



E-Tender No. MUMBAI/N/EN/ROB/LC -124

For

Construction of one ROB including approaches complete in lieu of existing LC no. 124 at KM 243/04-06 between Gandhi Smriti - Navsari Railway station of Virar – Surat Section of Mumbai Division of Western Railway

**FINANCIAL BID
(PACKET-B)**

**TENDER DOCUMENT
October 2016**

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

MUMBAI/N/EN/ROB/LC-124

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 – 124, date 25.10.2016
Name of work	Construction of one ROB including approaches complete in lieu of existing LC no. 124 at KM 234/4-6 between Gandhi smriti - Navsari 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. 33,09,53,950/-
(d) Completion Period	18 months
(e) Earnest Money	Rs. 49,64,309/- (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 10000/- To be paid by D.D./Banker's Cheque in favour of DFCCIL payable at Mumbai
(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:	Chief Project 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 16.11.2016 at 11.00 AM at office of Chief Project Manager(North) Mumbai, 7th Floor, New Administrative Building, DN Road, 400001

Signature of tenderer (s)

Date:

For CPM/NORTH/MUMBAI/DFCCIL

MUMBAI/N/EN/ROB/LC-124

DATE & TIME SCHEDULE	
Date of Uploading of NIT & Other Documents (Online Publishing date)	27.10.2016 at 11.00 Hrs.
Documents download/Sell date (Online)	From 29.10.2016 at 11.00 Hrs.
Bid submission Last date (Online)	01.12.2016 up to 15.00 Hrs.
Last date of submission of originals of statutory documents i.e. EMD & Tender Document Charge	08.12.2016 up to 18.00 Hrs.
Bid Opening date & Time (online)	09.12.2016 at 15.00 Hrs.

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

SUMMARY OF PRICES

Name of work:- Construction of one ROB including approaches complete in lieu of existing LC no. 124 at KM 243/04-06 between Gandhi Smriti - Navsari 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 Navsari division.)	Rs. 1,52,79,842.00	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.)	Rs. 13,39,38,549.00	
3.	Execution of all works as per Schedule "C" (Items as per SOR 2015-16 of State Govt. Gujarat R&B Navsari division.)	Rs. 6,89,61,305.00	
4	Execution of all works as per Schedule "D" (NS Items as per Western Railway)	Rs. 11,23,07,535.00	
5	Execution of all works as per Schedule "E" (NS Items as per Western Railway)	Rs. 9,66,719.00	
	Grand Total	Rs. 33,09,53,950.00	

MUMBAI/N/EN/ROB/LC-124

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.

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

NAME OF WORK :- Construction of one ROB including approaches complete in lieu of existing LC no. 124 at KM 243/04-06 between Gandhi Smirti - Navsari 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	3	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	L.S.	96169.00
2	27007A	2956	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 up to 3.0 m	318.15	Cum	940451.00
	27007B	210	(b) Depth from upto 3.0 m to 6.0 m.	372.69	Cum	78265.00
3	27009	94	Excavated in large boulders and soft rock by welding including shoring, strutting and dewatering as necessary and disposing of the excavated stuff as directed.	445.41	Cum	41869.00

MUMBAI/N/EN/ROB/LC-124

4	27039	1008	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)	2450.26	RMT	2469862.00
5			Carrying out load test on any pile as per standard procedure laid down in the IS:2911 specification including construction of test cap, dismantling the cap after test and cleaning the site and maintaining complete records of load settlement as directed by Engineer and as per specification, and submission of records.			
5(a)	27044	3	Load testing of foundation piles including loading with necessary kentledge or any other suitable method as directed. (Initial load Test).	37865.91	Each	113598.00
5(b)	27044	3	Load testing of foundation piles including loading with necessary kentledge or any other suitable method as directed. (Routine load Test).	37865.91	Each	113598.00
6	27001A	346	Dismantling the existing structure including removing and stacking the dismantled materials as and where directed. (Chipping and dressing of the RCC piles upto 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 & 1200 mm dia. pile.)	577.72	Cum	199891.00
6(a)	27001B	100	Dismantling bricks/ Stone masnory, PCC Kerbs median.	254.52	Cum	25452.00
6(a)	26063	4510	Scarifying existing approaches flexible pavement.	25.86	Sqm	116629.00

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Date:

For CPM/NORTH/MUMBAI/DFCCIL

MUMBAI/N/EN/ROB/LC-124

7	27004AA	4134	Providing and laying filter media 600mm thick as directed at the back of abutments, returns and wing walls as per detailed specifications.	792.85	Sqm.	3277642.00
8	26161	923	Providing and laying Road marking with hot applied thermo plast compound reflecting glass bends on bituminous surface. Providing and laying Hot applied thermoplastic compound 2.5 cm thick including reflectorizing glass bends 250 gm/sq.mt 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.	275940.00
9	26163	828	Supplying and fixing cat eye (stimsonite) made out from Acrilo beutile sterine injuction high compressed molding with reflector made of MMC (prismatic type of size 12cm*6cm*2.5cm) providing with bituminous adhesive 100 g. with each unit for fixing. (High intensity grade).	375.72	No.	311097.00
10	27050A	3032	Providing and laying weep holes in abutment, and return by using AC pipe of 100 mm dia. Including laying in proper grade and jointing the completed as per detailed specification.	53.93	Each	163516.00
11	27072	1209600	Providing and Fixing in position fully moulded restrained elastomeric bearings as per detailed drawings.	1.11	cu.cm.	1342656.00
12	27101B	2	Providing and fixing marble slab including transporting, engraving and painting all complete. (ii) Size 60cm x 60cm x 4cm.	800.93	Each	1602.00
13	27098A	294	Providing G.I. 100 mm diameter water spouts including necessary iron gratings as per drawings.	506.01	Each	148767.00

MUMBAI/N/EN/ROB/LC-124

14	M664	450	providing and fixing 100 dia. runners and down take GI pipe to drain water from drainage spout with necessary fixtures including cost of all materials, labours, bends, fixtures, specials etc. Complete as per drawing and as per direction of engineer.	808.00	RMT	363600.00
15	26B008	9065	Box cutting the road surface to proper slope and chamber for making a base for road work including removing the excavated stuff and depositing on the road side slope as directed up to 50m lead.	124.23	Cum	1126145.00
16	26B004E	4170	Earth work for embankment for SUBGRADE with CBR 7 % 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 the depressing, which occurs during the process using power roller of 8 tonne to 10 tonne all as per specification. (E)From borrow area 3km lead.	281.79	Cum	1175064.00
17	26054A	10	Supplying & fixing road sign board of MS plates and angle iron including painting, lettering, etc. complete including fixing in CC 1:4:8 with necessary excavation etc complete as per IRC Type A) Non-reflective type.	2103.83	Each	21038.00
18	26089AA	50	Supplying and fixing reinforced concrete heavy duty non-pressure pipe with collars for culverts including setting and joining the pipes in cm 1 :2 watering and laying (To level of slopes) of IS class NP3 of following internal diameters. For 300m Dia. Pipe.	395.92	Rmt	19796.00

MUMBAI/N/EN/ROB/LC-124

19	24008C	5	Constructing Manhole with RCC top slab in 1:2:4 mix (1 cement 2 course sand 4 graded stone aggregate 20mm nominal size) foundation concrete 1:3:6 (1 cement 3 course sand 6 brick bats 40+50 mm size) inside plastering 15mm thick with cement Mortar 1:5 (1 cement L5 coarse sand) finished with a floating coat of neat cement and making channel in concrete 1:2:4 finished complete including curing and testing (i) inside size 1200mm x 900mm and 1.5M deep including CI cover with frame size 560 mm Dia. total weight of cover and frame to be not less than 128 kg (cover 64 kg and frame 64 kg (A) With 230 mm thick wall of brick masonry using brick having crushing strength not less than 35 kg/sq.cm in cement mortar 1:5 (1 cement :5 Coarse sand) (2)C Type depth 2.25 m for 150 mm dia. sewer	21761.46	Each	108807.00
20	24013	5	Constructing brick masonry road gully chamber 500 mm x 450 mm x 600 mm IN cm (1:6) including excavation, refilling & removal of surplus earth within 30mt lead, inside & outside plaster in CM 1:3, marking inside channel in CC, CI steps including 500 mm x 450 mm CI horizontal grating with frame complete as per drawing & standard specification as per direction of engineer in charge.	1665.49	Each	8327.00
21	26093B	2	Providing and fixing sing boards made from 2mm aluminium sheet; size 80 x 60cms. rectangle as per the design of IRC-67-1977 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	4099.59	No.	8199.00

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For CPM/NORTH/MUMBAI/DFCCIL

MUMBAI/N/EN/ROB/LC-124

			<p>sheeting as per latest MOST Specifications; 3.1m long stand post and frame fabricated from suitable size iron angle of 35 x 35 x 3mm75x75x6mm as required; painted with best quality epoxy coatings in black and white bends. the details of symbol for each board shall 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 x45 x 60cms. for each leg. including excavation curing tec. complete under the supervision of engineer in charge.</p>			
22	26094B	2	<p>Regulatory / Mandatory sign: - Providing and fixing sing boards made from 2mm aluminium sheet; size 60cms. diameter circle as per the design of IRC-67-1977 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 MOST Specifications; 3.1m long stand post and frame fabricated from suitable size iron angle of 35 x 35 x 3mm 75x75x6mm as required; 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 x 60cms. for each leg. including excavation curing etc. complete under the supervision of engineer in charge.</p>	3346.13	No.	6692.00

MUMBAI/N/EN/ROB/LC-124

23	26098B	2	Direction sign (Junction board):- Providing and fixing sing boards made out of 2mm aluminium sheet; size 244 x 122cms. rectangle as as per the design of IRC-67-1977 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 MOST Specifications; Letters and numerals should be as per IRC-30-1968, 3.1m long (2 no.) stand post and frame fabricated from suitable size iron angle of 50 x 50 x 5mm 75x75x6mm as required; painted with best quality epoxy coatings 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 60cms. for each leg. including excavation curing etc. complete under the supervision of engineer in charge.	20032.34	No.	40065.00
24	26099B	2	Distance information / Destubatuib sign:- Providing and fixing sing boards made out of 2mm aluminium sheet; size 180 x 120cms. rectangle as per the design of IRC-67-1977 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 MOST Specifications; Letters and numerals should be as per IRC-30-1968, 3.1m long (2 no.) stand post and frame fabricated from suitable size iron angle of 50 x 50 x 5mm 75 x 75 x 6mm as required; painted with best quality epoxy coatings in black and white bends. the details of symbol or inscription / numerals for each board shall be as per the instruction of engineer in	16166.06	No.	32332.00

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For CPM/NORTH/MUMBAI/DFCCIL

MUMBAI/N/EN/ROB/LC-124

			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. complete under the supervision of engineer in charge.			
25	26109B	2	Danger plate sign :- Providing & fixing sign board made out of 2mm aluminium sheet, size 30cms diameter circle, pre-treated with phosphating process and acid etching, painted 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. specifications (As per attached drawing).	528.23	No.	1056.00
26	27097A	220.10	Providing and casting in-situ controlled cement concrete of M-40 grade with minimum cement content 420kg/cum without admixture as per IS-456-2000, reinforcement cement concrete with 20mm downgraded crushed stone aggregates of required size in super structure for Railing 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 In charge.	994.85	RMT	576018.00
27	14006A	756	Providing and laying chequered terrazo tiles 22mm thick for R.C.C Staircase with marble chips of size up to 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	554.49	Sqm	419194.00

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For CPM/NORTH/MUMBAI/DFCCIL

MUMBAI/N/EN/ROB/LC-124

			jointed with neat cement slurry mixed with pigment to match the shade of the tiles including rubbing & polishing complete. (A) Light shades using white cement			
28	19031	5231	Providing and applying one primer coat and two coats of Synthetic Enamel paint on anti-crash Barrier and median verge surface area exposed to atmosphere in superstructure including making of strip of two colours 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 specifications.	72.72	Sqm	380398.00
29	23004F	1050	Providing and fixing U-PVC pipe conforming to IS 13592(Type -A) of Prince /Supreme /Jain make as Longitudinal Runner Pipe conduits below footpath including cost of all materials, labour, fixing in true line and level, including bends, fixtures, special, etc. complete with all lifts and lead etc. as per specifications and as directed by engineer in charge. (a) 75mm Dia.	252.5	Rmt	265125.00
	23004G	1050	(b) 110mm Dia	343.4	Rmt	360570.00
30	26045B	2300	Providing and fixing guard stone as per IRC type design including white washing, etc. Complete including fixing in CC 1:5:10.	235.33	Nos.	541259.00
31	14034	150	Providing and fixing Pre-cast Rubber dye inter locking concrete block 60mm thick with grade of concrete M-250 pneumatic compressed by mechanically pressed and as per approved design including 75mm sand layer for levelling and filling the joint with	680.74	Sq.mt.	102111

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For CPM/NORTH/MUMBAI/DFCCIL

MUMBAI/N/EN/ROB/LC-124

			sand in proper line and level.			
32	26092B	2	Providing and fixing Cautionary sign boards made from 2mm aluminium sheet size 90 x 90 x 90 cm. Equilateral as per design of IRC -67-1977. 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 MOST Specifications; 3.1m long stand post and frame fabricated from suitable size iron angle of 35 x 35 x 3mm75x75x6mm as required; painted with best quality epoxy coatings in black and white bends. the details of symbol for each board shall 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 x45 x 60cms. for each leg. including excavation curing tec. complete under the supervision of engineer in charge.	3520.86	Nos.	7042
			Total Amount of Schedule – A			1,52,79,842.00

Schedule of Approximate quantities						
Sr. No.	Item No.	Total Qty.	Item of work	Rate	UNIT	Amount in Rs.
1.	State NS/1	2	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.	12625.00	L.S.	25250.00
2.	State NS/2	1440	Empty boring through all sorts of strata for providing 1.00m 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).	2450.26	RMT	3528374.00
3.	State NS/3	176	Providing & filling in foundation with ordinary cement concrete M 15 mix and providing necessary vertical pin headers including formwork vibrating ramming & curing complete.	2639.13	Cum.	464487.00
4.	State NS/4	2271	Providing and casting in situ controlled cement concrete M-35 for RCC bored pile from 1.00 & 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).	4797.50	Cum	10895123.00

MUMBAI/N/EN/ROB/LC-124

5.	State NS/5	1611	Providing and casting in-situ controlled cement concrete of M35 grade for RCC work for Pile cap ,foundation for pier/abutment/ Stair Case/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, de-shuttering carefully, making good the damages, fixing embedment, inserts, pockets, wherever necessary as per specification and drawing.	4807.60	Cum.	7745043.00
6.	State NS/6	697	Providing and casting in situ controlled cement M35 for RCC work in piers, abutment and return wall as per drawing including centering shuttering scaffolding where necessary laying vibrating curing and finishing complete. A) height from 0.0 to 5.0 m	4885.37	Cum.	3405103.00
7.	State NS/7	107	Providing and casting in situ controlled cement M35 for RCC work in piers, abutment and return wall as per drawing including centering shuttering scaffolding where necessary laying vibrating curing and finishing complete. A) height from 5.0 to 10.0 m	4243.01	Cum.	454002.00
8.	State NS/8	1009	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 curing and finishing complete	4951.02	Cum.	4995579.00

MUMBAI/N/EN/ROB/LC-124

9.	State NS/9	2543	Providing and casting in situ 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 superstructure. (I) Deck slab	4687.41	Cum.	11920084.00
10.	State NS/10	984	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.	4169.28	Cum.	4102572.00

MUMBAI/N/EN/ROB/LC-124

11.	State NS/11	37	Providing and casting in-situ controlled 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 aggregates of required size in super structure for approach slab 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.	4111.71	Cum.	152133.00
12.	State NS/12	30884	Providing and applying one coat of Epoxy phenolic primer of DFT 50 microns and two coats of Epoxy phenolic coating of DFT 100 microns 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).	182.81	Sqm.	5645904.00

MUMBAI/N/EN/ROB/LC-124

13.	State NS/13	235	<p>Providing and fixing in position Strip Seal Type Expansion Joint (for movement up to 60mm) as per detailed drawing MORTH specification.</p> <p>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.</p> <p>The Contractor shall procure Strip Seal Expansion Joint, confirming to relevant MORTH specification from M/s. Sanfield (India) Ltd. / METCO or from any other reputed manufactures of Strip Seal Expansion Joint with prior approval of Engineer-in-charge.</p>	9063.74	R.mt	2129979.00
14.	State NS/14	2	<p>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.)</p>	3821.84	No.	7644.00

MUMBAI/N/EN/ROB/LC-124

15.	State NS/15	4405	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 fascia panel. 2. Fascia panel in concrete grade M 35 and reinforcement FE 500D with hooks, tackles and placement thereof. 3. Assembling & joining with non-oven geotextile at facial panel joints with fascia elements and laying of the PP Geo-synthetic reinforcement element along with 600mm thick filter media conforming to the specifications and in accordance to the design as approved. 4. RCC coping (M 35) at top of facial panel and levelling pad (PCC M 15) at bottom of fascia panel as per approved layout.	5913.83	Sqm	26050421.00
16.	State NS/16	2780	Construction of Granular Sub Base (GSB) by providing coarse graded material of grading-II, spreading in uniform layers with motor grader on prepared surface, mixing by mix in place method with rotavator at OMC, and compacting with vibratory roller to achieve the desired density, complete as per MORTH specification.	815.07	Cu.m.	2265895.00
17.	State NS/17	3475	Providing, laying, spreading and compacting graded stone aggregate to Wet Mix Macadam (WMM) specification including premixing the material with water at OMC in mechanical mix plant carriage of mixed material by tripper to site, laying in uniform layers with paver in sub base / base course on well prepared surface and compacting with vibratory roller to achieve the desired density.	980.71	Cum	3407967.00

MUMBAI/N/EN/ROB/LC-124

18.	State NS/18		Providing and applying PRIMER COAT with bitumen emulsion using emulsion pressure distributor at the rate of 0.75 kg/sqm on prepared surface of granular base including clearing of road surface using mechanical brooms.			
		13897	a) 7.5 kg / 10 Sqm.	26.26	Sqm	364935.00
		13897	b) 5.0 kg / 10 Sqm.	18.18	Sqm	252647.00
19.	State NS/19	1738	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 specification.	4147.06	Cum.	7207590.00
20.	State NS/20	873	Providing & laying BITUMINOUS CONCRETE with batch type Drum Mix Plant (DMP) using crushed aggregates of specified grading, premix with bitumen grade 60/70 bituminous binder @ 5.5 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, all as per MORTH specification.	4583.38	Cum	4001291.00

Signature of tenderer (s)

Date:

For CPM/NORTH/MUMBAI/DFCCIL

MUMBAI/N/EN/ROB/LC-124

21.	State NS/21	4600	Providing and installation of barricades including supplying and painting with fluorescent paint and fixing CGI sheets 24 SWG of 1.8 m height and M.S. Posts angle 40 x 40 x 5 mm at 2.0m c/c and dismantling the same after completion of work as directed by Engineer and as per site requirement.	244.42	Sqm	1124332.00
22.	State NS/22	10	Carrying out the following Misc. Works as per instruction of Engineer and as per site requirements. A) Dismantling and stacking of electric, telephone poles and cables.	671.65	Nos.	6717.00
23.	State NS/23	32	Providing and laying in-situ controlled cement concrete of M 40 grade for RCC work for RCC pedestals over piers and abutment including necessary scaffolding formwork, centring, mixing in mechanised batch mix plant, transporting placing compacting by mechanical vibrators, finishing and curing and casting, finishing with decorative panel as per drawing etc. complete excluding reinforcement as directed by engineer and as per specifications.	5190.39	Cum	166092.00
24.	State NS/24	2367	Providing and laying 25mm thick Mastic asphalt wearing course with paving grade bitumen meeting the requirements given in the table 500-29 prepared by using mastic cooker and laid to required level and slope after with bitumen pre-coated fine grained hard stone chipping and at an approximate spacing of 10cm centre to centre temperature of surface is not less than 1000c , protruding 1mm to 4mm over mastic surface, all complete as per clause	360.57	Sqm	853469.00

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For CPM/NORTH/MUMBAI/DFCCIL

MUMBAI/N/EN/ROB/LC-124

			515.Bituminous Wearing Course=50mm Thick B.C + 25mm thick mastic Asphalt.			
25.	State NS/25	1575	Providing and laying precast footpath slab in controlled cement concrete of M-25 grade (70mm thickness) including necessary reinforcement and providing and setting cement chequered tiles in CM 1:5 as per drawing including necessary formwork, curing and finishing complete.	721.14	Sqm	1135796.00
26.	State NS/26	2780	Providing, laying and compacting natural gravel and sand (River bed material C.B.R. Not less than 10%) below sub base course including carriage of material spreading in uniform layer manually on prepared base and compacted with vibratory roller to achieve desired density including all materials, labour etc. complete.	647.41	Cum	1799800.00
27.	State NS/27	800	Providing and laying 25 mm thick compacted semi dense bituminous concrete using stone chips as per MORTH gradation & 60/70 (VG-30) grade asphalt for mixing @ 5.0% by weight of total mix for binder including heating the aggregate and asphalt by drum mix plant and spreading the same by censor paver finisher and consolidation with vibratory roller including providing all materials equipments, tools and plants, oil, kerosene, fire wood, labour charges etc. complete.	2239.17	MT	1791336.00

MUMBAI/N/EN/ROB/LC-124

28.	State NS/28	13897	Providing & laying bitumen painting by mechanical sprayer on B.T. Surface using bitumen 60/70 (VG-30) at the rate of @ 5.0 kg/10.0 smt. And spreading stone dust @ 0.03cumt/10.0 smt on painted surface including Rolling with smooth wheeled and pneumatic roller. operator cost of contractor own equipment, fuel, lubricants, carting of required materials, all labour and material cost preparing surface by brushing with wire brushes, sweeping with mechanical broom/ compressed air and finally fanning the cleaned surface with gunny bags to remove all loose dirt's etc. complete.	35.35	Sqm	491259.00
29.	State NS/29	232	Providing and fixing MS Anchor Plates of size 250 x 250 x 6 mm thick along with 4 nos. Of 20 mm dia., 600 mm lone GI "J" Type bolts with suitable size of GI Nuts/ washer with one coat of Reed oxide and two coats of bituminous black paint and fixing on crash barrier / parapet including necessary erection, labour, equipments, welding/ drilling, grouting / fixing of plates as per specifications and as per directed by engineer in charge.	959.50	Nos.	222604.00
30.	State NS/30	1184	Providing and casting in situ reinforced cement concrete M35 grade controlled cement concrete in RCC Chamber, kerb, protection wall around pier 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 AMC etc complete as per specification. The rate is inclusive of all materials, including necessary	3929.91	Cum	4653013.00

Signature of tenderer (s)

Date:

For CPM/NORTH/MUMBAI/DFCCIL

MUMBAI/N/EN/ROB/LC-124

			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, wherever necessary, with all lead & lift with contractors labour, tools & plants machineries, as required with F3 type exposed concrete finish and form mark.			
31	NS/31	10	J type M20 Anchor bolt as per drawing including threading as shown in the drawing for standard octagonal pole type BOP 7030 all complete.	3704.68	Q	37047.00
32	NS/32	30954	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. (Providing and filling sand behind abutments and between returns in layers as directed).	715.08	Cum	22134586.00
			Total Amount of Schedule – B			13,34,38,549.00

Schedule- C						
Schedule of Approximate quantities						
SN	Item No.	Total Qty.	Item of work	Rate	UNIT	Amount in Rs.
1.	27020A	94	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.	55863.10	MT	5251131.00
2.	27043C	285	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	12696488.00
3.	27047A	191	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 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.	38606.24	MT	7373792.00

MUMBAI/N/EN/ROB/LC-124

4.	27111	311	Providing and placing in position High Yield Strength Deformed (HYSD) bars reinforcement (TMT Fe 500D grade) conforming to IS 1786 of all categories for piers, abutments, returns and 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 drawing.	45575.24	MT	14173900.00
5.	27119	409	Providing and placing in position High Yield Strength Deformed (HYSD) bars reinforcement (TMT Fe 500Dgrade) conforming to IS 1786 of all categories for super structure 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.	44298.60	MT	18118128.00
6.	27121	129	Providing and placing in position High Yield Strength Deformed (HYSD) bars reinforcement (TMT Fe 500Dgrade) conforming to IS 1786 of all categories for super structure 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	5803768.00

MUMBAI/N/EN/ROB/LC-124

7.	M570	5	<p>Fabricating, supply and erecting in position Standard Structural steel sections conforming to IS 2062 for railing or other works using ISMB, ISA, ISMC, MS plate, flat, square bars, pipe, square pipe, etc. including welding, cutting, wastage, etc. complete. The rate is inclusive of welding rod, supply & fixing of correct size nut, bolts, washers, paint, with all contractor's materials, labour, tools & plants, in bolted / welded construction as directed by Engineer-in-Charge.</p> <p>Anticorrosive paint must be applied before applied any paint. The rate shall inclusive of providing and applying Epoxy Coating of approved shade, brand and manufacture on new structural steel work with one coat of 30 micron (DFT) of Epilux 4 Zinc Rich primer of Berger Paint India Ltd or equivalent as primer and Two coat each of 35 micron (DFT) of Epilux 84 High Gloss CR enamel of Berger Paint India Ltd or equivalent at all levels. (Total DFT is 30+35+35=100 microns)</p> <p>The waste cut pieces shall not be included in the paying quantity. The work shall be done as per drawing and specification. The work shall be carried out as per IS:800, IS:816</p>	45419.70	MT	227099.00
8.	M570	1450	<p>Providing and fabricating MS pipe railing on Crash Barrier with NB80 medium class MS pipe, anchor bars, MS plate, MS flat etc. as per drawing including providing and 3 coats of epoxy painting (1 coat of primer and 2 coats of paint as per manufacture's specification) of approved brand and manufacture to give an even</p>	1073.63	Rmt	1556764.00

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Date:

For CPM/NORTH/MUMBAI/DFCCIL

MUMBAI/N/EN/ROB/LC-124

			shade of two or more coat as directed by Engineer-in charge. Addition to that anticorrosive paint must be applied before any paint as directed by Engineer - in -charge. Item complete as per specification and drawing.			
9	27084A	55	Providing 12.7/15.2 mm nominal dia. High tensile pre-stressing steel conforming to low relaxation pre-stressing steel strands as per IS: 14268 Class II for Box girder including cutting, cleaning and removing oil, transporting, placing, providing and laying corrugated HDPE sheathing of specified dia., anchorages, stage wise stressing, grouting, testing of material etc. complete including all lift and leads as per specification and approved design and drawings and as directed by engineer.	68367.91	MT	3760235.00
			Total Amount of Schedule -C			6,89,61,305.00

Schedule of Approximate quantities

SN	Item No.	Description	UNIT	Quantity	Rate	Amount in Rs.
1	NS/1	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 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 considered for payment. Nominal weight	MT	939	94629.73	88857316.00

Signature of tenderer (s)

Date:

For CPM/NORTH/MUMBAI/DFCCIL

MUMBAI/N/EN/ROB/LC-124

		of the girder spans including its components (Stiffeners, Bracings, Splices, Studs etc.) as per drawing will only be considered for payment.				
2	NS/2	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 if any including all lead, lifts, crossing of track/ obstruction etc. complete in all respect and as per direction of Engineer.	Sq.m	7954	607.09	4828794.00
3	NS/3 (a)	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	MT	726	16825.91	12215611.00

Signature of tenderer (s)

Date:

For CPM/NORTH/MUMBAI/DFCCIL

MUMBAI/N/EN/ROB/LC-124

		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 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.				

MUMBAI/N/EN/ROB/LC-124

NS/3 (b)	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 specifications approved by Railway. launching of steel girder span 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	213	3181.19	677593.00
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MUMBAI/N/EN/ROB/LC-124

4	NS/4	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 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.	MT	40	71620.22	2864809.00
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.				
		Fixed bearing (Capacity up to 250 MT)	No.	20	53550.00	1071000.00
		Sliding bearing (Capacity up to 250 MT)	No.	20	53550.00	1071000.00
		Note: The rate is for finished item complete and paid only after fixing in position below the girder.				

MUMBAI/N/EN/ROB/LC-124

6	NS/6	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 gauges, including all lead and lift.	Each	2	256339.2	512678.00
7	NS/7	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	174	1199.62	208734.00
		Total Amount of Schedule – D				11,23,07,535.00

Schedule of Approximate quantities

Sr. No.	Item No.	Description	UNIT	Quantity	Rate	Amount in Rs.
1	NS/1	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	100000	0.4	40000.00
2	NS/2	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 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 of completion is extended. This office and laboratory including furniture and all other equipment shall be property of contractor after completion of Project.	LM	1	500000	500000.00

MUMBAI/N/EN/ROB/LC-124

3	NS/3	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	315	1179.80	371637.00
4	NS/4	Making and supplying of check rails of 52 kg/ 60 kg rails of various lengths for level crossing as per approval drawings.	Each LC	4	2997	11988.00
5	NS/5	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	130	331.49	43094.00
		Total Amount of Schedule – E				9,66,719.00
		Total of Schedule A, B, C, D, & E				Rs 33,09,53,950.00

END OF TENDER DOCUMENTS