

SECTION - 9

PRICE SCHEDULES (FINANCIAL BID)

EPC TENDER

CONTENTS

Section 9: Price Schedules (Financial Bid)

SI No.	Description	Page No.
1	PREAMBLE.	901
2	SUMMARY OF PRICE SCHEDULE. (SCHEDULE – A, SCHEDULE – B and SCHEDULE – C)	905
3	SCHEDULE - A1 & A2 FOR APPORTIONMENT OF CONTRACT PRICE & WEIGHTAGES OF COMPONENTS FOR LUMPSUM PORTION OF SCHEDULE-A	906
4	SCHEDULE - B FOR APPORTIONMENT OF CONTRACT PRICE & WEIGHTAGES OF COMPONENTS FOR LUMPSUM PORTION OF SCHEDULE-B	912

**BENGALURU SUBURBAN RAIL PROJECT (BSRP)
PRICE SCHEDULES (FINANCIAL BID)
EPC TENDER.**

Tender No: KRIDE/BSRP/C2/STATIONS/19/2023.

Name of Work: “Design and Construction of Twelve (12nos) stations i.e Elevated (2nos), Elevated Interchange (2nos) and At-Grade (8nos) BSRP Stations of Corridor-2 at Benniganahalli, Kasturi Nagar, Seva Nagar, Banaswadi, Nagawara, Kanaka Nagar, Hebbal, Mathikere, Yeshwanthpur, Shettyhalli, Mydarahalli, Chikkabanavara, including Steel FOB, roof structures, PEB works for stations with all associated works for Bengaluru Suburban Rail Project” (BSRP) including Detailed Design and Engineering for Architectural finishes and E&M Works, but excluding construction of Architectural finishes and E&M Works.

PREAMBLE

1. The Price Schedule shall be read in conjunction with the Instructions to Tenderers, Conditions of Contract & Special Conditions of Contract, Particular Conditions, Contract Data, Notice Inviting Tender, Employer’s requirement PART-1 and 2, Scope of work, Technical Specifications, Tender Drawings, Schedule, Annexure and Addendums.

2. The Amount are to be quoted in each section of the

2.1 **The Schedule ‘A’** Consists of Lump sum Contract and shall include Design and Construction of all Civil, Structural including roof, roof sheeting, Entry/Exit structures, FOB, for all 12 (Twelve) Elevated & At-Grade stations 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 ‘A’. 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 ‘A’. The Works shall be executed as described in the Tender Documents.

2.2 **The Schedule ‘B’**

Consists of Detailed Design & Engineering of all;

- (I) Architectural works (Front of House (FoH) and Back of House (BoH)) in public and non-public areas 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.
- (II) Façade works including the required supporting structural elements as approved by the Employer/Engineer. The Design & Engineering Works shall be carried out as described in the Tender Documents.
- (III) Mechanical, Electrical and Plumbing (MEP) works, as approved by the Employer/Engineer. The Design & Engineering Works shall be carried out as described in the Tender Documents.

2.3 **The Schedule ‘C’** Lump sum provision for incidental and unforeseen items likely to occur during the execution of work. These items of Schedule C will be executed under schedule of rates 2021-22, published by KPWD. The cost under this Schedule stands fixed as ₹.10,00,00,000/- 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. IR-USSOR/CPWD/BESCOM/KPTCL/BWSSB) shall be considered as per sequence of priority and with the approval of Engineer/Employer.

- 3 The amount for various Schedules and Summary of Price Schedule shall be quoted in Indian Rupees both in figures

and in words.

- 4 The whole cost of complying with all the provisions of the Contract is deemed to have been included in the quoted amount.
- 5 All columns in the "Summary of Price Schedule" and the total tender amount shown in the bottom shall be filled in figures and words as per the procedure mentioned in e-procurement portal. The person authorized to sign on behalf of the Tenderers shall sign in full at bottom of all pages and at the end of the schedule.
- 6 General directions and description of works and materials are neither repeated nor summarized in the Price Schedule. They are deemed to have been covered or described elsewhere in the Bid Document or implied as good Engineering & Construction Practices adopted for similar works.
- 7 The method of measurement of works regulating the interim payment, wherever applicable, shall be in accordance with the requirements as stated in the individual sections of the Technical Specifications and Conditions of Contract.
- 8 The Tenderer may please note that, to perform this contract, nothing extra will be payable on account of field constraints, availability of front (except for the provisions made elsewhere in the Bid Document), preparation of detailed scheme, for taking necessary clearances and approvals from all the concerned authorities / local bodies etc. The quoted value shall include the cost of all these items / aspects.
- 9 The Tenderer's offer shall be inclusive of all taxes and duties payable by them, labour cess and any other cess, levies etc. GST, Income Tax, and any other statutory taxes to be deducted at source, if any, will be deducted by the Employer in accordance with the Income Tax Act and any other acts in force and in accordance with instructions issued by the Authorities on this behalf, from time to time.
- 10 The Engineer may, in any payment certificate, make any correction or modification that should have been reflected in any previous Payment Certificate. A Payment Certificate shall not be deemed to indicate the Employer's/Engineer's acceptance, approval, consent or notice of no-objection to any of the documents of the contractor or to (any part of) the works.
- 11 Any Works (the Permanent Works and the Temporary Works) in accordance with the Contract shall be deemed to be included in Price schedule, unless indicated otherwise. It is the Contractor's obligation to meet the Conditions of Contract and carry out the works as defined in the scope and in accordance with the design, drawings, technical, and material and workmanship specifications to become eligible for payments under the Contract.

Schedule of Payments

The Schedule of Payments comprises following Schedules:

Schedule of Payment for Lump Sum Component of Works (i.e. for Schedule 'A'):

For the purpose of payment under this Schedule, the proportion of the accepted contract amount of Schedule 'A' shall be apportioned in two parts, i.e. five percent (5%) for General works (Head "G") and ninety-five percent (95%) for Stations works (Head "S"), and shall be governed as given below.

- (A) The payment for General works (Head "G") shall be governed as per Schedule of Payment 'A-1'.
- (B) The payment for Stations works (Head "S") shall be governed as per Schedule of Payment 'A-2'.

The Schedule of Payments 'A-1' and 'A-2' will not be modified. The percentages stipulated in Schedule of Payments 'A-1' and 'A-2' of Pricing Document may 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.

Schedule of Payment for Detailed Design & Engineering for Architectural finishes, Façade works, and MEP works (i.e., for Schedules B):

For the purpose of payment under this Schedule, the proportion of the accepted contract amount of Schedule 'B' will not be modified and shall be governed as per Schedule of Payment.

The percentages stipulated in Schedule "B" of Payments of Pricing Document may 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.

Utility Diversions

The Contractor shall be responsible for getting approval including cost estimates, co-ordination and supervision of execution of works pertaining to relocation/ shifting/ removal of Utilities, through respective Utility owning agencies, as per the Employer's Requirements and in accordance with the Contract.

The payment for these Utility Diversions will be made under Schedule "C" after certification of Utility diversion works by the Engineer/Employer. The Contractor shall be fully responsible for co-ordination, monitoring and supervision of works to be carried out by the utility owning agencies or their authorised contractors/ subcontractors pertaining to utility diversion. Upon completion of utility diversion works, the Contractor shall be entitled for payment of fees, which shall be ten percent (10%) of the value of actually executed works (duly measured and certified by the respective utility owning agencies/ statutory authorities and by the Engineer/ Employer).

Any delay in completion of works pertaining to these Utility Diversions shall not relieve the Contractor's obligation and it shall be at Contractor's own risk and cost. Such delayed time and risk cost/ prices are deemed to be included in Schedule 'A'.

We hereby confirm that the quoted prices in the Schedule of Payments are fully compliant to all the Tender Document requirements, without any deviations.

Signature of the Authorized Signatory of the Tenderer**Important Notes:**

- A. The Tenderers should quote their amount against Schedule-A and Schedule-B of Price Schedule in e-Procurement Portal.
- B. The Tenderer should quote the Station wise lumpsum cost in Schedule 'A' as indicated "Summary of Price Schedule".
- C. The cost under Schedule-C stands fixed as ₹.10,00,00,000/- and this amount is provided as fixed amount in the summary of Financial Bid / Price Schedule.
- D. The total value of the Tender quoted by the Tenderer shall be computed based on the total amount quoted in Schedule-A and Schedule-B duly adding the fixed amount of Schedule-C to the total amount.
- E. The quoted value covers all items of the work as detailed in the "Employer's Requirement" contained in Section 8A (Part 1 and Part 2) as well as conforming to all Particular Conditions of Contract in Section 7, Technical Specifications in Section 8B, SHE requirements in Section 8C and all other stipulations laid down in the Bid Document in every other Section including all addenda / corrigenda thereof till the date of

submission of Bids.

- F. The quoted value is inclusive of all costs of Designs, Drawings, Reports, Surveys, Site Facilities, Construction, Equipment, Plants, Instruments, Labour, Supervision, Casting Yard Facilities, Launching Girders, Materials, Erection, Testing, Maintenance, Temporary Works, Site Office, Site Access, Safety, Security, Defect Rectification till the end of DLP, Insurance, Profit, Duties, GST, Taxes, Levies, Royalties as per applicable law together with all associated risks etc., and all other liabilities and obligations set out or implied in all the sections of the contract.

SUMMARY OF PRICE SCHEDULE				
(Centre of E-governance has disabled submission of documents pertaining to financial proposal in e-portal. Bidders are requested to enter the Financial Proposal in the respective cell provided in the e-portal. This format of Financial Proposal is only for reference.)				
Name of Work: “Design and Construction of Twelve (12nos) stations i.e Elevated (2nos), Elevated Interchange (2nos) and At-Grade (8nos) BSRP Stations of Corridor-2 at Benniganahalli, Kasturi Nagar, Seva Nagar, Banaswadi, Nagawara, Kanaka Nagar, Hebbal, Mathikere, Yeshwanthpur, Shettyhalli, Mydarahalli, Chikkabanavara, including Steel FOB, roof structures, PEB works for stations with all associated works for Bengaluru Suburban Rail Project” (BSRP) including Detailed Design and Engineering for Architectural finishes and E&M Works, but excluding construction of Architectural finishes and E&M Works.				
Tender no: K-RIDE/BSRP/C2/STATIONS/19/2023.				Date-29.03.2023
	Schedule	Description	Total Quoted Amount	
			Description	(+) Plus / (-) minus
	C1	C2	C2	C4
R1	Schedule 'A'	Each Stations - Lump Sum Component of the Works (Including detail design of stations): 1. Benniganahalli, 2. Kasturi Nagar, 3. Seva Nagar, 4. Banaswadi, 5. Nagawara, 6. Kanaka Nagar, 7. Hebbal, 8. Mathikere, 9. Yeshwanthpur, 10. Shettyhalli, 11. Mydarahalli, 12. Chikkabanavara Total for Schedule 'A' - Lump Sum Component of the Works	X
R2	Schedule 'B'	Lump Sum Component for Detailed Design & Engineering of Architectural Finishes works, Façade works and MEP works	X
R3	Schedule 'C'	Item Rate Component of Provisional sum of works	10,00,00,000	Fixed
R6	Total of Schedules 'A', 'B', and 'C'	(in figures) (R1 + R2 + R3)	
		(in words) (R1 + R2 + R3)	

Signature of the Authorized Signatory of the Tenderer

Schedule of Payment 'A-1'

Schedule of Payments for on account payments for General works of Lump Sum Component of Works (i.e. Schedule 'A') under Head "G"

Overall, one hundred percent (100%) of the accepted amount of Lump Sum Component of Works (i.e. of Schedule 'A') shall be apportioned in two parts, i.e. five percent (5%) for General works (Head "G") and ninety-five percent (95%) for Stations works (Head "S").

The payment of five percent (5%) for General works (under Head "G") shall be governed by the stage payment schedule as detailed below:

S. No.	Description of Stage	Payable Unit	Percentage Breakup of "G"
G1.1	Provision of the Employer IT requirements of (online Project Management Information System, Document Management System, Enterprise work program platform, BIM modelling etc.) Notes: 1. 30% of the apportioned payment under this Milestone (i.e. 30% of 8%) 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. 2. 50% of the apportioned payment under this Milestone (i.e. 50% of 8%) shall be equally spread over 21 months after completion of works under Note 1 and is subject to the deployment of competent IT staff. 3. The remaining 20% payment shall be released on completion of all work through the Defects Notification Period.	Lump Sum	8.00%
G2.1	Engineer approval of Health and Safety Manual	Lump Sum	2.00%
G2.2	Engineer approval of Quality Manual (also including Quality Plan)	Lump Sum	2.00%
G2.3	Engineer approval of Interface Management Plan, Interface Matrix, Control Sheets and Audits Notes: 1. 50% of the apportioned payment under this Milestone (i.e. 50% of 1%) shall be released after the necessary approval of Interface Management Plan, Interface Matrix. 2. 50% of the apportioned payment under this Milestone (i.e. 50% of 1%) shall be equally spread over the balance period of the Contract after completion of works under Note 1 only.	Lump Sum	1.00%
G2.4	Engineer approval of Traffic Diversion Management Plan	Lump Sum	1.00%
G2.5	Engineer approval of Detained Works Programme, Baseline Construction Programme, Three Months Rolling Programme and Monthly Progress Reports. Notes:	Lump Sum	1.00%

S. No.	Description of Stage	Payable Unit	Percentage Breakup of "G"
	<p>1. 25% of the apportioned payment under this Milestone (i.e. 25% of 1%) shall be released after the approval of Detained Works Programme, Baseline Construction Programme.</p> <p>2. 75% of the apportioned payment under this Milestone (i.e. 75% of 1%) shall be equally spread over the balance period of the Contract after completion of works under Note 1 only.</p>		
G2.6	Engineer approval of Design Plan	Lump Sum	1.00%
G3.1	<p>Submission of quarterly audit report of Quality, Health, Safety and Environment with confirmation of the actions taken on noncompliance</p> <p>Note: To be paid quarterly on pro-rata basis for submission of quarterly audit report</p>	Lump Sum	5.50%
G3.2	<p>Deployment of Health, Safety and Environment personnel as per the Health and Safety and Environmental Manuals.</p> <p>Note: The payment shall be made as follows commencing 3 months after the Commencement Date.</p> <p>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.</p> <p>2. The remaining 10% payment shall be released on completion of all work through the Defects Notification Period.</p> <p>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.</p>	Lump Sum	14.00%
G4.1	Engineer's approval of design team	Lump Sum	1.50%
G4.2	Design Submission Programme, Design Statement and Design Deliverables	Lump Sum	1%
G4.3	Design Checking Plan	Lump Sum	1%
G4.4	Submission of Preliminary Structural Design, GAD, CAD Manual and DBR	Lump Sum	3.00%
G4.5	<p>Submission of Final Structural Design and GFC Drawings</p> <p>To be paid on pro-rata basis depending upon progress as certified by the Engineer.</p>	Lump Sum	6.00%
G4.6	Submission of MEP Interface Report and DBR	Lump Sum	3.00%
G4.7	Submission of Final Design with GFC Drawings	Lump Sum	6.00%
G4.8	Submission of utility identification and proposed diversion report and submission of the report to utility owning agency. (pro-rata basis for both chartered and uncharted utilities)	Lump Sum	5.00%
G5	Regular maintenance and repair of existing roads, service roads, footpaths, the construction and maintenance of	Lump Sum	15.00%

S. No.	Description of Stage	Payable Unit	Percentage Breakup of "G"
	<p>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.</p> <p>Note: Payment for this milestone shall be spread prorata commencing 3 months after the Commencement Date up to the Completion Date.</p>		
G6	Submission of all As Built Drawings including O&M Manuals	Lump Sum	10.00%
G7	Training of Employer's Personnel, in compliance with the Employer's requirements	Lump Sum	1.00%
G8	Submission of Insurance Premium Receipts and Insurance Policies as per the Contract Requirements (prorate basis)	Lump Sum	1.00%
G9	<p>Providing office accommodation to Engineer / Employer as per Section 8A part-1 Appendix VI</p> <p>Construction/Provision and Commissioning (with all specified furniture, appliances, items etc.) of all Project Offices and Site offices and Maintaining all these of these offices throughout the Contract Period and DLP, Safety Barricading of the entire corridor</p>	Lump Sum	7%
G10	<p>Submission of Interface Management Plan and diversion schemes if any and Maintaining of the same throughout the Project duration</p> <p>a) Utility Survey, GPR survey, Submission of utility identification report of entire Corridor after actual trenching and making good road etc. complete and submission to utility owning agency, co-ordination as & methodology final scheme for relocation.</p> <p>b) Approval and Co-ordination for Removal of Trees, Tree Translocation, Compensatory Afforestation Proposal including the submission of Methodology.</p> <p>c) Cutting of all trees, Translocation of all specified trees, Compensatory Afforestation of all required trees.</p>		6%

Schedule of Payment 'A-2'**Schedule of Payments for on account payments for Stations works of Lump Sum Component of Works (i.e. Schedule 'A') under Head "S"**

Overall, one hundred percent (100%) of the accepted amount of Lump Sum Component of Works (i.e. Schedule 'A') shall be apportioned in two parts, i.e. five percent (5%) for General works (Head "G") and ninety-five percent (95%) for Station works (Head "S").

The payment of ninety-five percent (95%) for Stations works (under Head "S") shall be governed by the stage payment schedule as detailed below:

S. No.	Description of Stage	Payable Unit	Percentage Breakup of "S"	Cumulative Total Percentage
S1	Establishment and commissioning of Quality Test Laboratory. Notes: 1. 50% of the apportioned payment under this Milestone (i.e. 50% of 0.50%) shall be released on a monthly basis based on the progress achieved as certified by Engineer. 2. 50% of the apportioned payment under this Milestone (i.e. 50% of 0.50%) shall be released monthly based on equally spread amount over the balance period of the Contract after completion of works under Note 1 only.	Lump Sum	1.00%	1.00%
S2	Civil Works – Foundation			
S3.1	Completion of utility location trial trenches	All Stations	0.50%	
S2.2	Completion of Surveys, Site clearances (including demolition of existing structures and removal of debris), traffic diversions and site boundary hoarding	All Stations	0.50%	
S2.3	Completion of geotechnical site investigation	All Stations	0.50%	
S2.4	Completion of Load Test and submission of report for Pile / Open foundation (e.g. isolated or raft)	All Stations	0.50%	
S2.5	Piling / Open foundation if used (e.g. isolated or raft) Including GTI, GIR, Safety Barricading, Trail trenching, Providing Traffic marshals, Security etc	Total No. of foundations (piles plus open foundation)	7.00%	
S2.6	Pile Caps/ Pedestal for open foundation if used (e.g. isolated or raft) including Safety Barricading, Trail trenching, Providing Traffic marshals, Security etc	Total No. (pile caps plus pedestal for open foundation)	7.00%	
	Total of S2		16.00%	17.00%
S3	Civil Works – Up to Concourse			
S3.1	Piers & Columns/Beams including pier caps/pier arms, crash barrier, all works below concourse level and at ground floor level including Providing Traffic marshals, Security etc	Total Spans	15.00%	

S. No.	Description of Stage	Payable Unit	Percentage Breakup of "S"	Cumulative Total Percentage
S3.2	Casting & erection of girders, concourse slab, structural works for operation rooms and all other rooms including stairs, lift shaft, escalator pit and system related provisions and other structural works as per GFC drawings including Providing Traffic marshals, Security etc	Total Spans	18.00%	
	Total of S3		33.00%	50.00%
S4	Civil Works – Platform in Station			
S4.1	Columns, Beams, Girders and Slab from concourse to platform level and at platform level including stairs, lift shafts, water tank, waterproofing, all systems related provisions and other structural works as per GFC drawings	Total spans	20.00%	
S4.2	Completion of structural works for roof and roof sheeting over platforms, track-way, entry-exit structures, connecting walkways, etc including roof sheet installation complete with fascia, gutter, drainage pipe and first fix provisions including Providing Traffic marshals, Security etc	Total spans	17.00%	
S4.3	Installation of expansion joints/bearings	Total spans	0.50%	
S4.4	Completion of all the work including testing, railings, G.I. cable inserts, brackets and ducts, earthing, manholes, etc.	Total spans	2.50%	
	Total of S4		40.00%	90.00%
S5	Handover			
S5.1	Completion of all site restoration works as per the standards of the owning agency, including the clearing of the site in all respects so that the area is in traffic worthy condition where necessary.	All Stations	5.00%	
S5.2	All remaining works to complete the entire work including integrated testing and commissioning as per the scope & specifications, and the issuance of the Employer's Taking Over Certificate for the complete Stations.	Lump Sum	5.00%	
	Total of S4		10.00%	100.00%
	Total		100.00%	

Notes:

- The successful Contractor will submit a quantity schedule for the work as per the details finalized by them for the components listed in the table above, which will be subject to approval of the Engineer/Employer. Unit payment of line items shall be governed by the quantity schedule within the total percentage payment specified against each item. The breakup of each line item shall be prepared by the Contractor during detailed design in consultation with the Engineer/Employer. Subsequently this break up with due weightage for sub items shall be approved by the Engineer/Employer.
- The Quantity Break up, after approval by the Engineer/Employer, shall be used for making all stage payments to the Contractor. The Contractor should note that while stage payment will be governed by the quantity schedule, the total cost of the 'Lump Sum' component shall remain unchanged for the specified work even if the quantity is revised at any stage by the Contractor's design and the cumulative paid amount would be adjusted accordingly.
- The Contractor will submit a quantity schedule for the work as per the details finalized by them for the components listed in the table above, which will be subject to review and approval by the employer / engineer.

Unit payment of the items shall be governed by the Quantity schedule within the total% payment specified against that item. For example, if 'S' is the accepted value of Stations and if there are 'N' number of units in a sub- item, out of which, payment for 'Y' units is claimed and the applicable percentage of payment for that sub- item is 'V', and the applicable percentage of payment for that main item is 'P', the payment due on completion of 'Y' no. of units would be $(S \times P \times V \times Y / N)$. The quantity schedule after being approved by the Engineer/Employer will be used for making all interim payments.

4. Payment will be made on the submission of the IPC with quantity schedule ever s us progress achieved for review and certification and recommendation of the Engineer to the Employer for various items. Further bifurcation or redistribution of price centres, if need be, within the overall % age or amongst sub-works will be agreed mutually with the contractor.
5. Further bifurcation / redistribution / minute distribution of price centres, if need be, within the overall % age or amongst sub works will be the right of Employer. The decision of Employer is final in this regard and the same is binding on the contractor.

K-RIDE

Schedule 'B' – Lumpsum price schedule for Detailed Design & Engineering of all Architectural finishes, Façade works & MEP works.

Name of Work: “Design and Construction of Twelve (12nos) stations i.e Elevated (2nos), Elevated Interchange (2nos) and At-Grade (8nos) BSRP Stations of Corridor-2 at Benniganahalli, Kasturi Nagar, Seva Nagar, Banaswadi, Nagawara, Kanaka Nagar, Hebbal, Mathikere, Yeshwanthpur, Shettyhalli, Mydarahalli, Chikkabanavara, including Steel FOB, roof structures, PEB works for stations with all associated works for Bengaluru Suburban Rail Project” (BSRP) including Detailed Design and Engineering for Architectural finishes and E&M Works, but excluding construction of Architectural finishes and E&M Works.

The payment of Hundred percent (100%) for Detailed Design & Engineering of all **Architectural finishes, Façade works & MEP works** shall be governed by the stage payment schedule as detailed below:

Sl. No.	Description of Payment Stage Activity	Stage Payment Schedule	Cumulative Payment Percentage
D-1	Submission, Engineer’s approval and mobilisation of all Key Personnel (section-8A part-1 Clause 1.4) Engineer approval of Design Plan Engineer’s approval of design team Design Submission Programme, Design Statement and Design Deliverables Design Checking plan	2%	2%
D-2	Based on study and review of Planning and design criteria, conceptual layout for Architectural finishes, Façade works & MEP works and comparison with similar Metro / Railway layouts, Preparation and submission of Design Basis Report/ Planning Criteria, Presentation of Design alternatives with layouts and complete programme schedule for Detailed Design services.	3%	5%
D-3	Submission of Final Layout Plan (for approved alternative) along with General Arrangement. Layout of the complete area and locational & architectural plans of various buildings, façade works, and other Services covering water supply, drainage & wastewater, MEP, power supply and signalling / data cables, plants & machineries, etc. along with BOQ, estimated cost.	5%	10%
D-4	Submission of Tender Drawings, BOQs, Cost Estimates & rate analysis, Specifications, Scope of Work, quantity take off, Employer’s Requirements and all other necessary documents needed for corresponding construction works and other tender(s), of various tender packages. Submission of Preliminary Back of House Architectural Design, GAD Drawings, CAD Drawings, Perspectives and Renderings. Submission of Detailed Back of House Architectural Design and Drawings, Materials, Finishing Schedules incorporating all operation rooms and facilities with due consideration to system interfaces.	25%	35%
D-5	Submission of MEP, Station Plant and Machineries Technical Documents with all Technical Specifications/ Drawings, Employer’s	10%	45%

Sl. No.	Description of Payment Stage Activity	Stage Payment Schedule	Cumulative Payment Percentage
	<p>Requirements, BOQ, Rate Analysis, Cost Estimates and all other necessary documents needed as required for invitation of various plants and machineries tender packages.</p> <p>Submission of Preliminary Design with calculations for MEP Equipment Load and capacities and GAD/SLD for Electrical Equipment and Wiring</p> <p>Submission of MEP Interface Report and DBR</p>		
D-6	<p>Issue of “Good for Construction Drawings” and submission of “Final Drawings” for the following:</p> <p>a) Architectural Drawings</p> <p>b) Water Supply, Drainage System, Sewerage System and plumbing, etc.</p> <p>c) Electrical (LV) Distribution e.g. Power supply, DG Set, UPS, Solar Power etc.</p> <p>d) HVAC and Fire System Drawings</p> <p>e) Combined Service Drawings and balance all GFC Drawings</p> <p>f) E&M works</p> <p>g) Submission of Preliminary Design with calculations for MEP Equipment Load and capacities and GAD/SLD for Electrical Equipment and Wiring.</p>	35%	80%
D-7	Submission of “Originals” Detailed Design Report including all documents	1%	81%
D-8	Construction Support Activities for 1 st year of construction (Architectural finishes and MEP)	7%	88%
D-9	Construction Support Activities for 2 nd year of construction (Architectural finishes and MEP)	7%	95%
D-11	Construction Support Activities till complete commissioning of Stations	5%	100%