

SECTION - 9

ITEM RATE BOQ PRICE SCHEDULES (FINANCIAL BID)

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**BENGALURU SUBURBAN RAIL PROJECT (BSRP)
PRICE SCHEDULES (FINANCIAL BID)
ITEM RATE TENDER**

Name of Work:

Construction of Elevated Viaduct (including Ramps) of length 7.795 Km (-0.675km to Ch -0.050km & Ch 11.230km to Ch 16.755km & Ch: 16.755km to Ch 18.400km) and RoR (Ch: (-) 0+100, 12+400, 16+612 to 16+709) including Double Decker Viaduct (Rail cum Road Flyover) from Ch. 14+562.903 to Ch. 15+680.447, Double Decker Station at Mathikere, Entry /Exit structure, Ramp for Road Flyover, Y-loop ramp, BSTP Viaduct ramp at Bennigenahalli, Hebbal, Shettyhalli, FOB's , Multi Model Integration works, part work up to substructure for Corridor-1 (Ch:16+900 to 18+055 (from P 192 / UP 192 to C1-P10)) at Yeshwanthpur and other related infrastructural works of Elevated section in between Bennigenahalli to Shettyhalli of Corridor-2 of Bengaluru Suburban Transport Project (BSTP).

PREAMBLE TO BILL OF QUANTITIES**1. GENERAL REQUIREMENTS:**

1. The Bill of Quantities shall be read in conjunction with the Instructions to Bidders, Conditions of Contract, Notice Inviting Tender, Particular Specifications, Tender Drawings, Schedule, Annexure, Addendums and corrigendum.
2. The quantities given in the "Bill of Quantities" are approximate and provisional and are given to provide a common basis for Bidding. The basis of payment will be the actual quantities of work executed at site, as measured and verified by the Engineer and valued at the accepted rates in the priced "Bill of Quantities", where applicable.
3. The bidder should quote his rate only in the Financial Bid / Price Bid Summary sheet provided in the Price bid section of the E-Tender Portal and nowhere else in the technical bid section.
4. The same shall be in Indian Rupees both in figures and in words.
5. If knowingly or unknowingly the rate is quoted / indicated anywhere in the Technical submission / uploading of the entire Bid document / Corrigendum / Addendum, the bid will be rejected outright and will not be considered for any further evaluation.
6. The quoted rates are for completed and finished items of work and complete in all respects. It will be deemed to have included all constructional plant, tools, machinery, labour, supervision, materials, fuel, oil, consumables, electric power, water, transportation, all leads and lifts, dewatering, facilities for quality control, all temporary works and false works, construction of temporary stores and buildings, fencing, watering, lighting, erection maintenance, night working, inspection facilities, safety measures at work sites/casting yard for workmen and road users, preparation of design and drawings pertaining to the casting yard, staging, shuttering, form work, stacking yard etc., establishment and overhead charges, labour camps, insurance costs for labour and works, contractor's profit, all taxes, royalties, duties, cess and other levies will be payable, Custom tariff act etc. excluding GST and 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, unless otherwise provided in BOQ. Reinforcement (supply, cutting, bending, placing in position, tying etc.) Shall not be paid separately unless otherwise mentioned in BOQ.
7. Providing concrete for all works deemed to be inclusive of the cost towards production of concrete by Batching Plant, transit mixer, transportation of concrete with all leads and lifts, form work, shuttering including staging as required, pouring of concrete by pump/tower crane to all heights / depths, tremie or other approved means, compaction by vibrators, curing by approved means such as water, steam or curing compound and all labour, tools, plants, facilities for quality control, machinery required for execution of work complete in all respects including de-shuttering after completion of work.
8. The entire cost of complying with the provisions of the Contract shall be deemed to have been included in the quoted rates.

9. General directions and description of works and materials are not necessarily repeated or summarized in the Bill of Quantities.
10. The method of measurement of completed work for payment shall be in accordance with the requirements as stated in the individual sections of the Particular Specifications, Employer Requirements & Technical Specifications.
11. Errors will be corrected by the Employer for any arithmetical errors in computation or summation as indicated in Contract Document.
12. Bidder may please note that to perform this contract, nothing extra shall be payable on account of field constraints, availability of front, preparation of detailed scheme for taking necessary clearance and approval from the concerned authority and other local bodies etc.
13. Geo technical data given in is an indicative only for bidding purpose.
14. Identified utilities & unidentified/ buried / hidden utilities (if any left-over) shall be shifted by contractors. Payment for such diversion will be made under relevant payment Schedule. If work is stopped due to unidentified / buried / hidden utilities, no claim shall be entertained on this account.
15. The Bidder's offer shall be inclusive of all taxes and duties payable by them, income Tax and any other statutory taxes (If any) excluding GST, will be deducted by the Employer in accordance with the prevailing taxation act, Income Tax Act and any other acts in force and in accordance with instructions issued by the Authorities, from time to time.
16. Rate quoted shall be exclusive of GST both on materials as well as works contract and will not be reimbursed.
17. The item description is intended to briefly describe the work to be performed under that item and to identify associated work. It is not a full and complete description of the work to be performed. The Contractor shall carry out all the work necessary to meet the requirements of the Specification to achieve the intended performance.
18. All items of work mentioned in the Bill of Quantities shall be read and executed strictly in accordance with the description of the item in the Bill of Quantities, Technical Specifications, codes, requirement of the Statutory Authorities etc.
19. The Contractor is required to comply with all the applicable & latest codes and standards, statutory requirement, local, State & Central regulatory authorities as applicable. Complete liaison work related to all approvals, visits, documentation, drawings, expenses, official charges, handling charges etc., is deemed to be included in the offer and no extra payment shall be entertained under any pretext.
20. The rate for each item of work and percentage (above or below or at par) quoted included in the bill of quantities shall unless expressly stated otherwise includes cost of:
 - 20.1 All materials, fixing materials, accessories, hardware, operations, tools, equipment, consumables, and civil works wherever involved and incidentals required in preparation for in the full and entire execution and completion of the work called for in the item as per specification and drawings completely including any wastage of materials and labour.
 - 20.2 Making good all the damages, openings etc., to the civil works/structures done and cleaning while executing the works under this Contract.
 - 20.3 The rate also includes all charges like packing and forwarding charges, handling, loading, unloading, transportation, transit and other insurance, hoisting to all levels, setting and fixing in position, disposal of debris including all other labour, Liabilities, obligations and risks arising out of conditions of contract and Liaisoning for obtaining approval from CEIG/KSFES, Electrical Inspectorate & Local authorities.
 - 20.4 All requirements of system whether such of them are mentioned in the item or not the specifications and drawings are to be read as complimentary to and part of the schedule of quantities and any work called for in one shall be taken as required for all.
 - 20.5 In the event of conflict between the bill of quantities and other documents, the most stringent shall apply and interpretation of the Engineer in this shall be final and binding.

- 20.6 -Deleted-.
- 20.7 Supply of materials shall mean supply of materials at site. The rate for supply shall include all taxes, duties, octroi, and insurance, packing and forwarding charges, transportation and unloading at site.
- 20.8 The contractor shall submit the Schematic diagrams, fabrication drawings with details of all equipment, wirings diagrams etc., to the Engineer for approval prior to supply/commencement of such works. The approval of these drawings will be general and will not absolve the contractor of the responsibility of the correctness of these drawings. At least six copies of the approved drawings shall be submitted to the Engineer for their distribution to various agencies at site at no cost to the Employer.
- 20.9 The contractor must see the site conditions such as type of soil, locations etc., and take all factors into consideration while quoting in the BOQ as no extra cost will be allowed on any ground arising out of or relating to the site conditions.
- 20.10 Any error in description or in quantity or omission of items from the contract shall not violate this contract but shall be corrected and deemed to be a variation required by the Engineer.
- 20.11 All testing and calibrating charges for the Meters shall be included in the installation price of the Meter Cubicle.
- 20.12 High voltage testing by Voltage Boosters, relay calibration by secondary injection and meter calibration have to be carried out at site by authorized agencies as mentioned in Chapter "RECOMMENDED MAKE OF MATERIALS"..
- 20.13 The contractor shall take into account the expenses of pre-commissioning tests to be conducted as per specification of the complete installation by licensed agencies.
- 20.14 All temporary works shall be carried out by the contractor including temporary lighting & power al station areas, Switchboards, DG sets, cables, stores, etc
- 20.15 The contractor shall carry out DG set testing and commissioning including supply of fuel & other consumables/accessories at site without any extra cost for supply of fuel & other consumables/accessories as required or instructed by the Engineer
- 20.16 The contractor shall supply all equipment and spares required for restoration of all E&M Equipment and systems for Two year of Defect Liability Period. List of such spares shall be submitted for approval of Employer representative at the time of Design approval, failing to do so will result in supply of spares as demanded by Employers representative at a later stage
- 20.17 All wall and floor openings where cable containments are passing through shall be sealed with 2-hour fire rated sealant after completion of cable pulling or installation

21. Important Notes to Bidders:

1. The bidder should quote his total amount in Summary of Price Schedule against Schedule -1, Schedule -2, Schedule - 3, Schedule -4 & Schedule-5, In the financial bid section, the bidders should enter in the template provided for abstract of amount of all schedules (Summary sheet) by filling in the last column of quoted INR against each of the schedules which shall be inclusive of all the taxes, duties, levies, cess, etc. Excluding GST.
2. The bidder should quote the amount in **Schedule - 1 to 5 (Schedule 4 & 5 will be the Fixed Provisional cost)** in the "Financial Bid" envelope of e-tender portal.
3. The **Schedule "4" is Lumpsum** provision for Multimodal integration (MMI) works. The works will be carried out for the items under Common SR for the year 2023-24 or latest, published by KPWD / IR -USSOR/ CPWD/ BESCO / KPTCL / BWSSB.
4. The **Schedule "5" is Lumpsum** provision for incidental and unforeseen items likely to occur during the execution of work. Whenever KPWD items are not available other department items (i.e. SWR -USSOR / CPWD / BESCO / KPTCL / BWSSB) shall be considered as per sequence of priority and with the approval of Employer. If the same item is available in all schedules of rates given above, then the priority of schedule of rates is as follows: a) KPWD; b) SWR-USSOR; c) CPWD; d) BESCO; e) KPTCL; f) BWSSB If SR rate 2023-24 or latest.

5. For comparison of the quoted bid price by the bidders, the grand total of the quoted amount from all Schedules (i.e. **schedule “1” to Schedule “5”**) shall be taken into consideration.
6. Employer reserves the right to omit / partially execute any items in any of the **Schedules** during construction without any liability to either party.
7. In the financial bid section, the bidders should enter in the template provided for abstract of amount of all schedules (Summary sheet) by filling in the last column of quoted INR against each of the schedules which shall be inclusive of all the taxes, duties, levies, cess, etc. Excluding GST.

2. EXPLANATORY NOTES FOR ‘BILL OF QUANTITIES’ (BOQ)

2.1 General

- 2.1.1 The Contract includes the following but is not limited to: The verification of site data, drawings, programs for execution, schedule of ordering, schedule of receipt.
- 2.1.2 The procurement of the whole equipment including:
 - a) Spare parts,
 - b) Tools, testing equipment
- 2.1.3 The on-site erection and setting to work of the electrical fixed installations and technical buildings described in the Technical Specification.
- 2.1.4 The in-plant testing, and acceptance tests.
- 2.1.5 The on-site testing.
- 2.1.6 The commissioning of installation and acceptance protocols.
- 2.1.7 The supply of relevant documentation mainly including:
 - a) Installation, execution, and as-built drawings,
 - b) Test procedures,
 - c) Maintenance operation manuals: The Contractor is required to submit soft copies of all the documents,
- 2.1.8 Training in India and Overseas (if required).

2.2 Procurement Program

The procurement of the material shall be planned in a phased manner such that the material reaches site in time. The Contractor shall submit a detailed works program as per the provisions of the General Specification and Technical Specification and obtain approval from the Engineer before commencing with the procurement of material.

2.3 Tender Prices

The Tenderer's attention is drawn to the following facts while quoting the prices for the Contract:

- 2.3.1 The prices (including percentage above or below or at par) quoted in the Bill of Quantities shall be inclusive of all applicable duties and any other charges leviable excluding GST.

A BOCW cess at the rate as specified by 'The Building and Other Construction Workers Welfare Cess Act, 1996, of the Total Bill Amount shall be deducted from each Interim Payment Certificate (IPC) of the Contractor.

2.3.2 The prices (including percentage above or below or at par) quoted in the Bill of Quantities and accepted by the Employer shall be 'fixed' throughout the Contract Period and are not subject to variation on any account.

2.3.3 *DELETED*

2.3.4 *DELETED*

2.3.5 *DELETED*

2.3.6 Record of Taxes & Duties

The Contractor shall maintain complete records in respect of payments made by them for taxes and duties payable to various authorities (except Income Tax or Corporate Tax) and advise the Employer the summary of such payment every month in a format advised by the Employer during execution of the contract.

The detailed records shall however remain open for inspection by the Employer/ Engineer at any time and copies of the records shall be furnished as required by the Employer.

The amount payable/recoverable from the Contractor will generally be calculated based on these records along with supporting documents. However, Employer at his sole discretion, if not satisfied with the veracity of records or records are incomplete or otherwise, may separately determine the amount payable/recoverable from the contractor in accordance with the conditions of the Tender, which shall be final and binding.

The Contractor shall also maintain records of the imported components supplied to local manufacturers and actual utilization of the same in the manufacture of complete equipment. The Contractor shall be fully responsible for any loss or misuse of these components in manufacture of equipment's.

The contractor shall submit the copies of the monthly returns filed, once in three (3) months to ascertain the status of GST refunded claimed on account of inverted duty structure.

The Contractor shall furnish along with the 2nd and subsequent IPCs copies of all the purchases of Goods and Services made within the State of Karnataka in the format prescribed and furnish the details to the Employer, if any required, for claiming reimbursement of state taxes from the Govt. of Karnataka as per approved funding pattern for the project.

2.3.7 Statutory Clearance

The Contractor shall be solely responsible for discharging all the statutory payments to the authorities concerned including custom duty, IGST, GST and Income tax, etc.

2.3.8 **Deleted**

2.3.9 **Deleted**

2.4 Quantities

2.4.1 For the purpose of this Contract, all unit quantities given in the Bills of Quantities and in tender drawings are the estimated quantities (Tentative) of the Works and are intended in the first instance to provide a common basis for Tendering and Tender Evaluation. Quantities may vary as per the site conditions and actual quantity to be procured after preparation of shop drawings and approval of the same. When a Contract has been entered into, the function of the Priced Bill of Quantities is to provide for the valuation of the work executed. No alteration of any rate or price shall be allowed on account of any difference between the quantities billed and the actual quantities measured from the drawings.

2.4.2 The Tenderer shall make himself completely acquainted with all conditions, obligations, specifications, drawings, etc.; of the Tender Documents before quoting his prices. He shall have no right to claim any price revision on the basis of ignorance of the Tender Documents or local conditions, or to make any claims as regards the integrity of the unit prices of the Bill of Quantities.

2.5 Units and Currency

2.5.1 All sizes and quantities entered in the Bills of Quantities are in metric units.

2.5.2 The currency to be used in the Contract will be Indian Rupees only. The Tenderer shall fill in each column with unit rate or lump-sum as the case may be, for each item of the Bill of Quantity, on the basis of the Tender documents and pre-tender survey. The prices (including percentage above or below or at par) quoted in the Bill of Quantities are for completed and finished items of work and complete in all respects, it is considered to have included all constructional plant, tools, materials, machinery, labour, supervision, fuel, oil, consumables, electric power, water, transportation, all leads and lifts, dewatering, all temporary works, false work, form work, construction of temporary stores and buildings, fencing, watering, lighting, erection, maintenance, night working, inspection facilities, safety measures at worksites, road users overhead charges, labour camps, insurance costs for labour and works, overheads, profits etc.;

2.5.3 Any cutting/overwriting/striking off in Bill of Quantities shall be initialled by the authorized representative of the Tenderer before submission of Tender without which it will not be taken into consideration by the Employer.

2.6 Rates & Sums to be for Work Finished Complete

2.6.1 Tenderers shall be deemed to have read the Employer's Requirements and other parts of the Tender Documents and reviewed the Drawings to ascertain the full scope of the requirements included in each item prior to filling in the rates and prices and shall be deemed to include the full scope of the Contract, including overheads and profits and shall bear a proper relationship to the cost of carrying out the work described.

2.6.2 Notwithstanding any limits that may be implied by the wording of the individual items and/or the explanations in the Preamble, the rates and prices, which are entered in the Bill of Quantities, shall be for the work finished complete in every respect.

2.6.3 The Tenderer shall be deemed to have taken full account of all requirements, liabilities, obligations and risks, whether expressed or implied, and to have priced the items accordingly. The Items in the Bills of Quantities are the only items against which payment will be made. The cost of any item of work not specifically described or measured in the Bills of Quantities but required for the execution of the Contract shall be included in the rates and prices for the measured items in the Bills of Quantities. The rates and prices shall therefore include for all incidental and contingent expenses and risks of every kind necessary to supply, install, test and commission (including Integrated Testing and Commissioning) complete, and remedying any defects in the whole of the Works in accordance with the Contract.

2.7 Allowances in Rates and Prices

2.7.1 Full allowance shall be made in the prices against the various items in the Bills of Quantities for all costs involved in performing the following except to the extent that work is specifically described and paid for in the Bills of Quantities. The list below is not exhaustive and the Tenderers are expected to take all costs involved while quoting the rates and prices that will not be subject to variation on any account.

- a) all setting out and final survey work;
- b) temporary access roads and bridges, fencing, watching and security, lighting.
- c) paying fees (subject to GCC / PCC clauses) and giving notices to Authorities;
- d) payment of all patent rights and royalties;
- e) reinstatement of the Site;
- f) safety precautions and all measures to prevent erosion and suppress fire and other hazards;
- g) interference to the Works by persons, vehicles, and the like being legitimate users of the facilities on or in the vicinity of the Site;
- h) the protection and safety of the Employer trains and services;
- i) the protection and safety of Railway trains and services on adjacent tracks;
- j) supplying, maintaining and removing on completion, the Contractors own accommodation, offices, depots, stores, workshops, transport, welfare services and other facilities including telephones and facsimile machines and all charges in connection therewith;

- k) the supply, inspection, testing, packaging and transportation of materials and of the Works as specified including the provision and use of equipment and arrangements for the Engineer's Inspectors and others;
- l) maintaining public thoroughfares and footpaths, and maintaining access upon existing recognised routes;
- m) providing, transporting to the Site, setting to work, operating (including all fuel and consumable stores), maintaining and removing from the Site upon completion all Construction Plant and Contractor's Equipment necessary for the execution of the Works and including the cost of all tests and other requirements in respect of such; plant and equipment;
- n) working adjacent to or across existing services and installations;
- o) complying with the requirements of the Employer in regard to Safety and Health, Quality Assurance, Environmental and project implementation plans and making periodical submissions;
- p) co-ordination and interference to the Works by the works of Designated Contractors and others employed by the Employer being legitimate users of the facilities on or in the vicinity of the Site;
- q) remedying of defects and shrinkage, and works of amendment, reconstruction, replacement of other faults, fair wear and tear excepted, during Defects Liability Periods;
- r) Insurance, including all risks in supply, erection, storage, transit, third party, Workmen's Compensation and others;
- s) All tools, and equipment required for all tests prior and after delivery and for testing and commissioning installed systems;
- t) Carrying out all modifications to the given drawings, preparing construction detailed drawings and supplying originals, copies, and electronic files in accordance with employer's requirement.
- u) Marine Insurance
- v) All risk Insurance after arrival of goods in India
- w) Custom clearance / Port Clearance (if applicable)
- x) Handling at Port of arrival in India (if applicable)
- y) Inland transportation from port of arrival or manufacturer's works to site of work
- z) Various bank guarantees / warranties/undertakings.

2.8 Tender Pricing

2.8.1 The Tenderer shall take regard of the actual site conditions and the estimated quantities entered in the Bill of Quantities. The Tenderer shall price his tender accordingly and the rates and prices entered against a line item shall be the full and only price paid for all work performed against that item except as described in the Tender Documents.

2.8.2 Not used.

2.8.3 The Tenderer shall quote the rates and prices in words as well as in figures. Any cutting/overwriting in Bill of Quantities shall be initialled by the authorized representative of the Tender.

2.8.4 Items against which no rates or prices are indicated in the Bill of Quantities, will not be paid for by Employer when executed and shall be deemed to have been covered in the rates of other item/s and prices in the Bill of Quantities.

2.9 Measurement and Payment

2.9.1 This Contract is primarily a re-measure contract with items that are described herein. For the re-measure items, the total price paid for a work item will be varied by the quantities actually performed. The quantities indicated in the BOQ and tender drawings are tentative quantity may vary as per the site conditions and actual quantity to be procured after preparation of shop drawings and approval of the same. The final quantities shall be based on quantities actually executed, measured and certified as per approved built drawings by the Engineer.

2.9.2 The measurement and payment described is for the purpose of making a valuation of the work acceptable to the Engineer, and Interim Payments to the Contractor, as work proceeds. All interim payments shall be without prejudice in accordance with relevant clause of GCC and PCC. The Works as executed will be measured for

assessment of progress for interim payments in accordance with the method adopted in the relevant standard/Specification, the Bills of Quantities and under the items as set forth notwithstanding any custom to the contrary.

2.9.3

Deleted.

2.9.4

Notwithstanding anything stated herein, the Engineer retains the right to withhold payment on any pay item due for payment when the works to be performed are not performed or are not carried out to the Engineer's satisfaction in accordance with Specifications and Drawings.

2.9.5

Payment for items shall include for all costs incurred in procurement/manufacture, testing, inspection, shipping, hauling, off-loading, storing at site in Bangalore, installation, testing and commissioning including integrated testing and commissioning.

2.9.6

Payment in stages

Payment for items shall include for all costs incurred in procurement/manufacture, testing, inspection, shipping, hauling, off-loading, storing at site in Bangalore, installation, testing and commissioning including integrated testing and commissioning. Prices so assigned in the BOQ, for supply and installation of items of materials, plant and equipment shall be full payment for supply and installation of items of materials, plant and equipment in accordance with drawings and specifications. Payment towards supply and installation will be made after receipt of items of materials, plant and equipment to the Contractor's depot (in the land provided by the Employer) in Bangalore and storing them in a place and manner approved by the Engineer/Employer and submission of the following documents:

a. 60% payment on supply of materials, 30% of payment for installation and balance 10% of payment on completion of testing, commissioning, submission of all test results, other documentation including as-built drawings, manuals, etc. for:

- I. M. V. Switchgear, Distribution Boards.
- II. Cable trays.
- III. Indoor & Outdoor Lighting including High Mast.
- IV. DG sets.
- V. UPS System.
- VI Distribution Cables.
- VII. HVAC works.
- VIII. Fire Pumps, Fire Hydrant Pipes.
- IX. Plumbing Pumps & WTP.
- X. LAN works.
- XI. Access control system.
- XII. Compressed Air system.
- XIII. Lifts.
- XIV. Hume Pipes, HOPE pipes etc.

b. 80% payment against supply and installation and balance 20% price so assigned for testing and commissioning of items of materials, plant and equipment when the plant, equipment is tested and commissioned successfully including integrated testing and commissioning and submission of all test results, other documentation including as-built drawings, manuals, etc. as described in the specifications, have been approved by the Engineer with the concurrence of Employer.

- I. Earthing & Lightning Protection System.
- II FIRE Alarm including cabling, detectors, panels, RI etc.
- III. HVAC piping, Cabling & ducting
- IV. Fire hydrant system like valves, Hose cabinets etc.

V. 32mm,25mm GI conduit & wiring for circuit mains.

- c. Payment will be made in RA bills as part payments duly certified by the Employer for receipt of materials in good condition and correct quantity.
- d. Original invoice voucher to be verified by the Employer and copy to be enclosed with RA bills.
- e. Security & Safety of material brought to the site will be sole responsibility of contractor till the completion of corresponding work and handing over to the Employer.

2.9.7 Testing and commissioning shall include for all testing and putting-to-work of all equipment, sub-systems, and systems; re-testing, fault finding, adjustments and reworking as necessary; submittal of all test reports and other documents all to the approval of the Engineer. Payment will be made after certification by the Contractor and acceptance by the Engineer that the sub-systems and systems, including all equipment have successfully completed the test procedures, and have been set-to-work and that all test results and other documentation, as described in the specifications, have been approved by the Engineer.

2.10 Price Variation for E&M Works (Schedule • 2F10 to Schedule 2F12)

Prices quoted by the Tenderer shall be fixed throughout the performance of the Contract and not subject to variation on any account except for items indicated in following clauses:

2.10.1 Price Variation for 'Supply Component'

The following equipment / items shall be subject to price variation as per latest relevant IEEMA circulars, items/equipment's other than the detailed shall not be subjected to price variation clause

Table 1: Items under Price Variation

Sl.No	Item Description
1	M V Switchgear and Distribution Board
2	Distribution Cables
3	UPS/Battery Charger

The price variation for the items listed in the above table shall be payable on the basis of relevant IEEMA formula attached as Annexure -1. Supply component shall be 80%.

2.10.2 Price Variation for 'Labor Component'

Contract price shall be adjusted for increase or decrease in rates and prices for the prices quoted for labour component for "Erection/Installation, testing and commissioning" in accordance with the formula given below:

$$VL = 0.85 \times 0.20 \times Rx [(Li - Lo)/Lo]$$

Where;

VL = Increase or decrease in the cost of work during the month under consideration due to change in rates for local labour.

Lo= The average consumer price index for industrial workers for Bangalore Centre as applicable for the month of submission of the bid as published by Labour Bureau, Minisby of Labour, GOI.

Li = The average consumer price index for industrial workers for Bangalore Centre during the 'month under consideration' as published by Labour Bureau, Ministry of Labour, GOI.

R = Gross value of the work done for 'Installation, Testing and Commissioning Component' of the work under consideration.

Labour Component shall be 20% of work done.

- 2.10.3** For items covered under IEEMA price variation clause, the latest date of delivery for considering price variation shall not be later than 180 (one hundred and eighty) days before the relevant Key *Date* for commissioning. However, if the price variation calculated as per the actual date of delivery is resulting in a price advantage to the Employer; the actual date of delivery shall be considered for evaluating the price variation. Price variation as per IEEMA formula will be applicable *only* if the mentioned items are manufactured in INDIA and If any of these items is imported then the price variation will not be applicable on that item.
- 2.10.4** Price variation that may accrue during the period from the date of tender submission will not be considered for Tender evaluation and for deciding inter-se position of the Tenderers.

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Section 9: Price Schedule (Financial Bid)

Name of Work: Construction of Elevated Viaduct (including Ramps) of length 7.795 Km (-0.675km to Ch -0.050km & Ch 11.230km to Ch 16.755km & Ch: 16.755km to Ch 18.400km) and RoR (Ch: (-) 0+100, 12+400, 16+612 to 16+709) including Double Decker Viaduct (Rail cum Road Flyover) from Ch. 14+562.903 to Ch. 15+680.447, Double Decker Station at Mathikere, Entry /Exit structure, Ramp for Road Flyover, Y-loop ramp, BSTP Viaduct ramp at Bennigenahalli, Hebbal, Shettyhalli, FOB's, Multi Modal Integration works, part work up to substructure for Corridor-1 (Ch:16+900 to 18+055 (from P 192 / UP 192 to C1-P10)) at Yeshwanthpur and other related infrastructural works of Elevated section in between Bennigenahalli to Shettyhalli of Corridor-2 of Bengaluru Suburban Transport Project (BSTP).

Summary of Bill of Quantity				
S.NO	SCHEDULE	DESCRIPTION	AMOUNT EXCL. GST	
			IN WORDS	IN FIGURES
Summary of item rate BOQ				
1	Schedule 1	Construction of BSTP Elevated viaduct including ramps for a total length of 7.795 km (Ch. -0.675 km to Ch. -0.050 km, Ch. 11.230 km to Ch. 16.755 km, and Ch. 16.755 km to Ch. 18.400 km) along with Road-over-Rail (RoR) works and associated infrastructure between Bennigenahalli and Shettyhalli.	425,94,14,131	
	Schedule 2	Construction of Double-Decker rail cum road flyover from Ch. 14+562.903 to Ch. 15+680.447 including Mathikere Station Structural Works	1,99,55,30,709	
	Schedule 3	Construction of Double-decker Mathikere Station including concourse level girders, platform level girders, entry/exit structures, steel FOB, roof structures, PEB works, architectural finishes, plumbing, façade, and E&M works etc.,	40,22,16,145	
2	Schedule 4	Multi Modal Integration (MMI) Works and any other items not covered in above Schedules are to be executed under Common SR for year 2023-24 or latest, published by KPWD/ IR-USSOR / CPWD / BESCOM / KPTCL / BWSSB as per sequence of priority and with the approval of Engineer with the concurrence of Employer	1,69,49,153	(Rupees One crore sixty-nine lakh forty-nine thousand one hundred fifty-three only)
5	Schedule 5	Lump sum provision for incidental and unforeseen item likely to occur during the execution of work. These items of Schedule '4' will be executed under schedule of rates 2023 - 24 or latest, published by KPWD. The cost under this Schedule stands fixed as 5,00,00,000/- and this amount Five crores is provided as fixed amount in the summary of Financial Bid / Price Schedule. Whenever KPWD rates are not available Only other department rates (i.e. IR-USSOR / CPWD / BESCOM / KPTCL / BWSSB) shall be considered as per sequence of priority and with the approval of Engineer with the	4,23,72,881	(Rupees Four crore twenty-three lakh seventy-two thousand eight hundred eighty-one only)

		concurrence of Employer.		
	Total of Schedule	In Figures	671,64,83,019	
		In Words	Six hundred seventy-one crore sixty-four lakh eighty-three thousand nineteen only	

Summary of Item Rate BOQ consists of:

1. Construction of elevated viaduct & Double Decker viaduct including ramps and Mathikere station Civil, Structural including roof, roof sheeting, Entry / Exit structures, FOB, for all Elevated including provision for Solar Panel installation. The cost of the works activities pertaining to the Utilities which are required to be retained and/or protected during execution of Works shall be deemed to be included in this Schedule. The cost of the construction of road for traffic diversions and construction of roads within the station boundary limit shall be deemed to be included in this Schedule. The Works shall be executed as described in the Tender Documents.
2. Architectural works (Front of House (FoH) and Back of House (BoH)) in public and non-public are which includes Concourse, Platform, Foot over Bridge (FoB), Entry / Exit, plaza area, system rooms masonry / block work walls, mullions, tie beams, lintels, plastering etc., as approved by the Employer /Engineer. The Design & Engineering Works shall be carried out as described in the Tender Documents.
3. Facade works include the required supporting structural elements as approved by the Employer / Engineer.
4. Mechanical, Electrical and Plumbing (MEP) works, as approved by the Employer/Engineer.

Abstract of Schedule-1:

Construction of BSTP Elevated Viaduct including ramps for a total length of 7.795 km (Ch. -0.675 km to Ch. -0.050 km, Ch. 11.230 km to Ch. 16.755 km, and Ch. 16.755 km to Ch. 18.400 km)

S.NO	SCHEDULE	DESCRIPTION	ESTIMATED AMOUNT IS INCLUSIVE OF ALL TAXES, EXCL. GST	AMOUNT TO BE QUOTED BY TENDER EXCL. GST	
				IN WORDS	IN FIGURES
1	A	PILE FOUNDATIONS AND OPEN FOUNDATIONS	1,09,29,88,970		
2	B	CAST-IN-SITU/PRECAST WORK	1,00,12,76,328		
3	C	STEEL WORKS STEEL REINFORCEMENT, PRESTRESSING & STRUCTURAL STEEL	1,88,06,09,586		
4	D	OTHER WORKS- PRELIMINARIES AND GENERAL	28,45,39,248		
Sub Total Sch. 2 (a1) to 2 (a4) Excl. GST			425,94,14,131		

Abstract of Schedule-2

Construction of Double-Decker Rail cum Road Flyover from Ch. 14+562.903 to Ch. 15+680.447 including Mathikere Station Structural Works

S.NO	SCHEDULE	DESCRIPTION	ESTIMATED AMOUNT IS INCLUSIVE OF ALL TAXES, EXCL. GST	AMOUNT TO BE QUOTED BY TENDERER EXCL. GST	
				IN WORDS	IN FIGURES
1	2 (b1)	PILE FOUNDATIONS AND OPEN FOUNDATIONS	33,48,08,494		
2	2 (b2)	CAST-IN-SITU/PRECAST WORK	68,34,96,546		
3	2 (b3)	STEEL WORKS STEEL REINFORCEMENT, PRESTRESSING & STRUCTURAL STEEL	86,58,25,084		
4	2 (b4)	OTHER WORKS- PRELIMINARIES AND GENERAL	11,14,00,585		
Sub Total Sch. 2 (b1) to 2 (b4) Excl. GST			1,99,55,30,709		

Abstract of Schedule 3

Construction of Double-Decker Mathikere Station including concourse level girders, Platform level girders, Entry/exit structures, steel FOB, roof structures, PEB works, architectural finishes, plumbing, façade, and E&M works etc.,

S.NO	SCHEDULE	DESCRIPTION	ESTIMATED AMOUNT IS INCLUSIVE OF ALL TAXES, EXCL. GST	AMOUNT TO BE QUOTED BY TENDERER EXCL. GST	
				IN WORDS	IN FIGURES
CIVIL & STRUCTURAL WORKS					
1	A	PRELIMINARIES AND GENERAL	15,35,159		
2	B	EARTHWORK	23,28,586		
3	C	PILE FOUNDATIONS AND OPEN FOUNDATIONS	3,31,53,309		
4	D	CAST-IN-SITU/PRECAST WORK	3,14,35,017		
5	E	STEEL WORKS STEEL REINFORCEMENT, PRESTRESSING & STRUCTURAL STEEL	12,06,55,086		
6	F	OTHER WORKS	1,85,02,554		
Sub-Total Sch 2 (c1)-2 (c6)			20,76,09,712		
Architectural Finishes, Facade & Plumbing Works					
7	ARCHITECTURAL WORKS		7,23,17,354		
8	FAÇADE WORKS		1,70,68,389		
9	PUBLIC HEALTH ENGINEERING (CIVIL)		33,31,343		
Electrical & Mechanical (E&M) Works					
10	ELECTRICAL WORKS		7,90,55,742		
11	FIRE FIGHTING WORKS		1,72,65,797		
12	HVAC WORKS		55,67,809		
Sub Total			40.22.16.145		

TABLE 1 (SCHEDULE OF PAYMENT FOR GENERAL ITEMS)

Two percent (2%) of the total quoted BOQ amount of Schedule 1 & 2 is earmarked for General items as per the Table-1 and shall be paid on prorate basis. The Contractor must fulfil all the below obligations failing which the proportionate amount will be recovery/withheld shall be carried out on prorate basis from the quoted amount in each IPC's.

S. No.	Description of Stage	Payable Unit	Percentage Breakup
1.1	Provision of the Employer IT requirements of (online Project Management Information System, Document Management System, Enterprise work program platform, BIM modelling, Primavera (latest version, etc.) <i>Notes:</i> <ol style="list-style-type: none"> 30% of the apportioned payment under this Milestone (i.e. 30% of 14%) shall be released after the necessary hardware, IT centre and software licenses are provided by the Contractor. This should be accomplished not later than 3 months from Commencement Date. 50% of the apportioned payment under this Milestone (i.e. 50% of 14%) shall be equally spread over the balance period till completion of works and is subject to the deployment of competent IT staff. The remaining 20% payment shall be released on completion of all work through the Defects Notification Period. 	Lump Sum	14%
1.2	Engineer approval of Health and Safety Manual	Lump Sum	1.00%
1.3	Engineer approval of Quality Manual (also including Quality Plan)	Lump Sum	1.00%
1.4	Engineer approval of Interface Management Plan, Interface Matrix, Control Sheets and Audits <i>Notes:</i> <ol style="list-style-type: none"> 50% of the apportioned payment under this Milestone (i.e. 50% of 5%) shall be released after the necessary approval of Interface Management Plan, Interface Matrix. 50% of the apportioned payment under this Milestone (i.e. 50% of 5%) shall be equally spread over the balance period of the Contract after completion of works. 	Lump Sum	5.00%
1.5	Engineer approval of Traffic Diversion Management Plan & implementation during execution.	Lump Sum	3.00%
1.6	Engineer approval of Detained Works Programme, Baseline Construction Programme, Three Months Rolling Programme and Monthly Progress Reports. <i>Notes:</i> <ol style="list-style-type: none"> 25% of the apportioned payment under this Milestone (i.e. 25% of 8%) shall be released after the approval of Detained Works Programme, Baseline Construction Programme. 	Lump Sum	8.00%

S. No.	Description of Stage	Payable Unit	Percentage Breakup
	2. 75% of the apportioned payment under this Milestone (i.e. 75% of 8%) shall be equally spread over the balance period of the Contract till completion of works.		
1.7	Submission of quarterly audit report of Quality, Health, Safety and Environment with confirmation of the actions taken on noncompliance. Note: To be paid quarterly on pro-rata basis for submission of quarterly audit report	Lump Sum	10.00%
1.8	Deployment of Health, Safety and Environment personnel approved by Engineer as per the Health and Safety and Environmental Manuals. Note: The payment shall be made as follows commencing 3 months after the Commencement Date. 1. 90% of the apportioned payment as per this Milestone shall be spread pro-rata commencing 3 months after the Commencement Date to the Completion Date. 2. The remaining 10% payment shall be released on completion of all work through the Defects Notification Period. 3. Any shortfall of deployment of Health, Safety and Environment personnel from the numbers indicated in the Health and Safety Manual and Environmental Manual will attract a penalty at the rate of 3 times the pro-rate shortfall. For example, if the Health and Safety Manual requires 17 staff and the deployment is 16 staff for a particular month, then $(3 \times 1/17 =)$ 17.65% of the payment due for that month will be permanently deducted. Likewise, shortage of 2 staff will result in 35.3% lesser payment and so on.	Lump Sum	15.00%
1.9	Regular maintenance and repair of existing roads, service roads, footpaths, the construction and maintenance of temporary diversions as required for traffic management during construction period to keep them in traffic worthy condition. This shall include the original reinstatement of roadway as approved by the Engineer. Note: Payment for this milestone shall be spread pro-rata commencing 3 months after the Commencement Date up to the Completion Date.	Lump Sum	15.00%
1.10	Drone Survey: Visual inspection/precise data acquisition at various locations of Corridor-2 using unmanned aerial vehicle i.e Drone of required capacity and peripherals for the structures & other components. This will include high resolution images at multiple locations taken at various angles for visual defects from all visible directions/sides of girders, parapets, railings, bridge bearings, bearing pedestals, pier cap and pier up to ground/river level and any other components of bridge. This work includes as follows: a) Two trained Drone pilots	Lump Sum	8.00%

S. No.	Description of Stage	Payable Unit	Percentage Breakup
	b) Drone with 4K camera resolution and focus lens as per site requirements. c) Transportation and Logistics cost including hiring of boat with boat man for bridges over river as per site requirements. d) Soft copy of final deliverables of camera image and 4K video taken from Drone will be presented for approval. e) The inspection report will be submitted in a hard drive with details in editable form and hard copy will be submitted in colour printed report of the work (on monthly basis) .		
1.11	Design, Construction and maintenance of Project / Site Office for Engineer and Employer. Design, build and maintaining project & site offices fully furnished for the use of Engineer/Employer as per the layout drawing, specifications, Employer Requirement & Scope of work. Note: (i) The site offices and project office shall be maintained up to end of final taking over certificate or DLP whichever is later. (ii) After the establishment of project office and site office 50% of the billed amount is payable and balance 50% on pro-rata basis in proportion to contract price in IPCs. (iii) In case Project office is provided on hire or lease basis the payment will be made on pro-rata basis in proportion to contract price in IPCs.	Lump Sum	20.00%

1. The percentages stipulated in the above Table 1- Schedule of Payments for General items 2% of the total quoted amount of Schedule 1 & 2 shall be sub-divided upon award of the Contract with the approval of the Engineer / Employer, and his decision in this regard shall be final and binding. The payment shall be governed based on the actual works executed. Payments against the works will be made on the basis of quantities executed, measured and certified by the Engineer
2. The Contractor will submit a quantity schedule for the work as per the details finalized by them for the components listed in the table-1 above before submission of 1st IPC, which will be subject to review and approval by the engineer. Unit payment of the items shall be governed by the Quantity schedule within the total % payment specified against that item.
3. The quantity schedule after being approved by the Engineer will be used for making all interim payments. The Contractor should note that while interim payment will be governed by the quantity schedule.
4. Further bifurcation/redistribution/minute distribution of price centers, if need be, within the overall % age or amongst sub works will be the right of Engineer/Employer. The decision of Engineer/Employer is final in this regard and the same is binding on the contractor

Schedule No. :4

Lump sum provision Multi Modal Integration (MMI) Works likely to occur during the execution of work. These items of Schedule '3' will be executed under Schedule of rates 2023-24 or latest, published by KPWD. The cost under this Schedule stands fixed as **Rs 1,69,49,153/- (Rupees One crore sixty-nine lakh forty-nine thousand one hundred fifty-three only)** and this amount is provided as fixed amount in the summary of Financial Bid / Price Schedule. Whenever KPWD rates are

not available other department rates (i.e. IRUSSOR / CPWD / BESCOM / KPTCL / BWSSB) shall be considered as per sequence of priority and with the approval of Engineer with the concurrence of Employer.

Schedule No. 5:

Lump sum provision for incidental and unforeseen items likely to occur during the execution of work. These items of Schedule '4' will be executed under schedule of rates 2023-24 or latest, published by KPWD. The cost under this Schedule stands fixed as **Rs 4,23,72,881/- (Rupees Four crore twenty-three lakh seventy-two thousand eight hundred eighty-one only)** and this amount is provided as fixed amount in the summary of Financial Bid I Price Schedule. Whenever KPWD rates are not available other department rates (i.e. IR-USSOR / CPWD / BESCOM / KPTCL / BWSSB) shall be considered as per sequence of priority and with the approval of Engineer with the concurrence of Employer.

For Detailed BOQ please refer to Section-12 (Detailed Bill of Quantities with reference to this Pricing Schedule)