

<b>Metro Manila Subway Project Phase 1 Package CP107: Rolling Stock</b>			
<b>ITEM NO.</b>	<b>REFERENCE/CLAUSE/SECTION</b>	<b>CLARIFICATION REQUEST</b>	<b>RESPONSE</b>
<i>General</i>			
1	<p>Bidder's Clarification dated 10<sup>th</sup> February, 2020</p> <p>Bidder's Clarification dated 3<sup>rd</sup> March, 2020</p>	<p>Bidder would like to remind to Employer that Bidder has not received any answer from Employer for following clarification;</p> <p>Bidder's clarification dated 3<sup>rd</sup> March, 2020</p> <p>For Employer's reference, attached hereto please find the list of remained items of clarification.</p> <p>To submit the Bona-fide proposal by the current deadline, Bidder would like to receive Employer's reply as soon as possible.</p>	<p>Noted.</p> <p>Response to the bidder's clarification dated 3<sup>rd</sup> March, 2020 has been submitted to the DOTr 15<sup>th</sup> April 2020. However, response to the items 35, 38 (sub item 2) and 42 may refer to this General Bid Bulletin under items 30, 31 &amp; 32.</p>
2	<p>General Bid Bulletin No.2, Annex "B"</p> <p>Item No.1</p> <p>Volume I, Invitation for Bids 6</p>	<p>According to GBB No.2, the deadline of Bid submission is extended until 10:00 am on 30 April 2020. However, Bidder would like to request the additional extension with following reasons:</p> <ul style="list-style-type: none"> <li>- Bidder has received revised sample data of run-curve simulation for considering the capacity of Propulsion System, however its revision has major difference from</li> </ul>	<p>Please refer GBB No.4 for extension of time.</p>

		<p>previous data, which we need to analyse carefully. For this purpose only, Bidder needs at least sixty days.</p> <ul style="list-style-type: none"><li>- Due to the outbreak of Coronavirus (COVID-19) all over the world, Bidder and its suppliers in Japan has to reduce or shutdown normal business operation and it has been affecting our bid preparation work seriously.</li></ul> <p>In addition, it is anticipated unfortunately that outbreak of Coronavirus (COVID-19) will not be ceased soon and it may cause further big impact on Bidder's as well as its supplier's bid preparation work.</p> <ul style="list-style-type: none"><li>- Bidder is still waiting for the Employer's reply to its technical clarifications.</li></ul> <p>Major suppliers, such as propulsion system, air conditioner, wheel &amp; axle Ass'y, brake equipment, mentioned that they could submit their quotations only after they receive the Employer's reply to the above technical clarifications.</p> <ul style="list-style-type: none"><li>- Bidder can consider/choose the potential sub-suppliers only after the sub-suppliers' proposal and it shall need additional time to finalize their bidding documents.</li></ul> <p>Thus, Bidder physically needs additional time to prepare its bid proposal and estimates it is necessary at least sixty days</p>	
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General Bid Bulletin No.7  
Annex "A"

		from 30 April, 2020 to do it. To prepare the best proposal to maximize benefit to the Employer, Bidder would like to request employer's kind consideration for this matter.	
3	General Bid Bulletin No.3	<p>Bidder would like to confirm following points:</p> <ul style="list-style-type: none"> <li>- Regarding Annex "B", it is Bidder's understanding that the contents of Annex "B" is mentioned about CP106. Please confirm if Bidder's understanding is correct and if correct, re-issue the correct contents of Annex "B" mentioned about CP107.</li> <li>- Regarding Annex "C", there two uploaded file which is mentioned as Annex "C". Bidder would like Employer to explain which the correct Annex "C" is.</li> </ul>	<p>Bidders explanation is correct. Annex "B" for CP107 instead of CP106.  Both files published under Annex "C", are correct.</p>
4	<p>General Bid Bulletin No.1 Annex "A" Item No.16</p> <p>General Bid Bulletin No.1 Annex "B" Item No.10</p> <p>Section VIII. Particular Condition (PC), Page PC-3, Delay Damages for the Works 8.7</p>	<p>In reply to Item No.16 of GBB No.1 Annex "A", based on the clarification at North South Commuter Railway Project Phase 1 (Malolos~Tutuban) CP03; Rolling Stock Package, A Bidder requested to reduce the Liquidated Damages 0.005%/day and Employer approved zero point zero two seven percent (0.027%) per day to all the Key Date..</p> <p>Current Delay Damage stated in Item No.10 of GBB No.1 Annex "B" shall be JPY16 Million per day or JPY32 Million Per day depending on the Key Date and Bidder considers the delay damage of JPY32 Million Per day is still high</p>	<p>This query will be deferred for the mean time. We will publish the response on one of the following bid bulletins.</p>

		<p>comparing to the other ODA funded Railway project in the Philippines.</p> <p>Therefore, Bidder would like to kindly ask Employer to apply the Delay Damage of JPY16 Million per day to all Key Dates.</p>	
<b>Volume I, Part 1 – Bidding Procedures</b>			
5	<p>Section I. Instructions to Bidder(ITB), Page ITB-18, 22.2</p> <p>Section II. Bid Data Sheet(BDS), Page BDS-4, ITB22.2</p>	<p>ITB22.2 of BDS-4 states “The transfer of authenticating the signature of the authorized person shall be through a Public Power of Attorney (PoA) countersigned by a Public Notary.”</p> <p>According to the above, it is Bidder’s understanding that there is no need for all of delegated person who will be transferred the authority to sign on PoA but only signature of delegating person shall be enough. Please confirm if Bidder’s understanding is correct.</p>	<p>Please refer to ITB 22.2 quoted below: BDS 22.2 requires those who (usually a representative director of each member of a Joint Venture or a Consortium) authorized as a person duly authorized to sign the Bids on behalf of the Bidder shall be authenticated by a Public Notary.</p> <p>22.2 The original and all copies of the Bid shall be typed or written in indelible ink and shall be signed by a person duly authorized to sign on behalf of the Bidder. This authorization shall consist of a written confirmation as specified in the BDS and shall be attached to the Bid. The name and position</p>

			held by each person signing the authorization must be typed or printed below the signature. All pages of the Bid where entries or amendments have been made shall be signed or initialed by the person signing the Bid.
6	Section III Evaluation and Qualification Criteria, Page EQC-3, 1.1.7 Schedule of Guarantee	In accordance with the 1.1.7 of Evaluation and Qualification Criteria(EQC), Bidder is required to submit a Schedule of Guarantee, which shows Bidder's responsiveness of Performance/Specific Guarantee in accordance with the Employer's requirement. However, there is no detail instruction and specific bidding form of Schedule of Guarantee to show the bidder's responsiveness. Therefore, it is Bidder's understanding that Bidder can regard the BF-51 "CONFIRMATION ON SUBSTANTIAL RESPONSIVENESS OF SYSTEM/SUB-SYSTEM TO THE EMPLOYER'S REQUIREMENT-TECHNICAL SPECIFICATION" as the form required in 1.1.7 of EQC. Please confirm if our understanding is correct, and if not, otherwise, Bidder would like to request Employer to instruct the specific form.	Bidder's understanding is correct
7	Section IV. Bidding Form Technical Bid, Page BF-42, Form SUB:	It is Bidder's understanding that the current SUB form only covers the case that a carbody manufacturer becomes a	Bidders understanding is correct

		<p>prime contractor. However, Bidder believes there is a case to be potentially possible and better to be covered that a trading firm becomes a prime contractor and a carbody manufacturers become a sub-contractor to that trading firm. To cover this case (which is quite common), Bidder would like to suggest including Carbody as a content of Major Item in Form SUB. In addition, Bidder understands that a Bidder who will subcontract a Carbody manufacturing work to a carbody manufacture shall submit the Form ELI-2, EXP-2, MAN and SUB to show the eligibility of its subcontractor. Please confirm if Bidder's understanding is correct.</p>	
8	<p>Section IV. Bidding Form Technical Bid, Page BF-80, Price List of Recommended Spare Parts and Special Tools.</p>	<p>Bidder would like Employer to clarify how to fill in the column "Escalation/ De-escalation" in the form of "Price List of Recommended Spare Parts and Special Tools".</p>	<p>Bidder's understanding is correct</p>
<p><b><i>Volume II, Part 2 – Employer's Requirements</i></b></p>			
9	<p>General Requirements Page ERG-57 Sub-Clause 8.1 General</p>	<p>This section requires the MDBF (Mean Distance Between Failures) for 30 train sets of the fleet shall achieve 50,000 km. To properly evaluate the MDBF value intended to propose, Bidder would like Employer to provide the following information:  Intended average travel distance per one train set per week (kilometre), which shall be calculated on all the fleet</p>	<p>Refer to ETT Sub-Clause 1.11, mentioned as below. Bidder to use this information to evaluate MDBF.  For purposes of defining the maintenance requirement of each consist, the yearly- accumulated</p>

		including, but not limited to, those out of service or those under maintenance.	kilometer run assumption shall be 170,000 km.
10	General Requirements Page ERG-61 Sub-Clause 9.6 REVIEW OF DRAWINGS, DOCUMENTS AND OTHER INFORMATION	It is stated that "Any action taken by the Contractor to proceed with any part of the Works before the drawings are reviewed by the Engineer shall be entirely at the Contractor's risk, and any subsequent addition or modification to the Works requested by the Engineer shall be carried out by the Contractor at his own expense". Bidder would like to confirm Employer to bear the cost by Employer in the event that any subsequent addition or modification to the Works which Contractor is directed by the Engineer to deviate from the Contract defined in General Condition clause 1.5 and Particular Condition.	Referred to General Conditions of Contract Sub-Clause 3.3.
11	General Requirements Page ERG-97 Sub-Clause 20.12 SYSTEM INTEGRATION PLAN  Technical Requirements Page ERT-123 Sub-Clause 22.7 INTEGRATED TESTING AND COMMISSIONING	It is Bidder's understanding that "System Integration Plan" stated in ERG Sub-clause 20.12 is the same plan as "Integrated Testing and Commissioning Plan" stated in ERT Sub-clause 22.7. Please clarify if Bidder's understanding is correct. If it is correct, Bidder kindly would like to ask Employer to delete requirement of System Integration Plan from ERG.	No, Bidder's understanding is incorrect. Refer to ERG Sub-Clause 1.7.9 for interface requirement.  "System Integration Plan" includes not only Testing and Commissioning but also design and management method in interfacing and integrating the system from the detail design stage to commissioning and handover (i.e.

			entire project life cycle).
12	<p>General Requirements Page ERG-App-14 Table B.2 Split Responsibility in Special Tools for Rolling Stock and Depot Equipment</p>	<p>It is Bidder's understanding that "2.8. Testing equipment for relays" and "2.9. Testing equipment for magnetic valves" are the equipment which verify operation voltage, open-circuit voltage, operating time or contact resistance.</p> <p>If the above understanding is correct, Bidder would like to propose in maintenance manuals that all relays and magnetic valves shall be replaced with new ones as a part of maintenance in lieu of testing and repairing, thus testing equipment for relays and testing equipment for magnetic valves are not necessary because of following reasons;</p> <p>Most of relays and magnet valves are not repairable, therefore, test equipment is not necessary. If any relays or magnetic valve is in question, such item typically show some visible indication, or test crew may simply place a new piece and run a functional test. Another reason for this suggestion is to reduce costs for the purchase of various test equipment for the relays and magnet valves with not adequate justification.</p> <p>Therefore, Bidder would like Employer to allow Bidder not to supply "2.8. Testing equipment for relays" and "2.9. Testing equipment for magnetic valves".</p>	<p>No, Bidder's understanding is incorrect.</p> <p>For example, electric parts such as relay and magnetic valves will be renewal every 12 years. But between 12 years, those items are tested in workshop as part of the maintenance policy/procedure therefor testing equipment is necessary and shall for part of the Maintenance tools.</p>
13	Technical Requirements	ERT Sub-clause 1.3.4, 1) a) and d) specify basic carbody	Bidder can propose carbody design in



	<p>Page ERT-4 Sub-Clause 1.3.4 Vehicle Physical Characteristics</p>	<p>length and width. In Japanese carbody construction practice, the carbody width dimension is measured between outside surfaces of framing members without including outside skin thickness and door frame thickness. Similarly, carbody length dimension is also based upon outside surfaces of end framing members; and to properly join side frame and end frame sub-assemblies, side frame must be extended approximately 30 mm on each end to allow spot welding. With the above reasons, Bidder would like to propose carbody dimensions based upon outside framing members which shall not violate envelope. Please confirm if Bidder is allowed to propose carbody dimensions on the understanding explained above.</p>	<p>the method what Bidder mention for The Engineer's review and acceptance and The Employer approval.</p>
14	<p>Technical Requirements Page ERT-27 Sub-Clause 2.9 LADDER FOR EVACUATION</p>	<p>It is Bidder's understanding that two assemblable evacuation ladders shall be equipped per one car at maximum in the saloon under the requirement in sub-clause 2.9. Please confirm if Bidder's understandings is correct.</p>	<p>Bidder's understanding is correct.  Two sets of ladders shall be equipped in one car. This is subject to evacuation time to meeting the applicable standard and acceptance of Evacuation plans/procedures by the Bureau Fire Protection (BFP).</p>
15	<p>Technical Requirements Page ERT-34 Sub-Clause 4 OIL INJECTION</p>	<p>ERT Sub-clause 4.1 states that "Flange lubricators shall be provided at the leading axle of both ends of the train on both sides." However, Bidder is concerned if the lubricating oil</p>	<p>Bidder's request is accepted.</p>

	4.1 GENERAL	may be spread to the antenna of train control system. Bidder would like to kindly ask Employer to amend the location of flange lubricators to the most suitable location where there are sufficient spaces underneath the car.	
16	Technical Requirements Page ERT-35 Sub-Clause 5 COUPLER AND DRAFT GEAR 5.1 GENERAL	ERT Section 5.1 requires that the coupler height, measured from the centre of the coupler to the top of rail, shall be within 880 mm +10/-15 mm. It is Bidder's understanding that coupler height of "880 mm +10/-15mm" would be better adapted only for leading cars. Height for the intermediate cars can be proposed by the Bidder to achieve the best inter-car connection with adequate gangway space (including those which may be separated for half train set operation). Please confirm if Bidder's understanding is correct.	Bidder's understanding is correct.  And be aware of the following. Couplers shall connect to the NSCR trains without an adapter. Detailed drawings shall be provided at the detailed design stage for this interface requirement for the Engineer to review and approve.  Current Employers Requirements are the same for MSP & NSCR Bid document.
17	Technical Requirements Page ERT-39 Sub-Clause 6.7 PASSENGER SEATS	ERT 6.7 states "the artificial leather sheets shall be applied on the seats or ergonomic, water-proof, vinyl seats". It is Bidder's understanding that either artificial leather or ergonomic, water-proof, vinyl seats can be chosen for a certain portion of seat materials. Please confirm if Bidder's understanding is correct.  Meanwhile, Bidder would like to request for the Employer's	The Bidder get an opportunity to propose the materials at detail design stage, and prepare both if necessary in the Mock-up time for the Engineer review and approval and Employer acceptance. Artificial leather means commonly used in the

		<p>approval to add FRP as materials for passenger seats. Since artificial leather is not so common materials for commuter rolling stock in Japan, custom-ordering is needed, which shall make them much more expensive than FRP. Also, artificial leather and vinyl sheet can be easily damaged, which ends in additional frequent works.</p> <p>Also, ERT 6.7 states "The seat design shall eliminate gaps that shall trap dirt or liquids". However, according to response from prospective subcontractors, if artificial leather material is applied, it becomes necessary to examine change of the seat design which may cause large gaps in many places. It is also difficult to eliminate gaps on artificial leather seats because of stitches. In contrast, there will be no gaps on FRP seats.</p>	<p>trains operating in Japan</p>
<p>18</p>	<p>Technical Requirements Page ERT-57 Sub-Clause 9.3 COOLING SYSTEM</p>	<p>ERT Section 9.3 requires 6 units of Line Flow Fan on Intermediate car and 5 units of Line Flow Fan on leading car shall be incorporated. Bidder considers that this requirement is excessive because of following reasons:</p> <p>Other important equipment such as emergency ventilation system plus wind outlets of air conditioners and control units of LCD displays will be installed on ceiling which will make it difficult to provide space for required number of Line Flow Fans.</p> <p>In addition, air conditioners themselves have sufficient</p>	<p>Bidder's request is accepted.</p> <p>The air volume distribution of the cooling system should have enough air flow capacity for the area its designed to cover. Contractor shall provide air circulation during the detailed design stage for review and approval bt the Engineer.</p>

		<p>capacity of providing air flow.</p> <p>It is also Bidder's understanding that it would be sufficient if Line Flow Fans are installed only in the specific area of a car, for example, the space heated by high density of passengers.</p> <p>Thus, Bidder would like to ask Employer to revise the ERT requirements to leave the arrangement and quantity of Line Flow Fans will be determined during the design review.</p>	
19	<p>Technical Requirements Page ERT-59 Sub-Clause 10.1 GENERAL</p>	<p>Generally, brake cylinders and air suspensions are not equipped with pressure sensors. Air pressure of brake cylinders and air suspensions are detected by brake control unit, and utilized for brake control, ATO, etc. If built-in pressure sensors are required in brake cylinders or air suspensions, the structure will make them less reliable and cost will increase. In addition, competitiveness of subcontractors will fall.</p> <p>On the other hand, by detecting air pressure by brake control unit, system configuration will be simplified, which will solve the issues described above and lead to Employer's benefit. Bidder would like Employer to kindly accept proposal that air pressure of brake cylinders and air suspensions is detected by the brake control unit.</p>	<p>Bidder's request is accepted on the basis the proposed system configuration has proven service history.</p> <p>The record and performance data shall be reviewed and approved by the Engineer for Employers acceptance.</p>
20	Technical Requirements	ERT sub-clause 13.1 states that electrically operated	Bidder's understanding is correct.

	Page ERT-74 Sub-Clause 13.1 CURRENT COLLECTION	<p>pantographs shall be used. It is Bidder's understanding that "electrically operated" means how to initiate the operation of raising and lowering pantographs, thus the pantograph raising / lowering by means of coil spring or air pressure under electrical command controls also complies with the description of this sub-clause. It is because the pneumatic lowering mechanism is more beneficial than the motor-driven lowering device in terms of the robust to assure electrical isolation.</p> <p>Please confirm if Bidder's understanding is correct.</p>	
21	Technical Requirements Page ERT-94 Sub-Clause 18.1 GENERAL	<p>ERT sub-clause 18.1 states that "When trains stop inaccurately, this means rate of achieving stop within range fixed point <math>\pm 350</math> mm shall be less than 99.8%".</p> <p>It is Bidder's understanding that the above description in ERT sub-clause 18.1 is the requirement for CP106 Contractor and NS-01 Contractor and this requirement shall be achieved by ATO system supplied by CP106 Contractor and NS-01 Contractor.</p> <p>Please confirm if Bidder's understanding is correct.</p>	<p>Bidder's understanding is correct.</p> <p>If this requirement is not satisfied, not accepted by the Engineer and the Employer then the root cause shall be specified by both contractors. After that the responsible contractor who accept the ownership of the root cause shall take appropriate action to comply with this requirement.</p>
22	Technical Requirements Page ERT-108 Sub-Clause 19.2 MONITORING, MEMORY AND TRANSMISSION	<p>According to ERT Sub-clause 19.2, it is Bidder's understanding that CCTV images of each cab interior and operator cab shall be displayed on TMS monitor. However, Sub-clause 19.3 states that "The images of the platform</p>	<p>Bidder's understanding is incorrect.</p> <p>"The images of the platform screen door shall be sent from the ground</p>

	<p>Sub-Clause 19.3 PLATFORM MONITORING SYSTEM FOR PSD OPERATION THROUGH MILLIMETER WAVE</p>	<p>screen door shall be sent from the ground system to on-board system, and those shall be displayed on the driver's cabinet monitor." It is Bidder's understanding that "driver's cabinet monitor" in this sentence means TMS monitor. Please confirm if Bidder's understanding is correct. Otherwise, please explain the details of "driver's cabinet monitor".</p>	<p>system to the on-board system and shall be displayed in the driver's cab monitor." which will be supplied by the CP106 Contractor.</p> <p>Furthermore, in the NSCR-South section, the CP 107 contractor shall ensure that the CCTV monitoring unit located at the platform shall be viewed by the operator from the operator cab sitting position.</p>
<p>23</p>	<p>Technical Requirements Page ERT-133 Sub-Clause 24.8 WARRANTIES/GUARANTIES</p>	<p>ERT sub-clause 24.8 states the following warranty/guarantee requirements:</p> <p>Unless otherwise specified, the guarantee period for the following components shall commence from the date of issue of the Taking Over Certificate (TOC), which shall be done after all action items have been closed out on the vehicle on which they are installed.</p> <p>1) The vehicle body structure (including the underframe and support brackets) shall be guaranteed for not less than ten (10) years;</p> <p>2) The following equipment shall be guaranteed for an extended period of five (5) years:</p> <p>a) Major components of the bogie (bogie frame, axles,</p>	<p>Bidder's request is not accepted.</p> <p>As mentioned in ERG as general requirement and also in the ERT as an additional special requirement the Bidder shall comply with both ERG &amp; ERT.</p> <p>If there are any discrepancies between the ERG and the ERT, the provisions specified in the ERT shall prevail.</p>

		<p>suspensions, traction motors, gearboxes, etc.);</p> <p>b) Areas painted for corrosion protection; and</p> <p>c) Glass.</p> <p>3) The vehicle batteries shall be guaranteed for not less than three (3) years; and</p> <p>4) All other vehicle components and system shall be guaranteed for a period of two (2) years.</p> <p>However, Bidder opines warranty/guarantee required above is discrepant with the one required in GC 1.1.3.7, and ERG 1.6. where Defect Notification Period is two years and not beyond 4 years from the date of issue of Taking over Certificate.</p> <p>Therefore, Bidder would like Employer to make warranty/guarantee requirement in ERT sub-clause 24.8 two years to be consistent with the other condition in the bidding document. For clarity, Bidder understands two years warranty is the industrial standard which applies all over the world.</p>	
24	<p>Technical Requirements Page ERT-143 Sub-Clause 27.2.1 Environment Simulation  General Bid Bulletin No.1 Annex</p>	<p>According to General Bid Bulletin No.1, Annex A, ITEM No.12, it is confirmed that simulator shall demonstrate only Phase 1, stations from East Valenzuela to Bicutan including a branch to NAIA T3 and Depot at Valenzuela. This leads Bidder to understand that Bidder is not required to demonstrate Phase 2, an extension of MMSP from East</p>	<p>No Exception.  MMSP vehicles will be equipped with ETCS to changeover from CBTC at Bicutan Station and enter the NSCR – South section to continue through operation. NSCR -South section is not</p>

	<p>"A" Item No.16</p>	<p>Valenzuela Station to North and South from Bicutan. Upon the above condition, simulator shall demonstrate the CBTC signalling system only, and is not required to demonstrate the ETCS signalling system which is expected to be adopted to Phase 2. Bidder would like to ask the Employer whether there are any exceptions or not.</p>	<p>Phase 2 of MMSP. The MMSP CP 107 Contractor shall conduct Train Simulation The changeover of one signaling system to another is carried out at Bicutan Station.</p>
25	<p>Technical Requirements Page ERT-146 Sub-Clause 27.4.3 Computer Unit</p>	<p>Specification of computer unit for train operation simulator of ERT Sub-clause 27.4.3 states that "UPS capacity: Only for shutdown/reboot of the Central Processing Unit.". However, Bidder does not recommend adoption of automatic rebooting function for an event of blackout when power is supplied from UPS because of safety concerns and system protection. Bidder recommends normal rebooting of simulator in an event of emergency shutdown after operator inspects system status for safety reasons. Therefore, Bidder would like to kindly ask Employer to delete requirement of automatic rebooting function.</p>	<p>Automatic rebooting function shall remain, The contractor shall propose for the Engineer review and approval sequencer (PLC) / network with voltage contact signals or simultaneous transmission of network packets so that the entire system can be started with a single push for example.</p>
26	<p>Technical Requirements Page ERT-149 Sub-Clause 27.10.2 Condition</p>	<p>Generally, Train Operation Simulator is designed for operation in condition that temperature is controlled between 16°C and 26°C. If it is operated in the environment of required condition as ERT Sub-clause 27.10.2, mechanical lifetime of essential equipment such as power</p>	<p>Train Operation Simulator shall operate in the environment with temperature between 16°C and 36°C.</p>



		<p>unit of the computer, mechanical elements such as fans, and UPS battery will be shortened. It will be unbeneficial for Employer. Bidder would like Employer to kindly amend the condition requirement of Train Operation Simulator to be used only in the environment with temperature controlled between 16°C and 26°C.</p>	
<p>27</p>	<p>Technical Requirements Page ERT-149 Sub-Clause 27.11 TEST OF TRAIN OPERATION SIMULATOR</p>	<p>It is difficult to implement "8) Electro-Magnetic Interference check" entirely for train operation simulator. Bidder suggests EMC requirement can be achieved in component level, by selection of EMC compliant ones for the computer unit and the UPS.</p> <p>This is because only the computer unit and the UPS may generate an electromagnetic wave and effect EMC.</p> <p>Therefore, EMC requirement to train operation simulator as a whole will not be necessary if the computer unit and the UPS which comply to EMC requirement are adopted to simulator.</p> <p>Bidder would like to kindly ask Employer to delete Electro-Magnetic Interference check requirement instead of requiring EMC compliance for components described above.</p>	<p>We agree.</p> <p>However, the section is amended to include the following without deleting the section.</p> <p>"If the equipment consists of parts that have been subjected to EMC inspection at the part level and parts that are not affected of EMC, the EMC inspection of the assembled equipment/system can be omitted."</p> <p>In the case of this simulator, devices that need to consider EMC, such as inverters, are included only in computers and UPSs, and their effects will small. In the case where the ECM is secured on a part-by-part basis, or for parts that have a very small impact, the omission of the</p>

			inspection shall be allowed. (Since this simulator is not a large movable type, this text is created on the assumption that there is no motor, big inverters and radio device (exclude Wifi or Bluetooth))
28	<p>Technical Requirements Page ERT-149 Sub-Clause 27.11 TEST OF TRAIN OPERATION SIMULATOR</p> <p>General Bid Bulletin No.1, Annex "A" Item No. 15</p> <p>Bidder's Clarification dated 17<sup>th</sup> January, 2020</p>	<p>General Bid Bulletin No.1, Annex A, ITEM NO. 15 states that "Train simulator shall be delivered latest by last week of February 2022 or 3 months before the commencement of Testing &amp; Commissioning whichever comes first".</p> <p>It is Bidder's understanding that the purpose of the simulator is to train operator drivers as referred in ERT, and thus simulator shall be delivered three months before the commencement of Testing &amp; Commissioning not in relation to February 2022 because of the following reasons:</p> <ul style="list-style-type: none"> <li>- It will be early enough to satisfy Employer that the simulator is delivered three months before T&amp;C;</li> <li>- Cab layout or equipment designed for the simulator will be different from that of actual vehicle to be delivered to Employer, because Contractor will still be on the design stage in February 2022 according to Key Date referred in General Bid Bulletin No.1, Annex C; and</li> </ul>	<p>In newest plan, the design completion of CP106 equipment will not be finished by March 2022, We understand your extension request. Since the design period of CP106 is sufficiently extended, now we set date of simulator completion as "6 months before the commencement of Testing &amp; Commissioning"</p>

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		<p>- It is unrealistic that CP106 Contractor completes supplying items referred in General Bid Bulletin No.1, Annex A, ITEM NO. 13 by February 2022.</p> <p>Please confirm if Bidder's understanding is correct. Otherwise, please advise the reason why Employer needs simulator by February 2022.</p>	
29	<p>Technical Requirements Page ERT-App-1 Appendix. A</p>	<p>ERT Section 1.3.2 requires "the motor vehicle shall be powered with one (1) power conversion equipment driving four (4) AC motors each...", in the meantime, Appendix A of ERT shows one VVVF controls 2 powered cars (M + M). It is Bidder's understanding that schematic diagram of basic vehicle configuration on ERT Appendix A is just for reference as described explicitly, and Bidder can propose trainset with another equipment arrangement if it can be fulfilled with the required specifications, which can be more beneficial to the Employer on both cost and higher performance. Please review and advise if Bidder's understanding is correct.</p>	<p>Bidder's understanding is correct.</p>
30	<p>Technical Requirements Page ERT-147 Sub-Clause 27.5 MAJOR EQUIPMENT OF THE SIMULATOR</p>	<p>Table 27. 1 of ERT sub-clause 27.5 states "Approx. 3 msq Cab" for Body. It is Bidder's understanding that "Approx. 3 msq Cab" does not include passenger saloon due to its space and no installation of passenger saloon is required. Thus, train doors (passenger side door system) stated in table 27.1</p>	<p>Bidder's understanding is correct. However, the passenger door and simulator shall be connected electrically. When the user request simulator to open the passenger door,</p>

		can be located separately with the simulator. Please confirm if Bidder's understanding is correct.	then doors are to open automatically.
31	<p>Technical Requirements Page ERT-149 Sub-Clause 27.7 SOFTWARE INSTALLATION AND UPGRADE</p>	<p>Bidder would like the Employer to clarify the followings regarding ERT sub-clause 27.7.</p> <p>1. ERT sub-clause 27.7 states "1st stage: Artificial landscape visual data 6 months before main line first taking-over 2nd stage; Real wayside visual data shall be installed by the Contractor, it is preferable after taking-over of the all main line". Bidder would like the Employer to clarify which period of MMSP Phase 1 is indicated about "main line first taking-over" for the 1st stage and "taking-over of the all main line" for the 2nd stage.</p> <p>2. It is Bidder's understanding that "Real wayside visual data" is video data created by computer graphics. Please confirm if Bidder's understanding is correct.</p>	<p>1. First stage of MMSP is Partial Operable (PO) section. Second stage is Remaining section beyond the PO section. Bidders are advised to follow the Key dates and the Contractors proposed handover dates. Refer GBB #5 item 38</p> <p>2. Real wayside visual data means a visual view a driver will see along the MMSP line that is reproduced with scenery from driver's seat, and it is not specified whether computer graphics or a real video image filmed with camera. Generally real image video cannot be overlay with artificial. If the Contractor plan to use real video images for simulator, then it shall include the driver's emergency images for training purposes, a scenario accurately representing the real events</p>

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*Annex "A"*

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32	Technical Requirements Page ERT-App-8 ~43	Bidder would like to request the Employer to provide route profile and detailed track information. For planning size, weight, and performance of the rolling stock sub-systems, these data are essential. It is regret to say that the information provided in ERT Appendix H – O are not sufficient for above needs.	Refer to the Track Alignment drawings in Annex C on Annex of General Bid Bulletin No.5.