1.00	547.00
	Misc.:					
	T & P (Beater, Rail Tongue, Hammer, Crow bars, Tommy bar etc.)	Lumpsum	9901	1.00	30.00	30.00
	Hire charges of Portal Crane (with Fuel & Driver)	Hour	0156	455.00	16.00	7,280.00
						15,216.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		152.16
						15,368.16
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		2,159.23
						17,527.39
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		2,629.11
						20,156.49
	Add for Cess @ 1%	Lumpsum	9905	0.01		201.56
	Cost for 1660 sleepers					20,358.06
	Rate per sleeper	Each				12.26

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
153000	T-28 Machine Related Works					
153010	Dismantling of existing Turnout by removing switches, rails, crossings, check rails, sleepers and all fixtures and stacking all released materials, removing ballast and muck by excavating up to required depth, preparation of formation bed, laying of pre assembled Turnout by Railway's T-28 machine, linking of track with all fittings, filling up of ballast duly screened, packing, adjusting, opening & housing of switch, testing operation of switch assembly and attending track parameters, so as to make track fit for 20 kmph speed including disposing off muck to indicated places up to free lead after the block working etc. complete. Note: Rate includes making necessary preparation for T-28 machine movement like preparation of approaches, transportation and laying of wooden sleepers/blocks, etc.					
153011	1 in 8½ Turnout					
	Details of cost for 1 set					
	Labour:					
	Mate (Skilled)	Day	0002	751.00	2.00	1,502.00
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	2.00	1,498.00
	Helper (Semi-skilled)	Day	0021	572.00	2.00	1,144.00
	Waterman (Un-skilled)	Day	0034	547.00	1.00	547.00
	Look Out Man (Un-skilled)	Day	0033	547.00	1.00	547.00
	(i) Dismantling of Turnout & stacking of released material					
	Labour Unskilled	Day	0020	540.00	20.00	10,800.00
	(ii) Removing ballast & muck (Including levelling)					
	Labour Unskilled	Day	0020	540.00	16.00	8,640.00
	(iii) Preparation of formation bed for running T-28					
	Labour Unskilled	Day	0020	540.00	10.00	5,400.00
	(iv) After laying of turn out filling the ballast, packing & Fitting of all components of turn out					
	Labour Unskilled	Day	0020	540.00	14.00	7,560.00
	Misc.:					
	T & P (Rail Tongue, Crow bars, Hammer, Beater, spanner, pan iron mortar etc.)	Lumpsum	9901	1.00	140.00	140.00
						37,778.00
	Add for working under traffic block @ 10%	Lumpsum	9992	0.10		3,777.80
						41,555.80
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		415.56
						41,971.36
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		5,896.98
						47,868.33
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		7,180.25
						55,048.58
	Add for Cess @ 1%	Lumpsum	9905	0.01		550.49
	Rate per set	Each				55,599.07
153012	1 in 12 Turnout					
	Details of cost for 1 set					
	Labour:					
	Mate (Skilled)	Day	0002	751.00	2.00	1,502.00
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	3.00	2,247.00
	Helper (Semi-skilled)	Day	0021	572.00	3.00	1,716.00
	Waterman (Un-skilled)	Day	0034	547.00	1.00	547.00
	Look Out Man (Un-skilled)	Day	0033	547.00	1.00	547.00
	(i) Dismantling of Turnout & stacking of released material					
	Labour Unskilled	Day	0020	540.00	22.00	11,880.00
	(ii) Removing ballast & muck (Including levelling)					
	Labour Unskilled	Day	0020	540.00	18.00	9,720.00
	(iii) Preparation of formation bed for running T-28					
	Labour Unskilled	Day	0020	540.00	12.00	6,480.00
	(iv) After laying of turn out filling the ballast, packing & Fitting of all components of					
	Labour Unskilled	Day	0020	540.00	16.00	8,640.00

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Misc.:					
	T & P (Rail Tongue, Crow bars, Hammer, Beater, spanner, pan iron mortar etc.)	Lumpsum	9901	1.00	160.00	160.00
						43,439.00
	Add for working under traffic block @ 10%	Lumpsum	9992	0.10		4,343.90
						47,782.90
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		477.83
						48,260.73
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		6,780.63
						55,041.36
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		8,256.20
						63,297.57
	Add for Cess @ 1%	Lumpsum	9905	0.01		632.98
	Rate per set	Each				63,930.54
153013	1 in 16 Turnout					
	Details of cost for 1 set					
	Labour:					
	Mate (Skilled)	Day	0002	751.00	2.00	1,502.00
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	4.00	2,996.00
	Helper (Semi-skilled)	Day	0021	572.00	4.00	2,288.00
	Waterman (Un-skilled)	Day	0034	547.00	1.00	547.00
	Look Out Man (Un-skilled)	Day	0033	547.00	1.00	547.00
	(i) Dismantling of Turnout & stacking of released material					
	Labour Unskilled	Day	0020	540.00	24.00	12,960.00
	(ii) Removing ballast & muck (Including levelling)					
	Labour Unskilled	Day	0020	540.00	20.00	10,800.00
	(iii) Preparation of formation bed for running T-28					
	Labour Unskilled	Day	0020	540.00	14.00	7,560.00
	(iv) After laying of turn out filling the ballast, packing & Fitting of all components of					
	Labour Unskilled	Day	0020	540.00	18.00	9,720.00
	Misc.:					
	T & P (Rail Tongue, Crow bars, Hammer, Beater, spanner, pan iron mortar etc.)	Lumpsum	9901	1.00	185.00	185.00
						49,105.00
	Add for working under traffic block @ 10%	Lumpsum	9992	0.10		4,910.50
						54,015.50
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		540.16
						54,555.66
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		7,665.07
						62,220.72
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		9,333.11
						71,553.83
	Add for Cess @ 1%	Lumpsum	9905	0.01		715.54
	Rate per set	Each				72,269.37
153014	1 in 20 Turnout					
	Details of cost for 1 set					
	Labour:					
	Mate (Skilled)	Day	0002	751.00	2.00	1,502.00
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	4.00	2,996.00
	Helper (Semi-skilled)	Day	0021	572.00	4.00	2,288.00
	Waterman (Un-skilled)	Day	0034	547.00	1.00	547.00
	Look Out Man (Un-skilled)	Day	0033	547.00	1.00	547.00
	(i) Dismantling of Turnout & stacking of released material					
	Labour Unskilled	Day	0020	540.00	26.00	14,040.00
	(ii) Removing ballast & muck (Including levelling)					
	Labour Unskilled	Day	0020	540.00	22.00	11,880.00
	(iii) Preparation of formation bed for running T-28					
	Labour Unskilled	Day	0020	540.00	16.00	8,640.00
	(iv) After laying of turn out filling the ballast, packing & Fitting of all components of					
	Labour Unskilled	Day	0020	540.00	20.00	10,800.00

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Misc.:					
	T & P (Rail Tongue, Crow bars, Hammer, Beater, spanner, pan iron mortar etc.)	Lumpsum	9901	1.00	205.00	205.00
						53,445.00
	Add for working under traffic block @ 10%	Lumpsum	9992	0.10		5,344.50
						58,789.50
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		587.90
						59,377.40
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		8,342.52
						67,719.92
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		10,157.99
						77,877.91
	Add for Cess @ 1%	Lumpsum	9905	0.01		778.78
	Rate per set	Each				78,656.69
153020	Dismantling of existing switch by removing switches, sleepers, fixtures and stacking all released materials, removing ballast and muck by excavating up to required depth, preparation of formation bed, laying of pre-assembled switch by Railway's T-28 machine, linking of track with all fittings, filling ballast duly screened, aligning, packing, adjusting, opening & housing of switch, testing operation of switch assembly and attending track parameters so as to make track fit for 20 kmph speed including disposing off muck to indicated places after the block working etc. complete. Note: Rate includes making necessary preparation for T-28 machine working/movement such as providing and removing rail closures, preparation of approaches, transportation and laying of wooden sleepers/blocks, etc.					
153021	1 in 8½ Switch					
	Details of cost for 1 set					
	Labour:					
	Mate (Skilled)	Day	0002	751.00	1.00	751.00
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	1.00	749.00
	Helper (Semi-skilled)	Day	0021	572.00	1.00	572.00
	Waterman (Un-skilled)	Day	0034	547.00	1.00	547.00
	Look Out Man (Un-skilled)	Day	0033	547.00	1.00	547.00
	(i) Dismantling of Switch & stacking of released material					
	Labour Unskilled	Day	0020	540.00	8.00	4,320.00
	(ii) Removing ballast & muck (Including levelling)					
	Labour Unskilled	Day	0020	540.00	6.00	3,240.00
	(iii) Preparation of formation bed for running T-28					
	Labour Unskilled	Day	0020	540.00	4.00	2,160.00
	(iv) After laying of turn out filling the ballast & packing					
	Labour Unskilled	Day	0020	540.00	4.00	2,160.00
	(v) Fitting of all components of Switch					
	Labour Unskilled	Day	0020	540.00	2.00	1,080.00
	Misc.:					
	T & P (Rail Tongue, Crow bars, Hammer, Beater, spanner, pan iron mortar etc.)	Lumpsum	9901	1.00	50.00	50.00
						16,176.00
	Add for working under traffic block @ 10%	Lumpsum	9992	0.10		1,617.60
						17,793.60
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		177.94
						17,971.54
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		2,525.00
						20,496.54
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		3,074.48
						23,571.02
	Add for Cess @ 1%	Lumpsum	9905	0.01		235.71
	Rate per set	Each				23,806.73
153022	1 in 12 Switch					
	Details of cost for 1 set					
	Labour:					

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Mate (Skilled)	Day	0002	751.00	1.00	751.00
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	1.00	749.00
	Helper (Semi-skilled)	Day	0021	572.00	1.00	572.00
	Waterman (Un-skilled)	Day	0034	547.00	1.00	547.00
	Look Out Man (Un-skilled)	Day	0033	547.00	1.00	547.00
	(i) Dismantling of Switch & stacking of released material					
	Labour Unskilled	Day	0020	540.00	8.00	4,320.00
	(ii) Removing ballast & muck (Including levelling)					
	Labour Unskilled	Day	0020	540.00	6.00	3,240.00
	(iii) Preparation of formation bed for running T-28					
	Labour Unskilled	Day	0020	540.00	6.00	3,240.00
	(iv) After laying of turn out filling the ballast & packing					
	Labour Unskilled	Day	0020	540.00	4.00	2,160.00
	(v) Fitting of all components of Switch					
	Labour Unskilled	Day	0020	540.00	4.00	2,160.00
	Misc.:					
	T & P (Rail Tongue, Crow bars, Hammer, Beater, spanner, pan iron mortar etc.)	Lumpsum	9901	1.00	60.00	60.00
						18,346.00
	Add for working under traffic block @ 10%	Lumpsum	9992	0.10		1,834.60
						20,180.60
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		201.81
						20,382.41
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		2,863.73
						23,246.13
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		3,486.92
						26,733.05
	Add for Cess @ 1%	Lumpsum	9905	0.01		267.33
	Rate per set	Each				27,000.38
153023	1 in 16 Switch					
	Details of cost for 1 set					
	Labour:					
	Mate (Skilled)	Day	0002	751.00	1.00	751.00
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	2.00	1,498.00
	Helper (Semi-skilled)	Day	0021	572.00	2.00	1,144.00
	Waterman (Un-skilled)	Day	0034	547.00	1.00	547.00
	Look Out Man (Un-skilled)	Day	0033	547.00	1.00	547.00
	(i) Dismantling of Switch & stacking of released material					
	Labour Unskilled	Day	0020	540.00	10.00	5,400.00
	(ii) Removing ballast & muck (Including levelling)					
	Labour Unskilled	Day	0020	540.00	6.00	3,240.00
	(iii) Preparation of formation bed for running T-28					
	Labour Unskilled	Day	0020	540.00	6.00	3,240.00
	(iv) After laying of turn out filling the ballast & packing					
	Labour Unskilled	Day	0020	540.00	4.00	2,160.00
	(v) Fitting of all components of Switch					
	Labour Unskilled	Day	0020	540.00	4.00	2,160.00
	Misc.:					
	T & P (Rail Tongue, Crow bars, Hammer, Beater, spanner, pan iron mortar etc.)	Lumpsum	9901	1.00	70.00	70.00
						20,757.00
	Add for working under traffic block @ 10%	Lumpsum	9992	0.10		2,075.70
						22,832.70
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		228.33
						23,061.03
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		3,240.07
						26,301.10
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		3,945.17
						30,246.27
	Add for Cess @ 1%	Lumpsum	9905	0.01		302.46
	Rate per set	Each				30,548.73

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
153024	1 in 20 Switch					
	Details of cost for 1 set					
	Labour:					
	Mate (Skilled)	Day	0002	751.00	1.00	751.00
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	2.00	1,498.00
	Helper (Semi-skilled)	Day	0021	572.00	2.00	1,144.00
	Waterman (Un-skilled)	Day	0034	547.00	1.00	547.00
	Look Out Man (Un-skilled)	Day	0033	547.00	1.00	547.00
	(i) Dismantling of Switch & stacking of released material					
	Labour Unskilled	Day	0020	540.00	11.00	5,940.00
	(ii) Removing ballast & muck (Including levelling)					
	Labour Unskilled	Day	0020	540.00	7.00	3,780.00
	(iii) Preparation of formation bed for running T-28					
	Labour Unskilled	Day	0020	540.00	7.00	3,780.00
	(iv) After laying of turn out filling the ballast & packing					
	Labour Unskilled	Day	0020	540.00	6.00	3,240.00
	(v) Fitting of all components of Switch					
	Labour Unskilled	Day	0020	540.00	4.00	2,160.00
	Misc.:					
	T & P (Rail Tongue, Crow bars, Hammer, Beater, spanner, pan iron mortar etc.)	Lumpsum	9901	1.00	75.00	75.00
						23,462.00
	Add for working under traffic block @ 10%	Lumpsum	9992	0.10		2,346.20
						25,808.20
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		258.08
						26,066.28
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		3,662.31
						29,728.59
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		4,459.29
						34,187.88
	Add for Cess @ 1%	Lumpsum	9905	0.01		341.88
	Rate per set	Each				34,529.76
153025	Derailing Switch					
	Details of cost for 2 set					
	Labour:					
	Mate (Skilled)	Day	0002	751.00	1.00	751.00
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	1.00	749.00
	Helper (Semi-skilled)	Day	0021	572.00	1.00	572.00
	Waterman (Un-skilled)	Day	0034	547.00	1.00	547.00
	Look Out Man (Un-skilled)	Day	0033	547.00	1.00	547.00
	(i) Dismantling of Switch & stacking of released material					
	Labour Unskilled	Day	0020	540.00	8.00	4,320.00
	(ii) Removing ballast & muck (Including levelling)					
	Labour Unskilled	Day	0020	540.00	8.00	4,320.00
	(iii) Preparation of formation bed for running T-28					
	Labour Unskilled	Day	0020	540.00	6.00	3,240.00
	(iv) After laying of turn out filling the ballast ,packing & fitting all components					
	Labour Unskilled	Day	0020	540.00	6.00	3,240.00
	Misc.:					
	T & P (Rail Tongue, Crow bars, Hammer, Beater, spanner, pan iron mortar etc.)	Lumpsum	9901	1.00	70.00	70.00
						18,356.00
	Add for working under traffic block @ 10%	Lumpsum	9992	0.10		1,835.60
						20,191.60
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		201.92
						20,393.52
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		2,865.29
						23,258.80
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		3,488.82
						26,747.63

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Add for Cess @ 1%	Lumpsum	9905	0.01		267.48
	Cost for 2 set					27,015.10
	Rate per set	Each				13,507.55
154000	BCM / FRM Machine Related Works					
154010	Carrying out preparatory works for operation of Ballast Cleaning Machine (BCM) which includes making trench in track for inserting cutter bar, supporting track on wooden block supplied by Railway, removal of ballast along with muck from shoulder which is out of reach of cutter chain and putting the same in cutting width or between rails. Rate includes all miscellaneous works, e.g. opening and re-fixing of joggled fish plates, OHE Bonds, dismantling & removing obstructions etc.					
	Details of cost for 500 TRM					
	Labour:					
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	2.00	1,498.00
	Carpenter (Skilled)	Day	0006	734.00	1.00	734.00
	Helper (Semi-skilled)	Day	0021	572.00	3.00	1,716.00
	Labour Unskilled	Day	0020	540.00	4.00	2,160.00
	Misc.:					
	T & P (Hammer, Chisel, Spanner, Crow bars, Tommy bar, Beater etc.)	Lumpsum	9901	1.00	20.00	20.00
						6,128.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		61.28
						6,189.28
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		869.59
						7,058.87
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		1,058.83
						8,117.70
	Add for Cess @ 1%	Lumpsum	9905	0.01		81.18
	Cost for 500 TRM					8,198.88
	Rate per TRM	TRM				16.40
154020	Carrying out various works during operation of BCM, like filling up of ballast at deficient location from locations where ballast is excess or from adjoining tracks, required initial packing, adjustment of PSC Sleepers, provision wooden blocks supplied by department and attending track parameters etc. complete so as to make track fit for 20 kmph speed.					
	Details of cost for 360 TRM (1 group of two persons deputed for 40 metre track)					
	Labour:					
	Mate (Skilled)	Day	0002	751.00	1.00	751.00
	Waterman (Un-skilled)	Day	0034	547.00	1.00	547.00
	Labour Unskilled	Day	0020	540.00	18.00	9,720.00
	Misc.:					
	T & P (Rake ballast, Crow bars, Hammer, Beater etc.)	Lumpsum	9901	1.00	50.00	50.00
						11,068.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		110.68
						11,178.68
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		1,570.60
						12,749.28
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		1,912.39
						14,661.68
	Add for Cess @ 1%	Lumpsum	9905	0.01		146.62
	Cost for 360 TRM					14,808.29
	Rate per TRM	TRM				41.13
154030	Removal of screened muck discharged by BCM, where muck disposal on side slope is restricted due to platform, cutting, OHE mast etc. and disposing it beyond 5m from edge of cutting up to 3m deep or alternatively carting it up to 50m for disposing off beyond the end of cutting / platform and making up cess wherever low.					
	Details of cost for 520 TRM (1 group of two persons deputed for 52 Track metre)					

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Labour:					
	Mate (Skilled)	Day	0002	751.00	1.00	751.00
	Waterman (Un-skilled)	Day	0034	547.00	1.00	547.00
	Labour Unskilled	Day	0020	540.00	20.00	10,800.00
	Misc.:					
	T & P (Rake ballast, Crow bars, Hammer, Beater etc.)	Lumpsum	9901	1.00	40.00	40.00
						12,138.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		121.38
						12,259.38
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		1,722.44
						13,981.82
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		2,097.27
						16,079.10
	Add for Cess @ 1%	Lumpsum	9905	0.01		160.79
	Cost for 520 TRM					16,239.89
	Rate per TRM	TRM				31.23
154040	Removal of screened muck discharged by FRM/SBCM where muck disposal on side slope is restricted due to platform, cutting, OHE mast etc. and disposing it beyond 5m from edge of cutting up to 3m deep or alternatively carting it up to 50m for disposing off beyond the end of cutting / platform and making up cess wherever low.					
	Details of cost for 780 TRM (1 group of two persons deputed for 78 Track metre)					
	Labour:					
	Mate (Skilled)	Day	0002	751.00	1.00	751.00
	Waterman (Un-skilled)	Day	0034	547.00	1.00	547.00
	Labour Unskilled	Day	0020	540.00	20.00	10,800.00
	Misc.:					
	T & P (Rake ballast, Crow bars, Hammer, Beater etc.)	Lumpsum	9901	1.00	40.00	40.00
						12,138.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		121.38
						12,259.38
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		1,722.44
						13,981.82
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		2,097.27
						16,079.10
	Add for Cess @ 1%	Lumpsum	9905	0.01		160.79
	Cost for 780 RM					16,239.89
	Rate per TRM	TRM				20.82
154050	Extra to item nos. from 154030 and 154040 for disposal of muck at a distance beyond 50m for every additional lead of 50 metres or part thereof up to 500 metres.					
	Details of cost for 500 Track Metre (Extra labour element required for additional average lead of 250 metre for disposal of muck)(@ one man per 25 TRM)					
	Labour:					
	Labour Unskilled	Day	0020	540.00	10.00	5,400.00
	Misc.:					
	T & P	Lumpsum	9901	1.00	20.00	20.00
						5,420.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		54.20
						5,474.20
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		769.13
						6,243.33
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		936.50
						7,179.82
	Add for Cess @ 1%	Lumpsum	9905	0.01		71.80
	Cost for 500 TRM / 250 metres lead					7,251.62
	Cost for 500 TRM / every 50 metres lead					1,450.32
	Rate per TRM / every 50 metres	TRM				2.90

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
154060	Extra to item nos. from 154030 and 154040 for disposal of muck for additional lift of 1 metre or part thereof beyond 3 metre lift in case of disposal of muck from track in cutting.					
	Details of cost for 400 TRM (Extra labour element required for additional average lift of 3 metre for disposal of muck)(@ one man per 20 TRM)					
	Labour:					
	Labour Unskilled	Day	0020	540.00	10.00	5,400.00
	Misc.:					
	T & P	Lumpsum	9901	1.00	20.00	20.00
						5,420.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		54.20
						5,474.20
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		769.13
						6,243.33
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		936.50
						7,179.82
	Add for Cess @ 1%	Lumpsum	9905	0.01		71.80
	Cost for 400 TRM / 3 metre lift					7,251.62
	Cost for 400 TRM / every 1 metre lift					2,417.21
	Rate per TRM / every 1 metre lift	TRM				6.04
154070	Removing the ballast from shoulders, left over after BCM working, screening the same removing the muck and putting back the screened ballast into track, boxing the ballast to profile and using released muck for cess making or throwing away within 50m lead and 3m lift when not required for cess repairs and as directed by the Engineer-in-charge. Note: This item shall be used only when BRM is not available.					
	Details of cost for 360 TRM (1 person deputed for 40 Track running metre length)					
	Labour:					
	Mate (Skilled)	Day	0002	751.00	0.50	375.50
	Waterman (Un-skilled)	Day	0034	547.00	1.00	547.00
	Labour Unskilled	Day	0020	540.00	9.00	4,860.00
	Misc.:					
	T & P (Rake ballast, Crow bars, Hammer, Beater etc.)	Lumpsum	9901	1.00	40.00	40.00
						5,822.50
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		58.23
						5,880.73
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		826.24
						6,706.97
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		1,006.05
						7,713.01
	Add for Cess @ 1%	Lumpsum	9905	0.01		77.13
	Cost for 360 TRM					7,790.14
	Rate per TRM	TRM				21.64
154080	Ballast equalisation & ballast profiling after completion of deep screening work by BCM and/or after unloading of ballast by DMT (Ballast Train), as directed by Site Engineer as per IRPWM including heaping of ballast in tamping zone keeping rails & sleeper top free from ballast, spacing and squaring of sleeper, gauging, cleaning of muck, proper fixing of fastening, attention during each round of sleeper tamping in relation to pre & post working Note: Payment shall be made only once in irrespective of numbers of TTRM packing round and after restoration of normal speed and restoration of complete ballast profile and cess profile.					
	Details of cost for 200 TRM (1group of two persons deputed for 40 Track metre					

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Labour:					
	Mate (Skilled)	Day	0002	751.00	0.50	375.50
	Labour Unskilled	Day	0020	540.00	10.00	5,400.00
	Misc.:					
	T & P (Rake ballast, Crow bars, Beater etc.)	Lumpsum	9901	1.00	20.00	20.00
						5,795.50
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		57.96
						5,853.46
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		822.41
						6,675.87
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		1,001.38
						7,677.25
	Add for Cess @ 1%	Lumpsum	9905	0.01		76.77
	Cost for 200 TRM					7,754.02
	Rate per TRM	TRM				38.77
154090	Making cess in deep screened track by using screened muck discharged by BCM where cess is low or cutting cess to required depth up to 4m from centre of track, where cess is high and disposing off extra muck beyond 5m from edge of cutting which are up to 3m deep or alternatively carting it up to 50m for disposing it off beyond cutting or platforms, so as to make cess as per standard profile including providing proper slope.					
	Details of cost for 260 TRM (1group of two persons deputed for 52 Track metre for both sides cess)					
	Labour:					
	Mate (Skilled)	Day	0002	751.00	1.00	751.00
	Waterman (Un-skilled)	Day	0034	547.00	1.00	547.00
	Labour Unskilled	Day	0020	540.00	10.00	5,400.00
	Misc.:					
	T & P	Lumpsum	9901	1.00	40.00	40.00
						6,738.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		67.38
						6,805.38
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		956.16
						7,761.54
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		1,164.23
						8,925.77
	Add for Cess @ 1%	Lumpsum	9905	0.01		89.26
	Cost for 260 TRM					9,015.02
	Rate per TRM	TRM				34.67
154100	Carrying out Through packing of sleepers to make track fit for 30 KM speed as per procedure stipulated in latest version of IRPWM, behind BCM including filling ballast when only lifting is carried out by BCM.					
	Details of cost for 182 TRM (1 Person will do packing including filling the ballast 14					
	Labour:					
	Mate (Skilled)	Day	0002	751.00	1.00	751.00
	Waterman (Un-skilled)	Day	0034	547.00	1.00	547.00
	Labour Unskilled	Day	0020	540.00	20.00	10,800.00
	Misc.:					
	T & P (Rake ballast, Crow bars, Hammer, Beater etc.)	Lumpsum	9901	1.00	40.00	40.00
						12,138.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		121.38
						12,259.38
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		1,722.44
						13,981.82
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		2,097.27
						16,079.10
	Add for Cess @ 1%	Lumpsum	9905	0.01		160.79

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Cost for 182 TRM					16,239.89
	Rate per TRM	TRM				89.23
154110	Pulling the left over ballast to the shoulders and dumping excess ballast in the cribs and shoulders including boxing/profiling as per IRPWM of track together with left over stretches at fixed structures/masts immediately after FRM work, leveling the muck for making up cess and side slopes including removing and re-fixing of traction bonds during line block with all contractors labour, tools, plant, all lead, lift, crossing of track etc. complete and as directed by the Engineer-in-charge.					
	Rate analysis for 500 Track Metres					
	Labour:					
	Mate (Skilled)	Day	0002	751.00	1.00	751.00
	Look Out Man (Un-skilled)	Day	0033	547.00	1.00	547.00
	Labour Unskilled	Day	0020	540.00	20.00	10,800.00
	Misc.:					
	T & P (Crow bar, Hammer, spanner, mortar pan etc.)	Lumpsum	9901	1.00	30.00	30.00
						12,128.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		121.28
						12,249.28
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		1,721.02
						13,970.30
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		2,095.55
						16,065.85
	Add for Cess @ 1%	Lumpsum	9905	0.01		160.66
	Cost of 500 Track Metre					16,226.51
	Rate per TRM	TRM				32.45
154120	Pre, during, and post BCM works for deep screening of ballast in Points and crossings with all contractor's labour, tools and plants as required to carry out the work to the standards in specific time including crossing of tracks etc. complete and as directed by the Engineer - in - charge. I. Pre-BCM Operation : a) making trenches for insertion of cutter bars at various locations as per the directions of engineer in charge. i.e., one trench ahead of one rail length from SRJ and second trench near sleeper No 62 (1 in 12) etc., b) Filling up ballast up to sleeper level. c) Tightening of fittings/ plate screws, ERCs, Stud bolts, check rail bolts. II. During BCM Operation : a) Assistance to S&T Department : Opening of cables at approach of Points & Crossings, TLD Boxes/ removing of Point motor and refixing the same and covering cables after passing of BCM in block period with S&T Staff. b) Engineering : c) Removing of two long sleepers i.e., sleeper No 3 & 4 and refixing the same in position during block after passage of BCM. d) Removing obstruction i.e., S&T CC block duly digging with crow bars and breaking with chisel/ hammer, cutting of rail pegs with gas. e) To remove, excess ballast on rail table for free movement of BCM and for packing purpose. f) Extension of cutter bar wherever required in assisting machine staff. g) Removing of cutter bar/ Chain links from the trenches after screening work by BCM.					

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	III . Post BCM Operation : a) Packing switch portion including Motor long sleeper i.e., SRJ to heel joint to reset Point for train movement & initial packing of lead portion to allow train at 20KMPH and lifting the track in two stages (50mm to 75mm in each lift) wherever required for correcting the longitudinal surfacing b) Dumping of ballast in the deficient portion in crib, on main line turnout side for initial packing purpose. c) Boxing / Levelling of muck duly ensuring levelling of muck on cess side and lowering of cess to the deep screened depth and removing of muck in between the lines and leading up to 250mts. Note: 1. For technical reasons, some of the points and crossings cannot be deep screened either fully or partially by BCM, in which case, the left over length will be deep screening manually. 2. The length of points and crossings assembly for payment of this item should be taken from SRJ to longest concrete sleeper available just beyond heel of crossing along main line..					
	Details of cost for one Points and crossing 1 in 12 points and Crossings for a length of 45.50m					
	Man Power					
	Mate (Skilled)	Day	0002	751.00	0.50	375.50
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	0.50	374.50
	Helper (Semi-skilled)	Day	0021	572.00	1.00	572.00
	For Pre Block, Post block & during block activities					
	Labour Unskilled	Day	0020	540.00	25.00	13,500.00
	Misc					
	T&P (no rates reqd.)	Lumpsum	9901	1.00	60.00	60.00
						14,882.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		148.82
						15,030.82
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		2,111.83
						17,142.65
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		2,571.40
						19,714.05
	Add for Cess @ 1%	Lumpsum	9905	0.01		197.14
	Cost for one Points and crossing 1 in 12 points and Crossings for a length of 45.50m					19,911.19
	Rate per TRM	TRM				437.61
155000	CSM, Duomatic and 3X Sleeper Tamping Machines					
155010	Carrying out pre-tamping, during tamping and post-tamping work for tamping track with all types of rails, sleepers & sleeper density by various Track Tamping machines, like CSM,DUO/3X Machines which include : (1) Re-adjustment of ballast, heaping-up of ballast, filling-up of cavities in tamping zone by picking ballast from stacks / shoulders / crib of adjoining track up to lead of 50 m to ensure effective packing; (2) Clearing of ballast on sleepers to make them visible to operator, (3) Clearing of ballast over rail foot to facilitate holding of rail by rollers of TTRM; (4) Digging, screening and replenishment of ballast at mud pumping / rounded ballast in sleeper crib location; (5) Tightening of loose fittings immediately before & after tamping; (6) Replacement of broken / missing fittings supplied by Railway; (7) Correcting displaced sleepers to position along with squaring; (8) Re-setting of worked-out / fallen fittings;					

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	(9) Removing and re-fixing joggled fish plates & wooden blocks, wherever necessary; (10) Manual consolidation of ballast in crib / shoulders; (11) Removing and refixing of traction bonds during the block in electrified sections (12) Dressing of ballast Note: 1. Tamping blocks are not identical & it may be given at any time either during day or night. 2. Stages of payment a) 30% of the rate will be paid on completion of pre tamping attention, b) Balance 70% of the rate will be paid on completion of post tamping. 3. Recovery at the rate of twice the above applicable rate will be effected in case contractor fails to carry out pre/during/post operation. 4. Payment shall be made only once in irrespective of numbers of TTRM packing round and after restoration of normal speed and restoration of complete ballast profile.					
155011	For day time block working					
	Details of cost for 1000 TRM					
	Labour:					
	Mate (Skilled)	Day	0002	751.00	1.00	751.00
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	1.00	749.00
	Helper (Semi-skilled)	Day	0021	572.00	1.00	572.00
	Waterman (Un-skilled)	Day	0034	547.00	1.00	547.00
	(i) Pre-tamping work(as like recouped missing fittings, changing PSC, recouping Labour Unskilled	Day	0020	540.00	14.00	7,560.00
	(ii) Post-tamping work (filling crib ballast, recoupment of all missing fittings & Labour Unskilled	Day	0020	540.00	6.00	3,240.00
	Misc.:					
	T & P (Rail Tongue, Crow bars, Hammer, Beater, spanner, pan iron mortar, cane	Lumpsum	9901	1.00	86.00	86.00
						13,505.00
	Add for working under traffic block @ 10%	Lumpsum	9992	0.10		1,350.50
						14,855.50
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		148.56
						15,004.06
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		2,108.07
						17,112.12
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		2,566.82
						19,678.94
	Add for Cess @ 1%	Lumpsum	9905	0.01		196.79
	Cost for 1000 TRM					19,875.73
	Rate per TRM	TRM				19.88
155012	For night time block working					
	Details of cost for 1000 TRM					
	Labour:					
	Mate (Skilled)	Day	0002	751.00	1.00	751.00
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	1.00	749.00
	Helper (Semi-skilled)	Day	0021	572.00	1.00	572.00
	Waterman (Un-skilled)	Day	0034	547.00	1.00	547.00
	Look Out Man (Un-skilled)	Day	0033	547.00	1.00	547.00
	(i) Pre-tamping work(as like recouped missing fittings, changing PSC, recouping Labour Unskilled	Day	0020	540.00	12.00	6,480.00
	(ii) Post-tamping work (filling crib ballast, recoupment of all missing fittings & Labour Unskilled	Day	0020	540.00	10.00	5,400.00
	Misc.:					
	T & P (Rail Tongue, Crow bars, Hammer, Beater, spanner, pan iron mortar, cane	Lumpsum	9901	1.00	100.00	100.00
						15,146.00
	Add for working under traffic block @ 10%	Lumpsum	9992	0.10		1,514.60
						16,660.60
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		166.61
						16,827.21

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		2,364.22
						19,191.43
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		2,878.71
						22,070.14
	Add for Cess @ 1%	Lumpsum	9905	0.01		220.70
	Cost for 1000 TRM					22,290.84
	Rate per TRM	TRM				22.29
155013	New Line Section, not opened for traffic					
	Details of cost for 1000 TRM					
	Labour:					
	Mate (Skilled)	Day	0002	751.00	1.00	751.00
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	1.00	749.00
	Helper (Semi-skilled)	Day	0021	572.00	1.00	572.00
	Waterman (Un-skilled)	Day	0034	547.00	1.00	547.00
	(i) Pre-tamping work(as like recouped missing fittings, changing PSC, recouping					
	Labour Unskilled	Day	0020	540.00	2.00	1,080.00
	(ii) Post-tamping work (filling crib ballast, recoupment of all missing fittings &					
	Labour Unskilled	Day	0020	540.00	8.00	4,320.00
	Misc.:					
	T & P (Rail Tongue, Crow bars, Hammer, Beater, spanner, pan iron mortar, cane	Lumpsum	9901	1.00	85.00	85.00
						8,104.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		81.04
						8,185.04
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		1,150.00
						9,335.04
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		1,400.26
						10,735.29
	Add for Cess @ 1%	Lumpsum	9905	0.01		107.35
	Cost for 1000 TRM					10,842.65
	Rate per TRM	TRM				10.84
155020	Pre, during & post tamping operations, for tamping of track on level crossing portion on all types of track structure and density, during traffic block, duly opening the road surface by digging up to the required width and up to 50mm below bottom of sleeper to facilitate tamping, removing and refilling ballast, adjustment of deficient ballast if necessary by picking from adjoining track/shoulder/cribs, removing and refixing all inter locking gears interfering, removing and re-fixing of check rails and painting of running rail & check rail with coal tar emulsion, completing road surface to smooth motorable condition after tamping is over, including tightening of loose fittings, replacement of broken/missing fittings, correction of displaced sleepers to correct position and as directed by Engineer in charge.					
155021	Level crossing with asphalted surface					
	Details of cost for 40 Sqm (Lumpsum area for 9 metre wide LC for one Line)					
	Material:					
	Coal tar Emulsion	Litre	0315	79.00	5	395.00
	Soft Brush for painting - 25cm long	Each	0312	59.00	1	59.00
	Wire Brush - 25cm long	Each	0311	42.00	1	42.00
	Labour:					
	Mate (Skilled)	Day	0002	751.00	1	751.00
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	1	749.00
	Helper (Semi-skilled)	Day	0021	572.00	1	572.00
	Painter (Skilled)	Day	0012	749.00	0.25	187.25
	Look Out Man (Un-skilled)	Day	0033	547.00	1	547.00
	Waterman (Un-skilled)	Day	0034	547.00	1	547.00
	Labour Unskilled	Day	0020	540.00	15	8,100.00
	Misc.:					
	T & P	Lumpsum	9901	1.00	25	25.00
						11,974.25

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		119.74
						12,093.99
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		1,699.21
						13,793.20
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		2,068.98
						15,862.18
	Add for Cess @ 1%	Lumpsum	9905	0.01		158.62
	Cost for 40 Sqm					16,020.80
	Rate per Sqm	Sqm				400.52
155022	Level crossing with CC block surface					
	Details of cost for 40 Sqm (Lumpsum area for 9 metre wide LC for one Line)					
	Material:					
	Coal tar Emulsion	Litre	0315	79.00	5	395.00
	Soft Brush for painting - 25cm long	Each	0312	59.00	1	59.00
	Wire Brush - 25cm long	Each	0311	42.00	1	42.00
	Labour:					
	Mate (Skilled)	Day	0002	751.00	1	751.00
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	1	749.00
	Helper (Semi-skilled)	Day	0021	572.00	1	572.00
	Painter (Skilled)	Day	0012	749.00	0.25	187.25
	Look Out Man (Un-skilled)	Day	0033	547.00	1	547.00
	Waterman (Un-skilled)	Day	0034	547.00	1	547.00
	Labour Unskilled	Day	0020	540.00	12	6,480.00
	Misc.:					
	T & P	Lumpsum	9901	1.00	25.00	25.00
						10,354.25
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		103.54
						10,457.79
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		1,469.32
						11,927.11
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		1,789.07
						13,716.18
	Add for Cess @ 1%	Lumpsum	9905	0.01		137.16
	Cost for 40 Sqm					13,853.34
	Cost for 1 Sqm	Sqm				346.33
155023	Level crossing with Moorum/earth surface					
	Details of cost for 40 Sqm (Lumpsum area for 9 metre wide LC for one Line)					
	Material:					
	Coal tar Emulsion	Litre	0315	79.00	5	395.00
	Soft Brush for painting - 25cm long	Each	0312	59.00	1	59.00
	Wire Brush - 25cm long	Each	0311	42.00	1	42.00
	Labour:					
	Mate (Skilled)	Day	0002	751.00	1	751.00
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	1	749.00
	Helper (Semi-skilled)	Day	0021	572.00	1	572.00
	Painter (Skilled)	Day	0012	749.00	0.25	187.25
	Look Out Man (Un-skilled)	Day	0033	547.00	1	547.00
	Waterman (Un-skilled)	Day	0034	547.00	1	547.00
	Labour Unskilled	Day	0020	540.00	8	4,320.00
	Misc.:					
	T & P	Lumpsum	9901	1.00	25.00	25.00
						8,194.25
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		81.94
						8,276.19
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		1,162.81
						9,439.00
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		1,415.85
						10,854.85

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Add for Cess @ 1%	Lumpsum	9905	0.01		108.55
	Cost for 40 Sqm					10,963.40
	Rate per sqm	Sqm				274.08
155030	Removing and refixing of guard Rails over slab bridges during machine packing with all contractor's men and materials duly removing fittings, leading guard rails to bridge approaches, lifting, dragging, positioning and crossing of track etc, and as directed by Engineer In charge.					
	Details of Cost for 100 Track Metre					
	Labour:					
	Mate (Skilled)	Day	0002	751.00	0.50	375.50
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	1.00	749.00
	Helper (Semi-skilled)	Day	0021	572.00	1.00	572.00
	Waterman (Un-skilled)	Day	0034	547.00	1.00	547.00
	Look Out Man (Un-skilled)	Day	0033	547.00	1.00	547.00
	Labour Unskilled	Day	0020	540.00	10.00	5,400.00
	Misc.:					
	T & P (Crow bar, Hammer, box spanner, spanner, Rail tongues etc.)	Lumpsum	9901	1.00	30.00	30.00
						8,220.50
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		82.21
						8,302.71
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		1,166.53
						9,469.24
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		1,420.39
						10,889.62
	Add for Cess @ 1%	Lumpsum	9905	0.01		108.90
	Cost for 100 Track Metres					10,998.52
	Rate per TRM	TRM				109.99
156000	Unimat Machine Related Works					
156010	Carrying out pre-tamping, during tamping and post-tamping works for tamping of Turnouts of all types Under Traffic Block Conditions which include :(1) Re-adjustment of ballast, heaping-up of ballast, filling-up of cavities in tamping zone by picking ballast from stacks / shoulders / crib of adjoining track up to lead of 50 m to ensure effective packing; (2) Clearing of ballast on sleepers to make them visible to operator; (3) Clearing of ballast over rail foot to facilitate holding of rail by rollers of UNIMAT; (4) Digging, screening and replenishment of ballast at mud pumping / rounded ballast in sleeper crib location; (5) Tightening of loose fittings including check rails immediately before & after tamping; (6) Replacement of broken / missing fittings supplied by Railway; (7) Correcting displaced sleepers to position along with squaring; (8) Re-setting worked-out / fallen fittings; (9) Removing and re-fixing joggled fish plates & wooden blocks, OHE bonds & other obstructions, wherever necessary ;(10) Removing and re-fixing stretcher bar, as directed; (11) Adjustment in opening and housing of switch for testing operation of points (12)Manual consolidation of ballast in cribs and shoulders; (13) Stages of payment a) 30% of the rate will be paid on completion of pre tamping attention, b) Balance 70% of the rate will be paid on completion of post tamping; (14) Recovery at the rate of twice the applicable rate will be effected in case contractor fails to carry out any of the pre/during/post operation.					
156011	1 in 8½ Turnouts (Under Traffic Block Conditions)					
	Details of cost for 1 set					
	Labour:					
	(i) Pretamping:-opening of the joggled plates, squaring & correcting sleeper spacing,					
	Labour Unskilled	Day	0020	540.00	6.00	3,240.00
	(ii) Attention to fittings					
	Labour Unskilled	Day	0020	540.00	2.00	1,080.00
	(iii) Filling of ballast in temping zone & other misc. works.					
	Labour Unskilled	Day	0020	540.00	2.00	1,080.00

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	(iv) Removing, refixing stretcher bar, adjustment of opening & housing					
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	0.50	374.50
	Helper (Semi-skilled)	Day	0021	572.00	0.50	286.00
	Waterman (Un-skilled)	Day	0034	547.00	0.50	273.50
	Look Out Man (Un-skilled)	Day	0033	547.00	0.50	273.50
	Misc.:					
	T & P (Rail Tongue, Crow bars, Hammer, Beater, spanner, pan iron mortar etc.)	Lumpsum	9901	1.00	30.00	30.00
						6,637.50
	Add for working under traffic block @ 10%	Lumpsum	9992	0.10		663.75
						7,301.25
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		73.01
						7,374.26
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		1,036.08
						8,410.35
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		1,261.55
						9,671.90
	Add for Cess @ 1%	Lumpsum	9905	0.01		96.72
	Cost for 1 set					9,768.62
	Rate per set	Set				9,768.62
156012	1 in 12 Turnouts (Under Traffic Block Conditions)					
	Details of cost for 1 set					
	Labour:					
	(i) Pretamping:-opening of the jogged plates, squaring & correcting sleeper spacing,					
	Labour Unskilled	Day	0020	540.00	6.00	3,240.00
	(ii) Attention to fittings					
	Labour Unskilled	Day	0020	540.00	3.00	1,620.00
	(iii) Filling of ballast in temping zone & other misc. works.					
	Labour Unskilled	Day	0020	540.00	3.00	1,620.00
	(iv) Removing, refixing stretcher bar, adjustment of opening & housing					
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	0.50	374.50
	Helper (Semi-skilled)	Day	0021	572.00	0.50	286.00
	Waterman (Un-skilled)	Day	0034	547.00	0.50	273.50
	Look Out Man (Un-skilled)	Day	0033	547.00	0.50	273.50
	Misc.:					
	T & P (Rail Tongue, Crow bars, Hammer, Beater, spanner, pan iron mortar etc.)	Lumpsum	9901	1.00	40.00	40.00
						7,727.50
	Add for working under traffic block @ 10%	Lumpsum	9992	0.10		772.75
						8,500.25
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		85.00
						8,585.25
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		1,206.23
						9,791.48
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		1,468.72
						11,260.20
	Add for Cess @ 1%	Lumpsum	9905	0.01		112.60
	Cost for 1 set					11,372.80
	Rate per set	Set				11,372.80
156013	1 in 16 Turnouts (Under Traffic Block Conditions)					
	Details of cost for 1 set					
	Labour:					
	(i) Pretamping:-opening of the jogged plates, squaring & correcting sleeper spacing,					
	Labour Unskilled	Day	0020	540.00	6.00	3,240.00
	(ii) Attention to fittings					
	Labour Unskilled	Day	0020	540.00	4.00	2,160.00
	(iii) Filling of ballast in temping zone & other misc. works.					
	Labour Unskilled	Day	0020	540.00	4.00	2,160.00
	(iv) Removing, refixing stretcher bar, adjustment of opening & housing					
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	1.00	749.00

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Helper (Semi-skilled)	Day	0021	572.00	1.00	572.00
	Waterman (Un-skilled)	Day	0034	547.00	1.00	547.00
	Look Out Man (Un-skilled)	Day	0033	547.00	1.00	547.00
	Misc.:					
	T & P (Rail Tongue, Crow bars, Hammer, Beater, spanner, pan iron mortar etc.)	Lumpsum	9901	1.00	50.00	50.00
						10,025.00
	Add for working under traffic block @ 10%	Lumpsum	9992	0.10		1,002.50
						11,027.50
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		110.28
						11,137.78
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		1,564.86
						12,702.63
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		1,905.39
						14,608.03
	Add for Cess @ 1%	Lumpsum	9905	0.01		146.08
	Cost for 1 set					14,754.11
	Rate per set	Set				14,754.11
156014	1 in 20 Turnouts (Under Traffic Block Conditions)					
	Details of cost for 1 set					
	Labour:					
	(i) Pretamping:-opening of the jogged plates, squaring & correcting sleeper spacing,					
	Labour Unskilled	Day	0020	540.00	6.00	3,240.00
	(ii) Attention to fittings					
	Labour Unskilled	Day	0020	540.00	4.00	2,160.00
	(iii) Filling of ballast in temping zone & other misc. works.					
	Labour Unskilled	Day	0020	540.00	5.00	2,700.00
	(iv) Removing, refixing stretcher bar, adjustment of opening & housing					
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	1.00	749.00
	Helper (Semi-skilled)	Day	0021	572.00	1.00	572.00
	Waterman (Un-skilled)	Day	0034	547.00	1.00	547.00
	Look Out Man (Un-skilled)	Day	0033	547.00	1.00	547.00
	Misc.:					
	T & P (Rail Tongue, Crow bars, Hammer, Beater, spanner, pan iron mortar etc.)	Lumpsum	9901	1.00	60.00	60.00
						10,575.00
	Add for working under traffic block @ 10%	Lumpsum	9992	0.10		1,057.50
						11,632.50
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		116.33
						11,748.83
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		1,650.71
						13,399.53
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		2,009.93
						15,409.47
	Add for Cess @ 1%	Lumpsum	9905	0.01		154.09
	Cost for 1 set					15,563.56
	Rate per set	Set				15,563.56
156015	Derailing Switch (Under Traffic Block Conditions)					
	Details of cost for 2 sets					
	Labour:					
	(i) Pretamping:-opening of the jogged plates, squaring & correcting sleeper spacing,					
	Labour Unskilled	Day	0020	540.00	2.00	1,080.00
	(ii) Attention to fittings					
	Labour Unskilled	Day	0020	540.00	1.00	540.00
	(iii) Filling of ballast in temping zone & other misc. works.					
	Labour Unskilled	Day	0020	540.00	3.00	1,620.00
	(iv) Removing, refixing stretcher bar, adjustment of opening & housing					
	Mate (Skilled)	Day	0002	751.00	0.50	375.50
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	0.50	374.50
	Helper (Semi-skilled)	Day	0021	572.00	0.50	286.00

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Look Out Man (Un-skilled)	Day	0033	547.00	1.00	547.00
	Misc.:					
	T & P (Rail Tongue, Crow bars, Hammer, Beater, spanner, pan iron mortar etc.)	Lumpsum	9901	1.00	50.00	50.00
						4,873.00
	Add for working under traffic block @ 10%	Lumpsum	9992	0.10		487.30
						5,360.30
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		53.60
						5,413.90
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		760.65
						6,174.56
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		926.18
						7,100.74
	Add for Cess @ 1%	Lumpsum	9905	0.01		71.01
	Cost for 2 sets					7,171.75
	Rate per set	Set				3,585.87
156020	Extra Over Item Numbers 156011 to 156015 for night block working					
156021	Extra to Item no. 156011 for night block working					
	Take 15% of relevant item rate	Set	156011	9768.62	0.15	1,465.29
156022	Extra to Item no. 156012 for night block working					
	Take 15% of relevant item rate	Set	156012	11372.80	0.15	1,705.92
156023	Extra to Item no. 156013 for night block working					
	Take 15% of relevant item rate	Set	156013	14754.11	0.15	2,213.12
156024	Extra to Item no. 156014 for night block working					
	Take 15% of relevant item rate	Set	156014	15563.56	0.15	2,334.53
156025	Extra to Item no. 156015 for night block working					
	Take 15% of relevant item rate	Set	156015	3585.87	0.15	537.88
156030	Carrying out pre-tamping, during tamping and post-tamping works prescribed in current version IRTMM/IRPWM for tamping of Turnouts of all types Under Conditions not requiring Traffic Block.					
	For newly assembled turnout on compacted and level ballast bed, precisely laid as per layout drawing (s) with all new sleepers, fittings and other fixtures; many activities are not required in comparison to that turnouts over under train operation. Also there is no obstruction of traffic and no restriction of working hours as required for work under traffic block, the cost is considered as 60% of the cost turnouts under operation i.e. 60% of corresponding rates of item nos. 156010.					
156031	1 in 8½ Turnouts					
	Rate as per item no. 156011		156011	9768.62	0.60	5,861.17
	Rate per set	Set				5,861.17
156032	1 in 12 Turnouts					
	Rate as per item no. 156012		156012	11372.80	0.60	6,823.68
	Rate per set	Set				6,823.68
156033	1 in 16 Turnouts					
	Rate as per item no. 156013		156013	14754.11	0.60	8,852.46
	Rate per set	Set				8,852.46
156034	1 in 20 Turnouts					
	Rate as per item no. 156014		156014	15563.56	0.60	9,338.14
	Rate per set	Set				9,338.14
156035	Derailing Switch					

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Rate as per item no. 156014		156015	3585.87	0.60	2,151.52
	Rate per set	Set				2,151.52
157000	Miscellaneous					
157010	Carrying out various miscellaneous works, for proper upkeep of crew rest van / rest room as directed by machine in-charge of Track Machines by providing a team of 2 labours for 12 hours shift, broadly mentioned hereunder: (1) Bringing water from nearby source and cleaning machine with water jet or any suitable means; (2) Fuelling machine duly bringing diesel / hydraulic oil from the stacked drums; (3) Bringing water to staff rest van or staff rest room, cleaning rest van / rest room, cooking food for Track Machine staff or bringing food from outside (cost of food shall be borne by the staff concerned).; (4) Guarding & watching machines, spare parts, oils, grease etc. during day and night time at all locations, wherever necessary, as instructed by the machine in-charge; (5) In case, contractor provides less no. of Labour/Mate, payment will be deducted for each such person @ 75% of the accepted item rate.					
	Details of cost for 1 shift					
	Labour:					
	Labour Unskilled	Day	0020	540.00	1.00	540.00
	Waterman (Un-skilled)	Day	0034	547.00	1.00	547.00
	Misc.:					
	T & P	Lumpsum	9901	1.00	10.00	10.00
						1,097.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		10.97
						1,107.97
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		155.67
						1,263.64
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		189.55
						1,453.19
	Add for Cess @ 1%	Lumpsum	9905	0.01		14.53
	Cost for 1 shift					1,467.72
	Rate per shift per machine	Shift				1,467.72
157020	Carrying out ancillary works required for UTV working under line block i.e., turning of rails/ Sleepers and keeping in position for fixing of UTV clamps to rail, keeping rails/PSC Sleepers in position while loading into BFR, removal of clamps on BFR for releasing loaded rail/Sleepers, adjusting of rails/Sleepers on BFR etc. by providing minimum of three men in a shift of 8 hours, with all contractor's tools, all lead, lift, crossing of tracks etc., complete and as directed by the engineer - in - charge. Note: In case, contractor provides less no. of Labour, payment will be deducted for each such person @ 2/3 rd of the accepted item rate.					
	Cost for 1 shift of 8 Hrs					
	Labour:					
	Labour Unskilled	Day	0020	540.00	3.00	1,620.00
	Misc.:					
	T & P (Crow bar, Hammer, spanner, mortar pan etc.)	Lumpsum	9901	1.00	10.00	10.00
						1,630.00
	Add for working under traffic block @ 10%	Lumpsum	9992	0.10		163.00
						1,793.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		17.93
						1,810.93
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		254.44
						2,065.37
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		309.80
						2,375.17

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Add for Cess @ 1%	Lumpsum	9905	0.01		23.75
	Rate per shift	Shift				2,398.92
157030	Providing lighting arrangements with halogen lamps on and around machine during machine working in night time blocks, with contractor's generator, consumables, all necessary electrical fittings, operators etc. Note: 1. Lighting arrangement is to be provided as per advance planning of Night Blocks and written communication. 2. In case lighting arrangement is made available but not used due to non-availability of block, payment @ 60% of the item rate shall be made. 3. In place of Halogen, LED lamps of equal lumen capacity may be used with the approval of Engineer-in-Charge. 4. If lighting arrangement fails during block, recovery shall be made twice the rate per day.					
157031	BCM/FRM/UNIMAT (7.5 KVA generator and 12x500 W)					
	Detail of cost for per night					
	Materials :					
	Hire Charges of Halogen Lamps 500 Watt	Day	0165	192.00	12.00	2,304.00
	Labour:					
	Electrician (Skilled)	Day	0013	749.00	1.00	749.00
	Helper (Semi-skilled)	Day	0021	572.00	1.00	572.00
	Misc.:					
	T & P	Lumpsum	9901	1.00	10.00	10.00
	Hire charges of 7.5 KVA Generator	Day	0072	1133.00	1.00	1,133.00
						4,768.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		47.68
						4,815.68
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		676.60
						5,492.28
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		823.84
						6,316.13
	Add for Cess @ 1%	Lumpsum	9905	0.01		63.16
	Cost for per night					6,379.29
	Rate per night	Night				6,379.29
157032	CSM / DUO / 3X with or without DGS (7.5 KVA generator and 8x500 W)					
	Detail of cost for per night					
	Materials :					
	Hire Charges of Halogen Lamps 500 Watt	Day	0165	192.00	8.00	1,536.00
	Labour:					
	Electrician (Skilled)	Day	0013	749.00	1.00	749.00
	Helper (Semi-skilled)	Day	0021	572.00	1.00	572.00
	Misc.:					
	T & P	Lumpsum	9901	1.00	10.00	10.00
	Hire charges of 7.5 KVA Generator	Day	0072	1133	1.00	1,133.00
						4,000.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		40.00
						4,040.00
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		567.62
						4,607.62
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		691.14
						5,298.76
	Add for Cess @ 1%	Lumpsum	9905	0.01		52.99
	Cost for per night					5,351.75
	Rate per night	Night				5,351.75

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CHAPTER - 16 : Small Track Machines

Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
161000	Rails					
161010	Quick cutting with abrasive rail cutter of all types of rail sections including wear resistant, head hardened rails up to 110 UTS, with contractors tools & plants, equipment, consumable with all lead & lift etc. complete as directed by Engineer in-charge. Abrasive Rail Cutter will be as per RDSO Specification No. TM/SM/1 (Rev. 01 of 2012) with latest status of RDSO; Rail Cutting Wheel Abrasive Disc will be as per RDSO Specification No. TM/SM/2 (Rev. 01 of 2020)					
161011	60 Kg - 110/90 UTS - Outside Track					
	Details of cost for 48 cuts.					
	Material:					
	As per RDSO Specification No. TM/SM/2 Rev. 01 of 2007) number of cut per disc is 6. Thus for 48 cuts, number of disc required = $48/6 = 8$ nos.					
	Abrasive rail cutting disc as per RDSO's Spec. no. TM/SM/2	Each	0455	730.00	8.00	5,840.00
	Driving belt (abrasive rail cutter)	Each	0456	747.00	0.25	186.75
	Normal unleaded Petrol	Litre	0180	108.00	8.00	864.00
	Labour:					
	Machinist (operator) (Skilled)	Day	0040	738.00	0.50	369.00
	Helper (Semi-skilled)	Day	0021	572.00	0.50	286.00
	Labour Unskilled	Day	0020	540.00	2.00	1,080.00
	Misc.:					
	T & P including consumables	Lumpsum	9901	1.00	50.00	50.00
	Hire charges of Abrasive Rail Cutter (without POL)	Day	0140	715.00	1.00	715.00
						9,390.75
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		93.91
						9,484.66
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		1,332.59
						10,817.25
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		1,622.59
						12,439.84
	Add for Cess @ 1%	Lumpsum	9905	0.01		124.40
	Cost for 48 cuts					12,564.24
	Rate per cut	Each				261.75
161012	52 Kg - 90 UTS - Outside Track					
	Details of cost for 60 cuts.					
	Material:					
	As per RDSO Specification No. TM/SM/2 Rev. 01 of 2007) number of cut per disk is 7. Thus for 60 cuts, number of disk required = $60/7 = 8.5$ nos.					
	Abrasive rail cutting disc as per RDSO's Spec. no. TM/SM/2	Each	0455	730.00	9.00	6,570.00
	Driving belt (abrasive rail cutter)	Each	0456	747.00	1.00	747.00
	Normal unleaded Petrol	Litre	0180	108.00	8.00	864.00
	Labour:					
	Machinist (operator) (Skilled)	Day	0040	738.00	0.50	369.00
	Helper (Semi-skilled)	Day	0021	572.00	0.50	286.00
	Labour Unskilled	Day	0020	540.00	2.00	1,080.00
	Misc.:					
	T & P including consumables	Lumpsum	9901	1.00	50.00	50.00
	Hire charges of Abrasive Rail Cutter (without POL)	Day	0140	715.00	1.00	715.00
						10,681.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		106.81
						10,787.81
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		1,515.69
						12,303.50
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		1,845.52
						14,149.02
	Add for Cess @ 1%	Lumpsum	9905	0.01		141.49
	Cost for 60 cuts					14,290.51
	Rate per cut	Each				238.18

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
161013	52 Kg - 72 UTS & other rails - Outside Track					
	Details of cost for 60 cuts.					
	Material:					
	As per RDSO Specification No. TM/SM/2 Rev. 01 of 2007) number of cut per disk is 12. Thus for 60 cuts, number of disk required = 60/12 = 5 nos.					
	Abrasive rail cutting disc as per RDSO's Spec. no. TM/SM/2	Each	0455	730.00	5.00	3,650.00
	Driving belt (abrasive rail cutter)	Each	0456	747.00	0.50	373.50
	Normal unleaded Petrol	Litre	0180	108.00	4.00	432.00
	Labour:					
	Machinist (operator) (Skilled)	Day	0040	738.00	0.25	184.50
	Helper (Semi-skilled)	Day	0021	572.00	0.25	143.00
	Labour Unskilled	Day	0020	540.00	2.00	1,080.00
	Misc.:					
	T & P including consumables	Lumpsum	9901	1.00	50.00	50.00
	Hire charges of Abrasive Rail Cutter (without POL)	Day	0140	715.00	1.00	715.00
						6,628.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		66.28
						6,694.28
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		940.55
						7,634.83
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		1,145.22
						8,780.05
	Add for Cess @ 1%	Lumpsum	9905	0.01		87.80
	Cost for 60 cuts					8,867.85
	Rate per cut	Each				147.80
161014	60 Kg - 110/90 UTS - On Running Line					
	Details of cost for 48 cuts.					
	Material:					
	As per RDSO Specification No. TM/SM/2 Rev. 01 of 2007) number of cut per disc is 6. Thus for 48 cuts, number of disc required = 48/6 = 8 nos. However, due to rail stresses as well as stress hardening, number of disk required is considered more by 20% i.e. 8 x 1.20 = 9.6 Say 10 nos.					
	Abrasive rail cutting disc as per RDSO's Spec. no. TM/SM/2	Each	0455	730.00	10.00	7,300.00
	Driving belt (abrasive rail cutter)	Each	0456	747.00	0.25	186.75
	Normal unleaded Petrol	Litre	0180	108.00	8.00	864.00
	Labour:					
	Mate (Skilled)	Day	0002	751.00	0.50	375.50
	Machinist (operator) (Skilled)	Day	0040	738.00	1.00	738.00
	Helper (Semi-skilled)	Day	0021	572.00	1.00	572.00
	Labour Unskilled	Day	0020	540.00	2.00	1,080.00
	Misc.:					
	T & P including consumables	Lumpsum	9901	1.00	50.00	50.00
	Hire charges of Abrasive Rail Cutter (without POL)	Day	0140	715.00	1.00	715.00
						11,881.25
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		118.81
						12,000.06
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		1,686.01
						13,686.07
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		2,052.91
						15,738.98
	Add for Cess @ 1%	Lumpsum	9905	0.01		157.39
	Cost for 48 cuts					15,896.37
	Rate per cut	Each				331.17
161015	52 Kg - 90 UTS- On Running Line					
	Details of cost for 60 cuts.					

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Material:					
	As per RDSO Specification No. TM/SM/2 Rev. 01 of 2007) number of cut per disk is 7. Thus for 60 cuts, number of disk required = 60/7 = 8.5 nos. However, due to rail stresses as well as stress hardening, number of disk required is considered more by 20% i.e. 8.5 x 1.20 = 10.2 Say 10 nos.					
	Abrasive rail cutting disc as per RDSO's Spec. no. TM/SM/2	Each	0455	730.00	10.00	7,300.00
	Driving belt (abrasive rail cutter)	Each	0456	747.00	0.25	186.75
	Normal unleaded Petrol	Litre	0180	108.00	8.00	864.00
	Labour:					
	Mate (Skilled)	Day	0002	751.00	0.50	375.50
	Machinist (operator) (Skilled)	Day	0040	738.00	0.50	369.00
	Helper (Semi-skilled)	Day	0021	572.00	1.00	572.00
	Look Out Man (Un-skilled)	Day	0033	547.00	1.00	547.00
	Labour Unskilled	Day	0020	540.00	2.00	1,080.00
	Misc.:					
	T & P including consumables	Lumpsum	9901	1.00	50.00	50.00
	Hire charges of Abrasive Rail Cutter (without POL)	Day	0140	715.00	1.00	715.00
						12,059.25
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		120.59
						12,179.84
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		1,711.27
						13,891.11
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		2,083.67
						15,974.78
	Add for Cess @ 1%	Lumpsum	9905	0.01		159.75
	Cost for 60 cuts					16,134.52
	Rate per cut	Each				268.91
161020	Cutting of rails with Rail Cutting Machine (Saw type) in all types of rail sections with contractor's tools & plants, equipment, consumable with all lead & lift etc. complete, as directed by Engineer in-charge. Rail Cutting Machine (Saw type) will be as per RDSO Specification No. TM/SM/4, dated 24.04.1991. Note: This item shall only be used in specific circumstances on specific order of Engineer-in-Charge.					
161021	60 Kg - 110 UTS - Outside Track					
	Details of cost for 11 cuts					
	Material:					
	High Speed Hacksaw Blade of size 300mm x 12.5mm x 0.63mm (18TPI) as per as per RDSO's Spec. no. TM/SM/26 (latest Rev.)	Each	0453	182.00	2.00	364.00
	Normal unleaded Petrol	Litre	0180	108.00	1.00	108.00
	Kerosene Oil	Litre	0183	63.00	6.00	378.00
	Labour:					
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	0.50	374.50
	Helper (Semi-skilled)	Day	0021	572.00	0.50	286.00
	Labour Unskilled	Day	0020	540.00	2.00	1,080.00
	Misc.:					
	T & P	Lumpsum	9901	1.00	10.00	10.00
	Hire charges of Rail Cutting Machine	Day	0139	633.00	1.00	633.00
						3,233.50
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		32.34
						3,265.84
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		458.85
						3,724.68
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		558.70
						4,283.39
	Add for Cess @ 1%	Lumpsum	9905	0.01		42.83
	Cost for 11 cuts					4,326.22
	Rate per cut	Each				393.29

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
161022	60 Kg - 90 UTS - Outside Track					
	Details of cost for 14 cuts					
	Material:					
	High Speed Hacksaw Blade of size 300mm x 12.5mm x 0.63mm (18TPI) as per as	Each	0453	182.00	2.00	364.00
	Normal unleaded Petrol	Litre	0180	108.00	1.00	108.00
	Kerosene Oil	Litre	0183	63.00	6.00	378.00
	Labour:					
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	0.50	374.50
	Helper (Semi-skilled)	Day	0021	572.00	0.50	286.00
	Labour Unskilled	Day	0020	540.00	2.00	1,080.00
	Misc.:					
	T & P	Lumpsum	9901	1.00	10.00	10.00
	Hire charges of Rail Cutting Machine	Day	0139	633.00	1.00	633.00
						3,233.50
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		32.34
						3,265.84
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		458.85
						3,724.68
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		558.70
						4,283.39
	Add for Cess @ 1%	Lumpsum	9905	0.01		42.83
	Cost for 14 cuts					4,326.22
	Rate per cut	Each				309.02
161023	52 Kg - 90 UTS - Outside Track					
	Details of cost for 18 cuts					
	Material:					
	High Speed Hacksaw Blade of size 300mm x 12.5mm x 0.63mm (18TPI) as per as	Each	0453	182.00	2.00	364.00
	Normal unleaded Petrol	Litre	0180	108.00	1.00	108.00
	Kerosene Oil	Litre	0183	63.00	6.00	378.00
	Labour:					
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	1.00	749.00
	Helper (Semi-skilled)	Day	0021	572.00	1.00	572.00
	Labour Unskilled	Day	0020	540.00	2.00	1,080.00
	Misc.:					
	T & P	Lumpsum	9901	1.00	10.00	10.00
	Hire charges of Rail Cutting Machine	Day	0139	633.00	1.00	633.00
						3,894.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		38.94
						3,932.94
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		552.58
						4,485.52
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		672.83
						5,158.35
	Add for Cess @ 1%	Lumpsum	9905	0.01		51.58
	Cost for 18 cuts					5,209.93
	Rate per cut	Each				289.44
161024	52 Kg - 72 UTS & other rails - Outside Track					
	Details of cost for 24 cuts					
	Material:					
	High Speed Hacksaw Blade of size 300mm x 12.5mm x 0.63mm (18TPI) as per as	Each	0453	182.00	2.00	364.00
	Normal unleaded Petrol	Litre	0180	108.00	1.00	108.00
	Kerosene Oil	Litre	0183	63.00	6.00	378.00
	Labour:					
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	1.00	749.00
	Helper (Semi-skilled)	Day	0021	572.00	1.00	572.00
	Labour Unskilled	Day	0020	540.00	2.00	1,080.00
	Misc.:					
	T & P	Lumpsum	9901	1.00	10.00	10.00

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Hire charges of Rail Cutting Machine	Day	0139	633.00	1.00	633.00
						3,894.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		38.94
						3,932.94
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		552.58
						4,485.52
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		672.83
						5,158.35
	Add for Cess @ 1%	Lumpsum	9905	0.01		51.58
	Cost for 24 cuts					5,209.93
	Rate per cut	Each				217.08
161025	60 Kg - 110 UTS- On Running Line					
	Details of cost for 9 cuts					
	Material:					
	High Speed Hacksaw Blade of size 300mm x 12.5mm x 0.63mm (18TPI) as per as per RDSO's Spec. no. TM/SM/26 (latest Rev.)	Each	0453	182.00	2.00	364.00
	Normal unleaded Petrol	Litre	0180	108.00	1.00	108.00
	Kerosene Oil	Litre	0183	63.00	6.00	378.00
	Labour:					
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	0.50	374.50
	Helper (Semi-skilled)	Day	0021	572.00	0.50	286.00
	Look Out Man (Un-skilled)	Day	0033	547.00	0.50	273.50
	Labour Unskilled	Day	0020	540.00	2.00	1,080.00
	Misc.:					
	T & P	Lumpsum	9901	1.00	10.00	10.00
	Hire charges of Rail Cutting Machine	Day	0139	633.00	1.00	633.00
						3,507.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		35.07
						3,542.07
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		497.66
						4,039.73
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		605.96
						4,645.69
	Add for Cess @ 1%	Lumpsum	9905	0.01		46.46
	Cost for 9 cuts					4,692.15
	Rate per cut	Each				521.35
161026	60 Kg - 90 UTS- On Running Line					
	Details of cost for 10 cuts					
	Material:					
	High Speed Hacksaw Blade of size 300mm x 12.5mm x 0.63mm (18TPI) as per as	Each	0453	182.00	2.00	364.00
	Normal unleaded Petrol	Litre	0180	108.00	1.00	108.00
	Kerosene Oil	Litre	0183	63.00	6.00	378.00
	Labour:					
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	0.50	374.50
	Helper (Semi-skilled)	Day	0021	572.00	0.50	286.00
	Look Out Man (Un-skilled)	Day	0033	547.00	0.50	273.50
	Labour Unskilled	Day	0020	540.00	2.00	1,080.00
	Misc.:					
	T & P	Lumpsum	9901	1.00	10.00	10.00
	Hire charges of Rail Cutting Machine	Day	0139	633.00	1.00	633.00
						3,507.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		35.07
						3,542.07
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		497.66
						4,039.73
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		605.96
						4,645.69
	Add for Cess @ 1%	Lumpsum	9905	0.01		46.46

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Cost for 10 cuts					4,692.15
	Rate per cut	Each				469.21
161027	52 Kg - 90 UTS- On Running Line					
	Details of cost for 14 cuts					
	Material:					
	High Speed Hacksaw Blade of size 300mm x 12.5mm x 0.63mm (18TPI) as per as	Each	0453	182.00	2.00	364.00
	Normal unleaded Petrol	Litre	0180	108.00	1.00	108.00
	Kerosene Oil	Litre	0183	63.00	4.00	252.00
	Labour:					
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	0.50	374.50
	Helper (Semi-skilled)	Day	0021	572.00	0.50	286.00
	Look Out Man (Un-skilled)	Day	0033	547.00	0.50	273.50
	Labour Unskilled	Day	0020	540.00	2.00	1,080.00
	Misc.:					
	T & P	Lumpsum	9901	1.00	10.00	10.00
	Hire charges of Rail Cutting Machine	Day	0139	633.00	1.00	633.00
						3,381.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		33.81
						3,414.81
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		479.78
						3,894.59
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		584.19
						4,478.78
	Add for Cess @ 1%	Lumpsum	9905	0.01		44.79
	Cost for 14 cuts					4,523.57
	Rate per cut	Each				323.11
161030	Cutting of rails with electrically operated Rail Cutting Machine in all types of rail sections, with contractor's tools & plants, equipment, consumable with all lead & lift etc. complete, as directed by Engineer in-charge as per Specifications. Machine to be fitted with monorail wheel arrangement and a handle of convenient height to enable it to be pushed over one rail by one person to take it to the work-site.					
161031	Outside track - When Electricity provided by static power supply of Railway :					
	Details of cost for 14 cuts					
	Material:					
	High Speed Hacksaw Blade of size 300mm x 12.5mm x 0.63mm (18TPI) as per as	Each	0453	182.00	2.00	364.00
	Labour:					
	Machinist (operator) (Skilled)	Day	0040	738.00	0.50	369.00
	Helper (Semi-skilled)	Day	0021	572.00	0.50	286.00
	Labour Unskilled	Day	0020	540.00	1.00	540.00
	Misc.:					
	T & P	Lumpsum	9901	1.00	20.00	20.00
	Hire charges of Electrically operated Rail Cutting Machine	Day	0138	512.00	1.00	512.00
						2,091.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		20.91
						2,111.91
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		296.72
						2,408.63
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		361.30
						2,769.93
	Add for Cess @ 1%	Lumpsum	9905	0.01		27.70
	Cost for 14 cuts					2,797.63
	Rate per cut	Each				199.83
161032	On Running track - When Electricity provided by static power supply of Railway :					
	Details of cost for 14 cuts					
	Material:					
	High Speed Hacksaw Blade of size 300mm x 12.5mm x 0.63mm (18TPI) as per as	Each	0453	182.00	2.00	364.00

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Labour:					
	Mate (Skilled)	Day	0002	751.00	0.50	375.50
	Machinist (operator) (Skilled)	Day	0040	738.00	0.50	369.00
	Helper (Semi-skilled)	Day	0021	572.00	0.50	286.00
	Look Out Man (Un-skilled)	Day	0033	547.00	1.00	547.00
	Labour Unskilled	Day	0020	540.00	1.00	540.00
	Misc.:					
	T & P	Lumpsum	9901	1.00	20.00	20.00
	Hire charges of Electrically operated Rail Cutting Machine	Day	0138	512.00	1.00	512.00
						3,013.50
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		30.14
						3,043.64
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		427.63
						3,471.27
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		520.69
						3,991.96
	Add for Cess @ 1%	Lumpsum	9905	0.01		39.92
	Cost for 14 cuts					4,031.88
	Rate per cut	Each				287.99
161040	Drilling holes of 16 mm to 32 mm dia. with Rail Drilling machine including chamfering with appropriate chamfering tools in all types of rail section with contractor's tools & plants, equipment, consumable with all lead & lift etc. complete, as directed by Engineer in-charge. Rail Drilling Machine will be as per RDSO Specification No. TM/SM/3, dated 24.04.1991.					
161041	Outside Track					
	Details of cost for 100 holes					
	Material:					
	Drill twist made of high speed steel for size 26.5mm dia of Addison / I T make	Each	0462	2517.00	0.50	1,258.50
	Kerosene Oil	Litre	0183	63.00	6.00	378.00
	Normal unleaded Petrol	Litre	0180	108.00	0.50	54.00
	Labour:					
	Machinist (operator) (Skilled)	Day	0040	738.00	1.00	738.00
	Helper (Semi-skilled)	Day	0021	572.00	1.00	572.00
	Labour Unskilled	Day	0020	540.00	1.00	540.00
	Misc.:					
	T & P (Ratchet & Chamfering kit etc.)	Lumpsum	9901	1.00	50.00	50.00
	Hire charges of Rail Drill Machine	Day	0134	442.00	1.00	442.00
						4,032.50
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		40.33
						4,072.83
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		572.23
						4,645.06
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		696.76
						5,341.82
	Add for Cess @ 1%	Lumpsum	9905	0.01		53.42
	Cost for 100 holes					5,395.23
	Rate per hole	Each				53.95
161042	On Running Line					
	Details of cost for 100 holes					
	Material:					
	Drill twist made of high speed steel for size 26.5mm dia of Addison / I T make	Each	0462	2517.00	0.50	1,258.50
	Kerosene Oil	Litre	0183	63.00	6.00	378.00
	Normal unleaded Petrol	Litre	0180	108.00	0.50	54.00
	Labour:					
	Mate (Skilled)	Day	0002	751.00	1.00	751.00
	Machinist (operator) (Skilled)	Day	0040	738.00	1.00	738.00
	Helper (Semi-skilled)	Day	0021	572.00	1.00	572.00

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Look Out Man (Un-skilled)	Day	0033	547.00	1.00	547.00
	Labour Unskilled	Day	0020	540.00	1.00	540.00
	Misc.:					
	T & P (Ratchet & Chamfering kit etc.)	Lumpsum	9901	1.00	50.00	50.00
	Hire charges of Rail Drill Machine	Day	0134	442.00	1.00	442.00
						5,330.50
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		53.31
						5,383.81
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		756.42
						6,140.23
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		921.03
						7,061.26
	Add for Cess @ 1%	Lumpsum	9905	0.01		70.61
	Cost for 100 holes					7,131.88
	Rate per hole	Each				71.32
161050	Drilling holes of specified size for bond holes with 7.2mm dia drill twist to correct spacing and location on 60kg/52kg rails on cess or under traffic block with contractor's tools and plant, equipment, consumable, labour etc complete as directed by the Engineer in charge at site.					
	Details of cost for 100 holes					
	Material:					
	Drill twist made of high speed of size 7.2 mm dia of Addison / I.T. make	Each	0461	258.00	1.00	258.00
	Kerosene Oil	Litre	0183	63.00	5.00	315.00
	Normal unleaded Petrol	Litre	0180	108	0.50	54.00
	Labour:					
	Machinist (operator) (Skilled)	Day	0040	738.00	1.00	738.00
	Helper (Semi-skilled)	Day	0021	572.00	1.00	572.00
	Labour Unskilled	Day	0020	540.00	1.00	540.00
	Misc.:					
	T & P including consumables	Lumpsum	9901	1	50.00	50.00
	Hire charges of Rail Drill Machine	Day	0134	442.00	1.00	442.00
						2,969.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		29.69
						2,998.69
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		421.32
						3,420.01
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		513.00
						3,933.01
	Add for Cess @ 1%	Lumpsum	9905	0.01		39.33
	Cost for 100 holes					3,972.34
	Rate per hole	Each				39.72
161060	Bending & De-kinking with Hydraulic rail bender (Jim Crow) heavy duty in all types of rail sections of flat bottom rails maximum up to 40mm with contractor's tools & plants, equipment, consumable with all lead & lift etc. complete, as directed by Engineer in-charge. Hydraulic Rail Bender (Jim Crow) Heavy duty will be as per RDSO Specification No. TM/SM/5, dated 08.05.1991.					
161061	Outside Track					
	Details of cost for 40 bends					
	Material:					
	Hydraulic oil SS-68 or equivalent of HPCL/BPCL/IOCL	Litre	0181	143.00	0.50	71.50
	Labour:					
	Machinist (operator) (Skilled)	Day	0040	738.00	1.00	738.00
	Helper (Semi-skilled)	Day	0021	572.00	1.00	572.00
	Labour Unskilled	Day	0020	540.00	2.00	1,080.00
	Misc.:					
	T & P	Lumpsum	9901	1.00	20.00	20.00
	Hire charges of Hydraulic Rail bender (Jim Crow)	Day	0141	683.00	1.00	683.00
						3,164.50

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		31.65
						3,196.15
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		449.06
						3,645.20
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		546.78
						4,191.98
	Add for Cess @ 1%	Lumpsum	9905	0.01		41.92
	Cost for 40 bends					4,233.90
	Rate per bend	Each				105.85
161062	On Running Line					
	Details of cost for 40 bends					
	Material:					
	Hydraulic oil SS-68 or equivalent of HPCL/BPCL/IOCL	Litre	0181	143.00	0.50	71.50
	Labour:					
	Machinist (operator) (Skilled)	Day	0040	738.00	1.00	738.00
	Helper (Semi-skilled)	Day	0021	572.00	1.00	572.00
	Look Out Man (Un-skilled)	Day	0033	547.00	1.00	547.00
	Labour Unskilled	Day	0020	540.00	2.00	1,080.00
	Misc.:					
	T & P	Lumpsum	9901	1.00	20.00	20.00
	Hire charges of Hydraulic Rail bender (Jim Crow)	Day	0141	683.00	1.00	683.00
						3,711.50
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		37.12
						3,748.62
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		526.68
						4,275.30
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		641.29
						4,916.59
	Add for Cess @ 1%	Lumpsum	9905	0.01		49.17
	Cost for 40 bends					4,965.76
	Rate per bend	Each				124.14
161070	Pulling of rail in LWR track by hydraulic rail tensor (Non-infringing type) under traffic block for maintaining specified gap at rail joints for A.T. welding with contractor's tools & plant, equipment, consumable with all lead & lift etc. complete, as directed by Engineer in-charge. Hydraulic Rail Tensor (Non-infringing type) will be as per RDSO's Specification No. TM/SM/32, dated 20.12.1991.					
	Details of cost for 8 gaps					
	Material:					
	Hydraulic oil SS-68 or equivalent of HPCL/BPCL/IOCL	Litre	0181	143.00	1.00	143.00
	Labour:					
	Mate (Skilled)	Day	0002	751.00	1.00	751.00
	Machinist (operator) (Skilled)	Day	0040	738.00	1.00	738.00
	Labour Unskilled	Day	0020	540.00	4.00	2,160.00
	Misc.:					
	T & P including consumables	Lumpsum	9901	1.00	50.00	50.00
	Hire charges of Hydraulic Rail tensor	Day	0143	1092.00	1.00	1,092.00
						4,934.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		49.34
						4,983.34
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		700.16
						5,683.50
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		852.52
						6,536.02
	Add for Cess @ 1%	Lumpsum	9905	0.01		65.36
	Cost for 8 gaps					6,601.38
	Rate per gap	Each				825.17

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
162000	Sleepers					
162010	Sleeper Spacing, Re-spacing / Squaring of sleeper by Hydraulic Sleeper Spacer with contractor's tools & plants, equipment, consumable with all lead & lift etc. complete, as directed by Engineer in-charge. Hydraulic Sleeper Spacer shall be as per RDSO's Specification No. TM/SM/17, dated 31.03.1992.					
	Details of cost for 60 sleepers					
	Material:					
	Hydraulic oil SS-68 or equivalent of HPCL/BPCL/IOCL	Litre	0181	143.00	0.50	71.50
	Labour:					
	Mate (Skilled)	Day	0002	751.00	1.00	751.00
	Helper (Semi-skilled)	Day	0021	572.00	1.00	572.00
	Look Out Man (Un-skilled)	Day	0033	547.00	1.00	547.00
	Labour Unskilled	Day	0020	540.00	2.00	1,080.00
	Misc.:					
	T & P	Lumpsum	9901	1.00	20.00	20.00
	Hire charges of Hydraulic Sleeper Spacer	Day	0144	842.00	1.00	842.00
						3,883.50
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		38.84
						3,922.34
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		551.09
						4,473.42
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		671.01
						5,144.44
	Add for Cess @ 1%	Lumpsum	9905	0.01		51.44
	Cost for 60 sleepers					5,195.88
	Rate per sleeper	Each				86.60
162020	Drilling of holes (vertically) of required size into concrete sleeper in-situ for fixing guard rails and check rails on concrete sleeper track at specified locations by concrete sleeper drilling machine with contractor's tools & plants, equipment, consumable with all lead & lift etc. complete, as directed by Engineer in-charge as per RDSO's Specification.					
	Details of cost for 60 holes					
	Material:					
	Drill twist made of high speed steel for size 18mm dia of Addison / I T make	Each	0463	1633.00	1.00	1,633.00
	Normal unleaded Petrol	Litre	0180	108.00	1.00	108.00
	Kerosene Oil	Litre	0183	63.00	5.00	315.00
	Labour:					
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	1.00	749.00
	Helper (Semi-skilled)	Day	0021	572.00	1.00	572.00
	Look Out Man (Un-skilled)	Day	0033	547.00	1.00	547.00
	Labour Unskilled	Day	0020	540.00	1.00	540.00
	Misc.:					
	T & P	Lumpsum	9901	1.00	20.00	20.00
	Hire charges of Concrete Sleeper Drilling Machine	Day	0137	475.00	1.00	475.00
						4,959.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		49.59
						5,008.59
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		703.71
						5,712.30
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		856.84
						6,569.14
	Add for Cess @ 1%	Lumpsum	9905	0.01		65.69
	Cost for 60 holes					6,634.83
	Rate per hole	Each				110.58

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
162030	Loading / unloading of concrete sleepers from cess to BFR / BRH wagons and vice-versa by jib crane attachable to BFR / BRH for handling concrete sleepers with contractor's tools & plants, equipment, consumable with all lead & lift etc. complete, as directed by Engineer in-charge.					
	Detail of cost for 100 sleepers					
	Man Power:					
	Labour Unskilled	Day	0020	540.00	3.000	1,620.00
	Misc.					
	T&P	Lumpsum	9901	1.00	50.000	50.00
	Hire charges of Jib crane attachable and detachable to BFR/BRH	Day	0155	478.00	1.000	478.00
						2,148.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		21.48
						2,169.48
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		304.81
						2,474.29
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		371.14
						2,845.44
	Add for Cess @ 1%	Lumpsum	9905	0.01		28.45
	Cost for 100 Sleepers					2,873.89
	Rate per sleeper	Each				28.74
162040	Quick removal of damaged concrete sleepers and restoration of railway track in case of accidents / derailments and other such emergent situations by Concrete Sleeper Breaker & angle grinder with contractor's tools & plants, equipments, consumable etc. with all lead & lift complete, as directed by Engineer in-charge.					
	Details of cost for 30 sleepers					
	Labour:					
	Helper (Semi-skilled)	Day	0021	572.00	2.00	1,144.00
	Labour Unskilled	Day	0020	540.00	2.00	1,080.00
	Misc.:					
	T & P including consumables	Lumpsum	9901	1.00	50.00	50.00
	Hire charges of Angle Grinder	Day	0147	411.00	1.00	411.00
	Hire charges of Hammer Breaker	Day	0145	468.00	1.00	468.00
	Hire charges of Generator 5 KVA (without POL)	Day	0071	867.00	1.00	867.00
						4,020.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		40.20
						4,060.20
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		570.46
						4,630.66
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		694.60
						5,325.26
	Add for Cess @ 1%	Lumpsum	9905	0.01		53.25
	Cost for 30 sleepers					5,378.51
	Rate per sleeper	Each				179.28
163000	Fittings					
163010	Measuring of Toe Load of ERC during service in field by Toe Load Measuring Device (Mechanical) with contractor's tools & plants, equipment, consumable with all lead & lift etc. complete, as directed by Engineer in-charge. Toe Load Measuring Device (Mechanical) will be as per RDSO's Specification No. TM/SM/14 (Rev. 01 of 2005 with all updation).					
	Details of cost for 500 ERC					
	Labour:					
	Machinist (operator) (Skilled)	Day	0040	738.00	1.00	738.00
	Helper (Semi-skilled)	Day	0021	572.00	1.00	572.00
	Misc.:					
	T & P	Lumpsum	9901	1.00	20.00	20.00
	Hire charges of Mechanical Toe load measuring device	Day	0150	558.00	1.00	558.00
						1,888.00

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		18.88
						1,906.88
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		267.92
						2,174.80
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		326.22
						2,501.02
	Add for Cess @ 1%	Lumpsum	9905	0.01		25.01
	Cost for 500 ERC					2,526.03
	Rate per ERC	Each				5.05
163020	Measuring of Toe Load of ERC during service in field by Electronic Toe Load Measuring Device with contractor's tools & plants, equipment, consumable with all lead & lift etc. complete, as directed by Engineer in-charge. Electronic Toe Load Measuring Device will be as per RDSO's Specification No.TM/SM/ETLMD/218 dated 13.9.2012.					
	Details of cost for 500 ERC					
	Material:					
	Rechargeable Battery for ETLMD as per RDSO's Spec. no. TM/SM/ETLMD/218	Each	0459	1467.00	0.10	146.70
	Grease Graphite Grade 'O' (IS:408)	Kg	0182	270.00	0.25	67.50
	Labour:					
	Machinist (operator) (Skilled)	Day	0040	738.00	1.00	738.00
	Helper (Semi-skilled)	Day	0021	572.00	1.00	572.00
	Misc.:					
	T & P	Lumpsum	9901	1.00	20.00	20.00
	Hire charges of Electronic Toe load measuring device	Day	0151	446.00	1.00	446.00
						1,990.20
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		19.90
						2,010.10
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		282.42
						2,292.52
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		343.88
						2,636.40
	Add for Cess @ 1%	Lumpsum	9905	0.01		26.36
	Cost for 500 ERC					2,662.76
	Rate per ERC	Each				5.33
163030	Extraction of jammed ERC by Heavy Duty Hydraulic Extractor with contractor's tools & plants, equipment, consumable with all lead & lift etc. complete, as directed by Engineer in-charge. Heavy Duty Hydraulic Extractor for jammed ERCs (10 Ton capacity) shall be used as per RDSO's Specification No. TM/SM/6, dated 8.05.1991.					
	Details of cost for 100 ERC					
	Material:					
	Hydraulic oil SS-68 or equivalent of HPCL/BPCL/IOCL	Litre	0181	143.00	0.25	35.75
	Labour:					
	Machinist (operator) (Skilled)	Day	0040	738.00	1.00	738.00
	Helper (Semi-skilled)	Day	0021	572.00	1.00	572.00
	Labour Unskilled	Day	0020	540.00	2.00	1,080.00
	Misc.:					
	T & P	Lumpsum	9901	1.00	20.00	20.00
	Hire charges of Heavy Duty Hydraulic Extractor (10 Tonnes)	Day	0142	625.00	1.00	625.00
						3,070.75
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		30.71
						3,101.46
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		435.75
						3,537.21
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		530.58
						4,067.79
	Add for Cess @ 1%	Lumpsum	9905	0.01		40.68
	Cost for 100 ERC					4,108.47
	Rate per ERC	Each				41.08

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
164000	Miscellaneous					
164010	Tamping of track for picking up slacks in concrete sleeper track by Hand Held Off Track Tamper (Power Pack Version) with contractor's tools & plants, equipment, consumable with all lead & lift etc. complete, as directed by Engineer in-charge. Off-track tamper (Power Pack Version) will be as per RDSO Specification No. TM/SM/OTT/320, dated 28.01.2009.					
	Detail of cost for 250 sleepers					
	Material:					
	Normal unleaded Petrol	Litre	0180	108.00	0.50	54.00
	Kerosene Oil	Litre	0183	63.00	7.00	441.00
	Man Power:					
	Mate (Skilled)	Day	0002	751.00	1.00	751.00
	Machinist (operator) (Skilled)	Day	0040	738.00	1.00	738.00
	Look Out Man (Un-skilled)	Day	0033	547.00	1.00	547.00
	Waterman (Un-skilled)	Day	0034	547.00	1.00	547.00
	Labour Unskilled	Day	0020	540	20.00	10,800.00
	Misc.					
	T&P	Lumpsum	9901	1.00	50.00	50.00
	Hire charges of off -Track Tamper (Set of 4)	Day	0133	642.00	1.00	642.00
	Hire charges of Generator 5 KVA (without POL)	Day	0071	867	1.00	867.00
						15,437.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		154.37
						15,591.37
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		2,190.59
						17,781.96
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		2,667.29
						20,449.25
	Add for Cess @ 1%	Lumpsum	9905	0.01		204.49
	Cost for 250 Sleepers					20,653.74
	Rate per sleeper	Each				82.61

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CHAPTER - 17 : Handling of Materials

Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
171000	Rails					
171010	Loading of rails of any section and length up to 13 metres in Wagons / Truck / trailer including lead up to 50 metres and lift up to 5 metres.					
171011	In wagons during period of traffic block where handling by mechanical means is not possible					
	Details of cost for 89 Metric Tonne (114 nos., 60 kg/m rails of 13 metre)					
	Labour:					
	Mate (Skilled)	Day	0002	751.00	1.00	751.00
	Look Out Man (Un-skilled)	Day	0033	547.00	1.00	547.00
	Waterman (Un-skilled)	Day	0034	547.00	1.00	547.00
	Labour Unskilled	Day	0020	540.00	30.00	16,200.00
	Misc.:					
	T & P	Lumpsum	9901	1.00	60.00	60.00
						18,105.00
	Add for working under traffic block @ 10%	Lumpsum	9992	0.10		1,810.50
						19,915.50
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		199.16
						20,114.66
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		2,826.11
						22,940.76
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		3,441.11
						26,381.88
	Add for Cess @ 1%	Lumpsum	9905	0.01		263.82
	Cost for 89 Metric Tonne					26,645.70
	Rate per MT	MT				299.39
171012	In wagons not involving traffic block or on lines not opened to traffic but handling by mechanical means is not possible					
	Details of cost for 133.38 Metric Tonne (171 nos. 60 kg/m rails of 13 metre)					
	Labour:					
	Mate (Skilled)	Day	0002	751.00	1.00	751.00
	Labour Unskilled	Day	0020	540.00	30.00	16,200.00
	Misc.:					
	T & P	Lumpsum	9901	1.00	60.00	60.00
						17,011.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		170.11
						17,181.11
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		2,413.95
						19,595.06
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		2,939.26
						22,534.31
	Add for Cess @ 1%	Lumpsum	9905	0.01		225.34
	Cost for 133.38 Metric Tonne					22,759.66
	Rate per MT	MT				170.64
171013	In Wagon under traffic block where mechanical handling is possible					
	Details of cost for 150 Metric Tonne (192 rails 13 metre 60 Kg)					
	Labour:					
	Mate (Skilled)	Day	0002	751.00	1.00	751.00
	Labour Unskilled	Day	0020	540.00	12.00	6,480.00
	Misc.:					
	Lifting beam arrangement for handling of multi rails at a time	Lumpsum	9901	1.00	150.00	150.00
	Hire charges of 12 MT Hydra	Day	0089	6717.00	2.00	13,434.00
						20,815.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		208.15
						21,023.15
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		2,953.75
						23,976.90

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		3,596.54
						27,573.44
	Add for Cess @ 1%	Lumpsum	9905	0.01		275.73
	Cost for 150 Metric Tonne					27,849.17
	Rate per MT	MT				185.66
171014	In Wagon where mechanical handling is possible and traffic block is not required or in Truck/trailer.					
	Details of cost for 150 Metric Tonne (192 rails 13 metre 60 Kg)					
	Labour:					
	Mate (Skilled)	Day	0002	751.00	1.00	751.00
	Labour Unskilled	Day	0020	540.00	8.00	4,320.00
	Misc.:					
	Lifting beam arrangement for handling of multi rails at a time	Lumpsum	9901	1.00	150.00	150.00
	Hire charges of 12 MT Hydra	Day	0089	6717.00	1.50	10,075.50
						15,296.50
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		152.97
						15,449.47
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		2,170.65
						17,620.11
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		2,643.02
						20,263.13
	Add for Cess @ 1%	Lumpsum	9905	0.01		202.63
	Cost for 150 Metric Tonne					20,465.76
	Rate per MT	MT				136.44
171020	Loading of tongue rail, stock rail, switch assembly and crossings of any section and length, SEJ, Glued joint etc. with / without P.Way fittings and fastenings, in Wagon / Truck / trailer including lead up to 250 metre and lift up to 5 metre.					
171021	In wagons during period of traffic block where handling by mechanical means is not possible					
	Details of cost for 84 Metric Tonne					
	Labour:					
	Mate (Skilled)	Day	0002	751.00	1.00	751.00
	Waterman (Un-skilled)	Day	0034	547.00	1.00	547.00
	Look Out Man (Un-skilled)	Day	0033	547.00	1.00	547.00
	Labour Unskilled	Day	0020	540.00	35.00	18,900.00
	Misc.:					
	T & P	Lumpsum	9901	1.00	50.00	50.00
						20,795.00
	Add for working under traffic block @ 10%	Lumpsum	9992	0.10		2,079.50
						22,874.50
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		228.75
						23,103.25
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		3,246.01
						26,349.25
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		3,952.39
						30,301.64
	Add for Cess @ 1%	Lumpsum	9905	0.01		303.02
	Cost for 84 Metric Tonne					30,604.65
	Rate per MT	MT				364.34
171022	In wagons not involving traffic block or on lines, not opened to traffic but handling by mechanical means is not possible.					
	Details of cost for 84 Metric Tonne					
	Labour:					
	Mate (Skilled)	Day	0002	751.00	1.00	751.00
	Waterman (Un-skilled)	Day	0034	547.00	1.00	547.00
	Labour Unskilled	Day	0020	540.00	26.00	14,040.00

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Misc.:					
	T & P	Lumpsum	9901	1.00	50.00	50.00
						15,388.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		153.88
						15,541.88
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		2,183.63
						17,725.51
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		2,658.83
						20,384.34
	Add for Cess @ 1%	Lumpsum	9905	0.01		203.84
	Cost for 84 Metric Tonne					20,588.18
	Rate per MT	MT				245.10
171023	In Wagon where mechanical handling is possible and traffic block is required.					
	Details of cost for 168 Metric Tonne					
	Labour:					
	Mate (Skilled)	Day	0002	751.00	1.00	751.00
	Waterman (Un-skilled)	Day	0034	547.00	1.00	547.00
	Labour Unskilled	Day	0020	540.00	12.00	6,480.00
	Misc.:					
	T & P	Lumpsum	9901	1.00	100.00	100.00
	Hire charges of 12 MT Hydra	Day	0089	6717.00	2.00	13,434.00
						21,312.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		213.12
						21,525.12
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		3,024.28
						24,549.40
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		3,682.41
						28,231.81
	Add for Cess @ 1%	Lumpsum	9905	0.01		282.32
	Cost for 168 Metric Tonne					28,514.13
	Rate per MT	MT				169.73
171024	In Wagon where mechanical handling is possible and traffic block is not required or in Truck/trailer.					
	Details of cost for 168 Metric Tonne					
	Labour:					
	Mate (Skilled)	Day	0002	751.00	1.00	751.00
	Waterman (Un-skilled)	Day	0034	547.00	1.00	547.00
	Labour Unskilled	Day	0020	540.00	10.00	5,400.00
	Misc.:					
	Sundries	Lumpsum	9901	1.00	100.00	100.00
	Hire charges of 12 MT Hydra	Day	0089	6717.00	1.50	10,075.50
						16,873.50
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		168.74
						17,042.24
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		2,394.43
						19,436.67
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		2,915.50
						22,352.17
	Add for Cess @ 1%	Lumpsum	9905	0.01		223.52
	Cost for 168 Metric Tonne					22,575.69
	Rate per MT	MT				134.38
171030	Loading, leading and unloading of 52Kg / 60Kg rail up to 13 metre length by Railway's Rail Dolly / Dip Lorry to the nominated location under traffic with line protection in case road carriage is not possible with different lead with a lift up to 5 metre during block period.					

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
171031	For lead up to 500 metre.					
	Details of cost for 18.72 MT (24 Rails of 13 metre 60 Kg)					
	Labour:					
	Mate (Skilled)	Day	0002	751.00	1.00	751.00
	Look Out Man (Un-skilled)	Day	0033	547.00	1.00	547.00
	Labour Unskilled	Day	0020	540.00	8.00	4,320.00
	Misc.:					
	T & P	Lumpsum	9901	1.00	30.00	30.00
						5,648.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		56.48
						5,704.48
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		801.48
						6,505.96
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		975.89
						7,481.85
	Add for Cess @ 1%	Lumpsum	9905	0.01		74.82
	Cost for 18.72 MT					7,556.67
	Rate per MT	MT				403.67
171032	For lead beyond 500 metre and up to 1 Km.					
	Details of cost for 18.72 MT (24 Rails of 13 metre 60 Kg)					
	Labour:					
	Mate (Skilled)	Day	0002	751.00	1.00	751.00
	Look Out Man (Un-skilled)	Day	0033	547.00	1.00	547.00
	Labour Unskilled	Day	0020	540.00	11.00	5,940.00
	Misc.:					
	T & P	Lumpsum	9901	1.00	40.00	40.00
						7,278.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		72.78
						7,350.78
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		1,032.78
						8,383.56
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		1,257.53
						9,641.10
	Add for Cess @ 1%	Lumpsum	9905	0.01		96.41
	Cost for 18.72 MT					9,737.51
	Rate per MT	MT				520.17
171033	Extra to Items no. 171032 for lead beyond 1 Km for every subsequent Km or part thereof and up to 10 Km					
	Details of cost for 18.72 MT (Average Lead Considered 5 Km)					
	Labour:					
	Labour Unskilled	Day	0020	540.00	8.00	4,320.00
	Misc.:					
	T & P	Lumpsum	9901	1.00	10.00	10.00
						4,330.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		43.30
						4,373.30
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		614.45
						4,987.75
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		748.16
						5,735.91
	Add for Cess @ 1%	Lumpsum	9905	0.01		57.36
	Cost for 18.72 MT for lead up to 5 Km					5,793.27
	Cost for 1 MT for 5 Km					309.47
	Rate per MT for 1 Km	MT				61.89
171034	Extra to Item no. 171031 and 171032 with contractor's Rail Dolly / Dip Lorry					
	Details of cost for 18.72 MT (24 Rails of 13 metre 60 Kg). Required 6 Rail Dolly for two groups. One taken as standby.					

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Machinery:					
	Hire charges of Insulated Rail Dolly	Day	0157	358.00	7.00	2,506.00
	Misc.:					
	T & P	Lumpsum	9901	1.00	20.00	20.00
						2,526.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		25.26
						2,551.26
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		358.45
						2,909.71
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		436.46
						3,346.17
	Add for Cess @ 1%	Lumpsum	9905	0.01		33.46
	Cost for 18.72 MT					3,379.63
	Rate per MT	MT				180.54
171040	Loading, unloading and hauling of 52Kg / 60Kg rail more than 13 metre and up to 39 metre length by Railway's Rail Dolly / Dip Lorry to the nominated location under traffic and line protection in case road carriage is not possible for different leads and lift up to 5 metre.					
171041	For lead up to 500m					
	Details of cost for 42.12 MT (18 no's 3 Rail Panels of 60 Kg)					
	Labour:					
	Mate (Skilled)	Day	0002	751.00	1.00	751.00
	Look Out Man (Un-skilled)	Day	0033	547.00	1.00	547.00
	Labour Unskilled	Day	0020	540.00	24.00	12,960.00
	Misc.:					
	T & P	Lumpsum	9901	1.00	40.00	40.00
						14,298.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		142.98
						14,440.98
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		2,028.96
						16,469.94
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		2,470.49
						18,940.43
	Add for Cess @ 1%	Lumpsum	9905	0.01		189.40
	Cost for 42.12 MT					19,129.83
	Rate per MT	MT				454.17
171042	For lead beyond 500 metre and up to 1 Km					
	Details of cost for 42.12 MT (18 no's 3 Rail Panels of 60 Kg)					
	Labour:					
	Mate (Skilled)	Day	0002	751.00	1.00	751.00
	Look Out Man (Un-skilled)	Day	0033	547.00	1.00	547.00
	Labour Unskilled	Day	0020	540.00	36.00	19,440.00
	Misc.:					
	T & P	Lumpsum	9901	1.00	60.00	60.00
						20,798.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		207.98
						21,005.98
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		2,951.34
						23,957.32
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		3,593.60
						27,550.92
	Add for Cess @ 1%	Lumpsum	9905	0.01		275.51
	Cost for 42.12 MT					27,826.43
	Rate per MT	MT				660.65

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
171043	Extra to Items no. 171042 for lead beyond 1 Km for every subsequent Km or part thereof and up to 10 Km					
	Details of cost for 42.12 MT for lead up to 5 Km					
	Labour:					
	Labour Unskilled	Day	0020	540.00	24.00	12,960.00
	Misc.:					
	T & P	Lumpsum	9901	1.00	20.00	20.00
						12,980.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		129.80
						13,109.80
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		1,841.93
						14,951.73
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		2,242.76
						17,194.49
	Add for Cess @ 1%	Lumpsum	9905	0.01		171.94
	Cost for 42.12 MT for lead up to 5 Km					17,366.43
	Cost for 1 MT for 5 Km					412.31
	Rate per MT per Km	MT				82.46
171044	Extra to Item no. 171041 and 171042 with contractor's Rail Dolly / Dip Lorry					
	Details of cost for 42.12 MT					
	Misc.:					
	T & P (Rs.5 for Each Rail Dolly)	Lumpsum	9901	1.00	60.00	60.00
	Hire charges of Insulated Rail Dolly	Day	0157	358.00	14.00	5,012.00
						5,072.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		50.72
						5,122.72
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		719.74
						5,842.46
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		876.37
						6,718.83
	Add for Cess @ 1%	Lumpsum	9905	0.01		67.19
	Cost for 42.12 MT					6,786.02
	Rate per MT	MT				161.11
171050	Unloading of rails of any section and length up to 13 metre, in neat manner for Railway usage from departmental material train (DMT) or contractor's / Railway's Truck/trailer including lead up to 50 metre, lift up to 5 metre and stacking in prescribed manner.					
171051	From wagons during period of traffic block where handling by mechanical means is not possible					
	Details of cost for 600 Metric Tonne (8 BFR's)					
	Labour:					
	Mate (Skilled)	Day	0002	751.00	4.00	3,004.00
	Look Out Man (Un-skilled)	Day	0033	547.00	4.00	2,188.00
	Waterman (Un-skilled)	Day	0034	547.00	2.00	1,094.00
	Labour Unskilled	Day	0020	540.00	128.00	69,120.00
	Misc.:					
	T & P	Lumpsum	9901	1.00	65.00	65.00
						75,471.00
	Add for working under traffic block @ 10%	Lumpsum	9992	0.10		7,547.10
						83,018.10
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		830.18
						83,848.28
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		11,780.68
						95,628.96
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		14,344.34
						109,973.31
	Add for Cess @ 1%	Lumpsum	9905	0.01		1,099.73

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Cost for 600 Metric Tonne					111,073.04
	Rate per MT	MT				185.12
171052	From wagons not involving traffic block or on lines, not opened to traffic but handling by mechanical means is not possible					
	Details of cost for 600 Metric Tonne (8 BFR's)					
	Labour:					
	Mate (Skilled)	Day	0002	751.00	2.00	1,502.00
	Labour Unskilled	Day	0020	540.00	104.00	56,160.00
	Misc.:					
	T & P	Lumpsum	9901	1.00	65.00	65.00
						57,727.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		577.27
						58,304.27
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		8,191.75
						66,496.02
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		9,974.40
						76,470.42
	Add for Cess @ 1%	Lumpsum	9905	0.01		764.70
	Cost for 600 Metric Tonne					77,235.13
	Rate per MT	MT				128.73
171053	From Wagon where mechanical handling is possible and traffic block is not required or in Truck / trailer.					
	Details of cost for 216 Metric Tonne (12 trailers) Two Road Crane required in a day					
	Labour:					
	Mate (Skilled)	Day	0002	751.00	1.00	751.00
	Labour Unskilled	Day	0020	540.00	10.00	5,400.00
	Misc.:					
	T & P	Lumpsum	9901	1.00	50.00	50.00
	Hire charges of 12 MT Hydra	Day	0089	6717.00	1.50	10,075.50
						16,276.50
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		162.77
						16,439.27
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		2,309.72
						18,748.98
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		2,812.35
						21,561.33
	Add for Cess @ 1%	Lumpsum	9905	0.01		215.61
	Cost for 216 Metric Tonne					21,776.94
	Rate per MT	MT				100.82
171060	Unloading of rails of any section and length from 13 metre to 39 metre, in neat manner for Railway usage from departmental material train (DMT) including lead up to 50 metre and lift up to 5 metre.					
171061	During period of traffic block					
	Details of cost for 488 Metric Tonne (12 BFR's)					
	Labour:					
	Mate (Skilled)	Day	0002	751.00	4.00	3,004.00
	Look Out Man (Un-skilled)	Day	0033	547.00	2.00	1,094.00
	Waterman (Un-skilled)	Day	0034	547.00	3.00	1,641.00
	Labour Unskilled	Day	0020	540.00	108.00	58,320.00
	Misc.:					
	T & P	Lumpsum	9901	1.00	130.00	130.00
						64,189.00
	Add for working under traffic block @ 10%	Lumpsum	9992	0.10		6,418.90
						70,607.90

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		706.08
						71,313.98
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		10,019.61
						81,333.59
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		12,200.04
						93,533.63
	Add for Cess @ 1%	Lumpsum	9905	0.01		935.34
	Cost for 488 Metric Tonne					94,468.97
	Rate per MT	MT				193.58
171062	Not involving traffic block or in lines not opened to traffic					
	Details of cost for 488 Metric Tonne (12 BFR's)					
	Labour:					
	Mate (Skilled)	Day	0002	751.00	2.00	1,502.00
	Labour Unskilled	Day	0020	540.00	84.00	45,360.00
	Misc.:					
	T & P	Lumpsum	9901	1.00	65.00	65.00
						46,927.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		469.27
						47,396.27
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		6,659.18
						54,055.45
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		8,108.32
						62,163.76
	Add for Cess @ 1%	Lumpsum	9905	0.01		621.64
	Cost for 488 Metric Tonne					62,785.40
	Rate per MT	MT				128.66
171070	Unloading of all type of rails of length 130 metre and beyond from end unloading rake and keep the panels in head-up position at specified distance from centre of track clear from any infringement. Note: Contractor has to keep Oxygen and Acetylene gas with cutter as standby during the period of work.					
171071	During period of traffic block					
	Details of cost for 650 Metric Tonne (42 Panels of 20 Rails)					
	Labour:					
	Mate (Skilled)	Day	0002	751.00	1.00	751.00
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	1.00	749.00
	Welder (Skilled)	Day	0029	734.00	1.00	734.00
	Helper (Semi-skilled)	Day	0021	572.00	1.00	572.00
	Waterman (Un-skilled)	Day	0034	547.00	1.00	547.00
	Labour Unskilled	Day	0020	540.00	18.00	9,720.00
	Misc.:					
	T & P including wire ropes, Oxygen, Acetelene gas with cutter etc.	Lumpsum	9901	1.00	500.00	500.00
						13,573.00
	Add for working under traffic block @ 10%	Lumpsum	9992	0.10		1,357.30
						14,930.30
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		149.30
						15,079.60
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		2,118.68
						17,198.29
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		2,579.74
						19,778.03
	Add for Cess @ 1%	Lumpsum	9905	0.01		197.78
	Cost for 650 Metric Tonne					19,975.81
	Rate per MT	MT				30.73
171072	Not involving traffic block					
	Details of cost for 650 Metric Tonne (42 Panels of 20 Rails)					

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Labour:					
	Mate (Skilled)	Day	0002	751.00	1.00	751.00
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	1.00	749.00
	Welder (Skilled)	Day	0029	734.00	1.00	734.00
	Helper (Semi-skilled)	Day	0021	572.00	1.00	572.00
	Waterman (Un-skilled)	Day	0034	547.00	1.00	547.00
	Labour Unskilled	Day	0020	540.00	16.00	8,640.00
	Misc.:					
	T & P including wire ropes, Oxygen, Acetelene gas with cutter etc.	Lumpsum	9901	1.00	500.00	500.00
						12,493.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		124.93
						12,617.93
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		1,772.82
						14,390.75
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		2,158.61
						16,549.36
	Add for Cess @ 1%	Lumpsum	9905	0.01		165.49
	Cost for 650 Metric Tonne					16,714.86
	Rate per MT	MT				25.72
172000	Sleepers					
172010	Loading of 52kg / 60kg PSC normal line and special sleepers up to 2.75 metre length in Depot / Station / Mid-section between stations in a neat manner to departmental material train (DMT) or contractor's / Railway's Truck/Trailer with crane or any other means including crossing of one track with free lead up to 250 metre and lift up to 5 metre, if required with contractor's labour, tools & plants, machinery, consumables etc. Note: In case of any damage to sleeper during loading, penalty @ 50% of the all inclusive cost of sleeper shall be levied.					
172011	In wagons during period of traffic block where handling by mechanical means is not possible					
	Details of cost for 84 Metric Tonne					
	Labour:					
	Mate (Skilled)	Day	0002	751.00	1.00	751.00
	Look Out Man (Un-skilled)	Day	0033	547.00	1.00	547.00
	Waterman (Un-skilled)	Day	0034	547.00	1.00	547.00
	Labour Unskilled	Day	0020	540.00	22.00	11,880.00
	Misc.:					
	T & P (Rail tongue, Crow bar etc.)	Lumpsum	9901	1.00	160.00	160.00
						13,885.00
	Add for working under traffic block @ 10%	Lumpsum	9992	0.10		1,388.50
						15,273.50
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		152.74
						15,426.24
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		2,167.39
						17,593.62
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		2,639.04
						20,232.66
	Add for Cess @ 1%	Lumpsum	9905	0.01		202.33
	Cost for 84 Metric Tonne					20,434.99
	Rate per MT	MT				243.27
172012	In wagons not involving traffic block or on lines, not opened to traffic but handling by mechanical means is not possible					
	Details of cost for 168 Metric Tonne					
	Labour:					
	Mate (Skilled)	Day	0002	751.00	1.00	751.00
	Waterman (Un-skilled)	Day	0034	547.00	1.00	547.00
	Labour Unskilled	Day	0020	540.00	30.00	16,200.00

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Misc.:					
	T & P (Rail tongue, Crow bar etc.)	Lumpsum	9901	1.00	85.00	85.00
						17,583.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		175.83
						17,758.83
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		2,495.12
						20,253.95
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		3,038.09
						23,292.04
	Add for Cess @ 1%	Lumpsum	9905	0.01		232.92
	Cost for 168 Metric Tonne					23,524.96
	Rate per MT	MT				140.03
172013	In Wagon where mechanical handling is possible and traffic block is required.					
	Details of cost for 168 Metric Tonne					
	Labour:					
	Labour Unskilled	Day	0020	540.00	8.00	4,320.00
	Misc.:					
	T & P (Rail tongue, Crow bar etc.)	Lumpsum	9901	1.00	70.00	70.00
	Hire charges of 12 MT Hydra	Day	0089	6717.00	2.00	13,434.00
						17,824.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		178.24
						18,002.24
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		2,529.31
						20,531.55
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		3,079.73
						23,611.29
	Add for Cess @ 1%	Lumpsum	9905	0.01		236.11
	Cost for 168 Metric Tonne					23,847.40
	Rate per MT	MT				141.95
172014	In Wagon where mechanical handling is possible and traffic block is not required or in Truck / trailer					
	Details of cost for 168 Metric Tonne					
	Labour:					
	Labour Unskilled	Day	0020	540.00	6.00	3,240.00
	Misc.:					
	T & P (Rail tongue, Crow bar etc.)	Lumpsum	9901	1.00	70.00	70.00
	Hire charges of 12 MT Hydra	Day	0089	6717.00	1.50	10,075.50
						13,385.50
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		133.86
						13,519.36
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		1,899.47
						15,418.82
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		2,312.82
						17,731.65
	Add for Cess @ 1%	Lumpsum	9905	0.01		177.32
	Cost for 168 Metric Tonne					17,908.96
	Rate per MT	MT				106.60
172020	Loading of 52kg / 60kg PSC line and special sleepers beyond 2.75 metre length including existing fittings and fastenings in Depot / Station / Mid-section between stations in a neat manner to departmental material train (DMT) or contractor's / Railway's Truck/trailer with crane or any other means including crossing of one track with free lead up to 250 metre and lift up to 5 metre, if required with contractor's labour, tools & plants, machinery, consumables etc. Note: In case of any damage to sleeper during loading, penalty @ 50% of the all inclusive cost of sleeper shall be levied.					

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
172021	In wagons during period of traffic block where handling by mechanical means is not possible					
	Details of cost for 84 Metric Tonne					
	Labour:					
	Mate (Skilled)	Day	0002	751.00	1.00	751.00
	Waterman (Un-skilled)	Day	0034	547.00	1.00	547.00
	Look Out Man (Un-skilled)	Day	0033	547.00	1.00	547.00
	Labour Unskilled	Day	0020	540.00	30.00	16,200.00
	Misc.:					
	T & P (Rail tongue, Crow bar etc.)	Lumpsum	9901	1.00	90.00	90.00
						18,135.00
	Add for working under traffic block @ 10%	Lumpsum	9992	0.10		1,813.50
						19,948.50
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		199.49
						20,147.99
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		2,830.79
						22,978.78
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		3,446.82
						26,425.59
	Add for Cess @ 1%	Lumpsum	9905	0.01		264.26
	Cost for 84 Metric Tonne					26,689.85
	Rate per MT	MT				317.74
172022	In wagons not involving traffic block or on lines, not opened to traffic but handling by mechanical means is not possible					
	Details of cost for 168 Metric Tonne					
	Labour:					
	Mate (Skilled)	Day	0002	751.00	1.00	751.00
	Waterman (Un-skilled)	Day	0034	547.00	1.00	547.00
	Labour Unskilled	Day	0020	540.00	50.00	27,000.00
	Misc.:					
	T & P (Rail tongue, Crow bar etc.)	Lumpsum	9901	1.00	50.00	50.00
						28,348.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		283.48
						28,631.48
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		4,022.72
						32,654.20
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		4,898.13
						37,552.33
	Add for Cess @ 1%	Lumpsum	9905	0.01		375.52
	Cost for 168 Metric Tonne					37,927.86
	Rate per MT	MT				225.76
172023	In Wagon where mechanical handling is possible and traffic block is required.					
	Details of cost for 168 Metric Tonne					
	Labour:					
	Mate (Skilled)	Day	0002	751.00	1.00	751.00
	Waterman (Un-skilled)	Day	0034	547.00	1.00	547.00
	Labour Unskilled	Day	0020	540.00	12.00	6,480.00
	Misc.:					
	T & P (Rail tongue, Crow bar etc.)	Lumpsum	9901	1.00	45.00	45.00
	Hire charges of 12 MT Hydra	Day	0089	6717.00	2.00	13,434.00
						21,257.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		212.57
						21,469.57
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		3,016.47
						24,486.04
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		3,672.91
						28,158.95

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Add for Cess @ 1%	Lumpsum	9905	0.01		281.59
	Cost for 168 Metric Tonne					28,440.54
	Rate per MT	MT				169.29
172024	In Wagon/Truck / trailer where mechanical handling is possible and traffic block is not required.					
	Details of cost for 168 Metric Tonne					
	Labour:					
	Mate (Skilled)	Day	0002	751.00	1.00	751.00
	Waterman (Un-skilled)	Day	0034	547.00	1.00	547.00
	Labour Unskilled	Day	0020	540.00	10.00	5,400.00
	Misc.:					
	T & P (Rail tongue, Crow bar etc.)	Lumpsum	9901	1.00	45.00	45.00
	Hire charges of 12 MT Hydra	Day	0089	6717.00	1.50	10,075.50
						16,818.50
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		168.19
						16,986.69
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		2,386.63
						19,373.31
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		2,906.00
						22,279.31
	Add for Cess @ 1%	Lumpsum	9905	0.01		222.79
	Cost for 168 Metric Tonne					22,502.10
	Rate per MT	MT				133.94
172030	Loading, leading and unloading of PSC Sleepers of 52Kg / 60Kg by Railway's Rail Dolly/ Dip Lorry to the nominated location under traffic in case road carriage is not possible for different leads and lift up to 5 metres.					
172031	For lead up to 500 metres					
	Details of cost for 24 MT					
	Labour:					
	Mate (Skilled)	Day	0002	751.00	1.00	751.00
	Look Out Man (Un-skilled)	Day	0033	547.00	1.00	547.00
	Labour Unskilled	Day	0020	540.00	8.00	4,320.00
	Misc.:					
	T & P	Lumpsum	9901	1.00	20.00	20.00
						5,638.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		56.38
						5,694.38
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		800.06
						6,494.44
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		974.17
						7,468.61
	Add for Cess @ 1%	Lumpsum	9905	0.01		74.69
	Cost for 24 MT					7,543.29
	Rate per MT	MT				314.30
172032	For lead beyond 500 metre and up to 1 Km					
	Details of cost for 24 MT					
	Labour:					
	Mate (Skilled)	Day	0002	751.00	1.00	751.00
	Look Out Man (Un-skilled)	Day	0033	547.00	1.00	547.00
	Labour Unskilled	Day	0020	540.00	13.00	7,020.00
	Misc.:					
	T & P	Lumpsum	9901	1.00	30.00	30.00
						8,348.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		83.48
						8,431.48
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		1,184.62
						9,616.10

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		1,442.42
						11,058.52
	Add for Cess @ 1%	Lumpsum	9905	0.01		110.59
	Cost for 24 MT					11,169.10
	Rate per MT	MT				465.38
172033	Extra to Items no. 172032 for lead beyond 1 Km for every subsequent Km or part thereof and up to 10 Km					
	Details of cost for 24 MT (Average Lead Considered 5 Km)					
	Labour:					
	Labour Unskilled	Day	0020	540.00	8.00	4,320.00
	Misc.:					
	T & P	Lumpsum	9901	1.00	10.00	10.00
						4,330.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		43.30
						4,373.30
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		614.45
						4,987.75
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		748.16
						5,735.91
	Add for Cess @ 1%	Lumpsum	9905	0.01		57.36
	Cost for 24 MT for lead up to 5 Km					5,793.27
	Cost for 1 MT for 5 Km					241.39
	Rate per MT per km	MT				48.28
172034	Extra to Item no. 172031 and 172032 with contractor's Rail Dolly/Dip Lorry.					
	Details of cost for 18 MT					
	Misc.:					
	T & P	Lumpsum	9901	1.00	35.00	35.00
	Hire charges of Insulated Rail Dolly	Day	0157	358.00	7.00	2,506.00
						2,541.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		25.41
						2,566.41
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		360.58
						2,926.99
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		439.05
						3,366.04
	Add for Cess @ 1%	Lumpsum	9905	0.01		33.66
	Cost for 18 MT					3,399.70
	Rate per MT	MT				188.87
172040	Loading, leading and unloading of all types of P.Way fittings and all other miscellaneous material except Rails, sleepers, switches, crossings, SEJs and Glued Joints by road vehicles for different leads. Note: Lead shall be the shortest motorable road length between the points of loading and unloading.					
172041	Lead up to 5 Km					
	Consider the cost for 9 MT and average lead of 2.5 km					
	Cost of leading 2.5 km as per working sheet Tr. P.Way					362.86
	Labour:					
	For loading and unloading considering 6 Beldars can load/unload a 9 MT truck in 1 hour. Therefore, no. of labour required for both loading and unloading = $(1+1)/8 \times 6 = 1.5$ nos.					
	Beldar (Un skilled)	Day	0025	547.00	1.50	820.50
						1,183.36
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		11.83
						1,195.19
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		167.92
						1,363.11

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		204.47
						1,567.58
	Add for Cess @ 1%	Lumpsum	9905	0.01		15.68
	Cost for 9 MT					1,583.26
	Rate per MT	MT				175.92
172042	Lead beyond 5 Km and up to 10 km					
	Consider the cost for 9 MT and average lead of 7.5 km					
	Cost of leading 7.5 km as per working sheet Tr. P.Way					647.11
	Labour:					
	For loading and unloading considering 6 Beldars can load/unload a 9 MT truck in 1 hour. Therefore, no. of labour required for both loading and unloading = $(1+1)/8 \times 6 = 1.5$ nos.					
	Beldar (Un skilled)	Day	0025	547.00	1.50	820.50
						1,467.61
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		14.68
						1,482.29
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		208.26
						1,690.55
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		253.58
						1,944.13
	Add for Cess @ 1%	Lumpsum	9905	0.01		19.44
	Cost for 9 MT					1,963.57
	Rate per MT	MT				218.17
172043	Lead beyond 10 Km and up to 20 km					
	Consider the cost for 9 MT and average lead of 15 km					
	Cost of leading 15 km as per working sheet Tr. P.Way					1,034.30
	Labour:					
	For loading and unloading considering 6 Beldars can load/unload a 9 MT truck in 1 hour. Therefore, no. of labour required for both loading and unloading = $(1+1)/8 \times 6 = 1.5$ nos.					
	Beldar (Un skilled)	Day	0025	547.00	1.50	820.50
						1,854.80
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		18.55
						1,873.35
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		263.21
						2,136.55
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		320.48
						2,457.03
	Add for Cess @ 1%	Lumpsum	9905	0.01		24.57
	Cost for 9 MT					2,481.60
	Rate per MT	MT				275.73
172044	Lead beyond 20 Km and up to 30 km					
	Consider the cost for 9 MT and average lead of 25 km					
	Cost of leading 25 km as per working sheet Tr. P.Way					1,506.26
	Labour:					
	For loading and unloading considering 6 Beldars can load/unload a 9 MT truck in 1 hour. Therefore, no. of labour required for both loading and unloading = $(1+1)/8 \times 6 = 1.5$ nos.					
	Beldar (Un skilled)	Day	0025	547.00	1.50	820.50
						2,326.76
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		23.27
						2,350.03
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		330.18
						2,680.21
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		402.03
						3,082.24
	Add for Cess @ 1%	Lumpsum	9905	0.01		30.82

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Cost for 9 MT					3,113.06
	Rate per MT	MT				345.90
172045	Lead beyond 30 Km and up to 50 km					
	Consider the cost for 9 MT and average lead of 40 km					
	Cost of leading 40 km as per working sheet Tr. P.Way					2,162.14
	Labour:					
	For loading and unloading considering 6 Beldars can load/unload a 9 MT truck in 1 hour. Therefore, no. of labour required for both loading and unloading = $(1+1)/8 \times 6 = 1.5$ nos.					
	Beldar (Un skilled)	Day	0025	547.00	1.50	820.50
						2,982.64
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		29.83
						3,012.46
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		423.25
						3,435.71
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		515.36
						3,951.07
	Add for Cess @ 1%	Lumpsum	9905	0.01		39.51
	Cost for 9 MT					3,990.58
	Rate per MT	MT				443.40
172046	Lead beyond 50 Km and up to 100 Km					
	Consider the cost for 9 MT and average lead of 75 km					
	Cost of leading 75 km as per working sheet Tr. P.Way					3,591.33
	Labour:					
	For loading and unloading considering 6 Beldars can load/unload a 9 MT truck in 1 hour. Therefore, no. of labour required for both loading and unloading = $(1+1)/8 \times 6 = 1.5$ nos.					
	Beldar (Un skilled)	Day	0025	547.00	1.50	820.50
						4,411.83
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		44.12
						4,455.95
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		626.06
						5,082.01
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		762.30
						5,844.31
	Add for Cess @ 1%	Lumpsum	9905	0.01		58.44
	Cost for 9 MT					5,902.76
	Rate per MT	MT				655.86
172047	Lead beyond 100 Km and up to 150 Km					
	Consider the cost for 9 MT and average lead of 125 km					
	Cost of leading 125 km as per working sheet Tr. P.Way					5,730.94
	Labour:					
	For loading and unloading considering 6 Beldars can load/unload a 9 MT truck in 1 hour. Therefore, no. of labour required for both loading and unloading = $(1+1)/8 \times 6 = 1.5$ nos.					
	Beldar (Un skilled)	Day	0025	547.00	1.50	820.50
						6,551.44
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		65.51
						6,616.96
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		929.68
						7,546.64
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		1,132.00
						8,678.64
	Add for Cess @ 1%	Lumpsum	9905	0.01		86.79
	Cost for 9 MT					8,765.42
	Rate per MT	MT				973.94

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
172048	Extra for every Km per MT beyond 150 Km over item no. 172047					
	Considering only the additional cost of running beyond 150 km for a distance of 240 km with the following yardstick: (i) Speed = 60 kmph, Hiring time of truck = 240/60 = 4 hours = 0.5 day (ii) Fuel consumption = 5 kmpl Diesel consumption for 240 kms = 240/5 = 48 litres					
	Hire Charges of Truck - 9 tonne (without POL)	Day	0511	1562.12	0.50	781.06
	Diesel (HSD) Oil	Litre	0179	93.00	48.00	4,464.00
						5,245.06
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		52.45
						5,297.51
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		744.30
						6,041.81
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		906.27
						6,948.08
	Add for Cess @ 1%	Lumpsum	9905	0.01		69.48
	Cost for 9 MT for additional lead of 240 km					7,017.56
	Rate per MT per km	MT Km				3.25
172050	Transportation of Rails, sleepers, switches, crossings, SEJs and Glued Joints by road vehicles for different leads. Note: 1. Lead shall be the shortest motorable road length between the points of loading and unloading. 2. Loading and unloading shall be paid extra under relevant items.					
172051	Lead up to 5 Km					
	Consider the cost for 9 MT and average lead of 2.5 km					
	Cost of leading 2.5 km as per working sheet Tr. P.Way					362.86
						362.86
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		3.63
						366.49
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		51.49
						417.98
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		62.70
						480.67
	Add for Cess @ 1%	Lumpsum	9905	0.01		4.81
	Cost for 9 MT					485.48
	Rate per MT	MT				53.94
172052	Lead beyond 5 Km and up to 10 km					
	Consider the cost for 9 MT and average lead of 7.5 km					
	Cost of leading 7.5 km as per working sheet Tr. P.Way					647.11
						647.11
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		6.47
						653.58
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		91.83
						745.41
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		111.81
						857.22
	Add for Cess @ 1%	Lumpsum	9905	0.01		8.57
	Cost for 9 MT					865.80
	Rate per MT	MT				96.20
172053	Lead beyond 10 Km and up to 20 km					
	Consider the cost for 9 MT and average lead of 15 km					
	Cost of leading 15 km as per working sheet Tr. P.Way					1,034.30
	Labour:					
						1,034.30

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		10.34
						1,044.64
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		146.77
						1,191.41
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		178.71
						1,370.12
	Add for Cess @ 1%	Lumpsum	9905	0.01		13.70
	Cost for 9 MT					1,383.83
	Rate per MT	MT				153.76
172054	Lead beyond 20 Km and up to 30 km					
	Consider the cost for 9 MT and average lead of 25 km					
	Cost of leading 25 km as per working sheet Tr. P.Way					1,506.26
						1,506.26
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		15.06
						1,521.32
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		213.75
						1,735.07
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		260.26
						1,995.33
	Add for Cess @ 1%	Lumpsum	9905	0.01		19.95
	Cost for 9 MT					2,015.28
	Rate per MT	MT				223.92
172055	Lead beyond 30 Km and up to 50 km					
	Consider the cost for 9 MT and average lead of 40 km					
	Cost of leading 40 km as per working sheet Tr. P.Way					2,162.14
						2,162.14
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		21.62
						2,183.76
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		306.82
						2,490.58
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		373.59
						2,864.16
	Add for Cess @ 1%	Lumpsum	9905	0.01		28.64
	Cost for 9 MT					2,892.80
	Rate per MT	MT				321.42
172056	Lead beyond 50 Km and up to 100 Km					
	Consider the cost for 9 MT and average lead of 75 km					
	Cost of leading 75 km as per working sheet Tr. P.Way					3,591.33
						3,591.33
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		35.91
						3,627.25
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		509.63
						4,136.87
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		620.53
						4,757.41
	Add for Cess @ 1%	Lumpsum	9905	0.01		47.57
	Cost for 9 MT					4,804.98
	Rate per MT	MT				533.89
172057	Lead beyond 100 Km and up to 150 Km					
	Consider the cost for 9 MT and average lead of 125 km					
	Cost of leading 125 km as per working sheet Tr. P.Way					5,730.94
						5,730.94
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		57.31
						5,788.25
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		813.25
						6,601.50

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		990.23
						7,591.73
	Add for Cess @ 1%	Lumpsum	9905	0.01		75.92
	Cost for 9 MT					7,667.65
	Rate per MT	MT				851.96
172058	Extra for every Km per MT beyond 150 Km over item no. 172057					
	Considering only the additional cost of running beyond 150 km for a distance of 240 km with the following yardstick: (i) Speed = 60 kmph, Hiring time of truck = 240/60 = 4 hours = 0.5 day (ii) Fuel consumption = 5 kmpl Diesel consumption for 240 kms = 240/5 = 48 litres					
	Hire Charges of Truck - 9 tonne (without POL)	Day	0511	1562.12	0.50	781.06
	Diesel (HSD) Oil	Litre	0179	93.00	48.00	4,464.00
						5,245.06
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		52.45
						5,297.51
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		744.30
						6,041.81
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		906.27
						6,948.08
	Add for Cess @ 1%	Lumpsum	9905	0.01		69.48
	Cost for 9 MT for additional lead of 240 km					7,017.56
	Rate per MT per km	MT Km				3.25
172060	Unloading of 52kg / 60kg PSC line and special sleepers up to 2.75 metre length in Depot / Station / Mid-section between stations in neat manner for Railway usage from departmental material train (DMT) or contractor's / Railway's Truck/Trailer with crane or any other means including crossing of one track and lead up to 250 metre & lift up to 5 metre with contractor's labour, tools & plants, machinery, consumables etc. Note: In case of any damage to sleeper during loading, penalty @ 50% of the all inclusive cost of sleeper shall be levied.					
172061	From DMT - During period of traffic block					
	Details of cost for 84 Metric Tonne					
	Labour:					
	Mate (Skilled)	Day	0002	751.00	1.00	751.00
	Look Out Man (Un-skilled)	Day	0033	547.00	1.00	547.00
	Waterman (Un-skilled)	Day	0034	547.00	1.00	547.00
	Labour Unskilled	Day	0020	540.00	15.00	8,100.00
	Misc.:					
	Sundries	Lumpsum	9901	1.00	35.00	35.00
						9,980.00
	Add for working under traffic block @ 10%	Lumpsum	9992	0.10		998.00
						10,978.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		109.78
						11,087.78
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		1,557.83
						12,645.61
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		1,896.84
						14,542.46
	Add for Cess @ 1%	Lumpsum	9905	0.01		145.42
	Cost for 84 Metric Tonne					14,687.88
	Rate per MT	MT				174.86
172062	From DMT - Not involving traffic block or on lines, not opened to traffic					
	Details of cost for 84 Metric Tonne					

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Labour:					
	Mate (Skilled)	Day	0002	751.00	1.00	751.00
	Waterman (Un-skilled)	Day	0034	547.00	1.00	547.00
	Labour Unskilled	Day	0020	540.00	12.00	6,480.00
	Misc.:					
	T & P (Rail tongue, Crow bar, etc.)	Lumpsum	9901	1.00	20.00	20.00
						7,798.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		77.98
						7,875.98
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		1,106.58
						8,982.56
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		1,347.38
						10,329.94
	Add for Cess @ 1%	Lumpsum	9905	0.01		103.30
	Cost for 84 Metric Tonne					10,433.24
	Rate per MT	MT				124.21
172063	From Truck / Trailer					
	Details of cost for 168 Metric Tonne					
	Labour:					
	Mate (Skilled)	Day	0002	751.00	1.00	751.00
	Waterman (Un-skilled)	Day	0034	547.00	1.00	547.00
	Labour Unskilled	Day	0020	540.00	8.00	4,320.00
	Misc.:					
	Hire charges of 12 MT Hydra	Day	0089	6717.00	1.00	6,717.00
						12,335.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		123.35
						12,458.35
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		1,750.40
						14,208.75
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		2,131.31
						16,340.06
	Add for Cess @ 1%	Lumpsum	9905	0.01		163.40
	Cost for 168 Metric Tonne					16,503.46
	Rate per MT	MT				98.23
172070	Unloading of 52kg / 60kg PSC special sleepers beyond 2.75 metre length in Depot / Station / Mid-section between stations in neat manner for Railway usage from departmental material train (DMT) or contractor's / Railway's Truck/Trailer with crane or any other means including crossing of one track and lead up to 50 metre & lift up to 5 metre with contractor's labour, tools & plants, machinery, consumables etc. Note: In case of any damage to sleeper during loading, penalty @ 50% of the all inclusive cost of sleeper shall be levied.					
172071	From DMT - During period of traffic block					
	Details of cost for 84 Metric Tonne					
	Labour:					
	Mate (Skilled)	Day	0002	751.00	1.00	751.00
	Waterman (Un-skilled)	Day	0034	547.00	1.00	547.00
	Look Out Man (Un-skilled)	Day	0033	547.00	1.00	547.00
	Labour Unskilled	Day	0020	540.00	20.00	10,800.00
	Misc.:					
	T & P (Rail tongue, Crow bar, etc.)	Lumpsum	9901	1.00	30.00	30.00
						12,675.00
	Add for working under traffic block @ 10%	Lumpsum	9992	0.10		1,267.50
						13,942.50
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		139.43
						14,081.93
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		1,978.51
						16,060.44

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		2,409.07
						18,469.50
	Add for Cess @ 1%	Lumpsum	9905	0.01		184.70
	Cost for 84 Metric Tonne					18,654.20
	Rate per MT	MT				222.07
172072	From DMT - Not involving traffic block or on lines not opened to traffic					
	Details of cost for 84 Metric Tonne					
	Labour:					
	Mate (Skilled)	Day	0002	751.00	1.00	751.00
	Waterman (Un-skilled)	Day	0034	547.00	1.00	547.00
	Labour Unskilled	Day	0020	540.00	14.00	7,560.00
	Misc.:					
	T & P (Rail tongue, Crow bar, etc.)	Lumpsum	9901	1.00	20.00	20.00
						8,878.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		88.78
						8,966.78
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		1,259.83
						10,226.61
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		1,533.99
						11,760.60
	Add for Cess @ 1%	Lumpsum	9905	0.01		117.61
	Cost for 84 Metric Tonne					11,878.21
	Rate per MT	MT				141.41
172073	From Truck / Trailer					
	Details of cost for 168 Metric Tonne					
	Labour:					
	Mate (Skilled)	Day	0002	751.00	1.00	751.00
	Waterman (Un-skilled)	Day	0034	547.00	1.00	547.00
	Labour Unskilled	Day	0020	540.00	6.00	3,240.00
	Misc.:					
	Hire charges of 12 MT Hydra	Day	0089	6717.00	1.25	8,396.25
						12,934.25
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		129.34
						13,063.59
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		1,835.43
						14,899.03
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		2,234.85
						17,133.88
	Add for Cess @ 1%	Lumpsum	9905	0.01		171.34
	Cost for 168 Metric Tonne					17,305.22
	Rate per MT	MT				103.01
172080	Spreading of New / SH , normal or wider base PSC sleepers from stack along track on either side for different leads with all lifts by any means.					
172081	For a lead up to 500m					
	Details of cost for 120 sleepers (Average lead considered 250 metre)					
	Labour:					
	Labour Unskilled	Day	0020	540.00	12.00	6,480.00
	Misc.:					
	T & P (Rail dolly, Rail tongue, Crow bar, etc.)	Lumpsum	9901	1.00	50.00	50.00
						6,530.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		65.30
						6,595.30
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		926.64
						7,521.94
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		1,128.29
						8,650.23
	Add for Cess @ 1%	Lumpsum	9905	0.01		86.50

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Cost for 120 sleepers for up to 500 metre Lead					8,736.73
	Rate per sleeper	Each				72.81
172082	Extra to Item no. 172081 for additional lead of every 500m or part thereof beyond 500 m					
	Details of cost for 120 sleepers (Average Lead considered 250m beyond 500m)					
	Labour:					
	Labour Unskilled	Day	0020	540.00	8.00	4,320.00
	Misc.:					
	T & P (Rail dolly, Rail tongue, Crow bar, etc.)	Lumpsum	9901	1.00	50.00	50.00
						4,370.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		43.70
						4,413.70
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		620.12
						5,033.82
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		755.07
						5,788.90
	Add for Cess @ 1%	Lumpsum	9905	0.01		57.89
	Cost for 120 sleepers					5,846.79
	Rate per sleeper	Each				48.72
173000	Miscellaneous					
173010	Unloading of Switches / Crossings / SEJ Rails / Glued Joints of any rail section and length with or without P.Way fittings & fastenings in neat manner for Railway usage from departmental material train (DMT) or contractor's / Railway's Truck/Trailer with lead up to 250 metre & lift up to 5 metres.					
173011	From DMT - During period of traffic block					
	Details of cost for 84 Metric Tonne					
	Labour:					
	Mate (Skilled)	Day	0002	751.00	1.00	751.00
	Waterman (Un-skilled)	Day	0034	547.00	1.00	547.00
	Look Out Man (Un-skilled)	Day	0033	547.00	1.00	547.00
	Labour Unskilled	Day	0020	540.00	20.00	10,800.00
	Misc.:					
	T & P	Lumpsum	9901	1.00	30.00	30.00
						12,675.00
	Add for working under traffic block @ 10%	Lumpsum	9992	0.10		1,267.50
						13,942.50
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		139.43
						14,081.93
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		1,978.51
						16,060.44
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		2,409.07
						18,469.50
	Add for Cess @ 1%	Lumpsum	9905	0.01		184.70
	Cost for 84 Metric Tonne					18,654.20
	Rate per MT	MT				222.07
173012	From DMT - Not involving traffic block or on lines, not opened to traffic					
	Details of cost for 84 Metric Tonne					
	Labour:					
	Mate (Skilled)	Day	0002	751.00	1.00	751.00
	Waterman (Un-skilled)	Day	0034	547.00	1.00	547.00
	Labour Unskilled	Day	0020	540.00	18.00	9,720.00
	Misc.:					
	T & P	Lumpsum	9901	1.00	20.00	20.00
						11,038.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		110.38
						11,148.38

Note: The figures given in Amount/Rate Column (Which are strikethrough) are not to be taken for estimation or justifying rate. This amount/rate has been given for illustration purpose only.

Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		1,566.35
						12,714.73
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		1,907.21
						14,621.94
	Add for Cess @ 1%	Lumpsum	9905	0.01		146.22
	Cost for 84 Metric Tonne					14,768.16
	Rate per MT	MT				175.81
173013	From Truck / Trailer					
	Details of cost for 84 Metric Tonne					
	Labour:					
	Mate (Skilled)	Day	0002	751.00	0.50	375.50
	Labour Unskilled	Day	0020	540.00	3.00	1,620.00
	Misc.:					
	Hire charges of 12 MT Hydra	Day	0089	6717.00	1.00	6,717.00
						8,712.50
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		87.13
						8,799.63
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		1,236.35
						10,035.97
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		1,505.40
						11,541.37
	Add for Cess @ 1%	Lumpsum	9905	0.01		115.41
	Cost for 84 Metric Tonne					11,656.78
	Rate per MT	MT				138.77
173020	Unloading all types of P.Way fittings and fastenings for Railway usage from Truck and stacking with lead up to 250 metre & lift up to 5 metre.					
	Details of cost for 20 Metric Tonne					
	Labour:					
	Labour Unskilled	Day	0020	540.00	4.00	2,160.00
	Misc.:					
	T & P	Lumpsum	9901	1.00	20.00	20.00
						2,180.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		21.80
						2,201.80
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		309.35
						2,511.15
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		376.67
						2,887.83
	Add for Cess @ 1%	Lumpsum	9905	0.01		28.88
	Cost for 20 Metric Tonne					2,916.70
	Rate per MT	MT				145.84
173030	Collection, segregation and stacking of various scattered P.Way materials at nominated stacking location with serviceable and un-serviceable ones separately within a lead up to 500 metre and lift up to 5 metre including crossing of track(s) wherever necessary as directed by Engineer-in-Charge.					
173031	Rails, switches, crossings, SEJ, Glued Joints, Check Rails etc.					
	Details of cost for 40 Metric Tonne					
	Labour:					
	Mate (Skilled)	Day	0002	751.00	1.00	751.00
	Look Out Man (Un-skilled)	Day	0033	547.00	1.00	547.00
	Waterman (Un-skilled)	Day	0034	547.00	1.00	547.00
	Labour Unskilled	Day	0020	540.00	16.00	8,640.00
	Misc.:					
	T & P	Lumpsum	9901	1.00	40.00	40.00
	Hire charges for tractor with trolley	Day	0080	1742.00	1.00	1,742.00
						12,267.00

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		122.67
						12,389.67
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		1,740.75
						14,130.42
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		2,119.56
						16,249.98
	Add for Cess @ 1%	Lumpsum	9905	0.01		162.50
	Cost for 40 Metric Tonne					16,412.48
	Rate per MT	MT				410.31
173032	All type of PSC sleepers					
	Details of cost for 40 Metric Tonne					
	Labour:					
	Mate (Skilled)	Day	0002	751.00	1.00	751.00
	Look Out Man (Un-skilled)	Day	0033	547.00	1.00	547.00
	Waterman (Un-skilled)	Day	0034	547.00	1.00	547.00
	Labour Unskilled	Day	0020	540.00	18.00	9,720.00
	Misc.:					
	T & P	Lumpsum	9901	1.00	60.00	60.00
	Hire charges for tractor with trolley	Day	0080	1742.00	1.00	1,742.00
						13,367.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		133.67
						13,500.67
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		1,896.84
						15,397.51
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		2,309.63
						17,707.14
	Add for Cess @ 1%	Lumpsum	9905	0.01		177.07
	Cost for 40 Metric Tonne					17,884.21
	Rate per MT	MT				447.11
173033	P.Way fittings of all types and other similar loose items					
	Details of cost for 40 Metric Tonne					
	Labour:					
	Mate (Skilled)	Day	0002	751.00	1.00	751.00
	Look Out Man (Un-skilled)	Day	0033	547.00	1.00	547.00
	Labour Unskilled	Day	0020	540.00	20.00	10,800.00
	Misc.:					
	T & P	Lumpsum	9901	1.00	40.00	40.00
						12,138.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		121.38
						12,259.38
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		1,722.44
						13,981.82
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		2,097.27
						16,079.10
	Add for Cess @ 1%	Lumpsum	9905	0.01		160.79
	Cost for 40 Metric Tonne					16,239.89
	Rate per MT	MT				406.00
173040	Stacking of glued joints in single layer for electrical testing, in such a manner that glued joints - (a) shall not touch ground, (b) shall not touch one another, (c) shall not touch any rail or any metallic body, (d) shall not be water-logged from any side and (e) end post shall not rest on supports of glued joint					
	Details of cost for 100 nos.					
	Labour:					
	Mate (Skilled)	Day	0002	751.00	1.00	751.00
	Labour Unskilled	Day	0020	540.00	8.00	4,320.00

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Misc.:					
	T & P (Crow bar, Rail tongue etc.)	Lumpsum	9901	1.00	25.00	25.00
						5,096.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		50.96
						5,146.96
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		723.15
						5,870.11
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		880.52
						6,750.62
	Add for Cess @ 1%	Lumpsum	9905	0.01		67.51
	Cost for 100 nos.					6,818.13
	Rate per Glued Joint	Each				68.18
173050	Un Loading of stone boulders weighing not less than 35 kg each from Railway Wagons and stacking at specified locations with all contractor's tools & plants, machinery, labour, lead and lift, crossing of track wherever necessary etc., complete as directed by the Engineer In charge.					
	Un loading of boulders from railway wagons to specified locations (20CuM*8wagons=160 CuM)					
	Consider 5 Nos for each wagon					
	Labour:					
	Mate (Skilled)	Day	0002	751.00	1	751.00
	Labour Unskilled	Day	0020	540.00	40.00	21,600.00
	Misc.:					
	T&P (No rate required)	Lumpsum	9901	1.00	15.00	15.00
						22,366.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		223.66
						22,589.66
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		3,173.85
						25,763.51
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		3,864.53
						29,628.03
	Add for Cess @ 1%	Lumpsum	9905	0.01		296.28
	Cost for 160 CuM					29,924.31
	Rate per cum	Cum				187.03

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CHAPTER - 18 : Level Crossings

Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
181000	Dismantling					
181010	Opening of level crossing up to required width from centre line of track for replacement of sleepers by digging of pucca road surface up to bottom of sleeper, removing of ballast, muck etc., screening of ballast & stacking the same near level crossing and disposing of all debris, replacing the required sleeper duly packing the sleeper to make fit for normal traffic and closing of LC surface with screened ballast to original level by proper ramming and consolidation to smooth motarable surface as directed by engineer in-charge.					
	Details of cost for 77 Sqm [For Insertion of PSC Sleeper in LC Area required width for dismantling of road surface is 3.5 metre from centre line of track] Taken 11 metre wide LC. i.e. { 11m x (3.5m + 3.5m) = 77 Sqm }					
	Labour:					
	Mate (Skilled)	Day	0002	751.00	1.00	751.00
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	1.00	749.00
	Helper (Semi-skilled)	Day	0021	572.00	1.00	572.00
	Look Out Man (Un-skilled)	Day	0033	547.00	1.00	547.00
	Waterman (Un-skilled)	Day	0034	547.00	1.00	547.00
	Labour Unskilled	Day	0020	540.00	35.00	18,900.00
	Misc.:					
	T & P	Lumpsum	9901	1.00	75.00	75.00
						22,141.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		221.41
						22,362.41
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		3,141.92
						25,504.33
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		3,825.65
						29,329.98
	Add for Cess @ 1%	Lumpsum	9905	0.01		293.30
	Cost for 77 Sqm					29,623.28
	Rate per Sqm	Sqm				384.72
181020	Dismantling existing check rail of Level Crossing, blocks, bolts & nuts and stacking these in a countable manner near LC, free from any infringements as directed by Engineer in-charge.					
	Details of cost for 22 RM Taken 9 Metre wide LC For both side check rails {(9+ 2) x 2 = 22 Metre }					
	Labour:					
	For Dismantling and stacking of check rail					
	Labour Unskilled	Day	0020	540.00	4.00	2,160.00
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	0.50	374.50
	Helper (Semi-skilled)	Day	0021	572.00	0.50	286.00
	Look Out Man (Un-skilled)	Day	0033	547.00	0.50	273.50
	Misc.:					
	T & P	Lumpsum	9901	1.00	15.00	15.00
						3,109.09
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		31.09
						3,140.09
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		441.18
						3,581.27
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		537.19
						4,118.46
	Add for Cess @ 1%	Lumpsum	9905	0.01		41.18
	Cost for 22 Running Metre					4,159.65
	Rate per RM	RM				189.07

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
181030	Dismantling existing Rail Height Gauge carefully and stacking the released material in countable manner, free from any infringements as directed by Engineer in-Charge including removal of cement concrete foundation and making surface clean.					
	Details of cost for 2 No's of one LC					
	Labour:					
	(i) For Removing existing ht. gauge					
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	1.00	749.00
	Helper (Semi-skilled)	Day	0021	572.00	1.00	572.00
	Labour Unskilled	Day	0020	540.00	2.00	1,080.00
	(ii) For making surface clean & handing over material to store etc.					
	Labour Unskilled	Day	0020	540.00	6.00	3,240.00
	Misc.:					
	T & P	Lumpsum	9901	1.00	20.00	20.00
						5,661.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		56.61
						5,717.61
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		803.32
						6,520.93
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		978.14
						7,499.07
	Add for Cess @ 1%	Lumpsum	9905	0.01		74.99
	Cost for 2 No's					7,574.07
	Rate per Height Gauge	Each				3,787.03
181040	Dismantling existing lifting barrier along with winch assembly and other components like boom, fringes, locking arrangements, pedestal, boom rest, locking rods/wires, pulley stakes, turn out wheels, 'A' base and other materials connected with functioning of lifting barrier, removing engineering indicators on track and level crossing road signages without any damage including demolishing concrete base of existing structures, filling, ramming and levelling the ground disturbed during demolition, clearing debris and stacking all released material in a neat and countable manner and clear of infringements, as directed. Note: Barriers on both sides of level crossing constitute one set.					
	Details of cost 1 set					
	Labour:					
	(i) For dismantling of foundation					
	Labour Unskilled	Day	0020	540.00	4.00	2,160.00
	(ii) For removing posts & Barrier					
	Labour Unskilled	Day	0020	540.00	8.00	4,320.00
	(iii) Leading all released material and stacking					
	Labour Unskilled	Day	0020	540.00	2.00	1,080.00
	(iv) Removing Engineering Indicators					
	Mate (Skilled)	Day	0002	751.00	1.00	751.00
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	1.00	749.00
	Helper (Semi-skilled)	Day	0021	572.00	2.00	1,144.00
	Labour Unskilled	Day	0020	540.00	6.00	3,240.00
	Misc.:					
	T & P	Lumpsum	9901	1.00	45.00	45.00
	Hire charges for tractor with trolley	Day	0080	1742.00	1.00	1,742.00
						15,231.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		152.31
						15,383.31
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		2,161.36
						17,544.67
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		2,631.70
						20,176.36
	Add for Cess @ 1%	Lumpsum	9905	0.01		201.76
	Rate per set	Set				20,378.13

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
181050	Dismantling existing lifting barrier and other components except winch assembly, like boom, fringes, locking arrangements, pedestal, boom rest, locking rods/wires, pulley stakes, turn out wheels, 'A' base and other materials connected with functioning of lifting barrier without any damage including demolishing concrete base of existing structures and clearing debris in a neat manner and stacking in a countable manner and clear of infringements, as directed. Note: Barriers on both sides of level crossing constitute one set.					
	Details of cost 1 set					
	Labour:					
	(i) For dismantling of foundation					
	Labour Unskilled	Day	0020	540.00	4.00	2,160.00
	(ii) For removing posts & Barrier (except winch)					
	Labour Unskilled	Day	0020	540.00	6.00	3,240.00
	(iii) Leading all released material and stacking					
	Labour Unskilled	Day	0020	540.00	2.00	1,080.00
	(iv) Removing Engineering Indicators					
	Mate (Skilled)	Day	0002	751.00	1.00	751.00
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	1.00	749.00
	Helper (Semi-skilled)	Day	0021	572.00	2.00	1,144.00
	Labour Unskilled	Day	0020	540.00	6.00	3,240.00
	Misc.:					
	T & P	Lumpsum	9901	1.00	40.00	40.00
	Hire charges for tractor with trolley	Day	0080	1742.00	1.00	1,742.00
						14,146.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		141.46
						14,287.46
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		2,007.39
						16,294.85
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		2,444.23
						18,739.08
	Add for Cess @ 1%	Lumpsum	9905	0.01		187.39
	Cost for 1 set					18,926.47
	Rate per set	Set				18,926.47
181060	Deduction to item no. 181050 for not dismantling 'A' base and its foundations					
	Details of cost 1 set					
	Labour:					
	(i) For dismantling of foundation and A base					
	Labour Unskilled	Day	0020	540.00	-4.00	-2,160.00
	Misc.:					
	T & P	Lumpsum	9901	1.00	10.00	10.00
						-2,150.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		-21.50
						-2,171.50
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		-305.10
						-2,476.60
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		-371.49
						-2,848.09
	Add for Cess @ 1%	Lumpsum	9905	0.01		-28.48
	Deduction for 1 set					-2,876.57
	Deduction per set	Set				-2,876.57
181070	Dismantling existing swing gate consisting of two leaves with gate posts, meeting post and stopper post etc. without causing any damage to material and stacking the same near LC gate as directed by Engineer-in-charge.					
	Details of cost for 5 MT					
	Material:					
	Acetylene Gas (in cylinder)	Kg	0339	78.00	4.00	312.00
	Oxygen Gas (in cylinder)	Kg	0338	83.00	12.00	996.00

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Labour:					
	(i) For dismantling of wicket gate / swing gates					
	Labour Unskilled	Day	0020	540.00	4.00	2,160.00
	(ii) For removal of gate post, stopper etc. & stacking of released material					
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	1.00	749.00
	Helper (Semi-skilled)	Day	0021	572.00	1.00	572.00
	Labour Unskilled	Day	0020	540.00	4.00	2,160.00
	Misc.:					
	T & P including gas cutting equipments	Lumpsum	9901	1.00	40.00	40.00
						6,989.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		69.89
						7,058.89
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		991.77
						8,050.66
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		1,207.60
						9,258.26
	Add for Cess @ 1%	Lumpsum	9905	0.01		92.58
	Cost for 5 MT					9,350.85
	Rate per MT	MT				1,870.17
182000	Overhauling of Level Crossings					
182010	Overhauling of level crossing by digging out up to 50mm below sleeper, screening of shoulder & crib ballast, replacing unserviceable sleepers & fastenings as necessary, removal of check rails for examination of running rails and check rails, scrapping of rails and painting running rails and check rails and all fixtures with two coats of coal tar emulsion, greasing of ERCs, MCI inserts and liners oiling all the bolts, correcting cross level, gauge, alignment, surfacing and packing etc., re-fixing check rails duly ensuring standard clearances, re-inserting screened ballast, making good deficient ballast with Railway's ballast from stacks / heaps/borrowing from adjacent length of adjoining track within 50m lead, ramming & levelling road surface and refixing concrete slabs/making motarable road surface as required excluding re surfacing with bitumen as directed by Engineer in-charge.					
182011	Level crossings with asphalted road surface					
	Details of cost for 40 Sqm (Lumpsum area for 9 metre wide LC for one Line)					
	Material:					
	Coal tar Emulsion	Litre	0315	79.00	5.00	395.00
	Soft Brush for painting - 25cm long	Each	0312	59.00	1.00	59.00
	Wire Brush - 25cm long	Each	0311	42.00	1.00	42.00
	Labour:					
	Mate (Skilled)	Day	0002	751.00	1.00	751.00
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	1.00	749.00
	Helper (Semi-skilled)	Day	0021	572.00	1.00	572.00
	Look Out Man (Un-skilled)	Day	0033	547.00	1.00	547.00
	Waterman (Un-skilled)	Day	0034	547.00	1.00	547.00
	(i) For removing of Black Top road surface					
	Labour Unskilled	Day	0020	540.00	4.00	2,160.00
	(ii) For removing ballast & other materials.					
	Labour Unskilled	Day	0020	540.00	4.00	2,160.00
	(iii) For Digging 50 mm below sleeper & screening etc.					
	Labour Unskilled	Day	0020	540.00	4.00	2,160.00
	(iv) For changing worn out sleeper, fittings & fastening etc.					
	Labour Unskilled	Day	0020	540.00	4.00	2,160.00
	(v) For filling good ballast, levelling, packing & preparing of road surface etc.					
	Labour Unskilled	Day	0020	540.00	4.00	2,160.00
	(vi) For ramming of ballast on top surface					
	Labour Unskilled	Day	0020	540.00	4.00	2,160.00
	(vii) For coaltaring of running & check rail etc.					
	Painter (Skilled)	Day	0012	749.00	1.00	749.00
	Labour Unskilled	Day	0020	540.00	1.00	540.00

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Misc.:					
	T & P	Lumpsum	9901	1.00	50.00	50.00
						17,961.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		179.61
						18,140.61
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		2,548.76
						20,689.37
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		3,103.40
						23,792.77
	Add for Cess @ 1%	Lumpsum	9905	0.01		237.93
	Cost for 40 Sqm					24,030.70
	Rate per Sqm	Sqm				600.77
182012	Level crossings with concrete blocks road surface					
	Details of cost for 40 Sqm (Lumpsum area for 9 metre wide LC for one Line)					
	Material:					
	Coal tar Emulsion	Litre	0315	79.00	5.00	395.00
	Wire Brush - 25cm long	Each	0311	42.00	1.00	42.00
	Soft Brush for painting - 25cm long	Each	0312	59.00	1.00	59.00
	Labour:					
	Mate (Skilled)	Day	0002	751.00	1.00	751.00
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	1.00	749.00
	Helper (Semi-skilled)	Day	0021	572.00	1.00	572.00
	Look Out Man (Un-skilled)	Day	0033	547.00	1.00	547.00
	Waterman (Un-skilled)	Day	0034	547.00	1.00	547.00
	(i) For removing of RCC slab/blocks					
	Labour Unskilled	Day	0020	540.00	3.00	1,620.00
	(ii) For removing ballast & other materials.					
	Labour Unskilled	Day	0020	540.00	3.00	1,620.00
	(iii) For Digging 50 mm below sleeper & screening etc.					
	Labour Unskilled	Day	0020	540.00	3.00	1,620.00
	(iv) For changing worn out sleeper, fittings & fastening etc.					
	Labour Unskilled	Day	0020	540.00	4.00	2,160.00
	(v) For filling good ballast, levelling, packing & preparing of road surface etc.					
	Labour Unskilled	Day	0020	540.00	4.00	2,160.00
	(vi) For fixing of concrete slab including ramming					
	Labour Unskilled	Day	0020	540.00	4.00	2,160.00
	(vii) For painting of check rail and fixing joints of slabs etc.					
	Painter (Skilled)	Day	0012	749.00	1.00	749.00
	Labour Unskilled	Day	0020	540.00	1.00	540.00
	Misc.:					
	T & P	Lumpsum	9901	1.00	40.00	40.00
						16,331.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		163.31
						16,494.31
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		2,317.45
						18,811.76
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		2,821.76
						21,633.52
	Add for Cess @ 1%	Lumpsum	9905	0.01		216.34
	Cost for 40 Sqm					21,849.86
	Rate per Sqm	Sqm				546.25
182013	Level crossings with any other type of road surface					
	Details of cost for 40 Sqm (Lumpsum area for 9 metre wide LC for one Line)					
	Material:					
	Coal tar Emulsion	Litre	0315	79.00	5.00	395.00
	Wire Brush - 25cm long	Each	0311	42.00	1.00	42.00
	Soft Brush for painting - 25cm long	Each	0312	59.00	1.00	59.00

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Labour:					
	Mate (Skilled)	Day	0002	751.00	1.00	751.00
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	1.00	749.00
	Helper (Semi-skilled)	Day	0021	572.00	1.00	572.00
	Look Out Man (Un-skilled)	Day	0033	547.00	1.00	547.00
	Waterman (Un-skilled)	Day	0034	547.00	1.00	547.00
	(i) For removing of Road surface					
	Labour Unskilled	Day	0020	540.00	3.00	1,620.00
	(ii) For removing ballast & other materials.					
	Labour Unskilled	Day	0020	540.00	3.00	1,620.00
	(iii) For Digging 50mm below sleeper & screening etc.					
	Labour Unskilled	Day	0020	540.00	3.00	1,620.00
	(iv) For changing worn out sleeper, fittings & fastening etc.					
	Labour Unskilled	Day	0020	540.00	4.00	2,160.00
	(v) For filling good ballast, levelling, packing & preparing of road surface					
	Labour Unskilled	Day	0020	540.00	3.00	1,620.00
	(vi) For ramming of ballast on top surface					
	Labour Unskilled	Day	0020	540.00	2.00	1,080.00
	(vii) For painting of check rail and making road surface etc.					
	Painter (Skilled)	Day	0012	749.00	1.00	749.00
	Labour Unskilled	Day	0020	540.00	1.00	540.00
	Misc.:					
	T & P	Lumpsum	9901	1.00	30.00	30.00
						14,701.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		147.01
						14,848.01
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		2,086.15
						16,934.16
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		2,540.12
						19,474.28
	Add for Cess @ 1%	Lumpsum	9905	0.01		194.74
	Cost for 40 Sqm					19,669.02
	Rate per Sqm	Sqm				491.73
183000	Check Rail Related Works					
183010	Drilling of parabolic shaped holes to the web of check rail as per drawings & specifications and as directed by engineer in- charge.					
	Details of cost for 38 nos. Holes					
	Material:					
	Kerosene Oil	Litre	0183	63.00	5.00	315.00
	Normal unleaded Petrol	Litre	0180	108.00	1.00	108.00
	Drill twist made of high speed steel for size 26.5mm dia of Addison / I T make	Each	0462	2517.00	0.50	1,258.50
	Labour:					
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	1.00	749.00
	Helper (Semi-skilled)	Day	0021	572.00	2.00	1,144.00
	Misc.:					
	T & P	Lumpsum	9901	1.00	10.00	10.00
	Hire charges of Rail Drill Machine	Day	0134	442.00	1.00	442.00
						4,026.50
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		40.27
						4,066.77
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		571.38
						4,638.15
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		695.72
						5,333.87
	Add for Cess @ 1%	Lumpsum	9905	0.01		53.34
	Cost for 38 nos. Holes					5,387.21
	Rate per hole	Each				141.77

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
183020	Fabrication including cutting, bending/machining and fixing of check rails of all rail sections over PSC Sleepers as per Railway's approved drawings & specifications for level crossings / trolley paths/inspection lines in yards duly cutting rail flanges, wherever required to correct alignment and level, drilling of holes with machine in check rails and fixing to Running rail and sleepers with all Railway's fittings, e.g. rail screws / grip expansion bolts, brackets, packing pieces, bolts, washers etc including grinding of brackets if required, fixing of Railway's wooden blocks at flare ends duly cutting and planing, crossing of tracks and as directed by the engineer in-charge Note: 1. Drilling of holes in PSC Sleeper and fixing of dowels shall be paid under relevant item. 2. Required P.Way materials will be supplied at SSE/P.Way stores.					
	Details of cost for 9.10 TRM (18.20 RM)					
	Material:					
	Drill twist made of high speed steel for size 26.5mm dia of Addison / I T make	Each	0462	2517.00	0.50	1,258.50
	Oxygen Gas (in cylinder)	Kg	0338	83.00	9.00	747.00
	Acetylene Gas (in cylinder)	Kg	0339	78.00	3.00	234.00
	Normal unleaded Petrol	Litre	0180	108.00	0.20	21.60
	Kerosene Oil	Litre	0183	63.00	2.00	126.00
	Labour:					
	(i) For preparing flare end, cutting rail flange and fixing check rail with all fittings etc.					
	Mate (Skilled)	Day	0002	751.00	0.50	375.50
	Welder (Skilled)	Day	0029	734.00	0.50	367.00
	Helper (Semi-skilled)	Day	0021	572.00	0.50	286.00
	Waterman (Un-skilled)	Day	0034	547.00	1.00	547.00
	Labour Unskilled	Day	0020	540.00	6.00	3,240.00
	Misc.:					
	T & P (Includes Gas cutting torch)	Lumpsum	9901	1.00	60.00	60.00
	Hire charges of Rail Drill Machine	Day	0134	442.00	0.50	221.00
						7,483.60
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		74.84
						7,558.44
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		1,061.96
						8,620.40
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		1,293.06
						9,913.46
	Add for Cess @ 1%	Lumpsum	9905	0.01		99.13
	Cost for 9.10 TRM					10,012.59
	Rate per TRM	TRM				1,100.28
183030	Cutting foot of rail by gas or any other approved method for check rails and grinding sharp edges into smooth profile. Payment shall be made for length of cutting of foot.					
	Details of cost for 18.20 RM of Gas Cut (9.10 x 2.0 = 18.20 RM)					
	Material:					
	Oxygen Gas (in cylinder)	Kg	0338	83.00	9.00	747.00
	Acetylene Gas (in cylinder)	Kg	0339	78.00	3.00	234.00
	Labour:					
	Welder (Skilled)	Day	0029	734.00	1.00	734.00
	Helper (Semi-skilled)	Day	0021	572.00	1.00	572.00
	Misc.:					
	T & P (Includes Gas cutting torch)	Lumpsum	9901	1.00	25.00	25.00
						2,312.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		23.12
						2,335.12
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		328.08
						2,663.20
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		399.48

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
						3,062.69
	Add for Cess @ 1%	Lumpsum	9905	0.01		30.63
	Cost for 18.20 RM of Gas Cut					3,093.31
	Rate per RM	RM				169.96
183040	Fixing check rails to running rails on level crossings with MS brackets, MS packing plates, bolts & nuts, spring washers etc. including lubrication as per approved drawing & specifications, as directed. Rails, MS brackets, packing plates, bolts & nuts, spring washers will be supplied by Railways. Note: One set consists two check Rails.					
	Details of cost for each set for 1 LC. Considering average length of check rail as 7.50m					
	Labour:					
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	0.50	374.50
	Helper (Semi-skilled)	Day	0021	572.00	0.50	286.00
	Labour Unskilled	Day	0020	540.00	6.00	3,240.00
	Misc.:					
	T & P	Lumpsum	9901	1.00	15.00	15.00
						3,915.50
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		39.16
						3,954.66
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		555.63
						4,510.28
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		676.54
						5,186.83
	Add for Cess @ 1%	Lumpsum	9905	0.01		51.87
	Rate per Set	Set				5,238.69
184000	Painting Works					
184010	Painting of running rails and check rails of any rail section of level crossing with anti-corrosive paint on both sides of web, foot etc. including liner contact area (excluding bottom of foot) and fishing plane with two coats of thickness of 100 microns each by bituminous black paint confirms to IS-9862 of reputed make including painting of liners, ERC surface preparation, i.e. cleaning with wire brush / sand paper as a complete job as per Para No 613 (2)(b)(iii) of Indian Railways Permanent Way Manual, as directed by Engineer in-Charge.					
	Details of cost for 78 RM (Running rail + check rail = 4 x 12 + 4 x 7.5) (Considering Double Line Track LC) Surface area for anticorrosive paints (60 kg) = 0.57 sqm/m Surface area for anticorrosive paints (52 kg) = 0.51 sqm/m Total surface area = 48 x 0.57 + 30 x 0.51 = 42.66 sqm Paint spread area for 100 micron each = 6 sqm/litre Paint required = 42.66 x 2/6 = 14.22 litres With 5% wastage quantity required = 14.22 x 1.05 = 14.93 Say 15 litres					
	Material:					
	Anti-corrosive Bituminous Paint (Black) confirming to IS:9862	Litre	0302	100.00	15.00	1,500.00
	Wire Brush - 25cm long	Each	0311	42.00	1.00	42.00
	Soft Brush for painting - 25cm long	Each	0312	59.00	1.00	59.00
	Labour:					
	Painter (Skilled)	Day	0012	749.00	1.00	749.00
	Helper (Semi-skilled)	Day	0021	572.00	1.00	572.00
	Misc.:					
	T & P	Lumpsum	9901	1.00	10.00	10.00
						2,932.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		29.32
						2,961.32
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		416.07
						3,377.39
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		506.61
						3,883.99

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Add for Cess @ 1%	Lumpsum	9905	0.01		38.84
	Cost for 78 RM					3,922.83
	Rate per RM	RM				50.29
184020	Painting speed breakers with paint of approved quality & colour over the Bituminous/Concrete surface near approaches to level crossing.					
184021	With enamel paint (two coats)					
	Details of cost for 34 Sqm					
	Material:					
	Enamel Paint as per RDSO's Spec. no.M&C/PCN/120-2011	Litre	0304	248.00	8.00	1,984.00
	Wire Brush - 25cm long	Each	0311	42.00	1.00	42.00
	Paint Brush 100 mm	Each	0322	115.00	1.00	115.00
	Labour:					
	Painter (Skilled)	Day	0012	749.00	1.00	749.00
	Helper (Semi-skilled)	Day	0021	572.00	1.00	572.00
	Misc.:					
	T & P	Lumpsum	9901	1.00	10.00	10.00
						3,472.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		34.72
						3,506.72
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		492.69
						3,999.41
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		599.91
						4,599.33
	Add for Cess @ 1%	Lumpsum	9905	0.01		45.99
	Cost for 34 Sqm					4,645.32
	Rate per Sqm	Sqm				136.63
184022	With luminous paint (two coats)					
	Details of cost for 34 Sqm					
	Material:					
	Luminous Paint as per RDSO's Spec. no. M&C/PCN/120-2011	Litre	0298	362.00	8.00	2,896.00
	Wire Brush - 25cm long	Each	0311	42.00	1.00	42.00
	Paint Brush 100 mm	Each	0322	115.00	1.00	115.00
	Labour:					
	Painter (Skilled)	Day	0012	749.00	1.00	749.00
	Helper (Semi-skilled)	Day	0021	572.00	1.00	572.00
	Misc.:					
	T & P	Lumpsum	9901	1.00	10.00	10.00
						4,384.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		43.84
						4,427.84
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		622.11
						5,049.95
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		757.49
						5,807.44
	Add for Cess @ 1%	Lumpsum	9905	0.01		58.07
	Cost for 34 Sqm					5,865.52
	Rate per Sqm	Sqm				172.52
184023	With Hot melt thermoplastic road marking paint					
	Details of cost for 34 Sqm					
	Material:					
	Hot melt Thermo plastic road marking paint	Litre	0297	208.00	10.00	2,080.00
	Wire Brush - 25cm long	Each	0311	42.00	1.00	42.00
	Paint Brush 100 mm	Each	0322	115.00	1.00	115.00
	Labour:					
	Painter (Skilled)	Day	0012	749.00	1.00	749.00
	Helper (Semi-skilled)	Day	0021	572.00	1.00	572.00
	Misc.:					

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	T & P	Lumpsum	9901	1.00	10.00	10.00
	Hire charges of Hot Paint machine	Day	0132	425.00	1.00	425.00
						3,993.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		39.93
						4,032.93
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		566.63
						4,599.56

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		689.93
						5,289.49
	Add for Cess @ 1%	Lumpsum	9905	0.01		52.89
	Cost for 34 Sqm					5,342.39
	Rate per Sqm	Sqm				157.13
185000	Fencing and Gate Boom Related Works					
185010	Dismantling of existing rail fencing, fixed adjoining running lines of track, duly excavating and levelling the foundation by hand compaction, removing connections and carting the released material up to a lead of 250m by suitable means and stacking the same, as directed by engineer in-charge. Note: The released materials shall be handed over duly stacking the same in measurable fashion.					
	Details of cost for 6 MT (For 50 m fencing of 90 R rail)					
	Material:					
	Commercial LPG (in cylinder)	Kg	0337	99.00	4.00	396.00
	Oxygen Gas (in cylinder)	Kg	0338	83.00	16.00	1,328.00
	Labour:					
	Mate (Skilled)	Day	0002	751.00	0.50	375.50
	Welder (Skilled)	Day	0029	734	0.50	367.00
	Helper (Semi-skilled)	Day	0021	572.00	1.00	572.00
	(i) Dismantling of fencing					
	Labour Unskilled	Day	0020	540.00	4.00	2,160.00
	(i) Leading /carting of released rail					
	Labour Unskilled	Day	0020	540.00	3.00	1,620.00
	Misc.:					
	T & P (Crow bar, Tommy bar, beater, hammer, Rail dolly, Spanner, Rail Tongue etc.)	Lumpsum	9901	1.00	20.00	20.00
						6,838.50
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		68.39
						6,906.89
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		970.42
						7,877.30
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		1,181.60
						9,058.90
	Add for Cess @ 1%	Lumpsum	9905	0.01		90.59
	Cost for 6 MT					9,149.49
	Rate per MT	MT				1,524.91
185020	Dismantling existing whistle boards along with post including demolishing base concrete and levelling of ground, stacking released materials at the level crossing concerned including clearing of debris, with contractor's labour, tools, vehicles, consumables, all lead and lift etc., complete without damage as directed by the Engineer-in-charge.					
	Details of cost for 20 whistle board					
	Labour:					
	Labour Unskilled	Day	0020	540.00	4.00	2,160.00
	Misc.:					
	T & P	Lumpsum	9901	1.00	10.00	10.00
	Hire charges for tractor with trolley	Day	0080	1742.00	0.50	871.00
						3,041.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		30.41
						3,071.41
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		431.53
						3,502.94
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		525.44
						4,028.38
	Add for Cess @ 1%	Lumpsum	9905	0.01		40.28
	Cost for 20 whistle board					4,068.67
	Rate per Rail Post	Each				203.43

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
185030	Providing Rail Height Gauge at approaches of level crossings as per approved drawings in cement concrete foundation using Railway's rails of all sections including cutting, bending, drilling holes, erecting in position with clamps, bolts & nuts including painting with one coat of enamel paint of specified colour over one coat of primer. Note: excavation and concrete work will be paid separately.					
185031	Less than 5 metre width of level crossing					
	Details of cost for 2 No's					
	Material:					
	Zinc Chromate red oxide Primer to IS:2074	Litre	0306	148.00	3.00	444.00
	Enamel Paint as per RDSO's Spec. no.M&C/PCN/120-2011	Litre	0304	248.00	3.00	744.00
	Oxygen Gas (in cylinder)	Kg	0338	83.00	15.00	1,245.00
	Acetylene Gas (in cylinder)	Kg	0339	78.00	5.00	390.00
	Labour:					
	(i) For Leading of all materials					
	Labour Unskilled	Day	0020	540.00	6.00	3,240.00
	(ii) For Fixing					
	Welder (Skilled)	Day	0029	734.00	1.00	734.00
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	1.00	749.00
	Painter (Skilled)	Day	0012	749.00	1.00	749.00
	Helper (Semi-skilled)	Day	0021	572.00	2.00	1,144.00
	Waterman (Un-skilled)	Day	0034	547.00	1.00	547.00
	Labour Unskilled	Day	0020	540.00	6.00	3,240.00
	Misc.:					
	T & P	Lumpsum	9901	1.00	30.00	30.00
	Hire charges of Crane 10T capacity	Day	0088	5583.00	0.50	2,791.50
						16,047.50
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		160.48
						16,207.98
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		2,277.22
						18,485.20
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		2,772.78
						21,257.97
	Add for Cess @ 1%	Lumpsum	9905	0.01		212.58
	Cost for 2 No's					21,470.55
	Rate per Rail Height Gauge	Each				10,735.28
185032	Above 5 metre width of level crossing					
	Details of cost for 2 No's					
	Material:					
	Zinc Chromate red oxide Primer to IS:2074	Litre	0306	148.00	4.00	592.00
	Enamel Paint as per RDSO's Spec. no.M&C/PCN/120-2011	Litre	0304	248.00	4.00	992.00
	Oxygen Gas (in cylinder)	Kg	0338	83	18.00	1,494.00
	Acetylene Gas (in cylinder)	Kg	0339	78	6.00	468.00
	Labour:					
	(i) For Leading of all materials					
	Labour Unskilled	Day	0020	540.00	8.00	4,320.00
	(ii) For Fixing					
	Welder (Skilled)	Day	0029	734	1.00	734.00
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	1.00	749.00
	Painter (Skilled)	Day	0012	749.00	1.00	749.00
	Helper (Semi-skilled)	Day	0021	572.00	2.00	1,144.00
	Waterman (Un-skilled)	Day	0034	547.00	1.00	547.00
	Labour Unskilled	Day	0020	540.00	8.00	4,320.00
	Misc.:					
	T & P	Lumpsum	9901	1.00	80.00	80.00
	Hire charges of Crane 10T capacity	Day	0088	5583.00	0.50	2,791.50
						18,980.50
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		189.81

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
						19,170.31
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		2,693.43
						21,863.73
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		3,279.56
						25,143.29
	Add for Cess @ 1%	Lumpsum	9905	0.01		251.43
	Cost for 2 No's					25,394.73
	Rate per Rail Height Gauge	Each				12,697.36
185040	Manufacture, supply, assembly, erection, commissioning and testing of Lifting Barrier assembly, having fragmented boom, boom light boxes with suitable gate lamps, bell, boom supports (stay wires) with adjusters, counter weight, pedestal and lock posts with foundation of 'A' type as required, turn-union wheel with brackets, balance and auxiliary weights clamps etc. to approved standard drawing with all fittings and fastenings excluding fringes, complete with contractor's men, equipments and materials, as per specifications and as directed.					
185041	Up to 6m long Lifting Barrier					
	Details of cost for each set					
	Material:					
	Lifting Barrier assembly for 6m long Lifting Barrier, having fragmented boom, boom light boxes with suitable gate lamps, bell, Boom supports (stay wires) with adjusters, counter weight, pedestal and lock posts with foundation of 'A' type as required, turn union wheel with brackets, balance and auxiliary weights clamps etc to approved standard drawings with all fittings and fastenings complete (excluding fringes)	set	0436	120833.00	1.00	120,833.00
	Man Power : (For erection & Commissioning)					
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	1.00	749.00
	Helper (Semi-skilled)	Day	0021	572.00	2.00	1,144.00
	Labour Unskilled	Day	0020	540.00	2.00	1,080.00
	Misc.:					
	T & P	Lumpsum	9901	1.00	20.00	20.00
						123,826.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		1,238.26
						125,064.26
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		17,571.53
						142,635.79
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		21,395.37
						164,031.16
	Add for Cess @ 1%	Lumpsum	9905	0.01		1,640.31
	Rate per Set	Set				165,671.47
185042	Above 6m and up to 8m long Lifting Barrier					
	Details of cost for each set					
	Material:					
	Lifting Barrier assembly for 8m long Lifting Barrier, having fragmented boom, boom	set	0437	144167.00	1.00	144,167.00
	Man Power : (For erection & Commissioning)					
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	2.00	1,498.00
	Helper (Semi-skilled)	Day	0021	572.00	2.00	1,144.00
	Labour Unskilled	Day	0020	540.00	2.00	1,080.00
	Misc.:					
	T & P	Lumpsum	9901	1.00	20.00	20.00
						147,909.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		1,479.09
						149,388.09
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		20,989.03
						170,377.12
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		25,556.57
						195,933.68
	Add for Cess @ 1%	Lumpsum	9905	0.01		1,959.34

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Rate per Set	Set				197,893.02
185043	Above 8m and up to 10m long Lifting Barrier					
	Details of cost for each set					
	Material:					
	Lifting Barrier assembly for 10m long Lifting Barrier, having fragmented boom, boom light boxes with suitable gate lamps, bell, Boom supports (stay wires) with adjusters, counter weight, pedestal and lock posts with foundation of 'A' type as required, turn union wheel with brackets, balance and auxiliary weights clamps etc to approved standard drawings with all fittings and fastenings complete (excluding fringes)	set	0438	150833.00	1.00	150,833.00
	Man Power : (For erection & Commissioning)					
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	2.00	1,498.00
	Helper (Semi-skilled)	Day	0021	572.00	2.00	1,144.00
	Labour Unskilled	Day	0020	540.00	2.00	1,080.00
	Misc.:					
	T & P	Lumpsum	9901	1.00	20.00	20.00
						154,575.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		1,545.75
						156,120.75
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		21,934.97
						178,055.72
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		26,708.36
						204,764.07
	Add for Cess @ 1%	Lumpsum	9905	0.01		2,047.64
	Rate per Set	Set				206,811.71
185050	Manufacture, supply, assembly, erection, commissioning and testing of Winch Arrangement for operation of level crossing lifting barriers, as per RDSO's approved layout, having standard covering arrangement, foundation of 'A' type as required and pulleys, pulley guides & stakes, horizontal rope wheel, vertical rope wheel, wire adjusting screws, wire ropes 6 x 6 x 19 with all fittings, fixtures & accessories to RDSO's approved drawings with all parts including painting of steel work as per specification, as directed with cement concreting complete. Note: Excavation and concrete work will be paid separately.					
	Details of cost for each					
	Material:					
	Winch arrangement for operation of level crossing lifting barriers, as per RDSO's approved layout having standard covering arrangement, foundation of 'A' type as required and pulleys, pulley guides and stakes, horizontal rope wheel, vertical rope wheel, wire adjusting screws wire ropes 6x6x19 with all fittings, fixtures and accessories to RDSO's approved drawings with all parts including painting of steel work as per specification(excluding excavation and concrete work)	Each	0439	38667.00	1.00	38,667.00
	Labour:					
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	1.00	749.00
	Helper (Semi-skilled)	Day	0021	572.00	1.00	572.00
	Labour Unskilled	Day	0020	540.00	2.00	1,080.00
	Misc.:					
	T & P	Lumpsum	9901	1.00	20.00	20.00
						41,088.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		410.88
						41,498.88
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		5,830.59
						47,329.47
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		7,099.42
						54,428.89
	Add for Cess @ 1%	Lumpsum	9905	0.01		544.29
	Rate for each	Each				54,973.18

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
185060	Manufacture, supply, assembly, erection, commissioning and testing of auto boom locking arrangement for existing lifting barriers, consisting of interlocking ground frame near gate lodge, foundation of 'A' type, as required and connecting ground frame to lock posts of gate booms with stipulated rodding on guide rollers, supported on trestles including required excavation, foundation, providing RCC NP-2 Class pipes of 100mm dia. for road / rail crossing, as per RDSO's drawings complete (Excavation, concrete work and NP-2 pipe will be paid separately).					
185061	Single lever					
	Details of cost for each					
	Material:					
	Auto boom locking arrangement (Single lever) for existing lifting barriers, consisting of interlocking ground frame near gate lodge, foundation of 'A' type as required and connecting ground frame to lock posts of gate booms with stipulated rodding on guide rollers, supported on trestles as per RDSO's drawings complete (Excluding excavation, concrete work)	Each	0440	80000.00	1.00	80,000.00
	Man Power : (For erection & Commissioning)					
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	1.00	749.00
	Helper (Semi-skilled)	Day	0021	572.00	1.00	572.00
	Labour Unskilled	Day	0020	540.00	2.00	1,080.00
	Misc.:					
	T & P	Lumpsum	9901	1.00	10.00	10.00
						82,411.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		824.11
						83,235.11
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		11,694.53
						94,929.64
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		14,239.45
						109,169.09
	Add for Cess @ 1%	Lumpsum	9905	0.01		1,091.69
	Rate for each	Each				110,260.78
185062	Double lever					
	Details of cost for each					
	Material:					
	Auto boom locking arrangement (Double lever) for existing lifting barriers, consisting of interlocking ground frame near gate lodge, foundation of 'A' type as required and connecting ground frame to lock posts of gate booms with stipulated rodding on guide rollers, supported on trestles as per RDSO's drawings complete (Excluding excavation, concrete work)	Each	0441	56833.00	1.00	56,833.00
	Man Power : (For erection & Commissioning)					
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	1.00	749.00
	Helper (Semi-skilled)	Day	0021	572.00	2.00	1,144.00
	Labour Unskilled	Day	0020	540.00	2.00	1,080.00
	Misc.:					
	T & P	Lumpsum	9901	1.00	15.00	15.00
						59,821.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		598.21
						60,419.21
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		8,488.90
						68,908.11
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		10,336.22
						79,244.33
	Add for Cess @ 1%	Lumpsum	9905	0.01		792.44
	Rate for each	Each				80,036.77

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
185070	Manufacture, supply and replacement of one side of level crossing of existing Railway's lifting barrier assembly and boom supports of different boom length including required excavation & concreting foundation of 'A' type, as required for pedestal bases & fixing it on boom supports, painting iron works with two coats of synthetic enamel paint over one coat of primer of approved quality & colour and setting lifting barrier for smooth operation complete and as directed. Note: Excavation & concrete work will be paid separately.					
185071	Up to 6m long Lifting Barrier					
	Considering half of the cost of replacement of both side as per item no. 185041					
	Rate as per item no. 185041		185041			165,671.47
	Rate for each	Each				82,835.73
185072	Above 6m and up to 8m long Lifting Barrier					
	Considering half of the cost of replacement of both side as per item no. 185042					
	Rate as per item no. 185042		185042			197,893.02
	Rate for each	Each				98,946.51
185073	Above 8m and up to 10m long Lifting Barrier					
	Considering half of the cost of replacement of both side as per item no. 185043					
	Rate as per item no. 185043		185043			206,811.71
	Rate for each	Each				103,405.86
185080	Manufacture, supply and replacement of gate lamps at one side of level crossing					
	Details of cost for each					
	Material:					
	Gate lamps	Each	0442	6083.00	1.00	6,083.00
	For fixing of Gate Lamp in Lifting Barrier	Lumpsum	9901	1.00	20.00	20.00
						6,103.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		61.03
						6,164.03
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		866.05
						7,030.08
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		1,054.51
						8,084.59
	Add for Cess @ 1%	Lumpsum	9905	0.01		80.85
	Rate for each	Each				8,165.43
186000	Miscellaneous					
186010	Manufacturing, supplying and laying factory made CC block pavers for road surface of level crossings to RDSO Drg. No. M.00003, manufactured using 20mm size graded hard stone aggregates of approved quality over a well compacted sand bedding 50 thick with all contractor's cement, labour, tools/plant and curing with all lead & lift as per specifications and as directed by Engineer in-charge.					
186011	80mm thick blocks of M-35 grade for medium traffic.					
	Detail of cost for 10 Sqm					
	Material:					
	Precast CC Paver block -80mm thick M35 grade	Sqm	0450	538.00	10.50	5,649.00
	Considering 5% wastage i.e. $10 \div 0.5 = 10.5$ Sqm					
	Fine Sand (Zone IV)	Cum	0200	2050.00	0.50	1,025.00
	Labour:					
	Mason 1st class (Skilled)	Day	0004	718.00	0.80	574.40
	Helper (Semi-skilled)	Day	0021	572.00	0.80	457.60
	Labour Unskilled	Day	0020	540.00	1.80	972.00
	Misc.:					
	Sundries	Lumpsum	9901	1.00	10.00	10.00
						8,688.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		86.88
						8,774.88

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		1,232.87
						10,007.75
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		1,501.16
						11,508.91
	Add for Cess @ 1%	Lumpsum	9905	0.01		115.09
	Cost for 10 Sqm					11,624.00
	Rate per Sqm	Sqm				1,162.40
186012	120mm thick blocks of M-40 grade for heavy traffic.					
	Detail of cost for 10 Sqm					
	Material:					
	Precast CC Paver block -120mm thick M40 grade	Sqm	0451	935.00	10.50	9,817.50
	Considering 5% wastage i.e. 10 + 0.5 = 10.5 Sqm					
	Fine Sand (Zone IV)	Cum	0200	2050.00	0.50	1,025.00
	Labour:					
	Mason 1st class (Skilled)	Day	0004	718.00	1.00	718.00
	Helper (Semi-skilled)	Day	0021	572.00	1.00	572.00
	Labour Unskilled	Day	0020	540.00	2.00	1,080.00
	Misc.:					
	T & P	Lumpsum	9901	1.00	10.00	10.00
						13,222.50
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		132.23
						13,354.73
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		1,876.34
						15,231.06
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		2,284.66
						17,515.72
	Add for Cess @ 1%	Lumpsum	9905	0.01		175.16
	Cost for 10 Sqm					17,690.88
	Rate per Sqm	Sqm				1,769.09
186020	Fixing of Railway's existing precast concrete slabs of different sizes in position for level crossings / trolley path and filling gap between check rail / running rail, slabs, approaches etc. with asphalt complete and as directed.					
	Details of cost for 84.36 Sqm {7.20 x 1.30 + 2 x(7.50 x 5.0)}					
	Material:					
	Fine Sand (Zone IV)	Cum	0200	2050.00	0.25	512.50
	Bitumen Hot sealing compound : Gr. A	MT	0317	38500.00	0.03	962.50
	Kerosene Oil	Litre	0183	63.00	2.00	126.00
	Fuel wood	Quintal	0343	5317.00	0.20	1,063.40
	Wire Brush - 25cm long	Each	0311	42.00	2.00	84.00
	Soft Brush for painting - 25cm long	Each	0312	59.00	1.00	59.00
	Labour:					
	(i) Levelling between check rail & approaches					
	Labour Unskilled	Day	0020	540.00	2.00	1,080.00
	(ii) Asphaltting					
	Mason 1st class (Skilled)	Day	0004	718.00	1.00	718.00
	Helper (Semi-skilled)	Day	0021	572.00	1.00	572.00
	Labour Unskilled	Day	0020	540.00	2.00	1,080.00
	Misc.:					
	T & P	Lumpsum	9901	1.00	40.00	40.00
						6,297.40
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		62.97
						6,360.37
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		893.63
						7,254.01
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		1,088.10
						8,342.11
	Add for Cess @ 1%	Lumpsum	9905	0.01		83.42

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Cost for 84.36 Sqm					8,425.53
	Rate per Sqm	Sqm				99.88
186030	Paving of level crossing road surface with Railway's precast RCC slab / blocks as per standards / approved drawings for light and heavy vehicles on bed of sand, moorum or gravel, duly compacted and joints filled with mixture of sand & tar/bitumen in proportion of 1:2 by weight.					
	Details of cost for 84.36 Sqm {7.20 x 1.30 + 2 x(7.50 x 5.0)}					
	Material:					
	Fine Sand (Zone IV)	Cum	0200	2050.00	2.00	4,100.00
	Bitumen Hot sealing compound : Gr. A	MT	0317	38500.00	0.05	1,732.50
	Kerosene Oil	Litre	0183	63.00	2.00	126.00
	Fuel wood	Quintal	0343	5317.00	0.25	1,329.25
	Labour:					
	(i) For levelling of ballast bed					
	Labour Unskilled	Day	0020	540.00	4.00	2,160.00
	(ii) For leading & fixing of RCC slab / Paver blocks					
	Mason 1st class (Skilled)	Day	0004	718.00	2.00	1,436.00
	Helper (Semi-skilled)	Day	0021	572.00	2.00	1,144.00
	Labour Unskilled	Day	0020	540.00	10.00	5,400.00
	Misc.:					
	T & P	Lumpsum	9901	1.00	35.00	35.00
						17,462.75
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		174.63
						17,637.38
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		2,478.05
						20,115.43
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		3,017.31
						23,132.74
	Add for Cess @ 1%	Lumpsum	9905	0.01		231.33
	Cost for 84.36 Sqm					23,364.07
	Rate per Sqm	Sqm				276.96
186040	Removal of RCC slab in existing level crossing portion and in between tracks along with stacking them in countable manner, as directed.					
	Details of cost for 40 Sqm					
	Labour:					
	Labour Unskilled	Day	0020	540.00	3.00	1,620.00
	Misc.:					
	T & P	Lumpsum	9901	1.00	10.00	10.00
						1,630.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		16.30
						1,646.30
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		231.31
						1,877.61
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		281.64
						2,159.25
	Add for Cess @ 1%	Lumpsum	9905	0.01		21.59
	Cost for 40 Sqm					2,180.84
	Rate per Sqm	Sqm				54.52
186050	Fixing of speed breaker on approaches of level crossings with pre-cast concrete blocks (M-25) of parabolic shape for entire road width with 125 mm central rise including painting two coats with paint of approved quality and colour in the width of 2 metres. Note: Cost of pre-cast concrete blocks shall be paid separately.					
	Details of cost for 15 Running Metre					
	Material:					
	Luminous Paint as per RDSO's Spec. no. M&C/PCN/120-2011	Litre	0298	362.00	4.00	1,448.00

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Soft Brush for painting - 25cm long	Each	0312	59.00	1.00	59.00
	Labour:					
	Mason 1st class (Skilled)	Day	0004	718.00	1.00	718.00
	Painter (Skilled)	Day	0012	749.00	1.00	749.00
	Helper (Semi-skilled)	Day	0021	572.00	1.00	572.00
	Labour Unskilled	Day	0020	540.00	2.00	1,080.00
	Misc.:					
	T & P	Lumpsum	9901	1.00	10.00	10.00
						4,636.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		46.36
						4,682.36
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		657.87
						5,340.23
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		801.03
						6,141.27
	Add for Cess @ 1%	Lumpsum	9905	0.01		61.41
	Cost for 15 Running Metre					6,202.68
	Rate per RM	RM				413.51
186060	Provision of one Asphalt Speed Breaker Rumble Strip on each side of the approaches of manned level crossings as per approved drawing including painting two coats with paint of approved quality and colour.					
	Details of cost for 15 Running Metre					
	Material:					
	Bitumen Hot sealing compound : Gr. A	MT	0317	38500.00	0.06	2,310.00
	Stone Aggregate (Single size) : 10 mm nominal size	Cum	0205	983.00	0.50	491.50
	Fuel wood	Quintal	0343	5317.00	0.50	2,658.50
	Luminous Paint as per RDSO's Spec. no. M&C/PCN/120-2011	Litre	0298	362.00	4.00	1,448.00
	Soft Brush for painting - 25cm long	Each	0312	59.00	1.00	59.00
	Labour:					
	Mason 1st class (Skilled)	Day	0004	718.00	1.00	718.00
	Painter (Skilled)	Day	0012	749.00	1.00	749.00
	Helper (Semi-skilled)	Day	0021	572.00	2.00	1,144.00
	Misc.:					
	T & P including tray for heating asphalt	Lumpsum	9901	1.00	50.00	50.00
						9,628.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		96.28
						9,724.28
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		1,366.26
						11,090.54
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		1,663.58
						12,754.12
	Add for Cess @ 1%	Lumpsum	9905	0.01		127.54
	Cost for 15 Running Metre					12,881.66
	Rate per RM	RM				858.78
186070	Manufacture & supply of tested GI wire rope of 6mm dia. and 6 ply to suit lifting barrier gates at nearby P.Way Stores / Depot / Level Crossing gate, as directed.					
	Details of cost 100 Kg					
	Material:					
	GI wire rope of 6mm dia. 6 ply to suit lifting barrier gates	Kg	0443	338.00	100.00	33,800.00
	Misc.:					
						33,800.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		338.00
						34,138.00
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		4,796.39
						38,934.39
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		5,840.16
						44,774.55

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Add for Cess @ 1%	Lumpsum	9905	0.01		447.75
	Cost for 100 Kg					45,222.29
	Rate per Kg	Kg				452.22
186080	Supplying and fixing of Boom Supports (stay wires) for lifting barrier (approx. 8mm dia.) with suitable adjuster and other specials, as directed					
	Detail of cost for 4 no's					
	Material:					
	Boom Supports (stay wires) for lifting barrier (approx. 8mm dia)	Each	0444	1087.00	4.00	4,348.00
	Man Power : (For Fixing)					
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	1.00	749.00
	Helper (Semi-skilled)	Day	0021	572.00	1.00	572.00
	Misc.:					
	T & P	Lumpsum	9901	1.00	10.00	10.00
						5,679.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		56.79
						5,735.79
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		805.88
						6,541.67
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		981.25
						7,522.92
	Add for Cess @ 1%	Lumpsum	9905	0.01		75.23
	Cost for 4 no's					7,598.15
	Rate for each	Each				1,899.54
186090	Manufacture and supply of vertical / horizontal Turnout Wheels and Shafts, mounted over base plate weighing not less than 6 Kg with supporting vertical base, made of MS angle 75mm x 75mm x 10mm as per Railway's approved drawings and specifications complete and as directed.					
	Details of cost for each					
	Material:					
	Vertical / Horizontal Turnout Wheels and Shafts mounted over the base plate	Each	0447	1192.00	1.00	1,192.00
	Misc.:					
						1,192.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		11.92
						1,203.92
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		169.15
						1,373.07
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		205.96
						1,579.03
	Add for Cess @ 1%	Lumpsum	9905	0.01		15.79
	Rate for each	Each				1,594.82
186100	Manufacturing, supplying and installation of pulley with pulley stakes complete, wire rope 6 x 6 x 19 with accessories as per Railway's approved drawings for operation of lifting barriers complete, as directed.					
	Detail of cost for 10 no's					
	Material:					
	Pulley with Pulley stakes complete, wire rope 6x6x19 ply with accessories as per	Each	0446	357.00	10.00	3,570.00
	Man Power : (For Installation)					
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	1.00	749.00
	Helper (Semi-skilled)	Day	0021	572.00	1.00	572.00
	Misc.:					
	T & P	Lumpsum	9901	1.00	10.00	10.00
						4,901.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		49.01
						4,950.01
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		695.48
						5,645.49

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		846.82
						6,492.31
	Add for Cess @ 1%	Lumpsum	9905	0.01		64.92
	Cost for 10 no's					6,557.23
	Rate for each	Each				655.72
186110	Fabrication, supply and fixing of Collapsible Fringes to the lifting barriers of various length at level crossing as per approved drawing; made of MS flat of size 30mm x 6mm in 2 rows, 40mm x 6mm in 1 row horizontally and MS flat of size 30mm x 6mm vertically at 500mm centre to centre, painting iron works with two coats of synthetic enamel paint of approved quality & colour over one coat of primer of approved quality, as directed.					
	Details of cost for 18.20 RM (9.10 x 2.0 = 18.20 RM)					
	Horizontal M.S. Flat reqd = 3 nos.					
	Material:					
	Zinc Chromate red oxide Primer to IS:2074	Litre	0306	148.00	1.00	148.00
	Enamel Paint as per RDSO's Spec. no.M&C/PCN/120-2011	Litre	0304	248.00	2.00	496.00
	M S Flat upto 10 mm thickness	Quintal	0227	7017.00	1.18	8,280.06
	Labour:					
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	2.00	1,498.00
	Painter (Skilled)	Day	0012	749.00	1.00	749.00
	Helper (Semi-skilled)	Day	0021	572.00	3.00	1,716.00
	Labour Unskilled	Day	0020	540.00	2.00	1,080.00
	Misc.:					
	T & P	Lumpsum	9901	1.00	20.00	20.00
						13,987.06
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		139.87
						14,126.93
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		1,984.83
						16,111.76
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		2,416.76
						18,528.53
	Add for Cess @ 1%	Lumpsum	9905	0.01		185.29
	Cost for 18.20 RM					18,713.81
	Rate per RM	RM				1,028.23
186120	Supplying and driving into ground 'C' class G.I. pipes of 20mm dia. x 150mm length for planting red flags and lamp at 5 metre on both sides from the centre of road at level crossings with all leads & lifts. Payment shall be made for complete work at one Level Crossing. Note: Two pipes make one set.					
	Details of cost for each LC					
	Labour:					
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	0.25	187.25
	Labour Unskilled	Day	0020	540.00	0.25	135.00
	Misc.:					
	Pipe and T & P @ 30% of labour cost.					96.68
						418.93
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		4.19
						423.11
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		59.45
						482.56
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		72.38
						554.95
	Add for Cess @ 1%	Lumpsum	9905	0.01		5.55
	Rate per LC	Set				560.50

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
186130	Manufacturing, supplying and installation of Turnout wheel - Horizontal Rope Wheel - double wire (2-way) including guides with all contractor's materials, fabrication, labour, T&P, consumables, all leads & lifts etc. complete as per approved drawing and as directed by Engineer in-charge.					
	Detail of cost for 20 no's					
	Material:					
	Turnout wheel- HORIZONTAL ROPE WHEEL double wire (2 way) including guides	Each	0448	1890.00	20.00	37,800.00
	Man Power : (For Installation)					
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	1.00	749.00
	Helper (Semi-skilled)	Day	0021	572.00	1.00	572.00
	Misc.:					
	T & P	Lumpsum	9901	1.00	10.00	10.00
						39,131.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		391.31
						39,522.31
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		5,552.88
						45,075.19
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		6,761.28
						51,836.47
	Add for Cess @ 1%	Lumpsum	9905	0.01		518.36
	Cost for 20 no's					52,354.84
	Rate for each	Each				2,617.74
186140	Supplying galvanized Steel Wire Rope for DW signaling 6 x 19 ply as per IRS No. S.11 amended up to date for lifting barrier at level crossing gates, as directed by Engineer in-charge					
	Details of cost 100 Kg					
	Material:					
	Galvanized STEEL WIRE ROPE for DW signalling 6 x 19 ply as per IRS No. S.11	Kg	0449	407.00	100.00	40,700.00
	Misc.:					
						40,700.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		407.00
						41,107.00
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		5,775.53
						46,882.53
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		7,032.38
						53,914.91
	Add for Cess @ 1%	Lumpsum	9905	0.01		539.15
	Cost for 100 Kg					54,454.06
	Rate per Kg	Kg				544.54
186150	Fabrication, supplying and fixing Stop Boards of 600mm dia. to lifting barriers as per approved drawing, made of 3mm thick plate, using MS clamps, providing 6 nos. of 50mm dia. red retro-reflector on stop board, painting iron works with two coats of synthetic enamel paint over one coat of primer of approved quality & colour and writing STOP mark over the board.					
	Details of cost for 4 No's					
	Disc volume = $4 \times 22/7 \times (0.6 \times 0.6)/4 \times 0.003 = 0.00085$ cum, weight = 26.68 Kg					
	Material:					
	Zinc Chromate red oxide Primer to IS:2074	Litre	0306	148.00	1.00	148.00
	Enamel Paint as per RDSO's Spec. no.M&C/PCN/120-2011	Litre	0304	248.00	2.00	496.00
	Structural Steel Plates conforming to Grade Designation E 250; Quality "A" as per IS	Quintal	0220	7950.00	0.27	2,146.50
	4" dia round ceramic Light Reflector as per specification	Each	0445	282.00	24.00	6,768.00
	Labour:					
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	1.00	749.00
	Painter (Skilled)	Day	0012	749.00	1.00	749.00
	Helper (Semi-skilled)	Day	0021	572.00	1.00	572.00

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Misc.:					
	T & P	Lumpsum	9901	1.00	10.00	10.00
						11,638.50
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		116.39
						11,754.89
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		1,651.56
						13,406.45
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		2,010.97
						15,417.41
	Add for Cess @ 1%	Lumpsum	9905	0.01		154.17
						15,571.59
	Cost for 4 No's					15,571.59
	Rate for each	Each				3,892.90
186160	Manufacturing, supplying and fixing Wicket Gate of size 1025mm x 1025mm x 1000mm at manned level crossings, as per approved drawing including painting with 2 coats of specified enamel colour paint over 1 coat of primer including earthwork in excavation etc. complete, as per specifications and as directed.					
	Details of cost for 1.5 MT (Mild steel plates/sheets/angles required for one wicket gate is approx 0.15 MT)					
	Material:					
	Zinc Chromate red oxide Primer to IS:2074	Litre	0306	148.00	6.00	888.00
	Enamel Paint as per RDSO's Spec. no.M&C/PCN/120-2011	Litre	0304	248.00	10.00	2,480.00
	Structural Steel Plates conforming to Grade Designation E 250; Quality "A" as per IS 2062	Quintal	0220	7950.00	15.00	119,250.00
	H3 Electrodes as per RDSO's Spec. no. IRS M:28-2011	Nos.	0424	35.00	300.00	10,500.00
	Paint Brush 25 mm	Each	0325	50.00	4.00	200.00
	Labour:					
	Welder (Skilled)	Day	0029	734.00	1.00	734.00
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	1.00	749.00
	Painter (Skilled)	Day	0012	749.00	1.00	749.00
	Helper (Semi-skilled)	Day	0021	572.00	3.00	1,716.00
	Labour Unskilled	Day	0020	540.00	4.00	2,160.00
	Misc.:					
	T & P	Lumpsum	9901	1.00	45.00	45.00
	Electricity Charges (1 Unit)	KWH	0500	14.00	300.00	4,200.00
	Hire charges of Arc Welding Machine 500 Amp	Day	0129	792.00	2.00	1,584.00
						145,255.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		1,452.55
						146,707.55
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		20,612.41
						167,319.96
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		25,097.99
						192,417.95
	Add for Cess @ 1%	Lumpsum	9905	0.01		1,924.18
	Cost for 1.5 MT					194,342.13
	Rate per MT	MT				129,561.42
186170	Fixing of wooden blocks of approximate size of 150mm x 300mm x 1200mm on end of check rails including sizing at level crossings with contractor's labour, tools & plants and as directed.					
186171	With Railway's wooden block by cutting Railway's wooden sleepers (supplied free by Railways) into blocks by sawing to size					
	Details of cost for 40 nos.					
	Labour:					
	(i) Cutting of wooden blocks from sleepers (1 carpenter + 1 helper prepare 20					
	Carpenter (Skilled)	Day	0006	734.00	2.00	1,468.00
	Helper (Semi-skilled)	Day	0021	572.00	2.00	1,144.00
	(ii) Fixing of wooden blocks					

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Mate (Skilled)	Day	0002	751.00	1.00	751.00
	Labour Unskilled	Day	0020	540.00	10.00	5,400.00
	Misc.:					
	T & P	Lumpsum	9901	1.00	30.00	30.00
						8,793.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		87.93
						8,880.93
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		1,247.77
						10,128.70
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		1,519.31
						11,648.01
	Add for Cess @ 1%	Lumpsum	9905	0.01		116.48
	Cost for 40 nos					11,764.49
	Rate for each	Each				294.11
186172	With Contractor's hard wood block					
	Details of cost for 40 nos.					
	Material:					
	Volume of 1 no. Wooden Block (size : 1.20m x 0.3m x 0.15m) = 0.054 cum Volume for 40 nos. = 40 x 0.054 cum = 2.16 cum = 2160 Cudm					
	Hard Variety Jungle Wood blocks	10 Cudm	0341	462.00	216.00	99,792.00
	Labour:					
	(i) Fixing of wooden blocks					
	Mate (Skilled)	Day	0002	751.00	1.00	751.00
	Carpenter (Skilled)	Day	0006	734.00	1.00	734.00
	Helper (Semi-skilled)	Day	0021	572.00	1.00	572.00
	Labour Unskilled	Day	0020	540.00	10.00	5,400.00
	Misc.:					
	T & P	Lumpsum	9901	1.00	25.00	25.00
						107,274.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		1,072.74
						108,346.74
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		15,222.72
						123,569.46
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		18,535.42
						142,104.88
	Add for Cess @ 1%	Lumpsum	9905	0.01		1,421.05
	Cost for 40 nos					143,525.92
	Rate for each	Each				3,588.15
186180	Fixing of grip expansion bolts of 18mm / 22mm dia. with nuts and MS clips / washers on PSC sleepers as per specifications for fixing guard rails / check rails / trolley path including drilling of required holes in sleepers with all fittings with contractor's tools & plants, equipment, consumables with all lead, lifts etc. complete, as directed by Engineer in-charge, excluding cost of bolts, nuts, washers, clips etc.					
	Details of cost for 80 nos.					
	Material:					
	Drill twist made of high speed steel for size 18mm dia of Addison / I T make	Each	0463	1633.00	0.50	816.50
	Normal unleaded Petrol	Litre	0180	108.00	1.00	108.00
	Kerosene Oil	Litre	0183	63.00	5.00	315.00
	Labour:					
	(i) Fixing of grip expansion bolt & nut with MS clip and washer for guard rail/check rail fixing					
	Labour Unskilled	Day	0020	540.00	4.00	2,160.00
	(ii) For PSC sleeper drilling holes for fixing of nut & bolt					
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	1.00	749.00
	Helper (Semi-skilled)	Day	0021	572.00	2.00	1,144.00
	Labour Unskilled	Day	0020	540.00	4.00	2,160.00

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Misc.:					
	T & P	Lumpsum	9901	1.00	20.00	20.00
	Hire charges for pillar drilling machine	Day	0135	957.00	0.50	478.50
						7,951.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		79.51
						8,030.51
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		1,128.29
						9,158.80
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		1,373.82
						10,532.62
	Add for Cess @ 1%	Lumpsum	9905	0.01		105.33
	Cost for 80 nos.					10,637.94
	Rate for each	Each				132.97
186190	Erecting detonator rail posts at required locations as required including cutting the rail to required length varying from 1.00M to 1.50M , leading the rail pieces from nominated station / mid section from nearest depot to site of work, erecting the rail post by making the pit size as required and filling with CC 1:3:6 mix with 40mm aggregates and painting the rail post with two coats of synthetic enamel paint of approved colour and make, marking of detonator symbol as per site requirement, with contractor's materials, labour, paint, all lead and lifts, etc., complete as per specifications and as directed by the Engineer-in-charge. Note: Excavation and concrete work for foundation will be paid under relevant item.					
	Details of cost for 20 Rail Post.					
	Material:					
	Paint Brush 50 mm	Each	0324	52.00	1.00	52.00
	Sand Paper medium-grit (100- to 150-grit), 9" x 11"	Nos.	0491	7.00	6.00	42.00
	Enamel Paint as per RDSO's Spec. no.M&C/PCN/120-2011	Litre	0304	248.00	1.00	248.00
	Cotton Jute	Kg	0489	53.00	2.00	106.00
	Oxygen Gas (in cylinder)	Kg	0338	83.00	9.00	747.00
	Acetylene Gas (in cylinder)	Kg	0339	78.00	3.00	234.00
	Labour:					
	(i) Fixing of Rail Post, Painting etc.					
	Mate (Skilled)	Day	0002	751.00	1.00	751.00
	Painter (Skilled)	Day	0012	749.00	1.00	749.00
	Helper (Semi-skilled)	Day	0021	572.00	1.00	572.00
	Waterman (Un-skilled)	Day	0034	547.00	1.00	547.00
	Labour Unskilled	Day	0020	540.00	4.00	2,160.00
	Misc.:					
	T & P for cutting torch	Lumpsum	9901	1.00	50.00	50.00
	Hire charges for tractor with trolley	Day	0080	1742.00	0.50	871.00
						7,129.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		71.29
						7,200.29
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		1,011.64
						8,211.93
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		1,231.79
						9,443.72
	Add for Cess @ 1%	Lumpsum	9905	0.01		94.44
	Cost for 20 Rail Post					9,538.16
	Rate per Rail Post	Each				476.91

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
186200	Erecting Emergency Chain Posts for level crossings , including cutting rail to required length varying from 1.00M to 1.50M , drilling holes, providing hooks & links / rings with necessary locking arrangements to fix emergency chain, leading the rail pieces from nominated station / mid section from nearest depot to site of work, erecting the rail post by making the pit of size as required and filling with CC 1:3:6 mix with 40mm aggregates and painting the rail post with two coats of synthetic enamel paint of approved colour and make, with contractor's materials, labour, paint, all lead and lifts, etc., complete as per specifications and as directed by the Engineer-in-charge. Note: (1) Rails & chain will be supplied by Railways. (2) Excavation and concrete work for foundation will be paid under relevant item.					
	Details of cost for 20 Rail Post.					
	Material:					
	Paint Brush 50 mm	Each	0324	52.00	1.00	52.00
	Sand Paper medium-grit (100- to 150-grit), 9" x 11"	Nos.	0491	7.00	6.00	42.00
	Enamel Paint as per RDSO's Spec. no.M&C/PCN/120-2011	Litre	0304	248.00	1.00	248.00
	Cotton Jute	Kg	0489	53.00	2.00	106.00
	Oxygen Gas (in cylinder)	Kg	0338	83.00	9.00	747.00
	Acetylene Gas (in cylinder)	Kg	0339	78.00	3.00	234.00
	Labour:					
	(i) Fixing of Rail Post, Painting etc.					
	Mate (Skilled)	Day	0002	751.00	1.00	751.00
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	1.00	749.00
	Painter (Skilled)	Day	0012	749.00	1.00	749.00
	Helper (Semi-skilled)	Day	0021	572.00	1.00	572.00
	Waterman (Un-skilled)	Day	0034	547.00	1.00	547.00
	Labour Unskilled	Day	0020	540.00	4.00	2,160.00
	Misc.:					
	T & P for cutting torch	Lumpsum	9901	1.00	50.00	50.00
	Hire charges for tractor with trolley	Day	0080	1742.00	1.00	1,742.00
						8,749.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		87.49
						8,836.49
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		1,241.53
						10,078.02
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		1,511.70
						11,589.72
	Add for Cess @ 1%	Lumpsum	9905	0.01		115.90
	Cost for 20 Rail Post					11,705.62
	Rate per Rail Post	Each				585.28
186210	Providing Rail Barricading with rails supplied by Railways with verticals provided at every 1.5m interval, height of barricade being up to 1.5m above ground / termination level and one or more row of horizontal rail, duly cutting rails and drilling holes as required, assembling necessary accessories to required length, including earthwork excavation for foundation, fixing posts in cement concrete 1:3:6 base of size 0.45m x 0.45m x 0.60m and one coat of red oxide painting of steel work. Note: 1. Excavation and concrete work will be paid separately. 2. Rail shall be made available within 250 metres					
	Details of cost for 15 MT (For 100 RM Barricading by 52 Kg Rails)					
	Material:					
	Zinc Chromate red oxide Primer to IS:2074	Litre	0306	148.00	5.00	740.00
	Paint Brush 25 mm	Each	0325	50.00	2.00	100.00
	Oxygen Gas (in cylinder)	Kg	0338	83	21.00	1,743.00
	Acetylene Gas (in cylinder)	Kg	0339	78	7.00	546.00
	Nut & Bolts with washers of all sizes	Kg	0231	122.00	15.00	1,830.00

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Labour:					
	(i) Fixing of fencing					
	Mate (Skilled)	Day	0002	751.00	1.00	751.00
	Welder (Skilled)	Day	0029	734	1.00	734.00
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	2.00	1,498.00
	Helper (Semi-skilled)	Day	0021	572.00	2.00	1,144.00
	Labour Unskilled	Day	0020	540.00	8.00	4,320.00
	(ii) Carting of rail					
	Mate (Skilled)	Day	0002	751.00	1.00	751.00
	Labour Unskilled	Day	0020	540.00	6.00	3,240.00
	Look Out Man (Un-skilled)	Day	0033	547.00	1.00	547.00
	(iii) Painting of rail					
	Painter (Skilled)	Day	0012	749.00	1.00	749.00
	Helper (Semi-skilled)	Day	0021	572.00	1.00	572.00
	Misc.:					
	Sundries	Lumpsum	9901	1.00	100.00	100.00
						19,365.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		193.65
						19,558.65
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		2,747.99
						22,306.64
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		3,346.00
						25,652.64
	Add for Cess @ 1%	Lumpsum	9905	0.01		256.53
	Cost for 15 MT					25,909.16
	Rate per MT	MT				1,727.28

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CHAPTER - 19 : Bridge Related Activities

Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
191000	Dismantling Works					
191010	Dismantling existing track on girder bridges including guard rails and foot path etc., cutting existing SW panels / LWR, if required into free rails of not less than 12 metre length and leading all released materials to nominated place within 50m of bridge approaches and stacking the released materials clear of infringements, as per direction of Engineer-in-Charge. Note: Rail cutting and drilling shall be paid separately.					
191011	Under Traffic Block Conditions					
	Details of cost for 50 TRM					
	Labour:					
	(i) Opening fittings of running rails, guard rails & pathway					
	Labour Unskilled	Day	0020	540.00	4.00	2,160.00
	(ii) Removing of running rails, guard rails, Sleepers & pathway					
	Labour Unskilled	Day	0020	540.00	10.00	5,400.00
	(iv) Leading of rails, guard rails, sleepers fitting & stacking etc.					
	Mate (Skilled)	Day	0002	751.00	1.00	751.00
	Waterman (Un-skilled)	Day	0034	547.00	1.00	547.00
	Look Out Man (Un-skilled)	Day	0033	547.00	1.00	547.00
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	1.00	749.00
	Helper (Semi-skilled)	Day	0021	572.00	1.00	572.00
	Labour Unskilled	Day	0020	540.00	10.00	5,400.00
	Misc.:					
	T & P (Crow bar, Tommy bar, beater, hammer, Rail Tongue, Spanner, Rollers etc.)	Lumpsum	9901	1.00	100.00	100.00
						16,226.00
	Add for working under traffic block @ 5%	Lumpsum	9991	0.05		811.30
						17,037.30
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		170.37
						17,207.67
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		2,417.68
						19,625.35
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		2,943.80
						22,569.15
	Add for Cess @ 1%	Lumpsum	9905	0.01		225.69
	Cost for 50 TRM					22,794.85
	Rate per TRM	TRM				455.90
191012	Under Conditions not requiring Traffic Block.					
	Details of cost for 50 TRM					
	Labour:					
	(i) Opening fittings of running rails, guard rails & pathway					
	Labour Unskilled	Day	0020	540.00	4.00	2,160.00
	(ii) Removing of running rails, guard rails, Sleepers & pathway					
	Labour Unskilled	Day	0020	540.00	9.00	4,860.00
	(iv) Leading of rails, guard rails, sleepers fitting & stacking etc.					
	Mate (Skilled)	Day	0002	751.00	1.00	751.00
	Waterman (Un-skilled)	Day	0034	547.00	1.00	547.00
	Look Out Man (Un-skilled)	Day	0033	547.00	1.00	547.00
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	1.00	749.00
	Helper (Semi-skilled)	Day	0021	572.00	1.00	572.00
	Labour Unskilled	Day	0020	540.00	7.00	3,780.00
	Misc.:					
	T & P (Crow bar, Tommy bar, beater, hammer, Rail Tongue, Spanner, Rollers etc.)	Lumpsum	9901	1.00	100.00	100.00
						14,066.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		140.66
						14,206.66
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		1,996.04
						16,202.70

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		2,430.40
						18,633.10
	Add for Cess @ 1%	Lumpsum	9905	0.01		186.33
	Cost for 50 TRM					18,819.43
	Rate per TRM	TRM				376.39
191020	Insertion of temporary girder in place of formation involving dismantling of track, removal of ballast and neatly stacking for future use, excavation & installation of CC crib or wooden crib at both ends as per approved design in one or more traffic blocks, excavation for creating space for insertion of girder as required, placement of girder by contractor's Crane, tools & plants, filling of earth/sand filled bags at different stages as required, linking of track and connecting with the approaches, ballasting, boxing and packing approach sleepers to make track fit for 20 kmph to the satisfaction of Engineer in-charge. Note: 1. The CC Crib as required and Temporary Girder shall be supplied by Railways at available location. 2. Transportation of Temporary Girder to site shall be paid separately under relevant item. 3. The charges for wooden sleepers/blocks required for matting and bearing as per approved design shall be paid extra as per relevant item. 4. In case bridge timber / channel sleepers are required to be laid on girder, the same shall be paid separately under relevant item.					
191021	RH /Temporary girder of length varying from 12.2m to 16.3m using road crane capacity of 50 MT					
	Details of cost for 1 span					
	Material:					
	Acetylene Gas (in cylinder)	Kg	0339	78.00	4.00	312.00
	Oxygen Gas (in cylinder)	Kg	0338	83.00	12.00	996.00
	Labour:					
	Mate (Skilled)	Day	0002	751.00	1.00	751.00
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	1.00	749.00
	Welder (Skilled)	Day	0029	734.00	1.00	734.00
	Carpenter (Skilled)	Day	0006	734.00	2.00	1,468.00
	Helper (Semi-skilled)	Day	0021	572.00	4.00	2,288.00
	Look Out Man (Un-skilled)	Day	0033	547.00	1.00	547.00
	Waterman (Un-skilled)	Day	0034	547.00	1.00	547.00
	(i) Removing ballast, Slewing track by road crane					
	Labour Unskilled	Day	0020	540.00	4.00	2,160.00
	(ii) Excavation formation, installation of crib for insertion of girder					
	Labour Unskilled	Day	0020	540.00	12.00	6,480.00
	(iii) Placement of girder by road crane					
	Labour Unskilled	Day	0020	540.00	8.00	4,320.00
	Misc.:					
	T & P (Crow bar, Tommy bar, beater, hammer, Jacks, Spanner etc.)	Lumpsum	9901	1.00	50.00	50.00
	Hire charges of Diesel Truck - 9 tonne	Day	0508	3794.12	1.00	3,794.12
	Hire charges for jack of 40 MT lifting capacity	Day	0103	775.00	2.00	1,550.00
	Hire Charges of JCB 3DX Plus Backhoe Loader	Day	0506	4966.80	0.50	2,483.40
	Hiring charges of Crane 50 MT capacity	Day	0093	17250.00	1.50	25,875.00
						55,104.52
	Add for working under traffic block @ 5%	Lumpsum	9991	0.05		2,755.23
						57,859.75
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		578.60
						58,438.34
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		8,210.59
						66,648.93
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		9,997.34
						76,646.27
	Add for Cess @ 1%	Lumpsum	9905	0.01		766.46
	Rate per Span	Each				77,412.73

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
191022	RH /Temporary girder of length above 16.3m and up to 26.00 using Road crane capacity of 80 MT					
	Details of cost for 1 span					
	Material:					
	Acetylene Gas (in cylinder)	Kg	0339	78.00	5.00	390.00
	Oxygen Gas (in cylinder)	Kg	0338	83.00	15.00	1,245.00
	Labour:					
	Mate (Skilled)	Day	0002	751.00	2.00	1,502.00
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	2.00	1,498.00
	Welder (Skilled)	Day	0029	734.00	1.00	734.00
	Carpenter (Skilled)	Day	0006	734.00	2.00	1,468.00
	Helper (Semi-skilled)	Day	0021	572.00	5.00	2,860.00
	Look Out Man (Un-skilled)	Day	0033	547.00	1.00	547.00
	Waterman (Un-skilled)	Day	0034	547.00	1.00	547.00
	(i) Removing ballast, Slewing track by road crane					
	Labour Unskilled	Day	0020	540.00	6.00	3,240.00
	(ii) Excavation formation, installation of crib for insertion of girder					
	Labour Unskilled	Day	0020	540.00	15.00	8,100.00
	(iii) Placement of girder by road crane					
	Labour Unskilled	Day	0020	540.00	6.00	3,240.00
	Misc.:					
	T & P (Crow bar, Tommy bar, beater, hammer, Jacks, Spanner etc.)	Lumpsum	9901	1.00	65.00	65.00
	Hire charges of Diesel Truck - 9 tonne	Day	0508	3794.12	1.00	3,794.12
	Hire charges for jack of 40 MT lifting capacity	Day	0103	775.00	2.00	1,550.00
	Hire Charges of JCB 3DX Plus Backhoe Loader	Day	0506	4966.80	0.50	2,483.40
	Hiring charges of 80MT capacity crane	Day	0094	27833.00	1.50	41,749.50
						75,013.02
	Add for working under traffic block @ 5%	Lumpsum	9991	0.05		3,750.65
						78,763.67
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		787.64
						79,551.31
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		11,176.96
						90,728.27
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		13,609.24
						104,337.51
	Add for Cess @ 1%	Lumpsum	9905	0.01		1,043.38
	Rate per Span	Each				105,380.88
191030	Manufacturing and using wooden sleepers/blocks required for matting and bearing as per approved design for use below and above CC Crib for insertion of Temporary Girder etc.. Note: The item is for one time use and released wooden sleepers/blocks shall be the property of the Contractor.					
	Wooden Blocks required for matting and bearing at both ends on top and bottom considering size of 3.6m x 3 m = 4 x 3.6 x 3.0 x 0.30 = 12.96 cum = 12960 cudm. Assuming these wooden block can be used 50 times, quantity to be taken for one time use = 12960/50 = 259.20 cudm					
	Hard Variety Jungle Wood blocks	10 Cudm	0341	462.00	25.92	11,975.04
	Transportation of Wooden blocks					
	Hire charges of Diesel Truck - 9 tonne	Day	0508	3794.12	2.00	7,588.24
						19,563.28
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		195.63
						19,758.91
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		2,776.13
						22,535.04
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		3,380.26
						25,915.30

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Add for Cess @ 1%	Lumpsum	9905	0.01		259.15
	Cost for 12960 Cudm					26,174.45
	Rate per Cum	Cum				2,019.63
191040	Removal of temporary girder, crib on both ends and placing temporary girder on crib / cess away from Railway track as directed by engineer at site under traffic block; filling of Railway's earth by ramming, pulling ballast from stack / adjoining track / same track, laying track, linking with approach track and packing of ballast for opening track at 20 kmph speed, boxing & dressing of cess, ballast profiling etc. Note: If earth is to be brought by contractor from outside, the same will be paid separately.					
191041	RH /Temporary girder of length varying from 12.2m to 16.3m using road crane capacity of 50 MT					
	Details of cost for 1 set of RH girder					
	Material:					
	Acetylene Gas (in cylinder)	Kg	0339	78.00	4.00	312.00
	Oxygen Gas (in cylinder)	Kg	0338	83.00	12.00	996.00
	Labour:					
	Mate (Skilled)	Day	0002	751.00	1.00	751.00
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	1.00	749.00
	Welder (Skilled)	Day	0029	734.00	1.00	734.00
	Helper (Semi-skilled)	Day	0021	572.00	4.00	2,288.00
	Look Out Man (Un-skilled)	Day	0033	547.00	1.00	547.00
	Waterman (Un-skilled)	Day	0034	547.00	1.00	547.00
	(i) Removal/Slewing of girder including crib & placing on crib/cess away from track by road crane					
	Labour Unskilled	Day	0020	540.00	8.00	4,320.00
	(ii) Filling earth, ramming, laying & linking of track					
	Labour Unskilled	Day	0020	540.00	14.00	7,560.00
	(iii) Filling ballast, packing, levelling, aligning, boxing & dressing of track					
	Labour Unskilled	Day	0020	540.00	14.00	7,560.00
	Misc.:					
	T & P (Crow bar, Tommy bar, beater, hammer, Jacks, Spanner etc.)	Lumpsum	9901	1.00	40.00	40.00
	Hire charges of Diesel Truck - 9 tonne	Day	0508	3794.12	1.00	3,794.12
	Hire charges for jack of 40 MT lifting capacity	Day	0103	775.00	2.00	1,550.00
	Hire Charges of JCB 3DX Plus Backhoe Loader	Day	0506	4966.80	0.50	2,483.40
	Hiring charges of Crane 50 MT capacity	Day	0093	17250.00	1.50	25,875.00
						60,106.52
	Add for working under traffic block @ 5%	Lumpsum	9991	0.05		3,005.33
						63,111.85
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		631.12
						63,742.96
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		8,955.89
						72,698.85
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		10,904.83
						83,603.68
	Add for Cess @ 1%	Lumpsum	9905	0.01		836.04
	Rate per Span	Each				84,439.72
191042	RH /Temporary girder of length above 16.3m and up to 26.00 using Road crane capacity of 80 MT					
	Details of cost for 1 set of RH girder					
	Material:					
	Acetylene Gas (in cylinder)	Kg	0339	78.00	5.00	390.00
	Oxygen Gas (in cylinder)	Kg	0338	83.00	15.00	1,245.00
	Labour:					
	Mate (Skilled)	Day	0002	751.00	2.00	1,502.00
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	2.00	1,498.00

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Welder (Skilled)	Day	0029	734.00	1.00	734.00
	Helper (Semi-skilled)	Day	0021	572.00	5.00	2,860.00
	Look Out Man (Un-skilled)	Day	0033	547.00	1.00	547.00
	Waterman (Un-skilled)	Day	0034	547.00	1.00	547.00
	(i) Removal/Slewing of girder including crib & placing on crib/cess away from track by road crane					
	Labour Unskilled	Day	0020	540.00	8.00	4,320.00
	(ii) Filling earth, ramming, laying & linking of track					
	Labour Unskilled	Day	0020	540.00	20.00	10,800.00
	(iii) Filling ballast, packing, levelling, aligning, boxing & dressing of track					
	Labour Unskilled	Day	0020	540.00	20.00	10,800.00
	Misc.:					
	T & P (Crow bar, Tommy bar, beater, hammer, Jacks, Spanner etc.)	Lumpsum	9901	1.00	65.00	65.00
	Hire charges of Diesel Truck - 9 tonne	Day	0508	3794.12	1.00	3,794.12
	Hire charges for jack of 40 MT lifting capacity	Day	0103	775.00	2.00	1,550.00
	Hire Charges of JCB 3DX Plus Backhoe Loader	Day	0506	4966.80	0.50	2,483.40
	Hiring charges of 80MT capacity crane	Day	0094	27833.00	1.50	41,749.50
						84,885.02
	Add for working under traffic block @ 5%	Lumpsum	9991	0.05		4,244.25
						89,129.27
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		891.29
						90,020.56
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		12,647.89
						102,668.45
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		15,400.27
						118,068.72
	Add for Cess @ 1%	Lumpsum	9905	0.01		1,180.69
	Rate per Span	Each				119,249.41
192000	Linking of Track over Girders					
192010	Removing existing Channel/H-Beam sleepers with fittings from the running track under traffic block for TBTR & stacking the same neatly at specified places with contractor's tools & labour, as directed by Engineer in-charge.					
	Details of cost for 80 sleepers (For Removing Channel sleeper one group of 4 persons will remove 16 sleepers in a day)					
	Labour:					
	Mate (Skilled)	Day	0002	751.00	1.00	751.00
	Look Out Man (Un-skilled)	Day	0033	547.00	1.00	547.00
	Waterman (Un-skilled)	Day	0034	547.00	1.00	547.00
	(i) For removing sleeper & fittings					
	Labour Unskilled	Day	0020	540.00	20.00	10,800.00
	(ii) For stacking of released materials					
	Labour Unskilled	Day	0020	540.00	6.00	3,240.00
	Misc.:					
	T & P	Lumpsum	9901	1.00	52.00	52.00
						15,937.00
	Add for working under traffic block @ 10%	Lumpsum	9992	0.10		1,593.70
						17,530.70
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		175.31
						17,706.01
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		2,487.69
						20,193.70
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		3,029.06
						23,222.76
	Add for Cess @ 1%	Lumpsum	9905	0.01		232.23
	Cost for 80 sleepers					23,454.98
	Rate per sleeper	Each				293.19

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
192020	Extra to item no. 192010 for Track Circuited area including handling of released PVC washers on bolts and extra rubber pads on sleepers					
	Detail of cost for 80 sleepers					
	Work involves handling of released PVC washers on bolts and extra rubber pads on sleepers					
	Labour:					
	Labour Unskilled	Day	0020	540.00	2.00	1,080.00
	Misc.:					
	T & P	Lumpsum	9901	1.00	5.00	5.00
						1,085.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		10.85
						1,095.85
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		153.97
						1,249.82
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		187.47
						1,437.29
	Add for Cess @ 1%	Lumpsum	9905	0.01		14.37
	Cost for 80 sleepers					1,451.66
	Rate per sleeper	Each				18.15
192030	Inserting in track Steel Channel/H-beam sleepers with all Railway supplied fittings complete for TBTR work to specified gauge under traffic block with contractor's tools including aligning, levelling to make track fit for 20 kmph speed and as directed by Engineer in-charge. Note: Transportation of track material if supplied beyond 250m of bridge approaches, shall be paid separately under relevant item.					
	Details of cost for 84 sleepers (For carting & inserting Steel Channel Sleepers one group of 4 persons will insert 12 sleepers in a day)					
	Labour:					
	Mate (Skilled)	Day	0002	751.00	1.00	751.00
	Look Out Man (Un-skilled)	Day	0033	547.00	1.00	547.00
	Waterman (Un-skilled)	Day	0034	547.00	1.00	547.00
	(i) For inserting sleeper with fixing fittings etc.					
	Labour Unskilled	Day	0020	540.00	28.00	15,120.00
	(ii) For gauging, aligning, levelling etc.					
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	1.00	749.00
	Helper (Semi-skilled)	Day	0021	572.00	1.00	572.00
	Labour Unskilled	Day	0020	540.00	2.00	1,080.00
	Misc.:					
	T & P	Lumpsum	9901	1.00	65.00	65.00
						19,431.00
	Add for working under traffic block @ 10%	Lumpsum	9992	0.10		1,943.10
						21,374.10
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		213.74
						21,587.84
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		3,033.09
						24,620.93
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		3,693.14
						28,314.07
	Add for Cess @ 1%	Lumpsum	9905	0.01		283.14
	Cost for 84 sleepers					28,597.21
	Rate per sleeper	Each				340.44
192040	Extra to item no. 192030 for Track Circuited area including handling of released PVC washers on bolts and extra rubber pads on sleepers.					
	Detail of cost for 84 sleepers					
	Work involves providing PVC washers on bolts and extra rubber pads on sleepers					
	Labour:					
	Labour Unskilled	Day	0020	540.00	4.00	2,160.00

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Misc.:					
	T & P	Lumpsum	9901	1.00	15.00	15.00
						2,175.00

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		21.75
						2,196.75
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		308.64
						2,505.39
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		375.81
						2,881.20
	Add for Cess @ 1%	Lumpsum	9905	0.01		28.81
	Cost for 84 sleepers					2,910.01
	Rate per sleeper	Each				34.64
192050	Complete Track Renewal on Bridge with Steel Channel/H-beam sleepers as per approved drawings including leading of running and guard rails, sleepers and fittings, bending of guard rails, drilling of holes, cutting of rails etc. and leading the released rails, sleepers & fittings near bridge approaches under traffic block as directed and making track structure fit for normal speed. Note: 1) Rails, Steel Channel/H-beam sleeper and all fittings will be supplied by Railways. 2) Transportation of track material if supplied beyond 250m of bridge approaches, shall be paid separately under relevant item.					
	Detail of cost for 50 TRM					
	Material:					
	Acetylene Gas (in cylinder)	Kg	0339	78.00	4.00	312.00
	Oxygen Gas (in cylinder)	Kg	0338	83.00	12.00	996.00
	Kerosene Oil	Litre	0183	63.00	8.00	504.00
	Normal unleaded Petrol	Litre	0180	108.00	1.00	108.00
	Drill twist made of high speed steel for size 26.5mm dia of Addison / I T make	Each	0462	2517.00	1.00	2,517.00
	High Speed Hacksaw Blade of size 300mm x 12.5mm x 0.63mm (18TPI) as per as per RDSO's Spec. no. TM/SM/26 (latest Rev.)	Each	0453	182.00	1.00	182.00
	Epoxy for fixing HDPE dowel, Rubber Pads as per RDSO approved specification	Kg	0319	622.00	1.00	622.00
	Labour:					
	(i) Leading Channel sleepers, running Rails & Guard Rails, fittings over the bridge and leading back the released rails & fittings to bridge approaches over the bridge					
	Labour Unskilled	Day	0020	540.00	24.00	12,960.00
	(ii) Fixing Channel sleepers along with fittings					
	Labour Unskilled	Day	0020	540.00	8.00	4,320.00
	(iii) Fixing rail with Fitting Clips					
	Labour Unskilled	Day	0020	540.00	8.00	4,320.00
	(iv) Fixing Guard rail					
	Mate (Skilled)	Day	0002	751.00	1.00	751.00
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	2.00	1,498.00
	Welder (Skilled)	Day	0029	734.00	1.00	734.00
	Helper (Semi-skilled)	Day	0021	572.00	3.00	1,716.00
	Look Out Man (Un-skilled)	Day	0033	547.00	1.00	547.00
	Waterman (Un-skilled)	Day	0034	547.00	1.00	547.00
	Labour Unskilled	Day	0020	540.00	12.00	6,480.00
	Misc.:					
	T & P (Crow bar, Tommy bar, beater, hammer, Rail Tongue, Spanner etc.)	Lumpsum	9901	1.00	115.00	115.00
	Hire charges of Rail Cutting Machine	Day	0139	633.00	0.50	316.50
	Hire charges of Rail Drill Machine	Day	0134	442.00	0.50	221.00
	Hire charges for pillar drilling machine	Day	0135	957.00	0.50	478.50
						40,245.00
	Add for working under traffic block @ 10%	Lumpsum	9992	0.10		4,024.50
						44,269.50
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		442.70
						44,712.20
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		6,282.06
						50,994.26

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		7,649.14
						58,643.40
	Add for Cess @ 1%	Lumpsum	9905	0.01		586.43
	Cost for 50 Track Metre					59,229.83
	Rate per TRM	TRM				1,184.60
193000	Casual Renewals Works					
193010	Renewal of existing cracked /broken/corroded isolated Steel Channel/H-beam sleepers with Railway supplied steel channel sleeper with its fittings during traffic block by removing the guard rail and foot path plates with its fittings and loosening of adjacent sleepers hook bolts and lifting of track to required height for removal of old sleeper and insertion of new steel channel sleeper with all fixtures including fixing GR/ER pad in position with epoxy adhesive to neat gauge without disturbing alignment of the track as a whole using with contractors own non infringing jacks and labour, consumables, wooden packings and refixing back in position guard rails and foot path plates along with fittings and tightening of loosened hook bolts etc as a complete job as directed by Engineer in charge at site. The rate includes trucking of new steel channel sleepers and its fittings from bridge approaches and trucking back released steel channels and its fittings to bridge approaches/ nominated locations.					
193011	Broad Gauge Track					
	Details of cost for 25 sleepers					
	Material:					
	Epoxy for fixing HDPE dowel, Rubber Pads as per RDSO approved specification	Kg	0319	622.00	1.00	622.00
	Labour:					
	(i) Removal of fittings, Lifting and supporting of track on wooden packings,(Lifting batch)					
	Mate (Skilled)	Day	0002	751.00	1.00	751.00
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	2.00	1,498.00
	Carpenter (Skilled)	Day	0006	734.00	1.00	734.00
	Helper (Semi-skilled)	Day	0021	572.00	4.00	2,288.00
	Look Out Man (Un-skilled)	Day	0033	547.00	1.00	547.00
	Waterman (Un-skilled)	Day	0034	547.00	1.00	547.00
	Labour Unskilled	Day	0020	540.00	6.00	3,240.00
	ii) Renewal batch (Removal of old sleeper and insertion of new sleeper and lowering of track)					
	Mate (Skilled)	Day	0002	751.00	1.00	751.00
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	1.00	749.00
	Helper (Semi-skilled)	Day	0021	572.00	2.00	1,144.00
	Labour Unskilled	Day	0020	540.00	6.00	3,240.00
	iii)Fittings fixing batch and Positioning and Punching of holes in E/R pads					
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	1.00	749.00
	Labour Unskilled	Day	0020	540.00	6.00	3,240.00
	Misc.:					
	T&P(Crow bar, Tommy bar, beater, hammer, Rail dolly, Spanner etc.)	Lumpsum	9901	1.00	90.00	90.00
	Hire charges of Hydraulic jack 8/10 Tonnes capacity	Day	0102	458.00	2.00	916.00
						21,106.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		211.06
						21,317.06
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		2,995.05
						24,312.11
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		3,646.82
						27,958.92
	Add for Cess @ 1%	Lumpsum	9905	0.01		279.59
	Cost for 25 sleepers					28,238.51
	Rate per sleeper	Each				1,129.54

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
193020	Renewal of existing running rail and guard rails of all sections on bridge portion over Steel Channel sleepers/PSC sleepers under traffic block including leading of new rails, fittings, refixing all the fastenings as per approved drawings including cutting of rails, drilling of holes to running and guard rails as required as per drawing and leading back the released rails and fittings and stacking at nominated place clear of infringements with all leads & lifts tools and consumables complete and as directed.					
	Details of cost for 50 TRM					
	Material:					
	Drill twist made of high speed steel for size 18mm dia of Addison / I T make	Each	0463	1633.00	1.00	1,633.00
	Kerosene Oil	Litre	0183	63.00	8.00	504.00
	Normal unleaded Petrol	Litre	0180	108.00	1.00	108.00
	Labour:					
	(i) Leading new running Rails & Guard Rails and fittings on to bridge and carting back released materials and stacking					
	Labour Unskilled	Day	0020	540.00	16.00	8,640.00
	(ii) Fixing rail with Fitting Clip					
	Labour Unskilled	Day	0020	540.00	8.00	4,320.00
	(iii) Fixing Guard rail					
	Mate (Skilled)	Day	0002	751.00	2.00	1,502.00
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	2.00	1,498.00
	Helper (Semi-skilled)	Day	0021	572.00	2.00	1,144.00
	Look Out Man (Un-skilled)	Day	0033	547.00	1.00	547.00
	Waterman (Un-skilled)	Day	0034	547.00	1.00	547.00
	Labour Unskilled	Day	0020	540.00	8.00	4,320.00
	Misc.:					
	T & P (Crow bar, Rake ballast, Auger, Beater, Spanner, Hammer etc.)	Lumpsum	9901	1.00	70.00	70.00
	Hire charges of Rail Cutting Machine	Day	0139	633.00	0.50	316.50
	Hire charges of Rail Drill Machine	Day	0134	442.00	0.50	221.00
	Hire charges for pillar drilling machine	Day	0135	957.00	0.50	478.50
						25,849.00
	Add for working under traffic block @ 10%	Lumpsum	9992	0.10		2,584.90
						28,433.90
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		284.34
						28,718.24
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		4,034.91
						32,753.15
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		4,912.97
						37,666.12
	Add for Cess @ 1%	Lumpsum	9905	0.01		376.66
	Cost for 50 TRM					38,042.79
	Rate of TRM	TRM				760.86
193030	Scattered renewal or replacement of missing / worn-out fittings of channel sleeper on Bridge with Railway's fittings including leading to required location for the work and the released fittings shall be collected and neatly stacked as directed by Engineer in charge.					
193031	Involving Rubber Pad					
	Details of cost for 100 nos. sleeper					
	Labour:					
	Mate (Skilled)	Day	0002	751.00	1.00	751.00
	Look Out Man (Un-skilled)	Day	0033	547.00	1.00	547.00
	Labour Unskilled	Day	0020	540.00	6.00	3,240.00
	Misc.:					
	T & P (Hammer, Crow bars, Tommy bar, beater, etc.)	Lumpsum	9901	1.00	70.00	70.00
						4,608.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		46.08
						4,654.08
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		653.90

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
						5,307.98
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		796.20
						6,104.17
	Add for Cess @ 1%	Lumpsum	9905	0.01		61.04
	Cost for 100 nos. sleeper					6,165.22
	Rate per sleeper	Each				61.65
193032	Not involving Rubber Pad					
	Details of cost for 100 nos. sleeper					
	Labour:					
	Mate (Skilled)	Day	0002	751.00	0.50	375.50
	Look Out Man (Un-skilled)	Day	0033	547.00	1.00	547.00
	Labour Unskilled	Day	0020	540.00	3.00	1,620.00
	Misc.:					
	T & P (Hammer, Crow bars, Tommy bar, beater, etc.)	Lumpsum	9901	1.00	10.00	10.00
						2,552.50
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		25.53
						2,578.03
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		362.21
						2,940.24
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		441.04
						3,381.27
	Add for Cess @ 1%	Lumpsum	9905	0.01		33.81
	Cost for 100 nos. sleeper					3,415.09
	Rate per sleeper	Each				34.15
194000	Guard Rails related Works					
194010	Manufacture of flared portion of Guard Rail by cutting and bending to required shape & RDSO's approved drawings. Note: (1) Rails shall be supplied by Railways. (2) One set consists of two rails i.e. both left and right.					
	Details cost for 2 set (Two flare rail L.H.+ R.H.)					
	Material:					
	Oxygen Gas (in cylinder)	Kg	0338	83.00	12.00	996.00
	Acetylene Gas (in cylinder)	Kg	0339	78.00	4.00	312.00
	Labour:					
	Welder (Skilled)	Day	0029	734.00	1.00	734.00
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	1.00	749.00
	Waterman (Un-skilled)	Day	0034	547.00	1.00	547.00
	Labour Unskilled	Day	0020	540.00	6.00	3,240.00
	Misc.:					
	T & P (Crow bar, Tommy bar, beater, hammer, Rail dolly, Spanner etc.)	Lumpsum	9901	1.00	35.00	35.00
						6,613.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		66.13
						6,679.13
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		938.42
						7,617.55
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		1,142.63
						8,760.18
	Add for Cess @ 1%	Lumpsum	9905	0.01		87.60
	Cost for 2 sets					8,847.78
	Rate per set	Set				4,423.89

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
194020	Providing and fixing of flared portion of guard rails of any rail section over PSC sleepers including fixing of with all fittings, including leading of rails and fittings, squaring and adjusting spacing of sleepers as required, providing nose blocks duly cutting wooden blocks supplied by railways and fixing it with bolts of 16mm dia as directed complete and finished as per RDSO's approved drawing. Note: 1.One set consists of LH & RH side rails of one end. 2.Required P.Way fittings will be supplied at SSE stores depot.					
	Details cost for 2 set (Two flare rail L.H.+ R.H.)					
	For putting back, flared guard rail at approach of bridge					
	Labour:					
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	1.00	749.00
	Helper (Semi-skilled)	Day	0021	572.00	1.00	572.00
	Look Out Man (Un-skilled)	Day	0033	547.00	1.00	547.00
	Waterman (Un-skilled)	Day	0034	547.00	1.00	547.00
	Labour Unskilled	Day	0020	540.00	6.00	3,240.00
	Misc.:					
	T & P (Crow bar, Tommy bar, beater, hammer, Rail dolly, Spanner and for cutting wooden block etc.)	Lumpsum	9901	1.00	80.00	80.00
						5,735.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		57.35
						5,792.35
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		813.83
						6,606.18
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		990.93
						7,597.10
	Add for Cess @ 1%	Lumpsum	9905	0.01		75.97
	Cost for 2 sets					7,673.07
	Rate per set	Set				3,836.54
194030	Drilling holes 25mm to 40mm dia. with drill twist in the foot of guard rails for fixing guard rails on bridge as directed.					
	Details cost for 80 nos.					
	Material:					
	Drill twist made of high speed steel for size 26.5mm dia of Addison / I T make	Each	0462	2517.00	0.50	1,258.50
	Kerosene Oil	Litre	0183	63.00	5.00	315.00
	Normal unleaded Petrol	Litre	0180	108.00	0.50	54.00
	Labour:					
	Machinist (operator) (Skilled)	Day	0040	738.00	1.00	738.00
	Helper (Semi-skilled)	Day	0021	572.00	1.00	572.00
	Labour Unskilled	Day	0020	540.00	1.00	540.00
	Misc.:					
	T & P (Crow bar, Tommy bar, beater, hammer, Rail dolly, Spanner etc.)	Lumpsum	9901	1.00	10.00	10.00
	Hire charges for pillar drilling machine	Day	0135	957.00	0.50	478.50
						3,966.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		39.66
						4,005.66
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		562.80
						4,568.46
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		685.27
						5,253.72
	Add for Cess @ 1%	Lumpsum	9905	0.01		52.54
	Cost for 80 nos.					5,306.26
	Rate for each	Each				66.33

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
194040	Drilling of 25mm to 40mm dia. holes in PSC sleepers with suitable rotary hammer / drilling machine at indicated location for fixing of guard rails on bridges & its approaches as per approved drawing and fixing of contractor's HDPE dowels and adhesive of approved quality to Drawing no. RDSO/T-3002, procured from RDSO's approved sources with contractor's materials and consumable.					
	Details of cost for 80 holes					
	Material:					
	Drill twist made of high speed steel for size 26.5mm dia of Addison / I T make	Each	0462	2517.00	0.50	1,258.50
	Kerosene Oil	Litre	0183	63.00	5.00	315.00
	Normal unleaded Petrol	Litre	0180	108.00	1.00	108.00
	HDPE Dowels	Each	0452	185.00	80.00	14,800.00
	Epoxy for fixing HDPE dowel, Rubber Pads as per RDSO approved specification	Kg	0319	622.00	6.00	3,732.00
	Labour:					
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	1.00	749.00
	Helper (Semi-skilled)	Day	0021	572.00	1.00	572.00
	Labour Unskilled	Day	0020	540.00	2.00	1,080.00
	Misc.:					
	T & P (Crow bar, Tommy bar, Spanner etc.)	Lumpsum	9901	1.00	10.00	10.00
	Hire charges of Concrete Sleeper Drilling Machine	Day	0137	475.00	1.00	475.00
						23,099.50
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		231.00
						23,330.50
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		3,277.93
						26,608.43
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		3,991.26
						30,599.69
	Add for Cess @ 1%	Lumpsum	9905	0.01		306.00
	Cost for 80 holes					30,905.69
	Rate per hole	Each				386.32
194050	Renewal of existing guard rails of all rail sections on bridge portion over wooden/PSC/steel channel sleepers excluding flared ends duly leading new guard rails including cutting of rails, drilling holes to the guard rails as required and as per drawings, refixing with all fastenings, and leading back the released rail, stacking at nominated place clear of infringements with all leads & lifts complete and as directed.					
	Details of cost for 50 TRM					
	Material:					
	Drill twist made of high speed steel for size 18mm dia of Addison / I T make	Each	0463	1633.00	0.25	408.25
	Kerosene Oil	Litre	0183	63.00	4.00	252.00
	Normal unleaded Petrol	Litre	0180	108.00	0.50	54.00
	Labour:					
	(i) Leading Guard Rails on to bridge and carting back released rails and stacking					
	Labour Unskilled	Day	0020	540.00	4.00	2,160.00
	(ii) Renewal & Fixing Guard rail					
	Mate (Skilled)	Day	0002	751.00	0.50	375.50
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	1.00	749.00
	Helper (Semi-skilled)	Day	0021	572.00	1.00	572.00
	Look Out Man (Un-skilled)	Day	0033	547.00	1.00	547.00
	Waterman (Un-skilled)	Day	0034	547.00	1.00	547.00
	Labour Unskilled	Day	0020	540.00	5.00	2,700.00
	Misc.:					
	T & P (Crow bar, Rake ballast, Auger, Beater, Spanner, Hammer etc.)	Lumpsum	9901	1.00	20.00	20.00
	Hire charges of Rail Cutting Machine	Day	0139	633.00	0.50	316.50
	Hire charges of Rail Drill Machine	Day	0134	442.00	0.50	221.00
						8,922.25
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		89.22

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
						9,011.47
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		1,266.11
						10,277.58
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		1,541.64
						11,819.22
	Add for Cess @ 1%	Lumpsum	9905	0.01		118.19
	Cost for 50 TRM					11,937.41
	Rate per TRM	TRM				238.75
194060	Dismantling of existing flared portion of guard rails of any rail section over PSC sleepers duly removing rails & fastenings and leading and stacking released materials at nominated place within free lead, clear of infringements, complete and as directed. Note: One set consists of LH & RH side rails of one end.					
	Details of cost for 2 sets					
	Labour:					
	(i) Opening fittings, removing rails, Leading of guard rails, fittings & stacking etc.					
	Mate (Skilled)	Day	0002	751.00	0.50	375.50
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	0.50	374.50
	Helper (Semi-skilled)	Day	0021	572.00	0.50	286.00
	Labour Unskilled	Day	0020	540.00	4.00	2,160.00
	Misc.:					
	T & P (Crow bar, Tommy bar, beater, hammer, Rail Tongue, Spanner, Rollers etc.)	Lumpsum	9901	1.00	10.00	10.00
						3,206.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		32.06
						3,238.06
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		454.95
						3,693.01
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		553.95
						4,246.96
	Add for Cess @ 1%	Lumpsum	9905	0.01		42.47
	Cost for 2 Sets					4,289.43
	Rate per Set	Set				2,144.71
195000	Miscellaneous					
195010	Fabrication & supply of Galvanized Steel Channel Sleepers made from ISMC 150mm x 75mm / 175mm x 75mm / 200mm x 75mm standard rolled section conforming to IS:2062 as per RDSO approved drawing No 1636/R1/R2 with latest correction slips complete and as directed by Engineer In charge. Note: Cost of Steel fittings and GRSP shall be paid separately					
	Detail of cost for 1 MT					
	Total = Channels + plates = 155.046kg					
	Structural steel such as T, Angles, Channels and R S Joists conforming to Grade Designation E250; Quality "B0" as per IS:2062,	Quintal	0223	7333.00	1.63	11,952.79
	including wastage 5% i.e. 1.55+ 0.0775 = 1.6275 Qtl.					
	Add for Rivets, welding, T&P and consumables @3%			0.03		358.58
	Fabrication charges					
	Labour:					
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	1.00	749.00
	Fitter Grade - 1 (Skilled)	Day	0010	743.00	1.00	743.00
	Helper (Semi-skilled)	Day	0021	572.00	2.00	1,144.00
	Dip Galvanisation @ 705gm / sqm (100 Microns thick)	MT	0433	19750.00	0.16	3,061.25
						18,008.62
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		180.09
						18,188.71
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		2,555.51
						20,744.22
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		3,111.63

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
						23,855.86
	Add for Cess @ 1%	Lumpsum	9905	0.01		238.56
	Cost for 1.55 Qtls					24,094.42
	Rate per Qtl.					15,544.78
	Rate per MT	MT				155,447.84
195020	Fabrication & supply of Galvanized H-beam Sleepers made out of the materials conforming to IS 2062 of standard Rolled sections as per approved drawing Nos RDSO/B/1636/4/R,5&9 complete and as directed by Engineer-in charge. Note: Cost of steel fittings and GRSP shall be paid separately.					
	Detail of cost for 1 MT					
	Total = H-Beam + plates = 168.351 kg					
	Structural steel such as T, Angles, Channels and R S Joists conforming to Grade Designation E250; Quality "B0" as per IS:2062,	Quintal	0223	7333.00	1.77	12,979.41
	including wastage 5% i.e. 168.351 + 5% of 168.351=176.76 Kg					
	Add for welding @ 1%			0.01		129.79
	Fabrication charges					
	Man power					
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	1.00	749.00
	Fitter Grade - 1 (Skilled)	Day	0010	743.00	1.00	743.00
	Helper (Semi-skilled)	Day	0021	572.00	1.00	572.00
	Dip Galvanisation @ 705gm / sqm (100 Microns thick)	MT	0433	19750.00	0.17	3,318.00
						18,491.20
	Misc:					
	Sundries for rivetting, drilling, T&P and consumables @ 3 percent on total labour & materials			0.03		554.74
						19,045.94
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		190.46
						19,236.40
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		2,702.71
						21,939.11
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		3,290.87
						25,229.98
	Add for Cess @ 1%	Lumpsum	9905	0.01		252.30
	Cost for 1.68 Qtls					25,482.28
	Rate per Qtl.					15,168.02
	Cost for 1MT	MT				151,680.24
195030	Supply of 25mm thick new rubber pads of RDSO drawing no B/1636/II/R2 from approved sources of RDSO and replacement with old crushed rubber pads of 10mm thickness and fixing by approved adhesive on steel channel sleepers on bridges complete, as directed by Engineer In-charge.					
	Details of cost for 100 Channel sleepers (Each sleeper having 2 Rubber pads) i.e.					
	Material:					
	Supply of 25/30 mm thick Elastomeric Pad as per RDSO drawing No. B/1636/II/R2	Each	0429	150.00	200.00	30,000.00
	Epoxy for fixing HDPE dowel, Rubber Pads as per RDSO approved specification	Kg	0319	622.00	1.00	622.00
	Labour:					
	Mate (Skilled)	Day	0002	751.00	1.00	751.00
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	1.00	749.00
	Helper (Semi-skilled)	Day	0021	572.00	1.00	572.00
	Look Out Man (Un-skilled)	Day	0033	547.00	1.00	547.00
	Waterman (Un-skilled)	Day	0034	547.00	1.00	547.00
	Labour Unskilled	Day	0020	540.00	10.00	5,400.00
	Misc.:					
	T&P	Lumpsum	9901	1.00	25.00	25.00
						39,213.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		392.13
						39,605.13
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		5,564.52

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
						45,169.65
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		6,775.45
						51,945.10
	Add for Cess @ 1%	Lumpsum	9905	0.01		519.45
	Cost for 200 nos.					52,464.55
	Rate for each	Each				262.32
195040	Supplying & fixing Gang pathway of MS /Stainless Steel chequered plates between guard rails on un-ballasted deck bridge for gang pathway, overlapping at regular intervals of 2m to 2.5m with bolts duly drilling holes in chequered plate, as directed on new bridge or replacement of existing gangway on old bridge including removal of old chequered plates and stacking near approaches of bridge clear from all infringement. Note: Overlapping of chequered plates shall not fall in between sleepers.					
195041	MS chequered plates 6 to 8mm thick on new bridge					
	Details of cost for 1000 Kg . Considering wastage of 5%, quantity required = 1.05 MT					
	Material:					
	Drill twist made of high speed of size 7.2 mm dia of Addison / I.T. make	Each	0461	258.00	3.00	774.00
	Mild steel chequered plate	MT	0244	91667.00	1.05	96,250.35
	Labour:					
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	2.00	1,498.00
	Helper (Semi-skilled)	Day	0021	572.00	2.00	1,144.00
	Labour Unskilled	Day	0020	540.00	4.00	2,160.00
	Misc.:					
	T & P	Lumpsum	9901	1.00	50.00	50.00
	Hire charges for pillar drilling machine	Day	0135	957.00	1.00	957.00
						102,833.35
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		1,028.33
						103,861.68
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		14,592.57
						118,454.25
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		17,768.14
						136,222.39
	Add for Cess @ 1%	Lumpsum	9905	0.01		1,362.22
	Cost for 1000 Kgs.					137,584.61
	Rate per Kg	Kg				137.58
195042	MS chequered plates 6 to 8mm thick including removal of existing chequered plates on Bridges Note: Payment shall be made only as per weight of new Chequered Plate fixed.					
	For 1000 kg					
	Additional labour for removing and stacking of existing chequered plate					
	Labour:					
	Blacksmith - 1st Class (Skilled)	Day	0008	749	1.00	749.00
	Helper (Semi-skilled)	Day	0021	572	1.00	572.00
	Look Out Man (Un-skilled)	Day	0033	547	1.00	547.00
	Labour Unskilled	Day	0020	540	4.00	2,160.00
	Misc.:					
	T & P	Lumpsum	9901	1	25.00	25.00
						4,053.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		40.53
						4,093.53
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.1405		575.14
						4,668.67
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		700.30
						5,368.97
	Add for Cess @ 1%	Lumpsum	9905	0.01		53.69

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Cost for removal of existing Chequered plates					5,422.66
	Considering rate of fixing same as item no. 195041					
	Cost of fixing	Kg	195041	137.58	1000.00	137,584.61
	Total for 1000 Kg					143,007.27
	Rate per Kg	Kg				143.01
195043	Anti skid Stainless steel chequered plate of 409 M Grade as per Specification ASTM A240 SS and Pattern conforming to BIS 3502 with average thickness of 3.5 mm with bead height of 0.8 mm min thick - on New Bridges					
	Details of cost for 1000 Kg . Considering wastage of 5%, quantity required = 1.05 MT					
	Material:					
	Anti skid Stainless steel chequered plate of 409 M Grade as per Specification ASTM A240 and Pattern conforming to BIS 3502	MT	0245	209167.00	1.05	219,625.35
	Stainless steel nut, bolts and washers	Kg	0246	366.00	20.00	7,320.00
	Labour:					
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	2.00	1,498.00
	Helper (Semi-skilled)	Day	0021	572.00	2.00	1,144.00
	Labour Unskilled	Day	0020	540.00	4.00	2,160.00
	Misc.:					
	T & P , rubber washer etc.	Lumpsum	9901	1.00	100.00	100.00
	Hire charges for pillar drilling machine	Day	0135	957.00	1.00	957.00
						232,804.35
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		2,328.04
						235,132.39
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		33,036.10
						268,168.49
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		40,225.27
						308,393.77
	Add for Cess @ 1%	Lumpsum	9905	0.01		3,083.94
	Cost for 1000 Kgs.					311,477.71
	Rate per Kg	Kg				311.48
195044	Fixing Anti skid Stainless steel chequered plate of Grade 409 M and average thickness of 3.5 mm with bead height of 0.8 mm min thick including removal of existing chequered plates on Bridges Note: Payment shall be made only as per weight of new Chequered Plate fixed.					
	For 1000 kg					
	Additional labour for removing and stacking of existing chequered plate					
	Labour:					
	Blacksmith - 1st Class (Skilled)	Day	0008	749	1.00	749.00
	Helper (Semi-skilled)	Day	0021	572	1.00	572.00
	Look Out Man (Un-skilled)	Day	0033	547	1.00	547.00
	Labour Unskilled	Day	0020	540	4.00	2,160.00
	Misc.:					
	T & P	Lumpsum	9901	1	25.00	25.00
						4,053.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		40.53
						4,093.53
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.1405		575.14
						4,668.67
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		700.30
						5,368.97
	Add for Cess @ 1%	Lumpsum	9905	0.01		53.69
	Cost for removal of existing Chequered plates					5,422.66
	Considering rate of fixing same as item no. 195042					
	Cost of fixing	Kg	195043	311.48	1000.00	311,477.71
	Total for 1000 Kg					316,900.37
	Rate per Kg	Kg				316.90

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
195050	Providing staging during traffic block to 3.6 m x 3.0 m x 3.0 m approx. size using steel cribs and/or wooden sleepers as per RDSO's approved drawing, duly excavating earth in pit and driving rails / sleepers vertically to form shoring and filling gap with sand bags etc. complete, as directed. Note: (1) Steel CC cribs, rails and wooden sleepers will be supplied by Railway. (2) Dismantling and linking of track will be paid separately.					
	Details of cost for each					
	Labour:					
	(i) For preparing staging by steel cribs & wooden sleeper and fixing of clamps					
	Labour Unskilled	Day	0020	540.00	18.00	9,720.00
	(iii) Form shoring and filling sand bags					
	Mate (Skilled)	Day	0002	751.00	1.00	751.00
	Waterman (Un-skilled)	Day	0034	547.00	1.00	547.00
	Helper (Semi-skilled)	Day	0021	572.00	1.00	572.00
	Labour Unskilled	Day	0020	540.00	10.00	5,400.00
	Misc.:					
	T & P (Crow bar, Rake ballast, Beater, Rail tongue etc.)	Lumpsum	9901	1.00	55.00	55.00
						17,045.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		170.45
						17,215.45
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		2,418.77
						19,634.22
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		2,945.13
						22,579.35
	Add for Cess @ 1%	Lumpsum	9905	0.01		225.79
	Rate for each	Each				22,805.15
195060	Clearing waterway of major & minor bridges by removing weeds / shrubs / bushes, removing silt deposit, filling scours, if any up to 10 metre from centre of bridge on either side including disposing waste and silt away from waterway. Note: Rate is for a single line and per metre of bridge span.					
	Details of cost for 40 Metre span					
	Labour:					
	Mate (Skilled)	Day	0002	751.00	1.00	751.00
	Waterman (Un-skilled)	Day	0034	547.00	1.00	547.00
	Labour Unskilled	Day	0020	540.00	10.00	5,400.00
	Misc.:					
	T & P	Lumpsum	9901	1.00	20.00	20.00
						6,718.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		67.18
						6,785.18
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		953.32
						7,738.50
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		1,160.77
						8,899.27
	Add for Cess @ 1%	Lumpsum	9905	0.01		88.99
	Cost for 40 Metre span					8,988.27
	Rate per Metre	Metre				224.71

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
195070	Fabrication, supplying and fixing 600mm x 450mm Bridge Board made from 16 SWG MS Sheet duly welded or riveted to back support of two 600mm long horizontal angles of size 25mm x 25mm x 3mm & two numbers 2.5 metre long vertical support of MS Angle of size 50mm x 50mm x 5mm, welded / rivetted to board. Vertical supports shall have split ends for proper fixing in ground. Vertical supports of board shall be embedded in ground in M 20 Cement Concrete blocks of size 300mm x 300mm x 300mm, complete job including painting & writing of subject matter on bridge board, as directed by Engineer - In charge Note: Excavation & concrete work will be paid separately.					
	Details of cost for 10 Boards					
	Required MS sheets size (600mm x 450mm & 16 SWG thick) For 10 boards 10 x (0.6m x 0.45m x 0.001626m) = 0.0043902 cum, Density of MS steel is 7860 Kg/Cum, Hence Weight of MS Sheet is = 0.0043902 x 7860 = 34.51 Kg, Required M.S.Angle of size (25 x 25 x 3mm) for 10 boards 12 metre long, Volume = 12 x (0.025 + 0.025) x 0.003 = 0.0018 cum. Required M.S.Angle of size(50 x 50 x 5mm) 50 metre long, Volume = 50 x (0.05 + 0.05) x 0.005 = 0.025 cum Total Volume = 0.0018 + 0.025 = 0.0268 cum, Hence Weight of MS Angles = 0.0268 x 7860 = 210.65 Kg, Total weight of MS Steel = 34.51 + 210.65 = 245.158 Kg or 2.46 quintal.					
	Material:					
	Structural Steel Plates conforming to Grade Designation E 250; Quality "A" as per IS 2062	Quintal	0220	7950.00	2.46	19,557.00
	H3 Electrodes as per RDSO's Spec. no. IRS M:28-2011	Nos.	0424	35.00	50.00	1,750.00
	Zinc Chromate red oxide Primer to IS:2074	Litre	0306	148.00	3.00	444.00
	Enamel Paint as per RDSO's Spec. no.M&C/PCN/120-2011	Litre	0304	248.00	2.00	496.00
	Soft Brush for painting - 25cm long	Each	0312	59.00	1.00	59.00
	Paint Brush (writing) of any size	Each	0313	120.00	1.00	120.00
	Man Power (for fabricating) :					
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	1.00	749.00
	Welder (Skilled)	Day	0029	734.00	1.00	734.00
	Painter (Skilled)	Day	0012	749.00	1.00	749.00
	Helper (Semi-skilled)	Day	0021	572.00	3.00	1,716.00
	Man Power (for fixing) :					
	Labour Unskilled	Day	0020	540.00	4.00	2,160.00
	Misc.:					
	T & P	Lumpsum	9901	1.00	20.00	20.00
	Electricity Charges (1 Unit)	KWH	0500	14.00	50.00	700.00
	Hire charges of Arc Welding Machine 500 Amp	Day	0129	792.00	1.00	792.00
						30,046.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		300.46
						30,346.46
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		4,263.68
						34,610.14
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		5,191.52
						39,801.66
	Add for Cess @ 1%	Lumpsum	9905	0.01		398.02
	Cost for 10 Boards					40,199.67
	Rate per Board	Each				4,019.97
195080	Overhauling of track on ballasted deck slab bridge i.e. screening of crib ballast and shoulder ballast in between sleeper ends and ballast retaining walls on both sides of the track without disturbing core under the sleeper under traffic following all safety precautions and other instructions prescribed by Engineer in-charge. Muck should be disposed of away from bridge up to a maximum distance of 350 m and lift up to 10m.					
	Details of cost for 50 TRM (One group of 2 persons deputed for 5 track metre length)					

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Labour:					
	Mate (Skilled)	Day	0002	751.00	0.50	375.50
	Waterman (Un-skilled)	Day	0034	547.00	1.00	547.00
	Look Out Man (Un-skilled)	Day	0033	547.00	1.00	547.00
	Labour Unskilled	Day	0020	540.00	20.00	10,800.00
	Misc.:					
	T & P (Rake ballast, Crow bars, Hammer, Beater etc.)	Lumpsum	9901	1.00	40.00	40.00
						12,309.50
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		123.10
						12,432.60
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		1,746.78
						14,179.37
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		2,126.91
						16,306.28
	Add for Cess @ 1%	Lumpsum	9905	0.01		163.06
	Cost for 50 TRM					16,469.34
	Rate per TRM	TRM				329.39
195090	Bending the inner and outer 52 Kg/60Kg/90R rails available at site suitable for V portion along bulb of rerailing ramp as per RDSO Drg No T-8259 drilling of holes and cutting to the required length and shape all lead, lifts, labour, tools and plants machinery and all other required materials for bending etc, and as directed by Engineer In charge at site.					
	Details of cost for 1 set of 52 m length					
	A team of 8 men can complete the whole set i.e. 52mts length of rails bending and giving curvature to the inner and outer 52 Kg/60Kg/90R rails suitable for V Portion and approach guiding rails of re railing ramp in 6 days (6x8=48)					
	Labour:					
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	6.00	4,494.00
	Helper (Semi-skilled)	Day	0021	572.00	6.00	3,432.00
	Labour Unskilled	Day	0020	540.00	36.00	19,440.00
	Misc.:					
	T & P	Lumpsum	9901	1.00	50.00	50.00
	Hire charges of Hydraulic bending machine to bend the rails	Day	0152	1208.00	6.00	7,248.00
	Hire charges of Furnace blower to heat the rails for bending purpose	Day	0153	475.00	6.00	2,850.00
						37,514.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		375.14
						37,889.14
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		5,323.42
						43,212.56
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		6,481.88
						49,694.45
	Add for Cess @ 1%	Lumpsum	9905	0.01		496.94
	Rate per Set	Set				50,191.39
195100	Supplying providing and fixing country kali wood/hard wood (Non teak) sleepers of various thickness and length as per the RDSO re railing ramp Drg No T-8259 for fixing bent rails and MS plates including cutting the wood in saw mills, transporting to site of work with all leads and lifts, labour, tools and plant etc. as directed by Engineer In-charge.					
	Cost of 2.0 cum i.e. 2000 Cudm					
	Material:					
	Hard Variety Jungle Wood blocks	10 Cudm	0341	462.00	200.00	92,400.00
	Misc.:					
	T & P	Lumpsum	9901	1.00	50.00	50.00

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Hire charges for wood sawing machine including fuel and operator	Day	0154	1700.00	0.25	425.00
						92,875.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		928.75
						93,803.75
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		13,179.43
						106,983.18
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		16,047.48
						123,030.65
	Add for Cess @ 1%	Lumpsum	9905	0.01		1,230.31
	Cost of 2000 Cudm					124,260.96
	Rate per Cudm	Cudm				62.13
195110	Fixing of 60Kg/52 Kg/90R rails for Re railing ramp as per RDSO Drg No T-8259 on bridge approaches on wooden/PSC sleepers including fixing railways fishplates, bolts, nuts, MS bearing plates, screws, check blocks of re-railing ramp etc, levelling after drilling of holes in rails wherever necessary under block with contractor's labour, tools and plants, machinery all etc, complete and as directed by Engineer in charge at site.					
	Details of Cost for one set of rails of length 52 mts					
	8 men can complete the whole set in 3 days i.e. 52mts length of rails laying and fixing 60/52Kg/90R rails under Traffic block.					
	Man Power					
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	1.00	749.00
	Labour Unskilled	Day	0020	540.00	24.00	12,960.00
	Misc.:					
	T & P	Lumpsum	9901	1.00	20.00	20.00
	Hire charges of Rail Drill Machine	Day	0134	442.00	3.00	1,326.00
						15,055.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		150.55
						15,205.55
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		2,136.38
						17,341.93
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		2,601.29
						19,943.22
	Add for Cess @ 1%	Lumpsum	9905	0.01		199.43
	Rate per Set	Each				20,142.65
195120	Tightening of steel channel sleeper fittings i.e. hook bolts, running rails bolts, guard rail bolts on girder bridges with contractor labour tools, plants etc., including oiling, greasing of fittings complete and as directed by engineer in charge. Note: Before execution of work specific approval of ADEN to be obtained by duly indicating the locations with specific reasons along with date of last tightening done.					
	Details of cost for 100 sleepers. Each sleeper requires 35 gms of grease					
	Material:					
	Grease Graphite Grade 'O' (IS:408)	Kg	0182	270.00	3.50	945.00
	Black Oil (used lubricating oil)	Litre	0471	44.00	2.00	88.00
	Cotton Jute	Kg	0489	53.00	2.00	106.00
	Labour:					
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	1.00	749.00
	Helper (Semi-skilled)	Day	0021	572.00	2.00	1,144.00
	Look Out Man (Un-skilled)	Day	0033	547.00	1.00	547.00
	Misc.:					
	T & P	Lumpsum	9901	1.00	10.00	10.00
						3,589.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		35.89
						3,624.89
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		509.30
						4,134.19
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		620.13

Note: The figures given in Amount/Rate Column (Which are strikethrough) are not to be taken for estimation or justifying rate. This amount/rate has been given for illustration purpose only.

Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
						4,754.32
	Add for Cess @ 1%	Lumpsum	9905	0.01		47.54
	Cost for 100 sleepers					4,801.86
	Rate per sleeper	Sleeper				48.02

Note: The figures given in Amount/Rate Column (Which are strikethrough) are not to be taken for estimation or justifying rate. This amount/rate has been given for illustration purpose only.

CHAPTER - 20 : Supply of P.Way Materials

Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
201000	Bridge Related Fittings					
201010	Manufacture and supply of Hook Bolt 28mm dia. & 320mm long as per RDSO Drg. no. BA-1636/II/R2 from RDSO approved sources					
	Detail of cost for 1 kg.					
	Material:					
	Hook Bolts 28mm dia & 320mm long as per RDSO's drg. No. BA-1636/II/R2 (Nuts, Bolts, washer, Split pins etc.)	Kg	0434	72.00	1.00	72.00
						72.00
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		10.12
						82.12
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		12.32
						94.43
	Add for Cess @ 1%	Lumpsum	9905	0.01		0.94
	Rate per Kg	Kg				95.38
201020	Manufacture & supply of 10mm thick Grooved Rubber Pads as per drg. No. RDSO/T-5199 & RDSO's Spec. no. IRS-T-47-2006 (Prov.) from RDSO approved sources with all contractor's lead, lift, labour, tools, plant and transportation etc. complete as instructed by Engineer in-charge. Note: One set constitutes two nos.					
	Detail cost for 1 set					
	Material:					
	10 mm thick Grooved Rubber Pads as per drg. No. RDSO/T-5199 & RDSO's Spec. no. IRS-T-47-2006 (Prov.)-1989	Each	0426	213.00	2.00	426.00
						426.00
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		59.85
						485.85
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		72.88
						558.73
	Add for Cess @ 1%	Lumpsum	9905	0.01		5.59
	Rate for each	Set				564.32
201030	Manufacture & supply of Elastomeric Pads 25mm / 30mm thick as per RDSO drawing No. B/1636/II/R2 to suit Insulated steel channel sleepers from RDSO approved sources with all contractor's material, lead, lift, labour, tools, plant and transportation etc. complete and as instructed by Engineer in-charge. Note: One set constitutes two nos.					
	Detail cost for 1 set					
	Material:					
	Supply of 25/30 mm thick Elastomeric Pad as per RDSO drawing No. B/1636/II/R2	Each	0429	150.00	2.00	300.00
						300.00
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		42.15
						342.15
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		51.32
						393.47
	Add for Cess @ 1%	Lumpsum	9905	0.01		3.93
	Rate per Set	Set				397.41
201040	Manufacture & supply of a set of 2 Nos of Elastomeric Pads 25mm / 30mm thick and 4 nos of Grooved rubber pads as per RDSO drawing No. B/1636/5 alt 2 to suit Insulated H Beam sleepers from RDSO approved sources with all contractor's material, lead, lift, labour, tools, plant and transportation etc. complete as per approved drawings and as instructed by Engineer in-charge. Note: One Set consists of 2 nos. Elastomeric Pad 25mm/30mm and 4 nos. Grooved Rubber Pad.					
	Detail cost for 1 set					

Note: The figures given in Amount/Rate Column (Which are strikethrough) are not to be taken for estimation or justifying rate. This amount/rate has been given for illustration purpose only.

Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Material:					
	Supply of 2 nos. Elastomeric Pad 25mm/30mm and 4 nos. Grooved Rubber Pad as per RDSO drawing No. B/1636/5/Alt 2	Set	0430	1345	1.00	1,345.00
						1,345.00
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		188.97
						1,533.97
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		230.10
						1,764.07
	Add for Cess @ 1%	Lumpsum	9905	0.01		17.64
	Rate per set	Set				1,781.71
201050	Manufacturing and supplying Galvanised MS Inner and Outer Clips for Steel Channel Sleeper (RDSO Drg. No. T-6150 & T-6151) from RDSO approved sources. Note: One set constitutes two inner & two outer clips.					
	Detail cost for 1 set					
	Material:					
	Galvanised MS Inner and Outer Clip for steel channel sleeper (RDSO Drg. No. T-6150 & T-6151)	Set	0431	678.00	1.00	678.00
						678.00
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		95.26
						773.26
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		115.99
						889.25
	Add for Cess @ 1%	Lumpsum	9905	0.01		8.89
	Rate per set	Set				898.14
201060	Manufacture, supply & fixing of galvanised steel fittings of insulated galvanised steel channel sleeper for 60 Kg running rails & 52 Kg Guard Rail as per RDSO drawing no. RDSO/T-5155 to 5164 with up-to-date correction slips and specifications from RDSO approved sources with all contractor's lead, lift, labour, tools, plant, transportation etc. complete and instructions of Engineer in-charge.					
	Detail cost for 1 set					
	Material:					
	Galvanised steel fittings for insulated galvanized channel sleepers (52/60 kg rail) as per RDSO drawing no. RDSO/T-5155 to 5164	set	0428	2850.00	1.00	2,850.00
						2,850.00
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		400.43
						3,250.43
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		487.56
						3,737.99
	Add for Cess @ 1%	Lumpsum	9905	0.01		37.38
	Rate per set	Set				3,775.37
201070	Manufacture, supply & fixing of galvanised steel fittings of insulated galvanised steel channel sleeper for 52Kg running rails & 52 Kg/90R Guard Rail as per RDSO drawing no. RDSO/T-5197 to 5200 with up-to-date correction slips and specifications from RDSO approved sources with all contractor's lead, lift, labour, tools, plant, transportation etc. complete and instructions of Engineer in-charge.					
	Detail cost for 1 set					
	Material:					
	Galvanised steel fittings for non insulated galvanized channel sleepers (52/60 kg rail) as per RDSO drawing no. RDSO/T-5197 to 5200	set	0427	2125.00	1.00	2,125.00
						2,125.00
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		298.56
						2,423.56
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		363.53
						2,787.10

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Add for Cess @ 1%	Lumpsum	9905	0.01		27.87
	Rate per set	Set				2,814.97
201080	Supplying of Zero toe load fixtures for H Beam sleepers of 52/60Kg Rails procured from RDSO approved firms as per RDSO approved drawing with up-to-date correction slips and specifications with all contractor's lead, lift, labour, tools, plant, transportation etc. complete as per instructions of Engineer in-charge. Note: Complete fixture for 1 sleeper shall constitute 1 set.					
	Detail cost for 1 Set					
	Material:					
	Zero toe load galvanised fixtures for H Beam sleepers of 52/60kg Rails as per RDSO approved drawing	Set	0435	3750	1.00	3,750.00
						3,750.00
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		526.88
						4,276.88
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		641.53
						4,918.41
	Add for Cess @ 1%	Lumpsum	9905	0.01		49.18
	Rate per sleeper	Set				4,967.59
202000	L-Xing Indicator Boards, Engineering Indicators, Curve Boards etc :					
202010	Manufacturing, fabricating and supplying retro-reflective Level Crossing Indicator boards, made of 2mm thick aluminium sheet or 3mm thick aluminium composite sheet, face to be fully covered with high intensity encapsulated type heat activated retro-reflective sheeting conforming to type-IV of ASTM-D4956-01 in yellow & black or other colour combination including subject matter, message, symbols, borders etc. as approved by Engineer In-charge or as per IRPWM guidelines, pasted on substrate by an adhesive backing which shall be activated by applying heat and pressure conforming to class-2 of ASTM-D-4956-01 and fixing the same with suitable sized aluminium alloy rivets @ 20 cm c/c to back-support frame of M.S. angle iron of size 25mm x 25mm x 3mm provided all along the edges of board with theft resistant measures, back side of board shall be with non-peelable weather-proof paint, consisting of one coat of zinc chromate primer and two coats of epoxy paint. Vertical post shall have black & white anti-corrosive paint or powder coating complete, as directed.					
202011	Bilingual Whistle Boards for level crossing of size 600mm x 600mm of each board with back support frame welded to vertical post of MS T section of size 75mm x 75mm x 6mm x 3950mm					
	Detail of cost for 2 boards of size (60cm x 60cm) = 0.72 sqm (fixing on one post having length 3950mm)					
	Material:					
	Aluminum Sheet / Strips of various sizes & thickness	Kg	0242	521.00	4.50	2,344.50
	Aluminum sheet @ 6.23 kg/sqm					
	High intensity retro-reflective sheet	Sqm	0472	1658	0.76	1,260.08
	Considering 5% wastage i.e. 0.72 + 0.036 = 0.756 Sqm					
	MS T section 75mmx75mmx6mm of length 3950mm @6.80 kg/m=26.86 Kgs MS angle 25mmx25mmx3mm of length 4400mm @1.12 Kg/m=4.92 kgs (Total 26.86+4.92=31.78 kgs)					
	Structural steel such as T, Angles, Channels and R S Joists conforming to Grade Designation E 250; Quality "A" as per IS 2062	Quintal	0221	7050	0.32	2,240.49
	Rivets (different sizes) for miscellaneous works.	Kg	0230	92.00	0.25	23.00
	Zinc Chromate red oxide Primer to IS:2074	Litre	0306	148.00	1.00	148.00
	Enamel Paint as per RDSO's Spec. no.M&C/PCN/120-2011	Litre	0304	248.00	0.75	186.00
	Paint Brush 25 mm	Each	0325	50.00	0.50	25.00
	Man Power:					
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	0.50	374.50
	Painter (Skilled)	Day	0012	749.00	0.25	187.25

Note: The figures given in Amount/Rate Column (Which are strikethrough) are not to be taken for estimation or justifying rate. This amount/rate has been given for illustration purpose only.

Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Helper (Semi-skilled)	Day	0021	572.00	0.75	429.00

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Misc:					
	T & P (Including cost of materials for drilling holes nuts bolts etc.)	Lumpsum	9901	1.00	100.00	100.00
						7,317.82
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		1,028.15
						8,345.97
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		1,251.90
						9,597.87
	Add for Cess @ 1%	Lumpsum	9905	0.01		95.98
	Rate per set	Set				9,693.85
202012	Speed Breaker / Rumble Strips Board of size 900 mm equilateral triangular shape and 600mmx200mm boards with back support frame welded to vertical post of MS T section of size 80mmx80mmx8mmx3650mm					
	Detail of cost for 2 boards one board of equilateral triangular shape having each side of 900mm with support length of 3650mm other board of size (60 x 20cm) fitted on the same support as above. So Area of board's is = $0.35 + 0.12 = 0.47\text{sqm}$					
	Aluminum Sheet / Strips of various sizes & thickness	Kg	0242	521.00	3.00	1,563.00
	Aluminum sheet @ 6.23 kg/sqm					
	High intensity retro-reflective sheet	Sqm	0472	1658	0.49	812.42
	Considering 5% wastage i.e. $0.47 + 0.024 = 0.49\text{ Sqm}$					
	MS T section 80mmx80mmx8mm of length 3650mm @9.74 kg/m=35.55 kgs MS angle 25mmx25mmx3mm of length(2550+1450=4000mm@1.12Kg/m=4.48 Kgs (Total 35.55+4.48=40.03)					
	Structural steel such as T, Angles, Channels and R S Joists conforming to Grade Designation E 250; Quality "A" as per IS 2062	Quintal	0221	7050	0.40	2,820.00
	Rivets (different sizes) for miscellaneous works.	Kg	0230	92.00	0.25	23.00
	Zinc Chromate red oxide Primer to IS:2074	Litre	0306	148.00	0.85	125.80
	Enamel Paint as per RDSO's Spec. no.M&C/PCN/120-2011	Litre	0304	248.00	0.75	186.00
	Paint Brush 25 mm	Each	0325	50.00	0.50	25.00
	Man Power:					
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	0.50	374.50
	Painter (Skilled)	Day	0012	749.00	0.20	149.80
	Helper (Semi-skilled)	Day	0021	572.00	0.70	400.40
	T & P (Including cost of materials for drilling holes nuts bolts etc.)	Lumpsum	9901	1.00	80.00	80.00
						6,559.92
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		921.67
						7,481.59
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		1,122.24
						8,603.83
	Add for Cess @ 1%	Lumpsum	9905	0.01		86.04
	Rate per set	Set				8,689.87
202013	Un-manned Level Crossing Danger Stop Board of size 675mmx525mm with back support frame welded to vertical post of MS angle of size 50mmx50mmx6mmx3650mm					
	Detail of cost for one board of size (675mm x 525mm) with support length of 3650mm. So Area of board = 0.354sqm					
	Material:					
	Aluminum Sheet / Strips of various sizes & thickness	Kg	0242	521.00	2.21	1,151.41
	Aluminum sheet @ 6.23 kg/sqm					
	High intensity retro-reflective sheet	Sqm	0472	1658	0.37	613.46
	Considering 5% wastage i.e. $0.354 + 0.024 = 0.37\text{ Sqm}$					
	MS angle 50mmx50mmx6mm of length 3650mm @4.47 kg/m=16.31 kgs MS angle 25mmx25mmx3mm of length =2400mm@1.12Kg/m=2.42 Kgs (Total 16.31+2.42=18.73)					
	Structural steel such as T, Angles, Channels and R S Joists conforming to Grade Designation E 250; Quality "A" as per IS 2062	Quintal	0221	7050	0.19	1,318.35

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Rivets (different sizes) for miscellaneous works.	Kg	0230	92.00	0.20	18.40
	Zinc Chromate red oxide Primer to IS:2074	Litre	0306	148.00	0.60	88.80
	Enamel Paint as per RDSO's Spec. no.M&C/PCN/120-2011	Litre	0304	248.00	0.50	124.00
	Paint Brush 25 mm	Each	0325	50.00	0.40	20.00
	Man Power:					
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	0.40	299.60
	Painter (Skilled)	Day	0012	749.00	0.20	149.80
	Helper (Semi-skilled)	Day	0021	572.00	0.60	343.20
	T & P (Including cost of materials for drilling holes nuts bolts etc.)	Lumpsum	9901	1.00	80.00	80.00
						4,207.02
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		591.09
						4,798.11
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		719.72
						5,517.82
	Add for Cess @ 1%	Lumpsum	9905	0.01		55.18
	Cost for 1 board set					5,573.00
	Rate per set	Set				5,573.00
202014	Manned Level Crossing Indicator Board of size 900 mm equilateral triangular shape with back support frame welded to vertical post of MS T section of size 80mmx80mmx8mmx3650mm					
	Detail of cost for one board of equilateral triangular shape having each side of 900mm with support length of 3650mm. So Area of board's is = 0.35 sqm					
	Material:					
	Aluminum Sheet / Strips of various sizes & thickness	Kg	0242	521.00	2.18	1,135.78
	Aluminum sheet @ 6.23 kg/sqm = 0.35 x 6.23 = 2.18 kg					
	High intensity retro-reflective sheet	Sqm	0472	1658	0.36	596.88
	Considering 5% wastage i.e.0.35 +0.01 = 0.36 Sqm					
	MS T section 80mmx80mmx8mm of length 3650mm @9.74 kg/m=35.55 kgs MS angle 25mmx25mmx3mm of length(2550mm@1.12Kg/m=2.85 Kgs (Total 35.55+2.85=38.40 kgs)					
	Structural steel such as T, Angles, Channels and R S Joists conforming to Grade Designation E 250; Quality "A" as per IS 2062	Quintal	0221	7050	0.38	2,707.20
	Rivets (different sizes) for miscellaneous works.	Kg	0230	92.00	0.25	23.00
	Zinc Chromate red oxide Primer to IS:2074	Litre	0306	148.00	1.00	148.00
	Enamel Paint as per RDSO's Spec. no.M&C/PCN/120-2011	Litre	0304	248.00	0.75	186.00
	Paint Brush 25 mm	Each	0325	50.00	0.50	25.00
	Man Power:					
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	0.50	374.50
	Painter (Skilled)	Day	0012	749.00	0.25	187.25
	Helper (Semi-skilled)	Day	0021	572.00	0.75	429.00
	T & P (Including cost of materials for drilling holes nuts bolts etc.)	Lumpsum	9901	1.00	100.00	100.00
						5,912.61
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		830.72
						6,743.33
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		1,011.50
						7,754.83
	Add for Cess @ 1%	Lumpsum	9905	0.01		77.55
	Rate per set	Set				7,832.38
202015	Single Strip / Double Strip Level Crossing Road Warning Board of size 900 mm equilateral triangular shape and 900x300 board with back support frame welded to vertical post of MS T section of size 80mmx80mmx8mmx3650mm					
	Detail of cost for 2 boards one board of equilateral triangular shape having each side of 900mm with support length of 3650mm other board of size (90 x 30cm) fitted on the same support as above. So Area of board's is = 0.35 + 0.27 = 0.62 sqm					
	Material:					

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Aluminum Sheet / Strips of various sizes & thickness	Kg	0242	521.00	3.90	2,031.90
	Aluminum sheet @ 6.23 kg/sqm					
	High intensity retro-reflective sheet	Sqm	0472	1658	0.65	1,077.70
	Considering 5% wastage i.e. $0.62 + 0.03 = 0.65$ Sqm					
	MS T section 80mmx80mmx8mm of length 3650mm @9.74 kg/m=35.55 kgs MS angle 25mmx25mmx3mm of length(2550mm + 2350 =4900mm@1.12Kg/m=5.48 Kgs (Total 35.55+5.48=41.03 kgs)					
	Structural steel such as T, Angles, Channels and R S Joists conforming to Grade Designation E 250; Quality "A" as per IS 2062	Quintal	0221	7050	0.41	2,890.50
	Rivets (different sizes) for miscellaneous works.	Kg	0230	92.00	0.20	18.40
	Zinc Chromate red oxide Primer to IS:2074	Litre	0306	148.00	0.60	88.80
	Enamel Paint as per RDSO's Spec. no.M&C/PCN/120-2011	Litre	0304	248.00	0.50	124.00
	Paint Brush 25 mm	Each	0325	50.00	0.40	20.00
	Man Power:					
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	0.40	299.60
	Painter (Skilled)	Day	0012	749.00	0.20	149.80
	Helper (Semi-skilled)	Day	0021	572.00	0.60	343.20
	Misc:					
	T & P (Including cost of materials for drilling holes nuts bolts etc.)	Lumpsum	9901	1.00	40.00	40.00
						7,083.90
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		995.29
						8,079.19
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		1,211.88
						9,291.07
	Add for Cess @ 1%	Lumpsum	9905	0.01		92.91
	Rate per set	Set				9,383.98
202016	Manufacturing and supply of circular STOP Disc of 600mm dia for fixing on emergency chains at level crossings as given in IRPWM including providing Retro reflective sheet fully covered over board conforming to type-IV of ASTM-D4956 in red back ground colour and text "STOP" of white colour over back ground. The circular board shall consists of 2mm thick Aluminium sheet fixed to 1.5mm thick MS Sheet of 600mm dia with suitable sized aluminium alloy rivets @ 20 cm c/c to back-support .Retro reflective sheet is to be pasted on substrate by an adhesive backing which shall be activated by applying heat and pressure conforming to class-2 of ASTM-D-4956-01.A vertical holding stand of 1000 mm length x15mm thick to be jointed to back side of board along with a hook for fixing emergency chain as directed by Engineer In charge.					
	Detail of cost for one Stop Disc of Circular shape having diameter of 600mm with support length of 1000mm. So Area of board is = $0.283\text{sqm} + \text{wastage } 25\%$ for circular shape = 0.36 Sqm					
	Material:					
	Aluminum Sheet / Strips of various sizes & thickness	Kg	0242	521.00	2.25	1,172.25
	Aluminum sheet @ 6.23 kg/sqm					
	High intensity retro-reflective sheet	Sqm	0472	1658.00	0.38	630.04
	Considering 5% wastage i.e. $0.36 + 0.018 = 0.38$ Sqm					
	Structural Steel Plates conforming to Grade Designation E 250; Quality "A" as per IS 2062	Quintal	0220	7950.00	0.06	477.00
	11.78 kgs per sqm $11.78 \times 0.36 = 4.24$ kgs MS Round 1000mmx15mm= $0.016 \times 1.60 \times 4.24 = 5.84$ kgs					
	Rivets (different sizes) for miscellaneous works.	Kg	0230	92.00	0.20	18.40
	Zinc Chromate red oxide Primer to IS:2074	Litre	0306	148.00	0.60	88.80
	Enamel Paint as per RDSO's Spec. no.M&C/PCN/120-2011	Litre	0304	248.00	0.50	124.00
	Paint Brush 25 mm	Each	0325	50.00	0.40	20.00
	Man Power:					
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	0.50	374.50
	Painter (Skilled)	Day	0012	749.00	0.20	149.80
	Helper (Semi-skilled)	Day	0021	572.00	1.00	572.00

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Misc:					
	T & P (Including cost of materials for drilling holes nuts bolts etc.)	Lumpsum	9901	1.00	50.00	50.00
						3,676.79
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		516.59
						4,193.38
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		629.01
						4,822.39
	Add for Cess @ 1%	Lumpsum	9905	0.01		48.22
	Rate per Board	Each				4,870.61
202020	Manufacturing, fabricating and supplying retro-reflective Engineering Indicator boards, made of 2mm thick aluminium sheet or 3mm thick aluminium composite sheet, face to be fully covered with high intensity encapsulated type heat activated retro-reflective sheeting conforming to type-IV of ASTM-D4956-01 in yellow & black or other colour combination including subject matter, message, symbols, borders etc. as approved by Engineer In-charge or as per IRPWM guidelines, pasted on substrate by an adhesive backing which shall be activated by applying heat and pressure conforming to class-2 of ASTM-D-4956-01 and fixing the same with suitable sized aluminium alloy rivets @ 20 cm c/c to back-support frame of M.S. angle iron of size 25mm x25mm x 3mm provided all along the edges of board with theft resistant measures back side of board shall be with non-peelable weatherproof paint, consisting of one coat of zinc chromate primer and two coats of epoxy paint. Vertical post shall have black & white anti-corrosive paint or powder coating complete, as directed.					
202021	Caution Indicator Board of size 1400mmx400mm with back support frame fixed to vertical post of MS angle of size 50mmx50mmx6mm of 3650 mm long					
	Detail of cost for one board of size (1400 x 400mm) with support length of 3650mm. So Area of board is = 0.56sqm					
	Material:					
	Aluminum Sheet / Strips of various sizes & thickness	Kg	0242	521.00	3.50	1,823.50
	Aluminum sheet @ 6.23 kg/sqm					
	High intensity retro-reflective sheet	Sqm	0472	1658.00	0.59	978.22
	Considering 5% wastage i.e. 0.56 + 0.028 = 0.59 Sqm					
	Structural steel such as T, Angles, Channels and R S Joists conforming to Grade Designation E 250; Quality "A" as per IS 2062	Quintal	0221	7050.00	0.26	1,833.00
	Rivets (different sizes) for miscellaneous works.	Kg	0230	92.00	0.25	23.00
	Zinc Chromate red oxide Primer to IS:2074	Litre	0306	148.00	0.85	125.80
	Enamel Paint as per RDSO's Spec. no.M&C/PCN/120-2011	Litre	0304	248.00	0.75	186.00
	Paint Brush 25 mm	Each	0325	50.00	0.50	25.00
	Man Power:					
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	0.50	374.50
	Painter (Skilled)	Day	0012	749.00	0.25	187.25
	Helper (Semi-skilled)	Day	0021	572.00	0.75	429.00
	T & P (Including cost of materials for drilling holes nuts bolts etc.)	Lumpsum	9901	1.00	50.00	50.00
						6,035.27
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		847.96
						6,883.23
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		1,032.48
						7,915.71
	Add for Cess @ 1%	Lumpsum	9905	0.01		79.16
	Rate per board	Each				7,994.87
202022	Speed Indicator Board of equilateral triangular shape having each side of 1000mm with back support frame fixed to vertical post of MS angle of size 50mmx50mmx6mm of 3650 mm long					
	Detail of cost for one board of equilateral triangular shape having each side of 1000mm with support length of 3650mm. So Area of board is = 0.433 sqm					

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Material:					
	Aluminum Sheet / Strips of various sizes & thickness	Kg	0242	521.00	2.70	1,406.70
	Aluminum sheet @ 6.23 kg/sqm					
	High intensity retro-reflective sheet	Sqm	0472	1658	0.46	762.68
	Considering 5% wastage i.e. $0.433 + 0.022 = 0.46$ Sqm					
	Structural steel such as T, Angles, Channels and R S Joists conforming to Grade	Quintal	0221	7050	0.24	1,692.00
	Rivets (different sizes) for miscellaneous works.	Kg	0230	92.00	0.20	18.40
	Zinc Chromate red oxide Primer to IS:2074	Litre	0306	148.00	0.70	103.60
	Enamel Paint as per RDSO's Spec. no.M&C/PCN/120-2011	Litre	0304	248.00	0.60	148.80
	Paint Brush 25 mm	Each	0325	50.00	0.40	20.00
	Man Power:					
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	0.50	374.50
	Painter (Skilled)	Day	0012	749.00	0.20	149.80
	Helper (Semi-skilled)	Day	0021	572.00	0.70	400.40
	T & P (Including cost of materials for drilling holes nuts bolts etc.)	Lumpsum	9901	1.00	40.00	40.00
						5,116.88
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		718.92
						5,835.80
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		875.37
						6,711.17
	Add for Cess @ 1%	Lumpsum	9905	0.01		67.11
	Rate per board	Each				6,778.28
202023	Stop Indicator Board of size 1400mmx400mm with back support frame fixed to vertical post of MS angle of size 50mmx50mmx6mm of 3650 mm long					
	Detail of cost for one board of size (1400 x 400mm) with support length of 3650mm. So Area of board is = 0.56sqm					
	Material:					
	Aluminum Sheet / Strips of various sizes & thickness	Kg	0242	521.00	3.50	1,823.50
	Aluminum sheet @ 6.23 kg/sqm					
	High intensity retro-reflective sheet	Sqm	0472	1658	0.59	978.22
	Considering 5% wastage i.e. $0.56 + 0.028 = 0.59$ Sqm					
	Structural steel such as T, Angles, Channels and R S Joists conforming to Grade Designation E 250; Quality "A" as per IS 2062	Quintal	0221	7050	0.26	1,833.00
	Rivets (different sizes) for miscellaneous works.	Kg	0230	92.00	0.25	23.00
	Zinc Chromate red oxide Primer to IS:2074	Litre	0306	148.00	0.85	125.80
	Enamel Paint as per RDSO's Spec. no.M&C/PCN/120-2011	Litre	0304	248.00	0.75	186.00
	Paint Brush 25 mm	Each	0325	50.00	0.50	25.00
	Man Power:					
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	0.50	374.50
	Painter (Skilled)	Day	0012	749.00	0.25	187.25
	Helper (Semi-skilled)	Day	0021	572.00	0.75	429.00
	T & P (Including cost of materials for drilling holes nuts bolts etc.)	Lumpsum	9901	1.00	50.00	50.00
						6,035.27
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		847.96
						6,883.23
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		1,032.48
						7,915.71
	Add for Cess @ 1%	Lumpsum	9905	0.01		79.16
	Rate per board	Each				7,994.87
202024	Termination Indicator Board of Circular shape having diameter of 1000mm with back support frame welded to vertical post of MS angle of size 50mmx50mmx6mm of 3950 mm long					
	Detail of cost for one board of Circular shape having diameter of 1000mm with support length of 3950mm. So Area of board is = 0.79sqm + wastage 25% for circular shape = 1.0 Sqm					
	Material:					
	Aluminum Sheet / Strips of various sizes & thickness	Kg	0242	521.00	5.40	2,813.40

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	High intensity retro-reflective sheet	Sqm	0472	1658	1.05	1,740.90
	Considering 5% wastage i.e. 1.00 + 0.05 = 1.05 Sqm					
	Structural steel such as T, Angles, Channels and R S Joists conforming to Grade Designation E 250; Quality "A" as per IS 2062	Quintal	0221	7050	0.27	1,903.50
	Rivets (different sizes) for miscellaneous works.	Kg	0230	92.00	0.20	18.40
	Zinc Chromate red oxide Primer to IS:2074	Litre	0306	148.00	0.80	118.40
	Enamel Paint as per RDSO's Spec. no.M&C/PCN/120-2011	Litre	0304	248.00	0.60	148.80
	Paint Brush 25 mm	Each	0325	50.00	0.40	20.00
	Man Power:					
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	0.40	299.60
	Painter (Skilled)	Day	0012	749.00	0.20	149.80
	Helper (Semi-skilled)	Day	0021	572.00	0.60	343.20
	T & P (Including cost of materials for drilling holes nuts bolts etc.)	Lumpsum	9901	1.00	40.00	40.00
						7,596.00
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		1,067.24
						8,663.24
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		1,299.49
						9,962.72
	Add for Cess @ 1%	Lumpsum	9905	0.01		99.63
	Rate per board	Each				10,062.35
202030	Manufacturing, supplying and fixing Curve Indicator / Point Indicator / SEJ Boards to be provided at various locations on formation, made out of MS sheet 2mm thick of size 450mm x 300mm duly fixed with MS frame of 25mm x 25mm x 3mm angle welded to 50mm x 50mm x 3mm MS angle, 1000mm long post split and bent 100mm at bottom end with all lead & lift as per specification and including painting of details with enamel paint, as directed by Engineer in-charge (Earthwork & concreting will be paid separately)					
	Details of cost for 20 nos. For 1Board required MS sheets size (450mm x 300mm & 2mm thick) So For 20 board's 20 x (0.45m x 0.30m x 0.002m) = 20 x 0.00027 = 0.0054 cum, Density of MS steel is 7860 Kg/Cum, Hence Weight of MS Sheet is = 0.0054 x 7860 = 42.44 Kg, For 20 Board's required M.S.Angle of size(25 x 25 x 3mm) = 20 {(2 x 0.45m) + (2 x 0.30m)} = 30 metre hence Volume = 30 x (0.025m + 0.025m) x 0.003m = 30 x 0.00015 = 0.0045 Cum, Hence Weight of MS Angles = 0.0045 x 7860 = 35.37 Kg, For Post of 20 Board's @ 1.0metre long post required 20 metre M.S.Angle of size(50 x 50 x 3mm) Volume = 20 x (0.05 + 0.05) x 0.003 = 0.006 Cum, Hence Weight of MS Angles = 0.006 x 7860 = 47.16 Kg, Total weight of MS Steel/Angles = 42.44+ 35.37+47.16 = 124.97 Kg + 10% wastage = 137.47Kg or 1.37 quintal so Considering Approximate weight of MS plates/Sheets/Angle 1.4 Quintal for 20 nos indicators/boards.					
	Material:					
	H3 Electrodes as per RDSO's Spec. no. IRS M:28-2011	Nos.	0424	35.00	8.00	280.00
	Zinc Chromate red oxide Primer to IS:2074	Litre	0306	148.00	2.00	296.00
	Enamel Paint as per RDSO's Spec. no.M&C/PCN/120-2011	Litre	0304	248.00	4.00	992.00
	Structural Steel Plates conforming to Grade Designation E 250; Quality "A" as per IS 2062	Quintal	0220	7950.00	1.40	11,130.00
	Paint Brush 25 mm	Each	0325	50.00	1.00	50.00
	Man Power:					
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	2.00	1,498.00
	Painter (Skilled)	Day	0012	749.00	1.00	749.00
	Welder (Skilled)	Day	0029	734.00	1.00	734.00
	Helper (Semi-skilled)	Day	0021	572.00	3.00	1,716.00
	Labour Unskilled	Day	0020	540.00	2.00	1,080.00
	T & P	Lumpsum	9901	1.00	50.00	50.00
						18,575.00
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		2,609.79
						21,184.79
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		3,177.72
						24,362.51

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Add for Cess @ 1%	Lumpsum	9905	0.01		243.63
	Cost for 20 nos.					24,606.13
	Rate per unit	Each				1,230.31
203000	Small Track Machines					
203010	Manufacture and supply of Drill Twist, made of High Speed Steel (HSS) of various sizes of Addison / I.T. make or equivalent, as directed by the Engineer in-charge.					
203011	7.2 mm dia.					
	Detail cost for each.					
	Material:					
	Drill twist made of high speed of size 7.2 mm dia of Addison / I.T. make	Each	0461	258.00	1.00	258.00
	Misc.:					
						258.00
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		36.25
						294.25
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		44.14
						338.39
	Add for Cess @ 1%	Lumpsum	9905	0.01		3.38
	Rate per unit	Each				341.77
203012	16 mm dia.					
	Detail cost for each.					
	Material:					
	Drill twist made of high speed of size 16 mm dia of Addison / I.T. make	Each	0460	1367.00	1.00	1,367.00
						1,367.00
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		192.06
						1,559.06
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		233.86
						1,792.92
	Add for Cess @ 1%	Lumpsum	9905	0.01		17.93
	Rate per unit	Each				1,810.85
203013	18 mm dia.					
	Detail cost for each.					
	Material:					
	Drill twist made of high speed steel for size 18mm dia of Addison / I T make	Each	0463	1633.00	1.00	1,633.00
						1,633.00
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		229.44
						1,862.44
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		279.37
						2,141.80
	Add for Cess @ 1%	Lumpsum	9905	0.01		21.42
	Rate per unit	Each				2,163.22
203014	26.5 mm dia.					
	Detail cost for each.					
	Material:					
	Drill twist made of high speed steel for size 26.5mm dia of Addison / I T make	Each	0462	2517.00	1.00	2,517.00
						2,517.00
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		353.64
						2,870.64
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		430.60
						3,301.23
	Add for Cess @ 1%	Lumpsum	9905	0.01		33.01
	Rate per unit	Each				3,334.25
203015	28.75 mm dia.					
	Detail cost for each.					

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Material:					
	Drill twist made of high speed steel for size 28.75 mm dia of Addison / I T make	Each	0464	2197.00	1.00	2,197.00
						2,197.00
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		308.68
						2,505.68
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		375.85
						2,881.53
	Add for Cess @ 1%	Lumpsum	9905	0.01		28.82
	Rate per unit	Each				2,910.35
203016	31.75 mm dia.					
	Detail cost for each.					
	Material:					
	Drill twist made of high speed steel for size 31.75 mm dia of Addison / I T make	Each	0465	3033.00	1.00	3,033.00
	Misc.:					
						3,033.00
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		426.14
						3,459.14
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		518.87
						3,978.01
	Add for Cess @ 1%	Lumpsum	9905	0.01		39.78
	Rate per unit	Each				4,017.79
204000	Welding Equipments					
204010	Manufacture & supply of rail file approximate size 15" long for filing AT welds from Railway approved firm					
	Detail cost for 1 no.					
	Material:					
	Rail file 15" long for filing AT weld	Each	0419	537.00	1.00	537.00
						537.00
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		75.45
						612.45
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		91.87
						704.32
	Add for Cess @ 1%	Lumpsum	9905	0.01		7.04
	Rate per unit	Each				711.36
204020	Manufacture & supply of Welding Equipments, as directed by Engineer in-charge.					
204021	Welding Cable Copper (50mm ²)					
	Detail cost for 1 Metre.					
	Material:					
	Welding cable copper 50 mm ²	Metre	0330	168.00	1.00	168.00
	Misc.:					
						168.00
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		23.60
						191.60
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		28.74
						220.34
	Add for Cess @ 1%	Lumpsum	9905	0.01		2.20
	Rate per metre	Metre				222.55
204022	Pressure Regulator for Oxygen Multi-stage cylinder					
	Detail cost for each.					
	Material:					
	Pressure Regulator for Oxygen/Acetylene cylinder	Each	0340	1573.00	1.00	1,573.00
						1,573.00
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		221.01
						1,794.01

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		269.10
						2,063.11
	Add for Cess @ 1%	Lumpsum	9905	0.01		20.63
	Rate per unit	Each				2,083.74
204023	Pressure Regulator for Acetylene gas cylinder					
	Detail cost for each.					
	Material:					
	Pressure Regulator for Oxygen/Acetylene cylinder	Each	0340	1573.00	1.00	1,573.00
						1,573.00
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		221.01
						1,794.01
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		269.10
						2,063.11
	Add for Cess @ 1%	Lumpsum	9905	0.01		20.63
	Rate per unit	Each				2,083.74
204024	500amp Arc Welding Electrode Holder					
	Detail cost for each.					
	Material:					
	500 Amp Arc welding Electrode holder	Each	0331	147.00	1.00	147.00
						147.00
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		20.65
						167.65
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		25.15
						192.80
	Add for Cess @ 1%	Lumpsum	9905	0.01		1.93
	Rate per unit	Each				194.73
204025	Gas Cutting Torch Blow Pipe					
	Detail cost for each.					
	Material:					
	Welding & cutting torch	Each	0332	1183.00	1.00	1,183.00
	Misc.:					
						1,183.00
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		166.21
						1,349.21
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		202.38
						1,551.59
	Add for Cess @ 1%	Lumpsum	9905	0.01		15.52
	Cost for each	Each				1,567.11
204026	Hand Gloves Leather (Left Hand & Right Hand)					
	Detail cost for 1 set					
	Material:					
	Hand gloves leather	Set	0333	253.00	1.00	253.00
						253.00
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		35.55
						288.55
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		43.28
						331.83
	Add for Cess @ 1%	Lumpsum	9905	0.01		3.32
	Rate per set	Set				335.15
204027	Hose Rubber for Oxygen 6mm dia.					
	Detail cost for 1 m					
	Material:					
	Welding Hose rubber for Oxygen/D.A. 6mm dia	Metre	0334	36.00	1.00	36.00
						36.00

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		5.06
						41.06
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		6.16
						47.22
	Add for Cess @ 1%	Lumpsum	9905	0.01		0.47
	Rate per metre	Metre				47.69
204028	Hose Rubber for Dissolved Acetylene (D.A.) 6mm dia.					
	Detail cost for 1 m					
	Material:					
	Welding Hose rubber for Oxygen/D.A. 6mm dia	Metre	0334	36.00	1.00	36.00
						36.00
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		5.06
						41.06
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		6.16
						47.22
	Add for Cess @ 1%	Lumpsum	9905	0.01		0.47
	Rate per metre	Metre				47.69
204029	Welding Screen (approximate size 4" x 3")					
	Detail cost for each.					
	Material:					
	Welding screen	Each	0335	232.00	1.00	232.00
						232.00
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		32.60
						264.60
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		39.69
						304.29
	Add for Cess @ 1%	Lumpsum	9905	0.01		3.04
	Rate per unit	Each				307.33
204030	Manufacture & supply of wire brush 25mm long, as directed by Engineer in-charge.					
	Detail cost for each.					
	Material:					
	Wire Brush - 25cm long	Each	0311	42.00	1.00	42.00
						42.00
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		5.90
						47.90
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		7.19
						55.09
	Add for Cess @ 1%	Lumpsum	9905	0.01		0.55
	Rate per unit	Each				55.64
204040	Supply of Used Lubricating Oil of approved quality					
	Detail cost for 1 litre					
	Material:					
	Black Oil (used lubricating oil)	Litre	0471	44.00	1.00	44.00
	Misc.:					
						44.00
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		6.18
						50.18
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		7.53
						57.71
	Add for Cess @ 1%	Lumpsum	9905	0.01		0.58
	Rate per litre	Litre				58.29

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CHAPTER - 21 : Miscellaneous Items

Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
211000	Miscellaneous Items					
211010	Painting and fixing MS Indicator Boards of curves, SEJs, Points & Crossings, Gang/section jurisdiction and similar as per standard design including excavation, refilling, concreting in foundation and painting two coats with enamel and luminous paints as directed by Engineer in-charge. Note: Excavation, concrete work and lettering shall be paid separately.					
211011	Boards with single post					
	Detail of cost for 20 Boards					
	Material:					
	Enamel Paint as per RDSO's Spec. no.M&C/PCN/120-2011	Litre	0304	248.00	3.00	744.00
	Luminous Paint as per RDSO's Spec. no. M&C/PCN/120-2011	Litre	0298	362.00	1.00	362.00
	Paint Brush (writing) of any size	Each	0313	120.00	0.50	60.00
	Paint Brush 25 mm	Each	0325	50.00	1.00	50.00
	Labour:					
	Painter (Skilled)	Day	0012	749.00	1.00	749.00
	Helper (Semi-skilled)	Day	0021	572.00	1.00	572.00
	Misc.:					
	T & P	Lumpsum	9901	1.00	10.00	10.00
						2,547.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		25.47
						2,572.47
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		361.43
						2,933.90
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		440.09
						3,373.99
	Add for Cess @ 1%	Lumpsum	9905	0.01		33.74
	Cost for 20 Boards					3,407.73
	Rate per Board	Each				170.39
211012	Boards with two posts					
	Detail of cost for 20 Boards					
	Material:					
	Enamel Paint as per RDSO's Spec. no.M&C/PCN/120-2011	Litre	0304	248.00	3.00	744.00
	Luminous Paint as per RDSO's Spec. no. M&C/PCN/120-2011	Litre	0298	362.00	1.50	543.00
	Paint Brush (writing) of any size	Each	0313	120.00	0.50	60.00
	Paint Brush 25 mm	Each	0325	50.00	1.00	50.00
	Labour:					
	Painter (Skilled)	Day	0012	749.00	1.00	749.00
	Helper (Semi-skilled)	Day	0021	572.00	1.00	572.00
	Misc.:					
	T & P	Lumpsum	9901	1.00	10.00	10.00
						2,728.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		27.28
						2,755.28
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		387.12
						3,142.40
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		471.36
						3,613.76
	Add for Cess @ 1%	Lumpsum	9905	0.01		36.14
	Cost for 20 Boards					3,649.89
	Rate per Board	Each				182.49
211020	Erection or removal of temporary Engineering Indicator Board or any other board at specified locations without causing infringement to track etc. complete and as directed.					
211021	For erection					
	Details of cost for 10 boards					

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Labour:					
	Mate (Skilled)	Day	0002	751.00	0.50	375.50
	Labour Unskilled	Day	0020	540.00	3.00	1,620.00
	Misc.:					
	T & P	Lumpsum	9901	1.00	10.00	10.00
						2,005.50
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		20.06
						2,025.56
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		284.59
						2,310.15
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		346.52
						2,656.67
	Add for Cess @ 1%	Lumpsum	9905	0.01		26.57
	Cost for 10 boards					2,683.23
	Rate per board	Each				268.32
211022	For removal					
	Details of cost for 10 boards					
	Labour:					
	Labour Unskilled	Day	0020	540.00	3.00	1,620.00
	Misc.:					
	T & P	Lumpsum	9901	1.00	10.00	10.00
						1,630.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		16.30
						1,646.30
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		231.31
						1,877.61
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		281.64
						2,159.25
	Add for Cess @ 1%	Lumpsum	9905	0.01		21.59
	Cost for 10 boards					2,180.84
	Rate per board	Each				218.08
211030	Fabricating of check rails of 52Kg and 90R sections for providing to curves by cutting web of rail horizontally by gas, grinding for smoothening the cut edge and drilling of parabolic shaped holes to the web of check rails as per drawing and specification and as per directions of engineer in-charge with all contractor's labour, tools and materials complete. Note: 1. Rails shall be supplied by Railways 2. The both ends of head of check rails are to bent/cut as per drawing. 3. The released rail scrap shall be stacked neatly with in a lead of 500m. 4. Drilling of holes shall be paid under relevant item.					
	Details of cost for 100 R mts					
	Material:					
	Oxygen Gas (in cylinder)	Kg	0338	83.00	75.00	6,225.00
	Acetylene Gas (in cylinder)	Kg	0339	78.00	25.00	1,950.00
	Labour:					
	(ii) For cutting rail web horizontally					
	Labour Unskilled	Day	0020	540.00	6.00	3,240.00
	Mate (Skilled)	Day	0002	751.00	1.00	751.00
	Welder (Skilled)	Day	0029	734.00	1.00	734.00
	Helper (Semi-skilled)	Day	0021	572.00	2.00	1,144.00
	(iii) For Stacking the releases.					
	Waterman (Un-skilled)	Day	0034	547.00	1.00	547.00
	Labour Unskilled	Day	0020	540.00	4.00	2,160.00
	Misc.:					
	T & P (Includes Gas cutting torch)	Lumpsum	9901	1.00	68.00	68.00
						16,819.00

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		168.19
						16,987.19
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		2,386.70
						19,373.89
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		2,906.08
						22,279.97
	Add for Cess @ 1%	Lumpsum	9905	0.01		222.80
	Cost for 100 RM					22,502.77
	Rate per RM	RM				225.03
211040	Dismantling Check Rail on curves on track of all rail sections, duly removing fish plates and bolts including removing chairs from sleepers, leading and stacking released materials away from track clear of infringements, complete and as directed.					
	Details of cost for 96 Running Metres					
	Material:					
	Black Oil (used lubricating oil)	Litre	0471	44.00	1.00	44.00
	Kerosene Oil	Litre	0183	63.00	2.00	126.00
	Labour:					
	(i) Removing fish plates, check rail blocks/brackets plate screws					
	Labour Unskilled	Day	0020	540.00	2.00	1,080.00
	(ii) Removing, leading & stacking check rail and all fitting					
	Mate (Skilled)	Day	0002	751.00	0.50	375.50
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	0.50	374.50
	Helper (Semi-skilled)	Day	0021	572.00	0.50	286.00
	Waterman (Un-skilled)	Day	0034	547.00	0.50	273.50
	Labour Unskilled	Day	0020	540.00	4.00	2,160.00
	Misc.:					
	T & P (Crow bar, Rail tongue, Hammer, Spanner, Box spanner etc.)	Lumpsum	9901	1.00	50.00	50.00
						4,769.50
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		47.70
						4,817.20
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		676.82
						5,494.01
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		824.10
						6,318.11
	Add for Cess @ 1%	Lumpsum	9905	0.01		63.18
	Cost for 96 Metre					6,381.29
	Rate per RM	RM				66.47
211050	Fixing of check rails on curves on track of all rail sections as per drawing and to correct alignment and level with Railways fastenings including leading of rails and fittings, crossing of tracks, greasing of plate screws with approved grease etc., as per drawing and directions of Engineer in charge with all contractors labour, tools, plants, machinery, consumables etc., complete. Note: Required P.Way fittings will be supplied at SSE/P.Way stores.					
	Details of cost for 96 RM					
	Material:					
	Grease Graphite Grade 'O' (IS:408)	Kg	0182	270.00	2.50	675.00
	Cotton Jute	Kg	0489	53.00	0.50	26.50
	Labour:					
	For leading of rails, fittings, greasing and fixing check rail with all fittings etc.					
	Mate (Skilled)	Day	0002	751.00	0.50	375.50
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	0.50	374.50
	Helper (Semi-skilled)	Day	0021	572.00	0.50	286.00
	Look Out Man (Un-skilled)	Day	0033	547.00	0.50	273.50
	Waterman (Un-skilled)	Day	0034	547.00	0.50	273.50
	Labour Unskilled	Day	0020	540.00	6.00	3,240.00

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Misc.:					
	T & P (Crow bars, Rail tongues, spanners etc)	Lumpsum	9901	1.00	30.00	30.00
						5,554.50
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		55.55
						5,610.05
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		788.21
						6,398.26
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		959.74
						7,357.99
	Add for Cess @ 1%	Lumpsum	9905	0.01		73.58
	Cost for 96 RM					7,431.57
	Rate per RM	RM				77.41
211060	Supply and fixing in position pre-cast cement concrete Fouling Mark as per approved drawing at station yard, duly painting the top surface and slopes with white enamel paint in two coats and inscribed letters with black of Fouling Mark, complete in all respects with all labour, materials including cement, tools and plants etc.					
	Detail cost for 1 cum (25 nos. of Fouling Mark)					
	Material:					
	Stone Aggregate (Single size) : 20 mm nominal size	Cum	0204	1017.00	0.85	864.45
	Coarse Sand (Zone III)	Cum	0199	2083.00	0.45	937.35
	Ordinary Portland Cement 43 grade	MT	0186	6113.00	0.40	2,445.20
	Enamel Paint as per RDSO's Spec. no.M&C/PCN/120-2011	Litre	0304	248.00	4.00	992.00
	Paint Brush (writing) of any size	Each	0313	120.00	0.25	30.00
	Labour:					
	(i) For casting					
	Mason 1st class (Skilled)	Day	0004	718.00	1.00	718.00
	Painter (Skilled)	Day	0012	749.00	1.00	749.00
	Helper (Semi-skilled)	Day	0021	572.00	1.00	572.00
	Labour Unskilled	Day	0020	540.00	1.00	540.00
	(ii) For Fixing					
	Labour Unskilled	Day	0020	540.00	3.00	1,620.00
	Misc.:					
	Misc. T&P	Lumpsum	9901	1.00	10.00	10.00
						9,478.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		94.78
						9,572.78
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		1,344.98
						10,917.76
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		1,637.66
						12,555.42
	Add for Cess @ 1%	Lumpsum	9905	0.01		125.55
	Cost for 25 nos.					12,680.97
	Rate for each	Each				507.24
211070	Providing and erecting water proof Gypsy Tent of size 3m x 3m for a specific period of time and removal of the same after completion of work or as directed by Engineer in-charge.					
	Detail cost for per day					
	Labour:					
	Labour Unskilled	Day	0020	540.00	0.20	108.00
	Misc.:					
	T & P (Transportation)	Lumpsum	9901	1.00	50.00	50.00
	Hire charges of 3.0 m x 3.0 m waterproof Tent	Day	0160	517.00	1.00	517.00
						675.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		6.75
						681.75

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		95.79
						777.54
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		116.63
						894.17
	Add for Cess @ 1%	Lumpsum	9905	0.01		8.94
	Rate per day	Day				903.11
211080	Providing furniture temporarily at site work in good condition at different locations as per direction of Engineer In-charge and removing the same after completion of work.					
211081	Office Table of size 1.2m x 0.9m per day					
	Detail cost for 50 no's per day (Considering 3 trips of tractor with trolley for transportation)					
	Hire charges for tractor with trolley	Day	0080	1742.00	0.50	871.00
	Hire charges of Table	Day	0162	53.00	50.00	2,650.00
						3,521.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		35.21
						3,556.21
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		499.65
						4,055.86
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		608.38
						4,664.24
	Add for Cess @ 1%	Lumpsum	9905	0.01		46.64
	Cost for 50 no's					4,710.88
	Rate for each	Each				94.22
211082	Office Chairs with cushioned seat, back and arms per day					
	Detail cost for 100 no's per day (Considering 3 trips of tractor with trolley for transportation)					
	Labour:					
	Labour Unskilled	Day	0020	540.00	1.00	540.00
	Misc.:					
	T & P	Lumpsum	9901	1.00	10.00	10.00
	Hire charges for tractor with trolley	Day	0080	1742.00	0.50	871.00
	Hire charges of Chair	Day	0161	30.00	100.00	3,000.00
						4,421.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		44.21
						4,465.21
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		627.36
						5,092.57
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		763.89
						5,856.46
	Add for Cess @ 1%	Lumpsum	9905	0.01		58.56
	Cost for 100 nos.					5,915.02
	Rate for each	Each				59.15
211100	Removing /Re-erecting existing Gradient Post / Kilometre Post, duly demolishing concrete foundation, fixing the post in cement concrete foundation as per drawing with 1:3:6 mix using 20mm hard aggregate, as directed (Cost of concrete work will be paid under relevant item separately).					
211101	For Removing					
	Details of cost for 6 post					
	Labour:					
	Labour Unskilled	Day	0020	540.00	2.00	1,080.00
	T & P (Crow bar, Chisel, Hammer, Phowrah etc.)	Lumpsum	9901	1.00	10.00	10.00
						1,090.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		10.90
						1,100.90

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		154.68
						1,255.58
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		188.34
						1,443.91
	Add for Cess @ 1%	Lumpsum	9905	0.01		14.44
	Cost for 6 post					1,458.35
	Rate per post	Each				243.06
211102	For Fixing / Re-erecting					
	Details of cost for 6 post					
	Labour:					
	Labour Unskilled	Day	0020	540.00	2.00	1,080.00
	T & P (Crow bar, Chisel, Hammer, Phowrah etc.)	Lumpsum	9901	1.00	10.00	10.00
						1,090.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		10.90
						1,100.90
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		154.68
						1,255.58
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		188.34
						1,443.91
	Add for Cess @ 1%	Lumpsum	9905	0.01		14.44
	Cost for 6 post					1,458.35
	Rate per post	Each				243.06
211110	Breaking the damaged PSC sleepers including dragging, if required duly removing inserts safely and handing over inserts to Railways at Stores or Depot of SSE/P.Way, including disposing the broken concrete pieces, as directed by Engineer in-charge. Released HTS wire shall be the property of Contractor.					
	Details of cost for 100 sleepers					
	Labour:					
	Waterman (Un-skilled)	Day	0034	547.00	1.00	547.00
	Labour Unskilled	Day	0020	540.00	33.00	17,820.00
	Misc.:					
	T & P	Lumpsum	9901	1.00	10.00	10.00
	Hire charges for tractor with trolley	Day	0080	1742.00	0.50	871.00
	Deduction for cost of scrap value of HTS wire. Each sleeper shall have about 8 kg of HTS wire. For 100 sleepers, released quantity = 800 kg.					
	Steel wires released from U/S PSC Sleeper	Kg	0474	41.00	800.00	-32,800.00
						-13,552.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		-135.52
						-13,687.52
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		-1,923.10
						-15,610.62
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		-2,341.59
						-17,952.21
	Add for Cess @ 1%	Lumpsum	9905	0.01		-179.52
	Cost for 100 sleepers					-18,131.73
	Rate per sleeper	Each				-181.32
211120	Fixing vertically the unserviceable PSC sleepers at locations of tress-passing, railway boundary or to make temporary store by excavating trench, fixing PSC sleeper in trench and filling back open trench.					
	Details of cost for 80 sleepers					
	Labour:					
	Mate (Skilled)	Day	0002	751.00	1.00	751.00
	Labour Unskilled	Day	0020	540.00	16.00	8,640.00
	Misc.:					
	T & P	Lumpsum	9901	1.00	50.00	50.00
						9,441.00

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		94.41
						9,535.41
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		1,339.73
						10,875.14
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		1,631.27
						12,506.41
	Add for Cess @ 1%	Lumpsum	9905	0.01		125.06
	Cost for 80 sleepers					12,631.47
	Rate per sleeper	Each				157.89
211130	Providing and fixing Trolley Refuge of size 3.0m x3.0m on cess, placing with released unserviceable PSC sleepers and keeping them at all four sides of refuge and also placing as matting inside the refuge by keeping them in upside down position with a minimum of 14 sleepers including levelling with earth, excavation, all lead and lift, crossing of tracks, leading the sleepers with in a free lead and lift, handling etc., with all contractor's men material complete and as directed by the Engineer-in-charge. Note: Earth-work will to be paid separately under relevant item.					
	Details of cost for 6 no's Trolley refuge { For one trolley refuge required 84 no's U/s PSC Sleeper }					
	Labour:					
	Mate (Skilled)	Day	0002	751.00	1.00	751.00
	Waterman (Un-skilled)	Day	0034	547.00	1.00	547.00
	Labour Unskilled	Day	0020	540.00	30.00	16,200.00
	Misc.:					
	T & P	Lumpsum	9901	1.00	10.00	10.00
	Hire charges for tractor with trolley	Day	0080	1742.00	1.00	1,742.00
						19,250.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		192.50
						19,442.50
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		2,731.67
						22,174.17
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		3,326.13
						25,500.30
	Add for Cess @ 1%	Lumpsum	9905	0.01		255.00
	Cost for 6 no's Trolley refuge					25,755.30
	Rate for each	Each				4,292.55
211140	Supplying and spraying in specified proportion Weedicide Chemical, capable to kill entire weed on track / cess / embankment with all labour, material, tools & plants etc. complete job in all respect. Scientific name of the chemical is Isopropylamine Salt of Glyphosate, in which active ingredient is Glyphosate (41%), colour is light amber to brownish, very low in toxicity and has favourable environmental characteristics. It will be ensured that no weed growth occurs up to six months period, otherwise re-spraying shall be done by the contractor free of cost.					
	Details of cost for 8000 Sq.metre					
	Material:					
	Weedicide Chemical - Glyphosate	Litre	0483	407.00	7.00	2,849.00
	Labour:					
	Labour Unskilled	Day	0020	540.00	2.00	1,080.00
	Waterman (Un-skilled)	Day	0034	547.00	1.00	547.00
	Misc:					
	T & P	Lumpsum	9901	1.00	50.00	50.00
						4,526.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		45.26
						4,571.26
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		642.26
						5,213.52

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		782.03
						5,995.55
	Add for Cess @ 1%	Lumpsum	9905	0.01		59.96
	Cost for 8000 Sq.metre	Sqm				6,055.51
	Rate per sqm	Sqm				0.76
211150	Supplying & applying single liquid solution in 250ml pack, having break loose torque of 400Nm to 540Nm, as per ISO:10123 norms with shear strength of liquid solutions as 25 to 35 N/mm ² , viscosity 1500 to 3000 (Centipoise) & specific gravity of 1.1 ± 0.05. for tightening of nuts & bolts at important locations, such as Bridges, SEJs, Turnouts, Fish Plates, Steel Channel Sleepers etc. Work includes opening of bolts, cleaning of bolts with suitable cleaner and tightening of bolts after applying liquid solution as directed by Engineer in-charge.					
211151	Bolts dia. 20mm to 25mm					
	Details of cost for 100 nos Nut & Bolts					
	Material:					
	Liquid solution in 250ml pack, having break loose torque of 400Nm to 540Nm, as	Each	0486	2400.00	0.30	720.00
	Kerosene Oil	Litre	0183	63.00	1.00	63.00
	Wire Brush - 25cm long	Each	0311	42.00	1.00	42.00
	Soft Brush for painting - 25cm long	Each	0312	59.00	1.00	59.00
	Labour:					
	Mate (Skilled)	Day	0002	751.00	0.25	187.75
	Labour Unskilled	Day	0020	540.00	2.00	1,080.00
	T & P	Lumpsum	9901	1.00	10.00	10.00
						2,161.75
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		21.62
						2,183.37
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		306.76
						2,490.13
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		373.52
						2,863.65
	Add for Cess @ 1%	Lumpsum	9905	0.01		28.64
	Cost for 100 nos					2,892.29
	Rate per unit	Each				28.92
211152	Bolts dia. 26mm to 30mm					
	Details of cost for 100 nos Nut & Bolts					
	Material:					
	Liquid solution in 250ml pack, having break loose torque of 400Nm to 540Nm, as per ISO:10123 norms with shear strength of liquid solutions as 25 to 35 N/mm ² , viscosity 1500 to 3000 (Centipoise) & specific gravity of 1.1 ± 0.05. for tightening of all types of track nuts & bolts to prevent loosening during vibrations	Each	0486	2400.00	0.40	960.00
	Kerosene Oil	Litre	0183	63.00	1.25	78.75
	Wire Brush - 25cm long	Each	0311	42.00	1.00	42.00
	Soft Brush for painting - 25cm long	Each	0312	59.00	1.00	59.00
	Labour:					
	Mate (Skilled)	Day	0002	751.00	0.25	187.75
	Labour Unskilled	Day	0020	540.00	2.00	1,080.00
	T & P	Lumpsum	9901	1.00	10.00	10.00
						2,417.50
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		24.18
						2,441.68
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		343.06
						2,784.73
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		417.71
						3,202.44
	Add for Cess @ 1%	Lumpsum	9905	0.01		32.02
	Cost for 100 nos					3,234.46
	Rate per unit	Each				32.34

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
211153	Bolts dia. 31mm to 40mm					
	Details of cost for 100 nos Nut & Bolts					
	Material:					
	Liquid solution in 250ml pack, having break loose torque of 400Nm to 540Nm, as per ISO:10123 norms with shear strength of liquid solutions as 25 to 35 N/mm ² , viscosity 1500 to 3000 (Centipoise) & specific gravity of 1.1 ± 0.05. for tightening of all types of track nuts & bolts to prevent loosening during vibrations	Each	0486	2400.00	0.60	1,440.00
	Kerosene Oil	Litre	0183	63.00	1.50	94.50
	Wire Brush - 25cm long	Each	0311	42.00	1.00	42.00
	Soft Brush for painting - 25cm long	Each	0312	59.00	1.00	59.00
	Labour:					
	Mate (Skilled)	Day	0002	751.00	0.25	187.75
	Labour Unskilled	Day	0020	540.00	2.00	1,080.00
	T & P	Lumpsum	9901	1.00	10.00	10.00
						2,913.25
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		29.13
						2,942.38
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		413.40
						3,355.79
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		503.37
						3,859.16
	Add for Cess @ 1%	Lumpsum	9905	0.01		38.59
	Cost for 100 nos					3,897.75
	Rate per unit	Each				38.98
211160	Supplying & applying of Poly Chloroprene rubber-based Solvent (toulene free, i.e. not harmful to human body) to prevent working out of rubber pads, having density 0.85±0.01 gm/cm ³ , viscosity of solvent as 1500 to 1900 (centipoise) at 30 degree centigrade & shear strength 8 to 12 Kg/Sq.in. for bonding rubber pads / GR Sole Plates on PSC sleepers complete job, as directed by Engineer in-charge.					
211161	PSC Line sleepers					
	Detail of cost for 200 GR soles / Rubber pads					
	Material:					
	Poly chloroprene rubber based solvent (toluene free) to prevent working out of	Kg	0487	2383.00	1.35	3,217.05
	Paint Brush 25 mm	Each	0325	50.00	1.00	50.00
	Labour:					
	Helper (Semi-skilled)	Day	0021	572.00	1.00	572.00
	Labour Unskilled	Day	0020	540.00	1.00	540.00
	Misc.:					
	T & P	Lumpsum	9901	1.00	10.00	10.00
						4,389.05
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		43.89
						4,432.94
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		622.83
						5,055.77
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		758.37
						5,814.13
	Add for Cess @ 1%	Lumpsum	9905	0.01		58.14
	Cost for 200 nos rubber pads					5,872.28
	Rate per Rubber Pad	Each				29.36
211162	1 in 8½ Turnout Set					
	Detail of cost for 1 set (216 Rubber Pads in each set)					
	Material:					
	Poly chloroprene rubber based solvent (toluene free) to prevent working out of rubber pads	Kg	0487	2383.00	1.50	3,574.50
	Paint Brush 25 mm	Each	0325	50.00	1.00	50.00

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Labour:					
	Helper (Semi-skilled)	Day	0021	572.00	1.00	572.00
	Labour Unskilled	Day	0020	540.00	1.00	540.00
	T & P	Lumpsum	9901	1.00	10.00	10.00
						4,746.50
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		47.47
						4,793.97
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		673.55
						5,467.52
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		820.13
						6,287.64
	Add for Cess @ 1%	Lumpsum	9905	0.01		62.88
	Cost for 1 Set					6,350.52
	Rate per set	Set				6,350.52
211163	1 in 12 Turnout Set					
	Detail of cost for 1 set (315 Rubber Pads in each set)					
	Material:					
	Poly chloroprene rubber based solvent (toluene free) to prevent working out of rubber pads	Kg	0487	2383.00	2.25	5,361.75
	Paint Brush 25 mm	Each	0325	50.00	1.00	50.00
	Labour:					
	Helper (Semi-skilled)	Day	0021	572.00	1.00	572.00
	Labour Unskilled	Day	0020	540.00	2.00	1,080.00
	T & P	Lumpsum	9901	1.00	10.00	10.00
						7,073.75
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		70.74
						7,144.49
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		1,003.80
						8,148.29
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		1,222.24
						9,370.53
	Add for Cess @ 1%	Lumpsum	9905	0.01		93.71
	Cost for 1 Set					9,464.24
	Rate per set	Set				9,464.24
211164	1 in 8½ Switch Assembly					
	Detail of cost for 3 set (40 Rubber Pads in each set)					
	Material:					
	Poly chloroprene rubber based solvent (toluene free) to prevent working out of rubber pads	Kg	0487	2383.00	1.00	2,383.00
	Paint Brush 25 mm	Each	0325	50.00	1.00	50.00
	Labour:					
	Helper (Semi-skilled)	Day	0021	572.00	1.00	572.00
	Labour Unskilled	Day	0020	540.00	1.00	540.00
	T & P	Lumpsum	9901	1.00	10.00	10.00
						3,555.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		35.55
						3,590.55
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		504.47
						4,095.02
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		614.25
						4,709.28
	Add for Cess @ 1%	Lumpsum	9905	0.01		47.09
	Cost for 3 Set					4,756.37
	Rate per Set	Set				1,585.46

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
211165	1 in 12 Switch Assembly					
	Detail of cost for 2 set (48 Rubber Pads in each set)					
	Material:					
	Poly chloroprene rubber based solvent (toluene free) to prevent working out of rubber pads	Kg	0487	2383.00	0.80	1,906.40
	Paint Brush 25 mm	Each	0325	50.00	1.00	50.00
	Labour:					
	Helper (Semi-skilled)	Day	0021	572.00	1.00	572.00
	Labour Unskilled	Day	0020	540.00	1.00	540.00
	T & P	Lumpsum	9901	1.00	10.00	10.00
						3,078.40
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		30.78
						3,109.18
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		436.84
						3,546.02
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		531.90
						4,077.93
	Add for Cess @ 1%	Lumpsum	9905	0.01		40.78
	Cost for 2 Set					4,118.71
	Rate per set	Set				2,059.35
211166	1 in 8½ Crossing Assembly					
	Detail of cost for 4 set (18 Rubber Pads in each set)					
	Material:					
	Poly chloroprene rubber based solvent (toluene free) to prevent working out of rubber pads	Kg	0487	2383.00	0.65	1,548.95
	Paint Brush 25 mm	Each	0325	50.00	1.00	50.00
	Labour:					
	Helper (Semi-skilled)	Day	0021	572.00	1.00	572.00
	Labour Unskilled	Day	0020	540.00	1.00	540.00
	T & P	Lumpsum	9901	1.00	10.00	10.00
						2,720.95
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		27.21
						2,748.16
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		386.12
						3,134.28
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		470.14
						3,604.42
	Add for Cess @ 1%	Lumpsum	9905	0.01		36.04
	Cost for 4 Set					3,640.46
	Cost for Each Set	Set				910.12
211167	1 in 12 Crossing Assembly					
	Detail of cost for 3 set (27 Rubber Pads in each set)					
	Material:					
	Poly chloroprene rubber based solvent (toluene free) to prevent working out of rubber pads	Kg	0487	2383.00	0.75	1,787.25
	Paint Brush 25 mm	Each	0325	50.00	1.00	50.00
	Labour:					
	Helper (Semi-skilled)	Day	0021	572.00	1.00	572.00
	Labour Unskilled	Day	0020	540.00	1.00	540.00
	T & P	Lumpsum	9901	1.00	10.00	10.00
						2,959.25
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		29.59
						2,988.84
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		419.93
						3,408.77
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		511.32
						3,920.09
	Add for Cess @ 1%	Lumpsum	9905	0.01		39.20

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Cost for 3 Set					3,959.29
	Rate per Set	Set				1,319.76
211170	Galvanisation of Railway's Chequered Plates, Channels, Plates, Angles, and I-Section by hot dip process with Zinc Coating and mass of Zinc coating shall not be less than 705 g/sqm and galvanisation thickness shall not be less than 100 microns including necessary surface preparation as per Clause-4 of IS:2629-1985. Galvanisation shall be done as per IS:2629-1985 and IS:4759-1996 with Zinc conforming to IS:209-1992, duly taking all the measures for safeguarding against embrittlement of hot-dip galvanised iron and steel products as per IS:6158-1984 with all contractor's labour, material, tools, plant, all lead, lift and crossing of tracks etc. complete and as directed by the Engineer in-charge.					
	Detail of cost for 5 MT					
	Material:					
	Dip Galvanisation @ 705gm / sqm (100 Microns thick)	MT	0433	19750.00	5.00	98,750.00
	Labour:					
	Helper (Semi-skilled)	Day	0021	572.00	2.00	1,144.00
	Labour Unskilled	Day	0020	540.00	2.00	1,080.00
	Misc.:					
	T & P	Lumpsum	9901	1.00	10.00	10.00
						100,984.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		1,009.84
						101,993.84
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		14,330.13
						116,323.97
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		17,448.60
						133,772.57
	Add for Cess @ 1%	Lumpsum	9905	0.01		1,337.73
	Cost for 5 MT					135,110.30
	Rate per MT	MT				27,022.06
211180	Galvanisation of Railway's stretcher bars, M.S.Liners, ERCs and Plate screws by hot dip process with Zinc Coating and mass of Zinc coating shall not be less than 705 g/sqm and galvanisation thickness shall not be less than 100 microns including necessary surface preparation as per Clause-4 of IS:2629-1985. Galvanisation shall be done as per IS:2629-1985 and IS:4759-1996 with Zinc conforming to IS:209-1992, duly taking all the measures for safeguarding against embrittlement of hot-dip galvanised iron and steel products as per IS:6158-1984 with all contractor's labour, material, tools, plant, all lead, lift and crossing of tracks etc. complete and as directed by the Engineer in-charge.					
	Considering 20% of extra on 211170 for additional items					
	Rate as per item no. 211170		211170			27,022.06
	Add 20% over above					5,404.41
	Rate per MT	MT				32,426.47
211200	Hiring of machinery for minor miscellaneous works for short duration including operator/driver, fuel, lubricants and consumable. The contractor shall arrange all statutory permits as required by rules and regulations prevailing in the area of work. Payment shall be made for actual working hours at site.					
211201	JCB Backhoe Loaders 3DX Plus or similar with minimum 1.10 cum bucket capacity					
	Cost per 1 Day i.e. 8 hour					
	Hire Charges of JCB 3DX Plus Backhoe Loader	Day	0506	4966.80	1.00	4,966.80
						4,966.80
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		49.67
						5,016.47
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		704.81
						5,721.28

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		858.19
						6,579.47
	Add for Cess @ 1%	Lumpsum	9905	0.01		65.79
	Cost for 8 Hours					6,645.27
	Rate per hour	Hour				830.66
211202	Hydra or similar tyre mounted Pick-n-Carry crane of 12T capacity for misc. works of handling of material					
	Cost per 1 Day i.e. 8 hour					
	Hire charges of 12 MT Hydra	Day	0089	6717.00	1.00	6,717.00
						6,717.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		67.17
						6,784.17
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		953.18
						7,737.35
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		1,160.60
						8,897.95
	Add for Cess @ 1%	Lumpsum	9905	0.01		88.98
	Cost for 8 Hours					8,986.93
	Rate per hour	Hour				1,123.37
211203	Tractor with Trolley for local transportation or other misc. works.					
	Cost per 1 Day i.e. 8 hour					
	Misc.:					
	Hire charges for tractor with trolley	Day	0080	1742.00	1.00	1,742.00
						1,742.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		17.42
						1,759.42
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		247.20
						2,006.62
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		300.99
						2,307.61
	Add for Cess @ 1%	Lumpsum	9905	0.01		23.08
	Cost for 8 Hours					2,330.69
	Rate per hour	Hour				291.34
211210	Arranging labour as and when required by the Engineer in charge, for various works under SSE/P.Way, with contractor's T&P, equipments, hand signal flags, etc. as per specifications, special conditions and detailed scope of work as furnished in the tender and as directed by the Engineer in charge. Note: Item shall be operated with prior approval of concerned Sr. DEN / DEN in charge.					
	Labour:					
	Labour Unskilled	Day	0020	540.00	1.00	540.00
	Misc.:					
	T & P (Crow bar, Hammer, spanner, mortar pan etc.)	Lumpsum	9901	1.00	10.00	10.00
						550.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		5.50
						555.50
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		78.05
						633.55
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		95.03
						728.58
	Add for Cess @ 1%	Lumpsum	9905	0.01		7.29
	Rate per labour per day	Day				735.87

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
211220	Supplying and filling 50 kg size empty cement polythene bags with Rly. Ballast/moorum/earth/Sand/quarry dust etc. placing the filled bags on the high banks /bridge approaches/nominated place etc. dumping and spreading at the nominated locations to profile under block period with all contractor's labour, tools, plants, loading, unloading, filling, spreading including all lead/lift etc. complete and as directed by the Engineer in charge at site including crossing of track where necessary.					
	Details of Cost for 400 bags					
	Material					
	Empty cement bag polythene 50 Kgs capacity	Each	0490	5.00	400.00	2,000.00
	Labour:					
	Filling and carrying them to high banks, bridge approaches/nominated place					
	Mate (Skilled)	Day	0002	751.00	0.50	375.50
	Labour Unskilled	Day	0020	540.00	4.00	2,160.00
	Misc.:					
	T & P	Lumpsum	9901	1.00	10.00	10.00
						4,545.50
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		45.46
						4,590.96
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		645.03
						5,235.98
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		785.40
						6,021.38
	Add for Cess @ 1%	Lumpsum	9905	0.01		60.21
	Cost of 400 bags					6,081.60
	Rate per bag	Each				15.20
211230	Supply, filling and stacking of sand bags layer by layer filled with Railway Sand/railway quarry dust in Contractor's empty polythene cement bags of 50 kg bags with all contractors labour, tools, plants, lead, lift etc., including stitching the same with machine using polythene thread complete as directed by Engineer-in charge at site.					
	Details of Cost for 600 bags					
	Material					
	Empty cement bag polythene 50 Kgs capacity	Each	0490	5.00	600.00	3,000.00
	Labour:					
	For Filling and stacking sand bags					
	Labour Unskilled	Day	0020	540.00	6.00	3,240.00
	Misc.:					
	Sundries (stitching machine)	Lumpsum	9901	1.00	20.00	20.00
						6,260.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		62.60
						6,322.60
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		888.33
						7,210.93
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		1,081.64
						8,292.56
	Add for Cess @ 1%	Lumpsum	9905	0.01		82.93
	Cost of 600 bags					8,375.49
	Rate per bag	Each				13.96
211240	Loading of sand/quarry dust filled bags from Railway stacks in to Railway Wagons with all contractor's empty polythene cement bag, tools & plants, machinery, labour, lead and lift, crossing of track wherever necessary etc., complete as directed by the Engineer In charge.					
	Details of Cost for 780 bags					
	Material:					
	Empty cement bag polythene 50 Kgs capacity	Each	0490	5.00	780.00	3,900.00
	Labour:					
	For loading of bags in to vehicles					

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Mate (Skilled)	Day	0002	751.00	0.50	375.50
	Labour Unskilled	Day	0020	540.00	6.00	3,240.00
	Sundries	Lumpsum	9901	1.00	10.00	10.00
						7,525.50
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		75.26
						7,600.76
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		1,067.91
						8,668.66
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		1,300.30
						9,968.96
	Add for Cess @ 1%	Lumpsum	9905	0.01		99.69
	Cost of 780 Bags					10,068.65
	Rate per bag	Each				12.91
211250	Manufacturing and fixing buffer stop with Railway supplied rails, cutting, including bending of rails as per plan, with all contractor's labour, materials, tools, plants etc. and all lead and lift including crossing of track where necessary and as directed by Engineer in charge at site. Note: Excavation, fixing rails in cement concrete, drilling of holes will be paid separately.					
	Details of cost for one buffer stop					
	Material:					
	Oxygen Gas (in cylinder)	Kg	0338	83.00	10.00	830.00
	Acetylene Gas (in cylinder)	Kg	0339	78.00	3.00	234.00
	Nut & Bolts with washers of all sizes	Kg	0231	122.00	40.00	4,880.00
	Labour:					
	Mate (Skilled)	Day	0002	751.00	1.00	751.00
	Blacksmith - 1st Class (Skilled)	Day	0008	749.00	2.00	1,498.00
	Helper (Semi-skilled)	Day	0021	572.00	4.00	2,288.00
	Labour Unskilled	Day	0020	540.00	6.00	3,240.00
	Misc.:					
	Sundries (Spanners, gas torch)	Lumpsum	9901	1.00	20.00	20.00
						13,741.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		137.41
						13,878.41
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		1,949.92
						15,828.33
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		2,374.25
						18,202.58
	Add for Cess @ 1%	Lumpsum	9905	0.01		182.03
	Rate per buffer stop	Each				18,384.60
211260	Manufacture and supply of Precast Kilometer Posts of size 1.15 x 0.50 x 0.075 m in RCC 1:2:4 mix, engraving letters and leading to work spot, fixing in position with CC 1:3:6 concrete duly making pits of size as required, painting the post, writing the letters on both sides of the post with 2 coats of enamel paint of approved quality to the Railways drawings/IRPWM with contractor's materials, cement, steel, labour, tools, plant, with all lead and lifts etc., complete as per specifications and as directed by the Engineer-in-charge. Note: Excavation, Concrete and steel work will be paid under relevant items.					
	Details of Cost of 30 boards					
	Material:					
	Enamel Paint as per RDSO's Spec. no.M&C/PCN/120-2011	Litre	0304	248.00	15.00	3,720.00
	Paint Brush 50 mm	Each	0324	52.00	1.00	52.00
	Paint Brush (writing) of any size	Each	0313	120.00	1.00	120.00
	Labour:					
	Painter (Skilled)	Day	0012	749.00	1.00	749.00
	Labour Unskilled	Day	0020	540.00	8.00	4,320.00
	Misc.:					

Note: The figures given in Amount/Rate Column (Which are strikethrough) are not to be taken for estimation or justifying rate. This amount/rate has been given for illustration purpose only.

Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	T&P (crow bars, shovels etc)	Lumpsum	9901	1.00	20.00	20.00
	Hire charges for tractor with trolley	Day	0080	1742.00	1.00	1,742.00
						10,723.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		107.23
						10,830.23
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		1,521.65
						12,351.88
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		1,852.78
						14,204.66
	Add for Cess @ 1%	Lumpsum	9905	0.01		142.05
	Cost of 30 Boards					14,346.71
	Rate per Board	Each				478.22
211270	Manufacture and supply of Precast gradient Posts of size 1.65 x 0.60 x 0.075 m in RCC 1:2:4 mix, engraving letters and leading to work spot, fixing in position with CC 1:3:6 concrete duly making pits of size as required, painting the post, writing the letters on both sides of posts in 2 coats with enamel paint of approved quality to the Railways drawings/IRPWM with contractor's materials, cement, steel, labour, tools, plant, with all lead and lifts etc., complete as per specifications and as directed by the Engineer-in-charge. Note: Excavation, Concrete and steel work will be paid under relevant items.					
	Details of Cost of 30 boards					
	Materials					
	Enamel Paint as per RDSO's Spec. no.M&C/PCN/120-2011	Litre	0304	248.00	25.00	6,200.00
	Paint Brush 50 mm	Each	0324	52.00	2.00	104.00
	Paint Brush (writing) of any size	Each	0313	120.00	1.00	120.00
	Man power					
	Painter (Skilled)	Day	0012	749.00	1.50	1,123.50
	Labour Unskilled	Day	0020	540.00	10.00	5,400.00
	Misc.:					
	T&P (crow bars, shovels etc)	Lumpsum	9901	1.00	30.00	30.00
	Hire charges for tractor with trolley	Day	0080	1742.00	1.00	1,742.00
						14,719.50
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		147.20
						14,866.70
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		2,088.77
						16,955.47
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		2,543.32
						19,498.79
	Add for Cess @ 1%	Lumpsum	9905	0.01		194.99
	Cost of 30 Boards					19,693.77
	Rate per Board	Each				656.46
211280	Manufacture and supply of Precast Hectometer/TP Repeater posts of size 0.90Mx0.30 mx0.30Mx0.30M Triangular size in RCC 1:2:4 mix, engraving letters, leading to work spot, and fixing in position with CC 1:3:6 concrete, duly making pits of size as required, painting the post with two coats, letters on the both sides of posts with enamel paint of approved quality as per IRPWM/Railways drawings complete with contractor's materials, cement, steel, labour, tools, plant, with all lead and lifts etc., complete as per specifications and as directed by the Engineer-in-charge. Note: Excavation, Concrete and steel work will be paid under relevant items.					
	Details of Cost of 100 boards					
	Materials:					
	Enamel Paint as per RDSO's Spec. no.M&C/PCN/120-2011	Litre	0304	248.00	30.00	7,440.00
	Paint Brush 50 mm	Each	0324	52.00	3.00	156.00
	Paint Brush (writing) of any size	Each	0313	120.00	2.00	240.00
	Man power					
	Painter (Skilled)	Day	0012	749.00	1.00	749.00

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Item no.	Description	Unit	Rate Code	Rate (₹)	Quantity	Amount (₹)
	Helper (Semi-skilled)	Day	0021	572.00	1.00	572.00
	Labour Unskilled	Day	0020	540.00	10.00	5,400.00
	Misc.:					
	T&P (crow bars, shovels etc)	Lumpsum	9901	1.00	30.00	30.00
	Hire charges for tractor with trolley	Day	0080	1742.00	1.00	1,742.00
						16,329.00
	Add for Water Charges @ 1%	Lumpsum	9902	0.01		163.29
						16,492.29
	Add for GST @ 12% (multiplying factor 0.1405)	Lumpsum	9903	0.14		2,317.17
						18,809.46
	Add for Contractor's Overheads and Profit @ 15%	Lumpsum	9904	0.15		2,821.42
						21,630.88
	Add for Cess @ 1%	Lumpsum	9905	0.01		216.31
	Cost of 100 Boards					21,847.18
	Rate per Board	Each				218.47

Note: The figures given in Amount/Rate Column (Which are strikethrough) are not to be taken for estimation or justifying rate. This amount/rate has been given for illustration purpose only.