

PRICE BID (PACKET-II)

Name of the Work : EXECUTION OF CIVIL WORK AND OTHER ANCILLARY WORKS IN CONNECTION WITH CONSTRUCTION OF ROAD OVER BRIDGE (ROB) BETWEEN STATION BAHIRKHAND–TARAKESWAR AT KM 34/4-5 IN SEORAPHULI–TARAKESWAR LINE WITH ELIMINATION OF LC NO. 23/A IN HOWRAH DIVISION UNDER EASTERN RAILWAY

SUMMARY OF SCHEDULE/ PRICES

Sl. No.	Schedule No.	Advertised Tender Value	Percentage Quoted (Above / Below/ At-Par) on Advertised Tender Value	Quoted Amount
1	Schedule - A	₹ 1,72,19,458.00		
2	Schedule - B	₹ 2,82,28,000.00		
3	Schedule - C	₹ 10,53,72,608.00		
4	Schedule - D	₹ 1,70,32,172.00		
5	Schedule - E	₹ 2,39,660.00		
6	Schedule - F	₹ 5,16,34,890.00		
7	Schedule - G	₹ 2,57,776.00		
8	Schedule - H	₹ 1,08,95,000.00		
9	Schedule - I	₹ 5,45,10,000.00		
10	Schedule - J	₹ 5,50,000.00		
	TOTAL	₹ 28,59,39,564.00		

Note:

- (a) The above quoted percentage / amount is inclusive of GST and all other applicable taxes & duties etc.
- (b) The percentage quoted is considering all works up to successful completion of the project.
- (c) All expenses have been taken into consideration when calculating the rate for doing the entire work, service and arrangements specified above in the bidding documents. Rate shall remain firm during the entire period of contract.

**(Signature of Bidder)
With Official Seal**

Name of the Work : EXECUTION OF CIVIL WORK AND OTHER ANCILLARY WORKS IN CONNECTION WITH CONSTRUCTION OF ROAD OVER BRIDGE (ROB) BETWEEN STATION BAHIRKHAND-TARAKESWAR AT KM 34/4-5 IN SEORAPHULI-TARAKESWAR LINE WITH ELIMINATION OF LC NO. 23/A IN HOWRAH DIVISION UNDER EASTERN RAILWAY

SI No	Description	Unit	Quantity	Rate	Amount
Schedule - A					
01	Construction of reinforced earth retaining walls and load bearing pure abutments with facia panels in M-35 grade concrete or richer mix, 18cm or above thick including design of reinforced earth system, cement and steel, all soil reinforcement, fasteners, consumables, accessories etc. complete job as per drg. and specifications. The scope shall includes ground improvement if required. Note: (i) All dimension are tentative and the same will be as per design. (ii) Contractor will submit the design and drawing of this item and after approval by railway the same will be executed by the contractor including fitting fixing in position etc. complete with his men, materials and machineries etc. (iii) The work to be executed in accordance with MORTH specification and IRC-SP-102 (latest edition).	Sqm	2000	₹ 6,079.00	₹ 1,21,58,000.00
02	Supplying and fixing bitumen drum sheet by nailing to wooden piles 125 mm dia supplied & driven vide Item No. 2 above, with railing as directed by the Engineer at site for guarding against slippage of earth as per approved drawing. The rate includes supplying of all necessary materials, fittings like nails, metal washer to hold in proper position, all labour, equipment, all lead, lift, descent, crossing of Rly. tracks, fencing etc. complete in all respect.	Sqm	575	₹ 263.00	₹ 1,51,225.00
03	Supply of labour(helpers) for assistance to Railway inspector(s)/officers during inspection, supervision and measurement of field work etc as per instruction of engineer-in-charge or his representative for C Category area. For safety related works, competency will be ensured by the inspector concerned. Note: Qty Unit Each = Man-days	Each	1150	₹ 399.00	₹ 4,58,850.00
04	Fabricating, supplying & fixing in deck slab 150mm dia steel drainage spout with MS gratings on top as per approved drawing including supply of all labour, materials, lead, lift, ascent, descent & all incidental charges in all respect.	Numbers	403	₹ 2,581.00	₹ 10,40,143.00
05	Description:- Empty boring	Metre	403	₹ 1,426.00	₹ 5,74,678.00
06	Manufacturing, supplying, fitting, fixing full retroreflective sign boards, indicator boards etc. made up of 2mm thick Aluminum alloy sheet (as per IS:77)	Sqm	58	₹ 6,734.00	₹ 3,90,572.00
07	UPVC Bend 87.5 degree or as required: 160mm dia	Numbers	58	₹ 397.00	₹ 23,026.00
08	"UPVC Shoe: 160mm dia"	Numbers	58	₹ 301.00	₹ 17,458.00
09	Supplying, fitting, fixing of digital printed flex cloth banner including printing of any shade.	Sqm	58	₹ 424.00	₹ 24,592.00
10	Supplying, fitting,fixing of MS square hollow bar structure for fixing of printed flex complete with screws, rivets, carrying including all lead, lift etc.	Sqm	460	₹ 279.00	₹ 1,28,340.00
11	Providing and laying each layer of flat brick soling hand packed and joints filled with ordinary sand With Jhama bricks.	Sqm	115	₹ 118.00	₹ 13,570.00
12	Supplying and laying precast Kerb Stone of concrete M25 Grade 30cmX 20 cm (In Section / including chamfering as per design if any) including fixing in 1:6 cement sand mortar and pointing with 1:2 cement mortar	Sqm	644	₹ 441.00	₹ 2,84,004.00
13	Manufacturing, welding, fixing/driving 8 mm thick MS permanent liner for above piles as per approved drawing. The rate shall include cost of all labour, equipment required for manufacturing welding and fixing & all other incidental charges required to complete the works as directed by Engineer - in - charge, if any deformation occured at the time of driving of liner that deformed liner should be withdrawn by the contractor at his own cost (Plates for Liner shall be supplied by BBJ free of Cost) .	MT	115	₹ 17,000.00	₹ 19,55,000.00
				Total	₹ 1,72,19,458.00
Schedule - B					
14	Description:- Supply of cement a) Slag cement Note : Quantity of Slag, OPC & PPC may vary individually up to, Combined quantity of Slag, OPC & PPC provided in the schedule.	MT	4000	₹ 7,057.00	₹ 2,82,28,000.00
				Total	₹ 2,82,28,000.00
Schedule - C					

Name of the Work : EXECUTION OF CIVIL WORK AND OTHER ANCILLARY WORKS IN CONNECTION WITH CONSTRUCTION OF ROAD OVER BRIDGE (ROB) BETWEEN STATION BAHIRKHAND-TARAKESWAR AT KM 34/4-5 IN SEORAPHULI-TARAKESWAR LINE WITH ELIMINATION OF LC NO. 23/A IN HOWRAH DIVISION UNDER EASTERN RAILWAY

SI No	Description	Unit	Quantity	Rate	Amount
	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.				
15	Using Soil Class SQ2	cum	40000	₹ 205.00	₹ 82,00,000.00
	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.				
15A	In all conditions and classifications of soil except rock	cum	17250	₹ 82.00	₹ 14,14,500.00
18	Soft rock not requiring blasting	cum	58	₹ 194.00	₹ 11,252.00
	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.		0		
19	With provision of one 50mm wide retro-reflective tape in horizontal direction, duly secured/tight with vertical posts.	Metre	1150	₹ 183.00	₹ 2,10,450.00
	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.				
20	With 3 horizontal bamboo / balli members of minimum 50mm dia. spaced equally	RM	173	₹ 109.00	₹ 18,857.00
21	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.	Metre	575	₹ 161.00	₹ 92,575.00
22	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.	Metre	805	₹ 102.00	₹ 82,110.00

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SI No	Description	Unit	Quantity	Rate	Amount
23	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.	Sqm	6400	₹ 858.00	₹ 54,91,200.00
	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.				
24	All kinds of soils	cum	17250	₹ 169.00	₹ 29,15,250.00
25	Soft rock (not requiring blasting)	cum	115	₹ 365.00	₹ 41,975.00
	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 :				
26	1:2:4 (1 cement : 2 coarse sand (zone-III) : 4 graded stone aggregate 20 mm nominal size)	cum	288	₹ 2,239.00	₹ 6,44,832.00
27	1:3:6 (1 Cement : 3 coarse sand (zone-III) : 6 graded stone aggregate 20 mm nominal size)	cum	58	₹ 2,287.00	₹ 1,32,646.00
28	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.	cum	2700	₹ 2,247.00	₹ 60,66,900.00
	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.				
29	Abutment & Pier	cum	1208	₹ 2,314.00	₹ 27,95,312.00
30	Wing wall and Return wall	cum	6300	₹ 2,314.00	₹ 1,45,78,200.00
31	Abutment cap, Pier Cap, Inspection Platform & Pedestal over Pier cap, Fender wall, Diaphragm wall etc.	cum	1409	₹ 2,347.00	₹ 33,06,923.00
32	Approach slab at formation level, Dirt wall/ ballast wall at formation level	cum	115	₹ 2,280.00	₹ 2,62,200.00
33	Extra for every increase of 1m or part thereof in the height above 9.0 m	cum	1093	₹ 66.00	₹ 72,138.00

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SI No	Description	Unit	Quantity	Rate	Amount
	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.				
34	1200mm diameter	Metre	4000	₹ 7,000.00	₹ 2,80,00,000.00
	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.				
35	1200mm diameter pile	Metre	173	₹ 4,641.00	₹ 8,02,893.00
	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.				
36	Initial load test above 100 ton and up to 250 T capacity pile	Each	2	₹ 74,624.00	₹ 1,49,248.00
37	Extra for every increase of 50 ton in pile capacity or part thereof over 250 ton	Each	2	₹ 4,864.00	₹ 9,728.00
38	Routine Load Test above 100 ton capacity up to 250 ton capacity pile	Each	10	₹ 37,312.00	₹ 3,73,120.00
	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.				
39	Piles with lateral load capacity of up to 50 ton	Each	12	₹ 19,318.00	₹ 2,31,816.00
40	Piles with lateral load capacity of above 50 ton and up to 100 ton	Each	2	₹ 21,998.00	₹ 43,996.00
41	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.	Each	188	₹ 2,296.00	₹ 4,31,648.00
42	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	58	₹ 2,472.00	₹ 1,43,376.00

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SI No	Description	Unit	Quantity	Rate	Amount
43	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.	cum	58	₹ 2,247.00	₹ 1,30,326.00
44	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.	Sqm	575	₹ 143.00	₹ 82,225.00
	Centering and shuttering including strutting, propping etc. and removal of form for :				
45	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	30000	₹ 610.00	₹ 1,83,00,000.00
46	All types of bridge super-structures, e.g. slabs, I-girders, T-girders, Box girders etc. up to 5m above ground level.	Sqm	2300	₹ 777.00	₹ 17,87,100.00
47	Extra for additional height over item no. 45 & 46 wherever required with adequate bracing, propping etc. over initial height of 5 metres for every additional height of 1 metre or part thereof.	Sqm	4025	₹ 95.00	₹ 3,82,375.00
48	Supplying of stone boulders weighing not less than 35 kg each at specified bridge locations.	cum	144	₹ 918.00	₹ 1,32,192.00
49	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.	cum	230	₹ 1,794.00	₹ 4,12,620.00
50	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	3500	₹ 1,032.00	₹ 36,12,000.00
51	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.	cum	575	₹ 840.00	₹ 4,83,000.00
52	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.	cum	575	₹ 969.00	₹ 5,57,175.00
53	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.	cum	8050	₹ 369.00	₹ 29,70,450.00
				Total	₹ 10,53,72,608.00

Schedule - D

Name of the Work : EXECUTION OF CIVIL WORK AND OTHER ANCILLARY WORKS IN CONNECTION WITH CONSTRUCTION OF ROAD OVER BRIDGE (ROB) BETWEEN STATION BAHIRKHAND-TARAKESWAR AT KM 34/4-5 IN SEORAPHULI-TARAKESWAR LINE WITH ELIMINATION OF LC NO. 23/A IN HOWRAH DIVISION UNDER EASTERN RAILWAY

SI No	Description	Unit	Quantity	Rate	Amount
	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.				
54	With Soffit level up to 9m above Bed level	cum	3738	₹ 2,323.00	₹ 86,83,374.00
55	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	2530000	₹ 1.00	₹ 25,30,000.00
	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.		0		
56	For 40mm expansion	Metre	46	₹ 5,044.00	₹ 2,32,024.00
57	For 80mm expansion	Metre	450	₹ 7,032.00	₹ 31,64,400.00
	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.		0		
58	For Span design load up to 100 MT	Each	2	₹ 67,339.00	₹ 1,34,678.00
59	Extra for every increase of 1 MT or part thereof over 100 MT in the span design load capacity up to 800 MT	MT	2	₹ 292.00	₹ 584.00
	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.		0		
60	100mm dia. Drainage Spouts	Metre	230	₹ 832.00	₹ 1,91,360.00
61	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	Sqm	6900	₹ 300.00	₹ 20,70,000.00
62	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.	Metre	58	₹ 444.00	₹ 25,752.00
				Total	₹ 1,70,32,172.00

Schedule - E

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SI No	Description	Unit	Quantity	Rate	Amount
	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.				
63	100mm dia. Drainage Spouts	Metre	230	₹ 810.00	₹ 1,86,300.00
68	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	230	₹ 83.00	₹ 19,090.00
	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.		0		
73	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.	Metre	115	₹ 298.00	₹ 34,270.00
				Total	₹ 2,39,660.00
Schedule - F					
REINFORCED CEMENT CONCRETE					
CAST IN SITU					
Providing and laying in position specified grade of reinforced cement concrete, excluding the cost of centering, shuttering, finishing and reinforcement - All work up to plinth level :					
74	1:1.5:3 (1 cement : 1.5 coarse sand (zone-III) derived from natural sources: 3 graded stone aggregate 20 mm nominal size derived from natural sources)	cum	58	₹ 5,289.00	₹ 3,06,762.00
75	Reinforced cement concrete work in beams, suspended floors, roofs having slope up to 15 degree landings, balconies, shelves, chajjas, lintels, bands, plain window sills, staircases and spiral stair cases above plinth level up to floor five level, excluding the cost of centering, shuttering, finishing and reinforcement with 1:1.5:3 (1 cement : 1.5 coarse sand(zone-III) derived from natural sources : 3 graded stone aggregate 20 mm nominal size derived from natural sources).	cum	23	₹ 6,778.00	₹ 1,55,894.00
76	Providing and laying up to floor five level reinforced cement concrete in kerbs, steps and the like excluding the cost of centering, shuttering, finishing and reinforcement with 1:1.5:3 (1 cement : 1.5 coarse sand(zone-III) derived from natural sources : 3 graded stone aggregate 20 mm nominal size derived from natural sources).	cum	12	₹ 6,198.00	₹ 74,376.00
FORM WORK					
Centering and shuttering including strutting, propping etc. and removal of form for					
77	Foundations, footings, bases of columns, etc. for mass concrete	Sqm	575	₹ 194.00	₹ 1,11,550.00
78	Walls (any thickness) including attached pilasters, butteresses, plinth and string courses etc.	Sqm	30000	₹ 423.00	₹ 1,26,90,000.00
79	Suspended floors, roofs, landings, balconies and access platform	Sqm	575	₹ 484.00	₹ 2,78,300.00
80	Columns, Pillars, Piers, Abutments, Posts and Struts	Sqm	575	₹ 508.00	₹ 2,92,100.00
81	Stairs, (excluding landings) except spiral-staircases	Sqm	575	₹ 415.00	₹ 2,38,625.00
MASONRY WORK					
Brick work with common burnt clay F.P.S. (non modular) bricks of class designation 7.5 in foundation and plinth in:					
81	Cement mortar 1:4 (1 cement : 4 coarse sand)	cum	29	₹ 4,352.00	₹ 1,26,208.00

Name of the Work : EXECUTION OF CIVIL WORK AND OTHER ANCILLARY WORKS IN CONNECTION WITH CONSTRUCTION OF ROAD OVER BRIDGE (ROB) BETWEEN STATION BAHIRKHAND-TARAKESWAR AT KM 34/4-5 IN SEORAPHULI-TARAKESWAR LINE WITH ELIMINATION OF LC NO. 23/A IN HOWRAH DIVISION UNDER EASTERN RAILWAY

SI No	Description	Unit	Quantity	Rate	Amount
82	Cement mortar 1:6 (1 cement : 6 coarse sand) STEEL WORK	cum	29	₹ 4,210.00	₹ 1,22,090.00 ₹ 0.00
83	Structural steel work in single section, fixed with or without connecting plate, including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer all complete. Steel work welded in built up sections/ framed work, including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer using structural steel etc. as required.	Kg	230	₹ 58.00	₹ 13,340.00
84	In gratings, frames, guard bar, ladder, railings, brackets, gates and similar works FLOORING TILE FLOORING	Kg	14375	₹ 89.00	₹ 12,79,375.00 ₹ 0.00 ₹ 0.00
85	Chequered terrazo tiles 22 mm thick with graded marble chips of size up to 6 mm in floors, jointed with neat cement slurry mixed with pigment to match the shade of the tiles, including rubbing and polishing complete, on 20 mm thick bed of cement mortar 1:4 (1 cement :4 coarse sand) : Light shade pigment using white cement FINISHING CEMENT PLASTER (IN FINE SAND) 20 mm cement plaster of mix :	Sqm	230	₹ 819.00	₹ 1,88,370.00
86	1:4 (1 cement: 4 fine sand)	Sqm	2300	₹ 254.00	₹ 5,84,200.00
87	1:6 (1 cement: 6 fine sand) EXTERIOR FINISHING	Sqm	2300	₹ 241.00	₹ 5,54,300.00
88	Finishing walls with water proofing cement paint of required shade : New work (Two or more coats applied @ 3.84 kg/10 sqm) DISMANTLING AND DEMOLISHING	Sqm	575	₹ 61.00	₹ 35,075.00 ₹ 0.00
89	Demolishing cement concrete manually/ by mechanical means including disposal of material within 50 metres lead as per direction of Engineer - in - charge. Nominal concrete 1:3:6 or richer mix (i/c equivalent design mix)	cum	29	₹ 1,269.00	₹ 36,801.00
90	Demolishing R.C.C. work manually/ by mechanical means including stacking of steel bars and disposal of unserviceable material within 50 metres lead as per direction of Engineer - in - charge.	cum	86	₹ 1,851.00	₹ 1,59,186.00
91	Demolishing brick work manually/ by mechanical means including stacking of serviceable material and disposal of unserviceable material within 50 metres lead as per direction of Engineer-in-charge. In cement mortar Dismantling steel work in single sections including dismembering and stacking within 50 metres lead in:	cum	173	₹ 1,074.00	₹ 1,85,802.00
92	R.S. Joists	Kg	4025	₹ 1.00	₹ 4,025.00
93	Channels, angles, tees and flats Dismantling manually/ by mechanical means including stacking of serviceable material and disposal of unserviceable material within 50 metres lead as per direction of Engineer-in-charge :	Kg	1725	₹ 1.00	₹ 1,725.00
94	Water bound macadam road	Sqm	1150	₹ 113.00	₹ 1,29,950.00
95	bituminous road ROAD WORK ROADS	Sqm	1150	₹ 223.00	₹ 2,56,450.00
96	Preparation and consolidation of sub grade with power road roller of 8 to 12 tonne capacity after excavating earth to an average of 22.5 cm depth, dressing to camber and consolidating with road roller including making good the undulations etc. and re-rolling the sub grade and disposal of surplus earthwith lead upto 50 metres. Supplying and stacking at site.	Sqm	12650	₹ 114.00	₹ 14,42,100.00
97	90 mm to 45 mm size stone aggregate	cum	1610	₹ 1,225.00	₹ 19,72,250.00

Name of the Work : EXECUTION OF CIVIL WORK AND OTHER ANCILLARY WORKS IN CONNECTION WITH CONSTRUCTION OF ROAD OVER BRIDGE (ROB) BETWEEN STATION BAHIRKHAND-TARAKESWAR AT KM 34/4-5 IN SEORAPHULI-TARAKESWAR LINE WITH ELIMINATION OF LC NO. 23/A IN HOWRAH DIVISION UNDER EASTERN RAILWAY

SI No	Description	Unit	Quantity	Rate	Amount
98	63 mm to 45 mm size stone aggregate	cum	1007	₹ 1,027.00	₹ 10,34,189.00
99	53 mm to 22.4 mm size stone aggregate	cum	1007	₹ 1,161.00	₹ 11,69,127.00
100	Stone screening 13.2 mm nominal size (Type A)	cum	403	₹ 1,179.00	₹ 4,75,137.00
101	Laying, spreading and compacting stone aggregate of specified sizes to WBM specifications in uniform thickness, hand picking, rolling with 3 wheeled road/vibratory roller 8-10 tonne capacity in stages to proper grade and camber, applying and brooming requisite type of screening / binding material to fill up interstices of coarse aggregate, watering and compacting to the required density .	cum	403	₹ 547.00	₹ 2,20,441.00
	Providing and applying tack coat using bitumen emulsion conforming to IS:8887, using emulsion pressure distributor including preparing the surface & cleaning with mechanical broom.				
	With rapid setting bitumen emulsion				
102	On W.B.M / W.M.M. @ 0.4kg/sqm	Sqm	14640	₹ 7.00	₹ 1,02,480.00
	2 cm premix carpet surfacing with 1.8 cum and 0.90 cum of stone chippings of 13.2 mm size and 11.2 mm size respectively per 100 sqm and 52 kg and 56 kg of hot bitumen per cum of stone chippings of 13.2 mm and 11.2 mm size respectively, including a tack coat with hot straight run bitumen, including consolidation with road roller of 6 to 9 tonne capacity etc. complete (tack coat to be paid for separately).				
103	With paving Asphalt grade VG - 30 with no solvent	Sqm	14640	₹ 133.00	₹ 19,47,120.00
	2.5 cm premix carpet surfacing with 2.25 cum and 1.12 cum of stone chippings of 13.2 mm and 11.2 mm size respectively per 100 sqm and 52 kg and 56 kg of hot bitumen per cum of stone chippings of 13.2 mm and 11.2 mm size respectively, including a tack coat with hot straight run bitumen, including consolidation with road roller of 6 to 9 tonne capacity etc. complete (tack coat to be paid for separately).				
104	With paving Asphalt grade VG - 30 with no solvent	Sqm	14640	₹ 161.00	₹ 23,57,040.00
	Providing and laying Bitumen Penetration Macadam with hard stone aggregate of quality, size and grading as specified, with bitumen of suitable penetration grade, including required key aggregate as specified, spreading coarse aggregate with the help of self propelled/ tipper tail mounted aggregate spreader and applying bitumen by a pressure distributor and then spreading key aggregate with the help of aggregate spreader complete, including consolidation with road roller of minimum 8 to 10 tonne capacity to achieve specified values of compaction and surface accuracy :				
105	For 75 mm compacted thickness in two layers using stone aggregate of size 63-41 mm graded @ 0.90 cum per 10 sqm key aggregate of size 20.0 mm graded @ 0.18 cum per 10 sqm. With paving asphalt grade VG - 10 @ 68 kg/10 sqm.	Sqm	4226	₹ 386.00	₹ 16,31,236.00
	Providing and laying bitumen mastic wearing course (as per specifications) with industrial bitumen of grade 85/25 conforming to IS : 702, prepared by using mastic cooker and laid to required level and slope, including providing antiskid surface with bitumen precoated fine grained hard stone chipping of approved size at the rate of 0.005 cum per 10 sqm and at approximate spacing of 10 cm centre to centre in both directions, pressed into surface protruding 1 mm to 4 mm over mastic surface, including cleaning the surface, removal of debris etc. all complete. (Considering bitumen using 10.2% as per MORTH specification).		0		
106	40 mm thick	Sqm	7000	₹ 735.00	₹ 51,45,000.00
	CONCRETE PAVEMENTS				
107	Providing and fixing in pre-moulded joint filler in expansion joints of RCC roads / CC pavements after making the joints dust free with high pressure air jet cleaners, all complete as per direction of the Engineer-in-Charge. (Pre-moulded joint fillers shall be made of bitumen hot sealing compound impregnated fibre board having impregnation more than 35%, conforming to IS:1838 for fibre board and IS: 1834 for hot sealing bitumen compound grade A.)	per cm depth per cm width per metre length	14375	₹ 2.00	₹ 28,750.00
	PAINTING AREA/RUNWAY MARKING				
	Painting road surface marking with adequate nos of coats to give uniform finish with ready mixed road marking paint conforming to IS :164, on bituminous surface in white/yellow shade, including cleaning the surface of all dirt, scales, oil, grease and foreign material etc. complete.				

Name of the Work : EXECUTION OF CIVIL WORK AND OTHER ANCILLARY WORKS IN CONNECTION WITH CONSTRUCTION OF ROAD OVER BRIDGE (ROB) BETWEEN STATION BAHIRKHAND-TARAKESWAR AT KM 34/4-5 IN SEORAPHULI-TARAKESWAR LINE WITH ELIMINATION OF LC NO. 23/A IN HOWRAH DIVISION UNDER EASTERN RAILWAY

SI No	Description	Unit	Quantity	Rate	Amount
108	New work (Two or more coats) MISCELLANEOUS	Sqm	345	₹ 151.00	₹ 52,095.00
109	Providing and fixing Glow studs of size 100x20 mm made of heavy duty body shall be moulded ASA (Acrylic styrene Acryloretite) or HIP (High impact polystyrene) or ABS having electronically welded micro-prismatic lens with abrasion resistant coating as approved by Engineer in charge. The glow stud shall support a load of 13635 kg tested in accordance with ASTM D4280. The slope of retro- reflective surface shall be 35 (+/-5) degrees to base .The reflective panels on both sides with at least 12 cm of reflective area up each side. The luminance intensity should be as per the specification and shall be tested as described in ASTM I: 809 as recommended in BS: 873 part 4 : 1973. The studs shall be fixed to the Road surface using the adhesive conforming to IS, as per procedure recommended by the manufacturer complete and as per direction of Engineer-in-charge.	Each	173	₹ 110.00	₹ 19,030.00
110	Providing and laying semi- dense Bituminous concrete using crushed stone aggregates of specified grading, premixed with bituminous binder and filler, transporting the hot mix to work site by tippers, laying with paver finisher equipped with electronic sensor to the required grade, level and alignment and rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction and density as per specification, complete and as per directions of Engineer-in-Charge. 25 mm compacted thickness with bitumen of grade VG-30 @ 5% (percentage by weight of total mix) and lime filler @ 2% (percentage by weight of Aggregate) prepared in Batch Type Hot Mix Plant of 100-120 TPH capacity.	Sqm	13800	₹ 157.00	₹ 21,66,600.00
111	Manufacturing, supplying and fixing retro reflective overhead signage boards made up of 2 mm thick aluminium sheet, face to be fully covered with high intensity and encapsulated lens type heat activated retro reflective sheeting conforming to type - III of ASTM-D- 4956-01 as approved by Engineer-in-charge, letters, borders etc. as per IRC : 67-2001 in silver white with blue colour back ground and with high intensity grade, pasted on substrate by pressure sensitive adhesive backing which shall be activated by applying pressure conforming to class II of ASTM-D- 4956-01 and fixing the same to the plate of structural frame work by means of suitable sized aluminium alloys, rivets or bolts & nuts @ 300 mm centre to centre all along the periphery as well as in two vertical rows along with theft resistant measures, including the cost of painting with two or more coats of epoxy paint in grey colour on the back side of aluminium sheet including appropriate priming coat. The rate includes the cost of rounding off the corners, lowering down the structural frame work from the gantry, fixing and erecting the same in position all complete as per drawings, specification and direction of the engineer-in-charge.(Structural frame work including M.S. plate to be provided separately. Rectangular area of the sheet only shall be measured for payment).	Sqm	35	₹ 3,547.00	₹ 1,24,145.00
112	Overhead informatory road signage Providing Retro-reflective regulatory sign board of size 900 mm dia meter made out of 2 mm thick aluminium sheet, face to be fully covered with high intensity encapsulated lens type retro - reflective sheeting as approved by Engineer-in-charge . Letter, symbols, borders etc. will be as per IRC - 67 with required colour scheme on the boards and with the high intensity grade A. The aluminium sheet to be riveted to M.S. frame of angle iron of size 40x40x4 mm. The boards will be fixed to 1 No. 50x50 mm square post made of M.S. angle 50x50x4 mm, 4 m long welded to the frame with adequate anti-theft arrangement .Sheet work to be painted with two or more coats of synthetic enamel paint over an under coat (primer) and back side of aluminium sheet to be painted with two or more coats of epoxy paint including appropriate priming coat complete in all respects as per direction of Engineer-in-charge.	Each	23	₹ 3,972.00	₹ 91,356.00
113	Providing and applying 2.5 mm thick road marking strips (retro- reflective) of specified shade/ colour using hot thermoplastic material by fully/ semi automatic thermoplastic paint applicator machine fitted with profile shoe, glass beads dispenser, propane tank heater and profile shoe heater, driven by experienced operator on road surface including cost of material, labour, T&P, cleaning the road surface of all dirt, seals, oil, grease and foreign material etc. complete as per direction of Engineer-in-charge and accordance with applicable specifications.	Sqm	11000	₹ 394.00	₹ 43,34,000.00

Name of the Work : EXECUTION OF CIVIL WORK AND OTHER ANCILLARY WORKS IN CONNECTION WITH CONSTRUCTION OF ROAD OVER BRIDGE (ROB) BETWEEN STATION BAHIRKHAND-TARAKESWAR AT KM 34/4-5 IN SEORAPHULI-TARAKESWAR LINE WITH ELIMINATION OF LC NO. 23/A IN HOWRAH DIVISION UNDER EASTERN RAILWAY

SI No	Description	Unit	Quantity	Rate	Amount
114	Providing, laying, spreading and compacting graded stone aggregate (size range 53 mm to 0.075 mm) to wet mix macadam (WMM) specification including premixing the material with water at OMC in for all leads & lifts, laying in uniform layers with mechanical paverfinisher in sub- base / base course on well prepared surface and compacting with vibratory roller of 8 to 10 tonne capacity to achieve the desired density, complete as per specifications and directions of Engineer-in-Charge.	cum	3680	₹ 1,773.00	₹ 65,24,640.00
115	Providing and erecting 2.00 metre high temporary barricading at site; each panel of size 2.50mx2.00m made of 40x40x6mm angle iron or 50x50x3mm hollow MS tube posts/horizontal members/bracings covered with 1.63mm thick MS sheet. The sheet shall be fixed with 30x5mm MS flat by suitable welding/riveting. The panels shall be made so that gap of 50cm above the ground is available making overall height as 2.5m. MS channel ISLC 75 @ 5.70 kg/m, 50cm long shall be provided at the bottom having oval shaped holes of size 50x25mm at both ends with 50cm long MS angle 40x40x6mm bracing. Suitable arrangement shall be made to fix the barricading to avoid from overturning by providing 250mm long expansion fasteners at both ends. The work shall be executed as per drawing/direction of Engineer-in-Charge which includes writing and painting, arrangement for traffic diversion such as traffic signals during construction at site for day and night, glow lamps, reflective signs, marking, flags, caution tape as directed by the Engineer-in-Charge. The barricading provided shall be retained in position at site continuously i/c shifting of barricading from one location to another location as many times as required during the execution of the entire work till its completion. Rate include its maintenance for damages, painting, all incidentals, labour materials, equipments and works required to execute the job. The barricading shall not be removed without prior approval of Engineer-in-Charge.	Metre	1000	₹ 1,788.00	₹ 17,88,000.00
	NEW TECHNOLOGIES AND MATERIALS				
	NEW TECHNOLOGY ITEMS				
116	Providing and fixing roofing consist of 0.8 mm thick galvanized steel deck sheet conforming to IS 277:1992 used as permanent shuttering over which MS wire mesh 3mm laid at 100x100 mm grid including edge trim covered with concrete. This metal deck will be supported on structural steel beam with shear studs. (Structural steel like Beam, column, joists etc. & concrete of different grade as per design will be paid separately).	Sqm	1150	₹ 1,031.00	₹ 11,85,650.00
				Total	₹ 5,16,34,890.00
Schedule - G					
117	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.	RM	69	₹ 163.00	₹ 11,247.00
118	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.	Set	2	₹ 17,027.00	₹ 34,054.00
119	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.	TRM	35	₹ 927.00	₹ 32,445.00

Name of the Work : EXECUTION OF CIVIL WORK AND OTHER ANCILLARY WORKS IN CONNECTION WITH CONSTRUCTION OF ROAD OVER BRIDGE (ROB) BETWEEN STATION BAHIRKHAND-TARAKESWAR AT KM 34/4-5 IN SEORAPHULI-TARAKESWAR LINE WITH ELIMINATION OF LC NO. 23/A IN HOWRAH DIVISION UNDER EASTERN RAILWAY

SI No	Description	Unit	Quantity	Rate	Amount
120	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.	RM	69	₹ 149.00	₹ 10,281.00
121	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.	Set	5	₹ 4,535.00	₹ 22,675.00
122	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 conforms 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.	RM	115	₹ 42.00	₹ 4,830.00
	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.				₹ 0.00
123	80mm thick blocks of M-35 grade for medium traffic.	Sqm	172	₹ 827.00	₹ 1,42,244.00
				Total	₹ 2,57,776.00
Schedule - H					
Supply and using Cement at Worksite					
124	Ordinary Portland Cement 43 grade approved brands/makes	MT	600	₹ 6,070.00	₹ 36,42,000.00
125	Ordinary Portland Cement 53 grade of approved brands/makes	MT	920	₹ 6,500.00	₹ 59,80,000.00
126	Pozzolana Portland Cement approved brands/makes	MT	200	₹ 6,365.00	₹ 12,73,000.00
				Total	₹ 1,08,95,000.00
Schedule - I					
Supply of steel reinforcement of approved brands/makes for R.C.C. work including straightening, cutting, bending, placing in position and binding all complete.					
127	Thermo-Mechanically Treated bars of grade Fe-500D or more of approved brands/makes.	Kg	690000	₹ 79.00	₹ 5,45,10,000.00
				Total	₹ 5,45,10,000.00
Schedule - J					
128	Placing of steel reinforcement of approved brands/makes for R.C.C. work including straightening, cutting, bending, placing in position and binding all complete. (If supply of Reinforcement provided by BBJ)	Kg	50000	₹ 11.00	₹ 5,50,000.00
				Total	₹ 5,50,000.00
NET AMOUNT (SCHEDULE - A TO J)					₹ 28,59,39,564.00