



E-Tender No. MUMBAI/N/EN/ROB/LC -104, Date 30.03.2020

For

Construction of one ROB including approaches complete in lieu of existing LC no. 104 at KM 208/30 – 209/02 between Dungri - Valsad Railway station of Virar – Surat Section of Mumbai Division of Western Railway.

**FINANCIAL BID
(PACKET-B)**

**TENDER DOCUMENT
March 2020**

**Employer:
DEDICATED FREIGHT CORRIDOR CORPORATION OF INDIA LIMITED
CGM/NORTH/MUMBAI UNIT
(A GOVERNMENT OF INDIA ENTERPRISE)
Under
MINISTRY OF RAILWAYS**

MUMBAI/N/EN/ROB/LC-104, Date 30.03.2020



DEDICATED FREIGHT CORRIDOR CORPORATION OF INDIA LTD
A Govt. of India (Ministry of Railways) Enterprises
7th Floor, New Administrative Building, D.N. Road, Mumbai-400001
NOTICE FOR INVITING BIDS (Online i.e. E-Tender)

Tender No	MUM/N/EN/ROB/LC-104, Dated: 30.03.2020
Name of work	NAME OF WORK: - Construction of Road Over Bridge in lieu of existing LC No. 104 at IR KM 208/30-209/02 between Valsad-Dungri Railway station of Virar – Surat Section of Mumbai Division of Western Railway.
(a) Type of Tender	Open Tender (Single stage two packet).
(b) Type of Contract	Works Contract.
(c) Tender Value	Rs. 33,15,14,527.00
(d) Completion Period	18 months
(e) Earnest Money	Rs. 50,00,000/- (Paid through Demand Draft/ banker's Cheque, FDR payable in favour of " Dedicated freight Corridor corporation of India Limited, Mumbai")
(f) Cost of Tender document	Rs. 10,000/- plus GST (18%) i.e. 11,800/- To be paid by D.D./Banker's Cheque in favour of DFCCIL payable at Mumbai
(g) Tender Processing Fee	Rs. 7,500/- plus GST (18%), plus taxes and duties as applicable (non refundable) through e- payment while uploading of tender
(h) 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
(i) Retention Money / Security Deposit	5% of Contract Value
(j) Officer:	Chief General Manager (North), Mumbai Dedicated Freight Corridor Corporation of India Limited/Mumbai, 7th Floor, New Administrative Building, D.N. Road, Mumbai-400001
(k) E-Tendering Web Site	E-tendering site- www.tenderwizard.com/DFCCIL Help: Please contact Tender wizard helpdesk at 011-49424365
(L) Pre bidding Conference	On 27.04.2020 at 11.00 AM at office of Chief General Manager (North) Mumbai, 7th Floor, New Administrative Building, DN Road, 400001

Signature of tenderer (s)

Date:

For CGM/NORTH/MUMBAI/DFCCIL

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DATE & TIME SCHEDULE	
Date of Uploading of NIT and other documents (Online Publishing date)	03.04.2020 at 15.00 Hr=0-0ks.
Documents download/Sell date (Online)	From 04.04.2020 at 11.00 Hrs.
Bid submission Last date (Online)	01.06.2020 up to 15.00 Hrs.
Last date of submission of originals of statutory documents i.e. EMD & Tender Document Charge	09.06.2020 up to 17.30 Hrs.
Bid Opening date & Time (online)	10.06.2020 at 11.00 Hrs.

Chief General Manager (North), Mumbai Dedicated Freight Corridor Corporation of India Limited/Mumbai, 7th Floor, New Administrative Building, D.N. Road, Mumbai-400001

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SUMMARY OF PRICES

Name of work:- Construction of ROB including approaches complete in lieu of existing LC no. 104 at KM 208/30 – 209/02 between Dungi - Valsad Railway station of Virar – Surat Section of Mumbai Division of Western Railway

Sl. No.	Description of works	Cost as per Schedules	Rates to be quoted in figures & words (Clearly mention above / below / at par on Schedules/Items updated DFCCIL Rate / cost given in column 3)
1	2	3	4
1.	Execution of all works as per Schedule "A" (Items as per SOR 2015-16 of State Govt. Gujarat R&B Valsad division.)	Rs. 1,84,59,528/-	Rates above / below / at par as per schedules shall be filled separately in Microsoft Excel File.
2.	Execution of all works as per Schedule "B" (NS Items as per State Govt of Gujarat)	Rs. 16,95,55,272/-	
3.	Execution of all works as per Schedule "C" (Items as per SOR 2015-16 of State Govt. Gujarat R&B Valsad division.)	Rs. 6,87,70,224/-	
4	Execution of all works as per Schedule "D" (NS Items as per Western Railway)	Rs. 6,35,91,574/-	
5	Execution of all works as per Schedule "E" (NS Items as per Western Railway)	Rs. 14,09,004/-	
6	Execution of all works as per Schedule "F" (USSOR Items as per Western Railway)	Rs. 22,16,943/-	

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.
 - 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.
- (iv) Rate of item payable to contractor shall be as per above/below/at par on rates of schedule.

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

NAME OF WORK :- Construction of ROB including approaches complete in lieu of existing LC no. 104 at KM 208/30 – 209/02 between Dungri - Valsad Railway station of Virar – Surat Section of Mumbai Division of Western Railway

Schedule- A

Schedule of Approximate quantities

SN	Item No.	Total Qty.	Item of work	Rate	UNIT	Amount in Rs.
1	26117C	2	Clearing and grubbing site/road/land including uprooting all vegetation, grass, bush shrubs, saplings and trees with girth, removal of stumps of trees of girth of all sizes including removing stumps of trees cut earlier and disposal of unserviceable materials and stacking of serviceable materials as directed by Engineer with all leads and lifts etc. complete as per specification. before commencement and after completion of the work.	32056.39	Hectare	64112.78
2	27007A	21098	Excavation for foundation in sand, gravel, clay soft soils and murrum etc. Including shoring, strutting dewatering as necessary and disposing of the excavated stuff as directed.(a) Depth upto 3.0m.	318.15	Cum	6712328.7
3	27009	1069	Excavated in large boulders and soft rock by wedging including shoring, strutting and dewatering	445.41	Cum	476143.29

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			as necessary and disposing of the excavated stuff as directed.			
4	27004AA	5682	Providing and laying filter media 600mm thick as directed at the back of abutments, returns, RE wall and wing walls as per detailed specifications.	792.85	Sqm	4504973.70
5	26161	686	Providing and laying Road marking with hot applied thermoplastic compound reflecting glass bends on bituminous surface. Providing and laying Hot applied thermoplastic compound 2.5 cm thick including reflectorizing glass bends 250 gms/sqmt area, thickness of surface applied glass bends as per IRC 35 the finished surface to be level uniform and free from streaks & holes. (As per Government letter no. SOR 102003/94/S-1, dated 20.07.2004)	298.96	Sqm	205086.56
6	27050A	130	Providing and laying weep holes in abutment, and returns by using AC pipe of 100 mm dia. including laying in proper grade and jointing the completed as per detailed specification.	53.93	Nos.	7010.9
7	27072	1806340	Providing and Fixing in position fully moulded restrained elastomeric bearings as per detailed drawings.	1.1110	Cu.cm	2006843.74
8	27087	3	Providing Vertical Joints between retaining walls, abutments, etc. (providing Pre- moulded asphalt filler joints as per drawings 12mm)	733.26	Sqm	2199.78

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9	27098A	16	Providing, fabricating and fixing in position GI Drainage Spout arrangements having 100 mm dia. Pipe B class with necessary bend, fixing to GI chamber, GI grating, providing and applying one coat of primer & two coat of anticorrosive paint, etc. complete as per drawing and as per specifications.	506.10	Nos.	8097.60
10	11012	6495	J type M20 Anchor bolt as per drawing including threading as shown in the drawing for standard octagonal pole type BOP 7030 all complete	39.996	Kg	259774.02
11	11001A	49	Structural Steel :- Base plate of 225 x 225 x 16 mm thick with adujstment of hole. MS plate 6mm thick 20mm wide 150mm long including welding to the base plate all complete	6026.67	Quintal	295306.83
12	14006	247	Providing and laying chequered terrazzo tiles 22mm thick for RCC staircase with marble chips of size upto 6mm in floors on 25mm thick bed of lime mortar 1:1.5 (1-Limeputty: 1.5 coarse sand) or C.M 1:6 jointed with neat cement slurry mixed with pigments to match the shade of the tiles including rubbing & polishing complete (A) Light shades using white cement.	474.70	Sqm	117250.90
13	NH SOR 16.2	271	Removal of existing asphaltic wearing coat comprising of 50mm	67.67	Cum	18338.57

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			thick asphaltic concrete laid over 12mm thick asphalt including disposal with all lift and lead			
14	27100A	120	Providing PVC 100 mm diameter water spouts including necessary iron gratings as per drawings.	187.86	Each	22543.20
15	CH 8 NH SOR 8.8	3035	Painting two coats after filling the surface with synthetic enamel paint in all shades on crash barrier concrete surfaces.	63.63	Sqm	193117.05
16	26048	1	Providing & fixing ordinary Kilometre stone of precast C.C. 1:2:4 including necessary reinforcement as per I.R.C. type design in C.C. 1:4:8 including letter & paints etc. complete (For N.H., S.H. & M.D.R.)	841.33	Each	841.33
17	27101A	2	Providing and fixing marble slab including engraving and painting complete. (A) size 75 cm x 60 cm x 4 cm	955.46	Nos	1910.92
18	27097A	1116	Providing and fixing post and pipe railing as per detailed drawing including 3 coats of painting to steel works complete.	1073.63	RMT	1198171.08
19	26089EA	11	Supplying and fixing reinforced concrete heavy duty non-pressure pipes with collars for culverts carrying heavy traffic as per IS 458-1991 specifications including setting the pipes in C.M. 1:2 watering and laying (to level or slopes) of class NP3 of following internal diameters . (vii) 900mm	2097.77	RMT	23075.47

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			dia. .			
20	27001B	143	Dismantling the existing structure including removing and stacking the dismantled materials as and where directed. (B) Rubble Masonry/Brick Masonry	254.52	Cum	36396.36
21	23067	2290	Providing, laying and jointing in true line and level 110 diameter U.P.V.C (Type B) conforming to IS 13592-1992 with one end plain and other end socketed with rubber ring, & fittings conforming to ISI 14735-1999 of approved make for drainage system pipe line, pipe shall be	531.26	Rmt	1216585.40
22	26101B	4	Providing & Fixing Village name boards made out of 2mm. Aluminium sheet size 90 x 60 cms rectangle per the design of IRC - 67 - 2015 Pre treated with phosphating process & acid etching : coated with one coat of epoxy primer and two coats of best quality epoxy paint reflectorised with retro reflective sheeting as per latest M.O.S.T Specification :Letters and numerals sound be as per IRC-30-1968, 3.1 M long (2 no's) Stand post and frame fabricated from suitable size iron angle of 50 x 50 x 5mm : painted with best quality epoxy coating in black and white bends the details of symbol or inscription / numerals for each board shall be as per the instruction for of Engineer-in-charge, The fixing at site shall be in	5246.95	No.	20987.80

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			1;2;4 CC block of size 45 x 45 x 60cms. for each leg. including excavation curing etc. comp. under the supervision of engineer in charge.(B) High intensity Grade			
23	26103B	8	Providing & Fixing sign boards made out of 2mm. Aluminium sheet size 1 Meter x 1 Meter cms as per the design given by engineer in charge, Pre treated with phosphating process & acid etching : coated with one coat of epoxy primer and two coats of best quality epoxy paint reflectorized with retro reflective sheeting as per latest M.O.S.T Specification, Letters and numerals should be as per IRC -30-2015, 3.1 M long (2 nos) Stand post and frame fabricated from suitable size iron angle of 35 x 35 3mm & 50 x 50 x 5mm 75 x 75 x 6mm : painted with best quality epoxy coating in black and white bends the details of symbol or inscription / numerals for each board shall be as per the instruction for of Engineer-in-charge, The fixing at site shall be in 1;2;4 CC block of size 45 x 45 x 60cms. for each leg. including excavation curing etc. comp. under the supervision of engineer in charge.(B) High intensity Grade	6618.53	Nos	52948.24

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24	26098B	2	Providing and fixing Junction Board made out of 2mm aluminium sheet, size 244 x 122 cms rectangle, as per the design of IRC-67-2015. Pre treated with phosphating process and acid etching coated with one coat of epoxy primer and two coats of best quality epoxy paint, reflectorized with retro reflective sheeting as per the latest M.O.S.T. specification, Letters and numerals should be as per IRC-30-1968. 3.1 Mt. long (2 nos.) stand post and frame fabricated from suitable size iron angle of 50 x 50 x 5 mm, 75 x 75 x 6 mm; painted with best quality epoxy coating in black and white bends. The details of symbol or inscription/ numerals for each board shall be as per the instruction of engineer in charge. The fixing at site shall be in 1:2:4 CC block of size 45 x 45 x 60 cms for each leg, including excavation curing etc. complete under the supervision of Engineer-In-Charge (B) High intensity Grade	18047.69	Each	36095.38
25	26102B	12	Hazard Marker Sign: Providing & Fixing sign boards made out of 2mm. Aluminium sheet size 90 x 30 cms rectangle per the design of IRC Pretreated with phosphating process & acid etching : coated with one coat of epoxy primer and two coats of best quality epoxy paint reflectorised with retro reflective sheeting as per latest	2935.06	Nos	35220.72

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			M.O.S.T Specification : 3.1 M long (2 no's) Stand post and frame fabricated from suitable size iron angle of 35 x 35 x 3mm & 50 x 50 x 5mm painted with best quality epoxy coatings The fixing at site shall be in 1;2;4 CC block of size 45 x 45 x 60cms. for each leg. including excavation curing etc. complete under the supervision of engineer in charge.(B) High intensity Grade			
26	26092B	2	Providing and fixing cautionary warning sign board made of 2mm aluminium sheet size 90X90X90 cms. Equilateral triangle as per the design of IRC-67-2015 pretreated with phosphating process & acid catching with one coat of epoxy primer and two coats of best quality epoxy paint reflective with retro reflective sheeting as per latest MOST specification 3.1 mt. long stand post and frame fabricated from suitable size iron angle of 35X35X3mm. 75X75X6mm as required .painted with best quality epoxy coating in black and white bends, the details of symbol for board shall be as per the instruction of engineer-in-charge. the fixing at site shall be in 1;2;4 cc block of size 45X45X60 cms for each leg including excavation curing etc. complete under the supervision of engineer in charge (high intensity grade).	3272.4	Nos.	6544.80

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27	26008	5412	Box cutting the road surface to proper slope and camber for making a base for road work including removing the excavated stuff and depositing on the road side slope as directed.	66.054	Cum	357484.25
28	26163	605	Supplying and fixing cat eye with nail less surface (Stimsonite) made out from Acrylic butyle styrene high compression injection moulding with reflector made of MMC (prismatic type of size 12cm x 6cm x 2.5cm) provided with bituminous adhesive 100g. with each unit for fixing.(High intensity grade)	375.72	Nos.	227310.60
29	27039	105	Empty boring through all. sorts of strata for providing 1.20 M dia. R.C.C. bored piles to required depth including providing necessary casting pipe with all plants and equipment's as required complete.	3360.27	RMT	352828.35
			Total Amount of Schedule – A			1,84,59,528.00

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Schedule- B

Schedule of Approximate quantities						
Sr. No	Item No.	Total Qty.	Item of work	Rate	UNIT	Amount in Rs.
1	State NS/01	1	Marking out the centre line of the Bridge and various other component structures and complete lining out and levelling with theodolite, levels, including constructing necessary masonry pillars for lines and levels and establishing necessary bench marks etc. complete as directed.	13108.54	LS	13108.54
2	State NS/02	2165	Earth work for embankment including breaking clods dressing With all lead and lift and including watering, rolling, and consolidation of subgrade in layers at O.MC. to required dry density including filling the depressing which occur during the process using Vibratory roller 8.T. to 10 T (from borrow area within 5 km lead).	243.41	Cum	526982.65
3	State NS/03	1735	Providing and casting in-situ controlled cement concrete of M35 grade for RCC work for Pile cap, foundation for pier, abutment, RCC Stair Case and retaining walls with 20/40mm down coarse aggregate of the required size for any depth including dewatering, scaffolding centring, shuttering, mixing, placing in position, consolidating with mechanical vibrators, curing, deshuttering carefully, making good	4093.64	Cum	7102465.4

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			the damages, fixing embedment, inserts, pockets, wherever necessary as per specification and drawing.			
4	State NS/04	1549	Providing & filling in foundation with ordinary cement concrete M 15 mix and providing necessary vertical pin headers including formwork vibrating ramming & curing complete.	2723.01	Cum	4217948.69
5	State NS/05	2962	Providing and casting in-situ controlled cement concrete of M35 grade for RCC work for pier & abutment return wall as per drawing including centring, shuttering, scaffolding where necessary currying vibrating curing and finishing complete A) height from 0 to 5m	4157.61	Cum	12314840.82
6	State NS/06	616	Providing and casting in-situ controlled cement concrete of M35 grade for RCC work for pier & abutment return wall as per drawing including centring, shuttering, scaffolding where necessary currying vibrating curing and finishing complete. A) height above 5m	4388.32	Cum	2703205.12
7	State NS/07	886	Providing and casting in situ controlled cement concrete M35 for RCC works on pier cap, abutment cap and dirt wall including controlled cement concrete or pedestals of required drawings, centering shuttering, scaffolding wherever necessary laying vibrating	4212.14	Cum	3731956.04

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			curing and finishing complete.			
8	State NS/08	488	Providing and casting in situ controlled cement concrete M40 for RCC works for Pedestal, Seismic Arrester, Wearing Coat and Deck Slab including controlled cement concrete or pedestals of required drawings, centering shuttering, scaffolding wherever necessary laying vibrating curing and finishing complete .	4312.82	Cum	2104656.16
9	State NS/09	2856	Providing and casting in situ controlled cement concrete M35 for R.C.C. work in superstructure including centering, shuttering scaffolding, ramming, vibrating curing and finishing complete.(A) T-Beam and Deck slab type of superstructure. (I) Deck slab (II) Main and cross girder	4312.82	Cum	12317413.92
10	State NS/10	37	Providing and casting in -situ controlled cement concrete of M 30 grade for Parapet with 20 mm down coarse aggregate of the required size including formwork, shuttering, placing in position, consolidation with mechanical vibrators curing finishing, deshuttering carefully, marking good the damages, fixing embedment, inserts, pockets, wherever necessary as directed and as per drawing with F3 type exposed concrete finish and formwork as directed by Engineer - in -charge, etc. complete as per specification.	3204.00	Cum	118548.00

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11	State NS/11	7865	Reinforced earth Retaining wall(Reinforced Earth Retaining Walls for have for main components as under: a)Excavation for foundation, Foundation concrete & cement concrete grooved seating in the foundation for facing elements (facia material) ,b)Facia material & its placement c)Assembling, joining with facing elements and laying of the reinforcing elements, d) earthfill with granular material which is to be retained by the wall. Facing elements of RCC	6140.34	Sqm	48293774.10
12	State NS/12	37739	Backfilling, grading and compaction with selected backfill soil in layers in soil reinforced works with peak internal angle of friction as per adopted design parameters complete as per drawings and technical specifications or as directed by engineer.	726.74	Cum	27426440.86
13	State NS/13	239	providing and fixing 100 dia runner and downtake GI pipe to drain water from drainage spout with necessary fixtures including cost of all materials, labours, bends, fixtures, specials ec. Complete as per drawing and Sp. And as per direction of engineer.	846.01	RMT	202196.39
14	State NS/14	3860	Construction of 300 mm thick Granular Coarse Sub Base (GSB) (Grade - I crushed B.T materials of 53mm to 9.5mm @ 50% 9.5mm to 2.36mm @ 20%, below 2.36mm @ 30%) by providing coarse graded material mixing in a mechanical mix	778.12	Cum	3003543.2

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			plant at OMC, carriage of a mix material to work site spreading in uniform layers with motor grader on prepared surface, and compacting with vibratory rollers to achieve the desired density, complete as per MORTH specification.			
15	State NS/15	4825	Providing and laying wet mix base course macadam(WMM) 300 mm in Two layer using machine crushed chips as per required gradation mixing with required optimum quantity of water conveying the mix to site and spreading to grade and camber with mechanical paver consolidation by vibratory roller including material, labour, plant and machinery and equipment etc complete.as per MORT&H Specifications.	832.65	Cum	4017536.25
16	State NS/16	3995	Providing & laying DENSE GRADED BITUMINOUS MACADAM with batch type Drum Mix Plant (DMP) using crushed aggregates of specified grading, premix with bitumen grade 60/70 , bituminous binder @ 5.0 per cent by weight of total mix and filler, transporting the hot mix to work site, laying with a hydrostatic paver finisher with sensor control to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction complete, including providing & laying tack coat 2.5kg /10sqm all as per MORTH	4416.00	Cum	17641920.00

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			specification.			
17	State NS/17	1390	Providing and laying 40 mm Bitumen concrete using crushed stone aggregate BT chips as per required gradation and using emulsion asphalt as a tack coat @ 2.5 kg / 10 sqmt and the VG 30 grade asphalt at 55 kg/MT)by total weight of mix hot laid process using drum mix plant including heating and mixing asphalt & materials by drum mix process transporting the mix and laying by paver finisher including consolidation with vibratory roller including cost of material, labour, machinery equipment and fuel , oil , lubricant for plant and machinery using contractor's own plant and machineries etc. complete as per MORTH Specifications.	4728.51	Cum	6572628.9
18	State NS/18	19299	Providing and applying priming coat with emulsion SS1 grade at the rate of 7.50 kg/ 10 Sq.mt. including cost of asphalt and preparing the surface heating, and applying etc. complete.	22.02	Sqm	424963.98
19	State NS/19	20	Providing and casting in situ controlled cement concrete concrete M-30 for approach slab including formwork curing and finishing complete.	4144.08	Cum	82881.60
20	State NS/20	1930	Providing and applying one coat of Epoxy phenolic primer of DFT 50 microns and two coats of Epoxy phenolic coating of DFT 100 microns	189.81	Sqm	366333.3

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			each for RCC Element or any other equivalent epoxy coating system to all concrete surfaces exposed to atmosphere in substructure and superstructure including cost of material labour, transportation, scaffolding and preparing the surface by cleaning, washing, brushing, sand/grit blasting etc complete and as directed by engineer and as per specification. (Paint shall be approved from Engineer and tested from approved Laboratory) (Total DFT = 50+100+100 = 250 microns)			
21	State NS/21	149	Providing and fixing in position Strip Seal Type Expansion Joint (for movement upto 60mm) as per detailed drawing MORTH specification. The rate is inclusive of supplying, fixing with contractor's own materials, equipments, machineries, labour, transport, testing, bolts, socket tubes, neoprene sheet/cap etc. complete. The rate is finished item complete and will be paid after fixing in all respect. The Contractor shall procure Strip Seal Expansion Joint, confirming to relevant MORTH specification from M/s.Sanfield (India) Ltd. /METCO or from reputed manufactures of Strip Seal Expansion Joint with prior approval of Engineer-incharge.	9410.88	Rmt	1402221.12

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22	State NS/22	2	Providing Pylon consist of cast-in-situ concrete of M30grade exposed finish as per drawing and as directed by engineer incharge. Rate includes providing required shuttering and form work but excluding stone slab & carving. (Reinforcement shall be paid in respective item.)	3772.00	Nos	7544.00
23	State NS/23	68	Providing and casting in situ reinforced cement concrete M30 grade controlled cement concrete in RCC Chamber etc. using 6mm to 20mm machine crushed well graded stone aggregate, sand of approved quality, OPC 53 grade cement with contractor's own concrete mix design as approved by client etc complete as per specification The rate is inclusive of all materials, including necessary mixing in fully automatic batch mix plant, transportation, curing, vibrating, placing in position, shuttering, formwork, deshuttering carefully , making good the damages, fixing embedment, inserts, pockets, necessary, with all lead & lift with contractors labour, tools & plants machinaries, as required with F3 type exposed concrete finish and form mark.	3772.00	Cum	256496.00
24	State NS/24	1116	Reinforced Cement Concrete Crash Barrier (Provision of an Reinforced cement concrete crash barrier at the edges of the road, approaches to bridge structures and medians, constructed with M-40 grade	3612.61	Rmt	4031672.76

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			concrete with TMT reinforcement conforming to IRC:21 and dowel bars 25 mm dia. 450 mm long at expansion joints filled with pre-moulded asphalt filler board, keyed to the structure on which it is built and installed as per design given in the enclosure to MOST circular No. RW/NH - 33022/1/94-DO III dated 24 June 1994 as per dimensions in the approved drawing and at locations directed by the Engineer, all as specified) & Provide 150 mm dia. PVC pipe for utility services etc complete (A) Only crash barrier			
25	State NS/25	1089	Reinforced Cement Concrete Crash Barrier (Provision of an Reinforced cement concrete crash barrier at the edges of the road, approaches to bridge structures and medians, constructed with M-40 grade concrete with TMT reinforcement conforming to IRC:21 and dowel bars 25 mm dia. 450 mm long at expansion joints filled with pre-moulded asphalt filler board, keyed to the structure on which it is built and installed as per design given in the enclosure to MOST circular No. RW/NH - 33022/1/94-DO III dated 24 June 1994 as per dimensions in the approved drawing and at locations directed by the Engineer, all as specified) & Provide 150 mm dia. PVC pipe for utility services etc complete (A) crash barrier with Friction slab	7617.43	Rmt	8295381.27

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26	State NS/26	10231	PRIMER & PROTECTIVE COATING- providing and laying the external decoative waterproff & Protective coating system for concrete and masonary shall be MASTERSEAL 200H , a single component elastomeric crack bridging acrylic coating applied at an average thickness of 50 micro DFT in two coat the product shall be applied on ssuitability primed substate using MASTERSEAL 399 as primer . The product must be crack bridging elongation type with elongation at break , exceeding 200% & tensile strength exceeding 2 MPa The system shall exhibit exellant bond strength with the substrate at least exceeding 1.0 MPa , when tested as per ASTMD 4541.	182.690	Sqm	1869101.39
27	NS/27	121	Providing and laying controlled cement concrete M 35 for R.C.C bored piles of 1.20 M dia. Including ramming, vibrating and finishing, excluding T.M.T Reinforcement complete.	4210.89	Cum	509517.69
			Total Amount of Schedule – B			16,95,55,271.95

Signature of tenderer (s)

Date:

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Schedule- C

Schedule of Approximate quantities						
SN	Item No.	Total Qty.	Item of work	Rate	UNIT	Amount in Rs.
1	27047A	368	Providing and placing in position High Yield Strength Deformed (HYSD) bars reinforcement (TMT Fe 500D grade) conforming to IS 1786 of all categories for Pile cap, foundation for pier/ abutment/ return wall including cutting, bending, hooking and tying with 18 gauge mild steel binding wires, supporting in position to ensure lines and levels during concreting, maintaining proper cover / spacing etc. complete as per specification and detailed drawing.	42446.26	MT	15620223.68
2	27109 & 27111	707	Providing and placing in position High Yield Strength Deformed (HYSD) bars reinforcement (TMT Fe 500D grade) conforming to IS 1786 of all categories for pier, abutment, pier cap, abutment cap, returns, pedestal, seismic arrester & retaining wall including cutting, bending, hooking and tying with 18 gauge mild steel binding wires, supporting in position to ensure lines and levels during concreting, maintaining proper cover / spacing etc. complete as per specification and detailed	45575.24	MT	32221694.68

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			drawing.			
3	27121	405	Providing and placing in position High Yield Strength Deformed (HYSD) bars reinforcement (TMT Fe 500D grade) conforming to IS 1786 of all categories for superstructure including cutting, bending, hooking and tying with 18-gauge mild steel binding wires, supporting in position to ensure lines and levels during concreting, maintaining proper cover / spacing etc. complete as per specification and detailed drawing.	44990.45	MT	18221132.25
4	27123	32	Providing and fixing in position steel bar reinforcement of steel grade Fe-500 (TMT) including cutting ,bending, hooking, tying, welding etc, complete as per detailed drawing and specification (A) R.C.C. Approach slab	44298.6	MT	1417555.20
5	NH SOR 8.23B	50	Providing and erecting a "Thrie" metal beam crash barrier comprising of 3 mm thick corrugated sheet metal beam rail, 85 cm above road/ground level, fixed on ISMC series channel vertical post, 150 x 75 x 5 mm spaced 2 m centre to centre, 2 m high with 1.15 m below ground level, all steel parts and fitments to be galvanised by hot dip process, all fittings to conform to IS:1367 and IS:1364, metal beam rail to be fixed on the	3503.69	Rmt	175184.50

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			vertical post with a space of channel section 150 x 75 x 5 mm, 546 mm long complete as per clause 810			
6	27020A	5	Providing and installing 6 mm MS liner for bored-cast-in-situ concrete piles including applying protective coating as per drawing and specification and as directed by Engineer.	44690.48	MT	223452.4
7	27043C	20	Providing and placing in position High Yield Strength Deformed (HYSD) bars reinforcement (TMT Fe 500D grade) conforming to IS 1786 of all categories for Pile including cutting, bending, hooking and tying with 18 gauge mild steel binding wires, supporting in position to ensure lines and levels during concreting, maintaining proper cover / spacing etc. complete as per specification and detailed drawing.	44549.08	MT	890981.6
			Total Amount of Schedule -C			6,87,70,224.00

Schedule- D

Schedule of Approximate quantities						
SN	Item No.	Total Qty.	Item of work	UNIT	Rate	Amount in Rs.
1	NS/1	501.00	Supply & Fabrication of steel girder spans including its components (Stiffeners, Bracings, Splices, Studs etc.) as per the approved drawings for composite construction of superstructure of the Road Over Bridge with contractor's own Steel confirming to IS: 2062 Grade 250/350(B0) with all welds, HSBG Bolts, nuts bolts, rivets etc. with contractor's own materials, fabrication, machinery, templates, fixtures, equipments tools and plants transportation, skilled/unskilled labour, excise duty., Octroi, sales tax and other taxes, all leads lifts, descent, loading, unloading, crossing one or more Railway track if required etc. complete and as per technical specifications. The rate is inclusive of transportation of fabricated girder parts to site by contractor's own means at his cost. The rate shall also be inclusive of cold straightening of deformed and bent girder parts before their assembly. (The Structural Steel to be used Should be manufactured by SAIL/RINL/TISCO /ESSAR/JINDAL Only.) Work has to be done as per drawings and specifications approved by Railway. High quality superior brand of paint	MT	98897.53	49547662.53

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			<p>should only be used. For Painting, prior approval for superior brand / make of the paint should be taken from engineer in charge. Note:1. The fabrication of girders must be got done from RDSO approved firms only. 2. The rate is inclusive of assembly of girder with service bolts as per approved drawing in shop for checking by Engineer's representative and dismantling the same after checking for transportation to the site. 3. Weight of HSFG bolts, Rivets, Welds shall not be considered for payment. Nominal weight of the girder spans including its components (Stiffeners, Bracings, Splices, Studs etc.) as per drawing will only be considered for payment.</p>			
2	NS/2	6300.00	<p>Metalizing girder/girder components such as cross girders, top chord channels, bracing etc. of Steel Girder as directed by Engineer with aluminium spray not less than two layers after preparing surface by sand/grit blasting as per provision laid in Appendix VI of IRS B 1179 code (latest alteration) including one coat wash primer (IS-5666) one coat zinc chrome primer (IS-104) and two coats of aluminium paint (IS-2339) with approved paint conforming to IS specification for fabrication & erection of steel girder bridge (RS B 1-79) as corrected up to date with contractor's own materials, tools, plants labour, loading/unloading, transportation, handling, re-handling</p>	Sqm	682.79	4301577.00

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			if any including all lead, lifts, crossing of track/ obstruction etc. complete in all respect and as per direction of Engineer.			
3	NS/3		Assembling, Welding, Erecting, Bolting by HSFG bolts, riveting if any as per approved drawings and Launching of girder spans including its components on running line / Non- Running line /Running electrified line / under block period with the help of road crane of required capacity as per Railway's approved drawings & Scheme with other ancillary steel structures fixed to the girder, where necessary, in proper level and alignment and as per technical specifications. The rate shall be inclusive of supply, erection and dismantling of staging and scaffolding and other temporary arrangements required for assembly, erection and launching of girders. The rate shall also be inclusive of cold straightening of deformed and bent girder parts before/after their assembly. Work has to be done as per drawings and specifications approved by Railway.			
			Note: Weight of HSFG bolts, Rivets, Welds shall not be considered for payment. Nominal weight of the girder spans including its components (Stiffeners, Bracings, Splices, Studs etc.) as per drawing will only be considered for payment. Launching of Steel girder spans Launching of Steel girder spans including its components on running line /Running electrified line / under block period with the help			

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			of road crane of required capacity as per Railway's approved drawings with other ancillary steel structures fixed to the girder where necessary in proper level and alignment and as per technical specifications.			
	NS/3 (a)	228.00	Launching of Steel girder spans including its components on running line /Running electrified line / under block period with the help of road crane of required capacity as per Railway's approved drawings with other ancillary steel structures fixed to the girder where necessary in proper level and alignment and as per technical specifications.	MT	18924.10	4314694.80
	NS/3 (b)	273	Launching of Steel girder spans including its components on non running line with the help of road crane of required capacity as per Railway's approved drawings with other ancillary steel structures fixed to the girder where necessary in proper level and alignment and as per technical specifications.	MT	3577.88	976761.24
4	NS/4	19.00	Fabricating, supplying and erecting in position standard structural steel sections manufactured from IS approved manufacturers only ,conforming to IS :2062 - 1992 (including latest amendments) including welding with approved quality welding rods, supply and fixing of correct size turn bolts including one primer coat of red lead paint conforming to IS:102 or Zinc chromate paint conforming to IS:104 followed	MT	79040.07	1501761.33

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			by two coats of Aluminium paint as per IS : 2339 with all contractor's materials, labour, tools and plants etc in bolted/welded construction as directed by Engineer in charge. Work shall be carried out as per IS:800-1984 (with latest amendments), IRS specification No. B3-61 part 2 and IS 816 for welding.			
5	NS/5		Providing and fixing POT -PTFE bearing as per IRC 83 in position true to line and level including cost of all materials fixtures surface for receiving bearing, grouting of sleeves with non-shrink high strength grout, load testing of bearing, transporting and fixing in position including all lead and lift etc. complete as per approved designs and drawing and as directed by Engineer.			
		12.00	Fixed bearing (Capacity up to 250 MT)	No.	60227.69	722732.28
		32.00	Sliding bearing (Capacity up to 250 MT)	No.	60227.69	1927286.08
			Note: The rate is for finished item complete and paid only after fixing in position below the girder.			
6	NS/6	1.00	Load testing of one composite steel /Span Designing and Load testing of one composite girder/ Span as selected by the Engineer confirming to Rly. Standard's with loads to be applied and removed incrementally etc. complete as per special condition and specification of contract, as per relevant IS/IRC codes with all contactors labour supervisor, T & P's all taxes, equipment, leading materials instruction of load test jacks etc., dial	Each	288304.70	288304.70

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			gauges, including all lead and lift.			
7	NS/7	8	Conducting Pile low strain integrity test as per ASTM D 5882- 96 code of American Society for Testing on cast - in situ RCC pile of 1200 mm diameter inclusive of analysis with all contractor's equipment, manpower, site preparation, lead and lifts etc. complete as per standard procedure, and as directed by the Engineer in charge. Note:- Rate is inclusive All equipment, All labour and consumable required & Mobilization of equipment	Each	1349.21	10793.68
			Total Amount of Schedule – D		6,35,91,573.64	

Schedule- E

Schedule of Approximate quantities						
SN	Item No.	Total Qty.	Item of work	UNIT	Rate	Amount in Rs.
1	NS/1	109916	AutoCAD Drawings: Preparation / Alternation and submission of drawings such as general arrangement drawings, phase drawings, scheme plan, structural drawings etc. On Auto Cad as per details and directions given by the Engineer in charge including plotting and submitting in standard inkjet film of 50 micron and CD, submitting check prints on A3/A2/A0 size papers and final print complete and as per instructions of Engineer in charge.	Per Sqcm	0.37	40668.92
2	NS/2	1	Site Office Providing, arranging, managing and maintaining 500 sq.ft. well furnished AC office and well equipped Laboratory with 3 tables, 10 chairs, 2 steel almirah, one computer with printer & operator, sufficient number of display etc. to the satisfaction of the Project Manager including Electrical, Water expenses etc. For execution of this item the date of start shall be considered only when the Contractor has actually rented/constructed the required premises established the office & Laboratory as per requirement. This item shall remain valid only for original contact period; no additional payment shall be made for whatsoever reason even if time extension is provided or date	LM	458200.00	458200.00

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			of completion is extended. This office and laboratory including furniture and all other equipment shall be property of contractor after completion of Project.			
3	NS/3	329.00	Providing & fixing Safety Screen as per RDSO Drg. No. EL / C / 0068 MOD " E " , on the Parapet with necessary fixtures etc. as per detailed drawing including contractor's own materials, labours, tools and plants, etc. complete.	Sqm	1081.17	355704.93
4	NS/4	4.00	Making and supplying of check rails of 52 kg/ 60 kg rails of various lengths for level crossing as per approval drawings.	Each LC	2746.45	10985.80
5	NS/5	1789.00	Providing, fixing and maintaining MS fabricated traffic barricading of 2.50m height on either side of the carriage way / portion of the carriage way closed to the traffic including provision of all sign boards/ bollards and warning lights etc. as per the Engineer in charge.	Meter	303.77	543444.53
			Total Amount of Schedule – E			14,09,004.18

Schedule- F

Schedule of Approximate quantities						
SN	Item No.	Total Qty.	Item of work	UNIT	Rate	Amount in Rs.
1	USSOR 201051	39	Providing and fixing in position of standard performed Sealed and slab Type or strip steel elastomeric type Expansion Joint (80mm expansion) for railway bridges or Road over Bridges as per approved detailed drawing and latest MORTH/IRC69 specification. The rate is inclusive of supplying, fixing with contractor's own materials,e.g. inserts, bolts, socket tubes, neroplane, sheet/cap etc. equipments, machineries, labour, all taxes, royalty all lead and lift transport, testing, surface preparation complete.	RMT	10959.03	427402.17
2	USSOR 2011 Western Railway		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 & plant , equipment, machinery etc complete as per drawing and specification as directed by the Engineer.			
	192103	1	Initial load test above 100 ton capacity up to 250 ton capacity.	Each	197745.38	197745.38

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	192104	30	Extra for every increase of 50 T in pile capacity or part thereof over 250T	Each	43817.59	13,14,527.7
3	192107	1	Routine load test above 100 ton capacity up to 250 ton capacity pile.	Each	277267.47	277267.47
Total Amount of Schedule – F						22,16,943.00

END OF TENDER DOCUMENTS