



**Tender No. JP/EN/FL-MD/WC/ROB/32**

**for**

**Name of work:- Construction of 2 Lane ROB in lieu of LC No. LC-32 at IR Km 272/5-6 between Kishangarh-Gegal Akhri stations on Phulera-Madar Section in Jaipur division of North Western Railway.**

**FINANCIAL BID  
(PACKET-B)**

**TENDER DOCUMENT  
November-2019**

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

**GENERAL INFORMATION / DATA SHEET**

TENDER NOTICE NO.	<b>No: JP/EN/FL-MD/WC/ROB/32</b>
Name of the work	<b>Construction of 2 Lane ROB in lieu of LC No. LC-32 at IR Km 272/5-6 between Kishangarh-Gegal Akhri stations on Phulera-Madar Section in Jaipur division of North Western Railway.</b>
(a) Tender Value	<b>Rs 21,72,55,165.07</b>
(b) Completion Period	<b>15 months</b>
(c) Earnest Money	<b>Rs 32,58,830/-</b>
(d) Tender Fees	<b>Rs. 10000/- + 18% GST which is not refundable.</b>
(e) Last Date and Time of Downloading of Tender from website <a href="http://www.tenderwizard.com/DFCCIL">www.tenderwizard.com/DFCCIL</a> and <a href="http://www.dfccil.com">www.dfccil.com</a>	<b>27.12.2019 up to 14.59 hrs.</b>
(f) Last date and Time of online submission of Tender on website <a href="http://www.tenderwizard.com/DFCCIL">www.tenderwizard.com/DFCCIL</a>	<b>27.12.2019 upto 15:00 hrs</b>
(g) Date and Time of Opening of Tender (Technical bids -Packet A)	<b>On 27.12.2019 at 15:30 hrs</b>
(h) Validity of offer	<b>90 days</b>
(i) Retention Money / Security Deposit	<b>5 % of Contract Value</b>
(j) 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 given in clause 16.4 of GCC

**Note : Contractor should bear the fact in mind while quoting the rates that GST, as per prevailing rate, will be paid by DFCCIL to Contractor for further deposition of GST to State Govt. and/or Central Govt. as applicable. Documentary evidence of deposition of GST will be produced by contractor.**

**TENDER SCHEDULE**

<b>Name of work:- Construction of 2 Lane ROB in lieu of LC No. LC-32 at IR Km 272/5-6 between Kishangarh-Gegal Akhri stations on Phulera-Madar Section in Jaipur division of North Western Railway.</b>					
<b>Ref</b>	<b>Description</b>	<b>Unit</b>	<b>Rate</b>	<b>Gross. Quantity</b>	<b>Amount</b>
13120	Earthwork in filling in embankment, guide bunds, around buried type abutments, bridge gaps, trolley refuges, rain bunds if provided, platforms etc. with earth excavated from outside railway boundary entirely arranged by the contractor at his own cost as per RDSO's latest guidelines and specifications and special condition of contract including all leads, royalty, lifts, ascents, descents, crossing of nallahs or any other obstructions. The rates shall include all dressing of bank to final profile, demarcation and setting out of profile, site clearance, removing of shrubs, roots of vegetations growth, heavy grass, benching of existing slope of old bank, all handling/re-handling. taxes, octroi and royalty etc. as a complete job. Cut trees shall be property of railways and to be deposited in the railway godown unless specified otherwise in the Special conditions of contract	Cum	170.35	1025.00	174,608.75
13130	Extra for mechanical compaction of earth/blanketing material filled in embankment with contractor's rollers of suitable capacity, type and size to achieve specified density as per specification, testing as per IS codes incl. cost of water, T&P consumable material and all labour as a complete job. The work is to be executed as per Latest edition of "Guidelines for Earthwork in Railway Projects" issued by RDSO, Lucknow	Cum	11.46	1300.00	14,898.00
14010	Dressing Surface (average excavation or filling upto 15 cm) including removing vegetation in all kind of soil. Payment against this item is to be made only if it is not included in earth work item	10 Sqm	64.20	2881.03	184,962.19

14030	Felling trees of girth (measured at a height of 1m above ground level) including lead and stacking of material within 100m. Note : 1. When stumps are grubbed up in addition, the rates shall be doubled for trees cut and grubbed. 2. Payment for grubbing shall only be made where specially ordered. 3. Grubbing shall be ordered only where it is essential to remove the stumps, including the roots, as per specification. 4. Grubbing shall include removal of roots of trees and saplings to a depth of 60 cm below ground level or 30 cm below formation level or 15 cm below sub grade level, whichever is lower				
14031	Girth over 30 cm and upto 60 cm	each	112.70	15.00	1,690.50
14032	Girth over 60 cm and upto 1.5m	each	308.70	17.00	5,247.90
14033	Girth over 1.5m upto 3 m	each	597.40	12.00	7,168.80
41010	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				
41011	All work upto plinth level, including raft foundation of washable aprons, HS tank, pile cap, footings of FOB, and Platform shelter etc.	cum	1836.48	13.36	24,535.37
41012	All work in buildings above plinth level upto floor two level.	Cum	2203.77	46.66	102,819.09
42010	Centering and shuttering including strutting, propping etc. and removal of form for :				
42011	Foundations, footings, bases of columns, raft foundation of washable aprons, Pile caps, Footings of FOB etc.	Sqm	127.50	101.95	12,997.99
42013	Suspended floors, roofs, landings, balconies, FOB slabs, walkway slabs and access platform	Sqm	237.02	212.40	50,343.05
42015	Columns, pillars, , posts and struts	Sqm	282.10	118.80	33,513.48

43010	Providing, hoisting and fixing in position upto floor two level M25 Grade precast RCC work including setting in cement mortar 1:3 (1 cement : 3 coarse sand) and finishing smooth with 6mm thick cement plaster 1:3 (1 cement : 3 fine sand) on exposed surfaces complete including cost of centering, shuttering, finishing, Admixtures in recommended proportion (as per IS:9103) to accelerate, retard setting of concrete, improve workability without impairing strength and durability, excluding cost of cement and steel reinforcement, as per approved plan & direction of Engineer incharge.				
43015	In slabs for drain covers, manhole covers, flue tops etc.	Cum	2373.26	193.71	459,724.19
108160	Providing and fixing on wall face unplasticised - Rigid PVC single socketed rain water pipes conforming to IS: 13592 Type A including jointing with seal ring conforming to IS: 5382 leaving 10mm gap for thermal expansion.				
108162	110mm dia.	metre	182.18	918.56	167,343.26
108170	Providing and fixing on wall face unplasticised - PVC moulded fittings/ accessories for unplasticised- Rigid PVC rain water pipes conforming to IS: 13592 Type A including jointing with seal ring conforming to IS: 5382 leaving 10mm gap for thermal expansion.				
108172	Coupler, 110mm	Each	139.90	818.11	114,453.87
108180	Providing and fixing on wall face unplasticised - PVC moulded bend and shoe for unplasticised- Rigid PVC rain water pipes conforming to IS: 13592 Type A including jointing with seal ring conforming to IS: 5382 leaving 10mm gap for thermal expansion				
108182	Bend 87.5o, 110mm dia bend	Each	160.41	55.00	8,822.55
108184	Shoe (Plain), 110mm dia shoe	Each	261.76	55.00	14,396.80
116070	Finishing with epoxy paint (two or more coats) at all location prepared and applied as per manufactures specification including appropriate priming coat preparation of surface. etc complete on concrete.	Sqm	94.47	11387.16	1,075,745.16
121060	Painting with synthetic enamel paint of approved brand and manufacture of required colour to give an even shade				

121061	Two or more coats on new work over an under coat of suitable shade with ordinary paint of approved brand and manufacture	Sqm	69.21	11387.16	788,105.45
183060	Dismantling including stacking of serviceable material and disposal of unserviceable material within 50m lead				
183061	Under layer of road of water bound macadam/ stone soling etc.	Sqm	45.10	1042.20	47,003.22
183062	Bituminous top layer of road	Sqm	87.88	1042.20	91,588.54
184030	Dismantling stone slab roofing including all coverings over wooden karries or R.C.C. battens (dismantling karries and battens to be paid separately) including stacking of serviceable material and disposal of unserviceable material within 50m lead	cum	18.15	200.84	3,645.25
182010	Demolishing brick work including stacking of serviceable material and disposal of unserviceable material within 50m lead	cum	411.43	211.53	87,030.61
182013	In cement mortar				
183010	Dismantling cement concrete / terrazzo flooring and/or underlayer excluding base concrete	Sqm	18.15	1008.40	18,302.46
192010	Earth work 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. incl. all lift, disposal of surplus soil upto a lead of 300 M, all types of shoring and strutting with all labour and material complete as per drawing and technical specification as directed by Engineer in charge.				
192011	All kinds of Soil	Cum	233.79	5208.72	1,217,745.71
31010	Providing and laying in position cement concrete of specified proportion excluding cost of cement, centering and shuttering - All works upto Plinth level :				
31011	1:3:6 (1 cement : 3 sand : 6 graded stone aggregate 20mm nominal size)	Cum	1467.94	348.82	512,052.70
31013	1:4:8 (1 cement : 4 sand : 8 graded stone aggregate 40mm nominal size)	Cum	1315.13	22.89	30,100.69

61010	Random rubble masonry with hard stone in foundation and plinth including levelling up with concrete as per specifications, upto plinth level with :	Cum	1475.1	45.00	66,379.50
61011	Cement mortar 1:3 (1cement:3 fine sand)				
51010	Brick work with non-modular (FPS) bricks of class designation 7.5 in foundation and plinth in :				
51018	Cement mortar 1:6 (1 cement : 6 coarse sand)	Cum	2150.23	36.00	77,408.28
51040	Extra over item 051010 & 051020 for brick work in superstructure beyond plinth level upto floor two level :	Cum	156.64	36.00	5,639.04
111020	15 mm cement plaster on the rough side of single or half brick wall of mix -				
111022	1:6 (1cement: 6 fine sand)	Sqm	71.22	150.00	10,683.00
115010	White washing with lime to give an even shade				
115011	New work (three or more coats)	Sqm	8.55	150.00	1,282.50
142040	Providing and laying non-pressure NP3 class (medium duty) R.C.C. pipes including bends etc with collars jointed with stiff mixture of cement mortar in the proportion of 1:2 (1cement: 2fine sand) including testing of joints etc. complete above 800mm dia.				
142044	1200mm dia. R.C.C. pipe	RMT	5042.05	250.00	1,260,512.50
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 kentledges /loading material etc. The load shall be 1.25 times the stipulated design load Based on Design load & not span				
201061	For Span design load upto 100 MT	Each	89674.17	2.00	179,348.34
201062	Extra for every increase of 100 MT or part thereof in the span load capacity upto 800 MT	Each 100m	87487.54	4.00	349,950.16

142010	Providing and laying non-pressure NP2 class (light duty) R.C.C. pipes including bends etc with collars jointed with stiff mixture of cement mortar in the proportion of 1:2 (1cement: 2fine sand) including testing of joints etc. complete upto 800mm dia.				
142017	600mm dia. R.C.C. pipe	meter	961.36	160.00	153,817.60
21170	Leading miscellaneous materials such as iron work, rails, pipes, wooden logs, stones over pitching stone size, RCC/PCC beams / slabs etc. and all similar articles (each individual article or bundle being more than 3.5 metres long in the longest direction) by truck, trailer, etc including all loading, unloading and stacking, lead over 500m and upto 10 km. Note : Lead under this item is payable when the same exceeds 500m.	MT	144.76	1000.00	144,760.00
21171	Additional lead for every subsequent km or part thereof, over 10 km and upto 100 km over item no. 021170	MT/Km	7.07	1000.00	7,070.00
21172	Additional lead for every subsequent km or part thereof, over 100 km and upto 400 km over item nos. 021170 &.021171	MT/Km	5.31	1000.00	5,310.00
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 20 mm graded crushed stone aggregate and coarse sand of approved quality, to carry a safe working load not less than specified , excluding the cost of casting pipe but including the cost of shoe and length of pile to be embdded in pile cap etc complete, concreting by machine batching, machine mixing, scaffolding, using Admixture in recommended proportion (as per IS 9103), if approved in design mix, placing with tremle pipe, choipping off of pile top to remove laltance concrete above cut off level etc, pumping and bailing out water, with all labour material material complete including crossing of tracks if required, as per approved drawing, specification and direction of the Engineer in charge . length of the pipe for payment shall be measured upto the bottom of pile cap excluding the mud mat. Payment for cement, casting pipe & reinforcement shall be paid extra.				

192073	1000mm diameter	Rm	7033.95	1536.00	10,804,147.20
192090	Extra for chieselling in addition to boring of piles if chieselling is resorted to in hard rock or big stone boulders larger than 30 cm depth by any means i.e. by chiesel or manual chiesel and hammer method				
192092	1000mm Diameter	Rm	1194.10	192.00	229,267.20
192080	Providing, fabricating and installing of casing pipe for bored piles for all diameters with specified thickness of steel plate including all labour, materials, pumping and bailing out water where ever required, complete as per technical specifications as directed by Engineer in charge. This will include the weight of plate only and no cognizance will be given for the fittings i.e. rivets and welding etc.	MT	54837.56	0.00	0.00
	<b>Considering 1.5m liner in each pile.</b>				
192100	Conducting load testing of a single pile Up to 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				
192103	Initial load test above 100 ton capacity Up to 250 ton capacity pile	Each	85951.00	2.00	171,902.00
192104	Extra for every increase of 50 T in pile capacity or part thereof over 250 T	Each	17683.84	3.00	53,051.52
192107	Routine Load Test above 100 ton capacity Up to 250 ton capacity pile	Each	76908.72	2.00	153,817.44
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				
192113	Piles with lateral load capacity of above 20 ton	Each	46917.29	2.00	93,834.58
192120	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	Each	29037.50	114.00	3,310,275.00

	for the test, submission of reports in triplicate as per satisfaction of the Engineer in charge at site.				
81030	Structural steel work welded in built up sections, trusses and framed work, girders, stagings, racks, etc including cutting, bending, straightening, hoisting, fixing in position, including applying a priming coat of approved steel primer, complete - upto 6m height above GL				
81031	In RSJ, tees, angles and channels	Kg	70.41	1200.00	84,492.00
81032	In flats, plates , round or square bars	Kg	68.79	36597.33	2,517,530.19
81410	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				
81412	In gratings, frames, guard bar, ladders, railings, brackets, gates and similar works	Kg	72.71	100.00	7,271.00
81140	Supplying and fixing lewis/ holding down bolts of approved design with nuts and washers complete	Kg	52.97	100.00	5,297.00
201050	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 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.				
201051	For 80 mm expansion	Rmt	22535.29	140.80	3,172,968.83

201070	Providing, fabricating & fixing in position to exact design profiles, prestressing H.T.S. cables of all classification made from Low Relaxation strands conforming to IS 14268 – 1995 in Prestressed Concrete girders/slabs etc. including supplying, cutting, making into cables with necessary spacers, colour coding, protecting with water soluble oil at all time, anchoring of cables, supplying and placing spiral corrugated type galvanized metal steel ducts sheathing made up of Cold Rolled Cold Annealed (CRCA) mild steel conforming to IS 513 of required diameter/thickness, vent pipe, placing, bending, routing, fixing, stressing & grouting of cable ducts with cement grout, Anchorage sets in required number with provision for future pre-stressing, if any, including all lead and lift with contractor's own materials, labour, equipments, etc. complete as per drawings & specifications. Rate also includes covering anchorage pads with epoxy mortar of approved quality to avoid corrosion. Cement for grouting to be paid separately	MT	133930.24	48.81	6,537,513.88
211130	Design, Supplying, fitting and fixing in position true to line and level elastomeric bearing conforming to IS:3400, IS:226, BS 5400 complete including all accessories as per drawing and Technical Specifications	cu cm	1.20	1497600.0	1,797,120.00
211140	Supplying, fitting and fixing in position true to line and level POT-PTFE bearing consisting of a metal piston supported by a disc or unreinforced elastomer confined within a metal cylinder, sealing rings, dust seals, PTFE surface sliding against stainle				
211141	POT-PTFE Bearing	MT Bearing capacity	210.45	1200.00	252540
211152	Transverse stopper bearings	MT Bearing capacity	337.44	1200.00	404928
222170	Providing and fixing of Drainage Spouts of 100 mm UPVC complete as per drawing and Technical specification	Mtr	235.77	286.00	67,430.22

011010	Earth work in excavation as per approved drawings and dumping at embankment site or spoil heap, within railway land, including 50m lead and 1.5m lift, the lead to be measured from the centre of gravity of excavation to centre of gravity of spoil heap: the lift to be measured from natural ground level and paid for in layers of 1.5m each, including incidental work, as per specifications-in				
011011	All kinds of soils	cum	95.85	825.00	79,076.25
233010	Providing and applying tack coat using bitumen emulsion (Rapid setting) complying with IS: 8887- 1995, spraying the bitumen emulsion with mechanically operated spray unit, cleaning and preparing the existing road surface as per specification				
233011	On W.B.M. @ 0.4kg/ sqm	sqm	18.92	4987.50	94,363.50
233012	On bituminous surface @ 0.25kg/ sqm	sqm	13.41	5501.70	73,777.80
238030	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 10cm centre to centre in both directions, pressed into surface protruding 1mm to 4mm over mastic surface, including cleaning the surface, removal of debris etc. all complete. (Considering bitumen using 10.2% as per MORTH specification)				
238031	25 mm thick	Sqm	628.43	2854.20	1,793,664.92
237010	Providing and fixing Cat's Eye (Glow studs) heavy integral stem, reflective, aluminium die cast with elegant finish of size 100x100mm 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 (3Nos. 7 element or 1No. 29 element reflector) complete	Each	483.33	1433.00	692,611.89

238010	Providing and laying dense Bituminous macadam on prepared surface with specified graded crushed stone aggregate for profile corrective base / binding course, mixing of stone aggregate, filler and bitumen in hot mix plant, transporting the mixed material and laying with paver finisher fitted with electronic sensing device to the required level and grade and rolling by road roller as per specifications, to achieve the desired density, but excluding the cost of primer / tack coat.				
238011	<b>75mm</b> average compacted thickness with bitumen of 60/70 grade @ 5% by weight of total mix and lime filler @ 2% by weight of Aggregate. (For very heavy traffic condition).	Sqm	446.43	4987.50	2,226,569.62
238020	Providing and laying Dense Bituminous concrete on prepared surface with specified graded stone aggregate for wearing course, mixing of bitumen, filler & stone aggregate in hot mix plant, transporting the mixed material and laying with mechanical paver finisher fitted with electronic sensing device to the required level and grade and rolling with road rollers, as per specification, to achieve the desired density and compaction but excluding cost of primer /tack				
238021	40 mm / 50mm compacted thickness with bitumen of grade 60/70 @ 6.5% and lime @ 3% by weight of total mix	Cum	6501.24	337.33	2,193,095.79
238050	Providing and applying 2.5mm 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 in accordance with applicable specifications	Sqm	513.03	304.91	156,428.74

238060	Providing and fixing of raised pavement markers made of polycarbonate moulded body and reflective panels with micro prismatic lens made of polycarbonate with abrasion resistant coating. The length, weight and width of body shall not exceed 95 mm, 18mm and 105 mm respectively. The lower surface of the RPM shall be supported with two nylon shanks, each of length not less than 25mm. Fixed to the road by using twin nylon shanks using bituminous adhesive on bitumen roads or without nylon shanks with epoxy resin adhesive on concrete roads as per directions of Engineer incharge. the RPM should conform to the quality standards as laid down in IR standard specifications	Each	662.06	120.00	79,447.20
045010	Supplying Reinforcement for R.C.C. work including straightening, cutting, bending, placing in position and binding all complete.				
045016	Thermo-Mechanically Treated bars	Kg	45.54	771300.68	35,125,033.02
	Supply and using cement at worksite:				
33060	OPC 53 Grade	MT	5060.00	3023.58	15,299,316.71
	Miscellaneous cost of Any Other USSOR item to Complete the Work	L.S		1000000.00	1,000,000.00
	<b>SUB TOTAL 'A'</b>				95,987,778.00
	Add 15.417% Escalation on USSOR 2010 (as per Calculation sheets prepared based on NWR HQ Letter No- NWR/S&C/HQ/444106864 dated 25.01.2016)		15.417%	95987778.00	14,798,115.78
	GROSS AMOUNT SCH.'A' (USSOR-2010)				110,785,893.78
<b>Schedule -"B" - Non Schedule Items</b>					
NS-1	Providing reinforcement cement concrete of mix design M-35/M-40 Grade with clean well graded 6mm to 20mm size broken stone aggregate cast-in-situ complete including batching, mixing, handling, placing, vibrating, compacting, curing as per specifications, cost of fixing and removing of centering and shuttering as per approved drawings in pile caps, piers, pier caps, pedestals, crush barrier, parapet, median, kerb, etc. complete.				

	The rate includes the cost of all materials such as stone aggregate, sand, water, shuttering and centering, all labours, handling, batching, mixing, vibrating etc, equipments and machinery such as mechanical mixer, vibrator etc. finishing smooth of exposed surfaces after removing centering and shuttering. The rates inclusive of providing temporary staging arrangements with contractor's material. The rates also include transportation of all materials with all lead, lift, all taxes & royalties etc. but excluding the cost of cement & reinforcement steel, which will be paid separately under relevant NS items.				
(i)	In Pile Cap	Cum	1965.36	1076.81	2,116,312.71
(ii)	Sub structure-pier, pier cap, pedestals & abutments etc.	Cum	4501.82	1102.13	4,961,573.03
(iii)	In super structure, deck slab, parapet, wearing coat, crash barrier etc.	Cum	5413.21	1540.41	8,338,551.77
NS-2	Supply, fabrication, (with MS IS 2062:2006 Gr.B0 E350 killed & Normalised structural steel) transportation of steel Girders to sites, including testing of welded, revitted steel girder as per Indian Railway standard specification for Steel Bridge Girders Sl. No. B1-2001 (as corrected upto date) and as per RDSO Drawing No. RDSO-B -11773, RDSO-B -11775 (as corrected upto date) IRC loading standard including supply and fixing in position of shop rivets, bolts ,HSFG Bolt, nuts, washer, welds, electrodes etc. required for complete fabrication of girders and transportation of fabricated Girders to the construction site as per direction of engineer in charge including loading & unloading at site and stacking of same at place(s) as directed by Engineer incharge including applying shop paint and metalising of approved quality over the structural members complete in all respect and including cost of labour, MS bolts nuts, rivets, welds all consumables, tools and plants etc. and all taxes.				
	NOTE -				

(i)	The rates shall also include assembling at shop yard or at site as directed by Engineer. all structural steel section such as Angles, Channels, Flats, Plates etc. required for complete work including its transportation shall be arranged by the Contractor on his own cost, all steel shall be approved quality as per specification. For testing / inspection and charged thereof refer additional Special Conditions and Specifications for fabrication and erection of steel structure.				
(ii)	The rate also includes NDT and other testing as per Railway Specification for the fabricated girder.				
(iii)	The fabrication work / cost includes preparation and approval of fabrication (shop) drawings / scheme welding of components, all structural steel welding consumables, cutting, shaping, holing, welding by fillet or butt welds, post weld treatments, inspection and testing, construction of all types of ties, stiffeners, packing, diaphragm, H.D. Bolt steel drifts, shop welding, shop rivets, HSFG bolts & washers, jigs, fixtures, back up supports, accessories etc. and marking each number for site identification and transporting various components from fabrication yard to bridge site in package bundles and other means with due care and safeguards as described in the specifications, and as directed by Engineer including loading, unloading, sorting, number-wise systematic matching etc. complete with contractor's own labour, material, tools & plants including all lead, lift and taxes complete.				
(iv)	The payment of stud (shear connectors) shall be paid under this item i.e. studs will be enumerated in numbers and multiplied by average weight of shear stud for payment purpose.				
(v)	The rate also includes apply one coat of base shop paint and finish two coat paint of approved sample after launching and casting & finishing of deck slab with all respect works. The paint sample should be got approved from the Engineer and application should also be as per instruction of Engineer. Cost of sand ballasting, metallising etc. are included in this item and nothing extra shall be payable.				

(vi)	The rate also includes cost of inspection testing of girder in stages by consignee from Railways/DFCCIL.	MT	83095.78	278.56	23,147,160.48
NS-3	Assembling, erection and launching of fabricated steel girders (with MS IS 2062:2006Gr.B killed & normalised structural steel) in proper position, line, Level, alignment including erection of staging and scaffolding, dismantling the same after completion of work under traffic block. The rate shall be inclusive grouting of sleeve bolts on the bed block complete in all respect with all materials, labour, tools and plant lead, lift and taxes.	MT	18413.68	278.56	5,129,314.70
(i)	Erection work includes preparation and approval of erection / assembly / launching scheme.				
(ii)	Erection work includes Contractor's own cranes of sufficient capacity and boom length, steel trestles as per site conditions of safe and adequate capacity or other manual / mechanical methods of erection and launching of truss members / girders. It also includes the work of battens, lacings, ties, Stiffeners, packing, diaphragm, T&F bolts, HSFG Bolt, steel drifts, field riveting, templates, jigs, fixtures, back up supports, accessories, temporary staging of CC Cribs of sufficient quantity for flooring and camber jacks, mechanical and hydraulic jacks, steel wire ropes and winch crabs, launching nose of steel for cantilever launching (if any), dead anchorages and any other suitable material such as small cranes for field assembly, shifting of leaves of steel girders from horizontal position to vertical position and vice-versa, scaffolding and air compressors welding plants, pneumatic tools and mini workshop facilities at site etc.				
(iii)	The job of erection also includes transport of already led materials (vide relevant item) to assembly platform or to nearby site location, lifting of truss components to required staging, assembly of truss members on drifts / bolts, field riveting and welding with the Contractor's own labour, material, tools & plants etc. complete job as required for the work.				

(iv)	This also includes cost of material, fabrication, erection and dismantling of all temporary components like gap structure, tower, high tensile cables (including anchorages), truss strengthening members, sway restraining devices such as sway rope restraining cables, counter weights, dead anchorages and other preliminary arrangements used for launching truss members etc. to suit the site requirements as required for the work for which no extra payment shall be made.				
(v)	Provision of all accessories such as inspection ladder, trolley refuge, pipe line, fixing arrangements, cable fixing arrangement and railings etc. of steel is also covered under above item which shall be paid as per actual weight.				
NS/4	Providing controlled reinforcement concrete in M-45 grade with clean well graded 6mm to 20mm size broken stone aggregate cast-in-situ in PSC I/Box Girder with diaphragm & deck slab super-structure including handling, placing, vibrating, compacting, curing, fixing and removing centering and shuttering as per Railway's approved drawings and MORT&H (IRC) specifications. The rate includes cost of erection of temporary steel staging including strutting, propping, wedging, easing, striking, & removal etc. complete and casting of platform for staging if required, providing required clearance for safe movement of trains duly observing all safety precautions making provision for fixing overhead equipments, road lights arrangements, cable ducts, drainage spouts, etc. Rate also includes the cost of all materials such as coarse aggregates, fine aggregates, water, admixtures etc. including transportation with all lead lift taxes and royalties. The rate inclusive of all labours, tools and plants, machinery and equipments to complete the work in all respect.				
	NOTE:- The rates are exclusive the cost of cement, reinforcement steel, HTS wires which will be paid separately under relevant NS items.	Cum	9853.38	1993.11	19,638,909.63

NS-5	Designing, providing and erection of specified grade precast RCC fascia panels of thickness 180 mm made with M:35 Grade concrete batching plant, transit mixer, concrete pump and vibrator for retaining earth with all elements and accessories including reinforcing element complete as per approved drawing and clause 3100 of MoRT&H specification including all material, labour, machinery etc (Scope of work includes designing, getting approval, casting in yard curing storing, transporting, lifting, placing in position, erection with all necessary fasteners etc. complete). Excavation in earth and provision of drainage layer (filter media) behind the fascia panel are included in the item.	sqm.	5253.21	5735.00	30,127,159.35
NS-6	Providing, laying, spreading (with paver finisher only) and compacting etc mix macadam (WMM) base course comprising of graded stone aggregate and granular material conforming to MORT&H specification (Table 400-II) in layers of equal compacted thickness each consolidated, including pre-mixing the material with water at OMC in mechanical mixer (Pug Mill), carriage of mixed material by tipper to site, laying in uniform layers in base course and compacting with power vibratory-roller to achieve the desired density complete as per MoRT &H specification clause -406 including all material, labour, machinery, lighting, guarding,.	Cum	1142.79	1246.88	1,424,916.28
NS-7	Providing, laying, spreading and compacting of granular sub-base by providing close graded material, mixing in mechanical mix plant at OMC, carriage of mixed material to work site, spreading in uniform layers with motor grader on prepared surface and compacting with vibratory power roller to achieve the desired density, complete as per MoRT&H specification clause - 401 including all material, labour, machinery, lighting, guarding Grade - I material.	Cum	1121.17	1296.75	1,453,877.20

NS-8	Providing and laying of filter media with granular materials / crushed aggregates satisfying the requirements laid down in clause 2504.2.2 of MORT&H specifications with smaller size towards the soil and bigger size towards the wall and provided over the entire surface behind abutment, wing wall and return wall to the full height compacted to the firm condition complete as per drawing and technical specification including all material, labour machinery as per clause 710.1.4 of IRC:78 and clause 710.1.4 of IRC:78 and clause 2200 of MORT&H specification.	Cum	1140.05	96.08	109,540.56
NS-9	Providing, placing and compacting to desired density approved backfill material in layers as per approved methodology including testing of reinforced fill portion in approaches between the reinforced soil (RS) wall panels as per approved drawings as per clause 3103 of MoRT&H specification. The soil should be predominantly coarse grained. Not more than 10% of particle should pass 75 micron sieve. The item shall be measured and paid for the finished volume of backfill and subgrade placed in position excluding the volume of filter media at base and behind the RS / RE walls.	Cum	345.97	20548.62	7,109,204.68
NS-10	supplying and fixing protective Screen made of MS angle, tee flat, xpm GI plain sheet etc. and fixing by welding/J hook Bolts, nuts, clamps making Cement, mortar strip to fill up the gap between slab and bottom of screen or as suitable to site condition including one or more coats of zinc Chromate over a coat of red Oxide on FOB/ROB between section as directed by engineer in charge. red Oxide confirming to IS 104 and Covering Coat of Aluminum Confirming to IS 2339 to Approved quality with all taxes , Octroi, Contractors labours materials , tools and plants lead, lift transportation etc.	Kg	83.79	2000.00	167,580.00
	<b>Total of Schedule 'B' (NS items)</b>				10,37,24,100.38

<b>Schedule 'C'</b>					
NS-11	Hiring of SUV/MUV vehicle Innova/Scorpio or similar vehicle for occasional use (on daily basis) for 250 Kms per day and 12 hrs/per day.	Vehicle Per Day	2580.91	240.00	619,418.40
NS-12	Providing diesel driven AC vehicle Xylo/Tavera/Scorpio/TUV300 or similar type SUV/MUV on hiring basis for DFCCIL-Jaipur at different locations up to 3500 Kms and 312 hours per month. The rates includes all taxes, License fee, permit, driver's wages, fuel, repair and maintenance of vehicle etc. with exception as mentioned in the conditions.	Vehicle Per Month	48203.41	24.00	1,156,881.84
NS-12(i)	Extra Charges for running of Vehicle per Km over assured mileage per month average in quarter as mentioned in items as above.	Km	10.09	10000.00	100,900.00
	<b>Total of Schedule 'C'</b>				<b>18,77,200.24</b>
<b>Schedule - 'D' - (RUIDP SOR 2017 Items)</b>					
NBSR 4.29 RUIDP	Providing and fixing Barricading at site of work for restricting the general public using 40 mm dia M.S. pipe ("B" class) as vertical post with average spacing of 1.80 meter between two vertical posts, having height at least 1.5 m above road/ ground level and at least 30-45 cm below road/ ground level by making suitable size hole in road/ ground, providing and fixing two rows of 40 mm dia M.S. pipe ("B" class) as horizontal members with nuts & bolts. Both vertical and horizontal members shall be painted in red and white colour strips as per approved pattern as when it becomes shabby but at least after every alternate shifting at new location. After shifting/ removal of barricading holes shall be filled up properly and site is to be cleared in all respect. (Note: measurement is to be done in linear basis)	Mtr.	50.00	509.24	25,462.00

NBSR 4.30 RUIDP	Providing and Fixing Minimum 0.63mm thick GI corrugated sheets (minimum width of each sheet shall be 60 cm) for covering the barricading in one/ two rows one above another and painting in red and white stripes as per the specifications and directions of the Engineer Incharge with proper fixing arrangements with GI limpet washers nuts and bolts complete in all respect.	Sqm	101.00	3842.24	388,066.24
<b>10.9 RUIDP</b>	Providing and fixing of retro- reflectorised cautionary, mandatory and informatory sign as per IRC :67 made of encapsulated lens type reflective sheeting vide clause 801.3, fixed over aluminium sheeting, 1.5 mm thick supported on a mild steel angle iron post 3 metre long and size 75 mm x 75 mm x 6 mm firmly fixed to the ground by means of properly designed foundation with M15 grade cement concrete 45 cm x 45 cm x 60 cm, 60 cm below ground level as per approved drawing including all material, labour.				
10.9.1	90 cm equilateral triangle	Each	3820.00	5.00	19,100.00
10.9.3	60 cm circular	Each	3370.00	5.00	16,850.00
10.9.4	80cm x60mm rectangular	Each	4700.00	5.00	23,500.00
10.12 RUIDP	Supplying and installation of delineators (road way indicators, hazard markers, object markers), 80-100 cm high above ground level, painted black and white in 15 cm wide stripes, fitted with 80 x100 mm rectangular or 75 mm dia circular reflectorised panels at the top, buried or pressed into the ground and confirming to IRC-79 and the drawings.	Each	381.00	10.00	3,810.00
10.13 RUIDP	Providing and erecting overhead signs with retro reflective Type IV sign plate fixed on angle iron frame with vertical and lateral clearance given in clause 802.2 and 802.3 and installed as per clause 802.7 over a designed support system of galvanised steel trestles and trusses of sections and type as per structural design requirements and approved plans.				
10.13.1	Truss and Vertical Support	ton	74900.00	2.00	149,800.00

10.13.2	Providing and fixing High Intensity retro reflective Type IV sign plate made out of 2.00 mm thick aluminium sheet face to be fully covered with blue/green high intensity grade retro reflective sheet and logo/matters, boarder made of with similar type of white sheeting after etching treatment of aluminium sheet, the black side is to be painted with epoxy grey paint. The plate is to be fixed on 40X40X5 mm angle iron frame with help of aluminum rivets.	Sqm	10400.00	15.00	156,000.00
10.26 RUIDP	Providing and fixing "SWISS" type bollard 134cm height made out of 1.25mm thick M.S. sheet welded in conical section having upper dia 15cm and lower dia 20cm with another attachment of mandatory 7mm thick plate and fixed with the help of 7cm long, 30cm dia chrome plated MS tube, this part is fixed on the body with another attachment of a cap 30x7cm, whole body is painted in black stove enamel and mandatory plate in azure blue with one compulsory keep left arrow with 10mm border reflective strip each of 7.5cm on body complete in all respect including all material, labour, diversion.	Each	1430.00	10.00	14,300.00
17.27 RUIDP	Providing, lowering, laying, aligning, fixing in position and jointing at all level/ depths full round HDPE DWC (double wall corrugated) pipes of SN8 grade as per IS 16098 (Part 2) amended upto date in trenches in complete including all material, labour, sectional hydro testing (including the cost and conveyance of water to site for testing) and commissioning as per Technical Specifications, drawings and as per direction of Engineer.				
17.27.1	Service Duct (Pipe 150 mm Dia pipe ) 2 in Crash Barrier both side	Meter	394.00	0.00	0.00
	Total of Schedule D				796,888.24
	Sub total				796,888.24
	Add average LAR of similar nature of work as per PVC=8.92%		8.92%	796888.24	71,082.43
	Total of Schedule - 'D' - (RUIDP SOR 2013 Items)				867,970.67
	Total of Schedule A+B+C+D				21,72,55,165.07

**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 NWR USSOR items contain item nos., if any discrepancy is found in nomenclature, rates, units etc. USSOR will prevail. The DFCCIL reserve the right to operate other USSOR items as per requirement of the work.
- (iv) RUIDP SOR items contain item nos., if any discrepancy is found in nomenclature, rates, units etc., RUIDP SOR will prevail.
- (v) 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.
- (vi) The rates shall also be inclusive of all taxes (**except GST**) legally leviable and / or any other taxes, license fee and royalty charges etc. if any.
- (vii) The above quantity is approximate:-The DFCCIL reserve the right to increase / decrease the same.
- (viii) 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 except payable as per contract.

**SUMMARY OF PRICES**

**Name of work:- Construction of Four Lane ROB (including approaches) in lieu of Level Crossing No. C-46 at IR Km 55/1-2 between Narnaul-Amarpura Jorasi stations on Rewari-Phulera Section in Jaipur Division of North Western Railway.**

Sl. No.	Description of works	Amount of Schedule (Rs.) (updated DFCCIL Rate / cost)	Rates to be quoted in figures & words (Clearly mention above / below / at par on updated DFCCIL Rate / cost given in column 3)
1	2	3	4
1.	Execution of all works as per Schedule "A" (items as per USSOR 2010 of NW Rly)	11,07,85,893.78	..... % age (in figures) ..... (In words)
2.	Execution of all works as per Schedule "B" (Non-schedule items)	10,37,24,100.38	..... % age (in figures) ..... (In words)
3.	Execution of all works as per Schedule "C" (Vehicle)	18,77,200.24	..... % age (in figures) ..... (In words)
4.	Execution of all works as per Schedule "D" (items as per RUIDP SOR 2017)	8,67,970.67	..... % age (in figures) ..... (In words)
	<b>Grand Total</b>	<b>21,72,55,165.07</b>	

**\* Contractor should bear the fact in mind while quoting the rates that GST will be paid by DFCCIL as per prevailing rate to Contractor for further deposition of GST to State Govt. and/or Central Govt. as applicable. Documentary evidence of deposition of GST will be produced by contractor.**

Notes:

- (i) The above prices are inclusive of all taxes, duties, levies, etc. **except GST.**
  - a) **GST** as applicable from time to time on taxable value of each running account bill **shall be paid by DFCCIL to Contractor for further deposition of GST to State Govt. and/or Central Govt.** as applicable. Documentary evidence of deposition of GST will be produced by contractor.
  - b) The contractor should adhere to **Anti Profiteering Provisions** as per section 171 of the CGST Act. Where due to change in the rates of GST / Change in law, the contractor gets any credits / benefits, the same shall be passed on to DFCCIL by way of reduction in prices.
- (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.