

TENDER No: BMRCL/Phase-2/Reach-1B Extn./Via/2026/150

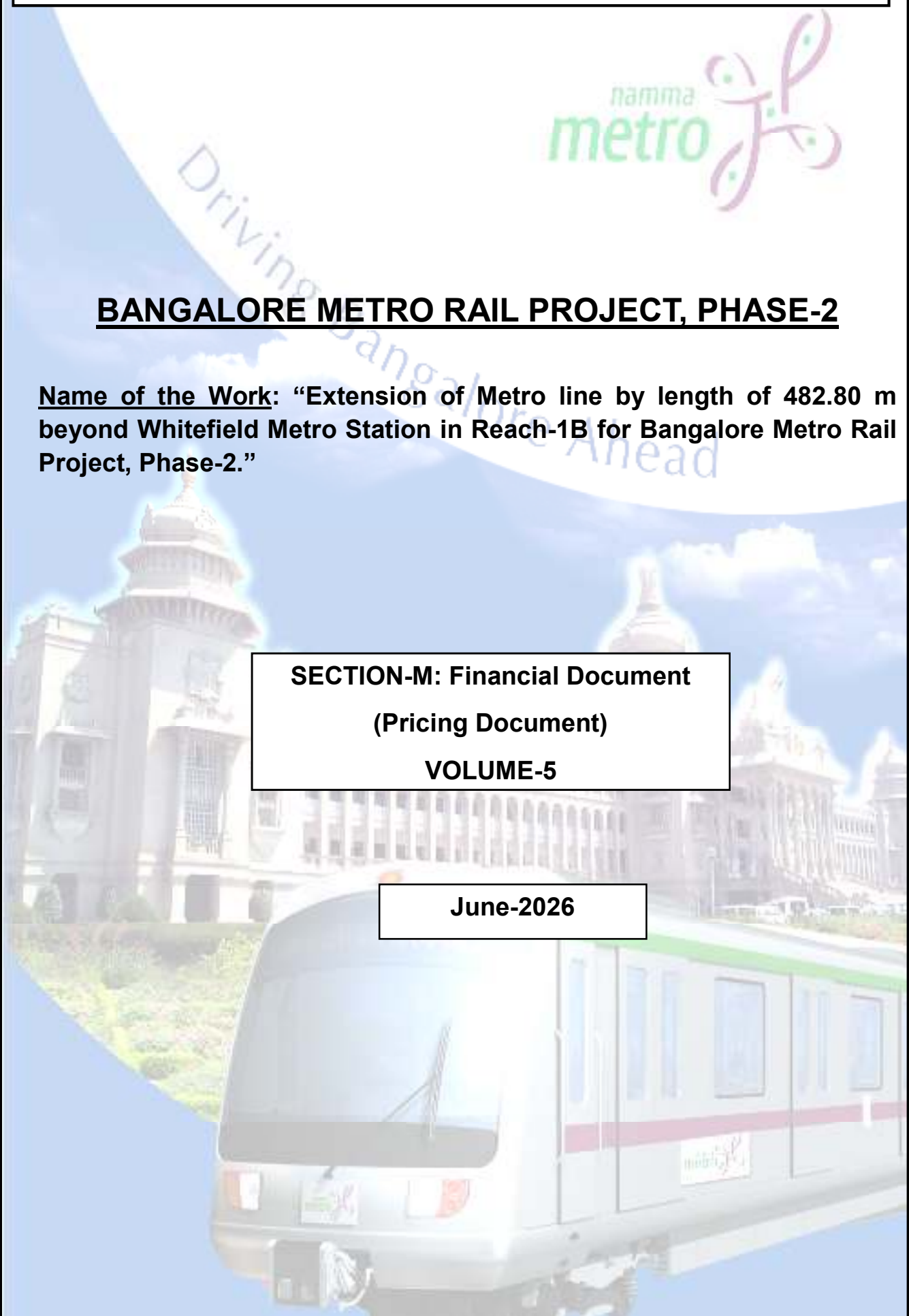


BANGALORE METRO RAIL PROJECT, PHASE-2

Name of the Work: “Extension of Metro line by length of 482.80 m beyond Whitefield Metro Station in Reach-1B for Bangalore Metro Rail Project, Phase-2.”

**SECTION-M: Financial Document
(Pricing Document)
VOLUME-5**

June-2026



PRICING DOCUMENT - LETTER OF PRICE BID
(To be submitted in the letter head of the Tenderer)

Ref:

Dated.....

(Tenderer to provide date and reference no.)

To
The Managing Director,
Bangalore Metro Rail Corporation Ltd.
Third floor, BMTC Complex
KH Road, Shanthinagar
Bangalore-560027, Karnataka,
India.

Dear Sir,

Priced document for (Name of Work) and (Tender No.).

1. We, hereby submit our priced document for the above-mentioned work.
2. We understand that in the event of any information furnished by us being found later on to be incorrect or any material information having been suppressed, the following action can be taken in addition to the Provisions of **Para 4.33 of GCC**.
 - (i) Any tender submitted by us in future for other works on the basis of qualification may not be considered.
 - (ii) If any tender from us is accepted and a contract awarded to us on the basis of our qualification, the tender acceptance may be withdrawn and the contract awarded to us may be cancelled without any financial claim request from our side.
 - (iii) Our name will/may be removed from the panel of qualified agencies.

Yours faithfully,

(Signature)

Name of signatory:

Capacity of Signatory:Name and address of Tenderer

Pricing Document - Preamble

1. This Bill of Quantities (BOQ) forms an integral part of the Contract and shall be read and interpreted together with all Tender and Contract Documents including the Instructions to Tenderers (ITT), General Conditions of Contract (GCC), Special Conditions of Contract (SCC), Employer's Requirements, Technical Specifications, Scope of Work, Drawings, Schedules, Appendices, Annexures, Addenda and Corrigenda. Submission of the priced Price Bid shall be deemed to constitute full and complete understanding of all obligations, conditions and requirements prescribed under the Contract.
2. The quantities given in the Pricing Document - "Bill of Quantities" are estimated (provisional). The basis of payment will be the actual quantities of work ordered and carried out, as measured by the Contractor and verified by the Engineer and valued at the rates in the accepted priced "Price Bid – Summary of Bill of Quantities". The method of measurement of completed work for payment shall be as stipulated in Employers requirements & Technical Specification, Pricing document -Bill of Quantities and elsewhere in the bid documents.
3. Tenderers shall quote in the Price Bid (.xls format) sheet only in accordance with the ITT clause 10. Tenderer is advised to quote their percentage rate in two decimals. Tenderer has to select option 'At Par/ Excess / Less' and quote single Percentage rate in figures on total estimated cost, applicable uniformly for all Schedules/items of BOQ.
4. The 'Tender Price' or 'Quoted Price' shall include all applicable taxes, duties, cess, royalties, and statutory levies as per the laws in force as on last day of the month previous to the month of invitation of this tender, **except Goods and Services Tax (GST)**.
5. The quoted price shall be comprehensive and all-inclusive, covering complete and finished execution of the work and complete in all respects complying with the provisions of the Contract. It will be deemed to have included labour, materials, plant and equipment, machinery, batching plants, casting yards, tools, consumables, fuel, oil, electric power, water, transportation, all leads and lifts, handling, loading, unloading, wastage, dewatering, temporary works, formwork, false work, scaffolding, centering, shuttering (including multi-stage propping), launching arrangements, erection, construction and removal of temporary site facilities, offices, stores, lighting, fencing, access arrangements, night working, inspection facilities, overheads, supervision, profit, establishment charges, contingencies and all incidental requirements necessary for satisfactory completion of the Works.
6. Unless otherwise specified in the BoQ, the unit rates are applicable to all heights, depths, leads, lifts, sizes, shapes, accessibility, locations, working levels and any physical or logistical conditions. No extra payment shall be admissible on account of such variations.
7. Unless otherwise specified in the BoQ, the concrete items include provision for centring, shuttering, staging, formwork and scaffolding.
8. For all Reinforced Concrete items, payment for Reinforcement shall be paid separately under relevant BOQ item unless otherwise specified in the item.

9. The rates shall be deemed to include all safety measures for personnel and the public, protection of adjoining properties, labour accommodation, welfare and medical facilities, and all insurances required under the Contract.
10. The Contractor shall be responsible for all risks, liabilities and obligations arising during execution, including rectification of defects during the Defects Liability Period.
11. Absence/omission of terms such as providing, supplying, laying, installing, fixing etc. or any similar expressions in the BOQ does not even remotely suggest that the Contractor is absolved of such providing, supplying etc., unless an explicit stipulation is made in this contract.
12. The work is to be executed as per Bill of Quantity Descriptions, Technical Specifications, Specifications of MORTH, KPWD, CPWD, IS standards, approved Drawings, Best Engineering practices and as directed by the Engineer.
13. Providing fixing in position holding down bolts/inserts/dowels for all the civil works is inclusive in respective items of work unless specified separately. Contractor shall fix the bolts/inserts supplied by BMRCL/other interface contractors time to time as required and the rate for such activity is included in item and nothing extra shall be payable.
14. The quoted price shall have deemed to be include the following:
 - a. all constructional plant, machinery tools, materials, fuel, oil, consumables, electric power, water, transportation, dewatering, all temporary works & false works, construction of temporary stores & buildings, fencing, watering, lighting, maintenance, night working and inspection facilities.
 - b. all the safety measures at work sites, safety measures for workmen & road users, safety of the public and protection of adjoining land & building while working.
 - c. establishment & overhead charges, contractor's profit, supervision, other charges together with all general risks, liabilities and obligations set out or implied in the contract and including remedy of any defects during the Defect Liability Period.
 - d. accommodations for staff & workmen, all insurance costs for labour & works, the payment of all wages, salaries, fees if any, charges payable to various departments for obtaining necessary approvals if any.

Pricing Document - Abstract of Bill of Quantities (BOQ)

Name of the Work:- "Extension of Metro line by length of 482.80 m beyond Whitefield Metro Station in Reach-1B for Bangalore Metro Rail Project, Phase-2."

Sl.No	Schedule	Schedule Description	Estimated Cost (Rs)
1	SCHEDULE-A	PILE FOUNDATIONS AND OPEN FOUNDATIONS	10,32,24,681.00
2	SCHEDULE-B	CAST-IN-SITU/ PRECAST WORK	15,61,72,632.00
3	SCHEDULE-C	STEEL WORKS	31,88,50,389.00
4	SCHEDULE-D	OTHER WORKS	4,22,68,310.00
5	SCHEDULE-E	ITEMS UNDER SCHEDULE OF RATE PUBLISHED BY KPWD	46,00,000.00
GRAND TOTAL OF SCHEDULE-A TO SCHEDULE-E			62,51,16,012.00

PRICING DOCUMENT - BILL OF QUANTITIES (BOQ)

Item No.	Description of items	Unit	Quantity	Rate (Rs)	Amount (Rs)
SCHEDULE-A : PILE FOUNDATIONS AND OPEN FOUNDATIONS					
A1	<p>Providing and installing cast-in-situ vertical bored piles of depth as per drawing with M35/20 grade of reinforced cement concrete using Port land slag cement (Directly from manufacture or blending of OPC+GGBS) including all operations such as mobilization, installation and shifting of piling rig etc., in all soil strata, road, footpath, including boulders and kankar and soft rock/ weathered rock. The Cost shall also include built up of piles up to the required level. The item includes disposal of earth muck, slush released from piles at contractor's dumping ground with all leads and lifts as per the approved methods & specifications. The cost shall also include the cost of empty boring wherever required. Reinforcement steel shall be paid separately under relevant BOQ item. Rate shall include the cost of required dosage of admixture in concrete for obtaining required workability as per approval of Engineer. Drilling shall be done by use of hydraulic rig using temporary casing of required depth (min of 4. 5 m), using polymer slurry and as directed by the Engineer. (Use of bentonite slurry is not permitted). Socketing shall be as per specification and the decision of Engineer shall be final and binding. The Cost is inclusive of tests as per clause 8.7.11 of Technical Specifications and ASTM D6760.</p> <p>Note: Pile measurement shall be from cut-off level to founding level</p>				
A1.1	For 1200 mm dia Pile by using hydraulic rig	Rm	3530.45	19,074.01	6,73,39,839.00
A1.1.1	<p>Extra over item No. A-1.1 (For 1200 mm dia. pile) for drilling & socketing in hard rock as per specification and as directed by the Engineer.</p> <p>Note: Socket depth shall be paid as per the drawing or actual as recorded whichever is lesser and certified by Engineer at site</p>	Rm	157.20	20,979.57	32,97,988.00

Item No.	Description of items	Unit	Quantity	Rate (Rs)	Amount (Rs)
A1.1.2	Extra over Item No A-1.1 (For 1200 mm dia. pile) for providing 6 mm thick mild steel permanent liner including Cost of liner and driving the same wherever required. Note: In case 8mm thick plate is used 30% enhancement over accepted rate will be paid	Rm	50.00	22,910.36	11,45,518.00
A2	Carrying out static routine vertical load tests on working piles as per relevant IS Codes including all arrangements for measuring settlement/deflections and submitting reports. This includes making of pile head ready for testing at the desired level supporting/reaction arrangement (including reaction piles/soil/rock anchors, if any) for the kentledge load. (Cost of piles is paid in item A1) Routine load shall be 1.5 times the theoretical design vertical load capacity. The test arrangements designed shall cater for additional 25% above test load				
A2.1	For 1200mm dia. Pile, having pile capacity of more than 500 MT upto 750 MT	Nos	1.00	12,40,946.61	12,40,947.00
A3	Carrying out static routine lateral load tests on working piles as per relevant IS Codes including all arrangements for measuring deflections and submitting reports. This includes making of pile head ready for testing at the desired level supporting/reaction arrangement (including reaction piles/soil/rock anchors, if any) for the kentledge load. (Cost of piles is paid in item A1). The routine load shall be 1.5 times the theoretical design lateral load capacity. The test arrangement design shall cater for additional 25% above test load.				
A3.1	For 1200mm dia. Pile, having pile capacity of 25 MT to 40 MT	Nos	2.00	33,017.20	66,034.00
A4	Conducting dynamic load testing on selected piles all as per specifications and directions of the engineer				
A4.1	For 1200mm dia. Pile as per ASTM 4945 Section 08	Nos	2.00	1,15,525.90	2,31,052.00
A5	Non-destructive tests for Integrity testing of Pile of all dia., using Low Strain/Sonic Integrity Test/Sonic Echo Test method in accordance with IS 14893 including surface preparation of pile top by removing soil, mud, dust & chipping lean concrete lumps etc. and use of	Nos	35.00	3,820.30	1,33,711.00

Item No.	Description of items	Unit	Quantity	Rate (Rs)	Amount (Rs)
	computerized equipment and high skill trained personal for conducting the test & submission of results, all complete as per direction of Engineer				
A6	Providing & laying M35/20 grade, reinforced cement concrete using Portland slag cement (Directly from manufacturer or blending of OPC+GGBS) for following concrete works: Pile cap, Open Foundation/ Stepped Foundation/ Raft, Combined Footing, Columns, Grade beam, monopile pedestals, U/G water tank and Structures of road widening works such as foundation, substructures and superstructures of culverts, retaining walls, return walls, precast/cast -in-situ culvert deck slabs, road median, drains, etc. including excavation up to 4.0 m from lowest ground level through existing water bound macadam road/ bituminous road/ concrete road/ soil/ murrum/ hard rock/ soft rock old structures below ground as encountered of all thicknesses, dismantling other structures, dead utilities, dewatering, pumping and bailing out water, strutting and shoring, formwork, backfilling in foundation with good earth/quarry dust/sand watering, compacting with a vibratory plate compactor complete as per specifications. The Cost shall also include cutting/chipping of pile up to cut off level or up to good concrete and built up of pile up to required level. The cost includes loading, unloading and disposal of surplus excavated material along with pile heads using covered trucks to contractor's dumping yard with all leads and lifts and as directed by the Engineer. The contractor has to ensure that during transportation, the carried material does not spill out. Reinforcement steel shall be paid separately under relevant item. Rate shall include cost of using required dosage of admixture in concrete for obtaining required workability as per approval of Engineer, curing of concrete. Note: 10% of the amount shall be withheld. Out of this, 5% of the amount shall be released after disposal of excavated material including pile heads at contractor's dumping yard and 5% of the amount shall be released after completing road restoration works on pile caps. Payment for road restoration works will be paid under relevant items of BOQ.	Cum	2051.32	12,860.85	2,63,81,719.00

Item No.	Description of items	Unit	Quantity	Rate (Rs)	Amount (Rs)
A7	Excavation exceeding 4 m depth, for open foundations, combined footing, pile caps, underground tank, culverts, cast-in-situ/precast subways, etc. in all types of soil, soft rock , hard rock, boulders, old structures below ground as encountered of all types & thickness, including dismantling of other structures, dead utilities and backfilling using good earth including watering, compacting with a vibratory plate compactor complete as per specifications and loading, leading and disposal of surplus excavated material using covered trucks to contractor's dumping yard and as directed by the Engineer so as to ensure that during transportation, the carried material does not spill out with all leads and lifts, including all supports (by sheet pile/ shoring/ strutting to retain and support the soil/ Sloped Excavation or other methods) for stability, including dewatering , pumping &bailing out of water. This item shall be measured on basis of area of PCC for pile cap/foundation multiplied by the excavation depth beyond 4m.	Cum	500.00	3,374.51	16,87,255.00
A8	Providing & laying plain cement concrete M20/20 grade in open foundation, stepped foundation, combined footing, raft foundation,retaining walls, return walls, walls, U/G water tank, culverts, below pile cap, drains, slab on grade, tie beams, basements, levelling course or any other works as directed by the Engineer, etc. rate is inclusive of required dosage of admixture in concrete for obtaining required workability and as per specifications, approved drawings, laid in layers not exceeding 15cms thick layers, as per drawing including cost of all material, formwork/shuttering, dewatering during concreting, vibrating, compacting, curing, hire charges of machinery, all lead and lift, loading, unloading, transporting, stacking, finishing the exposed faces etc., complete as specified.	Cum	220.23	7,722.01	17,00,618.00
	Total of Schedule-A				10,32,24,681.00
SCHEDULE -B : CAST-IN-SITU/ PRECAST WORK					
	Providing and laying PCC/RCC for viaduct, road cum rail flyover structures				
B1	Providing and laying grade M50/ 20 reinforced cement concrete at all levels for Viaduct & station piers of all size, shapes & heights (standard	Cum	4545.60	14,492.39	6,58,76,608.00

Item No.	Description of items	Unit	Quantity	Rate (Rs)	Amount (Rs)
	<p>pier, portal pier & cantilever pier), pier head, shear key, portal beams, pier-arms, corbels, pier-ledge, diaphragms, pedestals, deck slab of all shapes etc. including centering, shuttering, propping, staging, scaffolding, curing, necessary tools, plants, machinery and all related operations etc. using steel shuttering & steel props. Formwork to be designed in such a way that traffic on road is allowed during the work at all times. Rate shall include cost of providing grooves, chamfers, mouldings, cut-outs, necessary fixtures, insert plates, sleeves for various purposes, shear connectors etc. complete as per drawings, specifications and as directed by the Engineer. The rate shall also include preparation of construction joints as per specification and providing approved wire mesh/weld mesh at such locations as approved by Engineer or as shown in drawings. Reinforcement steel shall be paid separately under relevant BOQ item. Rate shall also include cost of using required dosage of admixture in concrete for obtaining required workability as per specification & approval of Engineer.</p> <p>Note: (i) No cold joints are permitted. However cold joint at the junction of "pile cap - pier" and at the top surface of the starter of pier (which is normally less than 2m height), cold joints are unavoidable. In that case old concrete surface should have adequate shear key depressions, reinforced dowels and a layer of concrete bonding compound. Concrete retarder compound may also have to be used at the concrete surface of starter pier above the pile cap. The rate is inclusive of all above bonding agents/methods. However if any additional cold joints are unavoidable due to the reasons not beyond the control of contractor, all above bonding measures shall be on account of the contractor.</p> <p>(ii) The cost is included for provision of HDPE pipes for pre-stressing system in station piers as per drawings complete.</p>				
B2	Providing and laying M50/20 Grade reinforced cement concrete for precast PSC I-Girder, $\pi(\pi)$ / T-Girder, portal beams and pier-arm etc. (Post-Tensioned), for standard/special spans of all types (straight or curved as per approved GAD), in the casting yard including provision	Cum	1851.00	15,098.92	2,79,48,101.00

Item No.	Description of items	Unit	Quantity	Rate (Rs)	Amount (Rs)
	<p>of lifting the girders from the mould and shifting the same to the stacking yard. Quoted rate shall be inclusive of all infrastructure in the casting yard, gantry cranes, moulds, shuttering, casting beds, mobile cranes, stores, concrete batching plant, testing labs, bulk heads, approved curing arrangements as required, all handling etc. complete, 2mm Teflon sheet at the end for placing on portal / arrangement for placing bearing with suitable downstrand etc., as required and shown in drawing etc. complete. Rates shall include Pre-stressing system (Anchorage, sheathing, vent pipe and other accessories) and cost of lifting hooks and using required dosage of admixture in concrete for obtaining required workability as per approval of Engineer.</p> <p>Note: (i) Type, Size and number of shutter moulds shall be as per the GFC drawings and nothing extra is payable. (ii) As per the drawing, necessary fixtures for pre-stressing system are to be embedded in concrete while casting of Girder. (iii) Reinforcement shall be paid separately under respective BOQ items. (iv) The rate shall include UPV Testing in Anchor Zones as per IS 13311-Part I-1992 or latest for Girders (Testing to be carried out by approved NABL Laboratory as approved and directed by Engineer.)</p>				
B3	<p>Providing and laying M40/20 grade reinforced cement concrete for precast parapet, over Deck slab on both side of viaduct, including transition span as per the drawing in all spans (straight or curved), in the casting yard including provision of lifting the parapet from the mould and shifting the same to the stacking yard. Quoted rate shall be inclusive of all infrastructures in the casting yard, gantry cranes, moulds, shuttering, casting beds, mobile cranes, stores, concrete batching plant, testing labs, approved curing arrangements as required. The cost shall be inclusive of shuttering, scaffolding, special adjustable props for alignment of units, moulds, providing cutouts, required dosage of admixture for concrete. Quoted rate shall also inclusive of Loading, transporting precast parapets from casting yard to work site, launching and erection in position using gantry or crane complete with cast in situ stitch concrete of same grade. Bolts &</p>	Cum	395.87	13,878.99	54,94,276.00

Item No.	Description of items	Unit	Quantity	Rate (Rs)	Amount (Rs)
	<p>inserts for fixing hand rails will be paid separately under relevant BOQ item. Reinforcement Steel shall be paid separately under relevant BOQ Items.</p> <p>Note: (i) Payment at 70% of accepted rate on casting, 28% on completion of erection, stitch concrete & related works and 2% will be released after handing over to the designated contractor. (ii) Cost inclusive of providing BMRCL logo in parapet as per Drawing.</p>				
B4	<p>Providing and laying M35/20 grade reinforced cement concrete for Viaduct and Station structures of all size, shape & heights for crash barrier, Median, entry structure columns, beam, plinth beam, staircase of Stations, lift walls, shell wall, parapets in stations, diaphragms, cross-girder, deck slab of all shapes, curved/shell roofs including centering, shuttering, propping, staging, scaffolding, curing, necessary tools, plants, machinery and all related operations etc. using steel shuttering & steel props. Formwork to be designed in such a way that traffic on road is allowed during the work at all times. Rate shall include cost of providing grooves, chamfers, mouldings, cut-outs, necessary fixtures, insert plates, sleeves for various purposes, shear connectors etc. complete as per drawings, specifications and as directed by the Engineer. The rate shall also include preparation of construction joints as per specification and providing approved wire mesh / weld mesh at such location as approved by Engineer or as shown in drawings. Reinforcement shall be paid separately under relevant BOQ item. Rate shall also include cost of using required dosage of admixture in concrete for obtaining required workability as per specification & approval of Engineer.</p>	Cum	156.33	13,709.30	21,43,175.00
B5	<p>Providing and laying M35/20 grade reinforced cement concrete, using sacrificial shuttering with anchoring, for all heights, concourse level slab, Rail level slab platform slab, in between pre-tensioned and post-tensioned I-girders in all stations, viaduct portals, Steel portals, composite girders etc. transition spans and viaduct line including design of sacrificial shuttering along with method statement, design shall be approved by the Engineer, supplying, fixing, positioning pre-</p>	Cum	1620.00	20,777.78	3,36,60,004.00

Item No.	Description of items	Unit	Quantity	Rate (Rs)	Amount (Rs)
	embedded studs in concrete, structural decking panel (Sacrificial shuttering of approved make) with yield strength of 500 Mpa galvanized steel (min 275gms/sqm zinc coated) as per IS-277 or equivalent standard and all related operations. The structural decking panel shall have nominal effective cover width, nominal 51 mm deep ribs with at nominal 316 mm center to center with the embossment (shear Groove) on top and side of ribs for better composite action. Including the shear stud, universal beam, edge form, steel bracket, screws and fasteners, sealant, insulation, closures, edge angle, hoop iron and labour and machinery cost for erection and placing in position etc. complete as per the drawing and specification and as directed by the Engineer. Rate shall include cost of providing grooves, chamfers, mouldings, cut-outs, necessary fixtures, insert plates, sleeves for various purposes, shear connectors etc. complete as per drawings, specifications and as directed by the Engineer. The rate shall also include preparation of construction joints as per specification and providing approved wire mesh/weld mesh at such location as approved by Engineer or as shown in drawings. Reinforcement shall be paid separately under relevant BOQ item. Rate shall also include cost of using required dosage of admixture in concrete for obtaining required workability as per specification & approval of Engineer.				
B6	Loading, transporting precast I-Girders, (pi)/T-Girder, pier-arm and portal beams (PSC & RCC) from casting yard to work site, launching and erection in position with cranes, including the erection and shifting of launching girder/crane, cost of all temporary supports, erection equipment, transporting, and positioning on bearings etc. The weight shall be calculated assuming concrete density of 2.4t/m ³ .	MT	5392.50	2,991.35	1,61,30,855.00
B7	Conducting Load Testing of PSC I Girder/π(pi)/T- Girder, Composite steel girder of any span length as per IRC SP 51, including making all arrangement and conducting satisfactory Load testing on simply supported span erected in position on the piers at site. Arrangement for application of actual design serviceable vertical load as directed by Engineer and arrangement for measurement of deflection at various salient points of the girder and submitting a report. The details of	MT	850.00	5,787.78	49,19,613.00

Item No.	Description of items	Unit	Quantity	Rate (Rs)	Amount (Rs)
	placement, position, increment of load on the simply supported span and installation of measurement devices etc., shall be as directed by the Engineer. Note: Rate shall include submission of method statement and third party certification of the test.				
	Total of Schedule-B				15,61,72,632.00
SCHEDULE -C : STEEL WORKS					
STEEL REINFORCEMENT, PRESTRESSING & STRUCTURAL STEEL					
C1	<p>Providing TMT-500 D grade steel bar reinforcement (conforming to IS:1786, HYSD Fe 500 grade) at all heights & depth including straightening bars, cutting, bending, hooking binding with approved quality 18 gauge G.I binding wire, after placing in position tying, lapping and/or welding wherever required and anchoring to the adjoining members wherever necessary as per drawings (Laps, Hooks, and Wastages shall not be measured and paid) including cost of all materials, bar bending charges, labour, lead & lifts etc., Complete as per specifications and as directed including welding involved towards stray current protection effects as per the system approved by Engineer.</p> <p>Note: (i) 18 gauge GI binding wire (2 ply) in diamond form at each reinforcement junction. (ii) Splices (Laps, couplers, welds etc.) not payable. (iii) Only mechanical coupler to be used for bars dia 20mm and above, couplers are to be used without extra cost. (iv) The cost quoted should cover all types of splices including stiffeners hooks, spacer bar, U bar, chair, bend deduction as required and nothing extra is payable on this account. v) Provisional Payment against receipt of Materials at Site will be as per Clause 11.3 of GCC vi) Reinforcement bars shall be provided with or without anti-corrosive paint at some locations, as specified in the project requirements and subject to BMRCL's approval. vii) The cost includes earthing rod and while using Earthing Rods,</p>	MT	2410.95	82,086.10	19,79,05,483.00

Item No.	Description of items	Unit	Quantity	Rate (Rs)	Amount (Rs)
	including supply, transportation, welding, necessary connecting plates, earthing arrangements, and all incidental works of approved diameter and length as specified in the drawings, specifications, or as approved by the Engineer in Charge, complete in all respects, with nothing extra payable for payment. viii) Stage payment at 60% of the accepted rate or 90% of the invoice value whichever is minimum shall be paid on receipt of material at site and its certification by the Engineer against submission of Original invoice and manufacture test reports and the indemnity bond. The total stage payment made at any given time shall not exceed 10% of the accepted value of this item.				
C2	Supplying and threading uncoated stress-relieved low relaxation steel conforming to IS:14268, class-2 in already positioned Precast Pier-arm, precast I-girder,(pi)/T-Girder, portal beams including Providing corrugated 2.3mm (Tolerances + 0.3mm) thick HDPE duct 107mm ID (Tolerances + 1mm), OD 124mm (Tolerances + 1mm) for 19K15 & 90mm ID (Tolerances + 1mm), OD 104mm (Tolerances + 1 mm) for 12K15 with couplers & vent pipes, spacers, anchorages, stressing using 19K15 or 12K15 system or any other approved pre-stressing system and grouting as per approved methodology including water testing, epoxy protection of anchorages, related operations to complete the work, with all lead and lift and as per specifications. This item shall include Providing and fixing all Strands, Corrugated HDPE Duct (including blister portion) for Laying the Strands, Required Anchorages for live & dead end and at blister portion for future pre-stressing, Stressing up to required level using all tools and equipment's & consumables After stressing is completed, the voids in all ducts are to be grouted with non-shrink cement grout, and filling of all recess with concrete with adequate reinforcement as per drawing & specifications, all complete, as directed by the engineer Note: (i) For payment, only pre-stressing strand (weight of pre- stressing strand, final in place) will be measured of individual girder average straight length.	MT	149.06	1,69,046.19	2,51,98,025.00

Item No.	Description of items	Unit	Quantity	Rate (Rs)	Amount (Rs)
C3	Providing, fabricating and erecting structural steel for hand railing and other structural members for viaduct including transition span consisting of tubular and rolled sections profiled to require shape, base plates, strips and flats for structural and general engineering purposes with welded hold fasts for walk-way, earth terminal plates, insert plates with welded hold-fast, internal threaded sleeves including MS bolts Confirming to IS-3757:1985 (Reaffirmed:2008) & IS-4000:1992 (reaffirmed:2013) (Code of practice for high strength bolts in steel structures) tightened by Torque wrench and primer coat and aluminium paint as per specification and drawing, with all lead and lifts and as per the directions of engineer. The rate shall also include required surface preparation (sand blasting), Surface Treatment and Painting of Steel Sections shall be done as mentioned in Technical Specification	MT	33.60	1,07,079.74	35,97,879.00
C4	Supply, fabrication, transportation and erection of fabricated steel girder work of Grade E450 BR/E350 BO confirming to IS 2062- 2011 (with all latest amendments) including, painting, fully killed and fully normalized at appropriate location using various structural steel sections including MS-plates, etc. as per approved drawing for composite girders including cutting, bending, drilling holes with necessary field rivets, welding, HSFG bolts tightened by Torque wrench as per drawings supply of necessary templates etc. complete for fixing accessories such as bolts and nuts, etc. Complete duly providing necessary scaffoldings arrangements, temporary staging and metalizing the girders in accordance with the Indian Railway Bridge manual and any other incidental work as required with all leads and lifts, etc. compete and as directed .Work under this item should be conforming to IINDIAN RAILWAY STANDARD SPECIFICATION FOR FABRICATION AND ERECTION OF STEEL GIRDER BRIDGES AND LOCOMOTIVE TURN-TABLES (FABRICATION SPECIFICATION) SERIAL NO. B1-2001 with latest correction slips and Indian Railway Standard Code of Practices for metal arc welding for structural steel bridges carrying rail cum road or pedestrian traffic (Adopted 1972 Revised 2001) with latest correction slips.	MT	520.00	1,77,209.62	9,21,49,002.00

Item No.	Description of items	Unit	Quantity	Rate (Rs)	Amount (Rs)
	<p>NOTE: Contractor has to engage specialized third party inspecting agency viz., RDSO, RITES, WRI, CEIL and KRCL, for QAP approval, inspection of fabrication, assembly and for launching of railway span complete (Refer railway board letter no 2022/7/CE-III/BR/Fabrication dated 29.05.2023.)</p> <p>(i) In case of superstructure over flyover all steel girders with bracings together shall be launched using push and pull methodology/suitable launching schemes including rolling over the track bed, Crib Crane method, etc.</p> <p>(ii) All labour, materials, tools and plants consumables such as welding rods. etc., by contractor,</p> <p>(iii) Metalizing treatment of all steel surfaces shall be done by spraying aluminium having 99.5% purity with a coating of 150microns by minimum 2 phases.</p> <p>(iv) Painting of metalized steel sections shall be done as below.</p> <p>a. First coat- Primer to IS:5666</p> <p>b. Second coat-Zinc chromium paint to IS:104</p> <p>c. Third & fourth coat -Aluminium paint to IS:2339</p> <p>(v) The rates are inclusive of testing of all raw materials, shear connections, HSFG bolts, nuts and welding, etc. including allowances for all types of wastages.</p> <p>(vi) The rate is inclusive of surface preparation, sand blasting. etc.</p> <p>(vii) The rate shall also included supplying and providing of detailed fabrication drawing prior to execution.</p> <p>(viii) The rate shall also include provision and installation of base plates, anchor bolts (For payment measured in Tonnes, etc.,) as per relevant drawings, specifications and direction of the engineer.</p>				
	<p>(ix) Using standard plate sections, H sections, hollow round/square/rectangle sections etc., welded and built.</p> <p>(x) The launching scheme and its design, drawing have to be submitted by the contractor using sufficient capacity Cranes duly proofchecked by IIT/IISc and get it approved from Railway as per railway board letter no 2022/7/CE-III/BR/Fabrication dated 29.05.2023. When girder is to be erected over the existing flyover then each girder is to be launched with proper care and with proper frame</p>				

Item No.	Description of items	Unit	Quantity	Rate (Rs)	Amount (Rs)
	to avoid toppling during launching. The girder so placed will be temporarily braced with bolts and nuts before freeing from the frame. (xi) The rates are inclusive of all testing with approved NABL accredited third party vendor (includes Phased Array Ultrasonic Testing (PAUT)) of all items and materials as per the technical specifications and as directed by the Engineer. (xii) For steel composite girder at railway crossings fabrication should be done by RDSO approved vendor in approved factory. (xiii) Approval for method statement and launching scheme for railway span has to be taken from Railways as per their requirement at no extra cost. xiii) Stage payment at 60% of the accepted rate or 90% of the invoice value whichever is minimum shall be paid on receipt of material at site and its certification by the Engineer against submission of Original invoice and manufacture test reports and the indemnity bond. The total stage payment made at any given time shall not exceed 15% of the accepted value of this item.				
	(All labour, materials, tools and plants, consumables such as welding rods etc. shall be arranged by the contractor)				
	Total of Schedule-C				31,88,50,389.00
SCHEDULE -D : OTHER WORKS					
PRELIMINARIES AND GENERAL					
D1	During the contract period including the extended contract period till the final completion of the work, the contractor shall provide Surveying by establishing DGPS control points and TBMs, marking of alignment and pier locations, vertical & horizontal clearances for the elevated section including modifications, if any, as per drawings. No extra amount will be paid to re-do or to re-establish any of the survey points. The control points are to be fixed using DGPS double frequency and the accuracy of 1 in 50,000 or better are to be assured. Note: The payment schedule for the item shall be as follows:	Km	1.00	4,00,843.05	4,00,843.00

Item No.	Description of items	Unit	Quantity	Rate (Rs)	Amount (Rs)
	(i) Payment at 25% of total cost of the item on checking and verification of all control points and submission of drawings. ii) Payment at 70% of total cost of the item equally distributed over the duration of the contract period and will be paid on pro-rata basis. (iii) Payment at 5% of total cost of the item on satisfactory completion of work along with the final bill				
D2	<p>Providing temporary barricade of 2m height of plain MS sheet 16 Gauge fixed with steel frame as per drawing, painting (including primer of approved quality) with synthetic enamel paint of approved colour, quality and brand, writing lettering and logo of Metro including maintenance of the same duly cleaning the same on fortnightly basis and painting if required, arrangement for blinker lights on barricades during night as per requirement and as per the instruction of the engineer. Barricading should be rugged. Barricading shall be in place throughout the Construction. Nothing extra will be paid for dismantling and re-erecting the barricades anywhere on the stretch. There should not be any opening at the end of barricade except at locations approved by Engineer.</p> <p>Note: (i) Barricades on either side shall be measured individually, Barricades to be counted in the entire stretch on monthly basis and billing made as per availability of barricading boards. (ii) Once barricade has been provided and work started, removal of barricade is not permitted till completion of pile, pile cap, pier and pier caps, portal beams, I girder erection, till completion of construction or as directed by Engineer as per site requirements. (iii) While erecting barricade, the bottom gap between barricade and road should be plugged with cement concrete from inside. (iv) There should be minimum openings at the end of barricade to allow access of trucks/lorries and machine to site work area. Even these spacing should have proper opening & closing arrangements. (v) Adequate blinking lights on barricade during night time must be ensured. The cost of this item should include provision for power pack/Generator set etc. so as to ensure the blinking of lights in night time as long as barricades are in position at the work spot.</p>	Rm	1500.00	4,614.86	69,22,290.00

Item No.	Description of items	Unit	Quantity	Rate (Rs)	Amount (Rs)
	(vi) After completion of the entire work, the barricades shall be the property of the contractor. (vii) Payment shall be made at 70% on erection of barricade and 30% on removal of barricade as per the instructions of Engineer. (viii) If the cleaning is not done including removal of posters regularly, a recovery shall be made at the rate of 0.1% of the accepted rate of item per fortnight on pro-rata basis of length not cleaned.				
D3	Deployment of adequate manpower (Traffic marshals) for management of traffic at intersection, junctions, traffic diversions etc. at various levels to the complete satisfaction of local traffic police and as directed by Engineer. Marshals daily shift wise attendance will be maintained and checked by Engineer, this will be basis for the payment.	Man Day	2736.00	647.80	17,72,381.00
D4	Boring of 150 mm dia. (confirmatory bore holes), in all types of soil at selected Pier locations (Locations to be decided by the Engineer) up to 3m in hard rock or 30m boring whichever is earlier and collecting core samples in rock for determination of core recovery, RQD and carrying out compressive strength test on rock samples. The rate inclusive of boring in soil, conducting SPT and collecting samples at 3m depth intervals and submitting bore log reports with soil classifications/SPT, Drilling 3m in hard rock with double barrel core for obtaining samples for testing of core recovery, RQD and compressive strength as per standard practice, Preparation and submission of report containing core recovery, RQD, Compressive strength at Hard Rock Locations with all lead and lifts and as per the directives of Engineer within three to six months of possession of site by Contractor.	Rm	700.00	2,160.10	15,12,070.00
D5	Diagonal Cross trenching works for identifying underground utility at every Pier location to the required length, width and depth, as per drawing, which includes excavation in all types of soil, hard soil, rock, footpath, bitumen road, concrete road, medians etc. cutting of all type road surfaces and backfilling the same with available excavated earth. The rate includes surveying and taking coordinates of the existing	Cum	1000.00	543.46	5,43,460.00

Item No.	Description of items	Unit	Quantity	Rate (Rs)	Amount (Rs)
	utility and submitting the reports (hard & soft copy) of the same as per the directions of the Engineer.				
	Bearings				
D6	Supply and fixing in position true in line & level, Elastomeric bearing both horizontal & vertical type of approved make, placing and fixing in location as per specification/drawings certifying to EN1337 and as directed by the engineer with CE Certification.	Cucm	1497600.00	1.15	17,22,240.00
D7	Supplying, fitting and fixing in position true to line and level Spherical bearings consisting of a metal piston supported by a disc, sealing rings, dust seals, steel mating surface, Complete as per IRC83-2014 Part (IV) and as per drawing and approved Technical Specifications The design of the bearings shall be submitted by the manufacturers/contractor and got approved from BMRCL before fixing. Test report of the bearings should be got approved before the materials are lifted from the manufacturer premises				
D7.1	(750MT Capacity & above)	Nos	8.00	1,77,824.17	14,22,593.00
D7A	Supplying to site and placing of POT Cum PTFE Bearing and its components in position during casting of pier/ pedestal and superstructure, including, grouting of holes for anchor bolts and underside of base plate with approved non-shrink cementitious grout as per specification and drawings. Note: Quoted price shall hold good for forces and movements varying by+/- 25% for those minimum loads/ forces indicated.				
D.7A.1	Free POT Bearing: V = 426 MT (normal) 460 MT (seismic). Longitudinal Translation +50mm / -25mm.Trans Translation +10mm/-10mm	Nos	24.00	1,25,174.60	30,04,190.00
D.7A.2	Fixed POT Bearing : V =425 MT, Hr= 45 MT (Normal) V = 460 MT, Hr=120MT (seismic)	Nos	1.00	1,25,174.60	1,25,175.00

Item No.	Description of items	Unit	Quantity	Rate (Rs)	Amount (Rs)
D.7A.3	Longitudinal Guide POT Bearing: V = 425 MT, Hr= 45 MT (Normal) . V = 460 MT, Hr=120MT (seismic) . Longitudinal Translation +50mm/-25mm	Nos	7.00	1,25,174.60	8,76,222.00
D.7A.4	Transverse Guide POT Bearing: V = 426 MT, Hr= 45 MT (normal). V = 460 MT, Hr= 120 MT (seismic). Trans Translation +10mm/-10mm	Nos	4.00	1,25,174.60	5,00,698.00
	Viaduct Drainage Works				
D8	Providing & fixing double wall HDPE corrugated/plain pipes outside the piers and pier cap/pier arm/portal of OD 200 mm, 6.00 Kg/SqCm working pressure, approved make with pipe fittings (door bend, door tee, plain tee, plain bend, end cap, reducer, collar, etc.), including cost of fixing arrangement, such as clamp, anchor fasteners etc. with concrete structure, cost of scaffolding, cost of all materials, labour charges, HOM of equipment and testing complete as per drawings & specifications	Rm	1320.00	1,965.19	25,94,051.00
D9	Fabrication & Supply of drainage spout hot dip galvanized of dimension 300mmx180mm with MS Flat 50mmx6mmx100mm long with gratings of MS Flat 25mmx6mm with spacing of 50mm c/c and MS pipe 122 mm dia. verticals as per drawing including installation of the spout with all tools, plants, leads and lifts and in position in complete and as directed by the Engineer	Nos	115.00	1,574.21	1,81,034.00
	Road Works				
D10	Cutting of trees girth from 175mm to 600mm including serviceable materials with all lifts & lead and earth filling in the depressions/pit, complete as per specifications. MORTH specification No.201. Note: Girth measurement from 1m above the ground level.	Each	50.00	835.83	41,792.00
D11	Cutting of trees girth from 600mm to 2700mm including serviceable materials with all lifts & lead and earth filling in the depressions/pit, complete as per specifications. MORTH specification No.201.	Each	10.00	9,749.11	97,491.00

Item No.	Description of items	Unit	Quantity	Rate (Rs)	Amount (Rs)
	Note: Girth measurement from above 1m the ground level.				
D12	Transplanting the marked trees of various species and girth (175mm to 2000mm girth) to the place shown by Engineer/Engineer's representative with all leads and lifts, tools, plants men & machinery and necessary preparation such as i) Preparation of earth ball of tree roots of desired depth & diameters ii) Dislodging, lifting, transportation and transplanting tree from original place to the new place including all arrangements, labour etc. for successfully completing the work. iii) Excavating pits of adequate size, arranging loose soil, mixing of manure, fertilizer, insecticides etc. to ensure survival of the trees being transplanted. iv) Maintenance of tree i.e. watering, soil heaping, spray of insecticides for 3 years. All above operations shall be executed as per specification.	Each	5.00	15,383.22	76,916.00
D13	Direction and Place identification signs upto 0.9 sqm size board: Providing and erecting direction and place identification retro-reflectorized sign as per IRC: 67 made of high intensity grade sheeting wide clause 801.3, fixed over aluminium sheeting, 2mm thick with area not exceeding 0.9 sqm supported on a mild steel single angle iron post 75x75 x 6 mm firmly fixed to the ground by means of properly designed foundation with M15 grade cement concrete 45x45x60 cm, 60 cm below ground level as per approved drawing	Sqm	20.00	9,258.39	1,85,168.00
D14	Portable barricades in construction Zone: Installation of steel portable barricade with horizontal rail 300mm wide, 2.5m in length fitted on a 'A' frame made with 45x45x5mm angle iron section, 1.5m in height, horizontal rail painted (2 coats) with yellow and white stripes, 150mm in width at an angle of 45 degree, 'A' frame painted with two coats of yellow paint, complete as per IRC: SP:55- 2001 including cost of all materials, labour, loading, lead, lift, transporting etc., complete. MORTH specification: 813.6	Nos	150.00	3,358.24	5,03,736.00

Item No.	Description of items	Unit	Quantity	Rate (Rs)	Amount (Rs)
D15	Traffic cones: Supplying of red fluorescent with white reflective sleeve traffic cones made of low density polyethylene (LOPE) material with a square base of 390x390x35mm and a height of 770mm, 4Kg in weight, placed at 1.5m interval all as per BS-873 including cost of all material, labour, loading, unloading, lead, lift, transporting, etc., complete.	Nos	30.00	554.93	16,648.00
D16	Retro-Reflectorized traffic signs: Supplying and fixing of retro - reflectorized cautionary, mandatory and informatory sign as per IRC: 67-2001 made of high intensity grade micro prismatic HIP type-IV sheeting, including lettering fixed over aluminium sheeting, 2 mm thick firmly fixed to the ground by means of properly designed foundation with M15 grade cement concrete 45cmx45cmx60cm, 60cm below ground level as per approved drawing. The item includes earthwork excavation, Cement Concrete M -15 grade, 2 coats of approved colour synthetic enamel painting to the steel surface, as per clauses, including curing, cost of all materials, labour, loading, unloading, lead, lift, transporting etc., complete supported on a mild steel angle iron post 75mm x 75mm x 6mm, 3.50mtrs height (minimum effective height 1.90 mtrs) with 60 cm equilateral triangle/60cm circular. MORTH specification: 801	Nos	10.00	6,296.85	62,969.00
D17	Providing supplying and fixing in position, boundary pillars of standard design as per IRC-25-1967 with BMRCL logo on it with reinforced cement concrete of M15 grade using 20mm down size granite metal as per standard design including cost of materials, steel, labour, curing, fixing in position, painting, with all lead and lift, transportation etc. complete as per MORTH specification: 806	Nos	12.00	637.48	7,650.00
D18	Clearing and grubbing road land including uprooting rank vegetation, grass, bushes, shrubs, saplings and trees girth upto 300mm. Removal of stumps of trees cut earlier and disposal of unserviceable materials and stacking of serviceable material to be used or auctioned, with all lead and lifts including removal and disposal of top organic soil not exceeding 150mm in thickness including all labour, hire charges of all machineries etc., complete with all lead & lifts. By Mechanical Means or any other mean	Ha	0.60	24,992.50	14,996.00

Item No.	Description of items	Unit	Quantity	Rate (Rs)	Amount (Rs)
D19	Excavation for roadwork in all types of soil by mechanical means including cutting and loading to tippers, trimming bottom and side slopes, in accordance with requirements of lines, grades and cross section, and transportation with all & lift lead complete as per specifications.	Cum	2100.00	159.37	3,34,677.00
D20	Back filling with Granular material behind abutment, wing wall, return wall and foundation trenches as per drawing in layers not exceeding 20cms in depth, compacting deposited material by plate compactor/power rammer after duly watering to achieve the desired degree of compaction, including cost of materials, labour, hire charge of machineries, transportation, with all lead and lifts, loading, unloading etc. complete. MORTH specification: 710.1.4 of IRC: 78 & 2200	Cum	200.00	950.49	1,90,098.00
D21	Construction of granular sub-base Grading-V as Sub-base and drainage layer by providing coarse graded crushed stone aggregates of granite/trap/basalt material, mixing in a mechanical mix plant at OMC, Carriage of mixed material to work site, spreading in uniform layers with motor grader on prepared surface and compacting with vibratory power roller to achieve the 98% proctor density, complete as per specifications. Clause 401 of MORTH V revision	Cum	1500.00	2,538.46	38,07,690.00
D22	Providing, laying, spreading and compacting crushed stone aggregates of granite/trap/basalt to Wet Mix Macadam specifications including pre mixing the material with water at OMC in mechanical mix plant carriage of mixed materials by tipper 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 complete as per specifications, MORTH specification No.406	Cum	1500.00	2,546.49	38,19,735.00
D23	Providing and applying primer coat with S.S bitumen emulsion on prepared surface of granular base such as WMM including cleaning of road surface and spraying primer at the rate of 0.60kg per sqm using mechanical means complete as per specifications. Clause 502 of MORTH V revision	Sqm	4370.00	45.86	2,00,408.00

Item No.	Description of items	Unit	Quantity	Rate (Rs)	Amount (Rs)
D24	Providing and applying tack Coat using 80/100 grade bitumen (VGIO) on the bituminous surface at the rate of 0.25Kg per Sqm, heating bitumen in boiler fitted with spray set (excluding cleaning of Road Surface) as per Specifications. Clause 503 of MORTH V revision	Sqm	4350.00	19.49	84,782.00
D25	Providing and laying dense graded bituminous macadam using crushed aggregates of specified grading, premixed with VG30 grade bituminous binder and transporting the hot mix to work site, laying to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction in all respects complete as per specifications. Clause 505 of MORTH V revision. Using 40/60 TPH capacity H.M.P with sensor paver Gr-II with 4.5% VG-30 Bitumen. (In case Mechanical Paver is used, Rs.45.00/cum in the unit rate shall be deducted)	Cum	341.00	9,887.85	33,71,757.00
D26	Providing and laying bituminous concrete using crushed aggregates of specified grading, premixed with bituminous binder and filler, transporting the hot mix to work site, laying with a paver finisher to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction in all respects as per specifications. Clause 507 of MORTH V revision. Using 40/60 TPH capacity H.M.P with sensor paver Gr-II with 5.4% VG-30 Bitumen. (In case Mechanical Paver is used, Rs.46.00/cum in the unit rate shall be deducted)	Cum	180.00	11,490.72	20,68,330.00
D27	Filling pot holes and patch repairs with bituminous concrete, 40mm thick: Removal off all failed material, trimming of completed excavation to provide firm vertical faces, cleaning of surface, painting of tack coat on the sides and base of excavation at 2.5Kg/ 10sqm as per Cl.500.3, back filling the pot holes with hot bituminous material as per Cl. 500.4, compacting, trimming & finishing the surface to form a smooth continuous surface, all as per cl.3004.2, including cost of all material, labour, hire charges of machinery, lead, lifts, loading, unloading, stacking, transporting, including all lead for bitumen and emulsion etc, complete, using Grading-I material. MORTH specification: 3004.2	Sqm	2190.00	465.50	10,19,445.00

Item No.	Description of items	Unit	Quantity	Rate (Rs)	Amount (Rs)
D28	I Road Marking with Hot Applied Thermoplastic Compound with Reflectorising Glass Beads on Bituminous Surface/Concrete Surface, Providing and laying of Hot Applied Thermoplastic compound 2.5 mm thick including reflectorising glass beads at 250gms per sqm area, thickness of 2.5mm is exclusive of surface applied glass beads as per IRC: 35. The finished surface to be level, uniform and free from streaks and holes complete as per specifications. MORTH Specification ion No. 803	Sqm	547.50	579.01	3,17,008.00
D29	Painting lines, dashes, arrows etc., on roads in two coats on new work with ready mixed road marking paint conforming to IS: 164 on bituminous surface, cleaning the surface of dirt, dust and other foreign matter, demarcation at site, barricading for traffic diversion traffic control including cost of all materials, labour, loading, unloading, lead, lift, transporting etc., complete upto 10 cm in width. MORTH specification: 803	Sqm	547.50	169.69	92,905.00
D30	Road delineators: Supplying and installation of delineators (Roadway indicators, hazard markers, object markers), 80-100cm high above ground level, painted black and white in 15cm wide strips, fitted with 80x100mm rectangular or 75mm circular reflectorized panels at the top, buried or pressed into the ground and conforming to IRC-79 as per drawings including cost of all materials, labour, loading, unloading, lead, lift, transporting, etc., complete. MORTH specification: 806	Nos	10.00	2,498.33	24,983.00
D31	Suppling and fixing precast solid concrete kerb stones made out of M15/20 (CC 1:2:4) and finished with CM 1:3 Plastering and finishing, cutting, with all lead and lifts etc, complete of size 450 x 200x 400mm	Rmt	400.00	1,347.20	5,38,880.00
	Miscellaneous Works				
D32	Dismantling of existing structures like culverts, bridges, retaining walls, etc. in cement concrete, reinforced cement concrete, etc. including T&P, machineries, labours, hire charges, scaffolding. disposal of debris with all leads and lifts as directed by the Engineer.	Cum	700.00	542.32	3,79,624.00

Item No.	Description of items	Unit	Quantity	Rate (Rs)	Amount (Rs)
D33	Cutting of RCC/CC Pavements, roads, and other structures by power cutting saw and dismantling by mechanical means using pneumatic tools, breaking to pieces not exceeding 0.02 cum in volume and stockpiling at designated locations and disposal of dismantled materials stacking serviceable and unserviceable materials separately complete as per specifications and directions of Engineer.	Cum	125.00	1,213.05	1,51,631.00
D34	Supplying and Fixing precast RCC gratings including cost of all materials, transportation, labour etc. complete (60x40 cm) with all lead and lifts	Nos	100.00	593.91	59,391.00
D35	Supplying & constructing granite/basalt rubble masonry in CM 1:3 for foundation/sub structure for drain walls, retaining walls, return walls, toe wall etc., as per drawing using clean sieved approved sand mixed in concrete mixer in courses not less than 15 cms high, bond stones at 2m apart in each course as per drawing including scaffolding, form work, curing, cost of all materials, labour, hire charges of machinery, lead, lifts, loading, unloading, transporting, stacking etc, complete. Coursed Rubble Masonry (first sort) using stone hammered dressed in foundation and stone chiselled dressed in substructure, on all sides, beds except face	Cum	50.00	7,117.78	3,55,889.00
D36	Painting pier identification number on piers & parapet inner face at different locations as directed by Engineer duly following the colour scheme including all material and labour, with all lead & lift. Final coating to be done at the time of handing over.	Nos	600.00	222.43	1,33,458.00
D37	Installation & removal of the sheet piles up to a depth of 4m for protection of existing Retaining wall	Sqm	300.00	7,636.02	22,90,806.00
D38	Providing and fixing Structural Steel work in single section, fixed with or without connecting plate, including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer all complete including cost of materials, labour, usage charges of machinery complete as per specifications and as per directions of the Engineer-in-Charge.(This item is added for bottom support to the gail gas line at the time of construction of pile cap). The fabricated	Kg	2000.00	102.30	2,04,600.00

Item No.	Description of items	Unit	Quantity	Rate (Rs)	Amount (Rs)
	structure should be used repeatedly for each foundation work as per requirement without additional shifting and re arrangement charges.				
D39	Providing and fixing Structural Steel work riveted, bolted or welded in built up sections, trusses and framed work, including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer all complete including cost of materials, labour, usage charges of machinery complete as per specifications and as per directions of the Engineer-in-Charge.(This item is added for bottom support to the gail gas line at the time of construction of pile cap). The fabricated structure should be used repeatedly for each foundation work as per requirement without additional shifting and re arrangement charges.	Kg	2000.00	118.80	2,37,600.00
	Total of Schedule-D				4,22,68,310.00
SCHEDULE-E: ITEMS UNDER SCHEDULE OF RATE PUBLISHED BY KPWD					
E1	Items not covered in the above Schedules to be executed under Common SR for the year 2023-24 published by Karnataka Public Works Department with amendments and issue rates issued up to date of tender submission.	LS			46,00,000.00
	Total of Schedule-E				46,00,000.00
	Grand Total (A+B+C+D+E)				62,51,16,012.00