NATIONAL CAPITAL REGION TRANSPORT CORPORATION LIMITED
(A Joint Venture Govt. of India and participating State Govts.)
7/6, Siri Fort Institutional Area, August Kranti Marg, New Delhi-110049
PHONE: +91-11-41066943; FAX: +91-11-41066953

Dated 08.09.2020

Addendum and Corrigendum No. 07B

Name of Work: - Bid No. DM/ST/COR-OF/100, Package 24: Design, Supply, Installation, Testing and Commissioning of Signalling &Train Control, Platform Screen Doors and Telecommunication Systems for Delhi – Ghaziabad – Meerut RRTS Corridor of NCRTC

S.N.	Bid Document Section / Clause No.	Existing Document/Form/Clause/ Sub Clause	Modified Document/Form/Clause/Sub Clause
1	Employer Requirement Part 2, Section 6B: PS – Signalling & Train Control R1, Chapter 5, Clause No.5.3.5.5		**[Added new Note]** **Note: NCRTC may install their Co-developed Platform screen Door at approx. 2 platforms. These PSD shall use same interface as developed for this project, details of which shall be provided to NCRTC. Contractor shall provide integration of this PSD system.**
2	Employer Requirement Part 2, Section 6B: PS – Signalling & Train Control R1, Chapter 5, Clause No 5.11.1.9		**[Added new Clause]** **Signals on posts shall be equipped with a ladder enabling access to the LED Signal lighting units. The contractor shall ensure that ladder should not vibrate during the train movement and be strong enough to bear the load of maintenance personal. The contractor shall submit the design and one prototype to the**

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<tr><td></td><td></td><td></td><td><u>Engineer for approval before installation. Later this prototype may be used by the contractor at the suitable Signal post.</u></td></tr>
<tr><td>3</td><td>Employer Requirement Part 2, Section 6B: PS – Signalling & Train Control R1, Appendix A, Table no. 9, clause no. 2 & 18</td><td>
<table>
<tr><td colspan="2">S&T Contractor</td><td>MEF (& Arch Finishes) Contractor in elevated sections</td></tr>
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			MET to meet the target earth resistance value. Earthing connection from MET, CET to S&T equipment shall be in the scope of S&T contractor.	earths and earth bars for S & T equipment's for various systems and terminate inside the main equipment rooms, SCR for earthing of line side signalling and Telecommunication systems (if required).			~~Dedicated Clean Earth to MEF contractor.~~ Shall coordinate with MEF contractor for Installed MET to meet the target earth resistance value. Earthing connection from MET~~, CET~~ to S&T equipment shall be in the scope of S&T contractor. **S&T contractor supply and install separate dedicated clean earth and accessories for S&T system (CET ≤0.5 ohm).**	terminate inside the main equipment rooms, SCR for earthing of line side signalling and Telecommunication systems (if required).	
			18. Shall Coordinate with MEF contractor for Earth Bar Resistance. MET≤1 ohm and CET ≤0.5 ohm	18. Shall Insure dedicated Earth Bar (MET & CET) Resistance in S&T equipment rooms. Value to be mentioned with measurement date. Clean earth and main earth to be provided separately. Extension of Main			18. Shall Coordinate with	18. Shall ~~Insure~~ **ensure** dedicated Earth Bar	

			earth (≤1 ohm) and Clean Earth to be done from Main Earth Mat location to SER & TER Room and SCR. Copper Bus bar to be provided in SER & TER Room and SCR. Extension of clean earth (≤0.5 ohm) to be done from Clean Earth Mat location to TER. Copper Bus bar to be provided in TER.	MEF contractor for Earth Bar Resistance. MET≤1 ohm. ~~and CET ≤0.5 ohm~~	(MET ~~& CET~~) Resistance in S&T equipment rooms. Value to be mentioned with measurement date. ~~Clean earth and main earth to be provided separately.~~ Extension of Main earth (≤1 ohm) ~~and Clean Earth~~ to be done from Main Earth Mat location to SER & TER Room and SCR. Copper Bus bar to be provided in SER & TER Room and SCR. ~~Extension of clean earth (≤0.5 ohm) to be done from Clean Earth Mat location to TER. Copper Bus bar to be provided in TER.~~
4	Employer Requirement Part 2, Section 6B: PS – Signalling & Train Control R1, Appendix A, Table no. 10, Note d	d) Train Configuration The Trainset formation shall generally be as follows:		d) Train Configuration The Trainset formation shall generally be as follows:	

		3 Car Train formation (MRTS): *DEC-NDEC-DEC* 3 Car Unit for RRTS: DBC-NDEC-NDEC or DEC-NDEC-NDEC 6 Car Train formation (RRTS): *DBC-NDEC-NDEC=NDEC-NDEC-DEC* Where; DBC-Driving Business Class Car NDEC-Non-Driving Economy Class Car DEC: Driving Economy Class Car * End Automatic Couplers having mechanical and pneumatic coupling – Semi-permanent couplers = Intermediate Auto Couplers with Electrical head In case of 9 Car formation in future, the performance features of extra 3 Car unit shall be suitably designed in accordance with the design of the RRTS Rolling Stock would be such that if need be in future, it shall be possible to integrate a similar intermediate 3-car unit (without driver's cab) with 67% motoring and convert it into a 9-car trainset.	3 Car Train formation (MRTS**- Shall be used for revenue operation**): *DEC-NDEC-DEC* ~~3 Car Unit for RRTS: DBC-NDEC-NDEC or DEC-NDEC-NDEC~~ 6 Car Train formation (RRTS**- Shall be used initially for revenue operation**): *DBC-NDEC-NDEC=NDEC-NDEC-DEC* Where; DBC-Driving Business Class Car NDEC-Non-Driving Economy Class Car DEC: Driving Economy Class Car * End Automatic Couplers having mechanical and pneumatic coupling – Semi-permanent couplers = Intermediate Auto Couplers with Electrical head In case of 9 Car formation in future, the performance features of extra 3 Car unit shall be suitably designed in accordance with the design of the RRTS Rolling Stock would be such that if need be in future, it shall be possible to integrate a similar intermediate 3-car unit (without driver's cab) with 67% motoring and convert it into a 9-car trainset **(Shall be used for revenue operation)**.

5	Employer Requirement Part 2, Section 6B: PS – Signalling & Train Control R1, Appendix A, Table no. 16, Note		**[Added new Note]** **- Table "S&T Vs Catenary Maintenance Vehicle Contractor" may be read as "S&T Vs Catenary Maintenance Vehicle/Engineer's Vehicle Contractor". Interface requirements to be met for the following: -** **a) 8-Wheeler CMV (Catenary Maintenance Vehicle) with lifting platform and Crane with basket (CMV Type 1/Engineering Vehicle)** **b) 8-Wheeler CMV (Catenary Maintenance Vehicle) of Diesel Hydraulic type (CMV Type 2)**
6	Employer Requirement Part 2, Section 6B: PS – Signalling & Train Control R1, Appendix O, Clause no. 7.4.1	No single component/card failure (viz input/output cards DMI, odometer, radio antenna, radio modem etc) should cause the complete failure of the onboard or trackside ATP or ATO functionality.	No single component/card failure (viz input/output cards DMI, odometer, radio antenna, radio modem etc) should cause the complete failure of **any of** the onboard **ATP,** ~~or~~ trackside ATP **and** ~~or~~ ATO functionality.
7	Employer Requirement Part 2, Section 6B: PS – Signalling & Train Control R1, Appendix R, Clause no. 1.3	**No. of maintenance vehicle** 06 (CMV, Engineer's Vehicle and RGM)	**No. of maintenance vehicle** 06 (**Tentative Numbers:** CMV**-03**, Engineer's Vehicle**-02** and RGM**-01**)
8	PART II A/ P24 PART-2- 1/ SECTION 6C_PARTICULAR SPECIFICATIONS_TELECOMMUNICATION/	1.4.8.1 The Telecom Contractor will be provided a space for constructing temporary storage facilities/project office. Please refer Appendix A of	1.4.8.1 The Telecom Contractor will be provided a space for constructing temporary storage facilities/project

	CH- 1/ CLAUSE NO. 1.4.8.1- 1.4.8.5	Section -6B: Particular Specifications Signalling and Train Control for details. 1.4.8.2 The Contractor shall be responsible for the erection of site offices at above mentioned two suitable places. The Contractor shall arrange for the utilities and any facilities and resources necessary to operate the site offices, such as electrical, telephone, water, and sewage as well as security. However, telephone facility for employer's engineer shall be provided by the employer. The contractor to ensure space for employer and employer engineers in these offices. 1.4.8.3 The Contractor shall be responsible for all costs of running the site offices, including but not limited to utilities, consumables, office supplies, cleaning and maintenance. 1.4.8.4 The Contractor shall handover the site offices to the employer at the end of the Contract. The contractor shall remove all furniture, office equipment provided by him at the time of handover of the site offices except for facilities and fixtures pertaining to electrical, water and sewage. 1.4.8.5 The Employer will not provide the Contractor with any general works train for the execution of this Contract.	office. Please refer ~~Appendix A of~~ Section -6B: Particular Specifications Signalling and Train Control for details. 1.4.8.2~~ The Contractor shall be responsible for the erection of site offices at above mentioned two suitable places. The Contractor shall arrange for the utilities and any facilities and resources necessary to operate the site offices, such as electrical, telephone, water, and sewage as well as security. However, telephone facility for employer's engineer shall be provided by the employer. The contractor to ensure space for employer and employer engineers in these offices.~~ **NOT USED** 1.4.8.3~~ The Contractor shall be responsible for all costs of running the site offices, including but not limited to utilities, consumables, office supplies, cleaning and maintenance.~~ **NOT USED** 1.4.8.4~~ The Contractor shall handover the site offices to the employer at the end of the Contract. The contractor shall remove all furniture, office equipment provided by him at the time of handover of the site offices except for facilities and fixtures pertaining to electrical, water and sewage.~~ **NOT USED** 1.4.8.5~~ The Employer will not provide the Contractor with any general works train for the execution of this Contract.~~ **NOT USED**
9	Employer's Requirement Part-2, Section 6F, Track Plan and General Alignment Drawing	**The Revised Track Plan and General Alignment Drawing is attached herewith as Attachment No. 1 in Addendum and Corrigendum No. 07B. Bidders may kindly note the same.**	

Enclosures:

1) **Section 6F Track Plan and General Alignment Drawing**