(Jointly owned company of Government of India and Government of Maharashtra)

<u>Clarification – 2</u>

<u>Tender No. N2-57/RS-01/2025</u>, Dated 07.03.2025

#### Name of Work:

Design, Manufacture, Supply, Testing, Commissioning of Passenger Rolling Stock (16 Nos of Train Sets) and Training of Personnel with Comprehensive Annual Maintenance contract (15 year) for Nagpur Metro Rail Project Phase-II.

Sr. No.	Clause No	Bid Condition	Bidder's Queries	Response/Remarks
1,	Part 1, Volume 1 / Annexure IV A. Pricing Document / Corrigendum 2, Cost Centre No. I	COST CENTRE NO. I: Comprehensive Annual Maintenance Contract    Cost of Cost of Cost of Cost of CAMC	For the sake of clarity and commonality among the bidders, it is requested for Maha Metro to insert one more column and include the NPV factors for each year from 1st to 15 years in the adjacent table.  Ex. First year - 0.909, 2nd year - 0.826, 3rd year - 0.751 and so on.	Tender Condition Prevails
2.	Part 1, Volume 1 / Annexure IV A. Pricing Document / Corrigendum 2 , Cost Centre No. I	Notes:  2. Contractor shall load i. Not more than 20% of the cost centre I cost in 1st to 5th year, price shall be distributed in equal proportion ii. Not More than 45% of the cost centre I cost in 5th to 10th year, price shall be distributed in equal proportion iii. Balance 35% in last 5 year 11th to 15th year, price shall be distributed in equal proportion.	As per initial assessment, the percentage from 11th year to 15th year may be higher.  Even though, the clause mentions "Not more than 20%" (1st to 5th year), "Not more than 45%" (presumably 6th year to 10th year), the same clarity is missing for 11th to 15th year.  The following amendment is requested:  2. Contractor shall load i. Not more than 20% of the cost centre I cost in 1st to 5th year, price shall be distributed in equal proportion.	Refer Corrigendum 4/ Sr no-1

(Jointly owned company of Government of India and Government of Maharashtra)

<u>Clarification – 2</u>

Sr. No.	Clause No	Bid Condition	Bidder's Queries	Response/Remarks
			ii. Not More than 45% of the cost centre I cost in 56th to 10th year, price shall be distributed in equal proportion iii. Balance (not less than 35%) in last 5 year 11th to 15th year, price shall be distributed in equal proportion.	
3.	Part 1, Volume 1 / Annexure IV A. Pricing Document / Corrigendum 2 , Cost Centre No. I	The list of minimum UES/Emergency spares that will be stocked by the contractor during CAMC for commissioning and CAMC obligations and shall be furnished separately under 'Annexure CAMC' (Not a part of Cost Centre 'I' and shall not be used for tender evaluation)	"The list of minimum UES/Emergency spares that will be stocked by the contractor during CAMC for commissioning and CAMC obligations and shall be furnished	Deleted in the corrigendum 2

(Jointly owned company of Government of India and Government of Maharashtra)

<u>Clarification – 2</u>

Sr. No.	Clause No	Bid Condition	Bidder's Queries	Response/Remarks
4.	Part 1, Volume 1 / Annexure IV A. Pricing Document / Corrigendum 2 , Cost Centre No. I	4. Total admissible price variation amount shall be subject to a ceiling of (+/-) 10% (Ten Percentage) of the total CAMC cost.	It is seen, even though ceiling for Price variation is removed for metro car, it is stipulated as 10% for CAMC.  In this connection, the following is submitted:  (1) The Price variation formula is basically to make inflation adjustments to the contract sum and compensate the contractor of difference costs.  (2) Since the period of CAMC is 15 years which is long duration, it is most likely that the 10% ceiling is not sufficient and as such the Contractor shall be impacted by the inflation and rising costs of labour and material  (3) So far all metro CAMC contracts from Delhi metro, Bangalore metro, MPMRCL, Chennai metro etc. does not stipulate any ceiling to CAMC price variation formula.  In view of the above, we request Maha Metro to remove ceiling for Price variation of CAMC contract.	Refer Corrigendum-2/Sr no76 & Corrigendum-4/ Sr no 2

(Jointly owned company of Government of India and Government of Maharashtra)

<u>Clarification – 2</u>

Sr. No.	Clause No	Bid Condition	Bidder's Queries	Response/Remarks
5.	Part 3, Part-3 Section IX: Particular Conditions of Contract (PCC), S. No. 38, Sub- Clause 142 S NO 47 Sub-Clause 142, Advance Payment	The Employer shall make an advance payment, as an interest bearing loan for mobilization and cash flow support, when the Contractor submits a guarantee in accordance with this Sub-Clause. The total advance payment, the number and timing of instalments (if more than one), and the applicable currencies, proportions and amortization procedure are detailed in PCC s.no 47, sub clause 14.2  A) Mobilization Advance: interest bearing Mobilization advance shall be 20% of original contract value payable in two equal instalments of 10% (Ten Percent) each in the currencies and proportions of the Accepted Contract Amount Rate of interest shall be charged at "SBI Bank Rate+2% (Two percent)" simple interest. Interest will be chargeable and calculated on reducing balance method.	You will appreciate that Bidder will incurr cost towards development efforts, interest free supplier advance and manage working capital need. "Pls note that in recent tenders of Rolling Stocks (Mumbai Metro L4-5-6) Govt of Maharashtra I MMRDA have also removed Interest bearing Advance and made Interest free Advance payment as per various bidder's request, to be in line with other Rolling stock metro tenders in India. (eg recent Chennai Metro) We sincerely request you make Mobilization advance as Interest free, to enable us to Participate in this tender"	Tender Condition Prevails

(Jointly owned company of Government of India and Government of Maharashtra)

<u>Clarification – 2</u>

Sr. No.	Clause No	Bid Condition		Bidder's Queries	Response/Remarks
6.	Part 1 , Financial Form,	Form FIN – 3.1: Financial Performance Form FIN – 3.2: Average A Form FIN – 3.3: Financial Form FIN – 3.4: 1. C Commitments / Works 2. Summary of Information Hand Form FIN-3.6 Undertal Bankruptcy / Insolvency/Restructuring Above forms details certified by statutory au	Annual Turnover ncial Resources urrent Contract in Progress on for Works in king regarding Corporate Debt	Bidder request Maha-Metro to ammend requirement of certification for the forms Forms – 3.1, 3.2, 3.3, 3.4 and Form - 3.6 with Statutory Auditor certificate/Charted Accountant.  In all metro tenders, certification by Charted Accountant allowed in the Financial forms including MMRDA etc.	Tender Condition Prevails
7.	Part 3, Table: Summary of Sections (KEY DATES), Page No- 956 Section IX: Particular Conditions of Contract (PCC)	Annexure I: Table: Summ (KEY DATES), mainly on  Key Date  Description of Stage  6.1 Dispatch of prototype train (Milestone B1/C1)  9.1 Prototype Train (including oscillation trials) (Milestone £1)  9.2 2 Train Sets (TS 2&3)  9.3 5 Train Sets (TS 4,5,6,7 & 8)  9.4 5 Train Sets (TS 9,10,11,12 &13)  9.5 3 Train Sets (TS 14,15 &, 16)	-	We kindly request MAHA-METRO to extend the dispatch timeline for the prototype train from 78 weeks to 90 weeks from the commencement date. Additionally, For validation from 94 weeks to 115 weeks and subsequent trainset as per the below table. Based on the various metro projects Four weeks for train validation is Unrealistic, and we will need at least 25 weeks (Approximately 6 Months to complete the validation),	Tender Condition Prevails

(Jointly owned company of Government of India and Government of Maharashtra)

<u>Clarification – 2</u>

Sr. No.	Clause No	Bid Condition	Bidder's Queries	Response/Remarks
			Key Date Description of Stage commence as per Bidd	ment date
			6.1 Dispatch of prototype train (Milestone 81/C1)	
			9.1 Prototype Train (including oscillation trials) (Milestone F1)	
			9.2 2 Train Sets (TS 2&3) 12 9.3 5 Train Sets (TS 4,5,6,7 & 8) 13	
	28		9.4 5 Train Sets ( TS 9,10,11,12 &13 ) 14	7
			9.5 3 Train Sets (TS 14 ,15 &, 16) 16	1
8.	Part 2, PART 2: WORKS REQUIREMENTS SECTION VII-A: EMPLOYER'S REQUIREMENT — GENERAL SPECIFICATION,	Two depots are available for the above corridors; one near Khapari Metro Station to cater to the needs of North-South Corridor and the other near Lokmanya Nagar station to cater to the needs of East-West Corridor & elevated stabling line for light maintenance at three terminal stations. The depots are developed with full / light! heavy repair facilities, stabling and light inspection facilities. Since all the major machinery and plants are commissioned and functional, bidders are advised to design the trains to be compatible with existing M&Ps like Automatic Train Wash Plant, Lifting Pit Jack, Mobile Jack, Battery Operated Shunter, Pit Wheel Lathe,Bogie Turn Table, Multifunctional Platform, RRE etc. The brief details of major M&Ps are	Bidder shall be allowed to the use of Jacks only for entire duration maintenance with minor infrast modifications and upgrades to safety protocols with side access to the or combination of existing pit jack modifications and mobile jacks, as the maybe, if the existing lifting pit jacks compatible with the new design. Please confirm if our underst is correct.	on of ructure ensure ne pits, as with e case are not train

(Jointly owned company of Government of India and Government of Maharashtra) <u>Clarification – 2</u> Tender No. N2-57/RS-01/2025, Dated 07.03.2025

Sr. No.	Clause No	Bid Condition	Bidder's Queries	Response/Remarks
		available at clause no 2.2.9 of ERTS. The bidders are advised to visit the depots & terminal stations to understand the facilities in detail. Mihan depot of North-South Corridor has test track while there is no test track at Hingna depot of Eastwest Corridor		,45
9.	Part 2, Part 2 Works Requirement - Technical Specification, 4.14.3, and 7.2.1 no 497	4.14.3 Each car shall have minimum eight pairs (four per side) of electrically operated, plug type door doors as per Re bid query response 7.2.1 Each car shall have minimum eight pairs (four per side) of plug type doors. The clear door opening width of each door pair shall be minimum 1400 mm and a clear height of at least 1900 mm. The doors shall be electrically driven.	Please note that most of the metros have requested Sliding type doors hence we request you to revert to the originally defined Tender clause which allows both type of Doors.  Based on discussions with MAHA METRO and their concerns regarding potential interference between the sliding door and the platform gap filler installed to maintain the KE, we conducted a detailed analysis. Our study confirms that the sliding door design provides sufficient clearance from the platform KE, even in the deflated condition at a speed of 60 km/h. No infringement with the gap filler was observed. Please refer to the Door SOD Analysis tab for detailed findings. With	Refer Corrigendum 4/ Sr No 3

(Jointly owned company of Government of India and Government of Maharashtra) <u>Clarification – 2</u> <u>Tender No. N2-57/RS-01/2025, Dated 07.03.2025</u>

Sr. No.	Clause No	Bid Condition	Bidder's Queries	Response/Remarks
			this summary we request MAHA metro to ratain the original clause having provision for both Sliding type Door and Plug Type Door	
10.	Part 2, Part 2 Works Requirement - Technical Specification, 7.7 (ii)-Page no 497	Compatibility with Platform Screen Doors 7.7.1 It is intended to provide platform screen doors (PSD) at stations. These doors shall not be of full height and shall have provision to allow free flow of air for platform ventilation. 7.7.2 The train shall be fully compatible for PSDs functionality and shall be complete with any equipment / software, if required to be provided on rolling stock except for those which are necessarily required from PSD contractor. Any other issue shall be resolved during interface coordination meeting with the respective contractor(s) for trouble free commissioning and operation of the PSD(s).	Bidder Understanding, is at present there is no Platform screen door exist and in future if there shall be any need, PSD supplier shall be requested to match the interfaces of the rolling stock design and dimensions. Please confirm if our understanding is correct	Tender Condition Prevails

(Jointly owned company of Government of India and Government of Maharashtra) <u>Clarification – 2</u> Tender No. N2-57/RS-01/2025, Dated 07 03 2025

Sr. No.	Clause No	Bid Condition	Bidder's Queries	Response/Remarks
11,	Part 2, Part 2 Works Requirement - Technical Specification, 13.9.1	The Passenger Saloon Surveillance System (PSSS) shall comprise of a close circuit television (CCTV) network using surveillance cameras, routers and cables, monitors and other accessories. The fully expanded system shall be designed for minimum 25fps. The minimum angle of view shall not be less than 80° (horizontal) & 50° (vertical). The picture quality will be level E as minimum at 100% FRotakin	As these additional requirements are not requested in any of the India Tenders and the solution is not proven yet, hence request you to modify the clause as below with the deletion of highlighted requirements  Bidder request to retain clause before addendum as below	Tender Condition Prevails
		measured according to EN50132-7, BS EN 62676-4 standard (latest). Suitable provision of video analytics for cameras in saloon, cab and outside for platform view like Crowd Management (like Quarrel, Passenger Eating etc), Camera tempering detection, image recognition, passenger counting during emergency evacuation (front end evacuation), alarm to detect suspicious object along with	The Passenger Saloon Surveillance System (PSSS) shall comprise of a close circuit television (CCTV) network using surveillance cameras, routers and cables, monitors and other accessories. The fully expanded system shall be designed for minimum 25fps. The minimum angle of view shall not be less than 80° (horizontal) & 50° (vertical). The picture quality will be level E as minimum at 100% FRotakin	
		recording, Empty Train Detection, Seat occupancy in percentage, Clear door detection, Weapon detection (Gun & Knife) etc., shall be provided, the	measured according to EN50132-7, BS EN 62676-4 standard (latest). Suitable provision of video analytics for cameras in saloon, cab and outside for platform view like Growd Management (like Quarrel, Passenger Eating etc), Camera tempering	RO RAIL CORROS

(Jointly owned company of Government of India and Government of Maharashtra)

<u>Clarification – 2</u>

Sr. No.	Clause No	Bid Condition	Bidder's Queries	Response/Remarks
		complete details shall be finalized during design stage.	detection, image recognition, passenger counting during emergency evacuation (front end evacuation), alarm to detect suspicious object along with recording, Empty Train Detection, Seat occupancy in percentage, Clear door detection, Weapon detection (Gun & Knife) etc., shall be provided, the complete details shall be finalized during design stage.	4:
12	Part 2, PART 2: WORKS REQUIREMENTS SECTION VII-A: EMPLOYER'S REQUIREMENT – GENERAL SPECIFICATION, 1.1.3, Page no 322	This Specification is for Rolling Stock for Phase II of Nagpur Metro Rail Project (NMRP). The phase I of the NMRP has already been commissioned and operational. The phase II of Nagpur Metro Project is basically extension of both lines at each ends. Therefore, the trains are required to be able to run in the whole section of phase 1 and phase 2. The bidders shall note that the design parameters of trains for Phase II shall be compatible with existing trains Systems of phase 1, for example coupler, bogie base, lifting positions, PA PIS, Signalling Interface Parameters, braking	This Specification is for Rolling Stock for Phase II of Nagpur Metro Rail Project (NMRP). The phase I of the NMRP has already been commissioned and operational. The phase II of Nagpur Metro Project is basically extension of both lines at each ends. Therefore, the trains are required to be able to run in the whole section of phase 1 and phase 2. The bidders shall note that the design parameters of trains for Phase II shall be compatible with existing Installed Systems of phase 1, for example coupler, bogie base, lifting positions, PA PIS, Signalling Interface Parameters, braking characteristics etc. The detail discussion	Refer Corrigendum 4/ Sr no-4

(Jointly owned company of Government of India and Government of Maharashtra)

Clarification – 2

Sr. No.	Clause No	Bid Condition	Bidder's Queries	Response/Remarks
		characteristics etc. The detail discussion shall be held during design stage.	shall be held during design stage.  Bidder request for above changes as the future requirements can be adapted to the trains delivered/systems installed or available at that point of time	
13.	Part 2, ERGS 1.2.3, Table 1-4: Mandatory Items for Indigenization Details as per Annexue I	Table 1-4: Mandatory Items for Indigenization Details as per Annexue I	Table 1-4: Mandatory Items for Indigenization to be limited as per MoUHA recommendation  As per the current availability of Supplier base in India we request change in Table 1-4 to exclude below items, as per Annexure I, from mandatory Indegenization and the rest of the item can be categorized as recommended Indigenization. Bidder shall propose the Indigenation as inline MoUHA Guidance as per the "Indigenization annexure 1"	Refer Corrigendum 4/ Sr no-22
14.	Part 1, Part-1 Annexure IV A Pricing Document, A.5	Price Adjustment for Coaches with Stainless Steel Car-body. $P_1 = P_0 \cdot \left[ 0.7 + 0.1 \cdot \frac{S_1}{S_0} + 0.05 \cdot \frac{C_1}{C_0} + 0.03 \cdot \frac{IA_1}{IA_0} + 0.12 \cdot \frac{L_1}{L_0} \right] - P_0$	The Referred Price Variation clause is not representative of the overall cost structure of the bid. Also as you would be well aware about the fluctuation dynamics in the commodity prices & indices, it would be	Tender Condition Prevails

(Jointly owned company of Government of India and Government of Maharashtra)

<u>Clarification – 2</u>

Sr. No.	Clause No	Bid Condition	Bidder's Queries	Response/Remarks
	Price Variation		hard for the bidder to predict the trend	
	Page 188		during the course of the contract. Thereby	
			request you to slightly modify the clause as	
			below similar to recent Mumbai Line 4, Line	
			5 and Line 6 Rolling Stock Tenders.	
			$P1 = PO x \{a + b x (S1/S0) + c x (C1/CO) + c x (C1/CO) \}$	
			$d \times (F1/F0) + f \times (L1/L0) + g \times (J1/J0)$ -PO	
			(Actual values of a, b, c, d, f, g & h and	
			abbreviation used in price variation formula	
			are as below).	
			P1: Price Adjustment (increase/ decrease)	
			amount payable or deductible in respective	
			currencies from the contract against	
			respective milestones number	
			P0: "PO" is the certified payment against	
			the respective Milestone during the period	
			under consideration.	12
			(a): Fixed element weightage representing	
12			profit & overhead in contract price a = 0.15.	
			(b): Estimated weightage of stainless-steel	
			components, b = $0.12$	
			(c): Estimated weightage of Electrical	
			Machines (Motors, Transformer etc. c	
		==	=0.20	
			(d): Estimated weightage of Manufacturer	
			of Fabricated Metal products, d=0.06	RO RAIL COA

(Jointly owned company of Government of India and Government of Maharashtra)

<u>Clarification – 2</u>

Sr. No.	Clause No	Bid Condition	Bidder's Queries	Response/Remarks
			(f): Estimated weightage of a Consumer price index for industrial worker, f=0.27 (g): Estimated weightage of Wholesale price index h = 0.2 SO, S1: Wholesale price index for Manufacture of Basic metal (Stainless Steel) on the base date and date for adjustment respectively CO, C1: Wholesale price index for Manufacture of Electrical equipment/Machines on the base date and date for adjustment respectively. FO, FI: Wholesale price index for Manufacture of Fabricated Metal products on the base date and date for adjustment respectively. LO, L1: Consumer price index for industrial worker on the base date and date for adjustment respectively. JO, J1 Wholesale price index on the base date and date for adjustment respectively.	
15.	Part 2, Part 2 Works Requirement - Technical	4.13.3: The front-end central emergency door shall be provided	Concern: To utilize cab with 2.9m wide car body, 750mm(clear width) central detrainment door not proper use of space and restriction to driver visibility too else	Tender Condition Prevails

(Jointly owned company of Government of India and Government of Maharashtra)

<u>Clarification – 2</u>

Sr. No.	Clause No	Bid Condition	Bidder's Queries	Response/Remarks
	Specification, 4.13.3, 7.3.1	7.3.1' The clear width (minimum <b>750mm)</b> of the door way and ramp when operated shall be with a headroom nor less than 1900mm.	request to reduce clear width to 650mm with central position.:  Clarification required: Bidder request to modify the clause accordingly in respective clauses 7 3 1  "The clear width (minimum 650mm) of the door way and ramp when operated shall be with a headroom not less than 1900mm"	
16.	Part 2, Part 2 Works Requirement - General Specification, 16.1.6	Designated Depot(s) refers to (i) Mihan & Hingna, which is the principal site for all heavy maintenance AND (ii) further Satellite Depot(s) at terminal station (mostly for inspection, Preventive Maintenance, cleaning activities and Corrective Maintenance as per requirements).	Given the small size of fleet (16 Trainsets), carrying out the maintenance activities at multiple depots will have a high cost impact to Maha Metro as there will costs related to inventory keep up, personnel deployment, upkeep of facilities etc. Bidder suggests to limit the cleaning and maintenance activities (including but not limited to preventive, corrective, overhauls) for the fleet in one principal depot only with all the maintenance facilities and other depots to be utilized for inspection activities only on as required basis without any mandatory deployment of dedicated staff for maintenance.	Tender Condition Prevails

(Jointly owned company of Government of India and Government of Maharashtra)

<u>Clarification – 2</u>

Sr. No.	Clause No	Bid Condition	Bidder's Queries	Response/Remarks
17.	Part 2, Part 2 Works Requirement - General Specification, 16.6.14/ 16.5.15	Cleaning Activities	In continuation to above, bidder requests to limit the cleaning activities for the fleet to be performed in one principal depot only for optimized planning and execution.  Further we would request if a principal contractor is already engaged for cleaning activities, the same contractor can extend the services for the new fleet as well, hence avoiding redundancy of resources.	
18.	Part 2, Part 2 Works Requirement - General Specification, 16.1.7	The Contractor to deploy their maintenance operations at further Satellite Depot facilities. The Contractor shall comply with the deployment request without any cost implications to MAHA METRO.	Given the small size of fleet (16 Trainsets), carrying out the maintenance activities at multiple depots will have a high cost impact to Maha Metro as there will costs related to inventory keep up, personnel deployment, upkeep of facilities etc. Bidder suggests to limit the cleaning and maintenance activities (including but not limited to preventive, corrective, overhauls) for the fleet in one principal depot only with all the maintenance facilities and other depots to be utilized for inspection activities only on as required basis without any	

(Jointly owned company of Government of India and Government of Maharashtra) <u>Clarification – 2</u> <u>Tender No. N2-57/RS-01/2025, Dated 07.03.2025</u>

Sr. No.	Clause No	Bid Condition	Bidder's Queries	Response/Remarks
			mandatory deployment of dedicated staff for maintenance.	
19.	Part 2, Part 2 Works Requirement - General Specification, 16.14	PERSONNEL	Bidder requests Maha Metro to dilute the qualifications requirement to Electrical/Mechanical Diploma and Total Work Experience duration to 3-5 years for all staff. Further, given the size of fleet please modify minimum headcount requirements for maintenance manager and maintenance engineer to one (1) and five (5) respectively for full fleet, instead of each depot.	Tender Condition Prevails
20.	Part 2, Part 2 Works Requirement - General Specification, pg 382, 16.8.2	The PREB team shall consist of at least 10 fully trained staff per shift who shall be strategically located throughout the network, so as to always ensure that incidents will be attended by PREB staff within 30mins of receiving a request to attend an incident.	Please clarify:  1. Given such incidents shall be a rare occurrence, deployment of 10 personnel per shift shall not be cost efficient, hence the requirement may be modified to 5 personnel per day.  2. If the maintenance staff deployed at depot can double hat requirements of PREB team as they shall be adequately equipped and trained to support any emergencies, so the resources shall be be	Refer Corrigendum 4/ Sr no 5

(Jointly owned company of Government of India and Government of Maharashtra)

<u>Clarification – 2</u>

Tender No. N2-57/RS-01/2025, Dated 07.03.2025

Sr. No.	Clause No	Bid Condition	Bidder's Queries	Response/Remarks
	4.		optimally utilized. Bidder request MAHA METRO to kindly confirm.  3. The deployment location of the PREB team can be done at the depot premises, from where they can launch any response to the incident within 30 mins.	

The other conditions shall remain same. Further modifications/amendments (if any) regarding aforesaid tender will be uploaded as and when required.

Executive Director (Procurement)
Maha Metro

