ADDENDUM-01					
CMRL/PHASE–II/SYS/CP24/ASA09/2023					
20-12-2023					
S.No.	**Part**	**Section**	**Clause No.**	**Original bid condition**	**Revised bid condition**
1	III	VIII Part-A	Table-1 & Table-2	Replacement of Table-1 & Table-2	Table-1 & Table-2 for revised summary of key dates & site access dates is enclosed as Annexure-A
2	II	VI-B	5.18.2	The response(s) of the door/gate in the event that an obstruction is detected shall be the same as permitted for train doors in EN 14752, 5.2.1.4.2.2.	The response(s) of the door/gate in the event that an obstruction is detected shall be the same as permitted for train doors in EN 14752. The contractor can propose equivalent IEC standards, with a Gap analysis duly certified by an independent assessor accredited to ISO/IEC 17065. The acceptance of the equivalent standards is subject to the Engineers satisfaction regarding the equivalence of the EN standard and the proposed standards, especially in the point of view of the safety parameters.
3	I	III	EQC 2.3.1	In Case of JV: All Parties Combined: N/A Each Member: Must meet requirement Lead Member: N/A	In Case of JV: All Parties Combined: N/A Each Member: Must meet requirement # Lead Member: N/A # - In case the JV member is a wholly owned Indian Subsidiary of the Lead member, apart from fulfilling the criteria for Lead member, the JV as a whole (All parties combined) has to fulfil the requirements. In such a scenario, the criteria for each member requirement for the wholly

					owned Indian subsidiary will not be applicable, provided that they are part of JV.
4	I	III	EQC 2.3.2	In Case of JV: All Parties Combined: Must meet requirement Each Member: Must meet minimum 25% of the requirement Lead Member: Must meet minimum 40% of the requirement	In Case of JV: All Parties Combined: Must meet requirement Each Member: Must meet minimum 25% of the requirement # Lead Member: Must meet minimum 40% of the requirement # - In case the JV member is a wholly owned Indian Subsidiary of the Lead member, apart from fulfilling the criteria for Lead member, the JV as a whole (All parties combined) has to fulfil the requirements. In such a scenario, the criteria for each member requirement for the wholly owned Indian subsidiary will not be applicable, provided that they are part of JV.
5	I	III	EQC 2.3.3	In Case of JV: All Parties Combined: Must meet requirement Each Member: Must meet minimum 25% of the requirement Lead Member: Must meet minimum 40% of the requirement	In Case of JV: All Parties Combined: Must meet requirement Each Member: Must meet minimum 25% of the requirement # Lead Member: Must meet minimum 40% of the requirement # - In case the JV member is a wholly owned Indian Subsidiary of the Lead member, apart from fulfilling the criteria for Lead member, the JV as a whole (All parties combined) has to fulfil the requirements. In such a scenario, the criteria for each member requirement for the wholly owned Indian subsidiary will not be applicable, provided that they are part of JV.

6	I	III	EQC 2.4.1	In case of JV: All Parties Combined: N/A Each Member -> Must Meet Requirement Lead Member -> N/A	In case of JV: All Parties Combined: N/A Each Member -> NA Lead Member -> Must Meet Requirement
7	II	VI-B	4.1.6	The system shall meet or exceed the requirements of the CENELEC standard (EN50126-1, EN50126-2 EN50128, and EN50129) or equivalent for implementing reliability, availability, serviceability, and safety of PSD equipment.	The system shall meet or exceed the requirements of the CENELEC standard (EN50126-1, EN50126-2 EN50128, and EN50129) or equivalent for implementing reliability, availability, serviceability, and safety of PSD equipment. The contractor can propose equivalent IEC standards, with a Gap analysis duly certified by an independent assessor accredited to ISO/IEC 17065. The acceptance of the equivalent standards is subject to the Engineers satisfaction regarding the equivalence of the EN standard and the proposed standards, especially in the point of view of the safety parameters.
8	II	VI-B	6.4.3.2	The system shall conform to CENELEC standard EN50126 for Reliability, Availability, Maintainability and Safety. The system shall in addition conform to CENELEC standard EN50129 for safety related electronics system for PSD and CENELEC standard EN50128 for software for railway control and protection system.	The system shall conform to CENELEC standard EN50126 for reliability, availability, Maintainability and safety. The system shall in addition conform to CENELEC standard EN50129 for safety-related electronic systems for PSD and CENELEC standard EN50128 for software for railway control and protection system. The contractor can propose equivalent IEC standards, with a Gap analysis duly certified by an independent assessor accredited to ISO/IEC 17065. The acceptance of the equivalent standards is subject to the Engineers satisfaction regarding the equivalence of the EN standard and the proposed standards, especially in the point of view of the safety parameters.

9	II	VI-B	6.4.3.4	Development Process of DCU systems shall be designed, manufactured and validated to Safety Integrity level 2 as defined in the CENELEC standard EN50126, EN50128 and EN50129 as per the requirements of SIL 2 certification.	Development Process of DCU systems shall be designed, manufactured and validated to Safety Integrity level 2 as defined in the CENELEC standard EN50126, EN50128 and EN50129 as per the requirements of SIL 2 certification. The contractor can propose equivalent IEC standards, with a Gap analysis duly certified by an independent assessor accredited to ISO/IEC 17065. The acceptance of the equivalent standards is subject to the Engineers satisfaction regarding the equivalence of the EN standard and the proposed standards, especially in the point of view of the safety parameters.
10	II	VI-B	6.6.1.2	The glass used must achieve level 1-B-1 according to the quantitative test specified in EN 12600. Glass shall not be broken in such a way as to endanger passengers. The glass must only fail with a type B breakage as defined in EN 12600.	The glass used must achieve level 1-B-1 according to the quantitative test specified in EN 12600. Glass shall not be broken in such a way as to endanger passengers. The glass must only fail with a type B breakage as defined in EN 12600. The contractor can propose equivalent IEC standards, with a Gap analysis duly certified by an independent assessor accredited to ISO/IEC 17065. The acceptance of the equivalent standards is subject to the Engineers satisfaction regarding the equivalence of the EN standard and the proposed standards, especially in the point of view of the safety parameters.
11	II	VI-B	6.6.1.4	Materials used must be fire resistant in accordance with national regulations and European and national building codes including the Indian National Building Code NBC. Components must be defined and selected according to the requirements of EN 13501-1, 13501-2 and 13501-6. NFPA 130	Materials used must be fire resistant in accordance with national regulations and European and national building codes including the Indian National Building Code NBC. Components must be defined and selected according to the requirements of EN 13501-1, 13501-2 and 13501-6. NFPA 130

<table>
<tr><td></td><td></td><td></td><td></td><td></td><td>The contractor can propose equivalent IEC standards, with a Gap analysis duly certified by an independent assessor accredited to ISO/IEC 17065. The acceptance of the equivalent standards is subject to the Engineers satisfaction regarding the equivalence of the EN standard and the proposed standards, especially in the point of view of the safety parameters.</td></tr>
<tr><td>12</td><td>I</td><td>III</td><td>EQC 1.1.1</td><td>The Bidder must demonstrate that it has the personnel for the key positions that meet the following requirements:
<table>
<tr><th>No.</th><th>Position</th><th>Total Work Experience (Minimum number of years)</th><th>Experience in Similar Works (Minimum number of years)</th></tr>
<tr><td>1</td><td>Project Manager (to be Contractor’s Representative under GC 4.3)</td><td>20</td><td>10</td></tr>
<tr><td>2</td><td>Deputy Project Manager</td><td>15</td><td>10</td></tr>
<tr><td>3</td><td>Engineering Manager</td><td>15</td><td>8</td></tr>
<tr><td>4</td><td>Interface Manager</td><td>15</td><td>8</td></tr>
<tr><td>5</td><td>Project Quality Manager</td><td>15</td><td>8</td></tr>
</table></td><td>The Bidder must demonstrate that it has the personnel for the key positions that meet the following requirements:
<table>
<tr><th>No.</th><th>Position</th><th>Total Work Experience (Minimum number of years)</th><th>Experience in Similar Works (Minimum number of years)</th></tr>
<tr><td>1</td><td>Project Manager (to be Contractor’s Representative under GC 4.3)</td><td>12</td><td>8</td></tr>
<tr><td>2</td><td>Deputy Project Manager</td><td>10</td><td>5</td></tr>
<tr><td>3</td><td>Engineering Manager</td><td>10</td><td>5</td></tr>
<tr><td>4</td><td>Interface Manager</td><td>10</td><td>5</td></tr>
<tr><td>5</td><td>Project Quality Manager</td><td>10</td><td>5</td></tr>
</table></td></tr>
</table>

				<table><tr><td>6</td><td>OHSE Manager (Accident Prevention Officer)</td><td>15</td><td>8</td></tr><tr><td>7</td><td>Testing and Commissioning Manager</td><td>15</td><td>8</td></tr></table> The Bidder shall provide details of the proposed personnel and their experience records in Forms PER-1 and PER-2 in Section IV, Bidding Forms.	<table><tr><td>6</td><td>OHSE Manager (Accident Prevention Officer)</td><td>10</td><td>5</td></tr><tr><td>7</td><td>Testing and Commissioning Manager</td><td>10</td><td>5</td></tr></table> The Bidder shall provide details of the proposed personnel and their experience records in Forms PER-1 and PER-2 in Section IV, Bidding Forms.
13	II	VI-B	Appendices to PS, 1.5.8	The synchronization timings shall be validated in the CMRL test track to ensure similar behaviour for any combination of RS and PSD contractors.	The synchronization timings shall be validated to ensure similar behaviour for any combination of RS and PSD contractors.
14	II	VI-B	Appendix-1 Drawing List	**Please click on the following link to access the drawings:** https://cmrlindia-my.sharepoint.com/:f:/r/personal/aswin_vishnu_cmrl_in/Documents/ASA-12A_ADDENDUM%20-01%20DRAWINGS?csf=1&web=1&e=side8nm	**Please click on the following link to access the drawings:** ASA-09 tender drawings
15	II	VI-B	4.13.1	The safety of the Mechanical and Electrical System Equipment shall generally comply with NFPA 130 and BS EN standards.	The safety of the Mechanical and Electrical System Equipment shall generally comply with NFPA 130 and BS EN standards. The contractor can propose equivalent IEC standards, with a Gap analysis duly certified by an independent assessor accredited to ISO/IEC 17065. The acceptance of the equivalent standards is subject to the Engineers satisfaction regarding the equivalence of the EN standard and
16	II	VI-B	4.15.3	The relevant principles of EN 50122-2 and EN 50162 shall be adopted to minimize the occurrence and effect (including corrosion effect) of stray currents.	The relevant principles of EN 50122-2 and EN 50162 shall be adopted to minimize the occurrence and effect (including corrosion effect) of stray currents.

					The contractor can propose equivalent IEC standards, with a Gap analysis duly certified by an independent assessor accredited to ISO/IEC 17065. The acceptance of the equivalent standards is subject to the Engineers satisfaction regarding the equivalence of the EN standard and
17	II	VI-B	4.16.1	This section defines the minimum Electro-magnetic compatibility (EMC) requirements for all electronic and electrical equipment supplied under this Contract. For 25 kV AC traction area, the contractor shall follow EN50121 (Part 1 to 5) and Indian Railway RE practices or better.	This section defines the minimum Electro-magnetic compatibility (EMC) requirements for all electronic and electrical equipment supplied under this Contract. For 25 kV AC traction area, the contractor shall follow EN50121 (Part 1 to 5) and Indian Railway RE practices or better. The contractor can propose equivalent IEC standards, with a Gap analysis duly certified by an independent assessor accredited to ISO/IEC 17065. The acceptance of the equivalent standards is subject to the Engineers satisfaction regarding the equivalence of the EN standard and
18	I	IV	Table 4.5.1	Replacement of Table 4.5.1 'PRICE CENTRE 'A1' – PRELIMINARIES AND GENERAL REQUIREMENTS'	Updated Table 4.5.1 is enclosed
19	III	VIII Part-A	S.no.5	Time for completion – 1475 days	Time for completion – 970 days

Encl: Section-IV Table 4.5.1 & Annexure-A

4.5 SCHEDULE OF PAYMENTS

4.5.1 PRICE CENTRE 'A1' – PRELIMINARIES AND GENERAL REQUIREMENTS

PRICE CENTRE	WORK DESCRIPTION	UNIT	QUANTITY	APPORTIONED AMOUNT		% FOR SUB ITEMS
				INDIAN RUPEES (INR)	FOREIGN CURRENCY (FC)	%
	Obtain the "Notice of No Objection" from the Engineer for:					
A1.1	Project Management	Month	32	The bidder shall not fill the amounts here. The amounts for this price centre inclusive of all scope of work is to be filled in Pricing Summary sheet only. The amounts for the individual schedule of payment under this price centre will be filled by the successful bidder only at the time of signing the agreement; and is based on the Lumpsum Price quoted in Price Bid Form and the payment procedure described in Pricing Schedule of the bid document, subject to the ceiling of the values in the Bid total sheet for respective currencies.		15%
A1.2	Various Plans to be submitted throughout the Contract, including Document submission programme and work programme.	LS	1			10%
A1.3	Monthly Programmes to be submitted throughout the Contract.	Month	32			10%
A1.4	Providing and Maintaining of Project Office and other Site Offices as required for Contractor's Staff.	Month	32			10%
A1.5	Providing and Maintaining of Project Office and other Site Offices as required for the Engineer / the Employer.	Month	32			8%
A1.6	System Reliability, Availability and Maintainability Plans and audits	Quarterly	11			7%
A1.7	OHS&E Plans and Audits	Quarterly	11			5%
A1.8	Compliance with Occupational Safety, Health and Environmental Plans & Audits	Quarterly	11			5%
A1.9	Interface Management Plan and audits	Quarterly	11			10%
A1.10	Quality Assurance & Quality Control Plans & Audits	Quarterly	11			10%
A1.11	Submission of PI Insurance, Performance Security, insurances, etc...	LS	1			5%
A1.12	Contractor's Staff Organisation Plan & Key Staff	Monthly	32			5%
A1.13	Any other item(s) considered necessary to comply with the scope of works	LS	1			0%
PRICE CENTRE TOTAL (%)						**100%**

ANNEXURE-A

Table 1: Summary of Key dates/Stages:

Stage refers to Corresponding sections of the works as defined in Clause 4.2 Bidding forms Section IV Part 1.

Key Date Ref.	Key Date Description (Sub-Clause 1.1.5.6)	Days from the date of the commencement	Associated Price Centres for purposes of Liquidated Damages
KD-001	Complete Preliminary design of the PSD system	90	Price Centre A2
KD-002	Prototype Assembly, Testing & Approval	480	Price Centre BS3.2.1
KD-003	Completion of Life cycle test	780	Price Centre BS3.2.2
Elevated Package C3-EV 01 Stage 3			
KD-004	Complete Final Detailed Design in accordance with Specification for Stage 3	300	Price Centre BS3.1
KD-005	Complete delivery of PSD materials required for Stage 3 (To be Planned as per Individual site Access Dates)	400-600	Price Centre BS3.2.3 to BS3.2.6
KD-006	Complete installation and static testing of the PSD system	700	Price Centre BS3.3
KD-007	Complete System Acceptance Test (including interface testing with OCC/BOCC) and integrated testing of PSD with On-Board ATC	790	Price Centre BS3.4.1 & BS3.4.2
KD-008	Issue of stand-alone Safety Case for Stage 3-PSD	805	Price Centre BS3.4.5
KD-009	Issue of Completion Certificate for Stage 3 PSD system	850	Sum of Price Centres BS3.4.3, BS3.4.4, BS3.4.6, BS3.4.7
KD-010	Achieve Operational Acceptance for Stage 3 PSD System	1210	Price Centre BS3.4.8
Elevated Package C5-EV 03 Stage 4B.1			
KD-011	Complete Final Detailed Design in accordance with Specification for Stage 4B.1	300	Price Centre CS4.1
KD-012	Complete delivery of PSD materials required for Stage 4B.1 (To be Planned as per Individual site Access Dates)	500-600	Price Centre CS4.2
KD-013	Complete installation and static testing of the PSD system	740	Price Centre CS4.3
KD-014	Complete System Acceptance Test (including interface testing with OCC/BOCC) and integrated testing of PSD with On-Board ATC	830	Price Centre CS4.4.1 & CS4.4.2
KD-015	Issue of stand-alone Safety Case for Stage 4B.1-PSD	845	Price Centre CS4.4.5
KD-016	Issue of Completion Certificate for Stage 4B.1 PSD system	890	Sum of Price Centres CS4.4.3, CS4.4.4, CS4.4.6, CS4.4.7
KD-017	Achieve Operational Acceptance for Stage 4B.1 PSD System	1250	Price Centre CS4.4.8

Key Date Ref.	Key Date Description (Sub-Clause 1.1.5.6)	Days from the date of the commencement	Associated Price Centres for purposes of Liquidated Damages
Elevated Package C5-EV 03 Stage 4B.2			
KD-018	Complete Final Detailed Design in accordance with Specification for Stage 4B.2	300	Price Centre DS4.1
KD-019	Complete delivery of PSD materials required for Stage 4B.2 (To be Planned as per Individual site Access Dates)	600-700	Price Centre DS4.2
KD-020	Complete installation and static testing of the PSD system	820	Price Centre DS4.3
KD-021	Complete System Acceptance Test (including interface testing with OCC/BOCC) and integrated testing of PSD with On-Board ATC	910	Price Centre DS4.4.1 & DS4.4.2
KD-022	Issue of stand-alone Safety Case for Stage 4B.2-PSD	925	Price Centre DS4.4.5
KD-023	Issue of Completion Certificate for Stage 4B.2 PSD system	970	Sum of Price Centres DS4.4.3, DS4.4.4, DS4.4.6, DS4.4.7
KD-024	Achieve Operational Acceptance for Stage 4B.2 PSD System	1330	Price Centre DS4.4.8

Table 2: Site Access Dates

Package No.	Access Dates Ref	All Contracts	Civil Contracts			Track	MEP Contractor			
		Station Name	Access to cable trunking supports beneath platform coping for full length of the platform	Access to PSD equipment room in D-3 condition	Platform slab interface for PSD installation as per Schedule of Dimensions and as per mutually agreed interface drawings	Finished track with all critical welding and furnishing as-built rail levels & track centre locations in platform area	Cable trays linking SER-SCR till Platform Coping (elevated stations) and till header box cable entry.	Earth bars in SER-SCR and Platform ends for PSD earthing together with connectivity to Station Main Earth pit	Provision of UPS outlets for PSD loads & energization of UPS	Provision of Air Conditioning in Elevated Stations
			A	B	C	F	G	H	I	J
C3-EV 01	AD-001	Any Two Stations	490	430	460	430	430	520	520	520
	AD-002	Additional any Three Stations	510	450	480	450	450	540	540	540
	AD-003	Additional any Three Stations	590	530	560	530	530	620	620	620
	AD-004	Remaining stations	640	580	610	580	580	670	670	670
C5-EV 03	AD-011	Any two stations	620	560	590	560	560	650	650	650
	AD-013	Additional 2 stations	620	560	590	560	560	650	650	650
	AD-017	Additional 3 Stations	700	640	670	640	640	730	730	730
	AD-019	Remaining all Stations	700	640	670	640	640	730	730	730