

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

Sl. No.	Vol. No.	Section No.	Page No.	Clause No.	Title	Questions	DFCCIL's Response
382.	III Part 1	Annex 7-6	--	--	Interface Issues between ST P-5 and ST P-5A	<p>We refer to item no. 1.5(iii)(a) of new Annex. 7-6 added vide Sl. No. 297 of Addendum No.4A dated: 11.12.2013</p> <p>-----</p> <p>We understand that ST P-5 contractor has to provide uninterruptible power supply for TPWS equipments at voltage level as required by ST P-5A contractor at station machine room/ALH/Location box. May please confirm.</p>	<p>P5 Contractor shall include only load of TPWS in terms of watts in his Power Supply System (PSS). Available voltages at the output of PSS can be used by P5A Contractor either as it is or by suitable conversion as mentioned in Clause 1.5(iii)(b) of Annex. 7-6 duly amended vide item No. 353 of Addm 5.</p> <p>Item No. 360 & 361 of Addm 6 may also be referred.</p>
383.	III Part 1	Annex 7-6	--	--	Interface Issues between ST P-5 and ST P-5A	<p>We refer to item no. 1.5(iii)(b) of new Annex. 7-6 added vide Sl. No. 297 of Addendum No.4A dated: 11.12.2013</p> <p>-----</p>	<p>1) It shall be possible to keep almost all LEUs in Auto Location Huts (ALH) in Block Sections by suitable placing</p>

						<p>LEU for all the signals that are located at the distance >1.3Km from station machine room/ALH have to be installed trackside considering RDSO specification of TPWS (RDSO/SPN/183/2012 clause no. 6.20).</p> <p>Explanation: Infill balise will be located at approx. 1 km. from signal, therefore distance of farthest balise becomes 2.3 km. w.r.t. distance of 2.5Km. given in RDSO specification (200 mtr. Tolerance for cable length has been considered over maximum distance of 2.3 Km). Provision of 110V AC incoming power supply (in location box) and health monitoring cable for LEU from nearest machine room/ALH may be included in the scope of P-5 contractor for all such outdoor LEUs. Since the trenching work is in the scope of P-5 contractor, interface will be simple with such an arrangement.</p>	<p>of ALHs.</p> <p>2) To deal with any exceptional cases when LEU has to be kept on track side, refer response to Q. No. 382 and Item No. 355, 363 & 367 of Addm 6.</p> <p>3) Laying of cables shall be governed by Clause 1.5(i) of Annex. 7-6.</p>
384.	III Part 1	Annex 7-6	--	--	<p>Interface Issues between ST P-5 and ST P-5A (Laying of Cables)</p>	<p>We refer to item no. 1.5(i) of new Annex. 7-6 added vide Sl. No. 297 of Addendum No.4A dated: 11.12.2013</p> <p>-----</p> <p>Kindly add following in item no. 1.5(i) of Annex. 7-6 as: "P-5 contractor will be responsible to provide brick separation to TPWS balise cables laid together with other S&T cable in same trench. Brick separation will be as per RDSO drawing no. SDO/CABLE LAYING/004."</p>	<p>Refer item No. 359 of Addm 6.</p>
385.	III Part 1	Annex 7-6	--	--	<p>Interface Issues between ST P-5 and ST P-5A</p>	<p>We refer to item no. 1.5(iv) of new Annex. 7-6 added vide Sl. No. 297 of Addendum No.4A dated: 11.12.2013</p> <p>-----</p> <p>From above referred addendum, we understand that ST P-5 contractor has to</p>	<p>Failure of a repeater relay is an exceptional occurrence and its mitigation to the extent possible shall be considered at detailed design stage. Provision of two ECRs</p>

					<p>provide repeater of ECR relay inside and outside the machine room/ALH for providing input to LEU but the bidder has serious concern over this method.</p> <p>ECR input is given to Interlocking and LEU as well. If this is done using two different relays, there are increased chances of TPWS imposing ‘Emergency Brake’ while line side signals showing ‘OFF’ aspect. This may happen due to mismatch in inputs provided to LEU and Interlocking.</p> <p>This issue becomes more serious considering the fact that aspect control between automatic signals is achieved by data communication between Object Controller and EI over OFC. In such case, EI receives aspect information by ECR and use it for aspect control of signal in rear while LEU may read most restrictive aspect due to failure of ECPR. Train will face sudden application of ‘EB’ while running on full speed that will be highly undesirable situation. Such an situation may be avoided, by using only ECR relay (not the repeater) in station machine room/ALH for input to LEUs installed inside ALH/machine room. For providing input to LEUs installed outside machine room/ALH, another ECR relay in series may be provided by P-5 contractor in location box where LEU is installed. A drawing is attached herewith as Annex.-1 explaining scope of work of P-5 & P-5A contractor.</p>	<p>in series is not an accepted practice.</p> <p>Also refer item No. 362 of Addm 6.</p>
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386.	III Part 1	Annex 7-6	--	--	Interface Issues between ST P-5 and ST P-5A (Laying of Cables)	We refer to item no. 1.5(i)(d) of new Annex. 7-6 added vide Sl. No. 297 of Addendum No.4A dated: 11.12.2013 ----- Kindly reconsider the provision of laying TPWS balise cable by opening the trench already closed by P-5 contractor after laying the other S&T cables. Because, reopening the trench may cause damage to cables laid previously and therefore can't be considered as practical solution. This may be included in item no. 1.5(i) of Annex.7-6: "P-5 contractor will backfill the trench after obtaining consent of P-5A contractor".	Sub Clause (a) & (c) of Clause 1.5(i) of Annex. 7-6 are considered adequate in this respect.
387.	III Part 1	5	30	5.10.7	Power supply system	We understand that AT supply will be single phase supply. Combined load of signaling and telecommunication system at junction stations may be up to 40KVA. This may kindly be confirmed that single phase AT supply of capacity up to 40KVA will be made available by EM P-4 contractor.	Confirmed.
388.	III Part 1	5	30	5.10.17	Power supply system	Single phase UPS of capacity >10KVA with proven track record (PTR) may not be available in market, this puts restriction on type of power supply system to be offered by bidder. May kindly confirm if provisions described in clause 9.5(3) and 9.6 will be applicable over and above the requirement of 'PTR of same model & rating' mentioned in clause 5.10.17.	Refer item No. 356 & 357 of Addm 6.
389.	Vol.- I (1/2)	5	146	--	Table: Coordination events and key Milestones (ATB-8.2 of	There may be some unforeseen issues of EMI/EMC and higher traction return current which are addressed during trial run in Rewari-Dabla section and some design changes may be required based	Rewari – Dabla section shall be got ready only for commencement of testing of prototype loco. This testing does not include

					contract ST P-5)	on feedback obtained from Trial run. Therefore, in view of the bidder, it will be more appropriate to commence detailed design of Dabla-Makarpura section after trial run with prototype locomotive is completed on Rewari-Dabla section.	TPWS trials which shall be done separately based on Works Program of P-5A Contract.
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