

**Dedicated Freight Corridor Corporation of India Limited**  
(A Government of India Enterprise)

**DESIGN AND CONSTRUCTION OF SIGNAL AND TELECOM WORKS FOR DOUBLE LINE RAILWAY INVOLVING TRAIN DETECTION SYSTEM, ELECTRONIC INTERLOCKING IN STATIONS, AUTOMATIC SIGNALLING IN BLOCK SECTIONS, TRAIN MONITORING AND DIAGNOSTIC SYSTEM, INTERLOCKING OF LEVEL CROSSING GATES, DISPATCH TELEPHONE SYSTEM, FIBER OPTIC COMMUNICATION SYSTEM, GSM(R) SYSTEM, DIGITAL ELECTRONIC EXCHANGE SYSTEM, MASTER CLOCK SYSTEM AND VIDEO SURVEILLANCE SYSTEM FOR REWARI – MAKARPURA SECTION INCLUDING TESTING AND COMMISSIONING ON DESIGN-BUILD LUMP SUM PRICE BASIS OF WESTERN DEDICATED FREIGHTCORRIDOR**

**SIGNALLING AND TELECOMMUNICATION WORKS CONTRACT**  
**(Rewari – Makarpura of Phase 1)**

**CONTRACT PACKAGE ST P-5**

**Response to Queries from Bidders – Part 4A**

Sl. No.	Vol. No.	Section No.	Page No.	Clause No.	Title	Questions	DFCCIL's Response
352.	III part 2	6	37	6.1.2	The system shall be designed based on European Integrated Railway Radio Enhanced Network (EIRENE) Functional Requirements Specification (EIRENE FRS v7.3.0 “and latest”) and System Requirements	Refer response to Q. NO. 90. Equipments being offered are to be complied to EIRENE FRS v7.3.0 and SRS v15.3.0. The “ and latest” word may please deleted as it is general/subjective and can't foresee at this stage the changes in upcoming versions if any.	Refer to clause 5.4 of Conditions of Contract “Technical Standards and Regulations” “and latest” in clause 6.1.2 refers to the Base Date.

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					Specification (EIRENE SRS v15.3.0 "and latest"		
353.	III part 2	6	39	6.3.1.1 and 6.3.1.1(6) d)	Core network to be as per ETSI standard for Rel-4 & ETCs level 2 speed 220 km/h In the third line words "(ETSI) Global System for Mobile (GSM) Standards" are replaced by "(ETSI)TS 103 066 Version 1.1.1 or latest for Rel-4 Core Network requirements for GSM-R, Global System for Mobile (GSM) Standards for BSS" In the fifth line after words "SRS documents"	Refer response to Q. NO. 91. Sl.no 90 and 91 are in conflict, we understand that System delivered to be complaint to European Integrated Railway Radio Enhanced Network (EIRENE) Functional Requirements Specification, including Rel 4 as and when the same is incorporated in the EIRENE Specifications.  As of now (ETSI)TS 103 066 Version 1.1.1 is not yet part of current EIRENE spec/release for GSM-R, . Hence we understand that an undertaking to deliver Rel 4 compliant to EIRENE Specification and user Certification of deployment in any GSM or GSM-R network should suffice at this stage.  Please confirm.	There is no conflict between amended clauses 6.1.2 and 6.3.1.1. Amended clauses 6.3.1.1 and 6.5.1.1 are very specific that system architecture of Core Network should be latest Rel-4 based on European Telecommunication Standards Institute (ETSI) TS 103 066 Version 1.1.1. For further clarity refer addendum to clause 6.1.2 at item no. 299 of addendum no. 4. Clause 6.2 xi) of volume 1 (1/2) is self-explanatory.

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					<p>sentence "Tenderer shall submit, along with his bid, certificates, from European Commission's notified certification bodies, confirming compliance to the standards in respect of the offered core and radio equipment." is added.</p> <p>(6) d) Words "--120 km/h." are replaced by "----220 km/h."</p>		
354.	III part 2	6	58	6.5.1.1	<p>ETSI standard for Rel-4 (ETSI) TS 103 066 Version 1.1.1 or latest for Rel-4 Core Network requirements for GSM-R and Global</p>	<p>Refer response to Q. NO. 99. (Same as above)</p>	<p>Refer response to query no. 353</p>

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					System of Mobile (GSM) Phase 2 standard for BSS.		
361.	III Part 1	9 Part 1	52	9.7.6	FAT by RDSO	<p>(1) Please clarify where FAT by RDSO is carried out for Cross Approved STEP components in the following cases;  <b>Case 1</b>  Components are finally assembled in OEM factory in Japan.  <b>Case 2</b>  Components are finally assembled in OEM subsidiary or partner in India.</p> <p>(2) Please clarify who shall bear FAT Cost by RDSO, including travelling expense, lodging and daily allowance for the above two cases, under the situation that Clause 23.1.5 of Vol. II specifies that "The employer and the Engineer will bear their own costs for attendance at witnessed inspections or tests....."</p>	<p>1) FAT is normally carried out by RDSO at the place of manufacture. For any further clarification, S&amp;T Directorate of RDSO may be contacted.</p> <p>2) Refer modified clause 9.3 of Vol. III, Part 1 of P5 Bid Documents as per <b>Item No. 277 of Addendum 4.</b></p>
362.	III Part 1	9 Part 1	38	7.1.2	SIL4 Requirements to Signalling Subsystem	Please confirm that, if the subsystem is approved by RDSO on the base of Cross Acceptance, it will not need any new certification process for SIL4 as RDSO approval includes safety approval of SIL 4 or equivalent.	Confirmed.
363.	III Part 1	9 Part 1	13	3.4.6	System Level SIL Certification by ISA	Please confirm that, if any subsystem is approved by RDSO on the base of Cross Acceptance, it will not need new generic certification process for system level safety report by ISA.	ISA certification is for Signalling System as a whole. Refer Item Nos. 252 & 253 of addendum 4 for modified Clauses 3.4.5 &

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							3.4.6 of Vol. III, Part 1 of P5 bid documents.
364.	II	3	8	3.3	"Referenced Drawings"	<p>We refer to Sl. No. 31 of Addendum No.2 dated 25.09.2013</p> <p>-----</p> <p>(1) Please confirm that, although the name of drawings has been changed from "Employer's drawing" to "Reference Drawing", all the sub-clauses from 3.3.1 to 3.3.7 shall stay as they are.</p> <p>(2) In that case please identify which drawings in Volume V is "For Information only" and which drawings are rely-on drawings for the bid. Volume V includes not only the drawings but also for essential data which defines SOW, such as ROW coordination etc.</p>	<p>1) Clause 3.3.2 &amp; 3.3.5 corrected. <b>Refer item no. 235 of Addendum 4.</b></p> <p>2) The data included in Vol. V is indicative and for reference of ST P-5 Contractor. Data having interface with other Contractors e.g. ROW, alignment profile (horizontal as well as vertical), station layouts, control points, traction sub-stations, SPs, SSPs etc. shall be confirmed from the respective other interfacing Contractor as part of interface coordination as specified in Clause 13 of Vol. II and Clause 8 of Vol. III, Part 1 of P5 Bid documents.</p>
365.	IIIPart 2	9 Part 2	8	1.3.1	"Reference Drawings"	<p>We refer to Sl. No. 84 of Addendum No.3 dated 25.09.2013</p> <p>-----</p> <p>According to Clause 3.3 of Volume II, even the name of drawing is changed from "Employer's Drawing" to "Reference Drawing", the drawings are to be categorized at least "For Information Only"(typically for the dimensions) and the other, which assist in describing the scope of the works in general, interfaces arrangements and the conceptual nature of the finished system outline (please refer to sub clause 3.3.1)</p>	<p>The data included in Vol. V is indicative and for reference of ST P-5 Contractor. Data having interface with other Contractors e.g. ROW, alignment profile (horizontal as well as vertical), station layouts, control points, traction sub-stations, SPs, SSPs etc. shall be confirmed from the respective other interfacing Contractor as part of interface coordination as specified in Clause 13 of Vol.</p>

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						Please identify which drawings are rely - on drawing for the bidder and which drawings are "For Information Only". -	II and Clause 12 of Vol. III, Part 2 of P5 Bid documents.
366.	III Part 1	9 Part 1	Annex 7-1 Page 3	3.4	AT Power Supply	We refer to Sl. No. 75 of Addendum No.2 dated 25.09.2013, and Sl. No. 198 of Addendum No.3 dated 25.09.2013 ----- Please confirm that EM P-4 Contractor will provide the power for Signalling Hut at any location while ST P-5 Contractor will provide power transmission line from Signalling Hut to Telecomm Hut and that there will not be the opposite case.	Refer to item no. 300 of addendum no. 4.
	IIIPart 2	9 Part 2	91	11.1.4	AC Power Supply in Telecom Porta Hut		
367.	III Part 1	9 Part 1	4	1.4.3.3	Miscellaneous User Terminals	We refer to Sl. No. 41 of Addendum No.2 dated 25.09.2013 ----- (1) Please confirm that the 35 Nos. of Miscellaneous User Terminals indicated in Addendum are all required for Phase 1 operation or includes Phase 2 operation as well, as the exception to TMS scope work change show in Sl. No. 159 and No.173 of Addendum No.2 dated 25.09.2013  (2) Please provide the location of each user terminals other than IR Junction stations with the need of new OFC installation requirement from Phase-1 ROW (*). Without these information, the cost estimation will not be possible especially when the user terminals needs new OFC installation inside the city,	1) These are only for Phase 1.  2) Final location shall be decided at Detailed Design stage.

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						<p>(*) We preliminary assume the location of the terminals as hereunder, however, the total no. does not come up to 35 nos. Please review the location and provide the information of the need of new OFC cable for each location, along with the balance locations:</p> <p>1) IR's Junction Stations</p> <ul style="list-style-type: none"> <li>- Hisar</li> <li>- Kathuwas</li> <li>- Phulera</li> <li>- Hinorda</li> <li>- Bangurgram</li> <li>- Marwar</li> <li>- Mahesana</li> <li>- Sanand</li> <li>- Goraghuma</li> <li>- Makarpura</li> </ul> <p>2) IR's Divisional Control Offices</p> <p>a) Northern Railway (NR)</p> <ul style="list-style-type: none"> <li>- Delhi (**)</li> </ul> <p>b) North Western Railway (NWR)</p> <ul style="list-style-type: none"> <li>- Jaipur</li> <li>- Ajmer</li> <li>- Bikaner</li> </ul> <p>c) Western Railway (WR)</p> <ul style="list-style-type: none"> <li>- Mumbai Central (**)</li> <li>- Ratlam (**)</li> <li>- Ahmedabad</li> <li>- Rajkot</li> <li>- Bhavnagar</li> </ul>	

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						<p>- Vadodara</p> <p>3) IR's Zonal Control Offices</p> <ul style="list-style-type: none"> <li>- Delhi for NR (**)</li> <li>- Jaipur for NWR</li> <li>- Mumbai for WR (**)</li> </ul> <p>4) Siding and Container Terminals</p> <p>(Cannot be identified)</p> <p>5) DFCCIL's Corporate Office</p> <ul style="list-style-type: none"> <li>- Delhi</li> </ul> <p>(**) may be not considered for Phase-1 operation.</p>	
368.	IIIPart 2	9 Part 2	114	15.7.4.1 6	Earth resistance for Clean earth	DFCW equipment by potential vendors will not require clean earth resistance of below 0.5 ohms and the figure will not be easily achievable. Please clarify the background of the figure with the reference of IR standard and also clarify whether the Bidder can offer 1 ohm earth resistance as an alternative.	Refer to item no. 306 of addendum no. 4
369.	IIIPart 2	9 Part 2	11	2.2	Scope of Work General	Please confirm that office LAN for the station buildings and OCC is out of ST P-5 Contractor scope.	As per clause 5.3.6.11 provision of office LAN for stations and OCC is in the scope of ST P-5. Refer to item no. 308, 309, 311 & 313 of addendum no. 4 for more details.
370.	IIIPart 2	9 Part 2	20	5.1.7	WAN for BMS	Please confirm BMS itself is totally out of ST P-5 Package scope and that the interface point with the other Contractor is at L3/L2 switch port in TERs at stations and OCC.	BMS itself is excluded from the scope of ST P-5. The interface point with the other contractor to be decided during interface design.



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371.	III Part 2	9 Part 2	37	6.1.2	GSM-R Design Base	<p>We refer to Sl. 90 of Addendum No.2 dated 25.09.2013</p> <p>-----</p> <p>Equipment being offered is to be complied with EIRENE FRS v7.3.0 and SRS v15.3.0.</p> <p>The “and latest” word may please deleted as it is general/subjective and can't foresee at this stage the changes in upcoming versions if any.</p>	Refer response to Sl. No.352
372.	III Part 2	9 Part 2	39  58	6.3.1.1 and 6.3.1.1(6) d)  6.5.1.1	GSM-R Core Network  ETSI TS 103 066	<p>We refer to Sl. 91 and 99 of Addendum No.2 dated 25.09.2013</p> <p>-----</p> <p>Sl.90 and 91/99 of Addendum No.2 seems in conflict. We understand that System delivered to be complaint to European Integrated Railway Radio Enhanced Network (EIRENE) Functional Requirements Specification, including Rel. 4 as and when the same is incorporated in the EIRENE Specifications.</p> <p>Although we can offer R-4 architecture, which is compliant towards ETSI TS 103-066, as of now it is not yet part of current EIRENE spec/release for GSMR. Hence we understand that an undertaking to deliver Rel.4 compliant to EIRENE Specification and user Certification of deployment in any GSM or GSM-R network should suffice at this stage.</p> <p>Please confirm.</p>	Refer response to Sl. No. 353.