

CHENNAI METRO RAIL LIMITED

CHENNAI METRO RAIL PROJECT PHASE-1 EXTENSION

ADDENDUM-1

TO BIDDING DOCUMENTS

for

CONTRACT ADC-M&E-12

*SUPPLY, INSTALLATION, TESTING, COMMISSIONING AND TRAINING OF
E&M WORKS INCLUDING ELECTRICAL, VAC, FIRE PROTECTION,
SCADA WORKS FOR DEPOT & AUTO COACH WASHING PLANT AT
WIMCO NAGAR AND METRO BHAWAN AT NANDANAM*

Employer: Chennai Metro Rail Limited

Country: India

Project: Chennai Metro Project (V) Phase 1 – Extension

Loan Agreement No.: ID - P258

ADDENDUM TO PART-1: BIDDING PROCEDURES

A1 Evaluation and Qualification Criteria (Without Prequalification)

S. No.	Clause of Bid Document	Original Clause	Revised Clause
A1.1	Evaluation and Qualification Criteria Average Annual Turnover 2.3.2	Minimum average annual of turnover of INR 194.76 Cr (Indian Rupees One Ninety-Four Crore Seventy six lakhs only) calculated as total certified payments received for contracts in progress and / or completed, within the last five (5) years, divided by five (5) years	Minimum average annual of turnover of INR 146 Crore (Indian Rupees One forty-six Crore only) calculated as total certified payments received for contracts in progress and / or completed, within the last five (5) years as per FIN-1 , divided by five (5) years.
A1.2	Evaluation and Qualification Criteria Specific Experience 2.4.2(a)	A minimum number of E&M (Electrical, HVAC, Fire Protection, Plumbing, Integrated building management system) similar work(s) that have been satisfactorily and substantially ⁽ⁱⁱⁱ⁾ completed as a prime contractor (single entity or JV member), subcontractor, or management contractor ⁽ⁱ⁾ for at least the last seven(7) years, starting 1 st January 2011. and Bid submission deadline (a) Supply, Installation, Testing and commissioning of E&M works of any of the following value i. one work of value INR 77.9 CR. or above satisfying the required experience under 2.4.2 (b) ii. two works of value INR 48.7 CR or above satisfying the required experience under 2.4.2 (b) iii. three works of value INR 39 CR. or above satisfying the required experience under 2.4.2 (b)	A minimum number of E&M (Electrical, HVAC, Fire fighting, Fire alarm) similar work(s) that have been satisfactorily and substantially ⁽ⁱⁱⁱ⁾ completed as a prime contractor (single entity or JV member), subcontractor, or management contractor ⁽ⁱ⁾ , for at least the last seven (7) years, starting 1st January 2011. and Bid submission deadline a) Supply, Installation, Testing and commissioning of E&M works of any of the following value i. One (1) work of value INR 48.7 Crore.. or above satisfying the required experience under 2.4.2 (b) ii. Two (2) works of value INR 39 Crore or above satisfying the required experience under 2.4.2 (b) iii. Three (3) works of value INR 29.2 Crore. or above satisfying the required experience under 2.4.2 (b)
A1.3	Evaluation and Qualification Criteria Specific Experience 2.4.2(b)	Minimum experience in the following key activities that has been satisfactorily and substantially completed as prime contractor (single entity or JV member), management contractor or subcontractor ^(vi) in an urban context between 1st January 2011 and Bid submission deadline	Minimum experience in the following key activities that has been satisfactorily and substantially completed as prime contractor (single entity or JV member), management contractor or subcontractor ^(vi) in an urban context between 1st January 2011 and Bid submission deadline

		<p><i>Execution of E&M (Electrical, HVAC, Fire Protection, Plumbing, Integrated building management system) similar work(s) for</i></p> <p><i>One Underground Metro Rail Station</i></p> <p><i>Or</i></p> <p><i>Two Elevated Metro Stations</i></p> <p><i>Or</i></p> <p><i>One Railway Workshop/Metro rail depot</i></p> <p><i>Or</i></p> <p>Execution of E&M (Electrical, HVAC, Fire Protection, Plumbing, Integrated building management system) similar works of minimum 2000 kVA and above capacity for large Multi storey building such as Airport, Hospital, Hotel, IT park, commercial mall any industrial projects, factory's, etc</p>	<p><i>Execution of E&M (Electrical, HVAC, Fire fighting, Fire alarm) similar works for</i></p> <p><i>One Underground Metro Rail Station</i></p> <p><i>Or</i></p> <p><i>Two Elevated Metro Stations</i></p> <p><i>Or</i></p> <p><i>One Railway Workshop/Metro rail depot</i></p> <p><i>Or</i></p> <p>Execution of E&M (Electrical, HVAC, Fire fighting, Fire alarm) similar works of minimum 2000 kVA and above capacity (Single or combination) for large Multi storey building such as Airport, Hospital, Hotel, IT park, commercial mall any industrial projects, factory's, etc.</p>
<p>A1.4</p>	<p>Evaluation and Qualification Criteria Financial Resources 2.5.1</p>	<p>(i) The Bidder shall demonstrate that it has access to, or has available, liquid assets, unencumbered real assets, lines of credit, and other financial means (independent of any contractual advance payment) sufficient to meet the construction cash flow requirements estimated as INR 8.2 Cr per month for the subject contract(s) net of the Bidders other commitments.</p>	<p>(i) The Bidder shall demonstrate that it has access to, or has available, liquid assets, unencumbered real assets, lines of credit, and other financial means (independent of any contractual advance payment) sufficient to meet the construction cash flow requirements estimated as INR 5.7 Crore per month for the subject contract(s) net of the Bidders other commitments.</p>

A2. Entire Clause 1.1 is replaced with below

1.1 Evaluation of Technical Bids

1.1.1 Assessment of adequacy of Technical Proposal with Requirements

Evaluation of the Bidder's Technical Proposal will include an assessment of the Bidder's technical capacity to mobilize key equipment and personnel for the contract consistent with its proposal regarding work methods, scheduling, and material sourcing in sufficient detail and fully in accordance with the requirements stipulated in Section VI, Works Requirements.

1.1.2 Personnel

For this package, the Bidder must demonstrate that it has the personnel employed by them for the key positions that meet the following requirements.

Table -A

Key Positions for Depot & Auto Coach Washing Plant At Wimco Nagar

S.No	Position	Min No. of staffs	Minimum Requirement
1	Project Manager (Common for both sites)	1	Bachelor's Degree in Electrical /Mechanical Engineering with minimum 15 years total experience and 10-year experience in the role of Project Manager in the execution of similar type of work
2	Deputy Project manager	1	Bachelor's Degree in Electrical /Mechanical Engineering with minimum 12 years total experience and 6-year experience in the role of Manager/ Deputy Manager in the execution of similar type of works
3	Design Manager/ Coordinator	1	Graduate in Electrical / Mechanical Engineering respectively with minimum 12 years total experience and 8-year experience in the role of Design manager/Coordinator in the execution of similar type of works.
4	Engineers	4	2 Nos. Electrical*, 2 Nos. Mechanical with bachelor's Degree in respectively with minimum 10 years total experience and 6 year experience in the role of Senior Engineer in the execution of similar type of works

S.No	Position	Min No. of staffs	Minimum Requirement
5	QA & QC Manager	1	1 No. Electrical / Mechanical Engineer with Bachelor's Degree and certificate in QA/ QC, with minimum 10 years total experience and 6 year experience in the role of QA & QC Manager in the execution of similar type of works
6	QA & QC Engineer	2	1 No. Electrical and 1 No. Mechanical Engineer with bachelor's Degree and certificate in QA/ QC, with minimum 8 years total experience and 4 year experience in the role of QA & QC Engineer in the execution of similar type of works
7	Interface Manager	1	Graduate Degree in Mechanical/ Electrical Engineering with minimum 12 years total experience and 8 year experience in the role of similar type of works.
8	Senior OHSE manager	1	1 No. with Graduate Degree in Mechanical/Electrical Engineering with additional international Qualifications of CSA/ NESOH/ RLI certificate course in safety engineering minimum 15 years total experience and minimum 7 years' experience in the role of similar type of works similar type of works.

Table -B

Key Positions for Metro Bhawan At Nandanam

S.No	Position	Min No. of staffs	Minimum Requirement
9	Deputy Project manager	1	Bachelor's Degree in Electrical /Mechanical Engineering with minimum 12 years total experience and 6-year experience in the role of Manager/ Deputy Manager in the execution of similar type of works
10	Design Manager/ Coordinator	2	Graduate in Electrical (1) and Mechanical (1) Engineering respectively with minimum 12 years total experience and 8-year experience in the role of Design manager/Coordinator in the execution of similar type of works.

S.No	Position	Min No. of staffs	Minimum Requirement
11	Engineers	6	(2 Nos. Electrical*, 4 Nos. Mechanical (2-PHE/FF, 2-HVAC) Engineers) with Bachelor's Degree in Electrical / Mechanical respectively with minimum 10 years total experience and 6 year experience in the role of Senior Engineer in the execution of similar type of works
12	QA & QC Manager	1	1 No. Electrical / Mechanical Engineer with Bachelor's Degree and certificate in QA/ QC, with minimum 10 years total experience and 6 year experience in the role of QA & QC Manager in the execution of similar type of works
16	QA & QC Engineer	2	(1 No. Electrical and 1 No. Mechanical Engineer) each with Bachelor's Degree in Mechanical / Electrical Engineering respectively and certificate in QA/ QC, with minimum 8 years total experience and 4 year experience in the role of QA & QC Engineer in the execution of similar type of works
17	Interface Manager	1	Graduate Degree in Mechanical/ Electrical Engineering with minimum 12 years total experience and 8 year experience in the role of similar type of works.
18	Senior OHSE manager	1	1 No. with Graduate Degree in Mechanical/Electrical Engineering with additional international Qualifications of CSA/ NESOH/ RLI certificate course in safety engineering minimum 15 years total experience and minimum 7 years' experience in the role of similar type of works similar type of works.

Note:

- 1) Penalty of Rs. 2 Lakhs per month shall be imposed if key personnel have not been deployed as per the deployment schedule.

* Electrical supervision engineers should have valid "C" grade licence.

The above specified staffs are the minimum requirement for the contract management till testing, commissioning and handover of E&M system.

This is the minimum requirement for personnel who has to be approved by CMRL. However, additional personnel has to be deployed as needed. The supporting documents of qualification and experience preferably from the client/ employer need to be submitted to CMRL for approval. CMRL rights to re-adjust the above key personnel as per the site requirements

The total work experience of the personnel mentioned above is for engineering graduates. In case of Diploma holders the total years of experience shown above should be increased by 5 years

ADDENDUM TO PART-2: VOLUME 1 – EMPLOYER'S REQUIREMENTS
B1. APPENDIX 4 – CONTRACT KEY DATES (REVISED ONLY METRO BHAWAN
KEYDATES)

METRO BHAWAN AT NANDANAM (Revised)

Key Date	No. of days (From date of commencement)	Details of Works to be completed
KD 22	30	Submission of initial work programme, establishing site office, mobilisation of key personnel and P&M
KD 23	90	Complete material and Vendor Submittal
KD 24	120	Approval of shop drawings
KD 25	180	Supply & Installation 50% of first fix (Cable tray, conduit, pipes etc) items in Basement Floor to 5 th Floor
KD 26	210	Supply & Installation 100% of first fix (Cable tray, conduit, pipes etc) items in Basement Floor to 5 th Floor
KD 27	230	Supply & Installation 50% of first fix (Cable tray, conduit, pipes etc) items in 6 th Floor to 12 th Floor
KD 28	260	Supply & Installation 100% of first fix (Cable tray, conduit, pipes etc) items in 6 th Floor to 12 th Floor
KD 29	280	Supply & Installation 100% of first fix (Cable tray, conduit, pipes etc) items in plant room.
KD 30	300	Supply & Installation of 100% of power cables, wiring, piping, ducting and earthing works in Basement Floor to 5 th Floor
KD 31	330	Supply & Installation of 100% of power cables, wiring, piping, ducting and earthing works in 6 th Floor to 12 th Floor
KD 32	360	Supply & Installation of 100% of power cables, wiring, piping, ducting and earthing works in Plant room.
KD 33	400	Supply, Installation & Termination of final fix items (Panels, Light fixtures, Fire alarm & Firefighting equipment's, data and voice network, sockets, CCTV etc) at plant room
KD 34	400	Supply, Installation & Termination of final fix items (Panels, Light fixtures, Fire alarm & Firefighting equipment's, data and voice network, sockets, CCTV etc) at Basement to 5 th floor

KD 35	420	Supply, Installation & Termination of final fix items (Panels, Light fixtures, Fire alarm & Firefighting equipment's, data and voice network, sockets, CCTV etc) at 6 th to 12 th floor
KD 36	450	Completion of complete Electrical, VAC, Firefighting, Fire alarm, IBMS and data & voice networks system.
KD 37	470	Completion of complete Electrical testing & CEIG approval
KD 38	490	Completion of complete Fire protection system & TNFRSD approval

ADDENDUM TO PART-3:

GENERAL CONDITIONS, PARTICULAR CONDITIONS AND CONTRACT FORMS

Section VIII. Particular Conditions (PC)

TABLE: SUMMARY OF DELAY DAMAGES AS PER CLAUSE 8.7 OF GC
WIMCO NAGAR DEPOT & METRO BHAWAN AT NANDANAM

C1. REVISED ONLY METRO BHAWAN DELAY DAMAGES TABLE

Key Date	No. of days (From date of commencement)	Details of Works to be completed	Delay Damages in INR per Day
KD 22	30	Submission of initial work programme, establishing site office, mobilisation of key personnel and P&M	
KD 23	90	Complete material and Vendor Submittal	
KD 24	120	Approval of shop drawings	
KD 25	180	Supply & Installation 50% of first fix (Cable tray, conduit, pipes etc) items in Basement Floor to 5 th Floor	
KD 26	210	Supply & Installation 100% of first fix (Cable tray, conduit, pipes etc) items in Basement Floor to 5 th Floor	50,000
KD 27	230	Supply & Installation 50% of first fix (Cable tray, conduit, pipes etc) items in 6 th Floor to 12 th Floor	
KD 28	260	Supply & Installation 100% of first fix (Cable tray, conduit, pipes etc) items in 6 th Floor to 12 th	50,000

		Floor	
KD 29	280	Supply & Installation 100% of first fix (Cable tray, conduit, pipes etc) items in plant room.	
KD 30	300	Supply & Installation of 100% of power cables, wiring, piping, ducting and earthing works in Basement Floor to 5 th Floor	50,000
KD 31	330	Supply & Installation of 100% of power cables, wiring, piping, ducting and earthing works in 6 th Floor to 12 th Floor	50,000
KD 32	360	Supply & Installation of 100% of power cables, wiring, piping, ducting and earthing works in Plant room.	
KD 33	400	Supply, Installation & Termination of final fix items (Panels, Light fixtures, Fire alarm & Firefighting equipment's, data and voice network, sockets, CCTV etc) at plant room	50,000
KD 34	400	Supply, Installation & Termination of final fix items (Panels, Light fixtures, Fire alarm & Firefighting equipment's, data and voice network, sockets, CCTV etc) at Basement to 5 th floor	50,000
KD 35	420	Supply, Installation & Termination of final fix items (Panels, Light fixtures, Fire alarm & Firefighting equipment's, data and voice network, sockets, CCTV etc) at 6 th to 12 th floor	50,000
KD 36	450	Completion of complete Electrical, VAC, Firefighting, Fire alarm, IBMS and data & voice networks system.	50,000
KD 37	470	Completion of complete Electrical testing & CEIG approval	50,000
KD 38	490	Completion of complete Fire protection system & TNFRSD approval	50,000