



National Highways Authority of India
(Ministry of Road Transport & Highways)

“Construction of FOB's for permanent rectification of Black Spot at Km.37/430(Mahadevpura village) ID KA(02)-028 and at Km.105/800 (near Adichunchanagiri University) ID KA(03)-270 of Nelamangala to Devihalli section of NH-75(Old NH-48) from km 28+200 to 110+000 in the state of Karnataka-2nd call”

NIT No.04/NHAI/RO-BNG/Roadsafety/Tender/2024-25 dated 11.06.2024

VOLUME - II

June – 2024

Bill of Quantities

NATIONAL HIGHWAYS AUTHORITY OF INDIA

Regional Office, Beside Nagasandra Metro Station, Bengaluru – 560073

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VOLUME - II

SECTION: IX

BILL OF QUANTITIES

The Appendix forms part of Bid. Bidders are required to fill up all the blanks in the form of Bid and Appendix thereto)

FINANCIAL BID FORM

To

Regional officer.
NHAI, Regional Office,
Near Nagasandra Metro Station,
Bengaluru-560 073.

DESCRIPTION OF WORKS: “Construction of FOB’s for permanent rectification of BlackSpot at Km.37/430(Mahadevpura village) ID KA(02)-028 and at Km.105/800 (near Adichunchanagiri Univercity) ID KA(03)-270 of Nelamangala to Devihalli section of NH-75(Old NH-48) from km 28+200 to 110+000 in the state of Karnataka-2nd Call”

Dear Sir,

Having examined the site of works and Bid Documents, comprising Instructions to Bidders, Scope of works, Conditions of Contract, Technical Specifications, Bill of Quantities and schedules for the execution of the above named works, we, the undersigned offer to execute and complete such works and remedy any defects therein in conformity with the said bid documents for the sum of Rs. _____ (Rupees _____) or such other sum as may be ascertained in accordance with the said Bid documents.

2. We undertake, if our Bid is accepted, to commence the work within Fifteen (15) days of receipt of the order to commence, and to complete and deliver the sections and whole of the works comprised in the Contract within the period stated in the bid hereto.
3. If our Bid is accepted, we will furnish Performance Security (ies) in the form of a Bank Guarantee to be jointly and severally bound on us, in accordance with the Conditions of Contract.
4. We agree to abide by this Bid for the period of One Hundred & Twenty (120) days from the last date fixed for Bid Submission and it shall remain binding upon us and may be accepted at any time before the expiry of that period.
5. We confirm our agreement to treat the Bid documents and other records connected with the works as secret and confidential documents and shall not communicate information contained therein to any person other than the person authorised by the Employer or use such information in any manner prejudicial to the safety and integrity of the works.
6. Unless and until an agreement is prepared and executed, this Bid, together with your written acceptance thereof, shall constitute a binding Contract between us, but without prejudice to your right to withdraw such acceptance without assigning any reasons thereof.

7. We understand that you are not bound to accept the lowest or any bid you may receive.

Dated this _____ day of _____ 2024

Signature _____ in the capacity of _____ duly authorized**

To sign Bid for and on behalf of _____
(In block capital letters)

Address: _____

**Certified copy of Power of Attorney /authorization for signature shall be furnished by the bidder.

Bill of Quantities

9.00 Preamble

9.01 The Bill of quantities shall be read in conjunction with the Instructions to Bidders, Conditions of Contract, Scope of Work and Specifications.

9.02 The quantities given in the Bill of quantities are estimated quantities. The basis of payment will be actual quantities of work indented and carried out and valued at the rates and prices tendered in the priced Bills of quantities, where applicable and otherwise at such rates and prices as the Engineer may fix with in the terms of Contract.

9.03 The rates and prices tendered in the priced Bill of Quantities shall include all equipment, plant, tools, spares, labour, supervision, overheads, consumables, materials, erection, maintenance, testing of input material delivered, profit, taxes and duties together with all general risks, liabilities and obligations set out and implied in the Contract and other incidentals to comply with the requirements of technical specifications and scope of work.

9.04 The rates and prices shall be quoted entirely in Indian Currency.

9.05 A rate or price shall be entered against each item in the Bill of Quantities whether the quantities are stated or not. The cost of the items against which the contractor has failed to enter rate or price shall be deemed to be covered by other rates and prices entered for the related items of work.

9.06 The whole cost of complying with the provisions of the contract shall be included in the items provided in the priced Bill of Quantities and where no rates are provided the cost shall be deemed to be distributed among the rates and prices entered for the related items of work.

9.07 The contractor shall keep the entire carriageway neat and clean throughout the contract period. The contractor shall maintain guard rails, railings, crash barriers, road furniture etc. in good condition by cleaning them frequently as advised / required by using suitable detergents/chemicals.

- The staff of the contractor shall wear safety jackets, shoes, helmets etc. while on duty and any violation will attract a fine of Rs. 5,000/- for each incident.
- Failure to erect safety signage or trying to carry out the works without proper precautions/safety measures as required will attract a fine of Rs. 5,000/- for each incident.

9.08 General directions and descriptions of work and materials are not necessarily repeated or summarized in the Bill of Quantities. Reference to the relevant sections of the bidding document shall be made before entering rates or prices against each item in the Bill of Quantities.

Construction of FOB's for permanent rectification of Black Spot at Km.37/430(Mahadevpura village) ID KA(02)-028 and at Km.105/800 (near Adichunchanagiri University) ID KA(03)-270 of Nelamangala to Devihalli section of NH-75(Old NH-48) from km 28+200 to 110+000 in the state of Karnataka-2nd call

Civil works

S.No	Description	Unit	Quantity	Rate	Amount
1	Clearing and Grubbing Road Land By Mechanical Means. (Clearing and grubbing road land including uprooting rank vegetation, grass, bushes, shrubs, saplings and trees girth up to 300 mm, removal of stumps of trees cut earlier and disposal of unserviceable materials and stacking of serviceable material to be used or auctioned up to a lead of 1000 metres including removal and disposal of top organic soil not exceeding 150 mm in thickness.) including all labours, hire charges of all machineries etc, complete	Sqm.	782.657	19.00	14,870
2	Excavation for Structures by Mechanical Means & Depth upto 3 m (Earth work in excavation of foundation of structures as per drawing and technical specification, including setting out, construction of shoring and bracing, removal of stumps and other deleterious matter, dressing of sides and bottom and backfilling with approved material to the extent required and utilizing the remaining earth for locally for road works. Including labour disposal of un serviceable excavated stuff with in 100 mtrs radius etc. complete with all lead, lead, unloading for the successful completion of work	Cum	365.092	125.00	45,637
3	Plain/Reinforced cement concrete in open foundation RCC M15 - using granite/trap/basalt/aggregate and clean sieved approved fine aggregates or double washed crushed metals sand including mixing mechanically, laid in layers not exceeding 15 cms thick layers, as per drawing including cost of all materials from work, entering, vibrating, compacting hire charges of machine, lead lift loading, unloading, transporting, stacking, curing, finishing the exposed faces etc, complete (excluding cost of steel and fabrication charges)				
i	RCC M15	Cum	15.694	6365.00	99,892
ii	RCC M30 for Foundation (Raft)	Cum	95.530	8128.00	7,76,468
4	Plain/Reinforced cement concrete in sub-structure complete as per drawing and technical specifications RCC M30 for Sub-structure (Column) using Concrete Mixer and using granite/trap/basalt/aggregate and clean sieved approved fine aggregates or double washed crushed metals sand including mixing mechanically, laid in layers not exceeding 15 cms thick layers, as per drawing including cost of all materials from work, entering, vibrating, compacting hire charges of machine, lead lift loading, unloading, transporting, stacking, curing, finishing the exposed faces etc, complete (excluding cost of steel and fabrication charges)				
i	RCC M30 for Sub-structure (Column)	Cum	38.267	8166.00	3,12,488

5	Furnishing and Placing Reinforced/Prestressed cement concrete in super-structure as per drawing and Technical Specification RCC M30 for Super Structure using Concrete Mixer and using 20mm and downsize granite/trap/basalt/aggregate and clean sieved approved fine aggregates or double washed crushed metals sand including mixing mechanically, laid in layers not exceeding 15 cms thick layers, as per drawing including cost of all materials from work, entering, vibrating, compacting hire charges of machine, lead lift loading, unloading, transporting, stacking, curing, finishing the exposed faces etc, complete (excluding cost of steel and fabrication charges)				
1	RCC M30 for Super Structure	Cum	37.315	9100.00	3,39,567
6	Providing TMT steel bar reinforcement confirming to IS-1786 in foundation including straightening bars, cutting, bending, hooking, binding with approved quality. binding wire after placing in position, tying, lapping and or welding wherever required and anchoring to the adjoining members wherever necessary as per drawings (lap, hook and wastage shall not be measured and paid) including cost of all materials bar bending charges, labour, lift etc complete, Supplying, fitting and placing un-coated HYSD bar reinforcement in foundation complete as per drawing and technical specifications 100 kg per cum of Concrete Considered HYSD for Foundation @ 100 kg per cum of Concrete	MT	7.642	106156.00	8,11,244
7	Providing TMT steel bar reinforcement confirming to IS-1786 in foundation including straightening bars, cutting, bending, hooking, binding with approved quality. binding wire after placing in position, tying, lapping and or welding wherever required and anchoring to the adjoining members wherever necessary as per drawings (lap, hook and wastage shall not be measured and paid) including cost of all materials bar bending charges, labour, lift etc complete, Supplying, fitting and placing HYSD bar reinforcement in sub-structure complete as per drawing and technical specifications 100 kg per cum of Concrete considered HYSD for Sub-structure @ 100 kg per cum of Concrete	MT	3.061	106383.00	3,25,638
8	Providing TMT steel bar reinforcement confirming to IS-1786 in foundation including straightening bars, cutting, bending, hooking, binding with approved quality. binding wire after placing in position, tying, lapping and or welding wherever required and anchoring to the adjoining members wherever necessary as per drawings (lap, hook and wastage shall not be measured and paid) including cost of all materials bar bending charges, labour, lift etc complete, Supplying, fitting and placing HYSD bar reinforcement in super-structure complete as per drawing and technical specifications 120 kg per cum of Concrete considered HYSD for Super Structure @ 120 kg per cum of Concrete	MT	3.732	106610.00	3,97,869

9	Providing & laying Antiskid Ceramic tiles of approved size, make, color and quality for flooring in required position and in line and level on a bed of 1:4 CM (min.35 mm thick) including cement slurry, pointing the joints with "Laticrete" filler compound as per Manufacturer's Specification and as directed	Sqm	324.936	1312.00	4,26,316
10	Backfilling behind abutment, wing wall, return wall and foundation trenches as per drawings in layers not exceeding 20cm in depth compacting deposited materials with plate compactor power rammer after duly watering to achieve the desirable degree of compaction, including cost of materials, labour, hire charges of machineries, transportation, lead, lift, loading, unloading etc complete	Cum	215.601	898.00	1,93,610
11	Providing and constructing burn brick masonry with approved quality of non modular bricks of standard 1st class size designation with cement mortar 1:3 in foundation as per drawing using clean sieved approved fine aggregate or double washed crushed metal sand mixed in concrete mixer ,scaffolding, fromwork, curing, including cost of all materials, labour hire charges of machine, transportation, lead, lift, loading, unloading etc complete (excluding pointing & plastering)	Cum	1.067	7842.00	8,367
12	Sub-Soil Investigation	No		Deleted	-
13	Structural Steel work (round, Square or rectangular hollow tubes etc.,) trusses etc., including cutting, hoisting, fixing in position and applying priming coat of approved steel painting including primer, including welding complete Electric resistance or Induction butt welded tubes	MT	53.862	178105.00	95,93,092
14	Supply and Fixing of bare-galvalume roof and cladding sheets including necessary tools and screws	Sqm	399.580	1200.00	4,79,496
15	Supply and fixing of 12 gauge of 1.5 mt height GI mesh with 25 x 25 x3mm angle outer frame and intermediate 20 x 20 x 3mm angle	Sqm	169.530	1800.00	3,05,154
16	Supply & Fixing of Steel Galvanized steel deck sheet for floor	sqm	247.302	3000.00	7,41,906
17	Retro- reflectorised Traffic signs (Providing and fixing of retro- reflectorised cautionary, mandatory and informatory sign as per IRC :67 made of encapsulated lens type reflective sheeting vide clause 801.3, fixed over aluminium sheeting, 1.5 mm thick supported on a mild steel angle iron post 75 mm x 75 mm x 6 mm firmly fixed to the ground by means of properly designed foundation with M15 grade cement concrete 45 cm x 45 cm x 60 cm, 60 cm below ground level as per approved drawing)				
1	Providing and fixing of Informatory Signboard with Type XI sheeting make Avery Dennison 800mm x 600 mm with Digital printing by Traffic Jet Plus Printing Machine includes MS POST of 75 OD and as per IRC 67 2012 Back frame will be 25 x 25 x3 MM.	Nos	2.000	6114.00	12,228

ii	Providing and fixing of Cautionary signboard with Type XI sheeting make Avery Dennison mounted on single POST. Size of Board is 900 MM Triangle as per Plate no. 15.50 of IRC 67-2012. Board made up of Type XI retro reflective sheeting and OL film pasted on 4MM ACP with back frame 25 x 25 x3 MM mounted on 75OD MS pipe with thickness of 3MM 10 Ft length as per IRC 67 2012. Pipe weight will be 17 KG each.	Nos	4.000	8366.00	33,464
18	Tubular Steel Railing on Precast RCC posts, 1.2 m high above ground level (Providing, fencing and erecting 50 mm dia painted steel pipe railing in 3 rows on precast M20 grade RCC vertical posts 1.8 metres high (1.2 m above GL) with 3 holes 50 mm dia for pipe, fixed 2 metres centre to, complete as per approved drawing)	Rmt	600.000	4077.00	24,46,200
Electrical Works					
19	Supply and installation of 12W fully integrated solar lights with 2 days power back up as per attached specification	Nos	22.000	16291.00	3,58,402
20	Supply and installation of 2 inch MS Poles, painted of appropriate height for the stairs of FOB	Each	6.000	5833.00	34,998
21	Stand alone poles of 6 meter GI suitable for mounting on concrete foundation	Nos	4.000	13005.00	52,020
22	Supply and installation of 40W fully integrated solar lights with 2 days power back up as per specification	Nos	4.000	16965.00	67,860
23	Earth stations with GI Strip and nut bolt washer complete including burnt charcoal and good quality salt for grounding purposes.	Nos	6.000	6440.00	38,640
24	GI strip for earthing / lightning to poles and structures	Mtr	200.000	200.00	40,000
25	Lightening arrestors for F.O.B for entire structure	Nos	3.000	3790.00	11,370
Construction Cost for one FOB					1,79,66,796
Total Construction Cost for Two FOB's					3,59,33,592

Note:

1. Item for which no rate or price has been entered in will not be paid for by the Employer when executed and shall be deemed covered by the other rates and prices in the bill of quantities (Refer: ITB Clause 13.2 and GCC Clause 43.3).
2. Unit rates and prices shall be quoted by the bidder in Indian rupee [ITB Clause 14.1].
3. Where there is a discrepancy between the rate in figures and words, the rates in words will govern. [ITB Clause 27.1(a)].
4. Where there is discrepancy between the unit rate and the line item total resulting from multiplying the unit rate by quantity, the unit rate quoted shall govern [ITB Clause 27.1(b)].
