



**Tender No. MTC/EN/KRJ-DER-LXING/EDFC/5 ROB**

**For**

Construction of 5 Nos. Road Over Bridges (excluding approaches) in lieu of level crossings for LC No. 140/C at IR Km 1400/17A–22, LC No. 141 at IR Km 1403/1 –1A, LC No. 142 at IR Km 1404/17A – 19A, LC No. 143 at IR Km 1406/33A – 1407/1 and LC No. 144 at IR Km 1409/1 – 3 between Dankaur and Boraki stations on Khurja-Dadri Section of Allahabad Division of North Central Railway for Eastern Dedicated Freight Corridor.

**E-TENDER DOCUMENT  
FINANCIAL BID  
(PACKET-B)  
June-2019**

**Employer:  
DEDICATED FREIGHT CORRIDOR CORPORATION OF INDIA LIMITED  
(A GOVERNMENT OF INDIA ENTERPRISE)  
Under  
MINISTRY OF RAILWAYS**

**Office of Chief General Manager/Meerut /DFCCIL,  
3rd Floor, Shree Balaji Complex, Plot No. C-2, Pocket-B, Sector -1,  
Ved Vyas Puri, Meerut -250002**

**CORPORATE OFFICE:-  
DFCCIL, 5<sup>th</sup> Floor, Pragati Maidan Metro Station Building Complex,  
New Delhi-110001.**

**GENERAL INFORMATION/DATA SHEET**

TENDER NOTICE NO	<b>MTC/EN/KRJ-DER-LXING/EDFC/5 ROB DATE 25.06.2019</b>
Name of the work	Construction of 5 Nos. Road Over Bridges (excluding approaches) in lieu of level crossings for LC No. 140/C at IR Km 1400/17A-22, LC No. 141 at IR Km 1403/1 -1A, LC No. 142 at IR Km 1404/17A - 19A, LC No. 143 at IR Km 1406/33A - 1407/1 and LC No. 144 at IR Km 1409/1 - 3 between Dankaur and Boraki stations on Khurja-Dadri Section of Allahabad Division of North Central Railway for Eastern Dedicated Freight Corridor.
(a) Tender Value	Rs. 45,84,46,767/-
(b) Completion Period	15 months
(c) Earnest Money Deposit	Rs. 50 Lakhs
(d) Date of uploading of NIT & Bid documents(online publishing date)	On Date 25.06.2019
(e) Last date and Time of submission of Tender	01.08.2019 upto 15:00hrs
(f) Date and Time of Opening of Tender (Technical bid -Packet A)	On 01.08.2019 at 15:30hrs
(g) Validity of offer	120 days
(h) Retention Money / Security Deposit	5 % of Contract Value
(i) Performance Bank Guarantee	Performance Guarantee (PG) have to be submitted within 30(thirty) days from the date of issue of Letter Of Acceptance (LOA), amounting to 5% of the contract value in the form as give in clause 16.(4) of GCC

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with seal

(S.K. Singh)  
Sr Dy GM/C/REED.

(Prashant Agnihotri)  
DGM/REED  
RITES Ltd

**SUMMARY OF PRICES**

**Name of work:-** Construction of 5 Nos. Road Over Bridges (excluding approaches) in lieu of level crossings for LC No. 140/C at IR Km 1400/17A–22, LC No. 141 at IR Km 1403/1 – 1A, LC No. 142 at IR Km 1404/17A – 19A, LC No. 143 at IR Km 1406/33A – 1407/1 and LC No. 144 at IR Km 1409/1 – 3 between Dankaur and Boraki stations on Khurja-Dadri Section of Allahabad Division of North Central Railway for Eastern Dedicated Freight Corridor.

Sl. No.	Description of works	Cost as per USSOR 2010 of NC Rly	DFCCIL updated %	DFCCIL updated cost in Rs	Rates to be quoted in figures & words (Clearly mention above / below / at par on updated DFCCIL Rate / cost given in column 4/5)
1	2	3	4	5	6
1.	Execution of all works as per Schedule "A" (items as per USSOR 2010 of NC Rly for Bridge Chapter No. 19, 20, 21 & 22)	3,87,33,115.70	41.93%	5,49,73,911	..... % age (in figures) ..... (In words)
2.	Execution of all works as per Schedule "B" (items as per USSOR 2010 of NC Rly for chapters other than bridge Chapters and S.N. 5 & 6 below)	50,89,713.15	135.93%	1,20,08,160	..... % age (in figures) ..... (In words)
3.	Execution of all works as per Schedule "C" (NS Items)	4,05,77,226.50	-	4,05,77,227	..... % age (in figures) ..... (In words)



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4.	Execution of all works as per Schedule "D" (items for structural steel)	24,51,44,962.80	-	24,51,44,963	..... % age (in figures) ..... (In words)
5.	Execution of all works as per Schedule "E" (items as per USSOR 2010 of NC Rly for supply of Cement)	2,18,44,940.00	22.86%	2,68,38,693	..... % age (in figures) ..... (In words)
6.	Execution of all works as per Schedule "F" (items as per USSOR 2010 of NC Rly for supply of Steel Reinforcement including straightening, cutting etc.)	6,23,30,210.50	26.59%	7,89,03,813	..... % age (in figures) ..... (In words)
<b>Grand Total</b>				<b>45,84,46,767</b>	

Notes:

- (i) The above prices are inclusive of all taxes, duties including GST etc.
- (ii) The tenderer should quote single percentage above/ par/below for each schedule.
- (iii) If the uniform percentage quoted by the Tenderer does not clearly indicate whether the rates are above/at par/below the estimated rates then through sign convention it will be considered to be on plus side and evaluated accordingly.
- (iv) Rate of item payable to contractor shall be as per following example: -

For Schedule A (Updating factor is 1.4193, since 41.93% is above the rates of USSOR2010 of NC Railway), if the rate of any item of USSOR - 2010 of



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NC Railway / Schedule A is "X" and

- (a) If percentage quoted by the contractor is 5 % above (+5%), Rate payable to contractor =  $(X) \times 1.4193 \times 1.05$
- (b) If percentage quoted by the contractor is 5 % below (-5%), Rate payable to contractor =  $(X) \times 1.4193 \times 0.95$
- (c) If percentage quoted by the contractor is at par, Rate payable to contractor =  $(X) \times 1.4193 \times 1.0$
- (d) Similarly Updation factor for Schedule B, E and F is 2.3593, 1.2286 and 1.2659
- (e) In case of NS items i.e. Schedule C & D, Updation factor shall be 1.



**SCHEDULE -1**  
**SCHEDULE OF PRICES & TOTAL PRICES**

Sl. No.	Item no. of NCR USSO R - 2010	Description of items	Unit	Qty.	Rate as per NCR USSOR- 2010 (Rs)	Amount (Rs)
<b>SCHEDULE 'A' - (ITEMS AS PER USSOR 2010 OF NC RLY FOR BRIDGE CHAPTERS)</b>						
1	192010	Earthwork in excavation 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 upto a lead of 300m, all types of shoring and strutting with all labour and material complete as per drawing and technical specifications as directed by Engineer				
(a)	192011	All kinds of soils	cum	3500	165.50	5,79,250.00
(b)	192012	Ordinary rock	cum	125	196.92	24,615.00
2	192030	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.	cum	180	1,782.20	3,20,796.00

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Sl. No.	Item no. of NCR USSO R - 2010	Description of items	Unit	Qty.	Rate as per NCR USSOR-2010 (Rs)	Amount (Rs)
3	192040	Providing and laying in position machine mixed, machine vibrated and machine batched Design Mix Cement Concrete M35 grade (Cast in-Situ) using 20mm graded crushed stone aggregate and coarse sand of approved quality in RCC raft foundation & Pile cap including finishing, using Admixtures in recommended proportions (as per IS:9103), if approved in Mix design to accelerate or retard setting of concrete and/or improve workability without impairing strength and durability complete as per specifications and direction of the Engineer. Payment for cement, reinforcement and shuttering shall be paid extra.	cum	1000	1,694.28	16,94,280.00
4	192070	Providing, driving and installing Bored cast in-situ Reinforced Cement Concrete piles of specified diameter and length below pile cap in M-35 grade 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, excluding the cost of casing pipe but including the cost of shoe and length of pile to be embedded in pile cap etc. complete, concreting by machine batching, machine mixing, scaffolding, using Admixture in recommended proportion (as per				

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Sl. No.	Item no. of NCR USSO R - 2010	Description of items	Unit	Qty.	Rate as per NCR USSOR- 2010 (Rs)	Amount (Rs)
		IS:9103), if approved in design Mix, placing with tremie pipe, chipping off of pile top to remove laitance concrete above cut off level etc., pumping and bailing out water with all labour material complete including crossing of tracks if required, as per approved drawing, specification and direction of the Engineer. Length of the pile for payment shall be measured upto the bottom of pile cap excluding the mud mat. Payment for cement, casing pipe & reinforcement shall be paid extra.				
(a)	192073	1000mm diameter	meter	3360	6,447.67	2,16,64,171.20
5	192060	Providing and laying in position machine mixed, machine vibrated and machine batched Design Mix Cement Concrete M35 grade (Cast in-Situ) using 20mm graded crushed stone aggregate and coarse sand of approved quality for the following Reinforced cement concrete structural elements up to height of 10m from foundation top level, including finishing, using Admixtures in recommended proportions (as per IS:9103), if approved in Mix design to accelerate or retard setting of concrete and/or improve workability without impairing strength and durability complete as per specifications and direction of the Engineer. Payment for				

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Sl. No.	Item no. of NCR USSO R - 2010	Description of items	Unit	Qty.	Rate as per NCR USSOR-2010 (Rs)	Amount (Rs)
		cement, reinforcement & shuttering shall be paid extra.				
(a)	192061	Abutment & Pier	cum	540	1,779.00	9,60,660.00
(b)	192063	Abutment cap, Pier Cap, Inspection Platform & Pedestal over Pier cap, Fender wall, Diaphragm wall etc.	cum	1320	1,948.42	25,71,914.40
(c)	192065	Extra for every increase of 1m or part thereof in the height above 10m & 20m	cum / m height	40	28.17	1,126.80
6	195030	Centring and shuttering including strutting, propping etc. and removal of form for :				
(a)	195031	RCC Raft Foundation & Pile cap	sqm	650	127.80	83,070.00
(b)	195032	Abutment, pier, wing walls and return walls	sqm	1140	214.70	2,44,758.00
(c)	195033	Abutment cap, Pier Cap, Inspection Platform & Pedestal over Pier cap, Fender wall, Diaphragm wall etc.	sqm	2170	213.09	4,62,405.30
(d)	195034	Approach slab at formation level, Dirt wall / ballast wall at formation level	sqm	2820	127.80	3,60,396.00
7	192080	Providing, fabricating and installing casing pipe for bored piles for all diameters with specified thickness of steel plate including all labour, materials, pumping and bailing out water wherever required, complete as per technical specifications as directed by Engineer. This will include the weight of plate only and no cognizance will be given	MT	51	50,505.25	25,75,767.75




Sl. No.	Item no. of NCR USSO R - 2010	Description of items	Unit	Qty.	Rate as per NCR USSOR- 2010 (Rs)	Amount (Rs)
		for the fittings, i.e. rivets and welding etc.				
8	192100	Conducting load testing of a single pile upto following 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				
(a)	192103	Initial load test above 100 ton capacity upto 250 ton capacity pile	each	5	81,014.63	4,05,073.15
(b)	192104	Extra for every increase of 50 T in pile capacity or part thereof over 250 T	each	5	13,676.66	68,383.30
(c)	192107	Routine Load Test above 100 ton capacity upto 250 ton capacity pile	each	5	1,25,285.20	6,26,426.00
9	192110	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				
(a)	192112	Piles with lateral load capacity of above 10 ton & upto 20 ton	each	5	33,149.21	1,65,746.05
10	201050	Providing and fixing in position of standard preformed sealed and slab type or strip seal elastomeric				

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Sl. No.	Item no. of NCR USSO R - 2010	Description of items	Unit	Qty.	Rate as per NCR USSOR-2010 (Rs)	Amount (Rs)
		type expansion joints for Railway bridge or Road Over Bridges as per approved drawings and latest MOST/IRC specifications. The rates are inclusive of supplying, fixing with contractor's own materials, e.g. inserts, bolts, socket tubes, Neoprene sheet/cap etc., equipments, machineries, labour, all taxes, royalty, all lead & lifts, transport, testing, surface preparations, complete				
(a)	201051	For 80mm expansion	meter	180	23,136.28	41,64,530.40
11	201060	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, recoding 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 kentledge/loading material etc. The load shall be 1.25 times the stipulated design load, based on design load & not span				
(a)	201061	For Span design load upto 100 MT	Each	5	66,772.64	3,33,863.20
(b)	201062	Extra for every increase of 100 MT or part thereof in the span load capacity upto 800 MT	Each 100M T	5	65,548.13	3,27,740.65




Sl. No.	Item no. of NCR USSO R - 2010	Description of items	Unit	Qty.	Rate as per NCR USSOR- 2010 (Rs)	Amount (Rs)
12	211070	Supplying and fixing anti-slip M.S. Angles/nosing 65mmx 65mmx 8mm or any other size confirming to IS:2062 fixing 10mm dia, anchor bar 600mm c/c and fixing with main girder with M.S. flat on top of step of stair case, making anti-slip grooves 7 nos. arrangement for keeping and maintaining in position as per approved plan with all labour and material as a complete job	kg	14350	50.93	7,30,845.50
13	222170	Providing and fixing Drainage Spouts of 100 mm UPVC complete as per drawing & Technical Specification	meter	1370	268.10	3,67,297.00
		<b>TOTAL COST OF SCHEDULE 'A' ITEMS</b>				<b>3,87,33,115.70</b>




Sl. No.	Item no. of NCR USSO R - 2010	Description of items	Unit	Qty.	Rate as per NCR USSOR-2010 (Rs)	Amount (Rs)
<b>SCHEDULE 'B' - (ITEMS AS PER USSOR 2010 OF NC RLY OTHER THAN BRIDGE CHAPTERS)</b>						
14	041010	Providing and laying in position M-20 Grade concrete for reinforced concrete structural elements, but excluding cost of centering, shuttering, reinforcement and Admixtures in recommended proportion (as per IS:9103) to accelerate, retard setting of concrete, improve workability without impairing strength and durability as per direction of Engineer in charge				
(a)	041011	All work upto plinth level, including raft foundation of washable aprons, HS Tank, Pile cap, Footings of FOB, and Platform shelter etc.	cum	295	2,100.13	6,19,538.35
(b)	41012	All works in buildings above plinth level upto floor two level	cum	185	2,309.58	4,27,272.30
(c)	041012 + 046010	All works in buildings above Floor 2 level (3.6m) upto floor three level (7.2m)	cum	185	2,605.60	4,82,036.00
(d)	041012 + 2*046011	All works in buildings above Floor 3 level (7.2 m) upto floor four level (10.8m)	cum	185	2,901.62	5,36,799.70
(e)	41015	In kerbs, steps and the likes etc.	cum	85	2,175.58	1,84,924.30
15	042010	Centring and shuttering including strutting, propping etc. and removal of form for :				
(a)	042011	Foundations, footings, bases of columns, raft foundation of washable aprons, Pile caps, Footings of FOB etc.	sqm	370	127.80	47,286.00




Sl. No.	Item no. of NCR USSO R - 2010	Description of items	Unit	Qty.	Rate as per NCR USSOR-2010 (Rs)	Amount (Rs)
(b)	042013	Suspended floors, roofs, landings, balconies, FOB slabs, walkway slabs and access platform	sqm	580	213.09	1,23,592.20
(c)	042014	Lintels, beams, plinth beams, bed blocks, girders, bressumers and cantilevers	sqm	1180	184.72	2,17,969.60
(d)	042015	Columns, pillars, posts and struts	sqm	1880	270.20	5,07,976.00
(e)	042016	Stairs (excluding landings) except spiral-staircases	sqm	260	247.30	64,298.00
16	014110	Providing and removing barricading with the help of portable fencing along the running track where the work is to be done in close vicinity of the track. Fencing shall consist of self-supporting steel angles of size 50 x50x6mm, 1.5m long provided with hooks etc. and embedded in CC 1:2:4 block of size 0.23x0.23x0.23m placed at c/c distance of 2m along the track. 12mm dia rods in three horizontal layers tack welded with the angle posts including providing retro-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.	metre	200	105.95	21,190.00
17	081410	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				




Sl. No.	Item no. of NCR USSO R - 2010	Description of items	Unit	Qty.	Rate as per NCR USSOR-2010 (Rs)	Amount (Rs)
(a)	081412	In gratings, frames, guard bar, ladders, railings, brackets, gates and similar works	kg	5680	72.53	4,11,970.40
18	237010	Providing and fixing Cat's Eye (Glow studs) heavy integral stem, reflective, aluminium die cast with elegant finish of size 100mmx100mm and 20mm high having a stem of 50mm (or 12mm dia. 90mm long) screwed and nailed to fix into the road surface or at the nosing of the central verge. The road studs should have reflectors fitted on one side of the studs (3 nos. 7 element or 1 no. 29 element reflector) complete	each	420	536.96	2,25,523.20
19	236070	Painting road surface marking with adequate number 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				
(a)	236071	New work (minimum two coats)	Sqm	90	80.91	7,281.90
20	094040	Precast Chequered factory made terrazzo tiles 22mm thick with graded marble chips size upto 6mm in floors jointed with neat cement slurry mixed with pigment to match the shade of tiles including rubbing of cement slurry complete on 20mm thick bed of cement mortar 1:4 (1 cement : 4 coarse sand)				
(a)	094042	with ordinary cement with pigment	sqm	240	596.56	1,43,174.40




Sl. No.	Item no. of NCR USSO R - 2010	Description of items	Unit	Qty.	Rate as per NCR USSOR- 2010 (Rs)	Amount (Rs)
21	121060	Painting with synthetic enamel paint of approved brand and manufacture of required colour to give an even shade				
(a)	121061	Two or more coats on new work over an under coat of suitable shade with ordinary paint of approved brand and manufacture	sqm	320	66.08	21,145.60
22	081420	Providing and fixing hand rail by welding etc. to steel ladders railing, balcony railing and staircase railing including applying a priming coat of approved steel primer				
(a)	081423	G.I. pipes 40mm nominal bore (class B)	kg	5840	97.91	5,71,794.40
23	051010	Brick work with non-modular (FPS) bricks of class designation 7.5 in foundation and plinth in :				
(a)	051018	Cement mortar 1:6 (1 cement : 6 coarse sand) -wall	cum	80	2,835.40	2,26,832.00
24	111040	12 mm cement plaster of mix -				
(a)	111042	1:6 (1cement: 6coarse sand)	sqm	200	62.37	12,474.00
25	154010	Providing and fixing 110mm dia PVC soil, waste and vent pipes including jointing and cost of spun yarn and sand etc. complete	meter	830	221.56	1,83,894.80
26	115090	Wall painting on new work with two or more coats of plastic emulsion paint of approved brand and manufacture to give an even shade	sqm	1000	52.74	52,740.00
		<b>TOTAL COST OF SCHEDULE 'B' ITEMS</b>				<b>50,89,713.15</b>






Sl. No.	Item no.	Description of items	Unit	Qty.	Rate (Rs)	Amount (Rs)
<b>SCHEDULE 'C' - NON SCHEDULED ITEMS</b>						
27	NS-1	Providing and laying in position machine batched, machine mixed and machine vibrated Design Mix Cement Concrete M-40 grade (Cast in situ) using 20 mm graded crushed stone aggregate and coarse sand of approved quality in RCC deck slab laid to required camber including end cantilever, RCC crash barrier, RCC railing, etc. including pumping of concrete to site of laying, finishing, using admixtures in recommended proportions (as per IS: 9103), if approved in mix design to accelerate or retard setting of concrete, improve workability without impairing strength and durability with all contractor's labour, tools & plants, material (excluding cost of cement, reinforcement and shuttering) ,fuel, consumables, machinery, loading, unloading, lead and lift complete in all respect as a complete job as per specifications & as directed by Engineer.	cum	1790	8,683.20	1,55,42,928.00
	Notes:					
	(i)	Payment for cement, reinforcement and shuttering shall be paid extra as per relevant USSOR item included in the relevant schedule.				
	(ii)	The concrete is to be poured at the approved safe height and distance from live OHE wires carrying 25KV AC traction (on IR Track) to cast monolithically to the required level as per approved drawing over				

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Sl. No.	Item no.	Description of items	Unit	Qty.	Rate (Rs)	Amount (Rs)
		already launched main steel girder with proper joining arrangement through shear connector.				
	(iii)	The necessary shuttering arrangement has to be planned using already launched main steel girder. No support from ground will be allowed for this purpose. The rates include for working under running traffic condition, all leads, lifts, ascents, descents, all other obstructions etc.				
	(iv)	The contractor shall make adequate arrangement below the girders to avoid falling of anything over the track during concreting of the slab. The rate also includes design and provision of all temporary arrangement for casting, erection, scaffolding and submission of detailed design and drawing for temporary works and to ensure safety of running traffic at all times.				
28	NS-2	Providing and laying in position machine batched, machine mixed and machine vibrated Design Mix Cement Concrete M-40 grade (Cast in situ) using 20 mm crushed stone aggregate and coarse sand of approved quality in wearing coat including pumping of concrete to site of laying, finishing, using admixtures in recommended proportions (as per IS: 9103), if approved in mix design to accelerate or retard setting of concrete, improve workability without impairing strength and durability with all contractor's labour, tools & plants,	cum	490	4,661.00	22,83,890.00



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Sl. No.	Item no.	Description of items	Unit	Qty.	Rate (Rs)	Amount (Rs)
		material (excluding cost of cement, reinforcement and shuttering) , fuel, consumables, machinery, loading, unloading, lead & lift complete in all respect as a complete job as per specification & as directed by Engineer.				
	Notes:					
	(i)	Payment for cement, reinforcement and shuttering shall be paid extra as per relevant USSOR item included in the relevant schedule.				
29	NS-3	Supplying, fabrication & fixing in position BRC protection screen with MS angle frame, expanded metal (XPM), GI Sheet of 16 gauge, J Bolts etc of approved Railway design with two coats of aluminium paints of approved manufacturer as per drawing no. RDSO/ETI/C/0068 with all contractor's labour, tools & plants, material, fuel, consumables, machinery, loading, unloading, lead & lift complete in all respect as a complete job as per specification & as directed by Engineer.	kg	14030	122.65	17,20,779.50
30	NS-4	Integrity testing of Pile using Low Strain/ Sonic Integrity Test/ Sonic Echo Test method in accordance with IS 14893 including surface preparation of pile top by removing soil, mud, dust & chipping lean concrete lumps etc. and use of computerised equipment and high skill trained personal for conducting the test & submission of results, with all contractor's	per test	120	780.20	93,624.00

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Sl. No.	Item no.	Description of items	Unit	Qty.	Rate (Rs)	Amount (Rs)
		labour, tools & plants, material, fuel, consumables, machinery, loading, unloading, lead & lift complete in all respect as a complete job as per specification & as directed by Engineer.				
31	NS-5	Structural steel work; welded in built up sections, using 3.15mm thick MS sheet, flat of size 65X8 mm, etc including cutting, bending, straightening, hoisting, fixing in position, including applying a priming coat of approved steel primer, complete - and fixing of plate with main girders as per approved drawing of deck slab shuttering.	kg	203920	95.00	1,93,72,400.00
32	NS-6	Providing and fixing handrail made up of 5 rows of 50 mm nominal bore m s pipe of medium class passing through steel ISMC 100 fixed @ 1.5m c/c as vertical support including providing, fixing and welding hard drawn steel wire fabric 75 x 25 mm mesh of weight not less than 7.75 kg per sq m welded to ISMC 100 with steel base plate at the bottom, providing and fixing MS flat 25 mm x 6 mm over edges of hard drawn steel wire fabric welded to ISMC and providing and fixing m s holding down bolts for fixing the base plate in required place including two or more coats of synthetic enamel paint of required shade over a priming coat of zinc chromate primer with all contractor's materials, labour, tools and plants, machinery, loading, unloading and stacking material at site as per specification, drawing and as	sqm	240	2,788.90	6,69,336.00

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Sl. No.	Item no.	Description of items	Unit	Qty.	Rate (Rs)	Amount (Rs)
		directed by engineer as a complete job.				
33	NS-7	Providing and laying of 70mm thick Precast concrete panels for shuttering purpose with grade of concrete M40 using 20 mm graded crushed stone aggregate and coarse sand of approved quality in including pumping of concrete to site of laying, finishing, using admixtures in recommended proportions (as per IS: 9103), if approved in mix design to accelerate or retard setting of concrete, improve workability without impairing strength and durability with all contractor's labour, tools & plants, material, fuel, consumables, machinery, loading, unloading, lead and lift complete in all respect as a complete job as per specification & as directed by Engineer.	Sqm	1530	488.40	7,47,252.00
	Notes:					
	(i)	Payment for cement and reinforcement shall be paid extra as per relevant USSOR item included in the relevant schedule.				
	(ii)	The pre cast reinforced cement concrete panels are to be fixed at the approved safe height and distance from live OHE wires carrying 25KV AC traction (on IR Track) on already launched main steel girder. No support from ground will be allowed for this purpose. The rates includes for working under running traffic condition, all leads, lifts, ascents,				



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Sl. No.	Item no.	Description of items	Unit	Qty.	Rate (Rs)	Amount (Rs)
		descents, all other obstructions etc.				
	(iii)	The contractor shall make adequate arrangement below the girders to avoid falling of anything / precast panels over the track during fixing of precast reinforced cement concrete panels. The rate also includes design and provision of all temporary arrangement and submission of detailed design and drawing for temporary works and to ensure safety of running traffic at all times.				
34	NS-8	Providing and fixing 65mm dia GI Pipe of medium class on the top of RCC crash barrier as a railing with vertical supports of 12 mm thick m s plate cut to shape along with 50 x 10mm thick m s plate all round welded to vertical including 25 mm wide and 3 mm thick collar plate, verticals welded on base plate of size 120 x 120 x 16 mm, 4 nos 10 dia galvanized m s holding down bolts with nuts and washers, 4 nos 10 dia MS rod of 48mm long welded to m s holding down bolts, verticals shall be @ 1.50 m C / C including two or more coats of synthetic enamel paint of required shade over one coat of zinc chromate primer with all contractor's materials, labour, tools and plants, loading, unloading and stacking at site as per specification/drawing and as directed by engineer as a complete job.	m	130	1,130.90	1,47,017.00
		<b>TOTAL COST OF SCHEDULE 'C' ITEMS</b>				<b>4,05,77,226.50</b>




Sl. No.	Item no.	Description of items	Unit	Qty.	Rate (Rs)	Amount (Rs)
<b>SCHEDULE 'D' - STRUCTURAL STEEL</b>						
35	NS-9	Supplying of all types of structural steel conforming to E250 of IS:2062, fabrication, assembling, erection / slewing / end launching of steel girders upto 45.7m span on sub-structure including provision of trolley refuges, if required complete as per approved drawing including one coat of Zinc chrome primer to IS:104 & one coat of Zinc Chrome Red Oxide to IS:2074 and painting as per IRS-B-1 on all members including metalizing (detailed fabrication and erection drawings & launching methodology will be prepared and got approved by the contractor from Railway). Rate includes fabrication of all the types of battens, bracings, ties, stiffeners, packing, diaphragms, shop rivets / welding, T&F bolts, drifts, shop welds, templates, jigs, fixtures, back up supports, accessories, transporting various components from fabrication shop to site including loading, unloading, lift and taxes complete, assembly of girders' on-drifts/bolts, field riveting/welding, assembling of temporary support for side slewing, raising of girders to the bed block level, providing sliding arrangements and slewing the girder in position, lowering of girder on bearings and bed plates, grouting holes in the bed block for				

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Sl. No.	Item no.	Description of items	Unit	Qty.	Rate (Rs)	Amount (Rs)
		fixing of HD bolts/anchor pins of bed plates, all temporary arrangements. Load testing may be done. The bearing sets to be provided with the girders will be paid separately as per relevant item separately				
(a)		Plate Girder / Semi Through Girder	MT	1580	98,309.30	15,53,28,694.00
	Notes:-					
	(i)	Steel (Plates and Rolled sections) should conform to IS: 2062-2011. It shall have Sub quality 'B0' & Grade E250 (Fe 410 ) 12 mm thick & above plates shall be fully killed and fully normalized / controlled cooled.				
	(ii)	The steel shall be procured only from those firms, which are Established, Reliable, Indigenous & Primary Producers of Steel, having Integrated Steel Plants (ISP), using iron ore as the basic raw material and having in house iron rolling facilities, followed by production of liquid steel & crude steel.				
	(iii) (a)	40 % of rate payment shall be made after steel material required for fabrication (as per drawing) is received at site.				
	(iii) (b)	15 % of rate payment shall be made on acceptance of fabricated components at site.				
	(iii) (c)	20 % of rate payment shall be made after erection & launching				



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Sl. No.	Item no.	Description of items	Unit	Qty.	Rate (Rs)	Amount (Rs)
	(iii) (d)	25 % of rate payment shall be made after final approval of DFCCIL and successful completion of all works (ROB wise) included in this item including metallising and finishing complete.				
	(iv)	No deduction for holes and no addition for rivets/ bolts/welds etc. shall be made				
	(v)	The contractor shall submit the detailed erection drawing and Launching scheme along with necessary design calculations for approval from RITES Ltd before erection and launching of girder.				
	(vi)	Temporary supports if any required for the erection / launching shall be erected after the approval of Engineer. Nothing extra shall be payable on this account.				
	(vii)	The contractor shall take all safety precautions that will be necessary in consultation with Engineer as per extant rules / guidelines. Nothing extra shall be payable on this account.				
	(viii)	Notwithstanding above, the contractor shall be fully responsible for any mishap that may occur as a result of negligent working.				
	(ix)	Contractor has to take every precautionary measure for safety of running train during and after launching of girder.				



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Sl. No.	Item no.	Description of items	Unit	Qty.	Rate (Rs)	Amount (Rs)
	(x)	The rate includes launching under traffic blocks wherever required. However, the rate does not include the cost of possession of traffic / OHE block.				
	(xi)	The Block required shall be arranged by DFCCIL. The duration of the block shall be as approved by Engineer. If the Block granted is not made available due to unavoidable reasons, nothing extra / no compensation shall be paid.				
	(xii)	However penalties, if any, levied by Indian Railways caused due to any careless working or otherwise of violation of the Terms and Conditions of the track /OHE block, shall be payable by the contractor.				
	(xiii)	The cost of all test as per prevailing code for acceptance shall be born by contractor.				
36	NS-10	Supply, fabrication and erection of Welded type Bow String girders of required span for IRC loading at site as per RDSO drawings, Indian Railway Unified Standard Specifications (W&M) - 2010 (amended up to date) and Indian Railways standard specification for fabrication and erection of steel girder bridges and locomotive turntables (Fabrication Specifications) Serial No B1-2001 (amended up to date) including all incidental works etc., supplying and fixing in position of shop				



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Sl. No.	Item no.	Description of items	Unit	Qty.	Rate (Rs)	Amount (Rs)
		welding / shop bolting with nuts and washers, field bolts, etc. required for complete fabrication of the girders and transportation of the fabricated materials at site and stacking of the same at places as directed by Engineer including metalizing as per clause No 39.2.1 of B1-2001 over the structural members with all contractor's labour, fuel, consumables, machinery, loading, unloading, tools & plants, material, load and lift complete in all respect, as a complete job as per specification and as directed by Engineer.				
	(a)	Grade E250 with sub quality B0	MT	88	1,07,872.40	94,92,771.20
	(b)	Grade E350 with sub quality B0	MT	660	1,11,914.50	7,38,63,570.00
	Notes:-					
	(i)	Steel (Plates and Rolled sections) should conform to IS: 2062-2011. It shall have Sub quality 'B0'.12 mm thick & above plates shall be fully killed and fully normalized / controlled cooled.				
	(ii)	The steel shall be procured only from those firms, which are Established, Reliable, Indigenous & Primary Producers of Steel, having Integrated Steel Plants (ISP), using iron ore as the basic raw material and having in house iron rolling facilities, followed by production of liquid steel & crude steel.				



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Sl. No.	Item no.	Description of items	Unit	Qty.	Rate (Rs)	Amount (Rs)
	(iii) (a)	40 % of rate payment shall be made after steel material required for fabrication (as per drawing) is received at site.				
	(iii) (b)	15 % of rate payment shall be made on acceptance of fabricated components at site.				
	(iii) (c)	20 % of rate payment shall be made after erection & launching				
	(iii) (d)	25 % of rate payment shall be made after final approval of DFCCIL and successful completion of all works (ROB wise) included in this item including metallising and finishing complete.				
	(iv)	No deduction for holes and no addition for rivets/ bolts/welds etc. shall be made				
	(v)	The contractor shall submit the detailed erection drawing and Launching scheme along with necessary design calculations for approval from RITES Ltd before erection and launching of girder.				
	(vi)	Temporary supports if any required for the erection / launching shall be erected after the approval of Engineer. Nothing extra shall be payable on this account.				
	(vii)	The contractor shall take all safety precautions that will be necessary in consultation with Engineer as per extant rules / guidelines. Nothing extra shall be payable on this account.				

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Sl. No.	Item no.	Description of items	Unit	Qty.	Rate (Rs)	Amount (Rs)
	(viii)	Notwithstanding above, the contractor shall be fully responsible for any mishap that may occur as a result of negligent working.				
	(ix)	Contractor has to take every precautionary measure for safety of running train during and after launching of girder.				
	(x)	The rate includes launching under traffic blocks wherever required. However, the rate does not include the cost of possession of traffic / OHE block.				
	(xi)	The Block required shall be arranged by DFCCIL. The duration of the block shall be as approved by Engineer. If the Block granted is not made available due to unavoidable reasons, nothing extra / no compensation shall be paid.				
	(xii)	However penalties, if any, levied by Indian Railways caused due to any careless working or otherwise of violation of the Terms and Conditions of the track /OHE block, shall be payable by the contractor.				
	(xiii)	The cost of all test as per prevailing code for acceptance shall be born by contractor.				
37	NS-11	Manufacturing and Supplying of <b>POT / POT-PTFE bearings</b> for the following spans as per RDSO bearing drawing No RDSO/B-10411/9 for 60m Bow String				



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Sl. No.	Item no.	Description of items	Unit	Qty.	Rate (Rs)	Amount (Rs)
		Girder at site including fitting and fixing in position true to line and level with all contractor's materials, labour, tools and plants, loading unloading and stacking at site as per specification and as directed by engineer as a complete job.				
	(a)	For 60.00 m Bow String Girder	set	2	3,22,332.20	6,44,664.40
	Notes:					
	(i)	The drawing upto last alteration / revision/amendment shall be followed.				
	(ii)	Cast steel of grade 280 - 520 W or 340 - 570 W of IS 1030 shall be used.				
	(iii)	Each set of bearing shall include 4 nos. of bearings (1 POT bearings and 3 POT - PTFE bearings) and all bolts and all other components connected with bearings as shown in respective drawings.				
	(iv)	The supply of POT / POT-PTFE bearing shall include all materials shown in the drawings. The supply also includes supply of all holding down bolts to fix the bearings at the bottom on pedestal and all bolts to fix the bearings to the bottom of girder.				
	(v)	75% payment shall be made after supply of each set at site on submission of indemnity bond and balance 25% shall be made after fixing of bearings.				



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Sl. No.	Item no.	Description of items	Unit	Qty.	Rate (Rs)	Amount (Rs)
38	NS-12	Manufacturing and Supplying of <b>POT / POT-PTFE bearings</b> for the following spans as per RDSO bearing drawing No RDSO/B-11758/6R for 36m Composite Girder and RDSO/B-11755/6R1 for 30m Composite Girder at site including fitting and fixing in position true to line and level with all contractor's materials, labour, tools and plants, loading unloading and stacking at site as per specification and as directed by engineer as a complete job.				
	(a)	For 36.00 m composite girder	set	6	7,61,531.70	45,69,190.20
	(b)	For 30.00 m composite girder	set	2	6,23,036.50	12,46,073.00
	Notes:-					
	(i)	The drawing upto last alteration / revision/amendment shall be followed.				
	(ii)	Cast steel of grade 280 - 520 W or 340 - 570 W of IS 1030 shall be used.				
	(iii)	Each set of bearing shall include 10 nos. of bearings (2 POT bearings and 8 POT - PTFE bearings) and all bolts and all other components connected with bearings as shown in respective drawings.				
	(iv)	The supply of POT / POT-PTFE bearing shall include all materials shown in the drawings. The supply also includes supply of all holding down bolts to fix the bearings at the bottom on pedestal and all				




Sl. No.	Item no.	Description of items	Unit	Qty.	Rate (Rs)	Amount (Rs)
		bolts to fix the bearings to the bottom of girder.				
	(v)	75% payment shall be made after supply of each set at site on submission of indemnity bond and balance 25% shall be made after fixing of bearings.				
		<b>TOTAL COST OF SCHEDULE 'D' ITEMS</b>				<b>24,51,44,962.80</b>



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Sl. No.	Item no. of NCR USSO R - 2010	Description of items	Unit	Qty.	Rate as per NCR USSOR-2010 (Rs)	Amount (Rs)
<b>SCHEDULE 'E' - SUPPLY OF CEMENT</b>						
39	033060	Supply and using <b>cement</b> at worksite:				
(a)	033061	OPC 43 Grade	MT	3653	5,980.00	2,18,44,940.00
		<b>TOTAL COSTOF SCHEDULE 'E' ITEMS</b>				<b>2,18,44,940.00</b>




Sl. No.	Item no. of NCR USSO R - 2010	Description of items	Unit	Qty.	Rate as per NCR USSOR-2010 (Rs)	Amount (Rs)
<b>SCHEDULE 'F' - SUPPLY OF REINFORCEMENT</b>						
35	045010	Supplying reinforcement for R.C.C. work including straightening, cutting, bending, placing in position and binding all complete -				
(a)	045016	Thermo-Mechanically Treated bars	kg	1146830	54.35	6,23,30,210.50
	Notes:-					
	(i)	The contractor shall quote the rate for Thermo-Mechanically Treated bars of Grade Fe 500/550D.				
		<b>TOTAL COST OF SCHEDULE 'F' ITEMS</b>				<b>6,23,30,210.50</b>

**Explanatory Notes for BOQ:**

- (i) Contractor shall quote rates of shuttering and curing for all heights.
- (ii) The rates of reinforcement item mentioned in the above schedule includes placing of reinforcement under running traffic conditions.
- (iii) All NCR USSOR items contain item nos., if any discrepancy is found in nomenclature, schedule nomenclature will prevail.
- (iv) Tenderer must quote their rates for supply and erection of fabricated girders with their own material including loading, transportation and unloading at site. DFCCIL shall not provide any assistance for procurement of raw material for manufacturing the girders tendered for.
- (v) The rates shall also be inclusive of all taxes legally leviable and / or any other taxes, license fee and royalty charges etc. if any.
- (vi) The above quantity is approximate: -The DFCCIL reserve the right to increase / decrease the same.
- (vii) The contractor has to submit launching scheme and detailed drawing of each component of the Railway safety and nothing extra shall be paid for this activity.

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