



MUMBAI METRO RAIL CORPORATION LIMITED (MMRC)
(Joint Venture of Govt. of India and Govt. of Maharashtra)
 MMRCL Line 3 Transit Office, Wing 'A', 'E' Block, Bandra Kurla Complex,
 Bandra (East), Mumbai 400051, India.

Invitation for Bids for “Manufacture, Supply, Installation, Testing & Commissioning of Material Handling Equipment” for Project Mumbai Metro Line-3

Date: [08th May 2023]

Loan Agreement Number: [ID-P 268]

IFB Number: [MM3-CBS-DEQ-9-06A]

Addendum No. 1

Sr. No.	Bidding Documents Reference and Clause No.	Amendment
1	Part 2 - Employer's Requirements Section VI B-Technical Specifications, Clause no.3.1.5	<p><u>Replace</u> Hydraulic part: The supply shall comprise (minimum) of:</p> <ul style="list-style-type: none"> • A motor pump unit with oil tank and filter. • A lifting cylinder with a system maintaining a constant lowering speed. • A mast angle tilt cylinder. • The hydraulic cylinder shall be chrome plated for corrosion protection and fitted with a scraper joint to prevent any dust getting in. <p><u>With</u> Hydraulic part: The supply shall comprise (minimum) of:</p> <ul style="list-style-type: none"> • A motor pump unit with oil tank and filter. • A lifting cylinder with a system maintaining a constant lowering speed. • The hydraulic cylinder shall be suitably designed to prevent any dust getting in.



2	Part 2 - Employer's Requirements Section VI B-Technical Specifications, Clause no.3.2.3 (a)	<p><u>Replace</u></p> <ul style="list-style-type: none"> • Diesel Engine: The forklift truck shall be provided with diesel engine conforming to Bharat Stage VI/ Euro VI/ Equivalent emission norms. Engine shall be provided with air cleaner, fuel filter, lubricating oil filter and fuel filter cap. <p><u>With</u></p> <ul style="list-style-type: none"> • Diesel Engine: The forklift truck shall be provided with diesel engine conforming to Bharat Stage IV or equivalent or better emission norms. Engine shall be provided with air cleaner, fuel filter, lubricating oil filter and fuel filter cap.
3	Part 2 - Employer's Requirements Section VI B-Technical Specifications, Clause no.3.2.4	<p><u>Replace</u></p> <ul style="list-style-type: none"> • The hydraulic cylinder shall be chrome plated for corrosion protection and fitted with a scraper joint to prevent any dust getting in. <p><u>With</u></p> <ul style="list-style-type: none"> • The hydraulic cylinder shall be suitably designed to prevent any dust getting in.
4	Part 2 - Employer's Requirements Section VI B-Technical Specifications, Clause no.3.2.5(b)	<p><u>Replace</u></p> <ul style="list-style-type: none"> • Gauges for reading engine hours, engine oil pressure, engine coolant temperature, battery charging rate, speedometer and fuel level indicator shall be provided on dashboard. <p><u>With</u></p> <ul style="list-style-type: none"> • Gauges for reading engine hours, engine coolant temperature, and fuel level indicator shall be provided on dashboard.
5	Part 2 - Employer's Requirements Section VI B-Technical Specifications, Clause no.3.2.6 (a)	<p><u>Replace</u></p> <ul style="list-style-type: none"> • a roll bar to protect the driver in case of an accident, <p><u>With</u></p> <ul style="list-style-type: none"> • suitable arrangements as per IS Standard to protect the driver in case of an accident.



6	Part 2 - Employer's Requirements Section VI B-Technical Specifications, Clause no.3.3.8	<p><u>Replace</u> Hydraulic part: The supply shall comprise (minimum) of:</p> <ul style="list-style-type: none"> • The hydraulic cylinder shall be chrome plated for corrosion protection and fitted with a scraper joint to prevent any dust getting in. <p><u>With</u> Hydraulic part: The supply shall comprise (minimum) of:</p> <ul style="list-style-type: none"> • The hydraulic cylinder shall be suitably designed to prevent any dust getting in.
7	Part 2 - Employer's Requirements Section VI B-Technical Specifications, Clause no.3.3.9	<p><u>Replace</u></p> <ul style="list-style-type: none"> • Stop tilt forward movement when truck is off. <p><u>With</u></p> <ul style="list-style-type: none"> • It shall be possible to unload the material when truck shuts down while movement.
8	Part 2 - Employer's Requirements Section VI B-Technical Specifications, Clause no.3.4.8	<p><u>Replace</u> Hydraulic part: The supply shall comprise (minimum) of:</p> <ul style="list-style-type: none"> • A mast angle tilt cylinder. • The hydraulic cylinder shall be chrome plated for corrosion protection and fitted with a scraper joint to prevent any dust getting in. <p><u>With</u> Hydraulic part: The supply shall comprise (minimum) of:</p> <ul style="list-style-type: none"> • A mast angle tilt cylinder - Deleted. • The hydraulic cylinder shall be suitably designed to prevent any dust getting in.



9	Part 2 - Employer's Requirements Section VI B-Technical Specifications, Clause no.3.4.9	<p><u>Replace</u> Safety features and Protection equipped with Articulated Forklift:</p> <ul style="list-style-type: none"> • Speed reduction at turns – Reduced speed while turning. • Anti-rollback system - Ramp hold • Equipped with Hose burst valve • Stop tilt forward movement when truck is off • Driver's overhead guard for driver's safety. • Provision to prevent operation when the driver is not seated. • Device to prevent any movement when the parking brake is on. <p><u>With</u> Safety features and Protection equipped with Articulated Forklift:</p> <ul style="list-style-type: none"> • The forklift shall remain stable while driving on turns. • The forklift shall not roll back on Ramp. • Equipped with Hose burst valve. • It shall be possible to unload the material when truck shuts down while movement. • Driver's overhead guard for driver's safety. • Provision to prevent operation when the driver is not seated. • Device to prevent any movement when the parking brake is on.
10	Part 2 - Employer's Requirements Section VI B-Technical Specifications, Clause no.3.5.3	<p><u>Replace</u> Main features: The equipment shall:</p> <ul style="list-style-type: none"> • Be provided with dead man handle type brakes. <p><u>With</u> Main features: The equipment shall:</p> <ul style="list-style-type: none"> • Be provided with dead man handle type brakes- Deleted.
11	Part 2 - Employer's Requirements Section VI B-Technical Specifications, Clause no.3.5.5	<u>Delete Clause 3.5.5</u>
12	Part 2 - Employer's Requirements Section VI B-Technical Specifications, Clause no.3.6.5	<u>Delete Clause 3.6.5</u>



13	Part 2 - Employer's Requirements Section VI B-Technical Specifications, Clause no.3.7.2 (b)	<p><u>Replace</u> Power and Control System:</p> <table border="1" data-bbox="667 240 1850 320"> <tr> <td>Raise time</td> <td>10 to 20 seconds</td> </tr> <tr> <td>lower time</td> <td>10 to 20 seconds</td> </tr> </table> <p><u>With</u> Power and Control System:</p> <table border="1" data-bbox="667 384 1850 464"> <tr> <td>Raise time</td> <td>10 to 40 seconds</td> </tr> <tr> <td>lower time</td> <td>10 to 40 seconds</td> </tr> </table>	Raise time	10 to 20 seconds	lower time	10 to 20 seconds	Raise time	10 to 40 seconds	lower time	10 to 40 seconds
Raise time	10 to 20 seconds									
lower time	10 to 20 seconds									
Raise time	10 to 40 seconds									
lower time	10 to 40 seconds									
14	Part 2 - Employer's Requirements Section VI B-Technical Specifications, Clause no.3.7.2(d)	<p><u>Replace</u> Traction parameters</p> <table border="1" data-bbox="703 549 1568 587"> <tr> <td>Turning radius – outside</td> <td>Max. 1600 mm</td> </tr> </table> <p><u>With</u> Traction parameters</p> <table border="1" data-bbox="703 651 1568 689"> <tr> <td>Turning radius – outside</td> <td>Max. 2200 mm</td> </tr> </table>	Turning radius – outside	Max. 1600 mm	Turning radius – outside	Max. 2200 mm				
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Turning radius – outside	Max. 2200 mm									



15	Part 2 - Employer's Requirements Section VI B-Technical Specifications, Clause no.3.7.10	<p><u>Replace</u> Hydraulic part: The supply shall comprise (minimum) of:</p> <ul style="list-style-type: none"> • A motor pump unit with oil tank and filter. • A lifting cylinder with a system maintaining a constant lowering speed. • A mast angle tilt cylinder. • The hydraulic cylinder shall be chrome plated for corrosion protection and fitted with a scraper joint to prevent any dust getting in. <p><u>With</u> Hydraulic part: The supply shall comprise (minimum) of:</p> <ul style="list-style-type: none"> • A motor pump unit with oil tank and filter. • A lifting cylinder with a system maintaining a constant lowering speed. • The hydraulic cylinder shall be suitably designed to prevent any dust getting in.
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Sd/-
(Shri Rajeev)
Exec Director (RS & O), MMRC

