

ABSTRACT OF COST/ BOQ

Regirdering of Major Bridge No.550DN, 567UP, 951DN, 2CP DN, 4CP DN, 535A DN having Through Open Web Girders/Plate Girders of BGML/RBG loading standard along with replacement of bearings of various bridges under the jurisdiction of Sr.DEN(Bridge), Khurda Road in connection with MISSION 3000 MT.

SI No	Description	Unit	Quantity	Rate (Rs)	Amount (Rs)
	Schedule A				
1	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.	Cubic Centimetre	3,19,680.00	1.23	3,92,375.23
	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%				
2	Plate Girder/Semi Through Girder/Composite Girder (Steel Work)	MT	293.16	1,05,061.53	3,07,99,838.63
3	Open web Girder		739.34	1,30,444.58	9,64,42,898.44
4	Supplying and fixing HSFG bolts of any dia and any length with suitable nuts including DTI washers conforming to IRS-B1-2001 f o r bridges and steel structures with contractors labour, tools and plants and lead and lift etc., complete.	Kg	42,644.00	159.62	68,06,772.38

SI No	Description	Unit	Quantity	Rate (Rs)	Amount (Rs)
	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.				
5	On new girder during fabrication	Sqm	19,947.70	625.71	1,24,81,426.00
	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.				
6	With epoxy concrete grouting.	Kg	1,026.48	105.91	1,08,716.24
7	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.	MT	86.07	74,580.89	64,19,176.83
8	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.	MT	6,570.54	713.68	46,89,240.48
	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 BBJ /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.				
9	POT-cum -PTFE Bearing (Free end)	Each	20.00	1,09,600.82	21,92,016.41
10	POT Bearing-Fixed Type	Each	15.00	1,06,212.19	15,93,182.92

SI No	Description	Unit	Quantity	Rate (Rs)	Amount (Rs)
	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.				
11	Structural steel plate girders.	MT	342.87	960.57	3,29,350.53
12	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.	MT	222.65	86,052.97	1,91,59,692.78
	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).				
13	Epoxy Grout	Kg	366.10	1,070.11	3,91,766.20
14	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.	Sqm	148.00	1,078.14	1,59,564.97
15	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.	MT	15.00	1,50,922.43	22,63,836.42
	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.				

SI No	Description	Unit	Quantity	Rate (Rs)	Amount (Rs)
16	Hole of dia. below 26.5mm	Each	1,456.00	131.51	1,91,477.76
	Total for the Schedule A- Schedule B				18,44,21,332.24
	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.				
1	Using Soil Class SQ1	cum	350.00	307.96	1,07,786.04
	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 BBJ/Railways. (iii)Cut trees shall be property of BBJ/Railways and to be deposited in the railway godown unless specified otherwise in the Conditions of Contract.				
2	In all conditions and classifications of soil except rock	cum	350.00	87.01	30,452.40

SI No	Description	Unit	Quantity	Rate (Rs)	Amount (Rs)
3	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.	cum	95.00	3,460.94	3,28,789.31
	Centering and shuttering including strutting, propping etc. and removal of form for :				
4	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	Sqm	73.00	554.47	40,476.29
5	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.	cum	425.00	1,289.82	5,48,172.31
6	Supply and using Cement at Worksite Ordinary Portland Cement 53 grade of approved brands/makes	MT	39.90	7,346.80	2,93,137.39
7	Supply of steel reinforcement of approved brands/makes for R.C.C. work including straightening, cutting, bending, placing in position and binding all complete. Thermo-Mechanically Treated bars of grade Fe- 500D or more of approved brands/makes.	Kg	15,200.00	85.30	12,96,547.84
8	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.	cum	425.00	646.22	2,74,641.97

SI No	Description	Unit	Quantity	Rate (Rs)	Amount (Rs)
	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).				
9	1200mm dia.	Metre	60.00	8,254.02	4,95,241.32
	Total for the Schedule B- Schedule C				34,15,244.87
1	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.	Set	2.00	6,748.10	13,496.19
	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 BBJ/ 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 BBJ/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.				
2	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.	Each	41.00	1,488.05	61,010.14

SI No	Description	Unit	Quantity	Rate (Rs)	Amount (Rs)
	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 BBJ/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.				
3	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.	Each	13.00	914.18	11,884.39
4	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 plate s 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.	Each	3.00	1,440.15	4,320.46
5	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 conforms to IS-9862 of reputed make including surface preparation, as a complete job as per procedure prescribed in latest edition of IRPWM. For 60 Kg Rails	RM	791.00	53.82	42,569.84
6	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)	Each	24.00	258.91	6,213.95
7	60 Kg - 110/90 UTS - Outside Track	Each	9.00	328.24	2,954.13
8	60 Kg - 110/90 UTS - On Running Line 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.	Each	24.00	45.22	1,085.38

SI No	Description	Unit	Quantity	Rate (Rs)	Amount (Rs)
9	On Running Line 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.	Each	9.00	58.35	525.11
10	For lead up to 500 metre.	MT	24.00	304.91	7,317.78
11	For lead beyond 500 metre and up to 1 Km.	MT	34.00	392.89	13,358.15
12	Extra to Sl. No. 11 of Sch-C for lead beyond 1 Km for every subsequent Km or part thereof and up to 10 Km 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.	MT	17.00	46.72	794.22
13	During period of traffic block	MT	47.00	23.47	1,103.07
14	Lead up to 5 Km	MT	8.50	140.55	1,194.67
15	Lead beyond 5 Km and up to 10 km	MT	4.50	177.69	799.62
16	Lead beyond 10 Km and up to 20 km	MT	4.50	227.88	1,025.46
17	Lead beyond 20 Km and up to 30 km	MT	5.00	288.56	1,442.79
18	Lead beyond 30 Km and up to 50 km	MT	9.00	372.22	3,350.00
19	Lead beyond 50 Km and up to 100 Km	MT	9.00	553.19	4,978.68
20	Lead beyond 100 Km and up to 150 Km	MT	18.00	825.51	14,859.23
21	Extra for every Km per MT beyond 150 Km over Sl. No. 20 of Sch-C 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.	MT-Km	2,300.00	2.79	6,424.81
22	Rails, switches, crossings, SEJ, Glued Joints, Check Rails etc.	MT	34.00	326.51	11,101.39
23	P.Way fittings of all types and other similar loose items	MT	8.00	306.53	2,452.24

SI No	Description	Unit	Quantity	Rate (Rs)	Amount (Rs)
24	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 Railways SSE/P.Way stores.	TRM	14.00	919.08	12,867.11
25	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 refixng 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.	Each	658.00	891.98	5,86,924.30
26	Broad Gauge Track	Each	658.00	891.98	5,86,924.30
26	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.	TRM	390.73	589.53	2,30,345.68
27	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.	MT	105.96	1,09,178.28	1,15,68,530.07

SI No	Description	Unit	Quantity	Rate (Rs)	Amount (Rs)
28	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.	Set	658.00	333.76	2,19,611.10
29	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.	Set	658.00	4,489.89	29,54,345.48
Total for the Schedule C- Schedule D				Total	1,57,86,885.46
1	Extra over item SI no. 3 of Schedule - A for launching of girders under traffic block.	MT	739.34	13,868.32	1,02,53,404.16
2	Extra over item SI no. 2 of Schedule - A for launching of girders under traffic block.	MT	293.16	11,169.70	32,74,510.17
3	Supplying and fixing of Anti-skid MS/Stainless steel chequered plates on un-ballasted deck bridge as per approved drawings, with matching grade stainless steel fasteners as directed by Engineer-in-charge, on new bridge or replacement of existing chequered plates on old bridge including removal of old chequered plates and stacking near approaches of bridge, clear from all infringement. Note : Joints of chequered plates shall not fall in between sleepers. Anti-skid stainless steel chequered plate conforming to latest IS:6911, ISS Symbol 409M with flat bottom and top pattern conforming to IS:3502, 1A with bead height of minimum 0.8mm - on New bridges.	Kg	40,126.00	192.55	77,26,380.27
4	Dismantling of existing bed plate from existing bed block by cutting & removal of Holding down bolts and nuts with all tools, plants, machinery scaffolding, labour and other materials and shifting it at one end of the bridge during traffic block.	Each	52.00	10,470.88	5,44,485.97
5	Insertion and removal of Railway's Steel Cribs (CC Cribs) of nominal size 0.6m x 0.6m x 1.8m with hard wood packing for temporary arrangements / scaffolding, steel crib clamps including handling from and to stacks at nominated locations at site with all labour, tools, plant, machinery lead upto 250m and all lift etc., complete and as directed by Engineer in- charge	Each	520.00	227.15	1,18,118.27
6	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.	Kg	888.93	84.33	74,963.87
Total for the Schedule D-				Total	2,19,91,862.71

SI No	Description	Unit	Quantity	Rate (Rs)	Amount (Rs)
Schedule E					
1	<p>Description:- Delaunching of the existing Through Open Web Girders including erection, dismantling of C.C Cribs/wooden cribs staging with contractor's complete arrangement, labour, tools & plants, machineries, equipment, lead, lift, taxes and all other incidental charges. staging with contractor's complete arrangement, labour, tools & plants, machineries, equipment, lead, lift, taxes and all other incidental charges. NOTE:(i) In case of C.C. cribs, U/S sleepers if available with Rly shall be provided on hire basis. (ii) The dismantling shall be done in a manner as directed by the Engineer in Charge or his representative. After delaunching, the girder should be cut into not more than four parts to facilitate transportation on to river bed. (iii) This rate includes disconnecting of track under traffic block and dismantling of track after delaunching and handing over all P.Way materials to Engineer in Charge at site. (iv) The weight of P.Way materials will not be taken into account for payment of delaunching of released girders i.e weight of released girders only will be considered. (v) Released girders after delaunching to be kept in a safe place on Br.Approach/River bank as directed by the Engineer in charge at site. Each released girder (in four pieces) shall be stacked in identifiable manner distinctly from other stacks. (vi) If the contractor fails to remove the released girder from the river bed to the bank approach/river bank, as per clause(b), the payment will not be made as per the item (C) under the MODE of PAYMENT. MODE OF PAYMENT</p> <p>(A) Completing the arrangements for delaunching of existing old girders and keeping it ready for delaunching and certified by authorised representative of Engineer in Charge. - 15% of the accepted rate (B) Sliding of the existing old girders and keeping it on trestles/CC cribs keeping it properly secured free from any infringement clearing other obstruction etc and certification by authorised representative of Engineer in Charge. - 15% of the accepted rate. (C) Lowering of the released girders to the river bed, dismantling and keeping it properly secured free from any infringement, clearing other obstructions, taking it to suitable place as directed by Engineer in Charge or his authorised representative, stacking in proper manner etc and certification by authorised representative of Engineer in Charge. - 70% of the accepted rate</p>	MT	800.60	5,305.36	42,47,471.22
Total for the Schedule E -					42,47,471.22
Schedule F					
1	<p>Description:- Drilling of holes 32mmx310mm for fixing holding down bolts in RCC bed blocks by using core cutter drilling machine with contractors electric drilling machine using core cutter etc and cleaning the holes with compressed air at specific location as directed by Engineer-in-charge at site with contractor's tool and plants, equipmet etc complete.</p>	Each Hole	662.00	1,739.17	11,51,328.77
Total for the Schedule F -					11,51,328.77
Schedule G					

SI No	Description	Unit	Quantity	Rate (Rs)	Amount (Rs)
1	CARRIAGE OF MATERIALS				
2	By Mechanical Transport including loading,unloading and stacking				
3	5km	Tonne	1,144.14	157.43	1,80,122.47
4	Beyond 5 km upto 10 km per km	tonne-Km	5,720.84	11.22	64,201.05
5	Beyond 10 km upto 20 km per km	tonne-Km	8,276.84	9.15	75,739.31
6	Beyond 20 km per addl. km	tonne-Km	1,09,616.22	7.38	8,09,072.25
7	STEEL WORK				
8	Providing and fixing bolts including nuts and washers complete.	Kg	660.92	114.30	75,545.03
9	Providing and fixing stainless steel (Grade 304) railing made of Hollow tubes, channels, plates etc., including welding, grinding, buffing, polishing and making curvature (wherever required) and fitting the same with necessary stainless steel nuts and bolts complete, i/c fixing the railing with necessary accessories & stainless steel dash fasteners , stainless steel bolts etc., of required size, on the top of the floor or the side of waist slab with suitable arrangement as per approval of Engineer-in-charge, (for payment purpose only weight of stainless steel members shall be considered excluding fixing accessories such as nuts, bolts, fasteners etc.).	Kg	9,720.00	499.34	48,53,543.92
	Total for the Schedule -			Total	60,58,224.02
	Total of All the Schedules - (A+B+C+D+E+F+G)				23,70,72,349.28