## NAGPUR METRO RAIL CORPORATION LIMITED

**NAME OF WORK:** "Design, manufacture, supply, installation, testing, commissioning of machinery and plant for 02 (two) numbers of rolling stock depots at Mihan and Hingna of Nagpur metro rail project and training of personnel".

Tender No:ICB N1M&P-1/2016

## Corrigendum-II

Date:16/12/2016

Tender No. (as uploaded in the new e-tender portal) 68

please find attached corrigendum II (A-E), details of corrigendum is as given below.

SN.	Description	Corrigendum No.
1	Reply of Pre-bid queries	II-A
2	Corrigendum/Addendum	II-B
3	Revised document of Part-2	II-C
4	Depot drawings	II-D
5	Revised Cost center	II-E

Ward /

General Manager (Procurement) NMRCL,Nagpur

## Corrigendum II-A

Pre-bid Queries and Reply

Tender Notice No. N1M&P-1/2016. (ICB), Dt.01.10.2016

Date of Pre-Bid Meeting:- 4th November 2016

## Name of work: DESIGN, MANUFACTURE, SUPPLY, INSTALLATION, TESTING, COMMISSIONING OF MACHINERY AND PLANT FOR 02 (TWO) NUMBERS OF ROLLING STOCK DEPOTS AT MIHAN AND HINGNA OF NAGPUR METRO RAIL PROJECT AND TRAINING OF PERSONNEL.

SN.	Part No.	section No.	Clause no.	Bid Condition	Bidder's Queries	Response from NMRCL
1	2	VII-A	Chapter-4,4.2	PROGRESS MONITORING	This requirement may be deleted from this contract as it is impractical and uneconomical to arrange this kind of set up for M&P project. It will only increase the project costing.	
2	2	VII-A	Chapter-6		This requirement may be deleted from this contract as it is impractical and uneconomical to arrange this kind of set up for M&P project. It will only increase the project costing.	
3	2	VII-A	clause 1.1.3(8)		Vehicle with Train Shunting Capability (4 Wheeler-1 No). ii) Instrumented Catenary Maintenance Vehicle with Train Shunting Capability (8 Wheeler-1 No). For Instrumentation – Integrated System or Separate Systems, both options may be permitted.	Catenary Maintenance Vehicle with Train Shunting Capability (4 Wheeler-1 No) and Instrumented Catenary Maintenance

SN.	Part No.	section No.	Clause no.	Bid Condition	Bidder's Queries	Response from NMRCL
4	2	VII-B		profile of worn wheels and CNC control		В
5	2	VII-B	3.16.7(i)	keyboard,an RS 232 connector output and a laser printer shall also be provided. The	This may be amended to: Connectors for the addition of a data input keyboard, a <u>suitable connector</u> output and a laser printer shall also be provided. The software shall be designed to enable these hardware.	corrigendum-IIB:
6	2	VII-B	clause -6.3.5	operations on the bogies have been performed (from 1 to 4 wheels), the pre- and		IIB
7	2	VII-B		this measurement the output of which	For NMRCL Rolling Stock, it is 1358 +2/-0 mm both. Laser sensors shall be used for this measurement, the output of which shall be fed to the recording system automatically.	

SN.	Part No.	section No.	Clause no.	Bid Condition	Bidder's Queries	Response from NMRCL
8	2	VII-B	clause-6.6.8	The tenderer shall explain the requirement of the calibration of the system for various measurements. Any tools required for calibrations shall be included in the tender offer. Bogie Test Stand should be able to calibrate itself at regular intervals. The bogie test stand shall be capable to calibrate on all the required axes, load cells, measuring software etc. If any special test piece is required for this purpose, it shall be under the scope of supply of the contractor. Bogie Test Stand must calibrate followings:- 1) Calibration of the load cells Calibration of Air Suspension	Bogie Test Stand should be able to calibrate itself at regular intervals. The Bogie Test Stand shall be capable to calibrate Distance Measurements on all the required axes, load cells, measuring software etc. If any special test piece is required for this purpose, it shall be under the scope of supply of the contractor. Bogie Test Stand must calibrate followings:- 1) Calibration of the load cells	IIΒ
9	2	VII-A	chapter-1		Item No. 7, Rescue Vehicle with Re-Railing Equipment – the total Qty. mentioned in the Table 1.1 is 2 Nos., however in the Cost Centre A of Bid. Doc. Part 1, Page 196, it is mentioned as 1 No. Kindly clarify the exact quantity.	Rescue Vehicle with Re- Railing Equipment is 1

SN.	Part No.	section No.	Clause no.	Bid Condition	Bidder's Queries	Response from NMRCL
10	1		Annexure-IV-B, pricing document,Annexu re-II, Milestone payment schedule	Price REF: (Cost Center A, B & C) and for Civil Works (Cost Center D), against Advance Payment Bank Guarantee	The Advance Payment amortization is complicated and may be deleted. Since Advance Payment of against 110% Advance Payment Bank Guarantee, it is not necessary to deduct the Advance Payment from the running bills. In simple terms, Receiving total of 80% Supply Payment (20% Adv. + 60% against FOB Shipment) and Balance 20% on Commissioning is standard and desirable.	IIΒ

SN.	Part No.	section No.	Clause no.	Bid Condition	Bidder's Queries	Response from NMRCL
11	1		Annexure IIIA-Pre- Qualification Documents, Assesment topiss,T4	The minimum requirements to 'Pass' this criteria is that the Average Annual Turn Over for the last five financial years for M&P manufacture only (in terms of rupee equivalent adjusted to last date of the financial year that ended on or before 31.05.2016. by assuming 5% escalation for Indian Rupee and 2% for foreign currency per year) shall not be less than INR 2000 million. The financial year as applicable in the country of origin of the bidders would be considered. The 'last financial year' will be the latest financial year that ended on or before 31.05.2016. In case of a Joint Venture/Consortium, the above evaluation will be done in totality after applying pro-rata percentage participation of each member and not as individual member. For example, if there are three members in a Joint Venture/Consortium with pro-rata percentage participation of 'A%', 'B%' and 'C%' and the Average Annual Turnover of the respective members are 'X', 'Y' and 'Z', then the evaluation for the above criteria will be based on the pro-rata percentage applied algebraic aggregate i.e. 'AX+BY+CZ'.	It is difficult to have an average Annual Turn Over of INR 2000 Million in individual capacity. We do not want to enter into a JV just because of compliance requirement to this clause. Hence we request you to kindly change this requirement to INR 1000 Million.	
12	3	IX	Particular condition of contract Clause no- 39	as under: The recovery of the above Advance Payment shall be done in respective currencies and shall commence when 30% of the original contract value of the work has been paid in respective currencies and shall be recovered by deduction of 25% of the	The Advance Payment amortization is complicated and may be deleted. Since Advance Payment of against 110% Advance Payment Bank Guarantee, it is not necessary to deduct the Advance Payment from the running bills. In simple terms, Receiving total of 80% Supply Payment (20% Adv. + 60% against FOB Shipment) and Balance 20% on Commissioning is standard and desirable.	Kindly refer SN 10 above.

SN.	Part No.	section No.	Clause no.	Bid Condition	Bidder's Queries	Response from NMRCL
13	2	VII-B	Chapter -8 Specific requirements of rescue equipments		With regards to the vehicle, we would like to offer UNIMOG U 423 with following engine specifications data: • Mercedes-Benz-4 cylinder diesel engine OM 934 LA • Power 170 kW (231 hp); 2200 rpm • Displacement 5132 cm3 • Torque max. 900 Nm • Graduation to euro 5 • NOx sensors • According to TRGS 554 The same may be permitted as no Specific Vehicle Data has been mentioned in the Technical Specifications.	IIΒ
14	2	VII-B	9.5.1	The proposed power of the engine will be a minimum of 325 kW. This proposed power	We suggest using 220 KW engine mounted onto the 4 wheeler Caternary Maintenance Vehicle. This will comply to all the technical requirements. Hence the same may be permitted.	IIВ
15	2	VII-B	10.1.1	Shunting Vehicle shall be designed to		liΒ

SN.	Part No.	section No.	Clause no.	Bid Condition	Bidder's Queries	Response from NMRCL
16	1	I	Clause 14.2		With Reference to our letter No.	Tender Conditions prevail.
					PIA/NMRCL/16-17 dated 20.10.2016	
					submitted through e mail on 20.10.2016 (copy	
					attached), we propose your arranging	
					modifications to the relevant tender clauses in	
					line with our below proposal:	
					In place of the tendered requirement for	
					submission of bid for the whole of works in	
					one lot, we propose that the whole works to	
					be divided in following groups:	
					Group A:-	
					1) Automatic Train Wash Plant	
					2) Rescue Vehicle with Re-railing & allied	
					equipment	
					3) Battery Operated road cum rail Shunter	
					<ol> <li>Multi functional Platform</li> </ol>	
					Group B:-	
					1) CNC Under Floor Wheel Lathe with	
					Shunting system	
					2) Underfloor Train Lifting system	
					3) Mobile Lifting Jacks	
					4) Bogie test bench	
					5) Bogie turn table	
					Group C:-	
					1) Catenary Maintenance Vehicle - 8 wheeler	
					plus 4 wheeler. We propose your	
					incorporating the following commercial	
					clauses suitably:	
					2) It should be possible to participate only in 1	
					group, 2 groups or all the groups together.	
					The groups have been suggested based on	
					application synergy. Bid evaluation should be	
					done group wise (ref Clause 35 & 36).	

SN.	Part No.	section No.	Clause no.	Bid Condition	Bidder's Queries	Response from NMRCL
					<ol> <li>3) Order to be placed on the lead bidder of each group.</li> <li>4) Dispatches will be made directly by the individual manufacturer/supplier and the payment should also be made accordingly.</li> <li>5) EMD for each group is to be specified by the purchaser. EMD will be arranged by the lead bidder or the Indian agent.</li> <li>6) NMRCL to confirm whether the Indian agent of the respective OEMs can be the lead bidder.</li> <li>7) There should be at least two months time from the pre bid meeting to submit offer.</li> <li>8) It should be possible to quote for the civil engg work of each item separately by the Indian agent who should be allowed to engage sub contractor for the same.</li> </ol>	
17	1	I	Clause 35		Evaluation of bids as per tendered	Tender Conditions prevail.
18	1	Ι	Clause 36	comparision of bids: The Employer shall compare the evaluated prices of all substantially responsive bids established in accordance with ITB 35.2 to determine the lowest evaluated bid.		Tender Conditions prevail.

SN.	Part No.	section No.	Clause no.	Bid Condition	Bidder's Queries	Response from NMRCL
19	1	II			Lead member will be group-wise & bid authorization of group-wise JV members will	Tender Conditions prevail.
20	1	II	BDS ITB 4.9	consortium, is required to submit along with	The Power of Attorney will be given by each member of the respective group authorizing an individual as authorized signatory. Clause to be modified suitably.	prevail.

SN.	Part No.	section No.	Clause no.	Bid Condition	Bidder's Queries	Response from NMRCL
21		Ι				
22	2	VII-B	Code: NMRCLMNP005)	The Bogie test stand measures the parameters of Bogie like compression of primary springs, crown height measurement etc. under different loading conditions.		This is a height measured on the primary suspension from the top of the Axle Box to the Bottom of the Bogie Frame / Sole Bar.

SN.	Part No.	section No.	Clause no.	Bid Condition	Bidder's Queries	Response from NMRCL
23	2		Code: NMRCLMNP005) Clause :6.3	The bogie has to be moved and positioned		II B
				Stand:		

SN.	Part No.	section No.	Clause no.	Bid Condition	Bidder's Queries	Response from NMRCL
24	2	VII-B	Code:	On start of the bogie test stand machine, a preload test shall be carried out before any measurement is done. Supply and commissioning of this preload stand shall be under the scope of this contract. Centre adaptor and bogie adaptor shall be part of stand for initial calibration measurements. All the four- wheel load cells must show "0" value at this stage. If the value is not zero it should be re-set to zero by the reset button. Further the height measurement of pressing spindle shall be done with spindle retracted in top position. The details of preload test shall be explained by the tenderer in his bid document.		It is clarified that the "Bogie preload Test Measurements" are carried out with the bogie on the rails, on the machine.
25	2	VII-B	Code:			It is clarified that these are Adaptors for the Loading Points of the Bogie. The adapter weight and height shall be considered in the programming, calibration of the machine.

SN.	Part No.	section No.	Clause no.	Bid Condition	Bidder's Queries	Response from NMRCL
26	2	VII-B	Test Stand (Item Code: NMRCLMNP005) 6.3.3	Bogie testing :Bogie shall beselcted on menu screen.There shouldstarted.In case of automatic test procedure only if the "Automatic" position and "test procedure" is selected plant should go into "touch load position". It shall also be possible that measurement can be started manually during an automatic test procedure. Before starting the automatic type procedure the system shall be capable to check the different conditions.		It is clarified that the machine shall automatically move the ram vertically until it touches the blt is clarified that Bogie and the load just starts to count. This is the Touch Load Position.
27	2	VII-B	Test Stand (Item Code: NMRCLMNP005) 6.3.3.3	6.3.3.3. Unit is in "touched mode" ("touched load") on every hydraulic cylinder.		It is clarified that When the machine has reached to the Touch Load position, the PLC Software indicates the Touched Mode.
28	2	VII-B	Code: NMRCLMNP005) 6.4.7	measurement and record the resistance of every axle, automatic measure the axle resistance between two wheels by	bearings are in electrical contact with the rest of the bogie, the Axle resistance will be a false value". Is this test really a correct requirement?	It is clarified that the axle resistance has to be tested on the complete mounted Wheel Set on Bogie. The tenderer shall provide the principle of resitance test and design plan as stipulated in the Tender Conditions. Tender Conditions prevail.
29	2	VII-B	Chapter 6 -Bogie Test Stand 6.5	Heightmeasurement :work height of 500 mm in partial step of	Sentence not clear: "Work height of 500 mm in partial steps of"	please refer corrignedim IIB
30	2	VII-B	Chapter 6 -Bogie Test Stand (Item Code: NMRCLMNP005) 6.5	Accuracy of indicating=+-0.5mm	What is the difference between "Accuracy of Indication" and "Accuracy of indicating"?	please refer corrigendum II-B

SN.	Part No.	section No.	Clause no.	Bid Condition	Bidder's Queries	Response from NMRCL
31	2	VII-B	Chapter 6 -Bogie Test Stand (Item Code: NMRCLMNP005) 6.6	Accuracy of wheel positioning	What is intended for "Accuracy of wheel positioning"?	It is clarified that this is the Accuracy of Axle distance measuring, left and right side of the axle, position of each wheel, with respect to the Machine Centre in X (driving direction).
32	2	VII-B	Test Stand (Item Code: NMRCLMNP005) 6.7		"Accuracy of measurement"= ±1.0% is it intended as ±1,0% full scale of all the measures operated by the transducers present on the machine?	understanding is correct.
33	2	VII-B	NMRCLMNP005) 6.6.2			It is clarified that Civil Foundation Work is included in the Scope. Please refer to Schedule A of Bid Document Part 2.

SN.	Part No.	section No.	Clause no.	Bid Condition	Bidder's Queries	Response from NMRCL
34	2	VII-B	Test Stand (Item Code:	sensing devices shall be installed below		Load Sensing Devices
35	2	VII-B	Chapter 6 -Bogie Test Stand (Item Code: NMRCLMNP005) 6.6.8	requirement of the calibration of the		independent Calibration

SN.	Part No.	section No.	Clause no.	Bid Condition	Bidder's Queries	Response from NMRCL
36	2		Test Stand (Item Code: NMRCLMNP005) 6.7.3			
37	2	VII-B	Test Stand (Item Code: NMRCLMNP005 ) 6.7.4	Pressure Sensors: Pressure sensors shall be installed on the load measurement system. Sensors shall be connected to the converters, which shall indicate the load in tons with a precision to within two decimal points. Calibration shall provide a zero display reading when the wheel are not loaded or load is lifted. The converters shall be integrated in the control panel.		
38	2			The integration and interface pneumatic connections from shop supply to bogie shall be part of scope of work. The details of proposed pneumatic system of the bogie test stand shall be explained in the bid document	"The integration and interface pneumatic connections from the shop supply to the bogie shall be part of scope of work". For this requirement, we need to have the bogie RS-3 interface drawings to draw out a technical and economical evaluation of the tools requested.	will provide the drawings in the design review

SN.	Part No.	section No.	Clause no.	Bid Condition	Bidder's Queries	Response from NMRCL
39	2	VII-B	6.9.5	All cables, apparatus, gear and terminal strips shall be identified with relation to each connection. The same identification system shall be marked on the hydraulic and electrical diagrams. Power supply cables to the main board shall be in the scope of supply. Cables shall be laid in trenches.	Please specify what is the "Power supply cables to the main board" and what type of cables have to be supplied	20 Meter power supply cables of suitable capacity from power supply in the workshop to the main cabinet of the machine shall be in the scope of supply of the supplier.
40	2	VII-B	6.9.5	All cables, apparatus, gear and terminal strips shall be identified with relation to each connection. The same identification system shall be marked on the hydraulic and electrical diagrams. Power supply cables to the main board shall be in the scope of supply. Cables shall be laid in trenches.	Trenches and civil works for cables lying are on customer liability?	Civil Foundation Work is included in the Scope. Please refer to chapter -1Schedule A of Bid Document Part 2.
41	2	VII-B	Code: NMRCLMNP005) 6.10.1	Navigator shall also be provided in the IPC	Please specify better what is a "General Navigator" for the IPC. Is it like Microsoft Explorer or is it a Database client for test records?	It is clarified that this a feature of the Machine Software required to search, sort data in the Software Database of the bogie test program.
42	2	VII-B	Test Stand (Item Code:	With the relevant software of "Bogie loading", several dynamic or static tests can be operated. Performances of the software "Bogie loading ", will include process visualization.	Please specify better what is a "Bogie Loading" for the IPC. Is it the control SW for Bogie tests?	It is clarified that this is a Control Parameter and a part of the software Interface Protocol and the PLC

SN.	Part No.	section No.	Clause no.	Bid Condition	Bidder's Queries	Response from NMRCL
43	2		Test Stand (Item Code: NMRCLMNP005) 6.11	A concrete hardened shop floor with a pair of rails embedded will be made available at the installation site of this Bogie Test Stand by the depot contractor of NMRCL. The foundation for vertical column sand load cells shall be simple ones requires making of a simple foundation. Preferably no deep excavation should be required to be done for installation of BTS. The installation details including foundation works of the Bogie Test Stand shall be submitted to NMRCL in advance.		Civil Foundation Work is included in the Scope. Please refer to Schedule A of Bid Document Part 2.
44	2		Test Stand (Item Code: NMRCLMNP005) 6.15			
45	2		Chapter-8 Rescue Vehicle with Re- railing & Allied Equipment (item code- NMRCLMNP007)		Detailed specification have been given for the Rescue Device & Re-Railing equipment. However for the Basic vehicle the specification mentions "The rescue vehicle shall be of UNIMOG Make or equivalent" - Detailed specification of the basic vehicle & the Rail Guiding system is missing.	above
46	2		Chapter-8 Rescue Vehicle with Re- railing & Allied Equipment (item code- NMRCLMNP007)		Please specify your requirements against the following: track gauge, minimum curve radius, max gradient.	

SN.	Part No.	section No.	Clause no.	Bid Condition	Bidder's Queries	Response from NMRCL
47	2	VII-B	Chapter-8 Rescue Vehicle with Re- railing & Allied Equipment (item code- NMRCLMNP007)		Please specify your requirements against the following: Max. driving speed on roads approx, max. driving speed on rails without trailing load, max. driving speed on rails with trailing load, with wagon brake system, max. driving speed on rails with trailing load, without wagon brake system, Transmission: Required No. of gears forward and reverse, Any other specific requirement for transmission, Drive - Portal Axles; Differential locks; Power steering, Brake system, Wheelbase, Type & required capacity of Fuel Tank, Any other specific requirement for Chassis, Type & required capacity of Cabin, Specifications for Tyres, Push/pull capacity, if no gradient,	В
48	2	VII-B	Chapter-8 Rescue Vehicle with Re- railing & Allied Equipment (item code- NMRCLMNP007)		Adapter for coupler head provided by NMRCL	NMRCL will provide only Coupler details. Adaptors will be Suppliers responsibility.
49	2	VII-B	Chapter-8 Rescue Vehicle with Re- railing & Allied Equipment (item code- NMRCLMNP007)		Coupler heads have to be provided by NMRCL. ZAGRO will deliver adapters for installation of the provided coupler heads.	NMRCL will provide only Coupler details.
50	2	VII-B	Chapter-5 Mobile Lifting Jacks (item code- NMRCLMNP004) Clause 5.3		Whether the required columns have to be with fixed or moveable anvil?	Key Parameters under Clause No. 5.3 specifies that the Lifting Jacks will have Adjustable Cantilever, i.e. movable Anvil.
51	2	VII-B	Chapter-5 Mobile Lifting Jacks (item code- NMRCLMNP004) Clause 5.3	Cantilever adjustable range: 475 mm	* Cantilever adjustable range: 475 mm": Neither the minimum distance of anvil from the column nor the maximum distance is mentioned. Please specify.	range of 475 mm is the

SN.	Part No.	section No.	Clause no.	Bid Condition	Bidder's Queries	Response from NMRCL
52	2	VII-B	Chapter-5 Mobile Lifting Jacks (item code- NMRCLMNP004) Clause 5.3	Vertical stroke: 2115 mm	= 2100 mm of vertical stroke)however the	It is clarified that the 2100mm stroke mentioned is the actual working range. Difference of 15 mm is for Positioning Clearance. Tender conditions prevail.
53	2	VII-B	Rail Cum Road Shunting Vehicle(Item Code: NMRCLMNP009) clause 10.1.4	Shunting Vehicle shall be of rail cum road	NMRCL to confirm acceptance on the following: Chassis with 4 separately driven wheels with Vulkollan tyres (wheel diameter: 457 mm) for operation on road and rails	acceptable. Kindly refer
54	2	VII-B	Battery Operated Rail Cum Road		NMRCL to confirm acceptance on the following: Braking system on vehicle: electrical braking system applying on all wheels	
55	2	VII-B	Chapter-10 Battery Operated Rail Cum Road Shunting Vehicle(Item Code: NMRCLMNP009) 10.5.8	Parking brakes shall be provided.	NMRCL to confirm acceptance on the following: Parking brake: electromagnetic brake, applied automatically in case of power failure and standstill	
56	2	VII-B	Chapter-10 Battery Operated Rail Cum Road Shunting Vehicle(Item Code: NMRCLMNP009)		Push/pull capacity: approx. 300 t -700 t (if no gradient)	Technical Specification defines need for 150 Ton Pulling Load on max. 2% gradient. Existing Tender Specifications Prevail

SN.	Part No.	section No.	Clause no.	Bid Condition	Bidder's Queries	Response from NMRCL
57	2	VII-B			NMRCL to confirm acceptance on the following: Dimensions (approx.): L 4250 mm, W 2170 mm, H 2850 mm including cabin	
58	2	VII-B	Battery Operated	monitoring measures shall be provided at the	Please note: Steering / operation of the shunter inside of the cabin also with radio remote control. No foot pedals available.	Tender Condition Prevail. Kindly refer Clause No. 10.3.5.
59	2	VII-B	Chapter-10 Battery Operated Rail Cum Road Shunting Vehicle(Item Code: NMRCLMNP009) 10.6.4	hydraulic mechanism standard manually at four corners by remote optionally	NMRCL to confirm acceptance on the following: Height adjustable coupling device: - electric operated to adjust coupling height from approx. 400 to 1000 mm operation via radio remote control	Height adjustment shall
60	2	VII-B	Chapter-10 Battery Operated Rail Cum Road Shunting Vehicle(Item Code: NMRCLMNP009)		NMRCL to confirm acceptance on the following: indication for low hydraulic oil / Protection against low oil level in hydraulic system: not necessary only track guiding system equipped with hydraulic system	Specifications Prevail

SN.	Part No.	section No.	Clause no.	Bid Condition	Bidder's Queries	Response from NMRCL
61	2	VII-B	NMRCLMNP009)	The Plant is expected to meet the RAMS target of 96% Availability, which will be calculated excluding the downtime	Unplanned Downtime : 345 Number of unplanned breakdowns : 87 Data based on empirical values / evaluation of technical malfunctions under different usage	Specifications Prevail
62	1	111	1.1 SN 1 B. ELIGIBILITY CRITERIA		NMRCL to confirm acceptance on the following: Minimum Number of Type of Machines from Schedule —A which the Bidder must have, supplied, Tested & Commissioned within last 10 Years. These 4 types should include at least one type of machine from Automatic Train Wash Plant/ Under Floor Wheel Lathe/Under Floor Train Lifting System.	
63	part-1	III	1.1 SN 3 B. ELIGIBILITY CRITERIA		NMRCL to confirm acceptance on the following: Minimum Number of Type of Machines from the above 4 Types of machines (SN-1), which the Bidder must have Supplied, tested & Commissioned Out Side the Country of Origin within last 10 years.	
64	Part-1			General	As this is ICB-International Competitive Bidding, we request herewith to give appropriate time in framing Bid Queries & also Bid Submission, this will encourage good competition in market in best interest of Project. We are already in touch with global OEM-original equipment manufacturers relating to machinery & plant which are required for Depots in Nagpur Metro Rail Project. Herewith we once again request you to consider extension of time for Bid Queries Submission & Bid due date extension.	Submission Schedule, will be advised through NMRCL e-tender portal.

SN.	Part No.	section No.	Clause no.	Bid Condition		Response from NMRCL
65	1		Date & Time of submission of Tende	E-Tender Notice -Online submission up to 16.00 Hrs on 03/12/ 2016 at NMRCL's etender portal		Any Change in the Bid Submission Schedule, will be advised through NMRCL e-tender portal.
66	1	Ι	ITB 4.5	This Bidding is Open …in the BDS.	Request to Delete this Clause. As per Format for Invitation for Bids paragraph 2 at page No. 5, this is a Single Stage two packet system tender. Prequalification Documents are not asked separately.	self explanatory No
67	1	I	ITB 7	Clearification of bidding documents, site visit, pre-bid meeting :A Bidder requiring any clarification of the Bidding Documents shall contact the Employer in writing at the Employer's address specified in the BDS or raise its enquiries during the pre-bid meeting if provided for in accordance with ITB 7.4.		The last date of submission of Pre-Bid queries is over on 07.11.2016
68	1	I	ITB 7.2	The Bidder is advised to visit and examine the Site of Works and its surroundings and obtain for itself on its own responsibility all information that may be necessary for preparing the bid and entering into a contract for construction of the Works. The costs of visiting the Site shall be at the Bidder's own expense.		The tentative drawing of MIHAN Depot and HINGNA depot will be uploaded as a part of corrigendum.
69	1	I	ITB 11.1(d)	Alternative Bids, if permissible	Alternative Bids is not permissible as per ITB 13.1, 13.2 and 13.3. So this clause requested for deletion.	
70	1	I	ITB 11.1(g)	documentary evidence in accordance with ITB 17 establishing the Bidder's continued qualified status or		ITB 17 is available in Tender Document on Page No. 19, Section 1 of Part 1.
71	1	I	ITB 18.1	Bids shall remain valid for the period specified in the BDS after the bid submission deadline date prescribed by the Employer in accordance with ITB 22.1	submission 28th June 2016	Kindly refer SN 64 above

SN.	Part No.	section No.	Clause no.	Bid Condition	Bidder's Queries	Response from NMRCL
72	1	I		quote separate prices for different lots (contracts), the methodology to determine the lowest evaluated price of the lot (contract) combinations, including any discounts offered	If yes please clarify methodology to determine lowest evaluated price if No : Delete this clause Also kindly clarify what are different lots	BDS Clause ITB 35.4
73	1	II		interface and coordination with the relevant Authorities and Designated Contractors and	<ol> <li>Effective Interface : We understand interface between M&amp;P &amp; other contractors as per APPENDIX 7, page 71 to 81 of Part 2 only. Please specify additional information like Major Designated Contractor for various lots like Rolling Stock, SIG, Electrification, Building Service Contractor, IT coordinatotor (if any) etc.</li> <li>Coordination with relevent Autherities : Please name &amp; list the Autherities.</li> <li>Designated Contractors : Please name &amp; list the Contractors.</li> <li>Others appointed by Employers : Please name &amp; list other appointements</li> <li>Specially please revert with information relating to Civil Contractors relating to Depots &amp; also contact person from Consultant if any.</li> </ol>	Data after award of the Contract.

SN.	Part No.	section No.	Clause no.	Bid Condition	Bidder's Queries	Response from NMRCL
74		II	BDS ITB 1.9	Testing and Commissioning of M&P in co- ordination with Designated Contractors, under supervision of Engineer. It shall also carry out all statutory tests and trials on M&P necessary for obtaining sanction of competent / statutory authorities for opening the system for public carriage of passengers and provide assistance and information as	trials on M&P : Please list down Equipment Specific Test if any. Obtaining Sanction of Competent /Statutory Authority : Please list down Equipment	Compliance to Statutory Tests of respective M&Ps, in relation to the SOD (as applicable) and Performance requirements is mandatory. Details will

SN.	Part No.	section No.	Clause no.	Bid Condition	Bidder's Queries	Response from NMRCL
75	1	11	BDS ITB 5.2	origin of plant, equipment, materials and		В
76	1	II	BDS ITB 6.1	Replace provision of	Part 1 : We understand Annexure I, Annexure II-B, Annexure III-B is not used in tender.	Annexure I, Annexure II- B, Annexure III-B is not used in tender.
77	1	II	BDS ITB 6.1	Replace provision of	Part 2 : Section VII-C : Bidding Drawings does not contain GAD, Depot General Layout: Please include all details in Tender.	II-D
78	1	II	BDS ITB 6.7.2	ground, at grade and underground structures,	Please specify list of existence of over ground, at grade and underground structures, utilities and infrastructure in the near vicinity of the Works to be constructed.	Please refer Section I, ITB 7.2 on Page 14 of Bid Document Part 1.
79	1	II		A Pre Bid Meeting & Query Submission Date	We understand pre-Bid meeting date as per mentioned in Tender Notice (i.e. 4th Nov. 2016) and also Prebid Queries Submission date is before 3rd Nov. 2016)	submission of Pre-Bid queries is over on 07.11.2016
80	1	II	BDS ITB 11.1.2	The Bidder shallCommercial Envelope only on e-tender and not anywhere else.	We understand that Commercial Envelope is not required to submit in Hard Copy : Please Clarify	It is clarified that it is an Online Bid Submission Process.

SN.	Part No.	section No.	Clause no.	Bid Condition	Bidder's Queries	Response from NMRCL
81	1	II	11.3.1.25 & 42.3	Bidder has to…		Section II BDS, ITB 43 of Part 1.
82	1	II	ii	The Bid Total Price includes Taxes and Duties, Unit Prices of materials of each Items, Royalties also. The price to be quoted shall be the total price of the Bid as elaborated in Part-1 Pricing Document.		Tender Conditions prevail
83	1	III	Criteria, 2nd paragraph	to state a monetary amount, Bidders should indicate the USD equivalent using the rate of exchange	-	В.
84	1	IV		<ul> <li>(e) The total price of our Bid, excluding any discounts offered in item (f) below is:</li> <li>In case of only one lot, total price of the Bid</li> <li>In case of multiple lots, total price of each lot</li> <li>In case of multiple lots, total price of all lots (sum of all lots);</li> </ul>		It is clarified that it is the Sum of all Cost Centres.
85	1	IV	Bidding Forms Letter of bid - 1	Note	Para (e)We will mention as "Quoted" or "Not Quoted" as applicable in letter of Bid for Technical Proposal. This is for Clarification only.	
86	1	IV	Bidding Forms, page no76, summary of	Alternative B	We understand Alternative A is not used / defined in Tender. Kindly Confirm	Confirmed.
87	1	IV	bidding forms , 4.4 Bidder's Technical Submission	Appendix-Q of Pricing Document (Annexure IV		please refer corrigendum II- B.

SN.	Part No.	section No.	Clause no.	Bid Condition	Bidder's Queries	Response from NMRCL
88	1		Bidding Forms,4.5 Form EQU : Equipment,page no. 87	4.5 Form EQU: Equipment	We understand that M&P Integrator can suggest proven make of respective M&P available from our global sourcing list.	It is clarified that, there is no reservation regarding particular make of any M&P. However, with respect to the offered Makes of M&Ps, the Eligibility Criteria as per Tender Conditions will have to be met with. This will also be subject to the Functional Parameters and SOD requirements.
89	1	IV	Bidding Forms, 4.11, clause 3, SN 6, page 94	The Bidder shall confirmInterfacing	Please add word Work scope split in M&P integrator and manufacturer	Kindly refer defination of Bidder in Clause 1.1 of Eligibility Criteria (Part- 1). Tender Conditions prevail.
90	1	IV	Bidding Forms,page no 120		We understand Part 1,2 & 3 as Volume 1,2 & 3 respectively	Confirmed.
91	1		page no129 , Bidding form -20	spares and availability of technical support for maintenance and up gradation of equipment / systems / Machinery & Plant / Software, etc., which will become part of the Permanent Works executed under the contract (N1M&P- 1/2016) during their service life.	Machinery & Plant shall be mutually agreed & discussed before finalisation.	
92	1	111	Evaluation & PQ Criteria, ANNEXURE III-A, Refer B. ELIGIBILITY CRITER1IA 1.1, S.N. , page no. 154	Minimum Number of Type of Machines from "Schedule A"	Schedule A is not defined in Complete Tender Documents, Also list of 10 M&P mentioned at below clauses is not matching refer clause 1.1.3, chapter 1 of Section VII-A, page 9 General Specification & refer clause 1.1, chapter 1 of Section VII-B, page 85 Technical Specification Please clarify.	II-B

SN.	Part No.	section No.	Clause no.	Bid Condition	Bidder's Queries	Response from NMRCL
93	1		Criteria, ANNEXURE III- A,Refer B. ELIGIBILITY	Schedule "A" which the Bidder must have ,		types from the List of
94	1	111	Criteria, ANNEXURE III-A, Refer B. ELIGIBILITY CRITERIA 1.2	machine as per Schedule "A" should have been Designed and manufactured, by the sole Bidder or the Consortium / Joint Venture of bidders or sub-contractors and the same should be in operation with satisfactory performance for a minimum period of 2 years after Commissioning.		Bidder in Clause 1.1 of Eligibility Criteria (Part- 1). Tender Conditions prevail.
95	1	III	Criteria, ANNEXURE III-	The Tenderer shall attach the Certificate from the clients for satisfactory performance of the machines for a minimum period of 2 years after commissioning.	We understand that performance certificate submitted against clause CL 1.2 above remains valid here also.	It is clarified that Bidders may submit One Set of Valid Performance Certificates to comply with all the Eligibility Criteria.
96	1	111	Criteria, ANNEXURE III- A,Refer B. ELIGIBILITY CRITERIA 1.4			

SN.	Part No	b. section No.	Clause no.	Bid Condition	Bidder's Queries	Response from NMRCL
97	1	111	Criteria, ANNEXURE III- A,Refer B. ELIGIBILITY CRITERIA 1.4	The bidder, if located outside India, shall have an Indian associate for Defects Liability Period and Post Defects Liability Period obligations. Such associate should have minimum 5 years of experience of Manufacturing/maintenance of Machines for Railways / Metros applications and providing satisfactory After-Sales Services. In support of the above, relevant certificates from their respective clients should be submitted and such documents shall be taken into consideration for technical qualification purpose.		Kindly refer defination of Bidder in Clause 1.1 of Eligibility Criteria (Part- 1). Tender Conditions prevail.
98	1		Criteria, ANNEXURE III- A,Refer B. ELIGIBILITY CRITERIA 5.0	Any subsidiary company participating as sole bidder or joint venture / consortium member can avail the experience of its parent company or its group company for evaluation purpose only if, subsidiary company submit parent company or its group company guarantee and undertaking for due performance of the contract by the subsidiary . vice versa of the above shall also be applicable.		please refer corrigendum II- B
99	1	111	Evaluation & PQ Criteria, ANNEXURE III-A, T4, page no.157	The Minimum requirement	The Minimum requirementfor M&P Manufacturer & add word "M&P Integrator"	Kindly refer defination of Bidder in Clause 1.1 of Eligibility Criteria (Part-1). Tender Conditions prevail.
100	1		Evaluation & PQ Criteria, ANNEXURE III-A ,PRO-FORMA LETTER OF APPLICATION ,page no. 164		Seems incomplete paragraph, kindly confirm.	Clause is self- explanatroy. Tender Conditions prevail.

SN.	Part No.	section No.	Clause no.	Bid Condition	Bidder's Queries	Response from NMRCL
101	1	III	Evaluation & PQ Criteria, ANNEXURE III- A,INITIAL FILTERCL 6, page no. 166	For the	for each constitute member,please add "individual Company"	Tender Conditions prevail.
102	1	III		enclosed at Annexure 3	Please delete word "Annexure 3", Resume Format is already mentioned in Form PER-2, page 89 of part 1.	Tender Conditions prevail.
103	1	III	Evaluation & PQ Criteria, ANNEXURE III- A,PRO-FORMA SECTION 1 - GENERAL, Clause 7, page	Does(in case	Please add wordin case of a Joint Venture / Consortium / <u>M&amp;P Integrator</u>	Kindly refer defination of Bidder in Clause 1.1 of Eligibility Criteria (Part-1). Tender Conditions prevail.
104	1	111	Evaluation & PQ Criteria, ANNEXURE III- A,PRO-FORMA SECTION 2 - Clause 9, page	Does section 2	Format of Power of Attorney for M&P Integrator is not clear in Tender	Kindly refer defination of Bidder in Clause 1.1 of Eligibility Criteria (Part-1). Tender Conditions prevail.
105	1	III	Evaluation & PQ Criteria, ANNEXURE III- A,17a, page no 169	Have you (each Constitute)	Request you to add underlined word (each constituent member of the Joint Venture/Consortium and the sub-contractor for M&P, <u>M&amp;P Integrator</u> if applicable)	Bidder in Clause 1.1 of
106	1	III		(Use a separate sheet	Request you to delete this clause.	Tender Conditions prevail.
107	1	III		Name of the Applicant (each member)	Please add underlined text as : Name of the Applicant (each memberand sub contractor and <u>M&amp;P Integrator</u> )	

SN.	Part No.	section No.	Clause no.	Bid Condition	Bidder's Queries	Response from NMRCL
108	1	111	Criteria,	letterhead of the owner indicating details of scope of works of M&Ps.	Bidders shall submit certificate on letterhead of the owner indicating details of scope of works of M&Ps. Request to replace word "certificate on letterhead" with "Purchase Order"	
109	1	111	Evaluation & PQ Criteria, ANNEXURE III- A,ANNEXURE 2,page no 174	Name of the M&P	We understand column no. as 2.1.	please refer corrigendum II B
110	1	111	Evaluation & PQ Criteria, ANNEXURE III- A,ANNEXURE 2,page no 174	Estimated completion date	We understand that column no. 11 is last column on this page. (A typo error in document & we can not view the complete content on page no. 174) Please clarify.	complete content of
111	1	111	Evaluation & PQ Criteria, ANNEXURE III- A,PRO-FORMA SECTION 4, Clause 19, page	enclosed at Annexure 3	Please delete word "Annexure 3", Resume Format is already mentioned in Form PER-2, page 89 of part 1.	Tender Conditions prevail.
112	1		ANNEXURE IVA- Instruction for completing Pricing Document,A3 , A.3.1, page no 188	Quantity Variation condition	Quantity variation shall be mutually agreed between both the party.	Tender Conditions prevail.
113	1		ANNEXURE IVA- Instruction for completing Pricing Document, E. MILESTONE ,page no. 190	The The Monthly cash Document.	Please delete statement "The Monthly cashDocument" as Form 12 is deleted.	please refer corrigendum I B
114	1		ANNEXURE IV B- Pricing Documents, page no212	Cost Center-H	Is Operation service only for 3 systems?? From when 24 Months operation service will considered? What operation services will be in Contractors scope??	

SN.	Part No.	section No.	Clause no.	Bid Condition	Bidder's Queries	Response from NMRCL
115	1		Pricing		Refer Column Weeks for completion of Milestones from Commencement date for MIHAN depot. & Refer Column Weeks for completion of Milestones from Commencement date for HINGNA depot. Delivery Requirement is too stringent, Herewith we request you to reconsider the delivery requirements relating to Cost Center A to I	
116	1		ANNEXURE IV B- Pricing Documents,Cost Center A to I, Page no196-214	Delivery Requirement	Under Column Description request to delete word <u>1</u> <u>set</u> , as it already mentioned under column Unit.	
117	1		ANNEXURE IV B- Pricing Documents, Annexure I,cost center , SN B5.2, page no201	Diameter Measuring Device – 1 Set	We understand that list is Complete.	It is clarified that the List of B5 items comprises of 4 Items, viz; B5.1, B5.2, B5.3, and B5.4, as mentioned in the specifications.
118	1		ANNEXURE IV B- Pricing Documents,Cost center-I,page no 213	Cost center-I Table	Is 5 years apprehensive maintenace contract is optional?? If optional, will this cost will be considered for bidding award or not??	It is clarified that, the 5 Years Comprehensive AMC is mandatory and will be considered for commercial evaluation. Tender conditions prevail.
119	1		ANNEXURE IVC- Requirements for Bidder's Technical Proposal,Refer Column Max speed, page no 227-228	Printing Error	We request to replace wordsubmit "performance certificate" on letterhead of the owner by "Purchase Order Copy"	

SN.	Part No.	section No.	Clause no.	Bid Condition	Bidder's Queries	Response from NMRCL
120	2	VII-B	Chapter-2 Automatic Wash Plant (Item Code)- NMRCLMNP001,c lause no2.15		This clause shall be added in all remaining M&P equipments so that Contractor can provide best alternative equipments against the employer's requirement.	
121	2	VII-B	Automatic Wash Plant (Item Code)- NMRCLMNP001,c lause no2.3.2			
122	2	VII-B	Automatic Wash Plant (Item Code)- NMRCLMNP001,c lause 2.3.2,	Provision by other contractors:The Plant shall also include the following provisions, which will be provided by other Designated Contractors to the Washing Plant Contractor for integration into the Plant. 2.3.2.1 Underground Water Tank 2.3.2.2 Used water collecting tanks 2.3.2.3 Track work 2.3.2.4 Over headline 2.3.2.5 Drain points and pipes for effluents discharged to the Effluent Treatment Plant of the Depot.	2.3.2.6 : technical room for washing plant 2.3.2.7 : provide power in technical room 2.3.2.8 : prepare washing apron	It is clarified that: 1. Technical room for Washing Plant - M&P Supplier's Scope. 2. Provide power in Technical room - Other Contractors. 2.3.2.8 : Prepare Washing Apron - M&P Supplier's Scope.
123	2	VII-B	Automatic Wash	side, shall be provided for water brushing on the car body surfaces.	We understand the machine is required only for side wash. Front and rear wash is not mentioned.	It is clarified that the ATWP is required only for Side Wash.

SN.	Part No.	section No.	Clause no.	Bid Condition	Bidder's Queries	Response from NMRCL
124	2			The brushes shall automatically retract to their gauges in the event of any malfunction or activation of emergency stop buttons		It is clarified that NMRCL requires the feature - The brushes shall automatically retract to their gauges in the event of any malfunction or activation of emergency stop buttons. However methodology for compliance can be a part of Design review. Tender Conditions prevail.
125	2		Automatic Wash Plant (Item Code)- NMRCLMNP002, paragraph no 2.4	arranged to enable acid washing to be added at a later stage when it is found necessary. Space shall be reserved for the installation of	The solution we have chosen and indicated in the lay-out No. ELSGPJ098 (here attached) is a pair of spray poles.	В
126	2		Plant (Item Code)- NMRCLMNP003,	side, shall be provided for water brushing on	The lay-out No. ELSGPJ098 (here attached) shows two pairs of vertical brushes (two on each side) as indicated in the technical specification. Having analyzed the gauge shape, we suggest the installation of two groups of oval brushes (one on each side) + one pair of vertical brushes, instead of two pairs of vertical brushes. Each group of oval brushes is equipped with No. 4 brushes. As indicated in the file "Borders and indentation washing station" here attached, only these kind of brushes, thanks to their shape and rotation, are able to wash windows, doors recesses and/or every kind of angulations, border shape and/or vertical recesses of the coach.	

SN.	Part No.	section No.	Clause no.	Bid Condition	Bidder's Queries	Response from NMRCL
127	2		Chapter-2 Automatic Wash Plant (Item Code)- NMRCLMNP004, para 2.8	sides with SS 316 L sheet of 3mm thickness."	The adoption of this type of splashguards is expensive and not necessary, based on our experience. We recommend protections to enclose the brush stations in "special" PVC cloth in different colors to choose and supported by robust hot dip galvanized and painted structures.	
128	2	VII-B	Floor Lifting System (Pit Jacks) Item code- NMRCLMNP003), clause no 4.13,page no.134	& Safety) Requirements:		(corrigendum -II-C).
129	2		Floor Lifting System (Pit Jacks) Item code-	provided in each pit to assure proper lubrication of equipment Spindle. All other moving parts shall be effectively lubricated by either oil or grease.		Tender Conditions prevail.

SN.	Part No.	section No.	Clause no.	Bid Condition	Bidder's Queries	Response from NMRCL
130	2	VII-B	System (Pit Jacks) Item code- NMRCLMNP003), clause 4.6,page no-129	The equipment shall comply with the following requirements on dimensions and tolerances: <ul> <li>Bogie Hoist lift 1.8m</li> <li>Body Stand lift Not less than 2.7m</li> </ul> Note: The body Stand lift should match the Rolling Stock needs to hold the car body when maximum hoisting is done at bogie Hoist. <ul> <li>Bogie Hoist lifting speed -Not less than 0.4m/min</li> </ul>		

SN.	Part No.	section No.	Clause no.	Bid Condition	Bidder's Queries	Response from NMRCL
131	2		Floor Lifting System (Pit Jacks) Item code- NMRCLMNP003), clause 4.4.1,page no.127	columns controlled by one centralized column of proven design. Lifting columns shall consist of a spindle-lifting element, a lifting beam, guiding box, one automatic following gap cover and associated electrical equipment. Two motors power the spindle lifting system via mechanical connection of	Two motors power the spindle lifting system via mechanical connection of the few lifting gears to provide absolute synchronization.	
132	2	VII-B	(NMRCLMNP004) ,clause no 5.3,page no140	The control console shall be mounted on a trolley for the The control console shall be equipped with a plug for connecting	Please explain area of two cars/four cars in the following sentence: The control console shall be equipped with a plug for connecting all jacks through the socket on the floor at the central area of the two cars / four cars	В
133	2		Lifting Jack- Code (NMRCLMNP004) ,clause no 5.8,page no140	Synchronization controls: The jacks shall be provided with a leveling synchronization system ensuring the control and automatic correction In the event of a PLC failure when the vehicle is lifted, the operator will have the option to lower the 4/8/12/3 Car Unit only, each jack stops on its lower limit switch. Only lowering is authorized in this mode.		please refer corrigendum II B
134	2		(NMRCLMNP004) ,clause 5.7,page no 140	The operation of the jacks in a group of four, eight, twelve or three unit only shall be controlled at the control console. With: The operation of the jacks in a group of four,	Replace: The operation of the jacks in a group of four, eight, twelve or three unit only shall be controlled at the control console. With: The operation of the jacks in a group of four, eight and twelve units only shall be controlled at the control console.	

SN.	Part No.	section No.	Clause no.	Bid Condition	Bidder's Queries	Response from NMRCL
135	2		(NMRCLMNP004) ,clause 5.6,page no.139	Travelling Gear The jacks shall be mounted on 3-roller type travelling gears with steering wheels for one- man operation on the concrete floor. The travelling gears shall allow a minimum of 15mm clearance from the floor for movement of jack. Handles shall be fitted to the jacks for easy raising, lowering, steering and transporting the jacks. The jacks shall be equipped with ground-support monitoring devices to prohibit carriage movement when one of the jacks is still bearing on one of the travel wheels. The controls shall ensure that the synchronous lifting shall start only when all the jacks have touched the load pads and are ready for the lifting. The jacks shall be easily transported and safely operated on the flat concrete floor with a level tolerance of +/-5mm in any length of 2m.		Tender Conditions prevail.
136	2		Lifting Jack- Code (NMRCLMNP004) ,clause no 5.1.3,page no	galvanized conduit pipes, which are for both power cables and control cables of the jacks, linking outlet socket points for the jacks and the console at a central area respectively for	5.1.3 Pre laid galvanized conduit pipes as well as pits for sockets must be provided by the customer according to OEM requirements. OEM will provide foundation layout in case of order. Further OEM standardly use one combined cable for power and control. Please accept.	conduit pipes will be done by Depot Contractor as per the Layout / GAD provided by the M&P Contractor.

SN.	Part No.	section No.	Clause no.	Bid Condition	Bidder's Queries	Response from NMRCL
137	2	VII-B	Lifting Jack- Code (NMRCLMNP004) ,clause no5.5, page no139	The carriage shall be fitted with a bronze nut guided by the lower rollers of the body running on sections added to the jack framework. The carriage shall be guided up and down the columns by plain and flanged rollers fitted with bearings. The guiding system shall stop any carriage longitudinal or transverse inclination, which may cause seizure or abnormal wear to the screw or to the nut. The shape of the contact heads shall be compatible with the jacking pockets of the rolling stock. The maximum deflection of the	CANTILEVER ONLY" this means that OEM will design the Cantilever accordingly thinking also to have the cantilever disconnected from the jack. The customer during the FAT will	clause mentions about delfection test of cantelever only.
138	2	VII-B		inspection and lubrication of center pivot and	In case of Maintenance free shield bearing, no access required for greasing.	Tender Conditions prevail.
139	2	VII-B	Turn Table Code (NMRCLMNP006) clause 7.11			Tender Conditions prevail.

SN.	Part No.	section No.	Clause no.	Bid Condition	Bidder's Queries	Response from NMRCL
140	2	VII-B	Turn Table Code	equipped with a self-aligning spherical	Replace Center pivot shall be provided and equipped with a self-aligning spherical roller thrust bearing to facilitate turning operation With Center pivot shall be provided and equipped with a self-aligning Axial Spherical plane bearing to facilitate turning operation. "Axial Spherical plane bearing" is proven design for this application	
141	2	VII-B	Turn Table Code (NMRCLMNP006) ,clause 7.2	The turntables shall be constructed of circular platform decks with approximate 3500 mm in diameter for SG. The decks shall sit on center pivots at the centers and castors on the peripheries for turning. Two pairs of rails of specified gauge shall be mounted and positioned in perpendicular to each other across diameter on the deck of each turntable to accommodate bogies. The track gauge shall be 1435mm for SG as specified for particular workshop site.		please refer corrigendum II-B
142	2	VII-B	Turn Table Code (NMRCLMNP006) ,clause 7.1	track to another track in the Bogie Shop area. Each turntable will consist of a mechanical assembly bearing on a centre pivot and several carrier rollers running on a	<ul><li>7.1 Each Turn Table shall with stand weight of 25 Ton.</li><li>With</li><li>7.1 Each Turn Table shall with stand rollover capacity of 25 Ton in place of weight of 25 Ton.</li></ul>	

SN.	Part No.	section No.	Clause no.	Bid Condition	Bidder's Queries	Response from NMRCL
143	2	VII-B		CNC Under Floor W heel Lathe with Synchronized Shunting System (UFWL)	We understand that Under Floor Wheel Lathe's synchronization is required with NMRCLMNP009 : Battery Operated Rail Cum Road Shunter (For 3 Cars) (BORRV), Kindly Clarify Also please clarify specific Shunter requirements for wheel lathe if any. For eg. Due to safety reason this shunter will have maximum speed of 3km/h only.	corrigendum II-B.
144	2	VII-B	Under Floor Wheel Lathe (Item Code-	The layouts given on the Drawings shall be used for conceptual purposes. The Contractor shall furnish their requirements in accordance with the Schedule of Key Dates in the Particular Specification.	Please specify the drawings, We understand no drawings are provided w.r.t. UWL	please refer corrigendum II-D
145	2	VII-B	Under Floor Wheel Lathe (Item Code- NMRCLMNP002)			Tender Conditions prevail.
146	2	VII-B	Under Floor Wheel Lathe (Item Code-	Work related to the production of the equipment shall comply with the relevant European Standards, Codes of Practice and latest statutory requirements of India including the following:		The Standards are Listed oin chapter -3 of technical specification . Hoever, other equivalent International Standards are acceptable.
147	2	VII-B	Under Floor Wheel Lathe (Item	The contractor shall closely study the ambient condition of with special attention, like high temperature reaches up to 50 degree C within the covered shed,		It is clarified that the arrangement for provision of Air Conditioning for the Cabinet / Panels / Control Console, if required for compiance, will be in the scope of the M&P Contractor.

SN.	Part No.	section No.	Clause no.	Bid Condition	Bidder's Queries	Response from NMRCL
148	2	VII-B	Under Floor	heavy dust and poor quality of water and shall suitably consider for such consideration during design of the equipment.	Environmental conditions are not clear: humidity, level about datum line etc.	It is clarified that the Track Level will be on 303 Mts above mean sea level. Max. Humdity is 88%, Min. Humidity is 20.7%.
149	2	VII-B	Wheel Lathe (Item Code- NMRCLMNP002),			
150	2	VII-B	Under Floor	All data in concern with the rolling stock written in this specification is for information only and there may be slight variations.		It is clarfiled that the NMRCL SOD may be refered presently. Final Drawings will be made available at the Design Stage.
151	2	VII-B		Reference data of track; Max Gradient and Curve Radius	Track must be leveled, without curve and without gradient next to the machine; min. the longest vehicle length.	Confirmed.
152	2	VII-B	Under Floor Wheel Lathe (Item Code- NMRCLMNP002), 3.4.1	machining wheel mounted brake disc or axle		

SN.	Part No.	section No.	Clause no.	Bid Condition	Bidder's Queries	Response from NMRCL
153	2	VII-B	Under Floor Wheel Lathe (Item	profiling wheel sets removed from the	For running / Trailer car wheelsets, machine is capable to do. For Motor wheelsets additional support may required based on design of gearbox and motor wheelset.	Profiling of lose Wheel
154	2		Under Floor	The fully automatic CNC under floor wheel lathe shall be capable to perform, even without the integration of the shunting electric shunter.		It is clarified that the Operation of Hold Down Cylinders is effected manually through Push Buttons. Sunter is being procured separately. It is not a part of Wheel Lathe supply.
155	2		Under Floor	Machine control: (VIII) Data exchange with wheel sets management database.	Further details of wheelset management database to be provided.	It is clarified that as of now NMRCL does not have Wheel Set Database Management System. Machine should have provision for possibility of incorporation at a later stage.
156	2	VII-B	,		It can not be without Flange, How shall these wheelsets be moved on track?	please refer corrigendum II-B
157	2	VII-B	Under Floor	Machine configuration. The machine shall comply with the configurations as mentioned in P.S	What is P.S? Not mentioned	As per Clause 3.9, nowhere it is mentioned as P.S. No change in specifications is foreseen.

SN.	Part No.	section No.	Clause no.	Bid Condition	Bidder's Queries	Response from NMRCL
158	2	VII-B	Under Floor Wheel Lathe (Item Code-	The wheels shall be positioned for re-profiling shall run on their flange on mobile retractable rails (hydraulically actuated & operation interlocked with the vehicle movement from the machine control panel).□	with Hydraulically actuated / Electrically actuated	please refer corrigendum II- B
159	2		Under Floor Wheel Lathe (Item Code- NMRCLMNP002), 3.10.2	3.10.2 Axle centering During centre less profile turning Irregularities in the wheel treads may be flats, thermal cracks, splits or out-of round areas. All these faults should be corrected in a single machining pass with minimum tool wear/damage.		please refer corrigendum II- B
160	2	VII-B	Under Floor Wheel Lathe (Item	the chips that are yielded from the machining process shall not exceed 300 mm	This is out of responsibility of supplier as it is dependent from cutting conditions, type of inserts (buyer to determine according to his conditions), wheel material etc.	
161	2	VII-B	Under Floor Wheel Lathe (Item	Each tool-holder carriage shall be fitted with a spare tool-holder. Interchanging tool-holders shall not require readjustment of the machine.	•	Tender Conditions prevail.
162	2		Under Floor Wheel Lathe (Item Code- NMRCLMNP002),	After wheel machining, the difference	After wheel machining, the difference between the profile obtained and the theoretical profile should not exceed +0.2mm on the wheel tread and the active side of the flange.	

SN.	Part No.	section No.	Clause no.	Bid Condition	Bidder's Queries	Response from NMRCL
163	2	VII-B	Under Floor Wheel Lathe (Item Code-	proven design shall be provided to crush the chips produced from turning the wheels to	An integrated chip crusher of proven design shall be provided to crush the chips produced from turning the wheels to small chips with a maximum length of between 40 mm (80 %) and 500 mm (20 %).	
164	2	VII-B		The noise level shall not exceed 75 dBA thresholds at the operator	The noise level shall not <b>exceed 80 dBA thresholds</b> at the operator	Tender Conditions prevail.
165	2	VII-B	Under Floor Wheel Lathe (Item Code-	<b>Pressure sensors</b> shall be installed on the drive roller-holder sliding block supply piping. Sensors shall be connected to the converters, <b>which shall indicate the load in tons</b> with a precision to within two decimal points.		Load indicated in Tons or equivalent kN is acceptable.
166	2	VII-B	Under Floor Wheel Lathe (Item Code- NMRCLMNP002), 3.16.5	Lubrication: Arrangement shall be provided to indicate failure of the lubricating system and displaying the adequate information on control panel for the operator and protecting the machine. i. Periodicity of cleaning / replacement of filters ii. Periodicity of replenishing lubricating oil in the sump iii. Other necessary information. If it endangers the safety of machine, the operation shall stop. The lubrication system shall be explained in the bid with a lubricating diagram. Indian equivalent of lubricant & hydraulic shall be advised.		Tender Conditions prevail.

SN.	Part No.	section No.	Clause no.	Bid Condition	Bidder's Queries	Response from NMRCL
167	2	VII-B	Under Floor Wheel Lathe (Item Code-	The CNC shall be built to satisfy the technical specification. The workstation touch screen of each side is proposed to be minimum 15" LCD or better. There should be redundancy in operating the system from each side.		Tender Conditions prevail.
168	2	VII-B		iii. Non-resident diagnostics (test bands which may be loaded in the equipment to locate a defective card),		Tender Conditions prevail.
169	2	VII-B		v. Access to the various BUSES for connection of an analyzer.	Request to not include.	Tender Conditions prevail.
170	2	VII-B	Under Floor Wheel Lathe (Item Code-	iii. Operation running cycles and sequences shall be displayed in real time and in plain English language on screen pages. A screen page per operation (setting up of an axle, measurement, machining, etc.) shall be provided.		Tender Conditions prevail.
171	2	VII-B	Under Floor Wheel Lathe (Item Code-	The circumferential speed of the drive rollers (cutting speed of the tooling) is proposed to be adjustable from 10 to 120m/min for wheel machining. Tenderer shall propose speeds as per their design to meet the specified output. The maximum cutting load for each wheel shall <u>be 2,000 daN.</u>		Tender Conditions prevail.

SN.	Part No.	section No.	Clause no.	Bid Condition	Bidder's Queries	Response from NMRCL
172	2	VII-B	Wheel Lathe (Item Code- NMRCLMNP002), 3.16.9	Automatic Servo Voltage Stabilizer of		-
173	2		Under Floor Wheel Lathe (Item Code- NMRCLMNP002), 3.16.10			
174	2	VII-B	Under Floor	The front panel shall be fitted with three indicating lights for the three incoming phases of power supply, lit when power on.		Tender Conditions prevail.
175	2	VII-B		Data processing Equipment ☐ 102-key keyboard. □	Request for delete.	Tender Conditions prevail.
176	2	VII-B	Chapter-3 CNC Under Floor Wheel Lathe (Item Code- NMRCLMNP002), 3.16.15	□ Windows latest version□	Request for delete.	Tender Conditions prevail.

SN.	Part No.	section No.	Clause no.	Bid Condition	Bidder's Queries	Response from NMRCL
177	2	VII-B	Wheel Lathe (Item Code- NMRCLMNP002), 3.16.16	device, with pressure and flow control for each lubrication point and display of faults on the numeric control system screen, shall lubricate the maximum number of moving components. Non- centralised lubrication points shall be located so that they do not call for the removal of any components to obtain access.		Tender Conditions prevail.
178	2	VII-B	Under Floor Wheel Lathe (Item Code- NMRCLMNP002), 3.17.1	Fully automatic CNC under floor wheel lathe shall be provided with alarm system in case of water flooding in underground sump with subsequent operation of the float operated sump pump along with flexible drainpipe for 40m approx from the pit, which shall be provided by the contractor.		Tender Conditions prevail.
179	2	VII-B	Under Floor	Fire protection- on the basic body of the machine, the design parameter of electrical installation shall be in safer range to protect from fire.		Tender Conditions prevail.
180	2	VII-B	Under Floor Wheel Lathe (Item Code-	Painting: The following shall be provided: - one polyurethane primer coat (thickness 40 microns dry), two polyurethane lacquer top coats, thickness 50 microns dry each. Paint touch-ups shall be provided after assembly.		Tender Conditions prevail.
181	2	VII-B		The Plant is expected to meet the RAMS target of 96% Availability	95% according to VDI 3423	Tender Conditions prevail.
182	2	VII-B	Chapter-11 Multiple Purpose working Platform Item code- NMRCLMNP011), General		Missing Information: Number of roads and distance between them inside the depot	please refer corrigendum II-D

SN.	Part No.	section No.	Clause no.	Bid Condition	Bidder's Queries	Response from NMRCL
183	2	VII-B	Chapter-11 Multiple Purpose working Platform Item code- NMRCLMNP011), General			It is clarified as per the Technical Data that 11.1 the Multi Purpose Works Station has two Platforms, RWP and TDC over a length of 70 Mts. It is further clarified that RWP is movable and TDC is fixed.
184	2	VII-B	Chapter-11 Multiple Purpose working Platform Item code- NMRCLMNP011), General		Missing Information:Number and Dimension of the columns of the building and distance between the columns in the two directions ( 90° of the roads and along the roads)	II-D
185	2	VII-B	Chapter-11 Multiple Purpose working Platform Item code- NMRCLMNP011), General		Missing Information:Fixing of the platforms to the columns of the building is not clear	please refer corrigendum II-D
186	2	VII-B	Chapter-11 Multiple Purpose working Platform Item code- NMRCLMNP011), General		Missing Information:Span between the columns not indicated. In case will be 5m no problem but in case will be more, how will be fixed the modules to the columns.	please refer corrigendum II-D
187	2	VII-B	Chapter-11 Multiple Purpose working Platform Item code- NMRCLMNP011), General		columns not indicated. In case will be more, who will install the necessary steel support for the modules ( NAGPUR METRO OR BERTOLOTTI). Do we have to add to the price?	
188	2	VII-B	Chapter-11 Multiple Purpose working Platform Item code- NMRCLMNP011), General		Missing Information:In the central part of the roads, if any, who will install the additional structure to support the platforms? Please refer to all the green structures in the drawing " sezione"	II-D

SN.	Part No.	section No.	Clause no.	Bid Condition	Bidder's Queries	Response from NMRCL
189	2	VII-B	Chapter-11 Multiple Purpose working Platform Item code- NMRCLMNP011), General		Missing Information:Shape and drawing of the train, confirmation of the length to be checked with the tables that are in the specification	presently. Final Drawings
190	2	VII-B	Chapter-11 Multiple Purpose working Platform Item code-		Missing Information:Drawing of the depot or concept of the depot	please refer corrigendum II-D
191	2	VII-B	Chapter-11 Multiple Purpose working Platform Item code- NMRCLMNP011), 11.1		if you look to the attached drawing " SEZIONE" you can see the two heights of the platforms (3605 and 1200). From our first analysis should be more correct to consider 3330 and 1000	tender condition prevails
192	2	VII-B	Multiple Purpose working Platform Item code- NMRCLMNP011), 11.1	Driver Catwalk (TDC)	TDC (train driver catwalks) are the lower platforms? Are they fixed or movable as the others?	It is clarified that the TDC are the Lower Platforms which will be fixed. Only the RWP will be movable.
193	2	VII-B	Chapter-11 Multiple Purpose working Platform Item code- NMRCLMNP011), 11.2	Elevated Tracks	As understand Elevated track is out of scope.	Yes elevated track is out of scope of M&Ps supplier. Kindly Refer corrigendum II C.
194	2	VII-B			How long shall be the stroke of the movable fall down protection (5 m ???)	It is clarified that the stroke of the movable fall down protection will be 3 Mts.
195	2	VII-B	Chapter-11 Multiple Purpose working Platform Item code- NMRCLMNP011), 11.6.4		How many train configuration set shall we consider?	It is clarified that One 3 Car Unit Train (approx. 70 Mts) to be considered.

SN.	Part No.	section No.	Clause no.	Bid Condition	Bidder's Queries	Response from NMRCL
196	2	VII-B	Chapter-9 CMV Item code- NMRCLMNP008- A)	General	our experience would lead us to say that it is not appropriate to have a versatile vehicle for multiple applications, as it is the case here with 2 CMVs which would have equipment for Mechanical / Infrastructure and Electrical Departments of NMRC.	Tender Conditions prevail.
197	2	VII-B	Chapter-9 CMV Item code- NMRCLMNP008- A)		we do not understand why the 8-wheeler CMV should be supplied with rescue equipment and re-railing equipment all the more we see that there is a separate requirement for a rail/road rescue vehicle with re-railing equipment.	Tender Conditions prevail.
198	2	VII-B	Chapter-9 CMV Item code- NMRCLMNP008- A)	General	we are of the opinion that mixing rescue/re- railing equipment with catenary maintenance activities may not be advisable as the workers will be coming from 2 different services, and the staff of a service may not pay much attention to the equipment intended for another service, with possible hazards of damaging some equipment	Tender Conditions prevail.
199	2	VII-B	Chapter-9 CMV Item code- NMRCLMNP008- A)	General	we don't advise to have track measuring and ultrasonic equipment to be transported on a catenary vehicle, but if the customer insists, please note that we manufacture portable units that could serve the purpose.	Tender Conditions prevail.
200	2		Chapter-9 CMV Item code- NMRCLMNP008- A)	General	We can supply a hand-pushed measuring unit for track geometry parameters and a hand- pushed unit for dual rail ultrasonic inspection. These units should be conforming to NMRC requirements. The track geometry unit can be transported in a case and the ultrasonic unit can be dismounted. Therefore, if customer insists, the 2 units can probably be loaded onto the platform of the vehicle.	Tender Conditions prevail.

SN.	Part No.	section No.	Clause no.	Bid Condition	Bidder's Queries	Response from NMRCL
201	2	VII-B	Chapter-9 CMV Item code- NMRCLMNP008- A)	General	Please see whether NMRC can accept to delete the requirement for rescue equipment on the 8-wheeler CMV and also can accept 2 separate hand-pushed units for track geometry measurement and for ultrasonic measurement	
202	2	VII-B	Chapter-9 CMV Item code- NMRCLMNP008- A),9.15	Rescue equipments	Request to delete the requirement of rescue equipments in CMV vehicle and include this as separate rescue vehicle as separate clause.	
203	2	VII-B	Chapter-9 CMV Item code- NMRCLMNP008- A),9.7	Brake System	Request for change " brake cylinders" instead of "brake blocks	please refer corrigendum II-B
204	2	VII-B	Chapter-9 CMV Item code- NMRCLMNP008- A),9.11	Working Platform	Request for change " telescopic " platform instead of a " scissors " type and that the platform can pivot instead of translating.	please refer corrigendum II-B
205	2	VII-B	Battery Operated		In case of rubber tyre, electrical earthing bonding may not possible. It may require additional attachment/short circuiting device added the wheel.	
206	2	VII-B	Battery Operated Rail Cum Road	Special attention shall be drawn to the following points for the design and manufacture of the tractors: - Operational safety,	For operational safety feature, Shall track occupancy infomation is required for signalling purpose or not.	It is clarified that the Battery Operated Shunter is for the use within the Depot, Track occupancy information is not required.
207	2	VII-B	Battery Operated	The driver"s desk design shall be such as to facilitate easy access from both sides of the Shunter.	Higher capacity shunter do not have access from both side.	tender condition prevails

SN.	Part No.	section No.	Clause no.	Bid Condition	Bidder's Queries	Response from NMRCL
208	2		Battery Operated Rail Cum Road shunting vehicle (Item code- NMRCLMNP009,	The roof-mounted cabin shall have all around visibility made from 2-3 mm thick stainless steel. Cabin shall have sufficient inside height with suitable illumination. It shall have at least 2 lockable doors, safety glass and screen wipers. The cab itself shall have several grips for the operator to hold on.	Generally it is not Stainless Steel, Can confirm if it is mandatory or optional	Tender Conditions prevail.
209	2			. Emergency Stop push button shall be provided in all four corners of the vehicle.	Button should be provided on all for corners or side of the vehicle	Depending on the size and Design of the Shunter, number of Emergency Stop Push Buttons may vary. This can be a part of the Design Review.
210	2		Battery Operated Rail Cum Road shunting vehicle	The Battery Operated Road cum Rail Shunting Vehicle shall preferably have provision for regenerative braking system in the braking mode of the vehicle.	Its shall be optional not mandatory. Request to change/delete the clause.	It is mentioned in the specifications that regenerative braking system is preferred. It is not mentioned that it is mandatory.
211	2	VII-A	REQUIREMENT -GENERAL SPECIFICATION,			
212	2	VII-A	EMPLOYER'S REQUIREMENT		Detail overview of climatic condition of Nagpur shall require to describe.	It is clarified that the Max. Ambient Temperature in Nagpur is 50 Deg. C. Max. Humdity is 88%, Min. Humidity is 20.7%. Corrigendum will be issued.
213	2	VII-A	REQUIREMENT -GENERAL SPECIFICATION, 1.6.3			Tender Conditions prevail.

SN.	Part No.	section No.	Clause no.	Bid Condition	Bidder's Queries	Response from NMRCL
214	2	VII-A		Warranty (Defect Liability) Period shall start from the Date of Commissioning of last M&P upto 24 months.	Replace with- Warranty (Defect Liability) Period shall start from the Date of successfully Commissioning of individual equipment supplied in M&P scope.	
215	2	VII-A	REQUIREMENT GENERAL	on complete sub-assembly; even when only	Replace with : In all such cases, Warranty will be applicable on component which has been modified/replaced/repaired. Vandalism case shall exclude from this clause.	
216	2	VII-A	REQUIREMENT -GENERAL SPECIFICATION, 1.8.5	warranty shall be carried out by the Contractor promptly and to the complete satisfaction of the Engineer on notification of the defect by the Engineer / Employer so that no Equipment is unfit for service for more than 48 hours. In case of any Machine remains out of operation beyond specified duration above 48 hours, due to reasons attributable to Contractor, Engineer/Employer may at his sole discretion impose a penalty on the Contractor, commensurate with the revenue and opportunity loss to the Employer. Decision of Employer shall be final and binding.	Terms require to be relaxed for M&P equipments as machine's operations are not continuous and when it shall require, it shall perform the operation, failing to this employer at his sole discretion decide to impose penalty condition. Replacement for parts which are in stock/to procure from offshore can not be arranged within 48 hours.	
217	2	VII-A	EMPLOYER'S REQUIREMENT -GENERAL SPECIFICATION, 2.1.3		Request to delete Service trail protocol shall not apply to M&P equipments. Also no criteria defined for service trails.	please refer corrigendum II- B
218	2	VII-A	REQUIREMENT –GENERAL		With - DLP shall solely rest with M&P Integrator / member of the consortium based on which the consortium / JV got qualified.	

SN.	Part No.	section No.	Clause no.	Bid Condition	Bidder's Queries	Response from NMRCL
219	2	VII-A	EMPLOYER'S REQUIREMENT -GENERAL SPECIFICATION, 4.2&4.2.5	IT requirement of Employer	Not understood clearly. What is the expectation from Contractors.	Please refer to Chapter 4 & 6 of General Specification (Section VII- A), which is self- explanatory.
220	2		-GENERAL SPECIFICATION, 6.2.2	systems shall be defined and certified.	Replace: This condition should not apply for M&P equipments. Request to delete.	
221	2	VII-A	REQUIREMENT -GENERAL SPECIFICATION, 6.6.1	modify / change various parameters / logics used in the software and implement the changes on M&P. Full facilities including any software / hardware tools, simulation / test bench which are essential for this purpose	However copy of software will be provided for	The clause clearly defines that it shall be possible for NMRCL to modify / change various parameters / logics used in the software and implement the changes on M&P. Access for modifying / changing of Propriety software of OEM has not been requested. Tender Conditions prevail.
222	2	VII-A	REQUIREMENT GENERAL	All software(s), irrespective of contractor's own softwarecompatibility with new version of Windows for at least a period of 5 years beyond DLP of the last <b>train</b> .		please refer corrigendum II-B
223	2		EMPLOYER'S REQUIREMENT -GENERAL SPECIFICATION, 6	Software Management and Control	Wherever applicable user software will be provided. Development / design software tools which propriety of manufactures will not be the part of supply.	& 6 of General

SN.	Part No.	section No.	Clause no.	Bid Condition	Bidder's Queries	Response from NMRCL
224	2		8.9.2		recommended spares delivered shall be 24 months from the date of acceptance / receipt of materials.	please refer corrigendum II- B
225	2		EMPLOYER'S REQUIREMENT -GENERAL SPECIFICATION, 8.11.4		Request to delete the clause. It is applicable for Rolling stock	Tender Conditions prevail.
226	2		REQUIREMENT GENERAL	In case the Contractor is unable to supply spares in accordance with Clause above, he shall furnish, free of cost to the Employer, the drawings, specifications, and other technical details, to enable the Employer to manufacture parts, or have them manufactured. Such drawings and technical data shall be provided free of any charge or royalty, on the understanding thatthe Employer will use such data and drawings, only for the manufacture of parts for its own use.		Tender Conditions prevail.
227	2		-GENERAL	approximately 200 sgmThe structure		for Office Setup will be

SN.	Part No.	section No.	Clause no.	Bid Condition	Bidder's Queries	Response from NMRCL
228	2	VII-A	EMPLOYER'S REQUIREMENT -GENERAL SPECIFICATION- Appendix -7, Interface,7.13.3	Table7-7 Sr. no-2,3,4,5,6 Interface requirement	Civil scope and interface responsibilities shall be furnished in details	It is clarifed that all Civil Work related to the respective M&Ps will be in the M&P Contractor's (Bidder's) Scope. Important Interface requirements have been defined. Detailed Interface requirements may be specifed by the M&P suppliers during bidding stage and the Design review stage.
229	2	VII-B	TECHNICALSPE CIFICATION- Chapter-1, 1.2	Point-10- Any other work found necessary for the project to bring it to a satisfactory completion stage.		Tender Conditions prevail.
230	2	VII-B	CIFICATION-	Point-5- All civil foundation work related to Installation and Commissioning of M&Ps, as applicable.	We understand that civil works is under Depot Contractors scope. All requirements related civil construction will be provided by M&P integrator.	It is clarified that all Civil Work related to the respective M&Ps will be in the M&P Contractor's (Bidder's) Scope.
231	1	111	B. ELIGIBILITY CRITERIA 1.1 SN. 1	Schedule —All which the Bidder must have, supplied, Tested & Commissioned within last 10 Years. These 4 types should include at least one type of machine from Automatic Train Wash Plant/ Under Floor Wheel Lathe/Under Floor Train Lifting System.	We understood this clause as we have supplied, tested and commissioned at least 4 types of equipment out of 10 required items from the list. And from the 4 equipment at least 1 type of equipment shall be in the scope of Automatic Train Wash Plant/ Under Floor Wheel Lathe/Under Floor Train Lifting System.	
232	1	111	B. ELIGIBILITY CRITERIA 1.1 SN. 3	the above 4 Types of machines (SN-1), which the Bidder must have Supplied, tested &	Our understanding is that bidder should have supplied total 2 types of equipment outside of the country of origin. Our proposal is that the bidder should have supplied, tested and commissioned minimum 1 type of equipment out of the country of origin within last 10 years, and quantity minimum 1.	
233	3	IX	PCC, page no.111	Table: Summary of Section Key Dates	The given key dates are very much stringent. Request you to reconsider because it is very difficult to meet the given timeline of delivery.	

SN.	Part No.	section No.	Clause no.	Bid Condition	Bidder's Queries	Response from NMRCL
234	3	IX	PCC, page no.165	In consideration of the Employer entering into the Contract with the Contractor, the Parent Company hereby undertakes to the Employer that, without the written consent of the Employer, it will not [and will ensure that none of the companies referred to in Recital (C).	"information"	Tender Conditions prevail.
235	1	III	EVALUATION CRITERIA. C. ASSESSMENT TOPICS T4	criteria is that the Average Annual Turn Over		
236	2	VII-B		vertical brushes (one on each side) with	Please confirm whether one pair of split horizontal brushes with gantry required or not because the requirement Plant shall wash the lateral side of the coaches.	
237	2	VII-B	Automatic train wash plant 2.4			

SN.	Part No.	section No.	Clause no.	Bid Condition	Bidder's Queries	Response from NMRCL
238	2	VII-B		side, shall be provided for water brushing on	The lay-out No. ELSGPJ098 (here attached) shows two pairs of vertical brushes (two on each side) as indicated in the technical specification. Having analyzed the gauge shape, we suggest the installation of two groups of oval brushes (one on each side) + one pair of vertical brushes, insted of two pairs of vertical brushes. Each group of oval brushes is equipped with No. 4 brushes. As indicated in the file "Borders and indentation washing station" here attached, only these kind of brushes, thanks to their shape and rotation, are able to wash windows, doors recesses and/or vertical recesses of the coach.	
239	2	VII-B	"Section VIIB - Technical Specifications" End of paragraph No. 2.8	"All the stations shall be enclosed by three	The adoption of this type of splashguared is expensive and not necessary, based on our experience. We recommended protection to enclose the brush stations in "special" PVC cloth in different colors to choose and supported by robust hot dip galvanized and painted structures.	
240	2	VII-B	GENERAL DESIGN REQUIREMENTS, UFWL	movement and concrete beam deflections. The maximum expected movement of any section of any building will be □25mm vertically, □25mm longitudinally and □25mm laterally.	manufacturing to building movement and concrete beam deflections.	explanatory. Tender Conditions prevail.
241	2	VII-B	3.4.2.1	load (within maximum specified) may have to be re-profiled. The machine should either	weight axle load heavy axle. As you have mentioned 16 Ton axle load of rolling stock.	16 Tons and defined in the NMRCL SOD, which

SN.	Part No.	section No.	Clause no.	Bid Condition	Bidder's Queries	Response from NMRCL
242	2	VII-B	9.6	The vehicle will have a double cabin with enough space for carrying 10 persons. The cabin will both A/C and heater.	Cabin equipped with double steering console, one for each direction of the latter is usually the most logical solution.	It is clarfied that Cabin equipped with double steering console, one for each direction is acceptable, however occupancy of 10 persons needs to be complied with
243	2	VII-B		pantograph, insulated, calibrated and with		

SN.	Part No.	section No.	Clause no.	Bid Condition	Bidder's Queries	Response from NMRCL
244	1	III	Clause 1.1	<ul> <li>Representative or M &amp; P Integrator) or Consortium/ Joint Venture of Bidders must meet the following conditions:-</li> <li>1. Minimum Number of Type of Machiunes from Schedule "A" which the Bidder must have supplied, Tested &amp; Commissioned within last 10Years. These 4 types should include at least one type of machine from Automatic Train Wash Plant/ Under Floor Wheel Lathe / Under Floor Train Lifting System - Qty - 4.</li> <li>2. Minimum Number of Each of the above 4 Types of Machines (SN-1) which the Bidder must have, Supplied, Tested &amp;</li> </ul>		
245	1	111	Clause 1.4	have an Indian associate for Defects Liability Period and Post Defects Liability Period obligations. Such associate should have minimum 5 years of experience of Manufacturing/maintenance of Machines for Railways / Metros applications and providing	recommended: Such associate should have min. 10 years of exp. Of Manufacturing or Maintenance of such Machines for Railways / Metros applications and providing saticfactory After Sales Service in India. This experiance should include at least one type of machine from Schedule A.	

SN.	Part No.	section No.	Clause no.	Bid Condition	Bidder's Queries	Response from NMRCL
246	1	III	Page No. 155 Clause 2.0	JV/consortium shall be fully responsible for Design, Manufacture, Supply, Installation, Testing and Commissioning of the Machines and Training of the Engineers and also for coordinating maintenance and After-Sales	<u>May be amended to :</u> The sole bidder or Lead Partner of JV/consortium shall be fully responsible for Design, Manufacture, Supply, Installation, Testing and Commissioning of the Machines and Traning of the Engineers and will be <u>responsible</u> for the After-Sales Services during DLP, O & M Documentations and AMC Period.	В
247	1	II	Section II - A: Bid Data Sheet - Tender Notice	Date & Time of submission of Tender	Considering the complexity of the tender requirements, request you to extend the Date & time of Submission of Tender online by 6 weeks	Submission Schedule,
248	1	II	Section II - A: Bid Data Sheet - Corrigendum 1	Last date of submission of pre-bid queries	We request you to relax this clause and extend the date by 2 weeks for submitting additional queries.	
249	1	III	Evaluation and Qualification Criteria - Clause No - 1.1	Conditions Minimum Number of Type of Machines from Schedule 'A' which the Bidder must have, supplied, Tested & Commissioned within last 10 Years . These 4 types should include atleast one type of machine from Automatic Train Wash Plant / Under Floor Wheel Lathe / Under Floor Train Lifiting System		please refer corrigendum II-B
250	2		Requirement - Technical Specifications-	for lifting railcar body at its jacking points. Each body stand consists of one spindle- lifting element, one lifting beam, one guiding	Body Stand normally hold the train at a specific height while lowering / removing bogies under the lifted train. If the Body Stands need to lift the car body, the overall system will have additional commercial liability due to need of stronger motor type. In a regular system design the Bogie Lifter lifts the train.	

SN.	Part No.	section No.	Clause no.	Bid Condition	Bidder's Queries	Response from NMRCL
251	2	VII-B	Requirement - Technical Specifications- Clause No. 4.6	following requirements on dimensions and tolerances: Bogie Hoist lift 1.8m Body Stand lift Not less than 2.7m		
252	2	VII-B	Works Requirement - Technical	All floor covers shall be solid steel plates with	As per industry standard, 12/10 mm cheque plates are generally used. Can you revise the requirements accordingly.	
253	2	VII-B	Requirement - Technical Specifications-	master control console. When a fault occurs, a buzzer on the panel shall sound and a lamp shall flash indicating the location and the nature of the fault. By pressing an	the safe function of the overall system as protection of workshop staff and equipment.	fault clerance procedure is acceptable. However Fault Display Papel is
254	2	VII-B	Requirement -		Request you to consider following proposal: We use standard Isolator for the main control panel and not the through door electrical isolation switches	

SN.	Part No.	section No.	Clause no.	Bid Condition	Bidder's Queries	Response from NMRCL
255	2	VII-B	Requirement - Technical Specifications- Clause No. 4.10.6	to protect the equipment against damages in the event of equipment being overloaded. Once any of the overload devices are activated, overload lights and buzzers on corresponding panels shall be turned on and all operation modes except lowering shall be prohibited. On removal of the overload, the	Request you to consider following proposal: Motor protection is being used for each motor for overload and for each pit, the overall current is protected by fuse in the main control cabinet. As per the tender requirements, load cell needs to be installed in each individual Bogie Lifter. Only with a load cell in each Bogie lifter then we can know exactly the load and make conditions in the PLC program that when overload it can be only be lowered and cannot be raised. This will reflect in additional cost implications (load cell in every Jack) and software and mechanical design. please confirm	overload protection.
256	2	VII-B	Works Requirement - Technical Specifications- Clause No. 6.4.6	automatically with each side individually. The	Air leak test shall be done automatically. Yes this is possible, ONLY after you set up all other air connections manually first and press the button "start". Please confirm our understanding . Leak test cannot be automatic.	correct.
257	2	VII-B	Specifications- Clause No. 6.6.4	The movement of Hydraulic Cylinder Ram shall be capable for lateral/horizontal adjustment to cover the specified parameters on the moving crossbeam to maintain accuracy within +/-0.1 mm. The vertical hydraulic cylinders shall be movable horizontally with spindle gear by hand. These shall be equidistant from the centre line of track and always move synchronously. Proper arrangement shall have of such type so that the said accuracy of the movement can be maintained over a long period. The position of vertical cylinders shall be shown by a scale on the horizontal beam of "Circulating Steel Structure" and also by display on PLC system.		II-B
258	2	VII-B	Requirement - Technical	withstand the weight of 25 Ton, and other	Tender refers: Each Turn Table shall with stand weight of 25 Ton. As 25 ton is roll Over Capacity so instead of wording weight to be corrected to Roll Over Capacity 25T.	

SN.	Part No.	section No.	Clause no.	Bid Condition	Bidder's Queries	Response from NMRCL
259	2	VII-B	Requirement - Technical Specifications-	with a self-aligning spherical roller thrust bearing to facilitate turning operation. Center	Request you to consider following proposal: As per tender Center pivot shall be provided and equipped with a self-aligning spherical roller thrust bearing to facilitate turning operation whwreas as per proven design Center pivot shall be provided and equipped with a self-aligning Axial Speherical plane bearing to facilitate turning operation " Axial Speherical plane bearing" is proven designedfor this application	
260	2	VII-B	Clause No. 7.7	provided and located at periphery of turntables. The tracks on turntable shall be aligned with adjacent embedded tracks when bogie turntables are in their locked	Request you to consider following proposal: Clause 7.7 Automatic locking. As it is totally mechanical therefore mechanical locking device is equipped in main BTT frame instead of Automatic locking and this design is well proven. Locking get engage in solts provided in Pit rings at 4 places at every 90 degree turning.	Tender Conditions prevail
261	2	VII-B	Specifications- Clause No. 7.11	turntable for manual turning operation An	Request you to consider following proposal: Clause 7.11 - To delete this as provision for storage of operating lever in BTT deck is not technically feasible. Removable operating lever is provided and can be easily stored in the depot room in the workshop.	Tender Conditions prevail
262	2	VII-B	Specifications- Clause No. 7.13	painted in Yellow colour of Polyurethane lacquer top coats and as per general		It is clarified that as per depot equipment painting scheme / standards for moving / rotating equipments recommended in colour code RAL 1004 (yellow golden), will be acceptable. However this can be a part of Design Approval.

SN.	Part No.	section No.	Clause no.	Bid Condition	Bidder's Queries	Response from NMRCL
263	2	VII-B	Clause No. 10.3.4	unloaded condition on the ground shall be capable of climbling 10% gradient over a length up to 20 meters.	Please clarify if this is necessary or can be minimized to 3% gradient. " 10.3.4. The shunting vehicle travelling under unloaded condition on the ground shall be capable of climbing 10% gradiant over a length up to 20 meters. "	
264	2	VII-B	Specifications- Clause No. 10.3.9	accumulator capacity or similar arrangement for additional braking support to avoid damages in case of failure of designated brake system while it moving with load.	Please clarify the actual specific requirement of this. "10.3.9. The machine shall have sufficient brake accumulator capacity or similar arrangement for additional braking support to avoid damages in case of failure of designated brake system while it moving with load."	braking arrangement is desired.
265	2	VII-B	Specifications- Clause No. 10.5.4	Operated Road cum Rail Shunting Vehicle seat facing forward with 360 degree visibility		В