



## **MUMBAI METRO RAIL CORPORATION LIMITED (MMRC)**

(Joint Venture of Govt. of India and Govt. of Maharashtra)  
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### **Invitation for Bids for "Design, Manufacture, Supply, Installation, Testing, Commissioning and Comprehensive Maintenance Service of Lot I: CNC Under Floor Wheel Lathe, and Lot II: Battery Operated Shunter" for Project Mumbai Metro Line-3**

Date: [12<sup>th</sup> February 2019]

Loan Agreement Number: [ID-P 233/268]

IFB Number: [MM3-CBS-DEQ-9-01]

### **Addendum No. 1**

Sr. No.	Bidding Documents Reference and Clause No.	Amendment
1	Part 1, Bidding Procedure, Section III, Evaluation and Qualification Criteria, 2.4.2 (a) Specific Experience, Requirements	<p><b><u>Replace</u></b>            "A minimum number of eight similar<sup>(ii)</sup> Contracts (Design, Manufacture, Supply, Installation, Testing &amp; Commissioning) for the respective lot that has been satisfactorily and substantially<sup>(iii)</sup> completed for Metro/Railway/MRT systems as a prime Contractor, viz, OEM (single entity or JV member)<sup>(iv)</sup> between 1st January 2013 and the latest Bid submission date.            Out of the above contracts completed, at least two contracts shall have been completed outside the country of manufacture of the Equipment or in India.            A minimum 2 number of Equipment, for the respective lot(s),n bid for shall be in operation in Metro/Railway/MRT systems with satisfactory performance for a minimum period of 2 years after commissioning and supported by a performance certificate from the client. Out of these two Equipment, one should have been in operation outside the country of manufacture of the Equipment or in India.            The Bidder shall attach the certificate from the client for satisfactory operation of the Equipment."</p> <p><b><u>With</u></b>            "Design, Manufacture, Supply, Installation, Testing &amp; Commissioning of a minimum number of eight (08) similar<sup>(ii)</sup> <b>Equipment</b> for the respective lot that has been satisfactorily and substantially<sup>(iii)</sup> completed for Metro/Railway/MRT systems as a Prime Contractor/<b>Sub Contractor</b>, viz. OEM (Single entity or JV member)<sup>(iv)</sup> between 1<sup>st</sup> January 2013 and the latest Bid submission date.</p>





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		<p>Out of the above, at least two (02) <b>Equipment</b> shall have been commissioned outside the country of manufacture of the Equipment or in India.</p> <p>A minimum two (02) number of Equipment shall be in operation in Metro/Railway/MRT systems with satisfactory performance for a minimum period of two (02) years after commissioning and supported by a performance certificate from the <b>End User/Client</b>. Out of these two (02) Equipment, a minimum of one (01) should have been in operation outside the country of manufacture of the Equipment or in India.</p> <p>The Bidder shall attach the certificate from the <b>End User/Client</b> for satisfactory operation of the Equipment.”</p>										
2	Part 2, Employer's Requirements, Section VI-A, General Specifications, <b>2.2 Works Program, 2.2.3</b>	<p><b>Replace</b> “All programmes shall be prepared using CPM scheduling software Primavera Project Planner (P6) Program of the latest version.”</p> <p><b>With</b> “All programmes shall be prepared using CPM scheduling software Primavera Project Planner (P6) program or <b>MS Project convertible to .MPX or .XML</b> of the latest version.”</p>										
3	Part 2, Employer's Requirements, Section VI-A, General Specifications, <b>2.8 IT Requirement of Employer, 2.8.1</b>	<p><b>Replace</b> “(a) Scheduling services using Oracle Primavera P6 Enterprise Project Portfolio Management (EPPM) or equivalent.”</p> <p><b>With</b> “(a) Scheduling services using <b>Primavera Project Planner (P6) program or MS Project convertible to .MPX or .XML of the latest version.</b>”</p>										
4	Part 2, Employer's Requirements, Section VI-A, General Specifications, <b>5.1.5 Document format</b>	<p><b>Replace</b> “(b) The following software which shall be compatible with the Employer’s Requirement and also with Intel-Windows based computers shall be used, unless otherwise stated, for the various electronic submissions required:</p> <table border="0"><tr><td>- Text Documents</td><td>MS Word</td></tr><tr><td>- Spread Sheets</td><td>MS Excel</td></tr><tr><td>- Data Base Files</td><td>MS Access</td></tr><tr><td>- Presentation Files</td><td>MS Power Point</td></tr><tr><td>- Programs</td><td>Primavera P6</td></tr></table>	- Text Documents	MS Word	- Spread Sheets	MS Excel	- Data Base Files	MS Access	- Presentation Files	MS Power Point	- Programs	Primavera P6
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- Programs	Primavera P6											





Sr. No.	Bidding Documents Reference and Clause No.	Amendment
		<ul style="list-style-type: none"><li>- Drawings Auto CAD</li><li>- Photographic Files Adobe Photo Shop</li><li>- Project Management MS Project”</li></ul> <p><b>With</b></p> <p>“b) The following software which shall be compatible with the Employer’s Requirement and also with Intel-Windows based computers shall be used, unless otherwise stated, for the various electronic submissions required:</p> <ul style="list-style-type: none"><li>- Text Documents MS Word</li><li>- Spread Sheets MS Excel</li><li>- Data Base Files MS Access</li><li>- Presentation Files MS Power Point</li><li>- <b>Programs Primavera P6 or MS Project</b></li><li>- Drawings Auto CAD</li><li>- Photographic Files Adobe Photo Shop</li><li>- Project Management MS Project”</li></ul>
5	Part 2, Employer's Requirements, Section VI-A, General Specifications, <b>Appendix 3 – PROGRAM, 3 Program , APPENDIX 4- Bi-Monthly PROGRESS REPORT And APPENDIX 6- DRAFTING AND CAD STANDARDS</b>	<p><b>Replace</b></p> <p>“Note: Contractor shall refer to Para 2.9 of General Specifications regarding Employer’s IT Requirements. The requirements pursuant to this Appendix shall be effected through the “Integrated Project Management Platform”, if and as applicable.”</p> <p><b>With</b></p> <p>“Note: Contractor shall refer to <b>Para 2.8</b> of General Specifications regarding Employer’s IT Requirements. The requirements pursuant to this Appendix shall be effected through the “Integrated Project Management Platform”, if and as applicable.”</p>
6	Part 2, Employer's Requirements, Section VI-B, Technical Specifications, <b>2.5.4 Maintainability</b>	<p><b>Replace</b> Table under Para a)</p> <p>a)</p>





Sr. No.	Bidding Documents Reference and Clause No.	Amendment		
		<b>Type of Maintenance</b>	<b>Response Time</b>	<b>MTTR</b>
		Minor Maintenance *	6 hours	12 hours
		Major Maintenance*	24 hours	48 hours
		<b><u>With</u></b>		
		a)		
		Type of Maintenance	Response Time	MTTR
		Minor Maintenance *	12 hours	08 hours
		Major Maintenance *	12 hours	24 hours
		i) In case the Response Time ends during night between 20:00 hours and 08:00 hours, the response time gets extended to 08:00 hours next day.		
		ii) The Repair time shall be counted continuously from the time the Equipment is made available to the maintenance staff for repairs.		
7	Part 2, Employer's Requirements, Section VI-B, Technical Specifications, <b>3.1 Fully Automatic Operation</b>	<b><u>Replace</u></b> "h) Automatic measuring of wear and machining of brake discs."		
		<b><u>With</u></b> "h) Automatic machining of brake discs."		
8	Part 2, Employer's Requirements, Section VI-B, Technical Specifications, <b>3.3. Design Requirements of Wheel Lathe, 3.3.1</b>	<b><u>Replace</u></b> "(b) Equipment shall incorporate means of adjustment in order to allow for building movement and concrete beam deflections. The maximum expected movement of any section of any building will be ± 25mm vertically, ± 25mm longitudinally and ± 25mm laterally."		
		<b><u>With</u></b> "(b) Equipment shall incorporate means of adjustment in order to <b>accommodate/ compensate the civil work tolerance by civil Contractor for building/shed. The maximum expected tolerance will be ± 25mm vertically, ± 25mm longitudinally and ± 25mm laterally.</b> "		





Sr. No.	Bidding Documents Reference and Clause No.	Amendment
9	Part 2, Employer's Requirements, Section VI-B, Technical Specifications, <b>4.4 Operative Requirements of the Shunter</b>	<p><b><u>Replace</u></b> "c) The braking distances of the Shunter with and without load shall not exceed 3.5 meters on a dry level track with 8 coupled railcars after the application of brake from a speed of 3 kmph. Braking system shall be hydraulically actuated &amp; controlled by a foot pedal or a button on the remote-control unit."</p> <p><b><u>With</u></b> "c) The braking distances of the Shunter with and without load shall not exceed 3.5 meters on a dry level track with 8 coupled railcars after the application of brake from a speed of 3 kmph. Braking system shall be hydraulically actuated <b>or provided with electromagnetic disc brakes &amp;</b> controlled by a foot pedal or a button on the remote-control unit."</p>
10	Part 2, Employer's Requirements, Section VI-B, Technical Specifications, <b>4.10 Instrument Control Panels</b>	<p><b><u>Replace</u></b> "b) Panels shall be provided for control and monitoring of the machine and shall be sized to take environmental conditions into account, all control gears and monitoring measures shall be provided at the driver seat for full operation of the tractor and shall have the following Indications at driver desk but not limited to.</p> <ul style="list-style-type: none"><li>• A speedometer,</li><li>• Load Current meter,</li><li>• Emergency switch</li><li>• Indication for parking brake.</li><li>• Indication for battery condition.</li><li>• Indication for mode of operation (rail/road &amp; remote/ manual).</li><li>• Indication for low hydraulic oil.</li><li>• Indication for Engine Temperature.</li><li>• Indication for Remote / Manual Operation.</li><li>• Indication for Engine Temperature.</li><li>• Other standard indications as recommended by the Bidder."</li></ul> <p><b><u>With</u></b> "b) Panels shall be provided for control and monitoring of the machine and shall be sized to take environmental conditions into account, all control gears and monitoring measures shall be provided at the driver seat for full operation of the tractor and shall have the following Indications at driver desk but not limited to.</p> <ul style="list-style-type: none"><li>• A speedometer,</li><li>• Load Current meter,</li><li>• Emergency switch</li></ul>





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		<ul style="list-style-type: none"><li>• Indication for parking brake.</li><li>• Indication for battery condition.</li><li>• Indication for mode of operation (rail/road &amp; remote/manual).</li><li>• Indication for low hydraulic oil.</li><li>• Indication for Remote / Manual Operation.</li><li>• Other standard indications as recommended by the Bidder.”</li></ul>
11	Part 2, Employer's Requirements, Section VI-B, Technical Specifications, <b>4.12 Battery and Battery Charger</b>	<p><b>Replace</b> “b) The Shunter shall have a battery capacity for at least forty (40) kms travelling without load or for at least nine (09) kms travelling with load of 8-car train without passenger load.”</p> <p><b>With</b> “b) The Shunter shall have a battery capacity for at least <b>twenty (20) kms</b> travelling without load or for at least nine (09) kms travelling with load of 8-car train without passenger load.”</p>
12	Part 2, Employer's Requirements, Section VI-B, Technical Specifications, <b>4.14 Wheel, 4.14.1</b>	<p><b>Replace</b> “The proposed life of rail wheels of the Shunter shall not be less than 20 years. In case of rubber wheels, the proposed life shall not be less than 10 years after Operational Acceptance.”</p> <p><b>With</b> “The proposed life of rail wheels of the Shunter shall not be less than 20 years. In case of rubber wheels, the proposed life shall not be less than <b>05 years</b> after Operational Acceptance.”</p>
13	Part 2, Employer's Requirements, Section VI-B, Technical Specifications, <b>4.3 Design Considerations</b>	<p><b>Replace</b> “g) It shall have a dismountable roof mounted cabin providing all round visibility. The cabin shall have sufficient inside height for the operator to enter and work comfortably. It shall be well illuminated, have at least two (02) lockable doors, safety glass and screen wipers. The cabin itself shall have several grips for the operator to hold on.”</p> <p><b>With</b> “g) It shall have a dismountable roof mounted cabin providing all round visibility. The cabin shall have sufficient inside height for the operator to enter and work comfortably. It shall be well illuminated, <b>have either one (01) lockable door and a window on the other side or two (02) lockable doors</b>, safety glass and screen wipers. The cabin itself shall have several grips for the operator to hold on.”</p>



Sr. No.	Bidding Documents Reference and Clause No.	Amendment
14	Part 2, Employer's Requirements, Section VI-B, Technical Specifications, <b>4.3 Design Considerations</b>	<p><b><u>Replace</u></b>            "i) The height of the Shunter (with cabin) shall not be more than 2500 mm above top of rail. The width of the Shunter shall be as less as feasible and, in any case, less than 2800 mm."</p> <p><b><u>With</u></b>            "i) The height of the Shunter (with cabin) shall not be more than <b>2700 mm</b> above rail level. The width of the shunter shall be as less as feasible and in any case, less than 2800 mm."</p>
15	Part 2, Employer's Requirements, Section VI-B, Technical Specifications, <b>4.4 Operative Requirements of the Shunter</b>	<p><b><u>Replace</u></b>            "d) Emergency stop buttons shall be provided in all four corners of the vehicle."</p> <p><b><u>With</u></b>            "d) Emergency stop buttons shall be provided <b>in all four (04) corners or on four (04) sides of the vehicle with ease of access.</b>"</p>
16	Part 2, Employer's Requirements, Section VI-A, General Specifications, Chapter 2, <b>2.10.3 Initial Contract Meeting</b>	<p><b><u>Replace first sentence</u></b>            "This meeting shall take place within seven (14) days of the issue of Letter of Acceptance."</p> <p><b><u>With</u></b>            "This meeting shall take place within <b>fourteen (14) days</b> of the issue of Letter of Acceptance."</p>
17	Part 3, Conditions of Contract and Contract Forms, Section IX, Contract Forms, <b>Appendix 1- Terms and Procedures of Payment- TERMS OF PAYMENT - Schedule No. 2. Plant and Mandatory spare parts to be supplied within the Employer's country</b>	<p><b><u>Replace</u></b>            "2) Ten percent (10%) of the total or pro-rata CIP amount of Schedule 2 on issue of completion certificate as per Clause 24.5 or 24.6, Section VII, Part 3."</p> <p><b><u>With</u></b>            "2) Ten percent (10%) of the total or pro-rata <b>FOR</b> amount of Schedule 2 on issue of completion certificate as per Clause 24.5 or 24.6, Section VII, Part 3."</p>





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18	Part 1, Bidding Procedure, Section II, Bid Data Sheet, ITB 24.1	<p><b><u>Replace</u></b> “The deadline for Bid submission is: <b>Date: 26/02/2019</b> <b>Time: 3:00 PM ”</b></p> <p><b><u>With</u></b> “The deadline for Bid submission is: <b>Date: 26/03/2019</b> <b>Time: 3:00 PM ”</b></p>
19	Part 1, Bidding Procedure, Section II, Bid Data Sheet, ITB 27.1	<p><b><u>Replace</u></b> “The Technical Bid opening shall take place at: <b>Date: 26/02/2019</b> <b>Time: 4:00PM ”</b></p> <p><b><u>With</u></b> “The Technical Bid opening shall take place at: <b>Date: 26/03/2019</b> <b>Time: 4:00PM ”</b></p>

Place: Mumbai,  
Date: 12<sup>th</sup> February 2019

Sd/-  
(Smt. Ashwini Bhide, IAS)  
Managing Director, MMRC

