

### e-Tender No. BRC/EN/ROB/LC-163 Date 15.04.2017

## For

Construction of Road Over Bridge in lieu of existing LC No.163 At Rly km 301/30-32 (DFCC Ch : 52553 of Section-4 of DFCC) between station Sayan and KIM of BCT-ADI W.Rly Route & (JNPT(Mumbai) – Dadri (Delhi)- WDFC route.

# FINANCIAL BID (PACKET-B)

## TENDER DOCUMENT April, 2017

#### Employer: CHIEF PROJECT MANAGER/VADODARA DEDICATED FREIGHT CORRIDOR CORPORATIONOFINDIALIMITED (A GOVERNMENT OF INDIA ENTERPRISE) Under MINISTRYOF RAILWAYS

Signature of Tenderer(s) Date:



#### DEDICATED FREIGHT CORRIDOR CORPORATION OF INDIA LTD A Govt. of India (Ministry of railways) Enterprises 4<sup>th</sup> Floor, Narmada Naher Bhavan, Near Chhani Jakat Naka,Vadodara-390002 NOTICE FOR INVITING BIDS (Online i.e. E-Tender)

Tender No	Vadodara/EN/ROB/LC – 163, date 15.03.2017
Name of work	Construction of Road Over Bridge in lieu of existing LC No.163 At Rly km 301/30-32 (DFCC Ch: 52553 of Section-4 of DFCC) between station Sayan and KIM of BCT-ADI W. Rly Route & (JNPT(Mumbai) – Dadri (Delhi)- WDFC route.
(a) Type of Tender	Open Tender (Single stage two Packet )
(b) Type of Contract	Works Contract.
(c) Tender Value	Rs. 41,99,84,034/-
(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, Vadodara")
(f) Cost of Tender document	Rs 10,500/- (Rs 10,000 +5% GVAT) To be paid by D.D./Banker's Cheque in favour of DFCCIL payable at Vadodara
(g) Tender Processing Fee	Rs7,500/- 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:	<b>Chief Project Manager/ Vadodara,</b> Dedicated Freight Corridor Corporation of India Limited 4 <sup>th</sup> floor, Block-A, Narmada Naher Bhavan (Sardar Sarovar Narmada Nigam Ltd. Office), Chhani Jakat Naka, Vadodara, Pin . 390002, Gujarat.
(k) E-Tendering Web	E-tendering site- www.tenderwizard.com/DFCCIL
Site	Help: Please contact Tender wizard helpdesk at 011-49424365

(L)Pre bidding Conference	<b>On 09.05.2017 at 11.00 AM at office of Chief Project Manager/ Vadodara,</b> Dedicated Freight Corridor Corporation of India Limited 4 <sup>th</sup> floor, Block- A, Narmada Naher Bhavan (Sardar Sarovar Narmada Nigam Ltd. Office), Chhani Jakat Naka, Vadodara, Pin . 390002, Gujarat.					
DATE & TIME SCHEDULE						
Date of Uploading of (Online Publishing date)	NIT & Other Documents	15.04.2017 at 11.00 Hrs.				
Documents download/Sell	date (Online)	From 17.04.2017 at 11.00 Hrs. To 29.05.2017 at 13.00 Hrs.				
Bid submission Last date	(Online)	29.05.2017 up to 15.00 Hrs.				
Last date of submission documents i.e. EMD & Te	of originals of statutory nder Document Charge	05.06.2017 up to 13.00 Hrs.				
Bid Opening date & Time	(online)	07.06.2017 at 15.00 Hrs.				

Form No. 3

## **SUMMARY OF PRICES**

Construction of Road Over Bridge in lieu of existing LC No.163 At Rly km 301/30-32 (DFCC Ch: 52553 of Section-4 of DFCC) between station Sayan and KIM of BCT-ADI W. Rly Route & (JNPT(Mumbai) – Dadri (Delhi)- WDFC route.

SI. No.	Description of Works	Cost as per	Rates to be quoted in figures & words
NO.		schedules	(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	3,82,02,569.70	
	State Govt. Gujarat R&B Surat		Rates above / below / at par as per schedules shall be filled separately in Microsoft Excel File.
	division.)		
	•		Rates above / below / at par as per schedules
2	Execution of all works as per Schedule		shall be filled separately in Microsoft Excel File.
	"B" (NS Items as per State Govt of	16,77,45,115.10	
	Gujarat)		
3			Rates above / below / at par as per schedules
3	Execution of all works as per Schedule	17,90,09,330.20	shall be filled separately in Microsoft Excel File.
	"C" (Items as per SOR 2015- 16 of	17,30,03,330.20	
	State Govt. Gujarat R&B Surat		
	division.)		
4	Execution of all works as per Schedule	3,19,77,713.00	Rates above / below / at par as per schedules
	"D"(NS Items as per Western Railway)	0,10,11,110.00	shall be filled separately in Microsoft Excel File.
	D (NS items as per western kanway)		
5	Execution of all works as per Schedule		Rates above / below / at par as per schedules
	"E"(NS Items as per Western Railway)	7,62,107.00	shall be filled separately in Microsoft Excel File.
	E (NS items as per western kanway)		
6	Evenution of all works as non Coherchele	22,87,199.00	Rates above / below / at par as per schedules
0	Execution of all works as per Schedule	22,01,133.00	shall be filled separately in Microsoft Excel File.
	"F"(NS Items as per Western Railway )		
	Grand Total	41,99,84,034.00	

### Notes:

(i) The above prices are inclusive of all taxes, duties including Excise duty, Sales Tax, Octroi, Local levies, Works Contract Tax 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 above/below/at par on rates of schedule.

Form No. 4

### SCHEDULE -1

### SCHEDULE OF PRICES & TOTAL PRICES

**NAME OF WORK:** Construction of Road Over Bridge in lieu of existing LC No.163 At Rly km 301/30-32 (DFCC Ch: 52553 of Section-4 of DFCC) between station Sayan and KIM of BCT-ADI W. Rly Route & (JNPT(Mumbai) – Dadri (Delhi)- WDFC route.

					<u>S</u>	<u>chedule- A</u>					
	Schedule of Approximate quantities										
S.N.	Item NO.	Total Quantit y	Item of Work	Rate	Uni t	Amount in Rs.					
1	27007A	11167	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.	318.15	Cu m	3552781.05					
2	DSR 2014 Item 2.33		Felling trees of the girth (measured at a height of 1 m above ground (level), Including cutting of trunks and branches, removing the roots and stacking of serviceable material and disposal of unserviceable material. Beyond								
2 (i)		2	30cm girth upto & including 60cm girth	198.67	Eac h	397.334					
2 (ii)		2	60cm girth upto & including 120cm girth	879.81	Eac h	1759.622					
2 (iii)		2	120cm girth upto & including 240cm girth	4069.34	Eac h	8138.681					
3	27039	6444	Empty boring through all sorts of strata for providing 1.20m dia RCC bored piles to required depth including flushing necessary casting pipe with all plants and equipments as required as per detailed specifications for Abutment and Piers (Excluding Concrete & Reinforcement).	3361.28	Rmt	21660088.32					
4	14023	3427 e of Tende	Providing and fixing pre-cast concrete kerb stone of gray cement based concrete block 30cm length,30cm height and 15cm thick of M250 grade concrete as per approved design and including excavation for fixing in proper line and level, filling the joint with C:M 1:3	239.37 PM/VADO	Rmt	820320.99					

Signature of Tenderer(s) Date:

			(1cement:3 fine sand) etc. complete.			
5	27001A	20	Chipping and dressing of the RCC piles up to cut off level (min 1 D) including cleaning of reinforcement and removal of dismantled materials etc for providing pile caps as directed by Engineer and as per specification for 1000 mm & 1200 mm.	577.72	Cu m	11554.4
6	26161	1447.19	Road marking with hot applied thermoplastic compound with reflectorising glass beads on road surface providing and laying hot applied thermoplastic compound 2.5 CM thick including reflectorising glass bends @ 250 gms /sq mt area thickness of surface applied glassbend as per IRC -35 the finished surface to be level uniform and free from streaks and holes.	298.96	Sqm	432651.9224
7	26163	1098	Supplying and fixing cat eye (stimsonite) made out from Acrlic strene- acrylonitrile of high impact polysterene fitted with moulded of methacrylate reflector cube corner reflector design filled with tightly adhering potting compound as per ASTM D-788 size 11.5 x 7 x 1.60 cm.	375.72	Eac h	412540.56
8	27050A	132	Providing and laying weep hole in abutments, 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	Eac h	7119.288
9	27072	5720067	Providing and Fixing in position fully moulded restrained elastomeric bearings as per detailed drawings.	1.11	Cu m	6354994.437
10	27101A	2	Providing and fixing marble slab including engraving and painting complete.(A) size 75 cm x 60 cm x 4 cm	955.46	No.	1910.92
11	27098A	41	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.	506.01	No.	20746.41
12	M664	200	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,	808.00	RMT	161600

			bends, fixtures, specials ec. Complete as per drawing and Sp. And as per direction of engineer.			
13	26008	6138	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 upto 50 mt lead.	66.16	CU m	406059.39
14	26B004E	7419.15	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.M.C. to required dry density including filling deppressing which occur during process using vibratory roller 8 T to 10T ( from borrow area within 5km lead)	243.4	Cu m	1805895.302
15	26048	4	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.)	842.34	Eac h	3369.36
16	26089EA	20	Suppying and fixing reinforced concrete heavy duty non pressure pipes with collors 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 slopes ) of class NP3 of internal diameters (v) 900mm dia (more then 10 ton)	2097.77	Rmt	41955.4
17	26101B	4	Providing and fixing village name boards made from 2mm aluminium sheet; size 90x 60cms. rectangle as perthe design of IRC- 67-2015 pretreated 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 MOST Specifications; 3.1m long (2 Nos) stand post and frame fabricated from suitable size iron angle of 50 x 50 x 5mm; painted with best quality epoxy coatings in black and white bends. the details of symbol 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 x60cms. for each	4163.22	No.	16652.88

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			leg. including excavation curing etc.			
			complete under the supervision of			
			engineer (B) High intensity Grade			
18	26092A	2	Providing and fixing Cautionary Sign Board made out of 2mm aluminium sheet, size 90 x 90 x 90 cms equilateral triangle, 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, refloctrorized with retro reflective sheeting as per the latest M.O.S.T. specification, 3.1 Mt. long stand post and frame fabricated from suitable size iron angle of 35 x 35 x 3 mm, 75 x 75 x 6 mm; painted with best quality epoxy coating in black and white bends. The details of symbol 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 (A) Engineer grade.	3182.51	No.	6365.02
19	26092B	4	Providing and fixing Cautionary Sign Board made out of 2mm aluminium sheet, size 90 x 90 x 90 cms equilateral triangle, 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, refloctrorized with retro reflective sheeting as per the latest M.O.S.T. specification, 3.1 Mt. long stand post and frame fabricated from suitable size iron angle of 35 x 35 x 3 mm, 75 x 75 x 6 mm; painted with best quality epoxy coating in black and white bends. The details of symbol 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	3272.40	No.	13089.6
			Engineer-In-Charge (B) High Intesity grade.			
20	26103B	8	Providing and fixing sign boards made from 2mm aluminium sheet; size 100x 100cms. as per the design given by engineer in charge pretreated with	6618.53	No.	52948.24

	1	I				I
			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 MOST Specifications; 3.1m long (2 Nos) stand post and frame fabricated from suitable size iron angle of 35 x 35 x 3mm & 50 x 50 x 5mm 75 x 75 x 6mm ; painted with best quality epoxy coatings in black and white bends. the details of symbol 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 x60cms. for each leg. including excavation curing etc. complete under the supervision of engineer (B) High intensity Grade			
21	26098A	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, refloctrorized 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 (A) Engineer grade.	12274.5 3	No.	24549.06
22	14006A	127	Providing and laying chequered terrazo tiles 22mm thick for R.C.C Staircase with marble chips of size upto 6mm in floors on 25mm thick bed of lime mortar 1:1.5 (1 - lime putty : 1.5 coarse sand) or C.M. 1:6 jointed with neat cement slurry mixed with pigment to match the shade of the tiles including rubbing & polishing complete.	475.71	Sqm	60415.17

			(A) Light shades using white cement.			
23	M942	2444	Providing and fixing 50 mm Dia UPVC pipe for entry cable pipe.	133.32	Rmt	325834.08
24	27100A	304	Providing PVC 100 mm diameter water spouts including necessary iron grating as per drawing.	187.86	Eac h	57109.44
25	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.	32056.3 9	LS	64112.78
26	27087	79	Providing Vertical Joints-pre moulded asphalt filler joints as per drawings (A) 12 mm	733.26	sq. m	57927.54
27	11012	480	Providing and fixing MS round holding down or Anchor bolts ( J type) with nuts and washer plates complete.	40.00	kg	19198.08
28	11001A	3.76	Structural Steel :- Base plate of 220 x 220 x 12 mm thick with adjustment of hole. MS plate 6mm thick 20mm wide 150mm long including welding to the base plate all complete.	6027.68	Qui	22664.0768
29	23067	2571	Providing, laying and jointing in true line and level 110 diameter UPVC (Type B) conforming to IS 13592:1992 with one end plain and other end socketed with rubber ring & fitting conforming to IS 14735:1999 of approved make for drainage system pipe line, pipe shall be jointed with each other with lubricant, pipe shall be fixed on wall using of PVC clamp of size 110 mm diameter x 149mm length x145mm height at every 2000 mm centre to centre or shall be concealed in walls as directed including necessary fittings such as bends, shoes etc. including testing of pipes and joints and jointed with adhesive solvent cement including cost of all maerials	531.26	Rmt	1365869.46
30	27097A	105	Providing and fixing post and pipe railing as per detailed drawing including 3 coats of painting to steel works complete.( more	1073.63	Rmt	112731.15

31	NH SOR 8.8	3295.65 35	than 10 ton) Painting two coats after filling the surface with synthetic enamel paint in all shades on crash barrier concrete surfaces	63.63	Sqm	209702.4322
32	20003B	263	Demolition of brick work and stone masonary including stacking of serviceable materials and disposals of unserviceable materials with all lead and lift(ii) in cement mortar.	340.37	Cu m	89517.31
			Total Amount of Schedule – A		3,8	2,02,569.70

			<b>•</b> • • • • • • • • • • • • • • • • • •			Schedule E			
Schedule of Approximate quantities									
S.N.	Item NO.	Total Quantity	Item of Work	Rate	Unit	Amount in Rs.			
1	NS/01	2	Marking out the center line of the Bridge and various other component structures and complete lining out and leveling with theodolite, levels, including constructing necessary masonory pillars for lines and levels and establishing nesessary bench marks etc. complete as directed.	12625.00	LS	25250			
2	NS/02	932.1	<b>providing &amp; filling in foundation</b> with ordinary cement concrete <b>M 15 mix</b> and providing necessary vertical pin headers including formwork vibrating ramming & curing complete.	2622.97	Cum	2444870.337			
3	NS/03	7283	Providing and casting in situ controlled cement concrete M-35 for RCC bored pile from 1.20 m. dia. using Tremie Pipe including necessary flushing, dewatering, formwork, mixing in mechanised batch mix plant, transporting, compacting and finishing including all leads & lifts complete as per detailed specifications. (Excluding Reinforcement).	3947.08	Cum	28746583.64			
4	NS/04	3364	Providing and casting in-situ controlled cement concrete of M35 grade for RCC work for Pile cap ,pier, abutment,RCC Stair Case & retaining walls foundations 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 the damages, fixing embedment, inserts, pockets, wherever necessary as per specification and drawing.	3943.04	Cum	13264386.56			
5	N\$/05	1155	Providing and casting in situ controlled cement M35 for RCC work in piers and abutment return wall as per drawing including centering shuttering	4004.25	Cum	4624904.13			

			1			
			scaffolding where necessary laying			
			vibrating curing and finishing complete.			
			a) height from <b>0.0 to 5.0 m</b>			
6	NS/06	445.5	Providing and casting in situ controlled	4226.45	Cum	1882881.693
			cement M35 for RCC work in piers and			
			abutment return wall as per drawing			
			including centering shuttering			
			scaffolding where necessary laying			
			vibrating curing and finishing complete.			
			b) height from <b>5m to 10.0 m</b>			
7	NS/07	1.8	Providing and casting in situ controlled	4782.35	Cum	8608.23
			cement M35 for RCC work in piers and			
			abutment return wall as per drawing			
			including centering shuttering			
			scaffolding where necessary laying			
			vibrating curing and finishing complete.			
			c) height from <b>10 m to 15.0 m</b>			
8	NS/08	1964.8	providing and casting in situ controlled	4056.77	Cum	7970733.837
			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			
			curing and finishing complete.			
9	NS/09	58	providing and casting in situ controlled	4537.12	cum	263153.076
			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			
			curing and finishing complete.			
10	NS/10	6340	Providing and casting in situ	4430.67	Cum	28090435.12
			controlled cement concrete M-35 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 supersturcture. (II) Main and			
			cross Girder			
11	NS/11	110	Providing and casting in-situ controlled	3991.22	Cum	452243.66
			cement concrete of M-35 grade with			
			minimum cement content 420kg/cum			
			without admixture as per IS-456-2000,			
			reinforcement cement concrete with			
			20mm downgraded crushed stone			

	Signatu	re of Tende	rer(s) Fo	r CPM/VAD	ODARA	
14	NS/14	379	Providing and fixing in position Strip Seal	182.81	Rmt	3435923.04
			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.			
12	NS/12 NS/13	22389	Providing and casting in -situ controlled cement concrete of M 40 grade for RCC crash Barrier 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. PRIMER & PROTECTIVE COATING-	4111.31	Cum	7881494.6
			aggregates of required size in super structure <b>for approach slab</b> including required formwork, shuttering and supporting arrangement (excluding cost of reinforcement) and transporting concrete from batching plant by transit mixture placing it in position, compacting with needle vibrator including curing with all labour, material, machinery all lead, lift etc. complete as per drawing and technical specification of MORTH & as directed by Engineer Incharge.			

Date:

			<b>Type Expansion Joint</b> (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.			
15	NS/15	0.12	Providing Pylon consist of cast-in-situ concrete of M30 grade exposed finish as per drawing and as directed by engineer in charge. Rate includes providing required shuttering and form work but excluding stone slab & carving. (Reinforcement shall be paid in respective item.)	9065.76	Cum	466.09884
16	NS/16	3695	Reinforced Earth Retaining Wall (Reinforced Earth retaining wall is having following main component 1. Excavation for foundation, foundation concrete (CC grade M15) with cement concrete grooved seating in foundation for facia panel. 2. facia material and its placement 3. Assembling & joining with facia elements and laying reinforcing element 4. earthfill with granular material which is to be retained on wall , facia elements of RCC	3884.16	Sqm	21608811.53
17	NS/17	8649.51	Construction of 250 mm thick compacted coarsed granular subbase (Grade I crushed B.T. materials of 53 mm to 26.5 mm@ 35%, 26.5mm to 4.75mm @45%, below 2.36mm @20%) by providing close graded material mixing in mechanical mix plant at OMC, carriage of mix material to work site, spreading uniform layers with motor grader on prepared surface and compacting with vibratory power roller to achieve desired density complete clause as per 401	5836.25	CUM	7277092.248
18	NS/18	6625.24	Providing and laying wet mix base course macadam 250 mm in Two layer	878.70	Cum	6062492.114

19	NS/19	29881.95	using machine crushed chips as per required gradation mixing with required optimum quantity of water conveying mix to site and spreding to grade and ccamber with mechanical paver consolidation by vibratory roller including material, labour, plant and machinery and equipment etc complete Providing and appying priming coat using medium setting emulsion bitumen as the rate of 7.5 kg/10 sq.m on WMM surface including cleaning the surface etc comp	953.44	Sqm	621723.8517
20	NS/20	4435	Providing and laying 100 mm thick DBM in two layers using crushed stone aggregate BT chips as per required gradation and using emulsion asphaltas a tack coat @ 2.5 kg/10sqmt and VG 30 grade asphalt at 45 kg/MT) by total weight of mix hot laid process using drum mix process transporting 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 machinary using contractor's own plant and machines etc complete.	20.81	M.T.	8792964.05
21	NS/21	2759	Providing and laying 40 mm bitumen concrete using crushed stone aggregate BT chips as per required gradation and using emulsion asphaltas a tack coat @ 2.5 kg/10sqmt and VG 30 grade asphalt at 55 kg/MT) by total weight of mix hot laid process using drum mix process transporting 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 machinary using contractor's own plant and machines etc complete.	1996.77	M.T.	6058046.66
22	N\$/22	279.35	providing and casting in situ controlled cement concrete M 30 mix for RCC works in retaining wall of required	2209.88	Cum	1085039.258

	· · · ·				1	
			detailed drawing, centering shuttering,			
			scaffolding wherever necessary laying			
			vibrating curing and finishing complete.			
23	N\$/23	6363	Providing and laying 25 mm thick mastic asphalt wearing course with paving grade bitumen meeting the requirements given in table 500-29, prepared by using mastic cooker and laid to required level and slope after cleaning the surface, including providing antiskid surface with bitumen precoated finegrained hard stone chipping of 13.2 mm nominal size at the rate of 0.005cum per 10 sqm and at an approximate spacing of 10 cm center to center in both directions, pressed into surface when the temperature of surfaces is not less than 1000C, protruding 1 mm to 4 mm over mastic surface, all complete as per clause 515.	3991.22	Sqm	2416412.88
24	NS/24	15945	providing sand & filling in approach portion RE wall( as per MORTH section 3100) including laying of earth as per specification for compaction in 250 mm thick loose layers and dressing (MORTH specification Cl. By machanical means using motor grader including 305.3.5) watering the earth to bring the earth upto required OMC including rolling with the use of vibratory roller when earth is at suitable moisture content with desired field density not less than 97% of maximum dry density (modified proctor test). The material for filling shall conform to IRC Highway Research Board's special report No 16	379.76	Cum	9807610.05
25	N\$/25	8137	Providing & laying 37.5 mm thick compacted built up sprey grout base course in single layers for bringing the road surface in to camber and gradient over existig road surface with bitumen grade VG-30 for tack coat at the rate of 2.50 kg/10 sq.m of road surface area and using 0.50 cum stone aggregate per 10 sqm with asphalt for grouting @ 15 kg per 10 sqm of road surface and using 0.13 cmt of key	615.09	Sqm	830055.37

Total Amount of Schedule – B	16,77,45,115.1
aggregate per 10 sqm of road surface including heating and consolidation in both layers by vibratory roller as per MORTH specification clause no 506 including cost of all materials, fuel, labours, tools etc completed.	

		0.		4141		Schedule C
S.N.	Item NO.	SC Total Quantity	hedule of Approximate quan Item of Work	Rate	Unit	Amount in Rs.
1	27020A	254.96	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.	52313.49	MT	13337846.21
2	27043C	1094	Providing and fixing in position Fe 500 TMT for R.C.C bored pile as per detailed drawing including cutting, bending, hooking and tying and welding complete and including forming the cage and lowering it in position.(up to 10 ton)	44549.08	MT	48736693.52
3	27047A	38	Providing and fixing in position Fe steel bar reinforcement of steel bar reinforcement of steel grade Fe-500 TMT for R.C.C pile cap including cutting, bending, hooking and tying and welding etc., complete as per detailed drawing and specifications.	38660.78	MT	1469109.64
4	27109		Providing and fixing in position Fe steel bar reinforcement of steel bar reinforcement of steel grade Fe-500 TMT including cutting, bending, hooking and tying and welding etc., complete as per detailed drawing and specifications.(A) Abutment cap and Dirt wall (B) Abutment Pier & Retaing wall.	38606.24	MT	17577421.07
5	27111	683.21	Providing and fixing in position Fe steel bar reinforcement of steel bar reinforcement of steel grade Fe-500 TMT including cutting, bending, hooking and tying and welding etc., complete as per detailed drawing and specifications.(A)	45575.24	MT	31137459.72

			Total Amount of Schedule – C		17	7,90,09,330.2
7	27123	1430.4	Providing and fixing in position steel bar reinforcement For Approach slab of steel grade FE-500 D (TMT) including cutting ,bending, hooking, tying, welding etc. complete as per detailed drawing and specification.	44990.45	MT	64354339.68
6	27115	45	Pier cap (B) Pedstals & Seismic arrester Providing and fixing in position Fe steel bar reinforcement of steel bar reinforcement of steel grade Fe-500 TMT including cutting, bending, hooking and tying and welding etc., complete as per detailed drawing and specifications.(B) T. Beam and slab type of (i) Deck slab superstructure. (ii) Main and cross girder.	45576.25	MT	2050931.25

Schedule D								
			Schedule of Approximate qua	antities				
S.N.	ltem NO.	Total Quantity	Item of Work	Rate	Unit	Amount in Rs.		
1	NS/01	238	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(B) with all welds, HSFG 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 DFCCIL/ Railway. High quality superior brand of paint 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	94629.73	MT	22521876.00		

					1	
			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.			
2	NS/02	5335	Metalizing girder / girder	607.09	Sqm	3238825.00
2	113/02	5555	components such as cross girders,	007.07	Jqm	5250025.00
			· · · · · · · · · · · · · · · · · · ·			
			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 crome 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			
			if any including all lead, lifts descents,			
			crossing of track/obstruction etc.			
			complete in all respect and as per			
			direction of the Engineer.			
3	NS/03		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 the			
			purpose of 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			
			The second as per arawings and		1	

			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.			
		238	Launching of Steel girder spans	16825.91	MT	4004567.00
			Launching of Steel girder			
			spansincluding 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.	2101 10	N A T	0.00
	NS/3A	0	launthing of steel girder span	3181.19	MT	0.00
	-, -		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.			
	NS/3B					
4	NS/04	20	Fabricating, supplying and erecting	71620.22	MT	1432404.00
			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:102			
			followed by tow 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			1
			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/05		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, transporing and fixing in			
			position including all lead and lift etc.			
			complete as per approved designs			
			and drawing and as directed by			
			Engineer.			
		2	NS/5a) Fixed bearing (Capacity upto 250 MT)	53550.00	No.	107100.00
		2	NS/5b) Sliding bearing (Capacity	53550.00	No.	107100.00
		Z	upto 250 MT)	55550.00	NO.	10/100.00
			Note: The rate is for finished item			
			complete and paid only after fixing in			
			position below the girder.			
6	NS/06	1	Load testing of one composite steel	256339.20	Each	256339.00
Ũ	,	•	/Span Designing and Load testing of	200007.20	20.0.1	200007.00
			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			
			condodition and specification of			
			contract, as per relevent IS/IRC			
			codes with all contactors labour			
			supervisor, T & P's all taxes,			
			equipment, leading materials			
			instruction of load test jacks etc., dial			
			gauges, including all lead and lift.			
7	NS/07	258	Conducting Pile low strain integrity	1199.62	Each	309502.00
			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			
1			Total Amount of Schedule – D		3.1	9,77,713.00
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			Cohodulo of Approvimeto aug	ntitico		Schedule E
S.N.	Item NO.	Total Quantity	Schedule of Approximate qua	Rate	Unit	Amount in Rs.
1	NS/1	100000	Autocad Drawings : Preparation / Alternation and submission of drawings such as general arrangement drawings , phase drawings, scheme plan, structural drawings etd. On Auto Cad as per details and directions given by the Engineer in charge including plotting and submitting in standard inklet film of 50 micron and CD, submitting check prints on A3/A2/A0 size papers and final rint complete and as per insturctions of Engineer in charge.	0.4	Per Sqcm	40000.00
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 if provided or date of completion is extended. This office and laboratory including furniture and all other equipment shall be property of contractor after completion of Project.	500000	LM	50000.00
3	NS/3	150	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.	1179.8	Sqm	176970.00

4	NS/4	4	Making and supplying of check rails of 52 kg/ 60 kg rails of various lengths for level crossing as per approval drawings.	2997	Each LC	11988.00
5	NS/5	100	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.	331.49	Meter	33149.00
			Total Amount of Schedule – E			7,62,107.00

						Schedule			
Schedule of Approximate quantities									
S.N.	ltem NO.	Total Quantity	Item of Work	Rate	Unit	Amount in Rs.			
1	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.						
1 (i)	192103	2	Initial load test above 100 ton capacity Up to 250 ton capacity pile.USSOR 2011 Western Railway Item no. 192103	199722.83	Each	399446			
1 (ii)	192104	30	Extra for every increase of 50 T in pile capacity or part thereof over 250 T.USSOR 2011 Western Railway Item no. 192104	44255.77	Each	1327673			
1 (iii)	192107	2	Routine Load Test above 100 ton capacity Up to 250 ton capacity pile.USSOR 2011 Western Railway Item no. 192107	280040.14	Each	560080			
			Total Amount of Schedule – F		22,87,199.00				
	Total of Schedule A, B, C, D, E, F			Rs. 41,99,84,034.00					

# END OF TENDER DOCUMENTS