BHAUPUR – KHURJA SECTION OF EASTERN DEDICATED FREIGHT CORRIDOR SYSTEM WORKS: CONTRACT PACKAGE - CP 104 RESPONSES OF PRE-BID QUERIES OF THE BIDDERS

S. No.	Reference to Bidding Document (Consisting of Part, Section, Volume, Reference Clause, Page no. etc.)	As Per Tender	Clarification sought by the Bidders	DFCC's Response
1	Part 2, Section VI, Volume 2, Clause 7.3.2 (1), Page 56		The Clause 7.3.2 (1) of Tech Spec (Part 2 Vol-2) indicated Traction Transformer shall be ONAN only except for one such transformer which shall be with ONAF/OFAF. However, Annex 8 requires all transformers with ONAN/ONAF/OFAF. Confirm that Clause 7.3.2 (1) of Tech Spec will prevail over provision of Annex 8.	Provisions of Clause 7.3.2 (1) Part 2, Section VI, Volume 2 shall prevail.
2	Part 2, Section VI, Volume 2		The RFP indicates that DFCCIL appointed CST contractor in Jan 2013. The Civil Contractor may have developed the alignment as well as performed soil investigation. It is requested to share these details as 'reference documents' with Bidders. Availability of these details will result in better understanding of current situation and hence optimized bids.	Formation shall be constructed as per RDSO Guideline RDSO/2007/GE: 0014 for 32.5 tonnes axle load. Soil investigation report is attached. Please refer Addendum 3 (S.No. 179). Indicative alignment drawings have already been provided as part of Part-4, Reference Documents and same may be referred.
3	Part 4		It is requested to provide CAD version of all alignment and schematic drawings.	CAD version of alignment is available on CD and same has been given to bidders.

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4	Part 2, Section VI, Volume 2		It is seen that at four locations (junction stations), DFC is connecting to IR networks. It is requested to provide detailed mapping (scaled plan showing IR lines, OHE masts / portals etc.) of such locations to enable Bidders to assess the work involved for such interconnections.	Yard Plans have already been provided as part of Part-4- Reference Documents. Also site survey, if, required for OHE Mast/Portal etc may be carried out by bidders.
5	Part 2, Section VI, Volume 2, Clause 13.2, Page 141		Item B (15) of Table under Clause 13.2 of Tech Spec (Part 2, Vol-2) indicates auxiliary transformer of 25kVA rating, while rest of the document indicates 100kVA. Confirm 100kVA is the correct value.	Table 13.2-1 gives requirement of contract spares only. Please refer Chapter 9, Part 2, Section VI, Vol. 2 for requirement of Auxiliary Transformers for different applications. Please refer Addendum 3 (S.No. 59).
6	Part 2, Section VI, Volume 2		The exact land plans / details of TSS / SP / SSP may be provided.	Details are attached. Please refer Addendum 3 (S.No. 180).
7	Part 4		The alignment drawings and other tender documents provided does not appear to contain the locations and number of Level Crossings. Please provide the same.	List of LC indicating their locations has been provided in the bidding documents. Please refer Part-2, Section VI, Volume 3, PS Signalling Work. Appendix-1, Chapter-10, Page 138 to 141.
8	Part 2, Section VI, Volume 2		Please confirm whether the station signalling supply is envisaged from auxiliary transformers or from grid. Or DFCCIL expects Bidders to propose suitable	Signaling Supply at stations shall be provided as per clause 9.2 Part 2, Section VI, Volume 2. Please also refer Attachment 15.1, Part 2, Section VI,

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			solution.	Volume 5. Please refer Addendum 3 (S.No. 173).
9	Part 2, Section VI, Volume 2		The sectioning diagram provided by DFCCIL indicates 750m and 1500m loops at every station with intermediate crossovers for 750m loop. The bidding documents do not appear to be clear whether initially 750m loops to be provided or 1500m loop. Whether electrification under this package is foreseen for 750m loop or 1500m loops. Kindly clarify.	For loop length at station, please refer Yard Plans instead of sectioning diagram. Electrification of loops shall be carried out as per yard plans included in Part 4- Reference Documents. The revised indicative Sectioning diagram is attached. Please refer Addendum 3 (S.No. 185).
10	Part 2, Section VI, Volume 2, Clause 5.5.1 (4), Page 34		The Tech Spec (Part 2, Vol-2) clause 5.5.1 (4) indicates "for failure of one TSS, the system shall be able to support 100% train service under normal and *bunched condition*". We could not trace definition of "*bunched condition*" – kindly clarify.	Please refer Addendum 3 (S.No.31).
11	Part 2, Section VI, Volume 2		Please confirm that Buried Earth Conductor (BEC) is not mandatory, but its provision or otherwise is an outcome of various studies to be performed by Bidders. Please confirm that suitable alternate solutions such as earth electrodes at suitable interval may also be acceptable to DFCCIL.	Please refer Clause 6.2.3, 6.3, 8.9.1, 8.9.2 and 8.20 of Part 2, Section VI, Volume 2 for BEC and earthing requirements.

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12	Part 2, Section VI, Volume 5, Clause 15, Page 99,		As per OCC basement drawing HVAC plant to be set up in basement; which means system should be water cooled where as chapter 15 (Part 2, Vol-5) specify VRF System which is Air Cooled system and cannot be setup in basement, hence clarification is required regarding system consideration. However considering Green building norms water cooled Chiller plant is recommended. Please confirm.	Air conditioning shall be VRF type. Please refer Part 2, Section VI, Volume 5, Chapter 15. Please also refer Addendum 3 (S.No. 188) for modified OCC drawing.
13	Part 2, Section VI, Volume 5, Clause, 15.5, Page 126		The attachment 15.5 of Part-2, Vol-5 (Building specs) does not include lift, water supply system, fire hydrant system etc. for OCC building control through BMS. Confirm DFCCIL do not envisage such control through BMS. Further also confirm whether DFCCIL foresee requirement of fire hydrants, sprinklers in the OCC building or not. These are not coming clear in the specification.	Matrix for BMS requirement is attached. Please refer Addendum 3 (S.No.166).
14	Part 3, Part 4		Indicate clearly Access dates of Slice 101, 102,103 for the following. 1. Chainnage wise access of Embankment in Parallel area and Detour area for a) OCS foundation, Signal Cable trench b) Mat erection c) stringing d) Adjustment &	As per CST contract, Civil contractor is to complete the civil works, fit for running material train by 1100 Day (i.e. by 18.03.2016). S. No. 1 to 5 are interface issues which need to be covered by a proper Interface Management Plan covering

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			checks. 2. Station Platform access dates for a) foundation b) Mat erection c) stringing d) Adjustment & checks. 3. Station / Yards Other Lines including Cross over for the above. 4. Access dates for TSS, SSP, SP, Level crossing area. 5. Access for Station building area; Staff quarters; OCC; IMD; IMSD; 6. Share the access to approach road details in EDFC Land for TSS, SP, SSP especially for 100 MVA Trfr Trailer movement.	the functional and technical aspects of all interfaces. S.No. 6. Please refer Part-2, Section VI, Volume 1, Appendix 19- Requirements for Construction. Approach road plan for TSS, SP & SSP are attached. Please refer Addendum 3 (S.No.180).
15	Part 4	Reference drawings as of RFP Part-4 (pdf drawings received from EDFC)	Autocad drawing for alignments & google map locations of chainages of detour are required	CAD version of alignment is available on CD and same has been given to bidders.
16	Part 2, Section VI, Volume 1 & Part 3		Kindly advice the Free Land availability for Storage and workshop area near Civil Base Camp & Satellite Camp area.	Please refer Addendum 3 (S.No.20).
17	Part 3		Please provide us in detail the Civil Planning for work completion, as this contract will be dependent on Civil contractor work front provision and any	As per the CST contract the following are the milestones: (i) Track fit for temporary use by Employer for running material

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			delay will hamper the targets and also huge expenditure to this contractor, for no fault of them.	trains- 18/03/2016 (ii) Test on completion including integrated testing and commissioning – 04/10/2016 (iii) Completion of all civil works and making track fit for 100 Kmph – 22/04/2017. However, interface issues need to be covered by a proper Interface Management Plan covering the functional and technical aspects of all interfaces.
18	Part 3		Confirm the Land acquiring status for the following in terms of Percentage. 1. Parallel area 2. Detour area 3 TSS location (5) 4. SSP location (11) 5. SP Location (6) 6. Junction and crossing station yards (10) 7. Other buildings area. (220 quarters; OCC, 4 IMD, 3IMSD)	As of now the following is the availability of land: 1. Parallel Section: 100% 2. Detour: 90% 3. TSS Locations: 80% 4. SSP Locations: 100% 5. SP locations: 100% 6. Junction and crossing stations: 90% 7. Other buildings (quarters, IMDs and IMSDs): 100%
19	Part 2, Section VI, Volume 5		Please provide the details of Type-I; II; III quarter construction location with quantities individually.	80 Type-I, 40 Type-II and 40 Type-III quarters are to be constructed. The details of Type-I, Type-II & type-III

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				quarters location wise is shared. Please refer Addendum 3 (S.No. 154).
20	Part 1		Please clarify the requirements of documents required for Stage-1 Technical proposals. (example: Simulation results are to be submitted).	Please refer to Part 1 Bidding Procedures, Section I, Instruction to Bidders, Clause 11, Page 16.
21	Part 2, Section VI, Volume 2		Please confirm whether augured foundation with base plated OCS structures instead of grouted ones to save time are acceptable.	Provisions in the Clause 8.14, Part 2, Section VI, Volume 2 shall prevail. Please refer clause 8.2.8 (4) Part 2, Section VI, Volume 2 for OHE masts with base plate on bridges and viaducts.
22	Part 2, Section VI, Volume 2		Define the Minimum HSE requirements to be observed while locating the structures in between EDFC & IR Lines near IR connections	Provisions in Schedule of Dimensions for Eastern DFC shall be complied with. SOD for EDFC is attached. Please see Addendum 3 (S.No.183).
23	Part 2, Section VI, Volume 2		Kindly share the Earthing Bonding plan/ Scheme indicative.	Earthing and Bonding plan shall be prepared by the contractor in accordance with clause 3.3.1 (k) and 8.20, Part 2, Section VI, Volume 2.
24	Part 2, Section VI, Volume 2		1. Kindly share the details of OCS Layout Plan drawings & arrangement at merging IR locations.	1. Details of OCS layout plan and drawings and arrangements at merging (junction) stations have already been provided as part of Part-4, Reference

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			2. Also confirm the scope of emergency Power block works and Time schedule of access to IR modifications.	Documents. Further information as required may be obtained through site visit. 2. Please also refer Bidding Document Part-2, Section VI, Volume-1, Clause 1.3.15(6), Page No. 16 of 95.
25	Part 2, Section VI, Volume 2, Clause 8.4 (2b), Page 69	The contact wire shall be continuous, i.e. splicing or jointing of the conductors is not permitted between terminations or between cut-in insulators. Splices are primarily used during maintenance and shall not be used in the contact wire and / or catenary wire by way of installation or repair unless approved by the Engineer.	Thefts are common in lengthy section. Restrictions on "Spilce not acceptable in new installation" should be relaxed.	Provisions of clause 8.4 (2)(b) of Part 2, Section VI, Vol. 2 shall prevail.
26	Part 2, Section VI, Volume 2		Please provide us the details of FOB, RUB, ROB and major and minor bridges details for effective design review.	Sectional details of RUBs, RFOs, Major and Minor bridges are attached as part of Part 4 - Reference Document. No ROB is to be constructed or modified in Bhaupur- Khurja section. List of FOBs to be constructed/ modified is attached. Please refer Addendum 3 (S.No.181).
27	Part 2, Section VI,		Confirm the soil to be used for embankment	The soil used in embankment shall

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	Volume 2		and their Soil bearing capacity. Also confirm that new embankment throughout will be constructed for 32T axle load.	conform to Guidelines RDSO/2007/GE:0014 for 32.5 tonnes Axle Load issued by RDSO. It is confirmed that new embankment throughout shall be constructed for 32.5 T axle load. Also refer Part 2, Section VI, Volume 1, Clause 1.1.9 (g), Page 11 of 95.
28	Part 2, Section VI, Volume 2		Provide the cross section of Ballast Track profile with rail details with embankment (double line; Single line; Yard lines) with details of Track centers, especially in yards to design the type of structure required.	A typical cross-section of Ballast profile has been shown on Page 36 of Guideline RDSO/2007/GE: 0014 issued by RDSO.
29	Part 2, Section VI, Volume 2, Clause 7.3.2 (1), 8.2.3, Pages 56, 65		Please provide the SOD details of EDFC.	Please refer Addendum 3 (S.No.183).
30	Part 2, Section VI, Volume 2, Clause 6.10 (1), Page 44		Please provide the details on the high pollution area for considering the 1000gm/M2 zinc coating on structures.	Please refer Clause 3.3.3(1)(e) and 6.10(1) for pollution mapping requirement.
31	Part 2, Section VI, Volume 2		Please provide the dual pantograph Train formation details for neutral section design review.	Please refer Addendum 3 (S.No.30).
32	Part 2, Section VI,		Is conductor sizing is flexible to bidder?	Please refer to Clause 8.4, Part 2,

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	Volume 2, Clause 3.3.3 (3a) (l), Page 15			Section VI, Volume 2.
33	Part 2, Section VI, Volume 2, Clause 4.2, Page 20		Confirm details of locations and the basic wind pressure to be taken for OCS design foundation, structures. (Locations to be clarified by EDFC)	Please refer to Clause 4.2 Part 2, Section VI, Volume 2.
34	Part 2, Section VI, Volume 2, Clause 4.4.2 (f), Page 23		Confirm localization strategy of EDFC and TOT procedures.	Please refer to Clause 4.4.2 (f) & (g) Part 2, Section VI, Volume 2.
35	Part 2, Section VI, Volume 2, Clause 4.6.1 (1f), Page 26		Confirm Bonding strategy to be followed near IR connection	Please refer Clause 3.3.1(k), 6.19 and 6.20 Part 2, Section VI, Volume 2.
36	Part 2, Section VI, Volume 2, Clause 4.6.1 (1g) V, Page 27		Clarify on bidders role on ROW in this clause	Please refer to Clause 7.1.3, Part 2, Section VI, Volume 2 and Appendix -1 Utilities, Part 2, Section VI, Volume 1.
37	Part 2, Section VI, Volume 2, Clause 8.9.1, Page 71	Remarks in Table	Can Raw copper duty free Import for CuMg/ CuAg source will be recommended by EDFC else Indian Raw material source to be advised by EDFC for suitable raw material supply for indigenization.	Please refer Part 1 Bidding Procedure Section II Bid Data Sheet ITB 29.8 Page 44 & 45 of 134 and Part 3 Section VIII Particular Condition Sub Clause 4.11 Page 11 of 44.
38	Part 2, Section VI,		Use of Gas ATD in viaduct / Tunnel. Please	Viaduct/tunnel locations, if any are

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	Volume 2, Clause 8.12, Page 72		advise such location requirement.	given in indicative Alignment Drawings provided in Part 4 – Reference Document. Further, Bidders may carry out site visit to identify such locations.
39	Part 2, Section VI, Volume 2		Kindly provide the cross section of every POS location TSS; SSP; SP, Station Yard	The data given in Bidding documents and supplemented through these replies are sufficient for the purpose of technical offer to be given by bidder. Further information can be obtained through site visit.
40	Part 2, Section VI, Volume 2		Please confirm the level of New embankment, when in parallel to Indian railways being adopted.	The indicative alignment plans provided in Part-4, Reference Documents shows the level of new embankment with reference to IR in parallel sections.
41	Part 2, Section VI, Volume 2, Clause 3.3.1 (n), Page 13		Kindly share the Data for High flood level at TSS; SSP; SP and Parallel alignment & Detour alignment area with respect to Existing ground level.	This may be locally obtained through enquiry from village heads or through meteorological department/ other relevant departments.
42	Part 2, Section VI, Volume 2		Please clarify the role of Transmission line works upto TSS gantry. It is understood that TL contractor will terminate the line into the TSS gantry.	Please refer Part 2, Section VI, Volume 2, Clause 3.3.4 (2) and 18.1.4 (3).
43	Part 2, Section VI, Volume 2		1. Please note the motorized Isolators are to be operated on clear No Load conditions	The contractor has to incorporate suitable features in the design to ensure

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			and it will be very difficult to ensure the same during operations and this will lead to improper use of equipment.	satisfactory operations of motorized isolators. Provisions of Clause 8.3.2 and Table 10.1-1 Part 2, Section VI, Vol. 2, shall prevail.
44	Part 2, Section VI, Volume 2, Clause 2.2.1, Page 9		We strongly recommend to use 220KV as incoming voltage for POS/TSS location, based on Good performance of equipment at extra High voltage especially at 220KV. Since grid is same for 132kv & 220kv also, Please reconsider.	Provisions of Clause 2.2.1 Part 2, Section VI, Vol. 2 shall prevail.
45	Part 2, Section VI, Volume 2		Please confirm the availability of Land acquisition date for Umaria TSS.	This will be available by 05.03.2015.
46	Part 2, Section VI, Volume 2, Clause 4.6.2 (5b) (ii), Page 30		Parent Soil at Biruni TSS is being removed by CST contractor. This will hamper the ground properties and refilling. Please advice.	The original ground level has been restored.
47	Part 2, Section VI, Volume 2, Clause 7.5.6, Page 57		25kv Interrupters and Breakers are insisted to be Vacuum. Please relax the condition.	Provisions in clause 7.5.6, Part 2, Section VI, Volume 2 shall prevail.
48	Part 2, Section VI, Volume 2, Clause 3.3.1 (l), Page 13		Please check meter details, since no load loss at EDFC end will not be accounted at TSS end but accounted at Grid end, energy consumption may not match.	Provisions of clause 3.3.1(l) of Part 2, Section VI, Vol.2 shall prevail.

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49	Part 2, Section VI, Volume 2, Clause 6.7.2, Page 42		Confirm the lowest short circuit MVA at the Grid Substation.	Please refer Addendum 3 (S.No.36).
50	Part 2, Section VI, Volume 2, Clause 7.2.1, Page 55		Please provide details on ROW area along embankment for stand alone AT finalization.	Alignment plans are already provided in Part 4 - Reference documents. Please refer Clause 7.1.5 Part 2, Section VI, Volume 2.
51	Part 2, Section VI, Volume 2		Provide Table of requirements / scope matrix between State company & the bidder	Please refer Clause 18.1.4(3), Part 2, Section VI, Volume 2.
52	Part 2, Section VI, Volume 2		1. Confirm whether the Station/Yard Isolators are to be motorized / Manual, since to motorize we need LT power and Control & Monitor arrangements, which will be difficult. 2. Also note the motorized Isolators are to be operated on clear No Load conditions and it will be very difficult to ensure the same during operations and this will lead to improper use of equipment.	Please refer reply to Query 43.
53	Part 2, Section VI, Volume 5		Please clarify the sources of Power supply at Station building area and Level crossing gates.	Please refer Part 2, Section VI, Volume 5, Clause 4.5.1 and modified Attachment 15.1 and 15.3. Please refer Addendum 3 (S.No.173&174).

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54	Part 2, Section VI, Volume 5		The tender show the Plan and elevation of buildings. Please confirm what are the other base criteria which will form the basis, Since no architecture is specified.	The Building design Criteria has been listed in Employer's Requirement in Part 2, Section VI, Volume 5 of bidding document.
55	Part 2, Section VI, Volume 5		Please confirm whether the requirements of Power supply and signal eqpt rooms in station area can be combined and optimized.	Please refer revised Attachment 15.1 attached as Annexure to Addendum 3 (S.No. 173).
56	Part 2, Section VI, Volume 2, Table 5.2.1, 5.2.3		What to be submitted on Simulation, RAMS, EMI, EMC in stage-1 technical submission required.	Please refer to reply to Query No. 20.
57	Part 2, Section VI, Volume 2		Please provide the Rolling stock characteristics details of EDFC.	Please refer to Clause 5.2, Table 5.2.1, Part 2, Section VI, Volume 2, Page 33 of 291.
58	Part 2, Section VI, Volume 3		Please clarify whether Signal huts shall be raised to EDFC Rail level by raising the foundation base (since it involves soil filling) which can be avoided.	Yes, the signal huts shall be raised to 300 mm above EDFC Rail level. Please refer Addendum 3 (S.No.151).
59	Part 2, Section VI, Volume 3		Can the Signal Huts be of Potable cabins with required ventilation arrangement? Also the drawing shows roofed arrangement. Please confirm.	No. The Signal Huts shall not be portable or relocatable cabins. They shall be masonry RCC framed structures. Refer Clause 3.10 (6) (C) of Part 2, Section VI, Volume 5, for

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				specifications.
60	Part 2, Section VI, Volume 3		Please confirm the number of staff colonies provided to provide the communication channels.	Staff colonies will be at every station. For details of quarters at each station, Please refer Addendum 3 (S.No.154).
61	Part 2, Section VI, Volume 3		Please provide us the details existing Level crossing details which are being modified by CST contractor, to ensure scope bifurcation.	The contractor's scope for Level Crossing work as defined in the Employer's requirements, Part 2, Section VI, of the Bidding document is independent of any work that will be done by CST contractor on these LC gates.
62	Part 2, Section VI, Volume 3		1. Please confirm the Signal Huts building area. 2. Where ever Level xing and Signal Hut is at the same location can the signal huts be separate, since the equipment room shown in Gate lodge drawing will not be sufficient for Equipment, etc.,	1. The exact size will be determined by Signalling Design. Indicative size has been given in, Part 2, Section VI, Volume 5, Clause 3.10(6). 2. Signal Hut and Gate Lodge buildings need not be combined even if they are located close to each other.
63	Part 3		Confirm the Invoicing address, DFCC office/Delhi; DFCC Office/UP.	Work is to be executed in the field. Project site falls in the jurisdiction of Uttar Pradesh under DFCCIL Project Unit CPM/Tundla. Billing for the project will be submitted to Project unit.
64	Part 3		Confirm on High sea Sales agreement	Being Design Build lump Sum contract,

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			during execution of contract.	High sea Sales Agreement shall not be applicable during execution of Contract.
65	Part 3		Confirm Import duty exemption on Raw Materials Like Aluminium, Copper mixture; Transformer, Switchgears etc.,	Please refer Part 1 Bidding Procedure Section II Bid Data Sheet ITB 29.8 Page 44 & 45 of 134 and Part 3 Section VIII Particular Condition Sub Clause 4.11 Page 11 of 44
66	Part 3		Confirm Issuance of Road Permit by EDFC.	Road permit will not be given by DFCCIL.
67	Part 3		In case of Interstate direct sales to EDFC confirm CST will be reimbursable as it being an Output Tax	There is no interstate direct sales to EDFC in the proposed system of Work execution through Design Build Contract, question of reimbursement of CST by DFCCIL, as output tax does not arise.
68	Part 3		Please confirm how the bidder will be compensated for expenses and cost impact, in the event of Contract extension acceptable to EDFC for no fault of this bidder. Confirm the conditions laid in Yellow book will be acceptable to EDFC.	Please refer Part – 3 GC Clause 8.4 along with Section VIII Particular Conditions Sub Clause 8.4 Page 14 of 44.
69	Part 1, Section IV, Clause 2.1.9.1		Confirm the Final Taking over of completion works shall be 2.1.9.2 instead of 2.1.9.1 as mentioned.	Please refer Addendum 3 (S.No.13).

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70	Part 2, Section VI, Volume 5		Please confirm the OCC land will be provided as leveled compacted ground with all encumbrances free.	Encumbrance free land shall be provided. However, the contractor has to do the site clearance, leveling and other preliminary works. Location Plan of OCC is attached. Please refer Addendum 3 (S.No. 182).
71	Part 2, Section VI, Volume 2, Clause 4.4.2 (6f), Page 23		Please relax 50% quantity indigenization to 100%.	Provisions of clause 4.4.2 (f) shall prevail
72	Part 2, Section VI, Volume 5		Understand that Civil contractor will do only 135x4m station RLPF area. Confirm civil ground level of making the station building area ready by Civil contractor and same way to all other buildings also. If not please provide the cross section and Datum level for all Station building, IMD, IMSD etc.,	The IMDs, IMSDs and Station buildings shall be provided within ROW. Tentative locations have been provided in Bidding Documents. The exact location shall be decided by the Engineer. CST contractor shall construct platform at stations. All works relating to construction of station building including site clearance and other works shall be done by System contractor.
73	Part 2, Section VI, Volume 2, Clause 6.10, Page 44		Confirm which area are to be taken for 1000gm/m2 galvanization.	Provisions of Clause 6.10(1) Part 2, Section VI, Volume 2 shall prevail. Further information, be collected by site survey.
74	Part 2, Section VI,		Can all the cantilever insulators adopted	Provisions of Clause 8.18.1 Part 2,

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	Volume 2		shall be Polluted Zone Synthetic type. Please confirm.	Section VI, Volume 2 shall prevail.
75	Part 2, Section VI, Volume 2		Please confirm details on Speed restriction area.	Query is not Clear as no Clause has been mentioned. However, this is interface item. Please refer to Chapter 18, Part 2, Section VI, Volume 2.
76	Part 2, Section VI, Volume 2		Please provide us the formation details of single Train, double train with one panto in middle.	Please refer Addendum 3 (S.No.30).
77	Part 2, Section VI, Volume 2		Can 25 KV cables be used instead of Gantries for Feed point of OCS.	Please refer Clause 3.3.1(g)(i) and 8.13, Part 2, Section VI, Volume 2 .
78	Part 4		Provide the details of Major bridges.	The tentative details of Major bridges have been provided in the Sectional details, which are attached. Please refer Addendum 3 (S.No.181).
79	Part 2, Section VI, Volume 2, Clause 8.14.4 (6e), Page 74		Provide details on Sigma strip locations for fog.	Please refer Addendum 3 (S.No.43)
80	Part 2, Section VI, Volume 2		In India, the normal train consist is 750m. For EDFC, it was stated as a 2 consists configuration hence 1500m. Nevertheless, it stated that the yard is of 750m long. Please	For yard plan, please refer Part 4 – Reference Document.

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			clarify.	
81	Part 2, Section VI, Volume 2, Clause 7.3.1, Page 55		Please clarify on the provisions to be made for 2nd Transformer clearly for estimates.	Please refer Table 7.1.1 Page 53 of 291 and Clause 5.1.1, Page 32 of 291 of Part 2, Section VI, Volume 2 for provisions to be made for 2nd transformer/spare transformer. Please also refer Addendum 3 (S.No.28 & 39).
82	Part 2, Section VI, Volume 2		Please clarify the location of BCC and the scope of work with bidder.	Please refer to Clause 1.1.11, Page 11 of 95, Part 2, Section, VI, Volume 1.
83	Part 2, Section VI, Volume 2, Clause 13.2 (Sl.no.2), Page 141		Please clarify what are all covered in 10 KM spares as it is not clear.	Please refer Addendum 3 (S.No.59).
84	Part 2, Section VI, Volume 2, Clause 16.3.2 (14), Page 154		Please confirm why the Stray DC current corrosion Prevention Equipment is required, since not relevant.	Please refer Addendum 3 (S.No.61).
85	Part 2, Section VI, Volume 2, Clause 16.7.1 (4), Page 156		Training on GIS Switchgear is not relevant. Please confirm.	Please refer Addendum 3 (S.No.62).

S. No.	Reference to Bidding Document (Consisting of Part, Section, Volume, Reference Clause, Page no. etc.)	As Per Tender	Clarification sought by the Bidders	DFCC's Response
86	Part 1, Section II, Clause ITB 30.1, Page 28	"[…] the prices shall be quoted by the Bidder entirely in Indian Rupees […]. A Bidder expecting to incur expenditures in other currencies for inputs to the Works supplied from outside the Employer's country shall indicate […] the percentage of the bid price needed by him for the payment of such foreign currency requirement, limited to no more than three foreign currencies […]	1- We understand that the foreign currency portion converted to INR will be for evaluation purpose only. The Consortium members shall allowed to invoice and receive payment in foreign currency for the value initially quoted in foreign currency using the same counter-value used on the Base Date. Thanks to confirm. 2- In case of a consortium composed by onshore and offshore companies, could you confirm that - Each member of the consortium will invoice for their respective portions in the respective currencies (i.e. INR for onshore consortium members and foreign	1. Please refer Part – 1 Bidding Procedures Section II Bid Data Sheet ITB 30.1 Page 45 and 46 of 134. According to this Bid Price is to be quoted in Indian Rupees only. A Bidder expecting to incur expenditures in other currency for input to the works supplied from outside the Employer's country (referred to as "the foreign currency requirements") shall indicate in the **Appendix to Bid of Letter of Bid – Two Stage Bidding, Second Stage** Bid. (Form – LOB-SS) the percentage (s) of the Bid Price, needed by him for the payment of such foreign currency requirements, limited to no more than three foreign currencies. 2. Part of the replies is covered under item no. 1. DFCCIL will make payment in the name of JVA in the respective currency account no. as given by JVA and included in the contract agreement.

S. No.	Reference to Bidding Document (Consisting of Part, Section, Volume, Reference Clause, Page no. etc.)	As Per Tender	Clarification sought by the Bidders	DFCC's Response
			currencies for offshore consortium members limited to a maximum of three foreign currencies) - DFCCIL shall pay directly to the respective bank account of each member of the consortium 3- It is a standard practice that payments to offshore suppliers/offshore consortium members are made through sight irrevocable and confirmed Letter of Credit. Could you clarify whether payments to offshore consortium members will be made through Letter of Credit? 4- For payments which would not be made through LC, could you clarify the timeline (number of days) between the date of invoice and the date of payment?	3- As already clarified under item no. 2, payment will be made in favour of JVA in the account for the currency as included in the contract agreement. No payment will be made through Letter of Credit. 4) Payment shall be released in accordance with Clause 14.7 of Conditions of Contract.
87	Part 1, Section IV, Clause - Price Schedule 2.0, Page 92	The total Contract Price will be split in four cost centers by applying predetermined percentage on total Contract Price. Each cost centers will be further split into further sub-cost centers by applying predetermined percentage on the cost centers they relate to. Payment terms will then apply to each sub-cost centers	We respectfully request DFCCIL to give more flexibility on the allocation of the total Contract Price per cost center / sub-cost centers in order to be aligned with the cost structure of offers.	Please refer Addendum 3 (S.No.8).

S. No.	Reference to Bidding Document (Consisting of Part, Section, Volume, Reference Clause, Page no. etc.)	As Per Tender	Clarification sought by the Bidders	DFCC's Response
88	Part 3, Clause - GCC 7.7	Transfer of title – GCC Cl. 7.7 states Plants and Materials shall become property of the Employer on at the happening of following events, whichever is earlier: (a) On delivery at the site; or (b) When the Contractor becomes entitled to payment of the value of Plants and Materials as per GCC Cl. 8.10 (Payments for Plants and Materials in the event of Suspension);	Could you please confirm that the Employer will accept to be the importer of equipment supplied from offshore directly to the Depot In case of Transfer of Title taking place in India, it may lead to duplication of different types of taxes without adding any value to the project. Such additional liabilities would push up the project cost directly. Additionally for foreign entities, it may lead to creation of its permanent establishment in India. This may again push up the cost of execution of project. In the interest of the Project, it is suggested to allow Transfer of title of goods to be transferred to the Employer before goods enter into India.	No. This being design build contract, responsibility for importing of equipment if required will be of contractor. Employer will take over the work after commissioning.
89	Part 3, Clause-Conditions of Contract – 4.4	SCC sub-clause 4.4 - "The contractor shall not subcontract more than 30% of the total Works in terms of Value excluding the Work subcontracted to Sub Contractors named in the Contract."	Can more sub-contractors (other than those qualified at the PQ stage) be introduced until the Contract Execution? Also is this 30% over and above the work already outsourced to the contractor named in the Contract?	The contractor shall be allowed to have sub-contractors during execution other than those qualified during PQ stage up to the maximum limit allowed in the contract. Please refer Addendum 3 (S.No.176).
90	Part 1	Direct payment to JV members	JVA shall open necessary number of accounts to receive the payments in different currencies. The Employer shall	Please refer reply to Query at S.No. 86.

S. No.	Reference to Bidding Document (Consisting of Part, Section, Volume, Reference Clause, Page no. etc.)	As Per Tender	Clarification sought by the Bidders	DFCC's Response
			disburse the payments directly to each member of the JVA as per the designated accounts. Please confirm if our understanding is correct.	
91	Part 1	Bank Guarantees to be provided by JV as Bid Security and Performance Security	Bank Guarantees to be provided by different JV members. Sum of these guarantees would be equal to the sum of the required bank guarantee. JVA members are allowed to submit split bank guarantees in proportion to their respective work share (total sum of these guarantees being equal to the sum of the required bank guarantees). Please confirm if our understanding is correct.	No. Bid security and performance security is acceptable in the form of Bank Guarantees (May be more than one) but it should be in the name of JVA.
92	Part 2, Section VI, Volume 4, Clause 1.3.1.2, Page 7	Telecommunication System includes, but not limited to, the subsystems namely, Optical Fibre Communication System, IT Communication System, Telephone System, GSM-R based Mobile Train Radio System, VHF Communication System, Master Clock System. In addition, 48 V DC Power Supply System shall meet reliable power supply requirements of above subsystems.	Kindly confirm that IT Communication System referred in this clause is same as Data Networking System (Detailed requirements of which are given in Chapter 6 of this Particular Specification).	Yes, IT Communication System' is same as 'Data Networking System'. Please refer Addendum 3 (S.No.98).
93	Part 2, Section VI,	Software design & development	We understand that these details should be	Yes, Software Design & Development

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	Volume 4, Clause 4.1.1.8, Page 25	shall also be carried out during Detailed Design stage, and details shall be included in the Definitive Design Submissions for review of Engineer.	included in Detailed Design submissions and not Definitive Design submissions as mentioned in this clause. Kindly confirm.	details shall be included in Detailed Design. Please refer Addendum 3 (S.No.100).
94	Part 2, Section VI, Volume 4, Clause 4.1.1.13, Page 25	As part of Installation Design, specified clearance as per SOD of track side equipments in mms from centre line of adjacent track(s) shall be prepared in a tabular form.	What is mms? Kindly clarify.	mms is millimeters. Please refer Addendum 3 (S.No.101).
95	Part 2, Section VI, Volume 4, Clause 4.3.2, Page 27	Unless otherwise specified, all telecommunication equipment shall be designed for operation continuously in temperatures of -5C to +55C.	As per prevailing practice in telecom installation these items remain in air conditioned room environment and therefore operating temperature should be 0-40 C.	Please refer Addendum 3 (S.No.102). Clauses 4.3.3 & 4.3.5 should be read in conjunction with amended Clauses 4.3.2 & 4.3.4.
96	Part 2, Section VI, Volume 4, Clause 4.3.4, Page 27	Telecommunication Equipment Rooms (TERs) at Auto Section Locations, LC Gates, Interfacing IR Stations, GSM-R Locations, TSSs, SPs, SSPs, IMDs, IMSDs, Staff Residential Colonies etc. shall be provided as required with Panel Air-Conditioning, with 1+1 standby for Telecom Equipments. Further these TERs shall be provided with suitable means to maintain air-	We did not understand the requirement of air-circulation if TERs are equipped with panel Air-conditioning? Please clarify.	Please refer Addendum 3 (S.No.103).

S. No.	Reference to Bidding Document (Consisting of Part, Section, Volume, Reference Clause, Page no. etc.)	As Per Tender	Clarification sought by the Bidders	DFCC's Response
		circulation, with 1+1 standby. TERs at these locations are classified as 'Class-B2' under Clause 2.18 of General Specifications.		
97	Part 2, Section VI, Volume 4, Clause 5.3.3.1, Page 29	There shall be two separate optical fibre cable backbone networks. Each of the two optical fibre cable networks shall be formed by two outdoor single mode optical fibre cables, one laid along the up-track and the other along the down-track. The normal and protected routes shall be routed through different fibre cables with path diversity.	(i) We believe there shall be separate optic fiber cables for both first & Second Network i.e. - total four fiber cables would be laid. 2 on UP track side & 2 on DN track side. Please confirm. (ii) Also confirm whether separate trenches would be required for all four optical fiber cables.	(i) Yes (ii) Provisions in the Bidding Document are sufficiently clear.
98	Part 2, Section VI, Volume 4, Clause 5.3.3.2, Page 29	Optical fibre cables of the First Network shall be terminated at Optical Distribution Frames (ODFs) in TERs at OCC, Stations and any other location as required. Employer shall hire from M/s RCIL required Optical Fibres from RCIL POP at Bhaupur (IR) to RCIL POP at Allahabad (IR). All works from/up to RCIL POPs at Bhaupur and Allahabad shall be carried out by Contractor.	Please specify any other locations & requirements for 1st Network. Will it only be 10 stations & OCC. Or any other location also needs to be added.	Please refer Addendum 3 (S.No.104).
99	Part 2, Section VI,		We understand that provision of optic fibre	Please refer Addendum 3 (S.No.104).

S. No.	Reference to Bidding Document (Consisting of Part, Section, Volume, Reference Clause, Page no. etc.)	As Per Tender	Clarification sought by the Bidders	DFCC's Response
	Volume 4		by DFCC (by hiring from RCIL) will need additional equipment (switches/router/STM) to complete the link between Bhaupur to Allahabad. We believe that DFCC will hire the required interface link with suitable interfaces and Bandwidth with protection from Bhaupur/Khurja (or from both locations or at any intermediate stations as needed) to Allahabad. Please confirm.	
100	Part 2, Section VI, Volume 4, Clause 5.3.3.3, Page 29	Optical fibre cables of the Second Network shall be terminated at ODFs in TERs at Stations, Auto Section Locations, LC Gates, Interfacing IR Stations, GSM-R Locations, TSSs, SPs, SSPs, IMDs, IMSDs, Staff Residential Colonies and any other location as required. Locations of termination of optical Fibre cables of Second Network can be clubbed based upon design of other systems/subsystems under this Contract while meeting overall Telecommunication Requirements	Please specify that if 2 nearby locations can be clubbed to cover under a Singles Mux. Please also clarify the requirement of OFC termination at Staff Residential Colonies and the number of termination places.	Provisions in the Bidding Document are sufficiently clear. Requirement of OFC termination shall be determined by Bidder / Contractor.
101	Part 2, Section VI, Volume 4, Clause 5.3.4.5, Page 30	Each SDH node of the Second Network shall be at least STM-4 level or higher in the SDH hierarchy. The exact level of SDH	Please clarify the locations where SDH equipments are to be placed other than station because at station STM-16 will be there as these come in the first network.	Provisions of Bid Document are sufficiently clear.

S. No.	Reference to Bidding Document (Consisting of Part, Section, Volume, Reference Clause, Page no. etc.)	As Per Tender	Clarification sought by the Bidders	DFCC's Response
		node in SDH hierarchy shall be determined by the Contractor to meet the Bandwidth Requirements for Subsystems under this Contract as well as for relevant Project Contractors with 50% Spare Capacity. SDH Node of Second Network shall be equipped with minimum 4XSTM-4o Interfaces.		
102	Part 2, Section VI, Volume 4, Clause 5.3.4.6, Page 30	SDH Nodes at Station shall be common for First & Second Network and equipped with Digital Cross Connect at VC4, VC3 and VC12 levels.	By Common Nodes, we understand that Same STM-16 node will have STM-4 ports connected to second network. Please clarify	Provisions of Bidding Document are sufficiently clear.
103	Part 2, Section VI, Volume 4, Clause 5.3.4.8, Page 30	SDH Equipments shall be equipped with Ethernet over SDH (EoS) as per ITU-T Rec. G.7041 at 10/100 BaseT. This Ethernet over SDH (EoS) shall facilitate delivery of Ethernet Private Line (EPL) Services, Ethernet Virtual Private Line (EVPL) Services and Ethernet Local Area Network (E-LAN) Services. The EoS shall support Layer-2 encapsulation and forwarding through Multiprotocol Label Switching (MPLS).	The EoS shall support Layer-2 encapsulation and forwarding through Multiprotocol Label Switching (MPLS). We request to delete as it is not required in such boxes.	Provisions of Bidding Document shall prevail.

S. No.	Reference to Bidding Document (Consisting of Part, Section, Volume, Reference Clause, Page no. etc.)	As Per Tender	Clarification sought by the Bidders	DFCC's Response
104	Part 2, Section VI, Volume 4, Clause 5.3.5.7, Page 31	The OFC System shall provide Voice and Data Communication Network/Channels/Circuits or bandwidth for the following systems but not limited to: (1) 2 Mbps E1 (ITU-T G.703 and G.823) Channels for the Telephone System; (2) Other Data Circuits or Ethernet 10/100 Mbps Ports as required for Traction Power SCADA etc. (3) Other Data Circuits or Ethernet 10/100 Ports or 4W E&M Circuits or bare fibres for Vital & Safety Related Signal Control Circuits including Track Vacancy Detection. (4) Sub 2Mbps Voice Circuits for Telephone System, LC Gate Communication, Emergency Communication, Auto Signal Hut Communication and TSS/SP/SSP Communication. (5) Other Data Circuits or Ethernet 10/100 Mbps Ports as required for Train Management System. (6) Ethernet Connections for each application need to be implemented through Ethernet Virtual Private Line Service.	SCADA circuit requirement to be provided to determine the P MUX requirement and Copper/OF Cable requirement from station to SCADA locations. The requirements for vital and safety related signal control circuits and track vacancy detection system are to be detailed for the calculation of number of interface cards and P Mux equipment. For emergency and auto signal hut communication, there are approximate locations to be identified and the specific Quad cable requirement information required.	Provisions of Bidding Document are sufficiently clear.

S. No.	Reference to Bidding Document (Consisting of Part, Section, Volume, Reference Clause, Page no. etc.)	As Per Tender	Clarification sought by the Bidders	DFCC's Response
105	Part 2, Section VI, Volume 4, Clause 5.3.7.7, Page 32	The Flexible Access Multiplex Equipment shall be provided with 1+1 Redundancy for all Channel levels (Voice, Data, etc). Further 1+1 Protection for Control & Power Supply Modules/Cards shall be provided in Flexible Access Multiplex Equipment.	Is controller card protection of PD Mux necessary? Please change it to Single Controller as it will not affect traffic even if this card is down.	Please refer Addendum 3 (S.No.106).
106	Part 2, Section VI, Volume 4, Clause 5.3.8.1, Page 33	OF Cable Interference Detection System based upon Distributed Fibre Acoustic Sensing Technology shall be deployed, which shall detect any digging activities within 5 Meter radius Optical Fibre Cable and give warning though a dedicated GUI based MMI at OCC.	Please provide detailed specifications of required Interference Detection System.	Please refer Addendum 3 (S.No.107).
107	Part 2, Section VI, Volume 4, Clause 5.3.9.1, Page 33	A Service Telephone/Engineers Order Wire with handset shall be provided at each SDH node location for point to point and multipoint voice communication calls between maintenance staff at different node locations. It shall permit selective and group call functions.	Group Call is not possible. Pt. to pt. call is possible only. Please clarify, will group call be also required	Provisions of Bidding Document shall prevail.
108	Part 2, Section VI, Volume 4, Clause	In addition to PBXs based TDM Telephone Network, IP Telephony	It is written that "IP Telephony Server(Call Server) shall be provided at OCC to provide	Provisions of Bidding Document are sufficiently clear.

S. No.	Reference to Bidding Document (Consisting of Part, Section, Volume, Reference Clause, Page no. etc.)	As Per Tender	Clarification sought by the Bidders	DFCC's Response
	7.3.2, Page 49	Server (Call Server) shall be provided at OCC to provide VOIP based backup Telephony Communication Platform throughout the project. Media Gateways shall be provided as required to meet the requirement of this Particular Specification.	VOIP based backup Telephony Communication Platform throughout the project" It is to confirm that either all telephones in the network require backup telephone or only Station master telephones or SM and Lx gate telephones both. We assume that other telephones in the network do not require backup IP telephone.	
109	Part 2, Section VI, Volume 4, Clause 7.3.3.6, Page 50	In case of failure of E1 link(s) between PBXs, all calls should be routed via IP Telephony Server using IP link(s) over WAN as an alternate route, without requirement of any manual intervention.	Is it really required because the E1 between PBXs are protected in SDH.	Provisions of the Bidding Document shall prevail.
110	Part 2, Section VI, Volume 4, Clause 7.5.4.5, Page 61	The VRS shall automatically changeover to the standby module within 1 second for the standby unit to become active and start recording under the following conditions:	The changeover delay shall be more than 1 minutes. Because the requirement is centralized logger and same shall be taken on CTI based and interface through E1 and LAN. Not possible in this hierarchy	Please refer Addendum 3 (S.No.121).
111	Part 2, Section VI, Volume 4, Clause 7.5.4.5, Page 61	(1) pre-scheduled daily changeover from the active to the standby module;	Since the logger Taken a CTI based, in this One behave as a Main and other behave as a standby. And changeover shall only when the main logger have a problem. Not possible in this hierarchy Please clarify.	Please refer Addendum 3 (S.No.121).

S. No.	Reference to Bidding Document (Consisting of Part, Section, Volume, Reference Clause, Page no. etc.)	As Per Tender	Clarification sought by the Bidders	DFCC's Response
112	Part 2, Section VI, Volume 4, Clause 7.5.1.8, Page 59	(2) shall connect long distance subscriber lines with loop resistance up to 2400 Ohms and minimum leakage of 15 K ohms; and	In today technology scenario there is no long distance card having 2400 ohm. Request you to make amendment with 1200ohm, which can go upto 10km on 0.6mm cable.	Please refer Addendum 3 (S.No.120).
113	Part 2, Section VI, Volume 4, Clause 7.3.6.2, Page 56	The Telephone Network Management System shall provide control, supervision and maintenance functions for the entire Telephone System. The following management and administrative functions shall be provided through the use of the centralized maintenance console:	Please include network Topology view of the telephone system.	Provisions of Bidding Document are sufficiently clear. Telephone Network Topology shall be developed by Bidder / Contractor.
114	Part 2, Section VI, Volume 4, Clause 9.3.2, Page 90	A GPS Receiver at OCC/Control Location shall receive the Time Source through a Rooftop Antenna from the satellites of the GPS.	We understand that OCC is same as Control location and is located at Allahabad. Kindly confirm.	Yes.
115	Part 2, Section VI, Volume 4, Clause 9.3.4, Page 90	At OCC, Station, Depot and Offices, a Sub-Master Clock Unit shall receive the time information from the Central Master Clock and shall convert it into synchronization pulses for the slave clock units at those locations.	Kindly advise where these Offices would be located as this clause refers to installation of Sub-Master Clock in Offices. In addition, please confirm if the Telecom Equipment Room is present in these Offices where the Sub-Master Clock unit will be installed.	Please refer Addendum 3 (S.No.129). Office is Regional Office at Allahabad.

S. No.	Reference to Bidding Document (Consisting of Part, Section, Volume, Reference Clause, Page no. etc.)	As Per Tender	Clarification sought by the Bidders	DFCC's Response
116	Part 2, Section VI, Volume 4, Clause 9.3.5, Page 90	Slave Clocks shall be connected to the Central Master Clock Unit and the Sub-Master Clock Units. Slave Clocks Schedule is as below: (18) Office	Kindly clarify whether a total of 10 Digital clocks need to be provided irrespective of the number of offices/buildings.	Please refer Addendum 3 (S.No.130). Office is Regional Office at Allahabad.
117	Part 2, Volume 4, Section VI, Page 90, Clause 9.3.5		List of IMDs & IMSDs mentioned in Clause 9.3.5 is not matching with the list given in Volume 1, GS, 1.1.10. Please clarify the details of IMD & IMSDs?	Please refer Addendum 3 (S.No.14&130).
118	Part 2, Section VI, Volume 4, Clause 9.5.1 (4), Page 92	The Master Clock Units shall have their own oscillator and be able to maintain accurate time with an accuracy of 30 milliseconds w.r.t. GPS Reference for normal duration of loss of time synchronization with GPS.	Meaning of "for normal duration of loss of time synchronization with GPS" is not clear. Please clarify.	Please refer Addendum 3 (S.No.131).
119	Part 2, Section VI, Volume 4, Clause 11.3.1.2, Page 101	The IP Fixed/PTZ Video Cameras shall be strategically placed to ensure 100% coverage of all Entrances & Exits, Boundary Wall of OCC Building Complex, all Lift Lobbies at all floors, Office Reception area, Entrance/Exit to OCC theatre, OCC Theatre, Conference Rooms, Plant & Equipment Rooms, Entrance/Exit to	Approximate numbers of Camera are to be provided in the requirement which can be adjusted to design the system. Please specify the Plant & Equipment Rooms inside which the cameras need to be installed.	Provisions of Bid Documents are sufficiently clear. Please refer to Part 2 Volume 5 and Part 4 Reference Documents.

S. No.	Reference to Bidding Document (Consisting of Part, Section, Volume, Reference Clause, Page no. etc.)	As Per Tender	Clarification sought by the Bidders	DFCC's Response
		Plant & Equipment Rooms, etc.		
120	Part 2, Section VI, Volume 4, Clause 11.3.3, Page 101	Security Controllers shall be provided with Client PC Workstation with two LED Monitors of minimum 40" for Viewing and Monitoring. In addition, Security Controller shall be provided with one Client PC Workstation with 20" Full HD LED Colour Monitors for Viewing, Monitoring and System Management.	We understand that there will be only one Security Controller. Kindly confirm.	Yes, there shall be one Security Controller only. Please refer Addendum 3 (S.No.132).
121	Part 2, Section VI, Volume 4, Clause 11.3.7, Page 101	Video Recording: The Video Recorder shall be capable of operation for 24 hours per day, 365 days a year. The recording shall be preferably stored for at least 30 days at HD Resolution, 12 FPS. The Video Recorder System should, however, be capable of recording at HD Resolution, 25 FPS for all Cameras. The Storage Device for recording shall be External with RAID 5 Protection.	We understand that storage capacity to be considered for 30 days at HD resolution, 12 FPS. Kindly confirm.	Yes.
122	Part 2, Section VI, Volume 4, Clause 11.5.2.1.2, Page 104	Fixed Box Type IP Video Cameras shall operate on 180 to 270 V AC voltage as required as per the design and implementation.	We understand from clause 11.5.2.1.1 that fixed camera should have provision of PoE. However, it will operate on 180 to 270 V AC. Requirement is not clear.	Incoming Power supply shall be 180 V to 270 V AC.

S. No.	Reference to Bidding Document (Consisting of Part, Section, Volume, Reference Clause, Page no. etc.)	As Per Tender	Clarification sought by the Bidders	DFCC's Response
123	Part 2, Section VI, Volume 4, Clause 11.5.2.10.2, Page 110	Switch should have 1000 baseX SFP Ports (Fibre Ports) depending upon nos. of field switches to be connected on optic fibre cable and additional two SFP ports as spare. Remaining ports shall be fast ethernet ports.	Clause 11.5.1.6 mentions that from field switches, optical fibre cable shall be laid to central switch. If distance between a field switch and central switch is less than 90 meters, CAT-5/6 Cable may also be used. However, clause 11.5.2.9.6 mentions that field switch shall be connected to the central switch on optical fibre cable. Further clause 11.5.2.10.1 states that central switch shall take optic fibre input from all the field switches installed in the field Kindly confirm whether the connectivity between field switch and central switch for distance less than 90 m has to be optical fibre cable or CAT-5/6 cable can be considered while designing the system.	Please refer Addendum 3 (S.No.141&142).
124	Part 2, Section VI, Volume 4, Clause 11.6.1.22, Page 112	The software shall receive all incoming events (motion detection and triggered digital input and relay output) in the system and take appropriate actions based on user-defined event/action relationships.	Kindly advise the features under Video Analytics which needs to be provided.	Please refer Addendum 3 (S.No.143).
125	Part 2, Section VI, Volume 4, Clause 13.8, Page 122	Interface Requirements with Indian Railway	Is the interface related to telecom works is only for GSM R related works or not. Please clarify.	Clauses 13.8.1, 13.8.2 & 13.8.3 provide the Interface Requirements with Indian Railways.
126	Part 2, Section VI, Volume 3, Clause	The Bhaupur- Khurja section will be double line track with 10 new	We understand all related works for the existing stations will be taken care by IR	Please refer Part 2, Section VI, Volume 3, Clause 1.5.1 (2), (4) & Clause 9.4

S. No.	Reference to Bidding Document (Consisting of Part, Section, Volume, Reference Clause, Page no. etc.)	As Per Tender	Clarification sought by the Bidders	DFCC's Response
	1.2.2, Page 7	stations, out of which 6 of them will be Crossing stations and 4 Junction stations, the details of which are given in Para 1.1.8 of GS Vol. 1 Part 2. There will be a single line track connecting DFCC Junction stations to IR stations. The trains from/to Indian railways will enter/exit the Bhaupur-Khurja section of EDFC at the four Junction stations through these single line tracks.	and consequently excluded from the scope of the tenderer in terms of clause 9.4. Please confirm	and Part 2, Section VI, Volume 1, Clause 1.3.6 which clearly define the Contractor's scope of work at IR Stations.
127	Part 2, Section VI, Volume 3, Clause 1.4.2, Page 9	The Single line tracks connecting DFCCIL Junction stations and IR stations shall be provided with Absolute block Signalling with block/slot working. Interfacing with IR station signalling will be coordinated by the Engineer	We understand all related works for the existing stations will be taken care by IR. Please confirm	Please refer response to Query at S.No. 126.
128	Part 2, Section VI, Volume 3, Clause 1.4.16, Page 11	The Signal Maintenance bases in the form of Integrated Maintenance Depots (IMD) and Integrated Maintenance Sub Depots (IMSD) are being provided in Bhaupur-Khurja section to meet the maintenance requirements of the section. The locations of IMD and IMSD are as per Para 1.1.10 of GS	The functional requirements at IMD and IMSD are not specified. This may be clarified.	TMS terminals as per Clauses 2.3.3 (20) and 2.3.4 (11) are required to be provided at IMD's & IMSD's under Part 2, Section VI, Volume 3.

S. No.	Reference to Bidding Document (Consisting of Part, Section, Volume, Reference Clause, Page no. etc.)	As Per Tender	Clarification sought by the Bidders	DFCC's Response
		Vol. 1 Part 2. The buildings of IMD and IMSD are being provided under PS (Buildings & Structures including E&M) Vol. 5 Part 2.		
129	Part 2, Section VI, Volume 3, Clause 1.5.1 (4), Page 12	Design and Implementation of Absolute block working/slot working on single line connecting New Tundla station (DFCCIL) & Kuberpur station (IR), New Bhaupur station (DFCCIL) & Bhaupur station (IR), New Daud Khan station (DFCCIL) & Daud Khan station (IR) & New Khurja station (DFCCIL) & Khurja station (IR).	In view of clause1.5.1 (2); in view of the short distance between New DAQ & New KRJ can we suggest slot working in lieu of single line block working. Please confirm this is acceptable.	The Contractor's proposal on Block working/ Slot working will be considered by the Engineer at the Design stage.
130	Part 2, Section VI, Volume 3, Clause 2.1 (3), Page 13	At some future time, centralized control will be required, with the local station controls acting as emergency control points, therefore the ability to upgrade the system to allow control from one centralized point should be designed into the system.	This clause implies that the system should be designed for CTC upfront. As this has a bearing on the cost, please confirm,	The system shall be designed and implemented as per provisions of Part 2, Section VI, Volume 3, Clauses 1.4.14, 1.5.1(6), 2.1(3), 2.3 and 3.5.3 which unambiguously define the design and implementation requirements.
131	Part 2, Section VI, Volume 3, Clause 2.1 (4), Page 13	The Signalling system shall be designed for intensive operation, 24x7. Particular care in system design shall be taken for those components that have a tendency	Please clarify what period is considered as "SHORT". It must be kept in mind that IT hard ware like computers, monitors modems etc., will need replacement during the life cycle of this project and will be	Short life components will be identified by the supplier as part of the Availability planning required by the project and appropriate design considerations will be taken by the supplier to meet the

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		to fail on continuous use or whose life is short.	upgraded as per the emerging technologies.	overall project objectives.
132	Part 2, Section VI, Volume 3, Clause 2.1 (13), Page 14	The system should be designed keeping in view the requirement that it has to integrate smoothly with similar system/sub-systems used in adjacent sections of the EDFC.	The requirement is not clear. Please clarify.	The System proposed to be provided shall be capable of being seamlessly integrated and operated with a similar system (which may be supply by a different contractor) in the future on sections adjacent to the project section (with or without an appropriate interface).
133	Part 2, Section VI, Volume 3, Clause 2.2.1 (2), Page 14	One of the mid section automatic signal in every block section in each direction shall have provision to work as modified semi-automatic stop signal for introducing Modified automatic signaling in accordance with General Rules of Indian Railways**.**	The modified semi-automatic signal will need to be provided with a 'A' marker light and a Signal Post Telephone. The no. of such semi automatic signal as per this clause is only one mid section signal in each direction. Please confirm….	Yes. Only one modified semi-automatic signal in each direction is to be provided for each block section(section between two stations)
134	Part 2, Section VI, Volume 3, Clause 2.2.2 (1a), Page 15	As Level Crossing gates will be replaced by RUB/ROB in future, the system design shall be such that it requires minimum changes to initial design for the same and the change is implemented in a cost effective and time efficient manner.	With ref. to clause 2.2.2 1b here under it is our understanding that the technical and commercial proposal need to cater for interlocking 34 LCs only. Further, RUB/ROB at 45 locations would be implemented before we commission the signalling system. Please confirm…	Yes, the Technical and Commercial proposals need to cater for 34 LC gates only. Any change from the same shall be covered under Variation.

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135	Part 2, Section VI, Volume 3, Clause 2.2.2 (1b), Page 15	A tentative list of 79 Nos. LC gates in Bhaupur-Khurja section is provided at Appendix 1. of these 79 Nos., 45 Nos. of Level crossings will be closed and replaced by RUB/Subway. The Contractor shall therefore make arrangement for interlocking of balance 34 Nos. of LC gates. The exact list of Level crossings to be interlocked along with their number and location details will be advised by the Engineer at Preliminary design stage. Any increase or decrease in total number of LC gates to be interlocked beyond 34 Nos. shall be treated as Variation.	The details of the 34 LC gates getting retained may be provided now as it has impact in placement of signal and LX panel modification. Also, it directly affects the BOQ & estimation of the project. Please provide.	Please refer Clause 2.2.2(1) (b) and Chapter 10, Appendix 1 which clearly indicate that LC gates are being closed and replaced with RUB/Subway and exact list of 34 LC gates that would be required to be interlocked will be assessed and advised (based on progress of ongoing RUB/Subway works) at the Preliminary design stage.
136	Part 2, Section VI, Volume 3, Clause 2.2.2 (1c), Page 15	At present all the LC gates are interlocked with IR gate signals. These would be replaced with an arrangement where they cover both IR and new DFCCIL tracks and are interlocked with both IR and new gate signals on DFCCIL lines.	Please clarify whether all existing outdoor equipments (e.g. ELB, Road signal, hooter) for LX required to be replaced with New arrangements? All necessary work on the IR side are excluded from our scope as per the clause 9.4 of this specification. Please confirm	Yes, all existing outdoor equipment (e.g. ELB, Road signal, hooter etc.) need to be replaced with new arrangements. The scope includes all supply and services to implement the interlocking of LC gates, except what has been specified under Part 2, Section VI, Volume 3, Clause 9.4.
137	Part 2, Section VI, Volume 3, Clause 2.2.2 (1g), Page 15	The gateman shall be provided with facility to put back the gate signals to ON in case of emergency.	As presently this is not the practice followed in IR presently, we understand this is applicable only for the DFCC line. In the	Yes, the work of providing facility for putting back the signal to ON position if and when considered necessary for IR

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			event of this being extended to IR lines consequent to the EDFC lines coming in vogue, we presume the necessary works for the IR lines will be carried out by IR. Please confirm.	lines shall be carried out by IR.
138	Part 2, Section VI, Volume 3, Clause 2.2.2 (1i), Page 15	The gate shall be provided with Safety chain and Safety boom arrangement as per Appendix 2 for smooth operation of trains when the gate closed condition is…	We note that the prevailing practice is to provide only a sliding boom barrier as a back up to the ELB. Will a chain also be required? Is the sliding boom barrier included in the present scope.	Please refer Para 13, Chapter 10, Appendix 2 of Part 2, Section VI, Volume 3, which clearly specifies that both Safety chain and Safety boom shall be provided. The Safety boom described here is same as the Sliding boom barrier.
139	Part 2, Section VI, Volume 3, Clause 2.2.2 (2d-2f), Page 16	The Gate signals on DFCCIL lines will be interlocked with new ELB and DFCCIL line gate signals and controlling track indications are provided on Domino Type Control cum Indication Panel (CCIP) in the new gate lodge. A cable shall be laid by the contractor between the new ELB and the IR CCIP (in IR gate lodge) to enable IR to interlock their gate signals with the new ELB. The contractor shall also lay a cable from IR CCIP to DFCCIL CCIP and arrange display of IR gate signals and their controlling track sections	In the existing practice, panel for LC gate indication & operation are two different ones. While the control panel is installed outside the lodge near the ELB is supplied along with electric lifting barriers, the indication panel is provided by EI installer. They are fabricated with metallic sheets. However, the specification calls for domino type control cum indication panel. Please clarify whether a sheet metal fabricated panel as per the prevailing practice and similar in use in IR is acceptable to meet this purpose.	CCIP provided should be in accordance with applicable RDSO specification.

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		on the DFCCIL CCIP. Domino Type Control cum Indication Panel (CCIP) shall be provided as per RDSO specification No. RDSO/SPN/186/2004		
140	Part 2, Section VI, Volume 3, Clause 2.2.3 (1b), Page 16	The Electronic Interlocking shall be housed in Interlocking structures. The requirement of number of Electronic Interlocking and Interlocking Structures to house them will be determined by contractor's design	Regarding interlocking structures – Will this be provided under PS (Building and structures Buildings & Structures including E&M) Vol. 5 Part 2 as is being done for the gate lodges? If not is this to be supplied by the signalling contractor? If yes can this structure be a pre-fabricated shelter? Please clarify	1) Please refer Clause 1.4.13 of Part 2, section VI, Volume 3 which clearly specifies that Interlocking structures for Signalling system will be provided under Part 2, Section VI, Volume 5. 2) No, the interlocking structures shall not be prefabricated shelters. Please also refer response to query at S. No. 59.
141	Part 2, Section VI, Volume 3, Clause 2.2.3 (1c), Page 16	Wherever interlocking equipment is located, a display shall be available showing the state of the railway under control by that interlocking and up to the neighboring control area on both sides.	Considering the long section length between stations and keeping the limitation of 2.8 KM due to AC induction effect for relay circuits it would be necessary to provide distributed interlocking along the section at appropriate intervals. There may be 4 or 5 such mid section interlocking locations. It is our understanding that as per this clause indications at the stations as well as the mid section interlocking locations will be provided limiting to the area between	Yes, the display shall be provided at the station interlocking as well as at the mid-section interlocking. The indications on display at the mid section interlocking shall be limited to the area up to the next interlocking on either side. The indications on display panel at station interlocking shall cover the area up to the next (adjacent) stations on both sides. Also, refer Addendum 3 (S.No.67).

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			adjacent interlocking locations. Please clarify	
142	Part 2, Section VI, Volume 3, Clause 2.2.3 (2b), Page 17	It shall be capable of interfacing with TMS & TPWS systems using serial/ Ethernet/OFC ports.	Considering the TPWS system presently in vogue on IR, we presume that the field units will be installed in proximity to the signals. Therefore parallel I/O interface should also be acceptable. Please confirm…	The requirement is as per RDSO specification for EI and is independent of how the future TPWS system will be implemented.
143	Part 2, Section VI, Volume 3, Clause 2.2.3 (2d), Page 17	The EI Processor shall have sufficient capacity to handle the expanded installation as per yard layouts supplied, without any degradation.	We have only received the line diagrams. The signaling plans for station and block section have not been provided. Please clarify whether the SIP will be supplied by DFCC for this bid estimate. Moreover, the basis for working out the variation, if any, between the commissioned signaling system as per approved signaling plan would only be possible if the SIP at the tender stage is available. Pease confirm.	This is a Design and Build tender and SIPs are to be developed by the contractor based on Yard plans supplied, reviewed/revalidated. (Refer Part 2, Section VI, Volume 3, Clause 2.2.3 (2) (e) (i)).
144	Part 2, Section VI, Volume 3, Clause 2.2.3 (2e(iv)), Page 17	Detector locking when the train is passing through on turnouts	We understand that by "detector locking" you imply point to be locked by route and overlap. Please confirm.	The requirement is deleted. Please refer Addendum 3 (S.No.69).
145	Part 2, Section VI, Volume 3, Clause 2.2.4 (1e), Page 18	The primary train detection technique to be used is by the use of Digital Axle Counting technology. Where required, a secondary	Please clarify the need for the secondary means of train detection.	Train detection shall be provided using Axle Counters. However, if for any reason, it is not possible to positively detect the train by use of Axle Counters

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		means of train detection can be used to supplement the primary with the approval of the Engineer.		for any portion of the Yard/Line a secondary detection may be employed with the approval of Engineer.
146	Part 2, Section VI, Volume 3, Clause 2.2.4 (1g(i)), Page 18	A suitable resetting scheme shall be devised by the contractor for manual resetting of axle counter track sections at stations and block sections. This should be achieved through a mix of system design and practical Operating procedures.	We understand that the following RESET arrangement will be used, Manual RESETTING using RESET box and LV box at stations only Auto RESET using supervisory and main axle counter system as per guidelines in Appendix 5. Manual RESETTING arrangement will not be used in block section Please Confirm	Manual resetting scheme shall be designed by the contractor in accordance with broad guidelines provided under Clause 2.2.4(1) (g) and submitted for Engineer's review at Design stage. Following is however clarified: (i) Manual resetting will not always involve RESET box and LV box. (Please refer Clause 2.2.4(1)(g)(ii) of Part 2 section VI Vol. 3) (ii) As per Part 2 Section VI Vol. 3, Chapter 10, Appendix 5, Para 6 Manual resetting for block section track sections is also required.
147	Part 2, Section VI, Volume 3, Clause 2.2.4 (1g(iv)), Page 19	Provision shall be made to record every operation of resetting by non-resettable reset counter. The counter should count irrespective of which Control terminal, main or standby is in operation and should not reset back on failure of Control terminal /power supply.	The recording and counter will be available in the VDU only. Please confirm.	Hard resetting arrangement using Rest box and LV box, if provided shall have physical counters.

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148	Part 2, Section VI, Volume 3, Clause 2.2.4 (2e), Page 19	The Track-vacancy detection system at Stations shall have only Main system with no Supervisory system.	In view of this, the resetting arrangement in station will be "manual RESETTING" using RESET box and LV box	Yes, the stations only shall have Manual resetting arrangement, the scheme for which shall be proposed by the Contractor as per Part 2, Section VI, Volume 3, Clause 2.2.4 at Design Stage.
149	Part 2, Section VI, Volume 3, Clause 2.2.4 (2F(I)), Page 19	The Main and Supervisory systems shall be provided on different rails and shall not have any common DP.	This appears to be at variance with the guideline provided at APPENDIX 5 We understand the clause as below; Main system will have separate DPs Supervisory system will have separate DPs, we presume the supervisory DP for the adjacent supervisory sections can be shared.	In this case, provisions of Part 2, Section VI, Volume 3, Clause 2.2.4(2)(f) shall prevail. Please refer Addendum 3 (S.No.71). Further, as one Supervisory track section has to exactly cover two Main track sections, the principle of sharing or non sharing of DPs in Supervisory system shall be similar to the Main system.
150	Part 2, Section VI, Volume 3, Clause 2.2.4 (2F(Ii)), Page 19	One Supervisory Track section shall be provided for every two Track sections of Main System worked from same Auto Location	It is our experience that in certain cases like at the end of block section, 3 main track sections may come under one supervisory track section Please confirm that it is acceptable.	Not Agreed. Existing provisions shall prevail.
151	Part 2, Section VI, Volume 3, Clause 2.2.4 (2h), Page 20	Use of different transmission media like Quad cable and OFC shall preferably be adopted between Field units and Central Evaluator for Main & Supervisory systems	It is our experience that for block distances as specified in the EDFCC project it may be necessary to adopt OFC between the detection points and the evaluator. We suggest the path diversity of the cable route	As per Clause 4.3.5(1)(d), quad cable laying is required for Emergency communication also and cannot be avoided. Besides Quad, OFC can be used to provide media diversity. UP

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		and for UP & DN systems.	that is for UP and DN lines should be accepted as adequate and the media diversity is not to be considered. We understand as below; UP main 1 OFC DN main 1 OFC UP Supervisory 1 OFC DN Supervisory 1 OFC	Main and DN Supervisory provided on one media, say Quad and DN Main and UP Supervisory on another media i.e. OFC shall be a preferred option.
152	Part 2, Section VI, Volume 3, Clause 2.2.7 (1b), Page 24	The points laid in the various yards of the DFCCIL by the CST contractor shall meet all the requirements set out in paragraph 12.40 of Chapter XII of the IR Signal Engineering Manual for which the contractor shall interface with the CST contractor.	We request to be provided with a typical point layout drawing to understand the parameters governing the point machine installation and ground connection arrangements. Please also clarify the dimension of the switch opening…	This is an interface issue with another contractor. The System Contractor shall Interface with the CST contractor for the same. Please also refer Part 2, section VI, Volume 3, Clause 9.3.
153	Part 2, Section VI, Volume 3, Clause 2.2.7 (1d), Page 24	All the points shall be worked with Electric Point machines.	The switch opening may kindly be advised this is necessary to finalize the stroke of the machine.	This is an interface issue with another contractor. The System Contractor shall Interface with the CST contractor for the same. Please also refer Clause 9.3 of Part 2 section VI Volume 3.
154	Part 2, Section VI, Volume 3, Clause 2.2.7 (2d), Page 23	Points and Points machine Where the points form a crossover, independent detection shall be provided for the points at each end of the crossover. The relative	We understand that detection will be required both at the facing and trailing ends for every signaled move. Therefore while reading into the EI it will be considered as a single detection for the cross over, proving	Yes, the understanding is correct.

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		position between the point machine and the stock rail shall be fixed such that independent movement is prevented	the detection contacts at both ends. For ex: for a move over 202 a/b crossover: we prove the farther end of the point and then fed back to prove in SERIES the nearer end of the point and therefore only 202 NWKR / 202RWKR is read as a vital input to the EI and not 202ANWKR / 202BNWKR / 202ARWKR / 202BRWKR etc. Please confirm our understanding	
155	Part 2, Section VI, Volume 3, Clause 2.2.7 (2f), Page 23	Locking detection shall be provided to detect that the point lock is in the respective locked position before authorizing a train movement over the point	We understand that this requirement would be satisfied by the RDSO specifications.IRSS24/2002 which defines the locking and the detection as per clause 5.9 Hence the detector contacts built into the machine, duly ensuring the effectiveness of locking is acceptable and no external detection at the clamp near the switch is required. Please confirm.	The Point machine and the ground connections shall be compatible with the canted turnouts provided by the CST contractor and would require RDSO approval.
156	Part 2, Section VI, Volume 3, Clause 2.2.7 (2h), Page 25	Point machine wires shall be protected to prevent short-circuiting and monitored continuously for earth leakage.	Since, the super imposed detection is not permitted as per sub clause 2.2.7(2e) the requirement as per this clause is not clear. Please clarify… Also, the requirement of earth leakage will be in accordance with 2.2.10 (15). Please confirm that this is adequate…	Since short circuiting of point machine wires can lead to bypassing of detection contacts, it is necessary to prevent short circuiting and monitor the point machine wires continuously for earth leakage. The Earth leakage detector shall be provided as per provisions of Clauses 2.2.10(15) and 4.3.5(7) of Part

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				2. Section VI, Volume 3.
157	Part 2, Section VI, Volume 3, Clause 2.2.8 (6), Page 24	Relays The Contractor shall provide auto-contact jam detection and contact bounce elimination function for all relays to ensure proper operation of the system	We propose to use metal to carbon contact relays where the possibility of welding / jamming is eliminated by design. However we will ensure the healthy condition of the relay appropriately in our circuit design.	Agreed.
158	Part 2, Section VI, Volume 3, Clause 2.2.9 (1b), Page 26	There shall be Control terminal only at the station which shall display the current position/status of the signalling system of the yard as well as of the adjacent block sections. There shall be no separate Control Terminal in the block section.	We understand that at the mid section interlocking locations in the block sections, only indication without control will be provided. This is also as per 2.2.3 1c and also clause 10.2 in appendix 5. Please confirm our understanding.	Yes, the understanding is correct.
159	Part 2, Section VI, Volume 3, Clause 2.2.10 (1), Page 29	The power supply scheme for Signalling and Telecommunication System should be based on 230V 50Hz AC supply. The power supply is being made available under PS (Electrification) Vol. 5 Part 2. The "Electrification System" will provide Auto Change over Switch (ACO) near/inside the S&T Power Supply Equipment room on which they will terminate the Power Supply	It is understood that the power for S & T will be drawn from this ACO facility. The cabling downstream from the ACO only in S&T scope. Please confirm.	Yes, the understanding is correct.

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160	Part 2, Section VI, Volume 3, Clause 2.2.11 (1c), Page 30	The S&D terminals shall be provided with the Signal Maintainer at the Stations and with the Signal Fault Controller at the OCC. Each Signal Maintainer's S&D terminal shall monitor health of Signalling equipment under his area of control.	The place where the S & D terminals to be located may be indicated. The distance between signal equipment room and the location of the S & D room is required to arrive at the BOQ.	The S&D terminal at Station shall be provided with Signal maintainer and at OCC with Signal Fault controller. For distances, please refer to the Building Plans given in Part 4-Reference documents.
161	Part 2, Section VI, Volume 3, Clause 4.3.3 (8), Page 90	Arrangement for remote monitoring of the air-conditioning system, temperature- regulator equipment and air-circulation equipment of Signalling Equipment Rooms and Power supply Equipment rooms from OCC shall be provided	We understand this as a part of Air conditioning system provider. The scope for the S&T contractor will be to provide only the remote monitoring at the TMS overview. Please confirm.	Remote monitoring of the air-conditioning system from OCC shall be provided by the contractor, for which they shall perform the necessary coordination and interface requirements.
162	Part 2, Section VI, Volume 3, Clause 4.3.5 (3), Page 94	Cable Markers Electronic Cable Markers of proven make shall be provided for outdoor cables laid in trenches.	This requirement is not clear. Please clarify/amplify.	Part 2, Section VI, Volume 3, Clause 4.3.5(3) specifies provision of 'Electronic Cable markers' which is one of the 3 types of Cable markers given at Para 13(c), Chapter 10, Appendix 4 'Guidelines on Signal Cable Laying' Part 2, Section VI, Volume 3.
163	Part 2, Section VI, Volume 3, Clause 4.3.5 (4a), Page 94	All efforts shall be made to minimize various types of outdoor signalling cables to form a standard configuration for various installations and to keep the	It is our experience that we may need to use 8C cable as well for main/ tail functions. Please Include this size also in the specifications.…	Not agreed. Existing provisions shall prevail.

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		inventory low. Preferably, 6/12/19/24/30 core signalling cables shall only be used.		
164	Part 2, Section VI, Volume 3, Clause 4.3.5 (4b), Page 94	Adequate spare conductors to a minimum of 20% of the total conductors used shall be provided for in each main cable. All branch/tail cables shall have at least 10% spare cores or 2 cores, whichever is more. The spare conductors shall be provided in the outermost layer. All spare cores shall be made through up to the end points and terminated. 2 nos. of 12 core dedicated spare cable may be laid from Home signals to Home signal and terminated in all locations for instant transfer of these dedicated conductors during cable failure and cable testing	As per SEM para ……, for upto 3 Core usage no SPARES are required. To minimize the number of cables, can we combine the feeding of 2 or 3 points by different cores in a single cable instead of laying separate cables for each individual point. Please clarify.	As per Clause 4.3.5(4)(a) Main cable cannot be less than 6 cores. It will have requisite spares if 3 or less cores are used. Separate cable for each point/crossover shall be provided. Please refer Addendum 3 (S.No.86).
165	Part 2, Section VI, Volume 3, Clause 4.3.5 (6k), Page 96	Cable Termination Rack (CTR) and Location Box Where too many location boxes (say more than 10) are in close proximity between Starter and Home signal, location huts may be provided instead of location boxes for security, proper protection and	This is not as per the current IR practice. Please clarify whether this location hut will be a masonry structure or we need to provide a shelter; which may be quite expensive. Also the tail cables will become much lengthier to the termination of field equipment. Please review and advise.	The Location Hut, if to be provided, shall be a masonry RCC framed structure.

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		ease of maintenance.		
166	Part 2, Section VI, Volume 3, Clause 4.3.5 (6l), Page 96	All location boxes shall be provided with location box lighting arrangement with ON/OFF switch to assist maintenance/repair work undertaken during night.	Please confirm whether a 24V lighting system is acceptable.	Lighting system shall be designed to work on 110V AC only. Please refer Addendum 3 (S.No.87).
167	Part 2, Section VI, Volume 3, Clause 5.11.1, Page 104	CRS SANCTION The Contractor shall be responsible for obtaining the Commissioner of Railway Safety (CRS) sanction and any other mandatory clearances for work. In such case, the Employer shall extend all requisite help and assistance to enable inspection, tests, verification of test records and trial run by CRS	It is our experience that a contractor approaching CRS is not an accepted procedure. While in the IR stations the contractor provides all relevant documents required for CRS sanction, the concerned IR field officers only approach the CRS to get the sanction. Please review and advise.	Existing provisions shall prevail. Also, refer Addendum 3 (S.No. 15), Part 2, Section VI, Volume 1, Clause 1.3.15 (8).
168	Part 2, Section VI, Volume 3, Appendix 1, Page 141	Out of the above 79 Nos. of LC gates, it is expected that about 45 nos. will be closed and replaced by RUB/Subway. The Contractor shall therefore make arrangement for interlocking of balance 34 Nos. of LC gates only.	Please clarify whether we have to consider 79 or 34 LCs for estimation purposes. However, if it is 34 then please confirm which 34 to be considered.	Please refer response to query at S. No. 134 & 135.
169	Part 2, Section VI, Volume 3, Appendix	In case the distance between two sets tracks of IR and DFCCIL is	Request you to identify/specify such locations at the tendering stage itself. In	Site survey may be undertaken to ascertain the requirement.

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	2 (5), Page 142	such that a single set of barriers is considered unsafe or operationally not feasible, the decision on providing two separate set of barriers under exceptional cases can be taken by COMs/PCEs on the basis of local conditions	case this is identified as a requirement during implementation, please confirm that extra ELB and its associated cables will be considered under variation.	
170	Part 2, Section VI, Volume 3, Appendix 2. (6), Page 142	A common indication panel shall be provided by DFCCIL in the gate hut, where in indication for the 'ON' and 'OFF' aspects of gates signals (wherever provided) for both the systems (IR and DFCCIL) as also the occupation/ clearance of the controlling track circuits up to the point of approach warning shall be displayed. Direction of movement of the trains shall also be displayed on the panel.	As per current practice in IR on this section, we only provide approach warning indication in a single LED where the approach warning tracks fall under the boundary of adjacent EI location. The track circuit information is sent only serially to the EI where it controls the level crossing gates. While the approach warning indication only needs to be provided, the indication of the tracks in approach of the LX need to be provided only if they are within the jurisdiction of the same EI. Please confirm.	Existing provisions shall prevail.
171	Part 2, Section VI, Volume 3, Page 189		What does MGFXR indicates in the cable core plan?	MFGXR is related to failure of main filament of signal bulb and is not applicable to LED signals.
172	Part 2, Section VI, Volume 3, Page 189		Cables for crank handle release key-in & crank telephone are missing in the CCP.	The drawing at Part 2, Section VI, Volume 3, Page 189 is only for guidance. The contractor shall prepare the Cable Core Distribution Plan that meets the cabling requirements as

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				specified in the Employer's requirements. Also, please refer Addendum 3 (S.No.95).
173	Part 2, Section VI, Volume 3, Page 189		As per the given CCP example we can combine main and auxiliary signal cables. Should we provide separate cables for auxiliary signals (shunt, calling ON, A marker), then all auxiliary signal functions will be in a single cable. Please confirm.	The drawing at Part 2, Section VI, Volume 3, Page 189 is only for guidance. The contractor shall prepare the Cable Core Distribution Plan that meets the cabling requirements as specified in the Employer's requirements. Also, refer Addendum 3 (S.No.95). As per Para 3.8 of Chapter 10, Appendix 4, Auxiliary signals have to be in different cables from Main signals. Line wise and function wise separation requirement would however, prevent providing all auxiliary functions in a single cable.
174	Part 2, Section VI, Volume 3, Page 189		The no of cores for point operation will depend on the distance of the point from where it is controlled. In the given example: 2C is used for control which may be replaced with 3C or so.	The drawing at Part 2, Section VI, Volume 3, Page 189 is only for guidance. The contractor shall prepare the Cable Core Distribution Plan that meets the cabling requirements as specified in the Employer's requirements. Also, refer Addendum 3 (S.No.95).

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				Please provide requisite number of cores as required for point operation.
175	Part 2, Section VI, Volume 3, Appendix 5, Page 208	**Vital Relay**: The relays associated with each track section & Supervisory track section. The status of vital relays indicate the clearance or otherwise of associated track section/Supervisory track section.	As per current practice in IR we don't have vital relays for the detections. Instead it will be read as a vital input in EI and provides the information as desired in relays. The wording of this clause may be suitably modified to reflect the existing practice.	Part 2, Section VI, Volume 3, Chapter 10, Appendix 5 is a document issued by RDSO. No change is envisaged at this stage. However, the Contractor may submit his proposal at the design stage for Engineer's consideration/approval.
176	Part 2, Section VI, Volume 3, Appendix 5 2 (4.5), Page 209	Supervisory track section have been made mostly using the detection point of track section for automatically resetting the track sections. Each supervisory track section covers (completely) 2 or 3 track sections. Supervisory track sections have overlapping boundaries as explained in item 6.	Since, Supervisory tracks are contiguous, we understand that common DPs for adjacent supervisory tracks. are acceptable. Please confirm.	Refer response to query at S.No. 149
177	Part 2, Section VI, Volume 3, Appendix 5 6 (6.1), Page 212	One reset box at Train sending station along with its corresponding Line Verification (LV) box at other station is used to manually reset all the track sections including Supervisory track sections, of both the stations of a particular direction of movement. This resetting can be done only when Station Managers	By the RESET arrangement provided by pressing the LV switches in both the station the full block section will get released. The block section is 40 KM in this project. So is that possible to ensure from the station that the entire section is free of any vehicle? Also, since we have to go for only preparatory mode of RESET only if we provide input for RESET from station then	The appropriate Manual resetting scheme as per Clause 2.2.4(1)(g) shall be designed by the contractor. Also, refer Addendum 3 (S.No.71).

S. No.	Reference to Bidding Document (Consisting of Part, Section, Volume, Reference Clause, Page no. etc.)	As Per Tender	Clarification sought by the Bidders	DFCC's Response
		of both the stations have ascertained that all the track sections between the stations are clear of trains in that particular direction.	the whole 40KM block section to be piloted. The time required may be considered and revision to specification, if any may be advised.	
178	Part 2, Section VI, Volume 3, Appendix 5 6, Page 212	Resetting Arrangement & Supervisory track sections	The supervisory track section arrangement provided in this section is at variance with the requirement provided in the clause 2.2.4 earlier. Please clarify…	Please refer Addendum 3 (S.No.71).
179	Part 2, Section VI, Volume 3, Appendix 5 10.2, Page 215	A panel showing the signal aspects of signals fed from RH & status of track sections controlling these signals, should be provided in the RH also. In case of failure, normally the maintainer arrives at the reporting station. If from there, he finds the fault in the territory of RH then at RH indication panel, he is in a position to find out the exact place to go for attending the failure.	Please confirm whether the panel asked for indication purpose is a VDU showing indications or a domino type or sheet metal panel. Accordingly so many panels will be provided in each Line Side Cabinet.	Panel can also be a VDU displaying the required information.
180	Part 2, Section VI, Volume 3, Appendix 5 11.3, Page 217	As redundancy to some extent is provided in DPs by means of auto-resetting through Supervisory track sections. Evaluators are common to many track sections. Failure of an evaluator may lead to failure of many track sections, thereby many	The requirement as per this clause is not clear. The evaluator of a multi section digital axle counter has a built in redundancy in terms of the power supply and CPU. Hence the mention of a standby evaluator may be clarified. Please also consider the costs involved in such a duplication/replication of	Stand by Evaluator as specified shall be provided. Also refer Addendum 3 (S.No.72).

S. No.	Reference to Bidding Document (Consisting of Part, Section, Volume, Reference Clause, Page no. etc.)	As Per Tender	Clarification sought by the Bidders	DFCC's Response
		signals. Therefore, stand by evaluator for each evaluator may be planned & kept ready with complete programming & configuration. Arrangement may be made for transferring DPs from main evaluator to stand by evaluator through relay contacts using a single switch. After every changeover, the concerned track section will go in error state & will have to be reset as per manual resetting procedure.	programming & configuring, doubling the quantity of evaluator including spares etc. Please review and advise.	
181	Part 2, Section VI, Volume 1, Clause 1.3.9 (3), Page 14	The production of operation and maintenance manuals, preparation of Station Working Rules (SWR), Gate Working Rules (GWR) & Commissioner of Railway Safety (CRS)/Electrical Inspector to Government of India(EIG) application(s) etc.	We understand that getting CRS approval is the responsibility of the Railway Official and not by contractor. The contractors; responsibility shall be only to provide all relevant documents as per prevailing practice on IR.	Please refer response to query at S. No. 167.
182	Part 2, Section VI, Volume 1, Clause 1.3.8, Page 14	The Contractor shall undertake the rectification of defects and deficiencies appearing in the Permanent Works of this Contract during Defect Notification Period (DNP) in the manner and to the standards as stipulated in the	Please advise the Defect Notification Period	Please refer Part 3, Section VIII, Clause 1.1.3.7, Page No. 25 - Appendix to Tender.

S. No.	Reference to Bidding Document (Consisting of Part, Section, Volume, Reference Clause, Page no. etc.)	As Per Tender	Clarification sought by the Bidders	DFCC's Response
		Contract.		
183	Part 2, Section VI, Volume 1, Clause 1.3.15 (5), Page 16	In case the management of traffic around the worksite becomes necessary, the Contractor shall carry out the same at his own cost. The Engineer however, may at times request the Contractor to leave the temporary diversion of the road in place. All such requests by the Engineer shall be entertained by the Contractor.	Please clarify the requirement elaborately	Please refer Part 2, Section VI, Volume 1 - Appendices 8 & 19
184	Part 2, Section VI, Volume 1, Clause 2.4.5, Page 31	The Design Phase shall be considered complete upon the issue of a "Notice of No Objection" by the Engineer in respect of the last Detailed Design Submission which shall comprehensively and completely form the Detailed Design for the whole of the Works.	We presume that the Notice of No Objection is equivalent to the procedure of getting approval of the drawings. What will be the time period in days to issue approval / No objection Certificate for the preliminary design and detailed design?	Please refer to Part 3, Section VII, Clause 5.2, Page 20
185	Part 2, Section VI, Volume 1, Clause 2.16.1, Page 40	The alignment plans, yard plans, building plans and power supply schemes and SCADA layouts listed in System Bid Document Part 4 - Reference Documents are for reference purpose only.	If the drawings are only for reference then any deviation in the plan in future to be paid as variation. Also, please refer our query on sl. no.18 Please clarify…	Please refer to Part 3, Section VII, Clause 4.10 (Site Data) and Clause 13 (Variation), Page 15 & 38

S. No.	Reference to Bidding Document (Consisting of Part, Section, Volume, Reference Clause, Page no. etc.)	As Per Tender	Clarification sought by the Bidders	DFCC's Response
186	Part 2, Section VI, Volume 1, Clause 1.3.14, Page 15	The Contractor shall execute all Temporary Works required to facilitate construction/Installation and the cost thereof shall be included in the overall bid price. All temporary arrangements and Works shall be designed and necessary drawings developed to ensure that these remain safe during construction/Installation. As a rule, temporary Works shall be subsequently dismantled and removed by the Contractor after construction/installation, at his own cost. The Engineer, however, may permit retention of some of the temporary works with mutual consent between the Contractor and the Engineer.	Please provide us the details of temporary works.	Please refer Part 2, Section VI, Volume 1 - Appendices 8 & 19
187	Part 2, Section VI, Volume 3, Clause 4 (2b), Page 148	Frequency 50 Hz nominal, +/-1% regulation	Frequency converter mode to be added as otherwise frequency will be in sync with mains, also refer clause 4 (2 d) of same section	Please refer Addendum 3 (S.No.90&91).
188	Part 2, Section VI, Volume 3, Clause 4 (2b), Page 148	Distortion factor For linear load: < +/- 1%, For 100% non linear load having	This value should be <3% as per standard design of all manufacturers. Please clarify….	Existing provisions shall prevail.

S. No.	Reference to Bidding Document (Consisting of Part, Section, Volume, Reference Clause, Page no. etc.)	As Per Tender	Clarification sought by the Bidders	DFCC's Response
		Crest Factor of 3:1): < +/- 5%.		
189	Part 2, Section VI, Volume 3, Clause 4 (3), Page 149	System Overload Overload capacity: 150% >60 seconds (better than): 125% >10 minutes: 110% >60 minutes The short circuit current limit shall be set at 155% of the rated output current.	For 1 Phase output UPS: This value should be 105% for 1 minute & 125% for 30 Seconds. For 3 phase output UPS: "better than" requirement should not be applicable since the overload parameters mentioned are already very acute. In addition we request you to add "equal to" along with "greater than"	Existing provisions shall prevail.
190	Part 2, Section VI, Volume 3, Clause 4 (4), Page 149	Output Voltage Harmonic content The total harmonic distortion (THD) of Inverter Output Voltage waveform as generated by the UPS Modules shall be less than 1% for Linear Loads and less than 5% for 100% non-Linear Loads having crest factor of 3:1. Harmonic Distortion for any single harmonic shall be maximum 3%.	This value should be <3% as per standard design of all manufacturers.	Existing provisions shall prevail.
191	Part 2, Section VI, Volume 3, Clause 4 (5), Page 149	Efficiency (AC-AC) The UPS System including the Isolation Transformers shall have an AC-AC efficiency of 85% minimum at full load. The AC-DC Efficiency of each Rectifier-Cum-	98% Efficiency in Rectifier mode may not be achievable by all manufacturers, please change this to requirement to 88% in 1phase UPS & 92% in 3 phase UPS.	Existing provisions shall prevail.

S. No.	Reference to Bidding Document (Consisting of Part, Section, Volume, Reference Clause, Page no. etc.)	As Per Tender	Clarification sought by the Bidders	DFCC's Response
		Charger / Inverter at full Load and while catering full Charging current to Battery, shall be 98%.		
192	Part 2, Section VI, Volume 3, Clause 6 (1), Page 151	The power rectifiers shall be 1-Phase / 3 Phase, Full-wave, Fully-controlled, SCR Bridge Type. A separate adjustable DC current limit circuit shall be provided for battery charging current. Subsequent to a discharge cycle when battery is connected to rectifier, the battery current shall be monitored, controlled and limited to set value automatically irrespective of value of inverter input current.	Rectifier Design Should be IGBT in place of SCR as per latest market standards.	Please refer Addendum 3 (S.No.92).
193	Part 2, Section VI, Volume 3, Clause 6 (2), Page 151	Rectifier shall be designed to ensure that the total harmonic distortion in the input current to rectifiers as seen by the supply source Bus, is in line with the IEEE std. 519-1992 recommendations.	Please define specific requirement for ease of understanding. As per standards this should be <5% for 100% linear load.	As per IEEE std. 519, the total harmonic distortion in the input current depends on the ratio of source input current to fault current. Existing provisions shall prevail.
194	Part 2, Section VI, Volume 3, Clause 6 (6), Page 152	Rectifier-cum-Charger should have temperature compensated dynamic Charging wherein, sensing higher ambient around the battery banks, the charging voltage should get automatically regulated at the rate	Since Batteries are to be installed in a controlled environment this point is not applicable & hence not required.	Existing provisions shall prevail.

S. No.	Reference to Bidding Document (Consisting of Part, Section, Volume, Reference Clause, Page no. etc.)	As Per Tender	Clarification sought by the Bidders	DFCC's Response
		of minus 2 - 3 milli volt per Deg. C above the desired 27 Degree C. For this, vendor should supply temperature sensors to be fixed at the Battery Bank.		
195	Part 2, Section VI, Volume 3, Clause 7 (1), Page 152	A static bypass transfer switch Module shall be provided as an integral part of the UPS. This will consist of two sets of 100% rated Static Switches – one for Inverter Output and the other for Static Bypass Line. The control unit shall contain an automatic transfer circuit that senses the status of the inverter logic signals and alarm conditions to provide an uninterrupted transfer of the load to the stabilized bypass source without exceeding the transient limits specified herein when a malfunction occurs in both the UPS Inverters or an external overload condition occurs.	1000% short circuit current for 1 cycle is a too high time period, this should be deleted as this will de-limit the purpose of fuses in the UPS for fault isolation & protection	Existing provisions shall prevail.
196	Part 2, Section VI, Volume 3, Clause 8 (1), Page 153	Minimum degree of protection to EN 60529: IP31 – for Stations & OCC and IP42 for Interlocking Structures/Auto Location Huts.	UPS Systems are designed with IP20 protections as standard, since these are to be installed in a controlled and indoor environment.	Existing provisions shall prevail.

S. No.	Reference to Bidding Document (Consisting of Part, Section, Volume, Reference Clause, Page no. etc.)	As Per Tender	Clarification sought by the Bidders	DFCC's Response
197	Part 2, Section VI, Volume 3, Clause 8 (2), Page 153	Finish RAL7016.	Please do not limit the color to a specific code and keep this flexible as per UPS Manufacturers.	Please refer Addendum 3 (S.No.93).
198	Part 2, Section VI, Volume 3, Clause 10, Page 157	ENVIRONMENT The site environmental conditions expected are as below: Ambient temperature: Operating 0-55° Relative humidity Range (non condensing): up to 95% at 40°C	UPS Systems are designed to operate in 0-40deg C environment, battery in 25-27 deg environment only, please consider our request and look into	Please refer Addendum 3 (S.No.94).
199	Part 2, Section VI, Volume 3, Clause 13, Page 159	SYSTEM EXPANSION The UPS and Battery Backup system shall be designed and equipped with all necessary hardware, software and capacity for future 20% additional load.	Please confirm if this can be considered in UPS Rating design at day 1 during supply as onsite expandability of 20% is not available as a standard feature. Or Additionally addition of one unit of same rating in parallel can be mentioned to meet future load increase.	System shall be designed and equipped for present capacity + 20% additional load at day 1 itself. Existing clause is sufficiently clear.
200	Part 2, Section VI, Volume 3, Appd. 2 (7), Page 142	A separate panel for the operation of the booms shall also be provided by DFCCIL where in the buttons for raising/lowering of booms as also for stopping them midway during operation shall be provided so that the booms can be stopped midway during operation, should a vehicle come under the boom or enter the	As regards the Electric barrier, our comment is only on para 7. As per RDSO specs/ approval, the barrier panel has only push buttons for "Opening" & "Closing" and not for mid stop. This is because barrier opens/ closes only as long as the respective button is kept pressed. If button is released midway it stops midway. In fully open/ closed positions the respective	There is no requirement to provide a separate button to stop the barriers midway, if the functionality can be achieved by 'Opening' and 'Closing' buttons. Please refer Clause 2.2.2(2)(a) and (b) of Part 2, Section VI, Volume 3 for ELB specification and operating voltage.

S. No.	Reference to Bidding Document (Consisting of Part, Section, Volume, Reference Clause, Page no. etc.)	As Per Tender	Clarification sought by the Bidders	DFCC's Response
		level crossing gate during the process of closure.	buttons become inoperative. However, we also note that some important parameters like the Specification No., operating voltage etc. is not mentioned in the tech specs.	
201	Part 2, Section VI, Volume 1, Clause 1.3.6, Page 14	The design of all the work shall be operationally compatible with the other Indian Railways (IR) sections connecting to the Project as well as adjacent sections of DFC (Phase 2 & 3). …….	Interface required with Other Indian Railways (IR) sections is not available in PS-Telecommunication, Volume 4, Part 2. Please clarify details of the other systems to be interfaced.	Please refer to Part 2, Section VI, Volume 4, Clause 13.8 Page 122.
202	Part 2, Section VI, Volume 1, Clause 2.18.5, Page 43	Requirements for Class B Ambient Temperature - 30°C (B1) and 50°C (B2) Maximum Temperature - 45°C (B1) and 55°C (B2)	Please specify the minimum temp range.	Please refer Addendum 3 (S.No.16).
203	Part 2, Section VI, Volume 1, Clause 2.18.6, Page 43	Requirements for Class C Ambient Temperature - 46°C Maximum Temperature - 60°C Electrical Noise - Impulse 5kv, otherwise as Class B.	Please specify the minimum temp range.	Please refer Addendum 3 (S.No.17).
204	Part 2, Section VI, Volume 1, Clause 3.2.3 (2) (c), Page 47	Detailed Design (2) During the preparation of the Detailed Design, the Contractor shall, in particular:	The requirement of conducting all tests including specifications and type and other tests and trials at design stage is not required. Please clarify these requirements are needed at detailed design stage.	Please refer Addendum 3 (S.No.18).

S. No.	Reference to Bidding Document (Consisting of Part, Section, Volume, Reference Clause, Page no. etc.)	As Per Tender	Clarification sought by the Bidders	DFCC's Response
		(c) Complete selection of material and equipment and conduct all tests including specifications and type and other tests and trials.		
205	Part 2, Section VI, Volume 1, Clause 3.5.3, Page 54	Co-ordination with Indian Railways	Contractor scope should be limited to provide clarification to Indian Railways as when needed. DFCC should own the responsibility in seeking the approval from Indian Railways. Please amend clause accordingly.	Provisions in the Bidding Document shall prevail.
206	Part 2, Section VI, Volume 1, Clause 6.5 (2), Page 94	TRANSFER OF TECHNOLOGY (2) The Contractor shall undertake to provide, if required during the life of the equipments provided under Contract, technical assistance in the form of additional drawings, maintenance practices and technical advice (including training).	Required support scope is wide open and will increase cost. Support requirement should be limited to a specific period.	Please refer Addendum 3 (S.No.19).
207	Part 2, Section VI, Volume 3, Clause 2.2.4(d), Page 18	The Track-vacancy detection system is a part of the Signalling system. The design of the Track-vacancy detection system shall therefore be required to be integrated with the Signalling system design. The decision on the number of Evaluators and their placements shall be based on	Please clarify if Evaluators needs to be placed in Stations only (or) we can place it in Line Side cabinets / Relay Huts also. The Appendix 5 insists for placing evaluators in stations only	For placement of Evaluators, provisions of Part 2, Section VI, Volume 3, Clause 2.2.4 (1) (e) and amended Clause 2.2.4(2)(f) shall prevail. Also, refer Addendum 3 (S.No.71).

S. No.	Reference to Bidding Document (Consisting of Part, Section, Volume, Reference Clause, Page no. etc.)	As Per Tender	Clarification sought by the Bidders	DFCC's Response
		sound considerations of synergy it attains with the EI system design.		
208	Part 2, Section VI, Volume 3, Clause 2.2.10(1), Page 28	The power supply scheme for Signalling and Telecommunication System should be based on 230V 50Hz AC supply. The power supply is being made available under PS (Electrification) Vol. 5 Part 2. The "Electrification System" will provide Auto Change over Switch (ACO) near/inside the S&T Power Supply Equipment room on which they will terminate the Power Supply.	Whether the input to IPS systems will be 230V 50Hz AC at stations as well as Line side cabinets. Whether auto changeover from mains to DG in case of multiple input supply to be considered	Yes, the input to the IPS/UPS system shall be 230V, 50HZ AC both at stations and Relay Huts in Block sections. The ACO shall be provided under Volume 2 and shall have arrangement for changeover between all supplies at that location.
209	Part 2, Section VI, Volume 3, Clause 2.2.10 (7), Page 28	The IPS shall be provided as per relevant RDSO specification.	If IPS is offered, should we need to offer two battery banks or single battery bank	Single battery bank as per RDSO specifications shall be provided.
210	Part 2, Section VI, Volume 3, Clause 2.2.10(8), Page 28	The battery backup shall be provided with VRLA maintenance free cells as per IRS: S 93/96(A) of suitable capacity. Battery bank shall have adequate capacity to provide a backup time of minimum of 4 hours with maximum depth of discharge of the battery as 70%. The batteries shall be installed on battery racks	Whether IPS require VRLA maintenance free cells	Yes.

S. No.	Reference to Bidding Document (Consisting of Part, Section, Volume, Reference Clause, Page no. etc.)	As Per Tender	Clarification sought by the Bidders	DFCC's Response
211	Part 2, Section VI, Volume 4, Clause 5.3.3.5, Page 29	All the Optical Fibre Cables shall have a minimum fibre count of 24 fibres. At least 50% of fibres within each cable shall be reserved as spares for future use	Whether 50% spare to be provided for each fibre cable (or) one of the fibre cable laid each in UP and DN trench.	Please refer Addendum 3 (S.No.105).
212	Part 2, Section VI, Volume 2, Clause 2.1.1, Page 9	The regulated polygonal OHE design shall provide for movement of freight trains with MMD as per the Schedule Dimensions of Dedicated Freight Corridor (DFC)-2013 for Eastern Corridor.	It is requested to provide the Schedule Dimensions of Dedicated Freight Corridor (DFC)-2013 for Eastern Corridor. In particular, the length, height & width of the Engine and Loaded Cargo container.	Please refer Addendum 3 (S.No.183).
213	Part 2, Section VI, Volume 2, Clause 3.4.4, Page 18 & 19,	2) 132kV Transmission line from GSS of UPPCL to TSSs including bay augmentation at GSS. The gantry at TSS shall however, be made by the contractor for termination of 132 KV feeders of UPPCL.	It is requested to provide the connection point with GSS in order to distribute the feeder gantry and the rest of equipment in the working open space of TSSs? How many feeders or points are there?	Please refer Clauses 2.2.1, Page 161. Part 2, Section VI, Volume 2 & Clause 18.1.4 (3) for interface with UPPCL.
214	Part 2, Section VI, Volume 2, Clause 5.2.3, Page 33	A mix of single consist trains and double consist trains in ratio 2:1 with electric loco in front and middle.	It is requested to specify whether single composition is L-32-L-32 or L-63-L-63 please?	Please refer Addendum 3 (S.No.30).
215	Part 2, Section VI, Volume 2, Clause 7.3.2, Page 56	1) However, one no. traction transformer shall be supplied complete with pumps and fans etc.	Please clarify, whether this traction transformer be located in a particular substation?	Please refer Addendum 3 (S.No.41).

S. No.	Reference to Bidding Document (Consisting of Part, Section, Volume, Reference Clause, Page no. etc.)	As Per Tender	Clarification sought by the Bidders	DFCC's Response
		for carrying out tests for ONAF and OFAF ratings.		
216	Part 2, Section VI, Volume 2, Clause 8.2.6, Page 65	(Bow profile of the Panto Pan shall be as per RDSO/ELEC/DTE/SKEL.3871)	It is requested to provide the pantograph profile along with specifications.	Please procure it from RDSO on payment.
217	Part 2, Section VI, Volume 2, Clause 8.2.6, Page 65	Working range (above rail level m (4.58-a 7.55)	Please clarify, shall we consider contact wire height 4.58 for BOXN and 7.55 for Bulk wagons or should we choose a value for contact wire height between these to limit values?	Working Range specified in Clause 8.2.6 pertains to Pantograph. OHE design shall be in accordance with clause 8.2.3. Part 2, Section VI, Volume 2,
218	Part 2, Section VI, Volume 2, Clause 8.2.11 (1), Page 67	Normal encumbrance: 1.4 m	This parameter is basically a design parameter and may vary from one technology to another. Please confirm, whether the same can be different as per the technology design of the bidder to achieve better performance.	Normal encumbrance of 1.4 meter is not mandatory.
219	Part 2, Section VI, Volume 2, Clause 8.10.3, Page 72	The proposed cantilever frames will sustain the normal and worst case loading conditions with a factor of safety not less than 2.5	As per the clause 14.5.6, the safety factors in compliance with the design codes (IS 800 and Eurocode 3) is 1.35. The same are already in use worldwide. However, as per clause 8.10.3, a safety factor of 2.5 is asked for. It is hereby requested to confirm whether safety factor has to be in compliance with design codes or to be considered as per	Provisions in Clause 8.10.3 Part 2, Section VI, Volume 2, shall prevail.

S. No.	Reference to Bidding Document (Consisting of Part, Section, Volume, Reference Clause, Page no. etc.)	As Per Tender	Clarification sought by the Bidders	DFCC's Response
			clause 8.10.3?	
220	Part 2, Section VI, Volume 2, Clause 14.5.6, Page 151	Cantilever support frames and main structures in combined tension/compression and bending, shall have safety factors in compliance with the appropriate design codes.		Please refer Addendum 3 (S.No.60).
221	Part 2, Section VI, Volume 2, Clause 8.18.1(c), Page 76	Porcelain insulators shall be provided at all locations except at polluted areas and vandalism prone	It is requested to clarify, whether composite or fiber glass insulators can be used for section insulators?	Provisions in Clause 8.18.1 (1) (c) Part 2, Section VI, Volume 2, shall prevail for Cantilever insulators. For Section insulators provisions of Clause 8.18.2 (5) Part 2, Section VI, Volume 2, shall prevail.
222	Part 2, Section VI, Volume 2, Clause 8.14.1, Page 73	The structures shall be generally embedded in concrete.	It is requested to clarify, whether a different design is acceptable to DFCCIL, resulting in faster installation, better quality and easier maintenance	In accordance with the practice being adopted by Indian Railways, provisions in clause 8.14.1 Part 2, Section VI, Volume 2, shall prevail.
223			It is requested to confirm whether the HV cells be with SF6 or should they be outdoor?	Query is not clear.
224	Part 2, Section VI, Volume 5, Appendix, Page 27	Wherever municipal sewer connections are not available, Septic Tanks are to be provided.	It is requested to provide a drawing or a list having the municipal sewer connections?	This shall be ascertained by the bidder.

S. No.	Reference to Bidding Document (Consisting of Part, Section, Volume, Reference Clause, Page no. etc.)	As Per Tender	Clarification sought by the Bidders	DFCC's Response
225	Part 2, Section VI, Volume 5, Clause 4.5.1, Page 33	Arrangement of HT supply point up to DFCCIL substation shall be done by the local Utility agency	Could you provide a drawing or a list with the HV connections?	Please refer Attachment 15.3.
226			In order to calculate ballast impedance, should we consider it wet or dry?	It should be as per relevant specifications being design and build contract.
227	Part 1, Section III, Clause 2.2(3), Page 53	The Bidder shall submit a Work Plan which shall indicate how the Bidder intends to organize and carry out the Works, achieve Stages and complete the whole of the Works by the appropriate Key Dates. The Work Plan shall be prepared in terms of weeks from the Date of Commencement of Works, taking D as the Commencement Date and other time schedules marked in D+ format. Bidder should provide details of Contractor's Equipment in Form EQU as per Bidding Form included in Section IV." (Refer to Explanatory Note 1 at the end of this Section)	In order to prepare the detailed work plan for the project, we request you to provide the following information: 1) Detailed work plan as envisaged for CP-101, CP-102 & CP-103 sections at the start of the contract 2) Current work plan, incorporating the present status of the sections	Work plan should be prepared based on bidders assessment of the project considering the milestone to be achieved. This will be examined during technical evaluation and after the award of the contract will be approved by Engineer considering the interface requirement with CST Contract Package 101, 102 & 103.
228	Part 1, Section II, Clause ITB 19.1,	The deadline for submission of First Stage Technical Proposals is:	In order to prepare a comprehensive and responsive proposal, it is hereby requested to extend the submission date by 8 weeks	Please refer Part -1, Section II, Clause ITB 19.1 and ITB 21.1.

S. No.	Reference to Bidding Document (Consisting of Part, Section, Volume, Reference Clause, Page no. etc.)	As Per Tender	Clarification sought by the Bidders	DFCC's Response
	Page 44	Date: 31.03.2014 Time: 15:00 Hrs	i.e. up to 31.05.2014	
229	Part 1, Section III, Clause 3.3, Page 51	The designated period for the completion and taking over the entire Works shall be 1100 (one thousand and one hundred) calendar days from the Commencement Date, as indicated with further details in Para 8.2, Appendix to Tender, Part 3, Section VIII of these Bidding Documents. Bidders shall confirm that their First Stage Technical Proposals and subsequently, their Second Stage Bids are based on this Time Schedule for Completion. No credit of any kind will be given in the evaluation of Technical Proposals and Second Stage Bids to a Proposal and/ or a Bid offering to complete the Works earlier than this designated period. However, Technical Proposals and Second Stage Bids offering to complete the Works later than this designated period shall be rejected by the Employer	The time schedule proposed for completion of work depends on multiple factors like site access etc. and will involve interfacing with multiple entities or organisations undertaking works like civil etc. As mentioned in the RFP, no credit will be given to the bidder offering to Complete the works earlier than the designated period. It is hereby requested to clarify the following: 1) No penalty shall be levied in case the completion period is extended on account of CST contractor or Employer 2) Contractor shall be compensated for the delay on account of CST contractor or Employer towards cost escalations	Time extension, delay damages and price adjustment for delay beyond the control of the contractor will be dealt as per Part – 3 Conditions of Contract Section VII and VIII.
230	Part 2, Section VI,	Prototype Certificate	It is requested to confirm whether a	Provision of Clause 4.4.2 shall prevail.

S. No.	Reference to Bidding Document (Consisting of Part, Section, Volume, Reference Clause, Page no. etc.)	As Per Tender	Clarification sought by the Bidders	DFCC's Response
	Volume 2, Page 22		Satisfactory Performance Certificate would be sufficient to prove the technology	Please refer Addendum 3 (S.No..22, 23, 24, 25 & 26)
231	Part 2, Section VI, Volume 2, Page 22	Software Certificate	It is requested to clarify whether a particular format is asked for	Provision in Part 2, Section VI, Volume 2, Clause 4.4.2 Page 22 shall prevail.
232	Part-1, Section III, Clause 2.1, Page 48	The Bidder and any subcontractors shall continue to meet the criteria used at the time of prequalification and shall give an undertaking to this effect. The Bidder shall fill up Form number ELI 1.1 and ELI 1.2 included in Section IV, Bidding Forms, Part 1 of Bidding Documents.	We understand that Form UND shall be submitted towards this undertaking. Kindly Confirm.	Part -1 Section III Para 2.1 deals with undertaking to be submitted by bidder. This is covered under Part – 1, Section IV Bidding Forms, Form UND, Page 89 of 134. In addition to that Form ELI 1.1 and 1.2 is also required to be submitted in terms of Part – 1 Section IV, Bidding Forms, Form ELI 1.1, Form ELI 1.2, Page 62 and 63 of 134 of Bidding Document, as per requirement of Section III, Para 2.1.
233	Part-1, Section III, Clause 2.1, Page 48	The Bidder and any subcontractors shall continue to meet the criteria used at the time of prequalification and shall give an undertaking to this effect. The Bidder shall fill up Form number ELI 1.1 and ELI 1.2 included in Section IV, Bidding Forms, Part 1 of Bidding Documents.	We understand that, since evaluation for the prequalification is already completed, and further confirmed by the bidders through form UND, the resubmission of Forms ELI 1.1 & ELI1.2 is only for updation of information and not for evaluation. Kindly Confirm.	Form ELI 1.1 and 1.2 is not only for updation of information but shall also be evaluated.
234	Part-1, Section III, Clause 2.2, Page	Bidder should meet the above cash flow requirement as indicated in	We understand that, since evaluation for the prequalification is already completed,	Information furnished by the bidder in response to Part – 1, Section III, Clause

S. No.	Reference to Bidding Document (Consisting of Part, Section, Volume, Reference Clause, Page no. etc.)	As Per Tender	Clarification sought by the Bidders	DFCC's Response
	48	paragraph 3.1 (i) of Section (III) - Eligibility and Qualification criteria of Prequalification Document issued on 18th July 2012 for this bid and as modified through Addendum 3.	and further confirmed by the bidders through form UND, the resubmission of documents to prove Cash Flow requirements is only for updation of information and not for evaluation. Kindly Confirm.	2.2, Page 48 of 134 shall be evaluated.
235	Part-3, Section VIII, Clause 1.7, Page 6	Assignment	Kindly retain sub clause 1.7 as given in FIDIC Yellow Book	Provisions of Bidding Document shall prevail.
236	Part-3, Section VIII, Clause 1.9/5.1, Page 7	Errors in Employer's requirements to be understood with reference to "purpose, scope, design and/or other technical criteria for the works"	Please define the "purpose" of the works with reference to the use of the term "purpose, scope, design and/or other technical criteria for the works"	Provisions of Bidding Document shall prevail.
237	Part-3, Section VIII, Clause 4.7, Page 10	Setting out	Kindly retain Sub-Clause 4.7 as given in FIDIC Yellow book	Provisions of Bidding Document shall prevail.
238	Part-3, Section VIII, Clause 4.10, Page 10	Site Data	Kindly retain Sub-Clause 4.10 as given in FIDIC Yellow book	Provisions of Bidding Document shall prevail.
239	Part-3, Section VIII, Clause 4.12, Page 11	Unforeseeable Physical Conditions: In this Sub-Clause, "physical conditions" means man-made or natural physical conditions including sub-surface and	Kindly retain Sub-Clause 4.12 as given in FIDIC Yellow book	Provisions of Bidding Document shall prevail.

S. No.	Reference to Bidding Document (Consisting of Part, Section, Volume, Reference Clause, Page no. etc.)	As Per Tender	Clarification sought by the Bidders	DFCC's Response
		hydrological conditions which the Contractor encounters at site during the execution of the Works. Except as otherwise stated in the Contract: (a) the Contractor accepts total responsibility for having foreseen all difficulties and physical conditions; and (b) the Contract Price shall not be adjusted to take account of any unforeseen physical conditions		
240	Part-3, Section VIII, Clause 5.1, Page 12	General Design Obligation	We request modification to following clause: - Para 2, 2nd sentence: "The Contractor undertakes that the designers shall be available to attend discussions with the Engineer at all reasonable times, until the expiry date of the relevant Defects Notification Period."- Contractor's design personnel will be available for the meetings but not necessarily the same personnel We request to delete the following requirements / clauses : - Para 4, 2nd sentence : "If and to the extent that (taking account of cost and time) an experienced contractor exercising due care would have discovered the error, fault or other defect when examining the Site and the Employer's Requirements before	Provisions of Bidding Document shall prevail.

S. No.	Reference to Bidding Document (Consisting of Part, Section, Volume, Reference Clause, Page no. etc.)	As Per Tender	Clarification sought by the Bidders	DFCC's Response
			submitting the Tender, the Time for Completion shall not be extended and the Contract Price shall not be adjusted.	
241	Part-3, Section VIII, Clause 8.2, Page 14	Time for Completion	Timelines are challenging and in case of a delay in stipulated timelines in addition to the increased execution cost the bidder has to pay huge amount of Liquidated Damages. It is requested to specify the availability of incentive for early completion.	Provisions of Bidding Document shall prevail.
242	Part-3, Section VIII, Clause 8.8, Page 15	Suspension of works	Please delete the last paragraph of PC 8.8	Provisions of Bidding Document shall prevail.
243	Part-3, Section VIII, Clause 10.2, Page 16	Taking over of parts of the works	Kindly retain Sub-Clause 10.2 as given in FIDIC Yellow book	Provisions of Bidding Document shall prevail.
244	Part-3, Section VIII, Clause 13.3, Page 17	Variation Procedure	This project being design built, it is requested to retain the Variation Procedure of FIDIC Yellow Book.	Provisions of Bidding Document shall prevail.
245	Part-3, Section VIII, Clause 15.3, Page 21	Valuation at the date of termination	It is requested to restrict the claims of Employer as indicated in FIDIC Yellow Book under Clause 2.5 which inter alia is referred in 15.3. Requested to modify suitably.	Clarification asked for is not correct. In Clause 15.3 of GCC Sub clause 3.5 is mentioned and not Sub Clause 2.5 as referred. However it is mentioned that GC Sub Clause 15.3 has been modified through PCC as per Section VIII,

S. No.	Reference to Bidding Document (Consisting of Part, Section, Volume, Reference Clause, Page no. etc.)	As Per Tender	Clarification sought by the Bidders	DFCC's Response
				Particular Conditions at Page 21 of 44 of Bidding Document. Provisions of Bidding Document shall prevail.
246	Part-3, Section VIII, Clause 16.2, Page 22	Termination by the contractor	Kindly retain Sub-Clause 16.2 as given in FIDIC Yellow book	Provisions of Bidding Document shall prevail.
247	Part-3, Section VIII, Clause 17.3/18.2, Page 22	Employer's risks/Insurance of works and Contractor's equipment	Kindly retain Sub Clause 17.3(h), 18.2 sub-para 4(d) as given in FIDIC Yellow Book	Provisions of Bidding Document shall prevail.
248	Part-3, Section IX, Article 3, Page 38	Commencement Date	Kindly confirm that the commencement date will be not later than 42 days from the letter of acceptance.	Commencement Date shall be as per GCC sub clause 1.1.3.2 Section VII of Bidding Document.
249	G.C.C. - FIDIC Yellow Book 1999, Clause 1.10, Page 7	Employer´s Use of Contractor´s Documents	We request you to delete sub-paragraph (b) and substitute: b) entitle the Employer´s Personnel in proper possession of the relevant part of the Works to copy, use the Contactor´s Documents for the purposes of completing, operating, maintaining the Works	Provisions of Bidding Document shall prevail.
250	G.C.C. - FIDIC Yellow Book 1999, Clause 1.12, Page 7	Confidential details The Contractor shall disclose all such confidential and other information as the Engineer may reasonably require in order to verify	Please confirm the nature of the confidential information that may be required.	Provisions in the Bidding Document shall prevail.

S. No.	Reference to Bidding Document (Consisting of Part, Section, Volume, Reference Clause, Page no. etc.)	As Per Tender	Clarification sought by the Bidders	DFCC's Response
		the Contractor's compliance with the Contract		
251	G.C.C. - FIDIC Yellow Book 1999, Clause 1.13, Page 8	Compliance with Law : (b) the Contractor shall give all notices, pay all taxes, duties and fees, and obtain all permits, licences and approvals, as required by the Laws in relation to the design, execution and completion of the Works and the remedying of any defects; and the Contractor shall indemnify and hold the Employer harmless against and from the consequences of any failure to do so.	We request to Insert at the end of Sub-Clause 1.13: However, the Contractor shall submit, in good time, the details of Goods to the Employer, who shall then promptly obtain all import permits or licences required for these Goods.	Not agreed. Provisions of bidding document shall prevail.
252	G.C.C. - FIDIC Yellow Book 1999, Clause 2.2, Page 9	Permits, Licences or Approvals	The Contractor shall be responsible to get only those Permits, Approvals or License which are required in the Contractor's name for the performance of this Contract. Please confirm. Further, we request DFCCIL to issue the necessary Road Permit/Octroi Exemption Certificate, if applicable for transporting the project related material / equipments in the respective states	Road permit will not be given by DFCCIL. Provision of Bidding Document shall prevail.
253	G.C.C. - FIDIC Yellow Book 1999,	Employers' claim	We request you to Insert in paragraph 2,	Provisions of Bidding Document shall

S. No.	Reference to Bidding Document (Consisting of Part, Section, Volume, Reference Clause, Page no. etc.)	As Per Tender	Clarification sought by the Bidders	DFCC's Response
	Clause 2.5, Page 9	Para (2) The notice shall be given as soon as praticable after the Employer became aware of the event or circumstances giving rise to the claim. A notice relating to any extension of the Defects Notification Period shall be given before the expiry of such period.	behind the words "as soon as practicable": and not later than 28 days	prevail.
254	G.C.C. - FIDIC Yellow Book 1999, Clause 4.1, Page 11	Contractor's General Obligations: The Contractor shall design, execute and complete the Works in accordance with the Contract, and shall remedy any defects in the Works. When completed, the Works shall be fit for the purposes for which the Works are intended as defined in the Contract.	We request to Delete paragraph 1, 2nd sentence.	Provisions of bidding document shall prevail.
255	G.C.C. - FIDIC Yellow Book 1999, Clause 4.1, Page 11	Contractor´s General Obligations	We request to delete the following words in paragraph 3 of Sub-Clause 4.1. …(although not mentioned in the Contract).	Provisions of bidding document shall prevail.
256	G.C.C. - FIDIC Yellow Book 1999, Clause 4.3, Page 13	Contractor's Representative	We request to delete following two paragraphs: Unless the Contractor's Representative is named in the Contract, the Contractor shall, prior to the Commencement Date, submit to the Engineer for consent the name and	Provisions of bidding document shall prevail.

S. No.	Reference to Bidding Document (Consisting of Part, Section, Volume, Reference Clause, Page no. etc.)	As Per Tender	Clarification sought by the Bidders	DFCC's Response
			particulars of the person the Contractor proposes to appoint as Contractor's Representative. If consent is withheld or subsequently revoked, or if the appointed person fails to act as Contractor's Representative, the Contractor shall similarly submit the name and particulars of another suitable person for such appointment. The Contractor shall not, without the prior consent of the Engineer, revoke the appointment of the Contractor's Representative or appoint a replacement.	
257	G.C.C. - FIDIC Yellow Book 1999, Clause 4.5, Page 13	Nominated Subcontractors	We request to delete Sub-Clause 4.5.	Provisions of GC Sub clause 4.5 will not be applicable as in this project there is no provision of nominated sub contractor nominated by Employer.
258	G.C.C. - FIDIC Yellow Book 1999, Clause 4.6, Page 13	Co-operation	We request to delete Sub-Clause 4.6 and substitute: The Contractor shall, in accordance with the Engineer's instructions, afford to other contractors engaged by the Employer to work on the Site and persons lawfully upon the Site all reasonable opportunities for carrying out their work provided that the same shall not obstruct or disturb the progress of the Works and, when leaving his area of work, clean-up such part of the	Provisions of bidding document shall prevail.

S. No.	Reference to Bidding Document (Consisting of Part, Section, Volume, Reference Clause, Page no. etc.)	As Per Tender	Clarification sought by the Bidders	DFCC's Response
			Site. The Contractor shall also afford such opportunities to the employees of the Employer. If the Contractor, on the written request of the Engineer, makes available any Contractor's Equipment or provides any other service, the Employer shall pay the Contractor accordingly. The amount to be paid shall be certified by the Engineer and added to the Contract Price.	
259	G.C.C. - FIDIC Yellow Book 1999, Clause 4.13, Page 16	Rights of way and facilities	We understand that the right of way will be made available by the employer for access to sites to perform the contractual obligations during the currency of contract. We also request to indicate the availability of adequate space for temporary facilities like store, depot, construction office, etc.	Please refer to Appendix 19 – Requirements for Construction, Part 2, Section VI, Volume 1. Please refer Addendum 3 (S.No.20).
260	G.C.C. - FIDIC Yellow Book 1999, Clause 4.15, Page 17	Access Route	Delete paragraph 1, 1st sentence. Delete paragraph 2, including sub-paragraphs (a) to (e), and substitute: However, if the Contractor encounters non-suitability or non-availability, for the use required by the Contractor, of access routes, gives a notice to the Engineer as soon as practicable describing the relevant circumstances, and suffers delay and/or incurs Cost due to these circumstances, the Contractor shall be entitled subject to Sub-	Provisions of bidding document shall prevail.

S. No.	Reference to Bidding Document (Consisting of Part, Section, Volume, Reference Clause, Page no. etc.)	As Per Tender	Clarification sought by the Bidders	DFCC's Response
			Clause 20.1 [Contractor's Claims] to: (a) an extension of time for any such delay, if completion is or will be delayed, under Sub-Clause 8.4 [Extension of Time for Completion], and (b) payment of any such Cost, which shall be included in the Contract Price.	
261	G.C.C. - FIDIC Yellow Book 1999, Clause 4.19, Page 18	Electricity, Water and Gas	We request to delete paragraphs 1 and 2 and substitute: The Employer shall be responsible for the provision of all power, water and other services the Contractor may reasonably require. The Contractor shall be entitled to use for the purposes of the Works and for the accommodation of the Contractor's and his Subcontractor's Personnel such supplies of electricity, water, gas and other services, the details and prices of which are given in the Employer's Requirements.	Provisions of bidding document shall prevail.
262	G.C.C. - FIDIC Yellow Book 1999, Clause 4.22, Page 19	Security of the Site (a) the Contractor shall be responsible for keeping unauthorised persons off the Site, and	We request you in sub-paragraph (a), delete the word "Contractor" and substitute with "Employer"	Provisions of bidding document shall prevail.
263	G.C.C. - FIDIC Yellow Book 1999,	Defects Liability	We understand that the the Defects Liability period and the Defects Notification period	Yes.

S. No.	Reference to Bidding Document (Consisting of Part, Section, Volume, Reference Clause, Page no. etc.)	As Per Tender	Clarification sought by the Bidders	DFCC's Response
	Clause 11, Page 34		as mentioned in cl. 1.1.3.7 (pg. 4 of FIDIC Yellow Book) are the same. Please confirm.	
264	G.C.C. - FIDIC Yellow Book 1999, Clause 15.2, Page 48	Termination by employer	We request, at the end of paragraph 2 ("… may by notice terminate the Contract immediately."), add: In any case, and notwithstanding the above, Employer's right to terminate the Con-tract hereunder shall be subject to the express proviso that the Employer cannot reasonably be expected to remain bound by the Contract. Delete paragraph 3 ("… shall not prejudice any other rights …") and substitute: The Employer's election to terminate the Contract shall be in lieu of and to the exclusion of any rights of the Employer, under the Contract or otherwise, other than pro-vided in Sub-Clause 15.4 [Payment after Termination].	Provisions of bidding document shall prevail.
265	G.C.C. - FIDIC Yellow Book 1999, Clause 15.5, Page 50	Employer's Entitlement to Termination	Insert at the end of Sub-Clause 15.5: The Employer shall also pay to the Contractor the amount of any loss of profit or other loss or damage resulting from this termination.	Provisions of bidding document shall prevail.
266	G.C.C. - FIDIC Yellow Book 1999,	Limitation of Liability	The clause provides for liability being capped to "Accepted" contract value. Does	It is "Amount" not "Value". Pl read GC Clause 1.1.4.1 for

S. No.	Reference to Bidding Document (Consisting of Part, Section, Volume, Reference Clause, Page no. etc.)	As Per Tender	Clarification sought by the Bidders	DFCC's Response
	Clause 17.6, Page 54		this mean total contract value, please clarify	"Accepted Contract Amount"
267	Part 2, Section VI, Volume 2, Clause 3.2.4(iii), Page 12	Simulation 3 a) Electricity Power Supply and Railway Traction Power Infrastructure Network as defined in clause 3.3.1. b) The specified Headway as defined in Table 5.2.2 – Train Operation Plan. c) Specified Rolling Stock in Table 5.2.1. d) 2nd stage Emergency Feeding arrangements as defined in clause 5.1.6.	The referenced chapter 5.1.6 does not define the switching status of the electrical network configuration that shall be used for this simulation. From experience of other freight lines with AT electrification systems it is assumed that outage of a complete TSS is regarded as 2nd emergency. Kindly clarify.	Please refer Addendum 3 (S.No.29)
268	Part 2, Section VI, Volume 2, Clause 5.1.3(1), Page 32	Requires the by-pass circuit breakers to be closed at an SP and the supply from one TSS to be extended to the feeder circuit breakers of the adjacent TSS	This would mean that failure of a complete TSS shall be considered as a "first failure condition (N-1)" and that train service shall be maintained without any loss of performance. Kindly clarify.	Clause 5.1.3(1), Page 32, Part 2, Section VI, Volume 2, is self explanatory.
269	Part 2, Section VI, Volume 2, Clause 5.1.6, Page 32	Second failure conditions – Under second failure conditions, the traction power systems shall allow for a reduced train service/ may consider extended headway/	Kindly clarify the electrical network configuration to be used for this failure condition.	Please refer Addendum 3 (S.No.29).

S. No.	Reference to Bidding Document (Consisting of Part, Section, Volume, Reference Clause, Page no. etc.)	As Per Tender	Clarification sought by the Bidders	DFCC's Response
		reduced speed of trains to operate in the affected section, supported by multi train simulation study. This shall have to be approved by Engineer and provision should exist with the operator to choose a combination of above or anyone of the above.		
270	Part 2, Section VI, Volume 2, Clause 5.1.6, Page 35	For failure of one TSS, the system shall be able to support 100% Train service under normal and bunched condition. For failure of consecutive TSS reduction of train service shall be acceptable.	Our understanding is that this clause defines worst case scenario for simulation conditions 2 and 3 of chapter 3.2.4: - 1st stage emergency feeding = failure of one TSS - 2nd stage emergency feeding = failure of consecutive TSS. Please confirm.	Please refer Addendum 3 (S.No.29).
271	Part 2, Section VI, Volume 2, Page 42	The limit of voltage unbalance permitted according to Central Electricity Authority (CEA) standards are as follows based on lowest short circuit MVA at the grid sub-station	Lowest short circuit power at grid substation is not available. Can a typical value of 3 GVA at 132kV be used for the assessment?	Please refer Addendum 3 (S.No. 36)
272	Part 2, Section VI, Volume 2, Clause 6.7.3, Page 43	Harmonics Generated at the PCC (1) Assuming power factor of 0.85 for the train journey, power factor correction shall be improved to 0.95	When assuming a PF of 0,85 for all trains then a power factor correction is inevitable. However this is a PF for IR trains of older type having much less power demand.	Please refer Addendum 3 (S.No. 37)

S. No.	Reference to Bidding Document (Consisting of Part, Section, Volume, Reference Clause, Page no. etc.)	As Per Tender	Clarification sought by the Bidders	DFCC's Response
		using 50 % static and 50 % variable capacitors or 100 % variable capacitors.	Hence PF at PCC will be below 0,95 only in the beginning of operation at a considerably lesser power level. Once the line is operated with mixed traffic with IR and DFCC locos the PF will considerably increase. This means that PF may be met without any correction, especially when most traffic is by DFCC Locomotives Is it acceptable to determine the required capacity and take precautions for an optional PF correction to be installed only on demand (i.e. reserve sufficient space and connection to the switchgear).	
273	Part 2, Section VI, Volume 2, Appendix-8 (4.5.2,4.5.3), Page 191	The existing Indian Railways ac electric locomotives are silicon rectifiers fed dc motors or GTO/IGBT based power converter fed 3-phase Induction Motors and the average power factor generally varies between 0.7 and 0.85 lagging, without reactive power compensation, which introduces harmonic currents in the 25kV power supply system. On DFCC (Eastern) Locomotives are proposed to have VVVF drives and improved power factor closer to 0.98 and negligible harmonics. The	Is this information meant to be used in the design in conjunction with the question no. 41 above?	Refer reply of Query at S. No. 272.

S. No.	Reference to Bidding Document (Consisting of Part, Section, Volume, Reference Clause, Page no. etc.)	As Per Tender	Clarification sought by the Bidders	DFCC's Response
		traction supply may therefore be at higher power factor than those on IR.		
274	Part-2 Section VI, Vol2 Page No 55 of 291 Page No 192 of 291	The specifications for V-connected transformers shall be prepared by the Contractor on the lines of specifications of Scott–connected transformers and submitted to the Engineer for his approval. Windings:- Primary windings shall be T-connected for three phase supply. Two secondary windings, one per phase, Main-phase (M-phase) and Teaser-phase (T-phase), with a phase difference of 90 degree. The primary and secondary windings shall be uniformly insulated Rated 2-phase secondary voltage (at no load) (kV) :- 54 per phase Rated Power (MVA) :- 60/84/100 MVA ONAN/ONAF/OFAF, (Each secondary winding shall have a rated power of 30/42/50MVA) All the four terminals of both secondary windings of 'M' and 'T' phases shall be brought out separately through 54 kV OIP condenser bushings, for cascade	We understand that these specifications and drawings are based on typical Scott connection configuration. The intent of the specification is to define a minimum installed capacity of 60/84/100 MVA ONAN/ONAF/OFAF in Traction Substation for both scott and V connection. This being a design and build connection, the bidders would be allowed to choose the alternate system configuration which have a proven performance record and fulfill the system requirements. As an example, for similar 2x25 KV Power application in Europe and China, most of the railway systems constructed in recent years included usage of four nos. of V connection traction transformers (2x27 kV) instead of two nos. of scoot traction transformer (2x54 kV). Please confirm.	Provision of Bidding document shall prevail. Also, please refer Addendum 3 (S.No. 40)

S. No.	Reference to Bidding Document (Consisting of Part, Section, Volume, Reference Clause, Page no. etc.)	As Per Tender	Clarification sought by the Bidders	DFCC's Response
		connection externally.		
275	Part 2, Section VI, Volume 2, Appendix 5, SN 40 Clause 7.5, Table 7.3.1 Page 179, 57, 55	ETI/PSI/132 25 kV double pole outdoor, vacuum Interrupters for Railway switching stations for 2x25 kV 'AT' feeding system. 25 kV circuit breakers/ interrupters shall be of vacuum type only. Rated secondary voltage 54 KV	The specifications define transformer secondary voltage of 54 KV. However, the switchgear specifications define system voltage of 27.5 KV. There is discrepancy in selection of switchgear. We understand that suitable switchgear (72.5kV / 27.5 kV) shall be selected based on the transformer secondary connections. Please confirm.	Provisions of Para 6.1 Part 2, Section VI, Volume 2, shall prevail.
276	Part 2, Section VI, Volume 2, Clause 3.3.1.(d), Page 12	Auto -Transformers shall be provided at each TSS, SP and SSP.	We understand that this being a design and build contract, the requirement of Auto Transformer at TSS shall be decided based on the proposed contractor design meeting system performance requirements. As an example, for similar 2x25 KV Power application in Europe and China, most of the railway systems constructed in recent years do not use ATs in the TSS.	Please refer Addendum 3 (S.No. 34).
277	Part 2, Section VI, Volume 2, Clause 3.3.4, Page 19	The following items of work are not included in the scope. However, the Contractor shall provide timely inputs as necessary to the relevant Other Contractors /agencies… (3) Provision of SCADA between Utility's grid substation and	However works are not included, please provide information about the kind of provisions (e.g. in design, hardware and software) which shall be considered.	Please refer clause 18.1.4 (3) pertaining to interface with UPCCL.

S. No.	Reference to Bidding Document (Consisting of Part, Section, Volume, Reference Clause, Page no. etc.)	As Per Tender	Clarification sought by the Bidders	DFCC's Response
		incoming Gantry at each TSS…		
278	Part 2, Section VI, Volume 2, Clause 10.2.1 (f), Page 84	SCADA system shall incorporate hardware and software for access control features that prevents access by unauthorized persons; the unsuccessful login shall be alarmed and logged at OCC.	Our understanding is that access control shall be only for software access. Further controls e.g. site, room or equipment access to be monitored are not a part of power supply SCADA. Kindly clarify.	Please refer Addendum 3 (S.No.48).
279	Part 2, Section VI, Volume 2, Clause 10.5, Table 10.1-1, Page 87	Quantity and location of the equipments to be controlled and monitored.	Considering that the list is indicative please provide information about the quantity of Stations at Bhaupur–Khurja section of the Eastern Dedicated Freight Corridor where relevant equipment shall be controlled and/or monitored.	Please refer Clause 1.1.8 Part 2, Section VI, Volume 1 and Addendum 3 (S.No.50).
280	Part 2, Section VI, Volume 2, Clause 10.10.2, item 9 (c), Page 99	There shall be no remote/email/internet access, user access codes/passwords in the master station software and hardware so that any possibility of a cyber-intrusion or attacks is eliminated. Reasonable precaution, by way of installing fire-wall, and blocking ports for connecting external devices like pen drives, CD drives etc shall be ensured.	Would this requirement also apply for a secured Remote Service access of the manufacturer if required?	Yes.
281	Part 2, Volume 2,	(a) The SCADA software shall	Our understanding is that the SCADA	The contents of Clause 23, Part 2,

S. No.	Reference to Bidding Document (Consisting of Part, Section, Volume, Reference Clause, Page no. etc.)	As Per Tender	Clarification sought by the Bidders	DFCC's Response
	Section VI, Clause 10.10.2, item 23, Page 105	support a minimum of two data-logging laser printers connected on LAN. The data logging printers shall be in a secure room which the operators have no access to.	software offered shall support use of two data-logging printers connected to the LAN. The supply of printers is not a part of CP 104. Kindly clarify.	Section VI, Volume 2, are self explanatory. Printers are to be supplied by Contractor.
282	Part 4, Section VI, Conceptional SCADA Network	Printer with redundant Ethernet connection	Kindly advice if dual Ethernet connection is a mandatory requirement for printer. To ensure availability of at least one printer the printer shall be connected to separate network (e.g. printer 1 to switch 1 and printer 2 to switch 2).	Please refer Addendum 3 (S.No.186).
283	Part 4, Conceptional SCADA Network	GPS Receiver within SCADA Network	Kindly clarify the functional requirements of GPS receiver w.r.t; Power Supply, Signalling and Telecommunication.	Please refer Chapter 9 of Part 2, Section VI, Volume 4. Also, please refer Addendum 3 (S.No.186).
284	Part-1, Section II, Clause ITB 19.1, Page 43	The deadline for submission of First Stage Technical Proposals is: Date: 31.03.2014 Time: 15:00 Hrs	You will appreciate that the tender involves voluminous work w.r.t. the scope, specific route survey, site surveys. Also, this is a design and built contract which involves detailed studies and coordination between various agencies to derive a suitable solution to submit a technically complete offer. In view of the above, we request for an	Please refer to Query at S. No. 228.

S. No.	Reference to Bidding Document (Consisting of Part, Section, Volume, Reference Clause, Page no. etc.)	As Per Tender	Clarification sought by the Bidders	DFCC's Response
			extension in bid submission by 10 weeks from 31st March, 2014.	
285	Part 2, Section VI, Volume 1, Clause 1.1.4, Page 8	Bhaupur – Khurja junction section has, generally been kept parallel to existing Indian Railway line except provision of detours at Etawah, Tundla, Hathras, Aligarh and Hapur.	Detours have been considered for stations to avoid congestion but it is not shown in the Engineering Plan of crossing station e.g. New Hathras. Similarly there are 8 detour stations as per clause 1.1.7. But the alignment drawing doesn't convey the same. Please clarify.	The detours shown in alignment plans shall prevail.
286	Part 2, Section VI, Volume 3, Appendix – 1, Page 134	Appendix – 1	Kindly provide the 34 nos. of LC gates that need to be controlled from the Electronic interlocking. Will the gates be removed in a phase manner? Please clarify.	Please refer response to query at S. Nos. 134, 135 & 168.
287	Part 2, Section VI, Volume 3, Clause 2.2.1, Page 14	Absolute block working on single line connections between DFCCIL and IR stations shall be provided.	Kindly provide the scope of supply of block instruments at the IR station interface.	RDSO specification referred in Clause 2.2.1(4) includes supply of block panel (not block instruments). The scope of contractor's work includes all supplies and services, including Block panels at IR station to implement the Absolute Block working system except what has been specified in Part 2, Section VI, Volume 3, Clause 9.4. Also, refer Addendum 3 (S.No.66).

S. No.	Reference to Bidding Document (Consisting of Part, Section, Volume, Reference Clause, Page no. etc.)	As Per Tender	Clarification sought by the Bidders	DFCC's Response
288	Part 2, Section VI, Volume 3, Clause 1.4.7, Page 9	A centralized Operational Control Centre (OCC) for entire Eastern Dedicated Freight Corridor (Ludhiana-Khurja-Dadri-Bhaupur-Mughalsarai) sections shall be located at Allahabad along with the Regional Office of EDFC	Is the proposed OCC required at two locations i.e. Allahabad and Regional office of EDFC? Please clarify.	OCC shall be provided at one location at Allahabad.
289	Part 2, Section VI, Volume 3, Clause 2.2.3 (C), Page 16	Wherever interlocking equipment is located, a display shall be available showing the state of the railway under control by that interlocking and up to the neighboring control area on both sides.	Does this mean that we need to consider the display across all Object Controllers too? Please clarify.	Yes.
290	Part 2, Section VI, Volume 3, Clause 2.2.4 (e), Page 16	The primary train detection technique to be used is by the use of Digital Axle Counting technology. Where required, a secondary means of train detection can be used to supplement the primary with the approval of the Engineer.	Please clarify whether secondary train detection is mandatory? If yes, please specify the location(s) and also the relevant Track Vacancy Detection technology.	Please refer response to query at S. No. 145.
291	Part 2, Section VI, Volume 3, Clause 2.2.4.(2) f.i., Page 19	The Main and Supervisory systems shall be provided on different rails and shall not have any common DP.	This is contrary with Appendix 5 Drawing of Page 211, where the Main and supervisory track sections are sharing the same DPs. Please clarify.	Please refer Addendum 3 (S.No.71).
292	Part 2, Section VI,	The vital electronic equipment like	Considering the fact that there are only 10	Please refer Addendum 3 (S.No.71).

S. No.	Reference to Bidding Document (Consisting of Part, Section, Volume, Reference Clause, Page no. etc.)	As Per Tender	Clarification sought by the Bidders	DFCC's Response
	Volume 3, Appendix 5, Clause 3.1, Page 209	evaluators of MSDACs has been kept at stations only.	stations over the entire 343km section, it may not be practical to keep the evaluators at stations only. Please clarify this requirement further.	
293	Part 2, Section VI, Volume 3, Appendix 5, Clause 6.8, Page 213	For the safety in train operation, both Automatic & Manual Resetting shall be Preparatory mode only	As per the tender specification, only Preparatory reset is required. Please confirm that Hard reset is not required at all in this project?	Guidelines are for the block section only and not for the station. Please refer amended Clause 2.2.4(2)(f) as per which a suitable manual resetting arrangement for the block station will have to be designed by the Contractor in accordance with Clause 2.2.4(1)(g) Part 2, Section VI, Volume 3.
294	Part 2, Section VI, Volume 3, Clause 4.3.4, Page 90,	Cable laying in the Auto Block section	As per the clause signaling cable shall be laid in RCC Duct at the Junction stations, crossing stations and LC gate locations. Please clarify whether Cables can be laid in trenches without RCC Duct in the auto block sections?	Clause 4.3.4 (1) gives only details RCC pipes being provided by CST contractor at the LC gates and at the Stations across the track. There is no requirement to lay the cables of auto block section in RCC ducts.
295	Part 4 Drawings, New Kanchausi Crossing station	General	As per New Kanchausi crossing station plan, train dispatch from Common loop to DN line is not clear. A point machine is missing from UP Main line to DN Main line. Please clarify.	Provisions in the Bidding Document shall prevail.
296	Part 4 Drawings, New Bhaupur -	General	The chainage for the New Bhaupur station building is not in-line with the other	Please read the alignment drawings with respective concordance tables.

S. No.	Reference to Bidding Document (Consisting of Part, Section, Volume, Reference Clause, Page no. etc.)	As Per Tender	Clarification sought by the Bidders	DFCC's Response
	Junction station		chainage within the same junction. Please clarify.	
297	Part 4 Drawings, Alignment Plan - Part 2 of 2	LC gate no. 85 is shown in the alignment drawings in page 143 of Alignment drawings.	LC gate no 85 is not shown in the list of all 79 nos. of LCs as listed in Appendix-1. Please clarify	The details of LCs shown in alignment drawings are only for reference. There are 93 LCs in Bhaupur-Khurja section. Out of said 93 LCs, at 14 LCs, ROBs will be constructed. The details of balance 79 LCs are contained in Part 2, Section VI, Volume 3, Chapter-10 Appendix-1 (Page 138-141).
298	Part 4 Drawings, Alignment Plan - Part 2 of 2	LC gate no. 101 (sheet 168) and 105 (sheet 170)	For LC 101 (sheet 168) and LC 105 (sheet 170) is shown under ALT-1 category. Kindly provide the details of notation "ALT-1". As LC 101 is shown in Appendix 1 but 105C is missing. Please clarify.	ALT-1 refers for Alteration No.-1. The details of LCs shown in alignment drawings are only for reference. However, for the details of LCs to be constructed, please refer Part 2, Section VI, Volume 3, Chapter 10, Appendix-1 (Page 138-141).
299	Part 4 Drawings, Alignment Plan - Part 2 of 2	LC gate no. 104/C/E ALT is shown in the alignment drawings in page 169 of Alignment drawings	L-section drawing (sheet no 169) and Appendix 1 suggest a Level Crossing Gate (number 104/C/E), but in New Daud Khan Junction Station, ROB is proposed for the same. Please clarify	The details of LCs shown in alignment drawings are only for reference. However, for the details of LCs to be constructed, please refer Part 2, Section VI, Volume 3, Chapter 10, Appendix-1 (Page 138-141).
300	Part 4 Drawings, General		Kindly provide the existing IR and proposed DFC chainage for the all the level crossing	The chainages of existing IR have been provided for all the LCs in Part 2,

S. No.	Reference to Bidding Document (Consisting of Part, Section, Volume, Reference Clause, Page no. etc.)	As Per Tender	Clarification sought by the Bidders	DFCC's Response
			locations.	Section VI, Volume 3, Chapter 10, Appendix-1 (Page 138-141).
301	Part 4 Drawings, Alignment Plan - Part 2 of 2	Sheet 168 of alignment drawing	In the sheet 168, Chainage counter has been reset (i.e. it is starting from 0.0). Even the note column of Sheet 168 indicates the same. Please clarify	Please see the concordance table given in Part 4.
302	Part 2, Section VI, Volume 3, Clause 2.3.3(8), Page 34	The Train Management System shall include required software for offline planning of Time Table for Train Operation. The TMS shall also include required software for generation of Management Reports pertaining to Train Operation. These Management Reports will be used to measure the operational performance of the DFCCIL.	What kind of reports are required? Are there any examples?	Please refer Part 2, Section VI, Volume 3, Clause 2.3.3 (25) (b) for examples.
303	Part 2, Section VI, Volume 3, Clause 2.3.3(9), Page 35	The Train Management System shall include Time Table Planning & Simulation System to simulate and observe effect of various parameters on Train Operation.	Why time table planning and simulation systems are clubbed into one system?	Time table planning and simulation system shall not be provided on TMS Central Server. Consequently, they shall be provided on the Simulation server.
304	Part 2, Section VI, Volume 3, Clause 2.3.3(18) m (ix),	It shall allow a fixed data information e.g. Layout, timetable etc. to be keyed	Since this sub chapter is about fault diagnostics, Why is timetable necessary in terms of fault diagnostics / maintenance	Please refer Addendum 3 (S.No.78).

S. No.	Reference to Bidding Document (Consisting of Part, Section, Volume, Reference Clause, Page no. etc.)	As Per Tender	Clarification sought by the Bidders	DFCC's Response
	Page 42	in.	terminal?	
305	Part 2, Section VI, Volume 3, Clause 2.3.3(23) b, Page 47	It shall be possible to create, modify and delete Controlled Area included in Train Graph from individual TMS Terminals.	This requirement is unclear? What is meant by controlled area? Whether this function is required offline or online? Normally to add new control areas to the system, database parameterization / configuration has to be done offline.	No creation of new controlled areas or change in jurisdiction of station control panels is required. Please provide the facility to change the jurisdiction /area covered by the appropriate Train Graph only.
306	Part 2, Section VI, Volume 3, Clause 2.3.3(23) f, Page 47	On clicking/selecting a particular train on Train Graph, it shall give complete information about the train viz. Train ID, Crew Details, Load Details (e.g. Container, Petroleum Products, Food Grains, Coal etc.).	Train ID and crew details may be available. However for load details, where will this data be retrieved from?	Type of load only such as Containers, Petroleum products, Food Grains, Coal etc. This shall be achieved by the use of the train describer function. The train's alphanumeric number shall use prefixes which shall indicate the type of load. These prefixes shall be agreed by the Employer/Engineer. This data shall be used to provide information to the IR FOIS system as required by the specification.
307	Part 2, Section VI, Volume 3, Clause 2.3.3(29), Page 54	Interface between TMS and SCADA system	Please furnish more details of SCADA system & communication protocol.	As both the TMS and SCADA systems are within Contractor's scope, it is considered that the Contractor comprehensively ensures that they are fully aware of all the respective TMS/SCADA Interface issues.
308	Part 2, Section VI, Volume 3, Clause	Interface with FOIS and other	Please furnish more details of FOIS system	It is considered that the Contractor must demonstrate that they are fully capable

S. No.	Reference to Bidding Document (Consisting of Part, Section, Volume, Reference Clause, Page no. etc.)	As Per Tender	Clarification sought by the Bidders	DFCC's Response
	2.3.3(31), Page 54	applications	&communication protocol.	of providing this interface and the requirement under Clause 2.3.3 (31) Part 2, Section VI, Volume 3 can be fulfilled without furnishing FOIS details at this stage.
309	Part 2, Section VI, Volume 3, Clause 2.3.3(32), Page 54	Interface with others TMS	Please furnish more details of other TMS & communication protocol system.	It is considered that the Contractor must demonstrate that they are fully capable of providing this interface and that their system is adept in interfacing with other TMS systems. The requirement under Clause 2.3.3 (32) can be fulfilled without knowing details of TMS to be provided in future in adjacent sections at this stage.
310	Part 2, Section VI, Volume 3, General		UPS requirement for OCC Hardware is not clear? Who is supplying the same?	The specification of UPS at Chapter 10, Appendix 3 Volume 3 is for Signalling system at OCC and other Signaling installations. The contractor shall supply the UPS at OCC. Please also refer 'Clause 2.2.10 – Power Supply' of Part 2, Section VI, Volume 3 for further details.
311	G.C.C. - FIDIC Yellow Book 1999 Clause no.10.1, Page 32	Taking over of the Works and Sections	We understand that section wise Taking Over Certificate will be issued at completion of Milestones (as per clause no.8.2 (PC)). Please confirm our understanding.	No. GC sub clause 10.2 has been modified through Section VIII PCC sub clause 10.2 Page 16 of 44 of bidding document.

S. No.	Reference to Bidding Document (Consisting of Part, Section, Volume, Reference Clause, Page no. etc.)	As Per Tender	Clarification sought by the Bidders	DFCC's Response
312	Part 3, Section VIII, Particular condition – clause 4.11, Page 11	Sufficiency of the Accepted Contract Amount	This clause expressly exempts the payment of customs duty and Excise duty on goods supplied/ intended to be supplied to the project. Please confirm whether Service Tax is also exempted? Further we understand that notification 25/2012-ST dated 20.06.2012 exempts services by way of construction, erection, commissioning or installation of original works pertaining to railways. We understand this notification is applicable for this work.	Service tax under the Indian Laws will be applicable. Employer will not reimburse any service tax.
313	Part 3, Section VIII, Particular condition – clause 13.7, Page 17	Adjustments for changes in Legislation	Kindly request you to add " and Services" after the word materials in sub paragraph 13.7 (d)	Provisions in the Bidding Document shall prevail.
314	Part 3, Section VIII, G.C.C. - FIDIC Yellow Book 1999 Clause no.11.9, Page 36	Performance Certificate	Our understanding from this clause when read along with clause no.14.11 is as follows: Please confirm our understanding One Performance Certificate will be issued for the entire work done by the contractor. No separate Performance Certificate will be issued per Section.	Yes.
315	Section VIII, G.C.C. - FIDIC Yellow Book	Issue of Interim Payment Certificate	The second paragraph of (14.6) this clause mentions that " prior to issuing the Taking	Yes.

S. No.	Reference to Bidding Document (Consisting of Part, Section, Volume, Reference Clause, Page no. etc.)	As Per Tender	Clarification sought by the Bidders	DFCC's Response
	1999 Clause no.14.6, Page 45		Over Certificate for the works, the Engineer shall not be bound to issue an Interim Payment Certificate in an amount which would be less than the minimum amount of Interim Payment Certificate (if any) stated in the Appendix to Tender. Our Understanding:- No minimum amount of Interim Payment Certificate is stated in Appendix to Tender, hence we understand that Interim Payment Certificate will be issued on completion of each payment stage of sub cost centers mentioned in Price schedule.	
316	Part 3, Appendix to Tender Clause no.18.3, Page 30	Minimum amount of Third Party Insurance	Please specify maximum limit for number of events	Provision of bidding document shall prevail.
317	Part-1, Section III, Clause 2.4, Page 50	*	We understand that self propelled work trains for simultaneous wiring of contact and catenary wire with required tension are very expensive and are manufactured on specific customer requirements. The lead time required for delivery of such customized machine may have an adverse effect on the overall project schedule. In view of above, it is requested to specify the special features/detailed specifications of these machines along with make.	Provisions in Bidding Document shall prevail.

S. No.	Reference to Bidding Document (Consisting of Part, Section, Volume, Reference Clause, Page no. etc.)	As Per Tender	Clarification sought by the Bidders	DFCC's Response
318	Part-1, Section III, Clause 2.4, Page 50	*	Softwares are proprietary & not useable by the end users and will only come with prohibitive cost. Kindly confirm the requirement of such softwares.	The provisions in clause 2.4 Part 1- Bidding Documents shall prevail
319	Part-1, Section III, Clause 2.3, Page 49	*Minimum 5 (Five) year outside India experience in at least Two Projects ** Minimum 3 (Three) years outside India experience in at least one Project	We understand that the project director, system integrator, project manager (signal) and project manager (traction (2x25kV)) should have mandatory international experience for specified no. of years in similar functions. Kindly confirm.	Yes. Provisions of Part 1- Section III Clause 2.3 Bidding Documents shall prevail.
320	Part-1, Section III, Annexure I, Clause 2.2, Page 53	Methods Statements	We understand the self propelled work trains and auger for mechanized foundation will attract a specific method statement w.r.t mechanized installations along with technical bid. Kindly confirm.	Yes.
321	Part 2, Section VI, Volume 2, Clause 3.3.1 (n), Page 13	All civil works or modifications required for installation of the equipment and restoring to final finishes. This shall include but not limited to preparation and leveling of ground, ground investigation, hydrological studies, earth filling to lift the land to obtain the lowest	During the site visit of all the five TSS locations i.e. Ibrahimpur, Biruni, Itagaon, Shikohabad and Umri it is observed a minimum land filling of approximately 5 metres at each location. Since the earth filling is huge in amount, it is requested to clarify the availability of soil as a free issue item.	Provisions in the Bidding document shall prevail.

S. No.	Reference to Bidding Document (Consisting of Part, Section, Volume, Reference Clause, Page no. etc.)	As Per Tender	Clarification sought by the Bidders	DFCC's Response
		point of the cable trench 0.5 meter above the highest flood level and within the right of way for traction power installations, access roads (within power supply installations), fences, drainage, traction equipment / component - foundations and containments. Civil works to also include OHE foundations.	There are 22 locations in total comprising of TSS/ SP/SSP. A minimum number of 2 nos. of 8 MVA autotransformer are required to be installed in these locations in addition to the traction transformers in TSS locations. During site survey it is observed that a proper bituminous road to the locations is not available. It was also difficult to assess the net requirement of roads from the connecting national highways. In view of the above we request; Employer to provide roads. OR The provision of payment at actual.	Please refer Appendix 19 – Requirements for Construction of Volume 1, Part 2, Section VI.
322	Part-1, Section I, Clause 29.8, Page 27	Unless otherwise specified in the BDS, all duties, taxes and other levies payable by the Contractor under the contract, or for any other cause, as of the date 28 days prior to the deadline for submission of bids, shall be included in the total Bid Price submitted by the Bidder.	1. We are qualified as a consortium in pre-qualification, kindly indicate that double taxation avoidance agreement (DTAA) will be considered between India & Germany while making payments to our consortium partner in Germany? 2. Kindly indicate the requirement of documents to avail the benefits under DTAA.	Contract will be governed by Indian Law. For details regarding DTAA relevant authorities should be contacted.
323	Part 2, Section VI, Volume 2, Clause 8.10.1, Page 72	The cantilever assembly shall conform to EN 50119. The contractor may adopt the cantilever assembly conforming to RDSO / IR specifications/ design, if it meets	Please confirm that the cantilever assembly shall be modular in design.	Provisions in Part 2, Section VI, Volume 2, Clause 8.10.1 shall prevail.

S. No.	Reference to Bidding Document (Consisting of Part, Section, Volume, Reference Clause, Page no. etc.)	As Per Tender	Clarification sought by the Bidders	DFCC's Response
		the functional requirements of the project. In case the contractor offers any new Cantilever Assembly design, the same shall meet the proven design criteria as per clause 4.4.2(6) of this specification		
324	Part 2, Section VI, Volume 2, Clause 8.4 (1), Table No. 8.9-1:OHE Conductors, Page 68		The sizes of catenary wire and contact wire are specified as 125 and 150 sq. mm., respectively. Out of the simulation done we expect the sizes of conductors to increase substantially. Please advice whether the bidder will be compensated for increase in sizes of these conductors during design and execution stages.	No, Provisions in Part 2, Section Volume 2, Clauses 8.4.1, 3.2.2 and 3.2.3 shall prevail
325	Part 2, Section VI, Volume 2, Clause 5.1 (7), Page 192	*	Out of the simulation done we expect the rated power of transformers to increase substantially (beyond 100 MVA). Please advice whether the bidder will be compensated for increase in the rating of these transformers during design and execution stages.	No, Provisions in Part 2, Section Volume 2, Clause 5.1 (7) and Clause 3.2.2 shall prevail.
326	Part 2, Section VI, Volume 2, Clause 5.2.3, Table 5.2.2, Page 33	1 x 9000kW / 12000 HP electric locomotive plus 63 BOXN wagons with single train loads of 6500 T(All trains in UP direction fully loaded). Trains in DN direction 30% with fully loaded wagons and 70%	Our understanding is that 1800T is the weight of complete train in DN direction including 30% loaded wagons and 70% empty wagons. Kindly confirm.	Provisions in Clause 5.2.3. Table 5.2.2, Part 2, Section VI, Volume 2, are self explanatory. Please refer Addendum 3 (S.No.30).

S. No.	Reference to Bidding Document (Consisting of Part, Section, Volume, Reference Clause, Page no. etc.)	As Per Tender	Clarification sought by the Bidders	DFCC's Response
		empty wagons (1800 T loads of empty wagons). A mix of single consist trains and double- consist trains in ratio 2:1 with electric loco in front and middle		
327	Part 2, Section VI, Volume 2, Clause 5.2.2, Table 5.2.1, Page 33	*	Considering the train operation plan indicated in Q. No. 326 above, the 87% full load efficiency of propulsion system is available with existing locomotives having a power of approx. 5000 HP. The locomotives with 1x9000KW/12000 HP will have full load efficiency close to 97%. Therefore, the two conditions i.e. low efficiency and high power locomotives are not coexistent. We propose to conduct simulations for two different scenarios; 1) lower efficiency and lower locomotive power, 2) Higher efficiency along with higher locomotive power. Kindly confirm.	Provisions in Clause 5.2.2, Table 5.2.1, Page 33, Part 2, Section VI, Volume 2 shall prevail.
328	Part 2, Section VI, Volume 4, Clause 8.2.1.1 (2)C, Page 66	bearer service for train control application;	The Data requirements here is circuit switched data not packet data. (e-mail, internet etc). Please confirm? Please specify the Circuit data speed is. 2.4/3.6/4.2/9.6 kbps etc.	Please refer Clause 8.4.1.1 (1). Accordingly MTRC System shall support bearer service for train control application/system i.e. ETCS Level-2.
329	Part 2, Section VI Volume 4, Clause 8.2.10.1, Page 71	Following controller positions…	Total Dispatcher console required for this project are 8. Pl confirm?	Please refer Clauses 8.2.10.1, 8.2.10.2 & 17.1.3.1.

S. No.	Reference to Bidding Document (Consisting of Part, Section, Volume, Reference Clause, Page no. etc.)	As Per Tender	Clarification sought by the Bidders	DFCC's Response
330	Part 2, Section VI, Volume 4, Clause 8.2.10.4, Page 72	For post incident analysis, all operation speech and data calls of Radio Dispatcher Consoles shall be recorded.	DFCCIL is procuring centralized VRS against this tender. We request this functionality be part of that system. Pl confirm?	Please refer Clauses 7.3.5.2 & 7.5.4.1.
331	Part 2, Section VI, Volume 4, Clause 8.2.16.3, Page 73	Three party conferences between controller, Station Master and Driver/Guard with on line voice recording facility shall be provided. Similarly, real time voice recording facilities for all the controllers shall be provided.	DFCCIL is procuring centralized VRS against this tender. We request this functionality be part of that system. Pl confirm?	Please refer Addendum 3 (S.No.125).
332	Part 2, Section VI, Volume 4, Clause 8.4.1.3, Page 80	All major equipment and component of the MTRC System shall have redundant engineering to minimize the effects of the failure of such equipment to the operations and performance of the MTRC System.	The existing MTRC system is non redundant system. Please clarify if bidder has to create redundancy for Existing NSS/BSS/OMC and new BTS/BSC as well?	Provisions of Bidding document are sufficiently clear. The Contractor shall be responsible for Redundant Engineering for all major equipments and components provided under this Contract.
333	Part 2, Section VI, Volume 4, Clause 8.4.3.5, Page 83	The coverage level shall also be designed to provide satisfactory indoor and outdoor coverage for an operational radio & general purpose radio for all areas as specified, including indoor areas for which an extra margin should be considered. Accordingly minimum field strength	The indoor coverage criteria of OPH/GPH is applicable to deture section (new BTS) or complete Khurja-Bhaupur section? The existing section is not deployed for -73dBm level.	Please refer Addendum 3 (S.No.128).

S. No.	Reference to Bidding Document (Consisting of Part, Section, Volume, Reference Clause, Page no. etc.)	As Per Tender	Clarification sought by the Bidders	DFCC's Response
		of -73 dBm at 4 meter above ground in outdoor terrain shall be available		
334	Part 2, Section VI, Volume 4, Clause 8.2.7.3, Page 70	For post incident analysis …. Shall be recorded	Is it acceptable for this to be in a central location rather than within the cab radio itself?	Please refer Clauses 7.3.5.2 & 7.5.4.1.
335	Part 2, Section VI, Volume 4, Clause 8.2.19.2(14), Page 77	It shall be possible to define emergency group Ids;	Will these Group IDs be known before the Cab Radio is delivered or must the Cab Radio be able to recognise these new IDs as emergency ones when they are set?	Please refer Addendum 3 (S.No.126).
336	Part 2, Section VI, Volume 4, Clause 8.4.1.8(1), Page 81	Five sets of Cab radio … and accessories	The term 'battery pack' is used here but there is no mention of it within the earlier section. Is a battery needed for the Cab Radio and, if so, what capacity? EIRENE SRS 5.7.14 specifies 'at least 1 hour' but 2 hours is often quoted.	Please refer Addendum 3 (S.No.127).
337	Part 2, Section VI, Volume 4, Clause 8.4.6.4.4, Page 85	The Cab Radio shall be provided with sufficient filtering … immune to radio interference.	Measures can be used which improve the cab radio's performance in the presence of interference. Are there any specific interference levels which must be tolerated?	Please refer to Clause 3.6.
338	Part 2, Section VI, Volume 4, Clause 8.1.4.1 (5), Page 65	Cab Radios and associated hardware/accessories	Please specify battery backup requirement for cab radio.	Please refer Addendum 3 (S.No.127).

S. No.	Reference to Bidding Document (Consisting of Part, Section, Volume, Reference Clause, Page no. etc.)	As Per Tender	Clarification sought by the Bidders	DFCC's Response
339	Part 2, Section VI Volume 4, Clause 8.2.10.7, Page 72	For station operational control, SCR shall be provided with a Fixed Radio Terminal with communication facilities covering the area in his jurisdiction. Contractor shall detail the functionalities and features of the proposed Fixed Radio Terminal	Kindly confirm if 2W or 8W Fixed Radio Terminal required?	Please refer Addendum 3 (S.No.124).
340	Part 2, Section VI, Volume 4, Clause 1.2.3, Page 6	Telecommunication Systems shall also meet all the Data Communication requirements of Signalling Works as well as Electrification Works.	The distance between the proposed EDFC track & existing IR track is not mentioned. The lat longs of all the sites (old and proposed) may please be provided.	Please refer Part 4- Reference Documents.
341	Part 2, Section VI, Volume 4, Clause 8.2.2.2 & 8.4.3.5, Page 66 & 83	The level of coverage shall be at least 95% of the time over 95% of the outdoor area of 200 meters on both sides from centre of tracks along the detours, for operational radio & general purpose radio at 1.5 meter above ground. Accordingly minimum field strength of -73 dBm at 4 meter above ground in outdoor terrain shall be available.	The query is that whether we need to consider MS height of 1.5m or 4m while preparing the Link Budget, because in both cases we will get different cell radius.	Please refer Addendum 3 (S.No.123).
342	Part 2, Section VI, Volume 4, Clause 7.3.4.6, Page 55	Direct Line Telephones	DLT Phone quantity is not available in the document. Please share the same.	Provisions in the Bidding Document are sufficiently clear. Direct Line Telephones Quantity shall

S. No.	Reference to Bidding Document (Consisting of Part, Section, Volume, Reference Clause, Page no. etc.)	As Per Tender	Clarification sought by the Bidders	DFCC's Response
				be determined by Bidder / Contractor.
343	Part 2, Section VI, Volume 4, Clause 7.3.3.6, Page 50	In case of failure of E1 link(s) between PBXs, all calls should be routed via IP Telephony Server using IP link(s) over WAN as an alternate route, without requirement of any manual intervention.	Please share the topology Diagram for interconnection of SDH network for PRI and IP Trunk connectivity between the sites.	Provisions in the Bidding Document are sufficiently clear. Topology Diagram shall be developed by Bidder / Contractor.
344	Part 2, Section VI, Volume 4, Clause 7.3.4.2, Page 53	The Direct Line Telephone Network shall be build using PBXs at OCC and Stations. However, PBXs shall have separate extension cards and separate digital trunk lines to make Direct Line Telephone Network more reliable and non-blocking.	In specifications dedicated Interconnection digital trunks for DLT network is mentioned. Can we consider IP channels for the same?	Digital trunk lines have been stipulated for the reason of voice quality. Provisions in the Bidding Document shall prevail.
345	Part 2, Section VI, Volume 4, Clause 7.3.3.3 & 7.5.1.3, Page 50 & 59	In addition to above, 6(six) IP Video Phones shall be provided at OCC and 1(one) IP Video Phones shall be provided at each Station. PBXs to be supplied, installed and commissioned for Administrative Telephone Network shall be equipped to, as a minimum and not limited to, the following:	Number of required Analog ports and digital ports are different in clause 7.3.3.1 and 7.5.1.3. Which one do we have to consider for the final BOM?	Clause 7.3.3.1 covers requirement of Telephone Sets to be provided as part of Administrative Telephone Network, while Clause 7.5.1.3 covers requirements of Equipped Ports to be provided in PBXs as part of Administrative Telephone Network. Please refer amended Clause 7.5.1.3.

S. No.	Reference to Bidding Document (Consisting of Part, Section, Volume, Reference Clause, Page no. etc.)	As Per Tender	Clarification sought by the Bidders	DFCC's Response
346	Part 2, Section VI, Volume 4, Clause 7.5.2, Page 60	VOIP based Telephony Network	Do we need to consider the VOIP based EPABX as a completely different EPABX or a part of PBX network?	Provisions in the Bidding Document are sufficiently clear. Please refer to clauses 7.3.3.5 & 7.3.3.6.
347	Part 2, Section VI, Volume 4, Clause 7.5.2, Page 60	VOIP based Telephony Network	If VOIP based EPABX is different EPABX in that case communication between both the EPABX is required or not? (If yes, on which media (IP Trunks or Digital Trunks)	Provisions in the Bidding Document are sufficiently clear. Please refer to clauses 7.3.3.5 & 7.3.3.6.
348	Part 2, Section VI, Volume 4, Clause 7.5.2.2, Page 60	The Call Servers and Media Gateways of this VOIP based Telephony Network shall be equipped to support 200 IP Voice Phones and 100 IP Video Phones.	In VOIP EPABX, specifications of IP phone is not mentioned. Please share the same.	Provisions in the Bidding Document are sufficiently clear. As IP Voice Phones are not to be provided under this Contract, specifications of the same is not mentioned.
349	Part 2, Section VI, Volume 4, Clause 7.3.3.6, Page 50	In case of failure of E1 link(s) between PBXs, all calls should be routed via IP Telephony Server using IP link(s) over WAN as an alternate route, without requirement of any manual intervention.	In case of failure of E1 links between the PBX's, all calls should be routed via IP Telephony server using IP link(s) over WAN as an alternate route, without requirement of any manual intervention. Can we consider IP Trunks as first priority for interconnection and E1 Digital trunk as secondary link or backup link?	E1 links have been stipulated as primary means of communication for reason of voice quality. Provisions in the Bidding Document shall prevail.
350	Part 2, Section VI, Volume 4, Clause	*	It is not clear that these DID lines are analog PSTN lines, ISDN or E&M circuits.	Please refer Addendum 3 (S.No.119).

S. No.	Reference to Bidding Document (Consisting of Part, Section, Volume, Reference Clause, Page no. etc.)	As Per Tender	Clarification sought by the Bidders	DFCC's Response
	7.5.1.3, Page 59		Please Clarify.	
351	Part 2, Section VI, Volume 3, Clause 2.2.4 (2). f. Ii, Page 19	One Supervisory Track section shall be provided for every two Track sections of Main System worked from same Auto Location. Each supervisory track section covers (completely) 2 or 3 track sections.	Please clarify the no. of track sections that shall be provided for one supervisory system	One supervisory section can supervise maximum of two track sections as per Part 2, Section VI, Volume 3, Clause 2.2.4 (2)(f)(ii). Also refer Addendum 3 (S.No.71).
352	Part 4 Drawings Junction and Crossing Stations New TDL Station	The station layout of 'New-Tundla' provided in the drawings folder (i.e. in Junction and Crossing stations folder) is not matching with the layout provided in the alignment drawings sheet no. 124.	Which drawing need to be considered for the design of signaling plan. Please clarify.	The drawing provided in the folder of Junction and crossing stations should be referred. The yard layouts indicated in alignment drawings are for reference only.
353	Part 2, Section VI, Volume 4, Clause 5.1.1, Page 28	The OFC System shall be a highly reliable system since it shall be the primary means of communications between OCC,…	Please suggest the number of SDH Nodes to be considered in the BOM. Also indicate the number of SDH nodes i.e. STM-16 to be considered in First network and STM-4 to be considered in Second network.	Provisions in the Bidding Document are sufficiently clear. BOM for the SDH Nodes to be determined by Bidder/Contractor.
354	Part 2, Section VI, Volume 4, Clause 5.3.3.2, Page 29	Optical fibre cables of the First Network shall be terminated at Optical Distribution Frames (ODFs) in TERs at OCC, Stations and any other location as required. Employer shall hire from M/s RCIL	Telecommunication Equipment Rooms (TERs) at Auto Section Locations, LC Gates, Interfacing IR Stations, GSM-R Locations, TSSs, SPs, SSPs, IMDs, IMSDs, Staff Residential Colonies etc. Kindly confirm the locations for the same.	Provisions in the Bidding Document are sufficiently clear. Number of NE to be determined by Bidder / Contractor.

S. No.	Reference to Bidding Document (Consisting of Part, Section, Volume, Reference Clause, Page no. etc.)	As Per Tender	Clarification sought by the Bidders	DFCC's Response
		required Optical Fibres from RCIL POP at Bhaupur (IR) to RCIL POP at Allahabad (IR). ….	Also Please indicate the number of NE to be provided in the first network and the number of NE's provided in the second network.	
355	Part 2, Section VI, Volume 4, Clause 5.5.1.1 (6), Page 37	Optical link budget calculations for all the transmission links;	Please indicate the distance between the stations i.e for the first network (STM-16) and for the second network (STM-4). Distances are required to calculate the link engineering.	Please refer Part 4 – Reference Documents.
356	Part 2, Section VI, Volume 4, Clause 5.5.1.1 (10), Page 37	the details of the synchronisation network design and a synchronisation plan which describes the fall back arrangement,	Request you to please provide the indicative network diagram with provision of First network and second Network.	Provisions in the Bidding Document are sufficiently clear. Please refer clauses 5.3.3 and 5.3.4.
357	Part 2, Section VI, Volume 4, Clause 5.5.3.4.2, Page 40	The NMS shall be equipped with a proven real-time, multi-tasking operating system to support centralised network management of the OFC equipment …..	Network management System for the SDH and PDH are different with Different hardware and different software.	Please refer Addendum 3 (S.No.108).
358	Part 2, Section VI, Volume 4, Clause 5.5.3.3.4, Page 39	Flexible Access Multiplex Equipment shall support Omnibus Operation of Voice in Data Channels ….	Omnibus communication or conference facility is required or not	Provisions in the Bidding Document are sufficiently clear. The equipment shall support Omnibus Operation of Voice in Data Channels. Its requirements shall be determined by the Bidder / Contractor.

S. No.	Reference to Bidding Document (Consisting of Part, Section, Volume, Reference Clause, Page no. etc.)	As Per Tender	Clarification sought by the Bidders	DFCC's Response
359	Part 2, Volume 4, Section VI Page 39, Clause 5.5.3.3.9	Flexible Access Multiplex Equipment shall operate satisfactorily at 48V+ 20% DC. ….	-48V DC Power redundancy (1+1) would be offered	Please refer Chapter 12 for 48 V DC Battery Back-up Requirements.
360	Part 2, Section VI, Volume 4, Clause 5.5.1.1, Page 37	Details on the specifications of each low speed data and voice channel interfaces below E1 level; …..	Low speed data interfaces : please confirm the actual data interfaces would be used by end customer, as all types of interface specifications is mentioned in tender	Provisions in the Bidding Document are sufficiently clear. Requirement is to be determined by the Bidder / Contractor.
361	Part 2, Section VI, Volume 4, Clause 5.5.3.3.10.1, Page 39	Voice interface selectable on two or four wires E&M signalling	Voice interface: please confirm actual voice services to be used by end customer, or please mention the card types to be used / deployed by end customer per PDH Mux.	Provisions in the Bidding Document are sufficiently clear. Requirement is to be determined by the Bidder / Contractor.
362	Part 2, Section VI, Volume 4, Clause 6.1.1, Page 42	An extensive Data Networking System shall be provided for meeting the Packet Data Communications requirements of Bhaupur-Khurja section of EDFC. Data Networking System which is a Wide Area Network (WAN), shall, inter-alia, cover OCC, Stations, IMDs, and IMSDs.	As per the tender, Layer-3 Switches are required, with 4x10G with 24x10/100/1000BaseT. Please indicate the locations of Data Networking Switches. As per the Particular Specification, data networking switches are required at OCC, all Stations, IMDs, and IMSDs. Please indicate the tentative BOM for the switches.	Provisions in the Bidding Document are sufficiently clear. BOM for the Switches to be determined by Bidder / Contractor.
363	Part 2, Section VI, Volume 4, Clause 6.5.1.3, Page 46	Layer-3 Switches shall be capable of working with DC Power Supply with range of -40 to -54V. Power Supply Module should be	Layer-3 Switches & Layer-2 switches shall be capable of working with DC Power Supply with range of -40 to -54V. If the switch does not work on this power supply,	Provision of Additional Converter shall not be permitted. Provisions in the Bidding Document shall prevail.

S. No.	Reference to Bidding Document (Consisting of Part, Section, Volume, Reference Clause, Page no. etc.)	As Per Tender	Clarification sought by the Bidders	DFCC's Response
		redundant and inbuilt in the switch.	then can we plan an additional converter?	
364	Part 2, Section VI, Volume 4, Clause 6.2 (2), Page 43	Scope of Supply for Data Networking System The scope of supply shall include, but not be limited to	Please share the tentative BOM for the Switches. For layer-3 Switches, is only consider at stations. Please also indicate the location of Layer-2 switches.	Provisions in the Bidding Document are sufficiently clear. BOM for the Switches to be determined by Bidder / Contractor. Location of Layer-2 Switches to be determined by Bidder / Contractor.
365	Part 2, Section VI, Volume 4, Clause 6.1.8, Page 42	At Junction Stations & Crossing Stations, Wi-Fi Facility, compliant with IEEE 802.11g Standards shall be provided for WAN Connectivity to users (which also includes drivers of passing trains) via Wireless Enabled Devices and Equipments.	Please share the list of Junction stations, & interconnect station, to consider the Wi-Fi System	Please refer Part 4 – Reference Documents.
366	Part 2, Section VI, Volume 3, Clause 1.4.7, Page 9	A centralized Operational Control Centre (OCC) for entire Eastern Dedicated Freight Corridor (Ludhiana-Khurja-Dadri-Bhaupur-Mughalsarai) sections shall be located at Allahabad along with the Regional Office of Eastern Dedicated Freight Corridor. The OCC building is being under PS (Buildings & Structures including E&M) Vol. 5 Part 2.	i) All require OFC Connectivity from Our Section i.e. Bhaupur to Khurja to OCC (which shall be located in Allahabad) shall be not under the scope of this work. ii) Hence the delay in commission of the OCC is invariable. In view of that please separate the OCC commissions date from the main tender. Separate Commissions date For OCC shall be fixed. From milestone activity / Payment Schedule no link shall persist in connection with OCC	Not agreed. Existing provisions shall prevail.

S. No.	Reference to Bidding Document (Consisting of Part, Section, Volume, Reference Clause, Page no. etc.)	As Per Tender	Clarification sought by the Bidders	DFCC's Response
			Commissioning.	
367	Part 2, Section VI, Volume 3, Clause 1.4.8, Page 10	The OCC will house all the controllers such as Traffic Controllers, Track Controller, Traction Power Controllers, Signal Fault Controller etc. who will monitor and manage all train operations and associated activities, including maintenance of entire EDFC from the OCC. The OCC shall house the Train Management system (TMS) and the 'Traction Power SCADA Control system'.	The Maintenance of Entire EDFC shall be deleted from our scope of work. It Shall be Maintenance of the respective system as supplied by each system provider.	The maintenance of entire EDFC is not within scope of the contractor. Refer Part 2, Section VI, Volume 3, Clause 7.4 for maintenance support to be provided by the Contractor during DNP.
368	Part 2, Section VI, Volume 3, Clause 1.5.1 (2,4), Page 11	(2) Design and Implementation of Block/Slot working at four IR stations: Bhaupur, Kuberpur, Daud khan and Khurja. (4) Design and Implementation of Absolute block working/slot working on single line connecting New Tundla station (DFCCIL) & Kuberpur station (IR), New Bhaupur station (DFCCIL) & Bhaupur station (IR), New Daud Khan station (DFCCIL) & Daud Khan station (IR) & New Khurja station (DFCCIL) & Khurja station (IR).	i) DFCIL Should provide all necessary Interface circuit for design the interface with IR. Ii) All modification in Existing Circuit of IR Stations Shall be excluded from our scope of work. Iii)Please mention the approving authority of All plan & design	(i) Please refer provisions under Part 2, Section VI, Volume 1- Clause 1.3.15, 2.11 and Chapter 7 - Appendix 3 which are sufficiently clear. (ii) Please refer provision under Part 2, Section VI, Volume 3, Clause 9.4 which are sufficiently clear. (iii) The approving authority for all Plans and Design shall be the Engineer/Employer.

S. No.	Reference to Bidding Document (Consisting of Part, Section, Volume, Reference Clause, Page no. etc.)	As Per Tender	Clarification sought by the Bidders	DFCC's Response
369	Part 2, Section VI, Volume 3, Clause 1.5.1 (7), Page 11	Design and implementation of the Station Master's control and display systems required at each station.	Since no clear mention of VDU/DOMINO Panel is mention, Hence we proposed for Only VDU. If any other opinion please clarify.	Please refer Part 2, Section VI, Volume 3, Clause 2.2.9 and Part 2, Section VI, Volume 1, Clause 2.2(7) which clearly specify the provision of VDU for control and display panel at station.
370	Part 2, Section VI, Volume 3, Clause 2.2.2 (C), Page 15	At present all the LC gates are interlocked with IR gate signals. These would be replaced with an arrangement where they cover both IR and new DFCCIL tracks and are interlocked with both IR and new gate signals on DFCCIL lines.	i) Please delete the scope of work. ii) The Mid section LC Gate should be independent from IR Stations. If some unavoidable situation arise same has to be Carried out by DFCIL/IR. iii) All necessary circuits design modification/Execution/Commissioning in IR circuit shall be carried out by DFC/IR. iv) All delay attributing the design interface process shall be responsibility of DFCC/IR.	(i) & (ii) Not agreed. (iii) Please refer provisions of Part 2, Section VI, Volume 3, Clauses 2.2 and 9.4, which are sufficiently clear. (iv) Please refer provisions under Part 2, Section VI, Volume 1, Clauses 1.3.15, 2.11 and Chapter 7-Appendix 3 which are sufficiently clear.
371	Part 2, Section VI, Volume 3, Clause 2.2.3 (2) (b), Page 17	It shall be capable of interfacing with TMS & TPWS systems using serial/ Ethernet/OFC ports.	Our EI has been approved by RDSO based on RDSO/SPN/192/2005 and in that specification EI is not required to interface with TPWS. In addition, as per RDSO/SPN/183/2011, line side TPWS (LEU) interfaces with ECR to change the telegrams depending on the signal aspects. Please revise the specification as 'It shall be capable of interfacing with TMS using serial/ Ethernet/OFC ports.'	Please refer Clause 1.2 of RDSO specs. RDSO/SPN/192/2005 and RDSO/SPN/183/2011. Existing provisions shall prevail.
372	Part 2, Section VI,	All the Electronic Interlocking shall	RDSO/SPN/192/2005 do not requires EI is	Please refer Clause 3.9 of RDSO spec.

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	Volume 3, Clause 2.2.3 (2) (e) (ii), Page 17	be interconnected to adjacent interlocking and the TMS on OFC network in such a manner that full network protection against fibre failure is available. The OFC network shall be as per PS (Telecommunications) Vol. 4 Part 2. The contractor shall make maximum use of shared backbone communication links for diagnostic and operational information transfer.	interconnected to adjacent interlocking and the TMS on OFC network. Please delete this requirement.	RDSO/SPN/192/2005. Existing provisions shall prevail.
373	Part 2, Section VI, Volume 3, Clause 2.3 (24) (a), Page 47	The Crew Management System shall be provided for the management of crew running on Bhaupur-Khurja section of EDFC. Terminals of Crew Management System shall be provided at Crew Control Lobbies/Crew Booking points. In addition some functions of Crew Management System shall be available in TMS Terminals of Chief Controller, Dy. Chief Controller, Traffic Controller and Station Master.	Please kindly inform us the functions of Crew Management System are available in TMS Terminals.	Please refer Part 2, Section VI, Volume 3, Clause 2.3.3(24)(b) to (i) which are considered sufficiently clear for the implementation of the system.
374	Part 2, Section VI, Volume 3, Clause 2.3 (24) (C), Page	The Crew Management System shall have provision of creating database of Train Running Crew.	Please kindly inform us what are the personnel and safety information of the train running crew database.	Details like service record with history (performance), training imparted, punishments given, involvement in

S. No.	Reference to Bidding Document (Consisting of Part, Section, Volume, Reference Clause, Page no. etc.)	As Per Tender	Clarification sought by the Bidders	DFCC's Response
	48	The database will have all the information related to Personnel & Safety of all Train Running Crew.		accidents, etc. are to be covered. The data of train running crew shall be provided by the Engineer/Employer.
375	Part 2, Section VI, Volume 3, Clause 2.3 (24) (g), Page 48	Getting daily report of planned booking and actual booking of Train Running Crew shall be possible. Generation of Monthly Reports of individual Train Running Crew in terms of daily KMs & Duty Hours shall be possible based on real time data from TMS. It shall also be possible to get query based details of Train Running Crew.	Regarding actual booking of crew, is the function necessary that crew controllers at crew lobbies input the start and finish of the work of crew?	Please refer to the provisions of Part 2, Section VI, Volume 3, Clause 2.3.3(24)(e) which are considered sufficiently clear to implement this function.
376	Part 2, Section VI, Volume 2, Clause 3.2.3, Page 11	Computer Simulation	Will SCADA be involved in Computer Simulation? If so how?	Please refer Addendum 3 (S.No.21).
377	Part 2, Section VI, Volume 2, Clause 4.4.2 5) (b), Page 23	Cross Acceptance Criteria and RDSO	Please confirm whether RDSO standards are applicable to SCADA Control Room and RTU scope.	Please refer Chapter 10 of Part 2, Section VI, Volume 2.
378	Part 2, Section VI, Volume 2, Clause 4.4.2 6) (g) (x), Page 24	Extended Guarantee for 3 years for indigenization after expiry of Defect Notification Period	Whats the scope of work for Extended Guarantee period?	Please refer Addendum 3 (S.No.27)

S. No.	Reference to Bidding Document (Consisting of Part, Section, Volume, Reference Clause, Page no. etc.)	As Per Tender	Clarification sought by the Bidders	DFCC's Response
379	Part 2, Section VI, Volume 2, Clause 10.2.1 (d), Page 84	The SCADA system shall meet the environmental conditions as specified in Clause 4.2 of these Specifications	4.2 shall be applicable to RTUs, not SCADA OCC equipment. Please confirm	Provisions in Clause 10.2.1(d) (Part 2, Section VI, Volume 2) shall prevail.
380	Part 2, Section VI, Volume 2, Clause 10.2.1 (I), Page 84	All SCADA system equipment shall operate satisfactorily in the very high "electrical noise" environment normally associated with Freight systems due to electrical fields created by traction supplies and strong magnetic fields.	Please confirm whether this clause is applicable to SCADA OCC equipment?	Provisions in Clause 10.2.1 (I), Page 84 Part 2, Section VI, Volume 2 shall prevail.
381	Part 2, Section VI, Volume 2, Clause 10.7, Page 89	IEC 61508	SIL level not mentioned but IEC 61508 is mentioned. IEC 61508 is usually mentioned with a SIL level like 0,1,2,3. IEC 61508 does not look applicable to SCADA system.	Provisions in Clause 10.7, Page 89, Part 2, Section VI, Volume 2 shall prevail.
382	Part 2, Section VI, Volume 2, Clause 10.7 (3), Page 90	The SCADA system shall have an MTTR of 30 minutes.	Is this MTTR for SCADA + RTUs or only SCADA? Please clarify the requirement. This should not include the communication system as well	Please refer Addendum 3 (S.No.52).
383	Part 2, Section VI, Volume 2, Clause 10.10.2 (1) (a), Page 96	The SCADA system shall be capable of acquiring measurands i.e. analogue inputs from the TSS and SP including transients. The measurand data shall be time tagged at OCC.	All data provided by RTUs can be recorded by SCADA. RTUs cannot capture transient data	Please refer Addendum 3 (S.No.54).

S. No.	Reference to Bidding Document (Consisting of Part, Section, Volume, Reference Clause, Page no. etc.)	As Per Tender	Clarification sought by the Bidders	DFCC's Response
384	Part 2, Section VI, Volume 2, Clause 10.10.2 (3) (d), Page 97	Command Abort	3 seconds is too low a time for Command abort	Please refer Addendum 3 (S.No.55).
385	Part 2, Section VI, Volume 2, Clause 10.10.2 (32) (c), Page 108	(c) The overriding authority to the chief SCADA operator shall be delegated in writing by an administrative grade officer empowered to do so	This is a administrative process interlock and cannot be handled through the system.	Please refer Addendum 3 (S.No.56).
386	Part 2, Section VI, Volume 2, Clause (37) (c) (ii), Page 110	Industrial hardware	Please note that Industrial grade servers will not be offered. Commercial grade servers are sufficient for control room purpose. Industrial grade vendors are only Advantech and Moxa. limiting the choice of vendor. Else HP/ IBM/ DELL can be offered. Local User interface for TSS RTUs can be of industrial grade.	Please refer Addendum 3 (S.No.57).
387	Part 2, Section VI, Volume 2, Clause 6.4.4, Page 41	Bonding cable connections between the Lightning arresters and the OHE, and between the surge arrester and the grounding system, shall be installed with a minimum number of bends.	Please clarify, the requirements for the surge arresters to be used.	Please refer Addendum 3 (S.No.35)
388	Part 2, Section VI,	Lighting protection, (3) earthing grid	It is requested to confirm whether it is any	Provisions in clause 6.4.7 Part 2,

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	Volume 2, Clause 6.4.7, Page 41		requirement for this earthing grid.	Section VI, Vol. 2 shall prevail.
389	Part 2, Section VI, Volume 2, Clause 7.6.2, Page 58	Each battery charger shall be capable of supporting the total substation 110V dc operational load.	It is requested to provide a list of the critical services to consider in order the exploitation mode.	Provisions in clause 7.6.2 Part 2, Section VI, Vol. 2 shall prevail.
390	Part 2, Section VI, Volume 2, Clause 7.6.3, Page 58	The substation batteries shall support the substation 110V dc loads for a minimum of 10 hours following 240V ac power or failure of all battery chargers	Please clarify, whether it is possible install another complementary system to assure the power supply if it exist a failure.	Provisions in clause 7.6.3. Part 2, Section VI, Vol. 2 shall prevail
391	Part 2, Section VI, Volume 2, Clause 7.8.2, Page 61	The Contractor shall execute all the Civil works and electrical works at TSS/SSP/SP etc. as per Vol 5 Particular Specifications – Buildings & Structures including E&M.	Please clarify, whether it is necessary design the closed circuit of TV and access control for TSS/SSP/SP.	Refer Addendum 3 (S.No.51).
392	Part 2, Section VI, Volume 2, Clause 8.4 (4), Page 69	Aerial Earth Conductor	Please clarify, whether it is any requirements for the return/zero bus bar cabinet at the substations, SPs and SSPs	Please refer Clause 8.4 (4) and its Addendum 3 (S. No. 42).
393	Part 2, Section VI, Volume 2, Appendix 8 (5), Page 192	The rating and general data of the transformer shall be as follows: type, windings, etc.	It is requested to provide the short circuit power or the current of the Electrical Company.	Please refer Addendum 3 (S.No.36).
394	Part 4		It is requested to provide drawing of the	The yard layouts of Junction and

S. No.	Reference to Bidding Document (Consisting of Part, Section, Volume, Reference Clause, Page no. etc.)	As Per Tender	Clarification sought by the Bidders	DFCC's Response
			open spaces and yard of stations and buildings in order to calculate and design the lighting and path.	crossing stations are provided in Part 4-Reference Documents. These drawings also indicate available land.
395	Part 2, Section VI, Volume 4, Clause 6.1.6, Page 42	Ethernet Services such as Ethernet Private Line (EPL) Services, Ethernet Virtual Private Line (EVPL) Services and Ethernet Local Area Network (E-LAN) shall be extended to Auto Section Location, GSM-R Locations, LC Gates, TSS, SP & SSP using EoS (Ethernet over SDH) of OFC System for meeting the requirements of other Systems within this Contract and outside this Contract as decided by Engineer.	Can we provide only dual L2 ring (No STM4) at the locations where TDM (E1) inputs are not required.	Please refer Addendum 3 (S.No.111).
396	Part 2, Section VI, Volume 4, Clause 6.3.1, Page 43	WAN shall connect OCC with all stations, IMDs and IMSDs, in Ring Topology using Optic Fibre Cable laid along Up and Down Track of DFCCIL. WAN shall be created using Layer-3 Access Switch. As such Layer-3 Switch should be equipped with minimum 4 Nos. 10GigE Fibre Ports for backbone interconnections. Locations of Layer-3 Access Switch can be clubbed based upon design of other	How far are IMD and IMSD from corresponding station.	Please Refer Clause 1.1.10 of Part 2. Section VI, Volume 1 - General Specifications and Part 4 - Reference Documents.

S. No.	Reference to Bidding Document (Consisting of Part, Section, Volume, Reference Clause, Page no. etc.)	As Per Tender	Clarification sought by the Bidders	DFCC's Response
		systems/subsystems under this Contract while meeting overall Packet Data Communication Requirements.		
397	Part 2, Section VI, Volume 4, Clause 6.3.10, Page 44	Security features such as Authentication, Authorization & Accounting (AAA), Secure Shell Protocol (SSH), MAC Limiting per Ethernet Flow-point, Unicast/ Multicat/ Broadcast Storm Control Blocking, Layer-2 ACL, Layer-3 ACLs for IPv4 & IPv6 and DHCP Snooping shall be available on the WAN.	Please let us know the services and the no. of users for sizing the AAA server.	Provisions in the Bidding Document are sufficiently clear. Services and No. of Users shall be determined by Bidder / Contractor.
398	Part 2, Section VI, Volume 4, Clause 6.5.4.1, Page 48	The WAN system shall include, to the extent necessary, the following facilities within the Core Elements of the Design to ensure the requisite Availability of the WAN System: (5) Recovery from Network Failures within 5 m sec.	No OEM offers recovery of Network failures within 5 m sec. We understand that this is a typographical error, it shall be 50 m sec instead of 5 m sec. Please also refer RFCs for recovery of Network Failure for MPLS and MPLS-TP based data network respectively RFC5654 and RFC3469, which clearly indicates the recovery time of 50 m sec of Network Failure. Please confirm.	Please refer Addendum 3 (S.No.116).
399	Part 2, Section VI, Volume 4, Clause	Varifocal Lenses with following minimum specifications shall be	(i) This specification is not for Varifocal Lenses and can be included in 11.5.2.1.4	(i) Please refer Addendum 3

S. No.	Reference to Bidding Document (Consisting of Part, Section, Volume, Reference Clause, Page no. etc.)	As Per Tender	Clarification sought by the Bidders	DFCC's Response
	11.5.2.1.3, Page 104	used for Fixed Box Type IP Video Cameras. 9. Vandal-Proof Arrangement - Required for Outdoor Cameras	for housing arrangements. (ii) HD camera lenses focal lens generally starts from 8mm, so request to modify this as 8-50mm	(S.No.135). (ii) Provisions in the Bidding Document shall prevail in respect of Focal Length.
400	Part 2, Section VI, Volume 4, Clause 11.5.2.1.4, Page 104	Housing arrangement for Fixed Box Type IP Video Cameras shall be designed for both outdoor and indoor use as per requirement. The Housing shall either he integrated with the camera by the manufacturer or it shall be of same make as the camera. The housing shall protect camera and the lens combination and have the following minimum technical specifications and features:	Can the make of camera and housing be different, if they meet rest of the specifications.	No, Provision has been kept to maintain quality. Provisions in the Bidding Document shall prevail.
401	Part 2, Section VI, Volume 1, Clause 1.3.7, Page 14	The Contractor shall be responsible for addressing design development from preliminary stage to detailed design stage including obtaining "No Objection Certificate" (NOC) and approval from relevant authorities and construction/Installation interfaces with all other applicable railway systems of the Project and Indian Railways and systems of public services, utilities and third parties,	For connecting 2 IR stations, OFC route goes outside the Land Boundary of EDFC. (Bhaupur = 6.4 Km & Kuberpur = 7.5 Km) Who will bear ROW charges of Municipal Corp., NHAI, PWD etc.	For the Kuberpur and Bhaupur links to be provided, land have been acquired by DFCCIL and OFC will be lead within the existing ROW.

S. No.	Reference to Bidding Document (Consisting of Part, Section, Volume, Reference Clause, Page no. etc.)	As Per Tender	Clarification sought by the Bidders	DFCC's Response
		etc. which are located adjacent or parallel to the Project.		
402	Part 2, Section VI, Volume 4, Clause 5.3.3.2, Page 29	All works from/up to RCIL POPs at Bhaupur and Allahabad shall be carried out by Contractor	Distances of RCIL POP at Bhaupur and Allahabad from corresponding station is required. Who will bear ROW Charges in case OFC is going outside the land boundary of EDFC	1. Please refer Part 4 - Reference Documents. 2. Cables shall be laid along the IR/EDFC tracks.
403	Part 2, Section VI, Volume 4, Clause 11.5.2.3, Page 106	High Speed P/T/Z DOME IP Camera The camera shall meet the following minimum technical requirements:	Typically HD PTZ has only up to 18x optical zoom from most OEMs. 35X seems to be coming from old SD specs. Please clarify. There seems to be a typo error. We recommend modifying this as 0.5 lux and 0.05lux in line with other two cameras indicated above.	Please refer Addendum 3 (S.No.137&138).
404	Part 2, Section VI, Volume 4, Clause 11.5.2.8, Page 108	External Storage Device with RAID 5 Protection:	Please note latest technology servers can accommodate large RAID-5 configured storage devices (up to 48TB) within the server chassis which avoid the use of external storage box. This reduces the interconnections, reduces point of failure, reduces electricity and Air conditioner load, and requires less rack space. So considering these advantages we request to allow the use of latest technology servers with built-in RAID-5 storage devices.	Please refer Addendum 3 (S.No.139&140).

S. No.	Reference to Bidding Document (Consisting of Part, Section, Volume, Reference Clause, Page no. etc.)	As Per Tender	Clarification sought by the Bidders	DFCC's Response
405	Part 2, Section VI, Volume 4, Clause 11.3.1.2, Page 101	The IP Fixed/PTZ Video Cameras shall be strategically placed to ensure 100% coverage of all Entrances & Exits, Boundary Wall of OCC Building Complex, all Lift Lobbies at all floors, Office Reception area, Entrance/Exit to OCC theatre, OCC Theatre, Conference Rooms, Plant & Equipment Rooms, Entrance/Exit to Plant & Equipment Rooms, etc.	Please provide the exact quantity of cameras of each type.	Provisions in the Bidding Documents are sufficiently clear. Quantities of Cameras of each type to be determined by the Bidder/Contractor.
406	Part 2, Section VI, Volume 4, Clause 11.3.1.3, Page 101	The coverage of Entrances/Exits, Lift Lobbies, Entrance/Exits to OCC Theatre, Corridors, Entrance/Exits to Plant & Equipment Rooms shall be provided with Fixed Box Type IP Video Cameras.	Please provide the exact quantity of cameras of each type.	Provisions in the Bidding Documents are sufficiently clear. Quantities of Cameras of each type to be determined by the Bidder/Contractor.
407	Part 2, Section VI, Volume 4, Clause 11.3.1.4, Page 101	The coverage of Office Reception areas, OCC Theatre, Plant & Equipment Rooms, Conference Rooms, etc. shall be provided with Fixed Dome Type IP Video Cameras.	Please provide the exact quantity of cameras of each type.	Provisions in the Bidding Documents are sufficiently clear. Quantities of Cameras of each type to be determined by the Bidder/Contractor.
408	Part 2, Section VI, Volume 4, Clause 11.3.1.5, Page 101	The coverage of Boundary Wall of OCC Building Complex shall be provided with PTZ Dome Type IP Video Cameras.	Please provide the exact quantity of cameras of each type.	Provisions in the Bidding Documents are sufficiently clear. Quantities of Cameras of each type to be determined by the

S. No.	Reference to Bidding Document (Consisting of Part, Section, Volume, Reference Clause, Page no. etc.)	As Per Tender	Clarification sought by the Bidders	DFCC's Response
				Bidder/Contractor.
409	Part 2, Section VI, Volume 4, Clause 11.3.7, Page 101	Video Recording: The Video Recorder shall be capable of operation for 24 hours per day, 365 days a year. The recording shall be preferably stored for at least 30 days at HD Resolution, 12 FPS. The Video Recorder System should, however, be capable of recording at HD Resolution, 25 FPS for all Cameras. The Storage Device for recording shall be External with RAID 5 Protection.	Please note latest technology servers can accommodate large RAID-5 configured storage devices (up to 48TB) within the server chassis which avoid the use of external storage box. This reduce the interconnections, reduce point of failure, reduce electricity and Air conditioner load, requires less rack space. So considering these advantages we request to allow the use of latest technology servers with built-in RAID-5 storage devices.	Please refer Addendum 3 (S.No.133).
410	Part 2, Section VI, Volume 4, Clause 11.5.2.1.1, Page 103	Fixed Box Type IP Cameras shall have following technical specifications as a minimum:	Please note shutter speed of 1/100000 was required and available in old technology cameras where manual iris lenses were used. With new generation CMOS cameras with Auto Iris lenses shutter speeds are limited to 1/10000 and are sufficient for any field requirement. So we request you to modify this to 1/10000	Please refer Addendum 3 (S.No.134).
411	Part 2, Section VI, Volume 4, Clause 5.3.4.8, Page 30	SDH Equipments shall be equipped with Ethernet over SDH (EoS) as per ITU-T Rec. G.7041 at 10/100 BaseT. This Ethernet over SDH (EoS) shall facilitate delivery of Ethernet Private Line (EPL)	The EoS shall support Layer-2 encapsulation and forwarding through Multiprotocol Label Switching (MPLS) Please delete as it is not required in such boxes OR	Requirement has been kept for functional needs. Provisions in the Bidding Document shall prevail.

S. No.	Reference to Bidding Document (Consisting of Part, Section, Volume, Reference Clause, Page no. etc.)	As Per Tender	Clarification sought by the Bidders	DFCC's Response
		Services, Ethernet Virtual Private Line (EVPL) Services and Ethernet Local Area Network (E-LAN) Services. The EoS shall support Layer-2 encapsulation and forwarding through Multiprotocol Label Switching (MPLS).	As Layer-2 module shall provide the switching functionality. As per our understanding of above clause; the module shall transparently pass the MPLS Labels. Please confirm	
412	Part 2, Section VI, Volume 4, Clause 5.3.7.7, Page 32	The Flexible Access Multiplex Equipment shall be provided with 1+1 Redundancy for all Channel levels (Voice, Data, etc). Further Redundancy of Control & Power Supply Modules/Cards shall also be provided to ensure that a single failure shall not affect the availability of the Flexible Access Multiplex Equipment.	Is controller card protection of PD Mux necessary? Please change it to Single Controller as it will not affect traffic even if this card is down	Please refer Addendum 3 (S.No.106).
413	Part 2, Section VI, Volume 4, Clause 5.3.9.1, Page 33	A Service Telephone/Engineers Order Wire with handset shall be provided at each SDH node location for point to point and multipoint voice communication calls between maintenance staff at different node locations. It shall permit selective and group call functions.	Group Call is not possible. Pt. to pt. call is possible only. Please clarify, will group call be also required	Group calls are possible. Provisions in the Bidding Document shall prevail.
414	Part 2, Section VI,	OF Cable Interference Detection	This feature is not part of SDH technology.	Please refer Addendum 3 (S.No.107).

S. No.	Reference to Bidding Document (Consisting of Part, Section, Volume, Reference Clause, Page no. etc.)	As Per Tender	Clarification sought by the Bidders	DFCC's Response
	Volume 4, Clause 5.3.8.1, Page 33	System based upon Distributed Fiber Acoustic Sensing Technology shall be deployed, which shall detect any digging activities within 5 Meter radius	Please specify which technology support it and does it really work in Railway environment? Also please check this feature shall not be single vendor dependent.	
415	Part 2, Section VI, Volume 4, Clause 4.3.2, Page 27	Unless otherwise specified, all telecommunication equipment shall be designed for operation continuously in temperatures of -5°C to +55°C.	As per Indian Telecom Standard these items remain in room and temperature should be 0-40 C.	Clauses 4.3.3 & 4.3.5 should be read in conjunction with amended Clauses 4.3.2 & 4.3.4. Please refer Addendum 3 (S.No.102).
416	Part 2, Section VI, Volume 4, Clause 7.5.8.1, Page 63	The Telephone System shall be expandable to include additional PBXs into the PBX Network without affecting the performance and the operation of the Telephone System. The Telephone Network Management System shall be expandable to control and monitor the additional PBXs required for expansion of the network.	Please provide more Clarity.	Provisions in the Bidding Document are sufficiently clear.
417	Part 2, Section VI, Volume 4, Clause 7.5.4.5, Page 61	The VRS shall automatically changeover to the standby module within 1 second for the standby unit to become active and start recording under the following conditions:	The changeover delay shall be more than 1 minutes. Because the requirement is centralized logger and same shall be taken on CTI based and interface through E1 and LAN. Not possible in this hierarchy	Please refer Addendum 3 (S.No.121).

S. No.	Reference to Bidding Document (Consisting of Part, Section, Volume, Reference Clause, Page no. etc.)	As Per Tender	Clarification sought by the Bidders	DFCC's Response
418	Part 2, Section VI, Volume 4, Clause 7.5.4.5, Page 62	(1) pre-scheduled daily changeover from the active to the standby module;	Since the logger Taken a CTI based, in this One behave as a Main and other behave as a standby. And changeover shall only when the main logger have a problem. Not possible in this hierarchy Please clarify	Please refer Addendum 3 (S.No.121).
419	Part 2, Section VI, Volume 4, Clause 7.5.1.8, Page 59	(2) shall connect long distance subscriber lines with loop resistance upto 2400 Ohms and minimum leakage of 15 K ohms; and	In today technology scenario there is no long distance card having 2400 ohm. Request you to make amendment with 1200ohm, which can go upto 10km on 0.6mm cable.	Please refer Addendum 3 (S.No.120).
420	Part 2, Section VI, Volume 4, Clause 7.3.6.2, Page 56	The Telephone Network Management System shall provide control, supervision and maintenance functions for the Administrative Telephone Network and Direct Line Telephone Network. The following management and administrative functions shall be provided through the use of the centralized maintenance console:	Plz include network Topology view of the telephone system.	Provisions in the Bidding Document are sufficiently clear. Network Topology shall be developed by Bidder / Contractor.
421	Part 2, Section VI, Volume 4, Clause 7.5.8.1, Page 63	The Telephone System shall be expandable to include additional PBXs into the PBX Network without affecting the performance and the operation of the Telephone System. The Telephone Network	Please provide more Clarity.	Provisions in the Bidding Document are sufficiently clear.

S. No.	Reference to Bidding Document (Consisting of Part, Section, Volume, Reference Clause, Page no. etc.)	As Per Tender	Clarification sought by the Bidders	DFCC's Response
		Management System shall be expandable to control and monitor the additional PBXs required for expansion of the network.		
422	Part 2, Section VI, Volume 4, Clause 8.1.3.4, Page 64	It is envisaged that Network Sub-systems (NSSs) of MTRC System of Indian Railway used for Ghaziabad-Kanpur Section shall also be used for MTRC System of Bhaupur-Khurja Section of EDFC. As such Network Sub-systems (NSSs) of MTRC System of Indian Railway shall be suitably upgraded, if required, by the Contractor to meets the requirements of Bhaupur-Khurja Section of EDFC.	The GSM-R equipment proposed for Eastern DFCC needs to be integrated with the MSC in Kolkata. This MSC has not been installed yet. As the proposed Kolkata MSC is to be used by multiple railway lines DFCC needs to reserve the desired E1s and signalling links on the MSC as required for the integration and the same are available during integration and during the duration of the contract.	Up-gradation / Augmentation Requirements of Network Sub-systems (NSSs) of MTRC System of Indian Railway, if required, shall be determined by Bidder/Contractor and is within the scope of work under this Contract.
423	Part 3 : Condition of Contract and Contract Forms	Time for Completion: Whole of the Works: 1100 Days from the Commencement Date.	To meet these obligations DFCC needs to ensure that the MSC in Kolkata does not become "End of Life" during this period and it is supported all throughout during this period with proper maintenance contracts for the bidder to be able to meet its obligations under the contract.	The replacement of MSC after the End of Life shall be the responsibility of IR.
424	Part 2, Section VI, Volume 4, Clause 3.1.2, Page 20	The System shall be so designed as to have a minimum of 15 years of service life operating continuously. The life of all the	To meet these obligations DFCC needs to ensure that the MSC in Kolkata does not become "End of Life" during this period and it is supported all throughout during this	The Contractor shall be responsible only for equipments provided under this Contract.

S. No.	Reference to Bidding Document (Consisting of Part, Section, Volume, Reference Clause, Page no. etc.)	As Per Tender	Clarification sought by the Bidders	DFCC's Response
		cables including Optical Fibre Cables, Jelly Filled Telecom Quad Cable, Telephone Cables, RF Cables shall not be lower than 25 years. Life of Radio Towers/Mast shall not be less than 40 years.	period with proper maintenance contracts for the bidder to be able to meet its obligations under the contract.	
425	Part 2, Section VI, Volume 1, Clause 5.1.7, Page 63	The material delivered to the Site and offered for Inspection shall be manufactured normally not earlier than one (1) year and their guarantee period shall cover the Defects Notification Period. However the specified period of Manufacturer's Warranty shall commence from the date of commissioning of the Work and all the manufacturer's Warranties shall be in the name of the Employer.	To meet these obligations DFCC needs to ensure that the MSC in Kolkata does not become "End of Life" during this period and it is supported all throughout during this period with proper maintenance contracts for the bidder to be able to meet its obligations under the contract.	Noted.
426	Part 2, Section VI, Volume 1, Clause 6.5/3C, Page 94	Establishment in India to undertake Annual Maintenance Contract (AMC) during the service life of the equipment	To meet these obligations DFCC needs to ensure that the MSC in Kolkata does not become "End of Life" during this period and it is supported all throughout during this period with proper maintenance contracts for the bidder to be able to meet its obligations under the contract.	Contractor's responsibility shall be limited to permanent works only
427	Part 2, Section VI, Volume 4, Clause	(1) Base Station Sub-system (BSSs) of Base Station	Bidder understands that it has to provide the coverage on the detours only and not	Provision in the Bidding Document are sufficiently clear.

S. No.	Reference to Bidding Document (Consisting of Part, Section, Volume, Reference Clause, Page no. etc.)	As Per Tender	Clarification sought by the Bidders	DFCC's Response
	8.4.1.1, Page 78	Controllers(BSCs) controlling Base Transceivers Stations (BTSs) each containing a number of transceivers (TRXs). In sections, where track alignment of Bhaupur-Khurja Section of EDFC is running parallel to the existing Ghaziabad-Kanpur Section of Indian Railway, Base Transceivers Stations (BTSs) of Indian Railway will be shared by DFCCIL. Any up-gradation or strengthening required for smooth handover, at BTSs of Indian Railway shall be done by Contractor. However in sections, where track alignment of Bhaupur-Khurja Section is taking a detour and cannot be served by Base Transceivers Stations (BTSs) of Indian Railway, new Base Transceivers Stations (BTSs) of DFCCIL shall be provided by Contractor for adequate RF coverage. These BTS shall be controlled by BSCs to be installed at OCC. This BSCs will be linked to the existing Network Sub-systems (NSSs) of MTRC System of Indian Railway used for Ghaziabad-Kanpur Section. Accordingly BSCs	on the line parallel to IR. Bidder shall not be responsible for the upgrade or reconfiguration or relocation of the existing BTS sites on the IR network.	Any upgradation or strengthening required for smooth handover, at BTSs of Indian Railway shall be done by the Contractor.

S. No.	Reference to Bidding Document (Consisting of Part, Section, Volume, Reference Clause, Page no. etc.)	As Per Tender	Clarification sought by the Bidders	DFCC's Response
		and associated network elements constituting the Base Station Sub-system (BSSs) shall be compatible with this Network Sub-systems (NSSs) of MTRC System of Indian Railway used for Ghaziabad-Kanpur Section. The Base Station Sub-system (BSSs) should fulfill all interoperability criteria with existing Network Sub-systems(NSSs) of MTRC System of Indian Railway and should be supported with IOT documentation. Base Station Sub-system (BSSs) to be provided under this Contract shall be capable of supporting data communications for train control system i.e. ETCS Level-2.		
428	Part 2, Section VI, Volume 4, Clause 8.4.1.1, Page 80	(4) Voice Recording System (VRS) interfaced to above Network Sub-systems (NSS) for recording voice communications taking place on RDC, Cab Radio and OPH. Further details of this VRS are covered in Chapter-7 of this Particular Specification.	Bidder understands that VRS is to be provided by the EPABX and DTS. Please confirm.	Please refer Clauses 7.3.5.2 & 7.5.4.1.
429	Part 2, Section VI, Volume 4, Clause	(5) Short Message Service Centre(SMSC) interfaced to above	Is SMSC part of existing deployed network or a new SMSC is to be proposed by the	Provisions in the Bidding Document are sufficiently clear.

S. No.	Reference to Bidding Document (Consisting of Part, Section, Volume, Reference Clause, Page no. etc.)	As Per Tender	Clarification sought by the Bidders	DFCC's Response
	8.4.1.1, Page 80	Network Sub-systems(NSS) for exchange of text messages between ground and mobile(s) or mobile to ground. This SMSC shall be provided with GUI Interface to be provided at OCC.	bidder?	This SMSC, to be provided at OCC.
430	Part 2, Section VI, Volume 4, Clause 4.1.1.6, Page 24	Preliminary Design of individual subsystems shall be prepared and submitted to the Engineer for review, which includes, as a minimum, the function of each system, sub-system, equipment or other element within the overall SRS and specify the relationship and interfaces between each element of the system, including the systems of the interfacing elements of the other Contractors. Along with Preliminary Design, certificates from accredited organization/agency certifying compliance to Standards/Specification for proposed equipment's shall be submitted.	Please list the accredited organizations / agencies (for various systems of telecom package like EPABX, SDH, GSMR, LAN / WAN etc.) whose certificate shall be acceptable to DFCC.	The accredited organization/agencies shall be proposed by Contractor and approved by Engineer during Design Stage.
431	Part 2, Section VI, Volume 4, Clause 5.3.4.9, Page 30	In order to realize the above mentioned services, there shall be in-built Layer-2 Bridging &	IEEE 802.1d calls for STP (Spanning tree protocol) protection, which is having a convergence time in seconds, whereas in	Request not agreed. Provisions in the Bidding Document

S. No.	Reference to Bidding Document (Consisting of Part, Section, Volume, Reference Clause, Page no. etc.)	As Per Tender	Clarification sought by the Bidders	DFCC's Response
		Aggregation functionality as per IEEE 802.1d. There shall be support for VLAN Stacking (Q-in-Q) as per IEEE 802.1ad on all ports. The equipment shall support Ethernet Link OAM in accordance with IEEE 802.3ah. The equipment shall also support Link Aggregation & Protection on service and trunk ports as per IEEE 802.3ad.	telecom scenario the switching time shall be in order of 50ms. ITU-T has defined a Ethernet Ring Protection as per ITU-T G.8032 which entail 50ms switching time for ethernet traffic to switch over. We request to include ITU-T G.8032 ERPS protection scheme for fast switching in case of fiber failures.	shall prevail.
432	Part 2, Section VI, Volume 4, Clause 5.3.5.7 (3), Page 31	Other Data Circuits or Ethernet 10/100 Ports or 4W E&M Circuits or bare fibres for Vital & Safety Related Signal Control Circuits including Track Vacancy Detection.	Please confirm if PCM cards are required	Requirement of cards against clause 5.3.5.7 (3) is to be determined by the Bidder / Contractor.
433	Part 2, Section VI, Volume 4, Clause 5.3.5.7 (4), Page 31	Sub 2Mbps Voice Circuits for Telephone System, LC Gate Communication, Emergency Communication, Auto Signal Hut Communication and TSS/SP/SSP Communication.	Is this related to N*64Kbps cross connect?	Query not clear.
434	Part 2, Section VI, Volume 4, Clause 6.3.6, Page 43	Layer-3 Services such as IPv4 Routing, Border Gateway Protocol (BGP), Intermediate System-to-Intermediate System (IS-IS), Open Shortest Path First (OPSF), Hot Standby Router Protocol (HSRP),	HSRP is OEM specific protocol, we can support open standard "VRRP". Please remove HSRP from this clause	Please refer Addendum 3 (S.No.112).

S. No.	Reference to Bidding Document (Consisting of Part, Section, Volume, Reference Clause, Page no. etc.)	As Per Tender	Clarification sought by the Bidders	DFCC's Response
		Virtual Router Redundancy Protocol (VRRP)], IPv6 Routing, Multi Protocol Label Switching, Label Distribution Protocol (LDP), Targeted LDP(T-LDP), Primary & Secondary Label Switched Paths, MPLS L3 VPN, Resource Reservation Protocol (RSVP), MPLS Traffic Engineering (including TE-FRR), Routed Pseudowire, IP-VPN (RFC 2547) and Integrated Routing & Bridging shall be available on the WAN. These services shall be implemented to cater for the communication requirements of various systems under this Contract as well as outside this Contract.		
435	Part 2, Section VI, Volume 4, Clause 6.5.1.8, Page 46	Switches shall support Online Software Reconfiguration to implement changes without rebooting. The OS for the switches must be modular. A certificate to this effect shall be provided by the OEM of the switch.	Modular OS is OEM specific. For General participation by all OEM, please remove this clause.	Please refer Addendum 3 (S.No.113).
436	Part 2, Section VI, Volume 4, Clause 6.5.1.10, Page 46	Layer-3 Switches shall have console port with a RS-232 Interface for configuration and	Please amend this clause as RS-232/RJ-45 based console port.	Please refer Addendum 3 (S.No.114).

S. No.	Reference to Bidding Document (Consisting of Part, Section, Volume, Reference Clause, Page no. etc.)	As Per Tender	Clarification sought by the Bidders	DFCC's Response
		diagnostics purposes.		
437	Part 2, Section VI, Volume 4, Clause 6.5.2.11, Page 47	Layer-2 Switches shall have console port with a RS-232 Interface for configuration and diagnostics purposes.	Please amend this clause as RS-232/RJ-45 based console port.	Please refer Addendum 3 (S.No.115).
438	Part 2, Section VI, Volume 4, Clause 6.5.3.2, Page 47	Facilities shall be provided to protect against Malicious Activities on the Networks, including Attacks from Viruses, Hacking, Hijacking, Spoofing and other Malicious Events that may compromise the Integrity of the Networks. Such Attacks shall include Sources within as well as outside the Networks.	This clause should only be applicable to Layer-3 switches & should be kept optional for layer-2 switches. Request to amend this clause. Is SFC looking for Firewall/ IPS/UTM solution? If yes then this Network will no more remain as close network and no more suitable for railway signaling as per standard applicable to network requirements for signaling. Please clarify in details purpose of this requirement and dimensioning detail of hardware required	Data network shall not be a Closed Network. Provisions in the Bidding Document shall prevail.
439	Part 2, Section VI, Volume 4, Clause 6.5.4.1, Page 48	1) Redundant Hardware.	Please specify redundant component like Power/Fan/controller etc	Provisions in the Bidding Documents are sufficiently Clear.
440	Part 2, Section VI, Volume 4, Clause 6.5.4.1, Page 48	6) Hot-swap Capability.	Please specify hot-swapping capability? Is it interface cards/power module etc	Provisions in the Bidding Documents are sufficiently Clear.
441	Part 2, Section VI, Volume 4, Clause	7) Facility for Upgrade of Software & Firmware without any significant	Please specify the definition of significant loss?	Please refer Addendum 3 (S.No.117).

S. No.	Reference to Bidding Document (Consisting of Part, Section, Volume, Reference Clause, Page no. etc.)	As Per Tender	Clarification sought by the Bidders	DFCC's Response
	6.5.4.1, Page 48	loss of Service.		
442	Part 2, Section VI, Volume 4, Clause 7.3.3.8, Page 50	The telephones at OCC and Stations shall be directly terminated at PBXs, while telephones at locations other than OCC and Stations shall be either directly terminated at PBXs(if feasible) or connected to the nearest PBX via the OFC System.	Details of extensions terminated on OFC to be provided to decide on SIP or analog extensions	Provisions in the Bidding Document are sufficiently clear.
443	Part 2, Section VI, Volume 4, Clause 7.3.3.10, Page 50	Voice Mail System (VMS) shall be provided and integrated with the PBX Network to enable administrative telephone users to leave, retrieve and broadcast voice messages. Voice Mail shall only be provided to pre-selected groups of staff or telephones.	Details of number of users for VMS to be provided	Please refer Clause 7.5.3.3.
444	Part 2, Section VI, Volume 4, Clause 7.3.4.6, Page 55	Direct Line Telephones	Details of number of users for VMS to be provided	Please refer Clause 7.5.3.3.
445	Part 2, Section VI, Volume 4, Clause 7.3.4.2, Page 53	The Direct Line Telephone Network shall be build using PBXs at OCC and Stations. However, PBXs shall have separate extension cards and separate digital trunk lines to make Direct Line Telephone Network	In specification dedicated Interconnection digital trunks for DLT network is mention. Can we consider dedicated IP channels for the same.	Provisions in the Bidding Document shall prevail.

S. No.	Reference to Bidding Document (Consisting of Part, Section, Volume, Reference Clause, Page no. etc.)	As Per Tender	Clarification sought by the Bidders	DFCC's Response
		more reliable and non-blocking.		
446	Part 2, Section VI, Volume 4, Clause 7.3.3.3, Page 50	In addition to above, 6(six) IP Video Phones shall be provided at OCC and 1(one) IP Video Phones shall be provided at each Station.	Number of required Analog ports and digital ports different in clause 7.3.3.1 and 7.5.1.3 which one we have to consider for the final BOM. Pls give more clarity on BOM	Clause 7.3.3.1 covers requirement of Telephone Sets to be provided as part of Administrative Telephone Network, while Clause 7.5.1.3 covers the requirements of Equipped Ports to be provided in PBXs as part of Administrative Telephone Network. Please refer Addendum 3 (S.No.119).
447	Part 2, Section VI, Volume 4, Clause 7.5.1.3, Page 59	PBXs to be supplied, installed and commissioned for Administrative Telephone Network shall be equipped to, as a minimum and not limited to, the following:	Number of required Analog ports and digital ports different in clause 7.3.3.1 and 7.5.1.3 which one we have to consider for the final BOM. Pls give more clarity on BOM	Clause 7.3.3.1 covers requirement of Telephone Sets to be provided as part of Administrative Telephone Network, while Clause 7.5.1.3 covers the requirements of Equipped Ports to be provided in PBXs as part of Administrative Telephone Network. Please refer Addendum 3 (S.No.119).
448	Part 2, Section VI, Volume 4, Clause 7.5.2, Page 60	VOIP based Telephony Network	We need to consider the VOIP based EPABX as completely different EPABX or its a part of PBX network? If VOIP based EPABX is different EPABX in that case communication between both the EPABX is required or not (If yes then on which media (IP Trunks or Digital Trunks)?	Provisions in the Bidding Document are sufficiently clear.
449	Part 2, Section VI,	The Call Servers and Media	In VOIP EPABX specifications of IP phone	Provisions in the Bidding Document are

S. No.	Reference to Bidding Document (Consisting of Part, Section, Volume, Reference Clause, Page no. etc.)	As Per Tender	Clarification sought by the Bidders	DFCC's Response
	Volume 4, Clause 7.5.2, Page 60	Gateways of this VOIP based Telephony Network shall be equipped to support 200 IP Voice Phones and 100 IP Video Phones.	is not mention. Please share the same.	sufficiently clear. As IP Voice Phones are not to be provided under this Contract, specifications of the same is not mentioned.
450	Part 2, Section VI, Volume 4, Clause 7.3.3.6, Page 50	In case of failure of E1 link(s) between PBXs, all calls should be routed via IP Telephony Server using IP link(s) over WAN as an alternate route, without requirement of any manual intervention.	Can we consider IP trunks as first priority for interconnection and E1 Digital trunk as secondary link or backup link?	Provisions in the Bidding Document shall prevail.
451	Part 2, Section VI, Volume 4, Clause 8.2.1.1 (2) (C), Page 66	bearer service for train control application;	The Data requirements here is circuit switched data not packet data. (e-mail, internet etc) . Please confirm? Please specify the Circuit data speed i2. 2.4/3.6/4.2/9.6 kbps etc.	Please refer Clause 8.4.1.1 (1). Accordingly MTRC System shall support bearer service for train control application/system i.e. ETCS Level-2.
452	Part 2, Section VI, Volume 4, Clause 8.4.1.3, Page 80	All major equipment and component of the MTRC System shall have redundant engineering to minimize the effects of the failure of such equipment to the operations and performance of the MTRC System.	The existing MTRC system is non-redundant system. Please clarify if bidder has to create redundancy for new BTS/BSC only and nothing to do on existing equipment.	Provisions in the Bidding document are sufficiently clear. The contractor shall be responsible for redundant engineering for all major equipments and components provided under this contract.
453	Part 2, Section VI, Volume 4, Clause	The coverage level shall also be designed to provide satisfactory	We understand that the indoor coverage criteria of OPH/GPH are applicable to	Please refer Addendum 3 (S.No.128).

S. No.	Reference to Bidding Document (Consisting of Part, Section, Volume, Reference Clause, Page no. etc.)	As Per Tender	Clarification sought by the Bidders	DFCC's Response
	8.4.3.5, Page 83	indoor and outdoor coverage for an operational radio & general purpose radio for all areas as specified, including indoor areas for which an extra margin should be considered. Accordingly minimum field strength of -73 dBm at 4 meter above ground in outdoor terrain shall be available.	detour section (new BTS) only. The existing section is not deployed for -73dBm level.	
454	Part 2, Section VI, Volume 4, Page 66 & 83	There are two clauses in the document which state that the coverage should be provided at 1.5 m as well as 4m. (pg 66 & pg 83)	The concern is that whether we need to consider MS height of 1.5m or 4m while preparing the Link Budget, because in both cases we will get different cell radius.	Please refer Addendum 3 (S.No.123).
455	Part 2, Section VI, Volume 4, Clause 8.2.7.3, Page 70	For post incident analysis, all operation speech and data calls of Cab Radio shall be recorded.	Is it acceptable for this to be in a central location rather than within the cab radio itself?	Please refer to Clause 7.3.5.2 & 7.5.4.1.
456	Part 2, Section VI, Volume 4, Clause 8.2.19.2 (14), Page 77	It shall be possible to define emergency group Ids;	Will these Group IDs be known before the Cab Radio is delivered or must the Cab Radio be able to recognise these new IDs as emergency ones when they are set?	Please refer Addendum 3 (S.No.126).
457	Part 2, Section VI, Volume 4, Clause 8.4.1.8 (1), Page 81	5 (Five) Sets of Cab Radio complete with power supply, battery pack, antenna and accessories,;	The term 'battery pack' is used here but there is no mention of it within the earlier section. Is a battery needed for the Cab Radio and, if so, what capacity? EIRENE SRS 5.7.14 specifies 'at least 1 hour'.	Please refer Addendum 3 (S.No.127).

S. No.	Reference to Bidding Document (Consisting of Part, Section, Volume, Reference Clause, Page no. etc.)	As Per Tender	Clarification sought by the Bidders	DFCC's Response
458	Part 2, Section VI, Volume 4, Clause 8.1.4.1 (5), Page 65	Cab Radios and associated hardware/accessories	Please specify battery backup requirement for cab radio. Kindly confirm if 2W or 8W Fixed Radio Terminal required?	Please refer to amended Clause 8.4.1.8 (1) for the Requirements of Battery back-up. Please refer Addendum 3 (S.No.124) for amended Clause 8.2.10.7.
459	Part 2, Section VI, Volume 3, Clause 2.3.3 (22) g (iv), Page 46	Exchanging one Train ID with another train describer tag.	As train ID's are unique and are linked to other parameters like Destination, Type of load, crew etc, implementing this function may affect many parameters. Hence, we suggest that there will be some limitations in this function (for e.g.: can exchange ID's of train with same types of load) or removal of this requirement.	It is considered that the function is viable and any change/ removal is not agreed. Therefore, the existing provision shall prevail.
460	Part 2, Section VI, Volume 3, Clause 2.3.3 (25) b (iv), Page 49	Analytical report of various unusual occurrences, i.e. Signal failures, OHE breakdown, Loco failure, Sick wagons etc. This can be again generated on daily, weekly or monthly basis on prescribed format.	We understand that information of Loco failure and Sick wagons shall be entered by SM/OCC controller for this purpose. Please confirm.	Yes, this understanding is correct. The information of Loco failure and Sick wagons will be manually entered.
461	Part 2, Section VI, Volume 3, Clause 2.3.3 (26) k, Page 50	The simulation of downloaded Events Log & Alarms for replay shall be possible. This simulation shall be possible in real time or in reduced/accelerated time scale. When replay is started, the dynamic status for infrastructure, Train ID, Alarm List as well as the pictures	We understand this requirement is for replaying of recorded events/alarms. In such case, no simulation but archived data of real-time would be used for recreating dynamic status of infrastructure, train ID. etc. would be available as mentioned under this clause. But, controlling of parameters shall be available on simulation function but	Yes, the understanding is correct.

S. No.	Reference to Bidding Document (Consisting of Part, Section, Volume, Reference Clause, Page no. etc.)	As Per Tender	Clarification sought by the Bidders	DFCC's Response
		on the screen shall be initialized. It shall be possible to perform studies on this simulation by changing various dynamic parameters such as Speed Limit on Signals, Temporary & Permanent speed Restrictions, Braking Characteristics, Driver's Reaction time etc.	not on replay function.	
462	Part 2, Section VI, Volume 3, Clause 2.2.11 2b, Page 32	The Service and diagnostics (S&D) data network shall be established by networking all data loggers using copper quad cable or OFC channels or dark fibres as appropriate and data of all stations and block sections shall be brought to Signal Fault controller in OCC on the OFC network provided under PS (Telecommunications) Vol. 4 Part 2.	Our understanding is that the data network for S&D need not be exclusive but can be that of TMS. We also understand that this signal fault controller at OCC would be on the TMS LAN itself. Please confirm.	There is no restriction on the combining of the two systems i.e. TMS and S&D. However, as the S&D network has to capture much more information on the health of the Signalling system than being captured by the TMS, it is considered it would be more prudent to keep the two systems separate.
463	Part 2, Section VI, Volume 3, Clause 1.5.1, Page 11	5) Design and Implementation of Interlocking of LC gates as per Appendix 1. This shall include design and implementation of gateman's emergency control system and appropriate display system.	For design and implementation of gateman's emergency control system and display system – when and where the interface will be available	Please refer Part 2, Section VI, Volume 3, Clauses 2.2.2 and 9.4 which define the Contractor's scope as well as implementation methodology.

S. No.	Reference to Bidding Document (Consisting of Part, Section, Volume, Reference Clause, Page no. etc.)	As Per Tender	Clarification sought by the Bidders	DFCC's Response
464	Part 2, Section VI, Volume 3, Clause 2.2.3 (1) (a), Page 16	Each Station control area including adjacent block sections shall have a high integrity electronic interlocking suited to work with a Control terminal for signaling control.	Does every station require an independent full interlocking system. Or is it intended to have local control on the stations only.	There is requirement of local control at every station. Please refer Addendum 3 (S.No. 74).
465	Part 2, Section VI, Volume 3, Clause 2.2.4 (1) (e), Page 18	The primary train detection technique to be used is by the use of Digital Axle Counting technology. Where required, a secondary means of train detection can be used to supplement the primary with the approval of the Engineer.	Please clarify, where you envisage this secondary means of train detection would be required. Scope shall be elaborated.	Refer response to query at S. No. 145
466	Part 2, Section VI, Volume 3, Clause 3.1 of Appendix 5, Page 209	As RH is unmanned, not easily approachable as compared to stations, it is not desirable to keep vital electronic equipment like evaluators of MSDACs at RH. Also keeping evaluators at RH would make all the track sections available at RH, which would require their repetition from RH to stations for indication & signal control circuit. This would increase the number of relays to be repeated from RH to stations. Therefore, in the scheme, the vital electronic equipment like evaluators of	Please confirm where the track status relay is required.	Please refer Addendum 3 (S.No.71).

S. No.	Reference to Bidding Document (Consisting of Part, Section, Volume, Reference Clause, Page no. etc.)	As Per Tender	Clarification sought by the Bidders	DFCC's Response
		MSDACs have been kept at stations only.		
467	Part 2, Section VI, Volume 3, Clause 4.3 of Appendix 5, Page 209	The first DP of a track section shall be located at not more than 13m from the foot of the signal controlled by that track section. The other DP of that track section shall be not less than overlap distance from the foot of the next signal in the direction of movement. For example, DP6 of 10T is at not less than overlap distance (120m in this case) from foot of the signal AS-8.	We understand from the sketch that it shall be DP7 of AS-8 instead of DP6. Please confirm.	Yes. Please refer Addendum 3 (S.No.97).
468	Part 2, Section VI, Volume 3, Clause 4.7 of Appendix 5, Page 209	Evaluator to each DP will require1/2 quad.	Specification shall be generic as some axle counter requires 1 QUAD per wheel sensor also.	Please refer Addendum 3 (S.No.71).
469	Part 2, Section VI, Volume 3		Please clarify whether Signal huts shall be raised to EDFC Rail level by raising the foundation base (since it involves soil filling) which can be avoided.	Please refer response to query at S. No. 58.
470	Part 2, Section VI, Volume 3		Can the Signal Huts be of Potable cabins with required ventilation arrangement? Also the drawing shows roofed arrangement. Please confirm.	Please refer response to query at S. No. 59.

S. No.	Reference to Bidding Document (Consisting of Part, Section, Volume, Reference Clause, Page no. etc.)	As Per Tender	Clarification sought by the Bidders	DFCC's Response
471	Part 2, Section VI, Volume 3		Please confirm the number of staff colonies provided to provide the communication channels.	Please refer response to query at S. No. 60.
472	Part 2, Section VI, Volume 3		Please provide us the details existing Level crossing details which are being modified by CST contractor, to ensure scope bifurcation.	Please refer response to query at S. No. 61.
473	Part 2, Section VI, Volume 3		1. Please confirm the Signal Huts building area. 2 .Where ever Level xing and Signal Hut is at the same location signal hut will be combined with level crossing gate. since the equipment room shown in Gate lodge drawing will not be sufficient for Equipment, etc.,	Please refer response to query at S. No. 62.
474	Part 2, Section VI, Volume 3, Clause 1 (1.2) of Appendix 5, Page 208	1.2 Station to station distance: 10 kms. (max)	Please confirm that the maximum Station to Station is 10 Kms	Chapter 10, Appendix 5 is a Guideline document where the Station to Station distance – 10 Kms has been taken as an example to explain a possible scheme of Automatic Signalling that can be provided using MSDAC. Please refer to Part 4- Reference Documents and Part 2, Section VI, Volume 1 – GS, Clause 1.1.8 for Station to Station distance on DFCCIL.

S. No.	Reference to Bidding Document (Consisting of Part, Section, Volume, Reference Clause, Page no. etc.)	As Per Tender	Clarification sought by the Bidders	DFCC's Response
475	Part 2, Section VI, Volume 3, Clause 1 (1.3) of Appendix 5, Page 208	1.3 Inter signal distance : 1.0 to 1.4 kms	Signal Distance Can be upto 2kms in line with clause 2.2.1(1)	Chapter 10, Appendix 5 is a Guideline document where the Inter signal distance of 1.0 to 1.4 has been taken as an example to explain a possible scheme of Automatic Signalling that can be provided using MSDAC. In DFCCIL, nominal Inter signal distance shall be as per Part 2, Section VI, Volume 3, Clause 2.2.1(1). Also refer Addendum 3 (S.No.71).
476	Part 2, Section VI, Volume 3, Clause 1.3.5, Page 8	It is an objective of this project to install a system that will have a 30 year life, so any system fitted should be capable of a mid-life upgrade with minimal disruption, and be supported for the installation lifetime.	Please update to: "It is an objective of this project to install a system that will have a 30 year design life, so any system fitted should be capable of a mid-life upgrade with minimal disruption, and be supported for the installation lifetime.	Existing provisions shall prevail. Also refer Addendum 3 (S.No.64).
477	Part 2, Section VI, Volume 3, Clause 2.2.1 (2), Page 14	One of the mid section automatic signal in every block section in each direction shall have provision to work as modified semi-automatic stop signal for introducing Modified automatic signaling in accordance with General Rules of Indian Railways.	Can automatic Block Signalling be provided in the entire stretch of the line instead of semi-Automatic modes at locations.	Query not clear. Also, refer Addendum 3 (S.No.65).
478	Part 2, Section VI,	The Gate signals on DFCCIL lines	Can a VDU be also provided for the	No.

S. No.	Reference to Bidding Document (Consisting of Part, Section, Volume, Reference Clause, Page no. etc.)	As Per Tender	Clarification sought by the Bidders	DFCC's Response
	Volume 3, Clause 2.2.2, (2(d)), Page 16	will be interlocked with new ELB and DFCCIL line gate signals and controlling track indications are provided on Domino Type Control cum Indication Panel (CCIP) in the new gate lodge.	Gateman in place of the Domino type CCIP.	
479	Part 2, Section VI, Volume 3, Clause 2.2.3 (1(a)), Page 16	Each Station control area including adjacent block sections shall have a high integrity electronic interlocking suited to work with a Control terminal for signalling control.	Please confirm the requirement of EI in each station.	The provision is sufficiently clear. Existing provisions shall prevail. Please also refer response to query at S. No. 464.
480	Part 2, Section VI, Volume 3, Clause 2.2.3 (2(e(ii))), Page 17	All the Electronic Interlocking shall be interconnected to adjacent interlocking and the TMS on OFC network in such a manner that full network protection against fibre failure is available.	All the Electronic Interlocking shall be interconnected to adjacent interlocking and the TMS on OFC network in such a manner that full network protection against **single** fibre failure is available.	Please refer Addendum 3 (S.No.68).
481	Part 2, Section VI, Volume 3, Clause 2.2.3 (2(e(vi))), Page 18	(vi) Separate I/O Cards shall be used for UP & DN lines.	What is the need for separate I/O cards if they are placed within the same Rack of the EI. This Clause can be removed.	Common I/O cards for UP & DN lines, if provided and fail shall cause failure of signals on both the lines. Hence separate I/O cards for UP & DN lines shall be provided. Existing provisions shall prevail.
482	Part 2, Section VI, Volume 3, Clause	Use of different transmission media like Quad cable and OFC shall	Please clarify in detail the use of the Quad cable and OFC on the Axle counter	Please refer response to query at S. No.

S. No.	Reference to Bidding Document (Consisting of Part, Section, Volume, Reference Clause, Page no. etc.)	As Per Tender	Clarification sought by the Bidders	DFCC's Response
	2.2.4 (2(4(i))), Page 20	preferably be adopted between Field units and Central Evaluator for Main & Supervisory systems and for UP & DN systems.	connectivity.	151.
483	Part 2, Section VI, Volume 3, Clause 2.2.5 (1(a)), Page 21	All the block section Main running signals, except those protecting LC gate shall be automatic signals. The block section signals protecting LC gates and the station main line signals shall be semi-automatic signals. All the Loop line signals shall be Manual signals.	Can automatic Block Signalling be provided in the entire stretch of the line instead of semi-Automatic modes at locations.	Please refer response to query at S. No. 477.
484	Part 2, Section VI, Volume 3		The requirements of all material being inspected by RDSO needs to be removed and limited to only safety critical equipment like EI point machine, relays and MSDAC should be included. All remaining non safety related equipment like Signals and its accessories, Cables etc need not be inspected by RDSO and can be inspected by consignee.	Please refer provisions of Part 2, Section VI, Volume 3, Clause 5.7.2, which are sufficiently clear. Existing provisions shall prevail.
485	Part 2, Section VI, Volume 3, Clause 2.2.9 (1(e)), Page 26	The Control terminal shall be provided with full redundancy (1+1) in hot standby mode. Operation of signaling gear shall NOT be possible simultaneously from both the Control terminals.	What is the need of a redundant control terminal in Hot Standby Mode, Can this be converted into a Cold Stand by for switch over time from one terminal to other. Please note here that TMS WSs would be present to monitor location anyway.	Cold standby shall not be provided. Further, TMS terminal is not a substitute for Control terminal. Existing provisions shall prevail.

S. No.	Reference to Bidding Document (Consisting of Part, Section, Volume, Reference Clause, Page no. etc.)	As Per Tender	Clarification sought by the Bidders	DFCC's Response
486	Part 2, Section VI, Volume 3, Clause 2.2.9 (1(h)), Page 27	Certain operations on the railway are regarded as safety critical and shall be actioned by a two stage command, such as, latched key, simultaneous operation with more than two (02) switches or buttons, or co-operated operation by two persons. Following are examples of safety critical operations:	Two command operations with the VDU should be clarified as the control terminal is a VDU as specified in the ES.	Operation of most of the safety critical functions shall be through VDU only. Axle counter resetting in some cases may not be through VDU.
487	Part 2, Section VI, Volume 3, Clause 2.2.9 (2(b)), Page 27	The Control terminal shall have a latest industrial grade embedded fan less PC with no external drive, colour VDU monitor with minimum size of 32".	Fan less PCs provide less cooling and hence an option should be given to vendor to choose the right type of Industrial Grade PC for this application.	Not Agreed. This is as per RDSO specification. Existing provisions shall prevail.
488	Part 2, Section VI, Volume 3, Clause 2.2.9 (2(d)), Page 27	The Control terminal shall be connected to EI on duplicated OFC laid through diverse routes.	Can also be connected to EI through Serial Port if EI is available locally.	Refer Addendum 3 (S.No.76).
489	Part 2, Section VI, Volume 3, Clause 2.2.11 (1(b)), Page 29	This system shall be able to predict failure of the equipment based on the deterioration of the parameters being monitored, thereby avoiding a potential future failure of signaling system.	It is very difficult for a System to predict failures and normally preventive maintenance can avoid failures hence this clause should be removed.	Not Agreed. Existing provisions shall prevail.
490	Part 2, Section VI,	Service and Diagnostic System	Can this system be part of the other	Please refer response to query at S. No.

S. No.	Reference to Bidding Document (Consisting of Part, Section, Volume, Reference Clause, Page no. etc.)	As Per Tender	Clarification sought by the Bidders	DFCC's Response
	Volume 3, Clause 2.2.11, Page 29		systems like the TMS	462.
491	Part 2, Section VI, Volume 3, Clause 2.2.11, Page 31	i) Point friction clutch worn out.	It is not possible for system to know the friction clutch worn position as the PM supplier OEM and RDSO Specification do not have the device embedded to detect the same.	Existing provisions shall prevail.
492	Part 2, Section VI, Volume 3, Clause 2.2.11, Page 31	v) Signaling Equipment room door monitoring Room opening and closing events.	Signaling Equipment room Door monitoring can be done if the Door Opening is electronic. Please confirm the same.	Please design and provide the facility as specified.
493	Part 2, Section VI, Volume 3, Clause 2.2.11 (2(b)), Page 32	The Service and diagnostics (S&D) data network shall be established by networking all data loggers using copper quad cable or OFC channels or dark fibers as appropriate and data of all stations and block sections shall be brought to Signal Fault controller in OCC on the OFC network provided under PS (Telecommunications) Vol. 4 Part 2	Is the S& D data network based on RDSO approved Data Loggers or another system can be proposed as specified in the other clauses?	There is no specific requirement to provide RDSO approved Data loggers.
494	Part 2, Section VI, Volume 3, Clause 3.2.6 (3), Page 72	The system shall be designed such that the MTTR does not exceed one hour.	MTTR of 1 hour is very difficult to achieve for any contractor and is in contradiction to the requirements of item 4 of the same clause hence needs to be corrected.	There is no contradiction between Part 2, Section VI, Volume 3, clauses 3.2.6(3) & 3.2.6(4). Existing provision shall prevail.

S. No.	Reference to Bidding Document (Consisting of Part, Section, Volume, Reference Clause, Page no. etc.)	As Per Tender	Clarification sought by the Bidders	DFCC's Response
495	Part 2, Section VI, Volume 3, Clause 3.3.8, Page 73	Redundancy shall be used to enable any necessary preventative maintenance to be carried out on off-line systems during Traffic Hours.	Redundancy can only be limited to some systems, all other equipment like PMs, Signals etc cannot be redundant. Hence please clarify this clause.	Refer Addendum 3 (S.No.80).
496	Part 2, Section VI, Volume 3, Clause 3.3.5, Page 72	The Reliability measure for the Signaling System shall be Mean Time between Failures (MTBF).	This should be corrected to Mean time between service affecting failure(MTBSAF)	Not agreed. Existing provisions shall prevail.
497	Part 2, Section VI, Volume 3, Clause 3.4.3, Page 73	The System shall be capable of being maintained, including rectification of failures, with minimal disruption to railway operations (including the need to power down other equipment).	The System equipment shall be capable of being maintained, including rectification of failures, with minimal disruption to railway operations (including the need to power down other equipment).	Existing provisions shall prevail. There is hardly any difference between what exists and what is being proposed.
498	Part 2, Section VI, Volume 3, Clause 3.4.5, Page 73	The System shall be designed so as to prevent failures or breakdown due to invalid or incorrect inputs.	Please clarify	Clause is sufficiently clear. Any invalid or incorrect input shall NOT result in system shutdown. Existing provisions shall prevail.
499	Part 2, Section VI, Volume 3, Clause 3.4.6, Page 74	Built-in self-diagnostics, power-up self-test and sufficient test points shall be provided in the System to minimize the time required to locate a fault.	Not all system components can be provided with this type of facility and hence should be limited to the interlocking only.	Existing provisions shall prevail.
500	Part 2, Section VI,	All plug-in modules shall permit hot	Not all system components can be hot	Refer Addendum 3 (S.No.81).

S. No.	Reference to Bidding Document (Consisting of Part, Section, Volume, Reference Clause, Page no. etc.)	As Per Tender	Clarification sought by the Bidders	DFCC's Response
	Volume 3, Clause 3.4.7, Page 74	swapping so as not to affect the normal or emergency operation of the System.	swappable and hence the scope of this item should be limited to some main cards only.	
501	Part 2, Section VI, Volume 3, Clause 3.4.9 (1), Page 74	All line replaceable units shall follow maximum weight restrictions such that this can be easily handled manually by a single person (Point machines are excepted).	Batteries should also be excluded, please include this in the clause	Refer Addendum 3 (S.No.82).
502	Part 2, Section VI, Volume 3, Clause 3.4.9 (2), Page 74	The System shall allow the removal and reinstallation of LRUs without having to remove other LRUs, disconnect cables to other LRUs or disturb or power down other equipment.	Some disconnection of wires may be required for some LRUs, hence request to please remove "Disconnect cables"	Not agreed. Existing provisions shall prevail.
503	Part 2, Section VI, Volume 3, Clause 3.4.9 (7), Page 74	The System shall maximize the use of remote means to conduct maintenance, fault finding and fault rectification activities and to access maintenance information.	Fault rectification for LRUs cannot be done remotely only SW Faults can be rectified remotely.	Existing provisions shall prevail.
504	Part 2, Section VI, Volume 3, Clause 3.4.9 (8), Page 74	When requested by the User and with the exception of variables that can be set only through direct contact with train borne equipment, the System shall enable variable settings and limits that affect the operation of the railway, to be	Please clarify this point since it is not clear with respect to the maintainability of the system.	Clause specifies requirement of remote setting of equipment parameters.

S. No.	Reference to Bidding Document (Consisting of Part, Section, Volume, Reference Clause, Page no. etc.)	As Per Tender	Clarification sought by the Bidders	DFCC's Response
		adjusted from the OCC.		
505	Part 2, Section VI, Volume 3, Clause 3.7.1, Page 77	The Signalling and Train Control system provided should be electromagnetically compatible with other systems viz. Electrification, Telecommunication and Rolling Stock.	No interface with Rolling stock has been defined in the scope of works of this contract and hence should be deleted from this chapter.	Electromagnetic compatibility of Signalling system with Rolling Stock is important. IR Rolling Stock - WAG-7 & WAG-9, and DFCCIL Rolling Stock - as per Part 2, Section VI, Volume 2, Clause 5.2.2 may be considered to demonstrate compatibility.
506	Part 2, Section VI, Volume 3, Clause 4.2.3, Page 87	Equipment appearing in this list of applicable RDSO specifications at Para 4.1.2 and having RDSO approved vendor, if procured locally shall be from RDSO's "Approved list of firms for manufacture and supply" and as per relevant specification.	Why is it necessary to procure equipment from RDSO approved suppliers only if they meet the required specification. It should be allowed to procure material from non-RDSO approved suppliers if they can meet the required specifications.	The condition also implies that the local vendor who has product that meets RDSO specification shall be required to take RDSO approval, before he can supply the product. Existing provisions shall prevail.
507	Part 2, Section VI, Volume 3, Clause 4.2.4, Page 87	If any equipment appearing in this list of applicable RDSO specifications at Para 4.1.2 is imported, then the firm supplying the equipment shall be got approved for manufacture and supply of the said equipment as per latest "Procedure Order for Cross Acceptance/Approval of Software Embedded Electronics Systems and New/Imported Technology	Employer has to support in getting the cross Acceptance from RDSO and a time line should be fixed for the RDSO's Response beyond which the equipment being supplied should be deemed approved by RDSO.	The Employer's support in getting the necessary approvals is covered under Part 2, Section VI, Volume 1, Chapter 7, Clause 2.3. This should be read in conjunction with other clauses of Chapter 7-Appendix 3 and Clause 1.3.15 (8) and 2.11 of Part 2, Section VI, Volume 1 Existing provision shall prevail.

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		Products for Railway Signalling", presently dealt under Para 4.3 of RDSO's Document No: SI-WI-7.1-3 l dated 01.09.2011 on Work instructions for Vendor approval of signaling developmental items" available at Signal Directorate, RDSO's website www.rdso.indianrailways.gov.in.		
508	Part 2, Section VI, Volume 3, Clause 4.3.1, Page 87	All the important signalling equipment viz. EI, MSDAC, LED signals, IPS, Data loggers, point machines etc. shall be installed in accordance with OEM's installation checklist. A certificate shall also be required to be issued by the OEM that the installation has been done in accordance with the Installation checklist and earthing and surge protection arrangements are in accordance with latest RDSO specification. The equipment shall not be commissioned unless such a certificate has been issued by the OEM.	This clause would require the OEM to constantly visit the site and with the large scope of work it is difficult for any OEM to continuously monitor the installation. This clause should be limited to the first installation of the equipment only and the contractor will be responsible from thereon to confirm that the installation has been done in line with the requirements of the OEM.	Not agreed. Existing provisions shall prevail.
509	Part 2, Section VI, Volume 3, Clause 4.3.5 (2(d)), Page	Before commencing work on any part of the site, the Contractor shall ascertain that the Engineer and	The employer has to support in getting the necessary approvals from the local authorities as this being an infrastructure	The Employer's support in getting the necessary approvals is covered under Part 2, Section VI, Volume 1, Chapter 7,

S. No.	Reference to Bidding Document (Consisting of Part, Section, Volume, Reference Clause, Page no. etc.)	As Per Tender	Clarification sought by the Bidders	DFCC's Response
	92	also, where applicable, the local and statutory authorities or other bodies/persons concerned have reviewed the cable route. The Contractor shall further ensure that all necessary permits in such cases have been obtained and notices served.	project.	Clause 2.3. This should be read in conjunction with other clauses of Chapter 7-Appendix 3 and Clause 1.3.15 (8) and 2.11 of Part 2, Section VI, Volume 1.
510	Part 2, Section VI, Volume 3, Clause 8.1.1, Page 123	Requirements for Training are mentioned in Chapter 6 of GS Vol. 1 Part 2 in general.	What is the total requirement of training in terms of trainee man hours or man days or trainer man days	Please refer Clause 8.4.1 of Part 2, Section VI, Volume 3. The Training plan is to be prepared by the contractor for meeting all requirements of Training as specified in Employer's requirements.
511	Part 2, Section VI, Volume 3		Who will lead the interface with existing infrastructure of Indian Railways like Railtel, GSM-R etc.	The contractor shall lead the interface with existing infrastructure of Indian Railways. Please refer Clause 2.11 and Chapter 7-Appendix 3 of Part 2, Section VI, Volume 1 for details.
512	Part 2, Section VI, Volume 3		Process for final approval of the system in terms of handover needs to be clearly defined. And it should be possible within the contract for the employer to take over part of the works if completed.	The requirements of Taking Over of works and sections are clearly specified under Clause 10.1 of Conditions of Contract. There is no provision for Taking over Parts of works.
513	Part 2, Section VI, Volume 4, Clause	Recovery from Network Failures	Technically this is not possible to achieve and traditionally all IP networks ask for 50	Please refer Addendum 3 (S.No.116).

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	6.5.4.1 (5), Page 48	within 5 m sec	ms recovery, request you to modify the same.	
514	Part 2, Section VI, Volume 4, Clause 7.5.2.2, Page 60	The Call Servers and Media Gateways of this VOIP based Telephony Network shall be equipped to support 200 IP Voice Phones and 100 IP Video Phones.	Is this required from day one, for the nos. of user's licenses along with necessary hardware and software?	Yes. Provisions in the Bidding Document are sufficiently clear.
515	Part 2, Section VI, Volume 4, Clause 7.5.2.2, Page 60	The Call Servers and Media Gateways of this VOIP based Telephony Network shall be equipped to support 200 IP Voice Phones and 100 IP Video Phones.	The IP voice phone specifications and the quantities are not available in RFP. Request you to provide the same.	Provisions in the Bidding Document are sufficiently clear. As IP Voice Phones are not to provided under this Contract, specifications of the same is not mentioned.
516	Part 2, Section VI, Volume 4, Clause 7.5.2.6, Page 61	A Unified Messaging Application shall be provided for VOIP based Telephony Network with facilities such as Email, Voice Mail, Faxes, Conferencing & Collaboration(8 Ports) and Inbuilt Soft Phones. The Unified Messaging Application (UMA) shall be accessible from desktop clients and shall support features such as making/receiving calls, sending/replying/forwarding voice messages and recording live conversation. UMA must have a unified directory that allows the IP Phones and Soft Phones to call by	The UMA no. of users 300; is this required from day one, kindly confirm.	Provisions in the Bidding Document are sufficiently clear.

S. No.	Reference to Bidding Document (Consisting of Part, Section, Volume, Reference Clause, Page no. etc.)	As Per Tender	Clarification sought by the Bidders	DFCC's Response
		name and identify their correspondents. The UMA shall be equipped to support 300 users.		
517	Part 2, Section VI, Volume 4, Clause 7.5.8.3, Page 63	It shall be possible provide additional consoles and telephone sets by 25% of installed capacity, in the Direct Line Telephone Network without affecting its performance.	Is the 25% additional capacity required only in Direct line telephone and direct line console along with hardware & software and licenses, kindly confirm.	Provisions in the Bidding Document are sufficiently clear.
518	Part 2, Section VI, Volume 4, Chapter 8		The distance between the proposed EDFC track & existing IR track is not mentioned. The lat longs of all the sites (old and proposed) may please be provided.	Please refer Part 4 – Reference Documents.
519	Part 2, Section VI, Volume 1, Clause 5.1.7, Page 63	The material delivered to the Site and offered for Inspection shall be manufactured normally not earlier than one (1) year and their guarantee period shall cover the Defects Notification Period. However the specified period of Manufacturer's Warranty shall commence from the date of commissioning of the Work and all the manufacturer's Warranties shall be in the name of the Employer.	To meet these obligations for MTRC, DFCC needs to ensure that the existing Ghaziabad-Kanpur MTRC does not become "End of Life" during this period and it is supported all throughout during this period with proper maintenance contracts for the bidder to be able to meet its obligations under the contract.	Contractor's responsibility shall be limited to Permanent Works only.
520	Part 2, Section VI, Volume 1, Clause	Establishment in India to undertake Annual Maintenance Contract	To meet these obligations for MTRC, DFCC needs to ensure that the existing	The Contractor's responsibility shall be limited only to portion of work executed

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	6.5/3C, Page 94	(AMC) during the service life of the equipment	Ghaziabad-Kanpur MTRC does not become "End of Life" during this period and it is supported all throughout during this period with proper maintenance contracts for the bidder to be able to meet its obligations under the contract.	by him.
521	Part 2, Section VI, Volume 4, Clause 8.1.3.4, Page 64	It is envisaged that Network Sub-systems (NSSs) of MTRC System of Indian Railway used for Ghaziabad-Kanpur Section shall also be used for MTRC System of Bhaupur-Khurja Section of EDFC. As such Network Sub-systems (NSSs) of MTRC System of Indian Railway shall be suitably upgraded, if required, by the Contractor to meets the requirements of Bhaupur-Khurja Section of EDFC.	The GSM-R equipment proposed for Eastern DFCC needs to be integrated with the existing IR MTRC network deployed for Ghaziabad-Kanpur Section. Please provide existing IR MTRC system's configurations to assess the quantum of upgrade work if required. DFCC may provide the required up gradation capacity and features in existing IR MTRC network.	Please refer Addendum 3 (S.No.122). Up-gradation / Augmentation Requirements of Network Sub-systems (NSSs) of MTRC System of Indian Railway, if required, shall be determined by Contractor.
522	Part 2, Section VI, Volume 4, Clause 3.1.2, Page 20	The System shall be so designed as to have a minimum of 15 years of service life operating continuously. The life of all the cables including Optical Fibre Cables, Jelly Filled Telecom Quad Cable, Telephone Cables, RF Cables shall not be lower than 25 years. Life of Radio Towers/Mast shall not be less than 40 years.	To meet these obligations for MTRC, DFCC needs to ensure that the existing Ghaziabad-Kanpur MTRC does not become "End of Life" during this period and it is supported all throughout during this period with proper maintenance contracts for the bidder to be able to meet its obligations under the contract.	The Contractor shall be responsible only for equipments provided under this Contract.

S. No.	Reference to Bidding Document (Consisting of Part, Section, Volume, Reference Clause, Page no. etc.)	As Per Tender	Clarification sought by the Bidders	DFCC's Response
523	Part 2, Section VI, Volume 4, Clause 8.4.1.1, Page 78	(1) Base Station Sub-system (BSSs) of Base Station Controllers (BSCs) controlling Base Transceivers Stations (BTSs) each containing a number of transceivers (TRXs). In sections, where track alignment of Bhaupur-Khurja Section of EDFC is running parallel to the existing Ghaziabad-Kanpur Section of Indian Railway, Base Transceivers Stations (BTSs) of Indian Railway will be shared by DFCCIL. Any up-gradation or strengthening required for smooth handover, at BTSs of Indian Railway shall be done by Contractor. However in sections, where track alignment of Bhaupur-Khurja Section is taking a detour and cannot be served by Base Transceivers Stations (BTSs) of Indian Railway, new Base Transceivers Stations (BTSs) of DFCCIL shall be provided by Contractor for adequate RF coverage. These BTS shall be controlled by BSCs to be installed at OCC. This BSCs will be linked to the existing Network Sub-systems (NSSs) of MTRC System of Indian	Bidder understands that it has to provide the coverage on the detours only and not on the line parallel to IR. Bidder shall not be responsible for the upgrade or reconfiguration or relocation of the existing BTS sites on the IR network. Request to amend the clause accordingly.	Provisions in the Bidding Document are sufficiently clear. Any up-gradation or strengthening required for smooth handover, at BTSs of Indian Railway shall be done by the Contractor.

S. No.	Reference to Bidding Document (Consisting of Part, Section, Volume, Reference Clause, Page no. etc.)	As Per Tender	Clarification sought by the Bidders	DFCC's Response
		Railway used for Ghaziabad-Kanpur Section. Accordingly BSCs and associated network elements constituting the Base Station Sub-system (BSSs) shall be compatible with this Network Sub-systems (NSSs) of MTRC System of Indian Railway used for Ghaziabad-Kanpur Section. The Base Station Sub-system (BSSs) should fulfil all interoperability criteria with existing Network Sub-systems (NSSs) of MTRC System of Indian Railway and should be supported with IOT documentation. Base Station Sub-system (BSSs) to be provided under this Contract shall be capable of supporting data communications for train control system i.e. ETCS Level-2.		
524	Part 2, Section VI, Volume 4, Clause 8.4.1.1, Page 80	(5) Short Message Service Centre (SMSC) interfaced to above Network Sub-systems(NSS) for exchange of text messages between ground and mobile(s) or mobile to ground. This SMSC shall be provided with GUI Interface to be provided at OCC.	Is SMSC part of existing deployed IR MTRC network or a new SMSC is to be proposed by the bidder?	Provisions in the Bidding Document are sufficiently clear. This SMSC, to be provided at OCC.

S. No.	Reference to Bidding Document (Consisting of Part, Section, Volume, Reference Clause, Page no. etc.)	As Per Tender	Clarification sought by the Bidders	DFCC's Response
525	Part 2, Section VI, Volume 4, Clause 4.1.1.6, Page 24	Preliminary Design of individual subsystems shall be prepared and submitted to the Engineer for review, which includes, as a minimum, the function of each system, sub-system, equipment or other element within the overall SRS and specify the relationship and interfaces between each element of the system, including the systems of the interfacing elements of the other Contractors. Alongwith Preliminary Design, certificates from accredited organization/agency certifying compliance to Standards/Specification for proposed equipments shall be submitted.	Please list the accredited organizations / agencies (for various systems of telecom package like EPABX, SDH, GSMR, LAN / WAN etc.) whose certificate shall be acceptable to DFCC.	The accredited organization / agencies shall be proposed by Contractor and approved by Engineer during Design Stage.
526	Part 2, Section VI, Volume 4, Clause 8.2.1.1 (2)C, Page 66	bearer service for train control application;	The Data requirements here is circuit switched data not packet data. (e-mail, internet etc) . Please confirm? Please specify the Circuit data speed is. 2.4/3.6/4.2/9.6 kbps etc.	Please refer Clause 8.4.1.1 (1). Accordingly MTRC System shall support bearer service for train control application/system i.e. ETCS Level-2.
527	Part 2, Section VI, Volume 4, Clause 8.2.10.1, Page 71	Following controller positions…	Total Dispatcher console required for this project are 8. Pl confirms? Refer clause 8.5.2, it asks 10 additional.	Please refer to Clauses 8.2.10.1, 8.2.10.2 & 17.1.3.1.

S. No.	Reference to Bidding Document (Consisting of Part, Section, Volume, Reference Clause, Page no. etc.)	As Per Tender	Clarification sought by the Bidders	DFCC's Response
528	Part 2, Section VI, Volume 4, Clause 8.2.10.4, Page 72	For post incident analysis, all operation speech and data calls of Radio Dispatcher Consoles shall be recorded.	We understand that IR MTRC already equipped with VRS. Is it really required to have one more VRS connected to IR MSC? We suggest to use the existing VRS of IR MTRC. DFCC may ask IR to upgrade the capacity of existing VRS if required. VRS requested under clause 7.5.4.1 may be limited to EPABX call recording only. Please review the requirement and confirm.	Separate VRS for EDFC has been stipulated for functional needs. Provision in the Bidding Document shall prevail.
529	Part 2, Section VI, Volume 4, Clause 8.2.10.4, Page 72	For post incident analysis, all operation speech and data calls of Radio Dispatcher Consoles shall be recorded.	We understand that IR MTRC already equipped with VRS. Is it really required to have one more VRS connected to IR MSC? We suggest to use the existing VRS of IR MTRC. DFCC may ask IR to upgrade the capacity of existing VRS if required. VRS requested under clause 7.5.4.1 may be limited to EPABX call recording only. Please review the requirement and confirm.	Separate VRS for EDFC has been stipulated for functional needs. Provision in the Bidding Document shall prevail.
530	Part 2, Section VI, Volume 4, Clause 8.2.16.3, Page 73	Three party conferences between controller, Station Master and Driver/Guard with on line voice recording facility shall be provided. Similarly, real time voice recording facilities for all the controllers shall be provided.	We understand that IR MTRC already equipped with VRS. Is it really required to have one more VRS connected to IR MSC? We suggest to use the existing VRS of IR MTRC. DFCC may ask IR to upgrade the capacity of existing VRS if required. VRS requested under clause 7.5.4.1 may be limited to EPABX call recording only. Please review the requirement and confirm.	Please refer Addendum 3 (S.No.125).

S. No.	Reference to Bidding Document (Consisting of Part, Section, Volume, Reference Clause, Page no. etc.)	As Per Tender	Clarification sought by the Bidders	DFCC's Response
531	Part 2, Section VI, Volume 4, Clause 8.4.1.3, Page 80	All major equipment and component of the MTRC System shall have redundant engineering to minimize the effects of the failure of such equipment to the operations and performance of the MTRC System.	We understand that the existing IR MTRC system is non redundant system. Please clarify if bidder has to create redundancy for Existing IR NSS/BSS/OMC and new BTS/BSC as well under bid scope?	Provisions in the Bidding document are sufficiently clear. The contractor shall be responsible for redundant engineering for all major equipments and components provided under this contract.
532	Part 2, Section VI, Volume 4, Clause 8.4.3.5, Page 83	The coverage level shall also be designed to provide satisfactory indoor and outdoor coverage for an operational radio & general purpose radio for all areas as specified, including indoor areas for which an extra margin should be considered. Accordingly minimum field strength of -73 dBm at 4 meter above ground in outdoor terrain shall be available	We understand that the indoor coverage criteria of OPH/GPH are applicable to deture section (new BTS requested under this bid) only. Bidder is not responsible for the coverage level for the areas/sections covered by the IR existing MTRC network. Please confirm. The existing IR MTRC in Khurja-Bhaupur section is not deployed for -73dBm level.	Please refer Addendum 3 (S.No.128).
533	Part 2, Section VI, Volume 4, Clause 8.2.7.3, Page 70	For post incident analysis …. Shall be recorded	Is it acceptable for this to be in a central location VRS rather than within the cab radio itself?	Please refer Clauses 7.3.5.2 & 7.5.4.1.
534	Part 2, Section VI, Volume 4, Clause 8.4.1.8, Page 81,	(1) Fives sets of Cab radio … and accessories	The term 'battery pack' is used here but there is no mention of it within the earlier section. Is a battery needed for the Cab Radio and, if so, what capacity? EIRENE SRS 5.7.14 specifies 'at least 1 hour' but 2 hours is often quoted.	Please refer Addendum 3 (S.No.127).

S. No.	Reference to Bidding Document (Consisting of Part, Section, Volume, Reference Clause, Page no. etc.)	As Per Tender	Clarification sought by the Bidders	DFCC's Response
535	Part 2, Section VI, Volume 4, Clause 8.4.6.4.4, Page 85	The Cab Radio shall be provided with sufficient filtering … immune to radio interference.	Measures can be used which improve the cab radio's performance in the presence of interference. Are there any specific interference levels which must be tolerated?	Please refer Clause 3.6.
536	Part 2, Section VI, Volume 4, Clause 8.1.4.1, Page 65	(5) Cab Radios and associated hardware/accessories	Please specify battery backup requirement for cab radio.	Please refer Addendum 3 (S.No.127).
537	Part 2, Section VI, Volume 4, Clause 8.2.10.7, Page 72	For station operational control, SCR shall be provided with a Fixed Radio Terminal with communication facilities covering the area in his jurisdiction. Contractor shall detail the functionalities and features of the proposed Fixed Radio Terminal.	Kindly confirm if 2W or 8W Fixed Radio Terminal required?	Please refer Addendum 3 (S.No.124).
538	Part 2, Section VI, Volume 4, Clause 8.2.2.2 & 8.4.3.5, Page 66 & 83	There are two clauses in the document which state that the coverage should be provided at 1.5 m as well as 4m. (pg 66 & pg 83)	The query is that whether we need to consider MS height of 1.5m or 4m while preparing the Link Budget, because in both cases we will get different cell radius.	Please refer Addendum 3 (S.No.123).
539	Part 2, Section VI, Volume 4, Clause 7.5.2.2, Page 60	The Call Servers and Media Gateways of this VOIP based Telephony Network shall be equipped to support 200 IP Voice Phones and 100 IP Video Phones.	In VOIP EPABX, specifications of IP phone is not mentioned. Please share the same.	Provisions in the Bidding Document are sufficiently clear. As IP Voice Phones are not to be provided under this Contract, specifications of the same is not mentioned.

S. No.	Reference to Bidding Document (Consisting of Part, Section, Volume, Reference Clause, Page no. etc.)	As Per Tender	Clarification sought by the Bidders	DFCC's Response
540	Part 2, Section VI, Volume 4, Clause 3.1.2, Page 20	The System shall be so designed as to have a minimum of 15 years of service life operating continuously. The life of all the cables including Optical Fibre Cables, Jelly Filled Telecom Quad Cable, Telephone Cables, RF Cables shall not be lower than 25 years. Life of Radio Towers/Mast shall not be less than 40 years.	Battery codal life is 4 years and not 15 years	Please refer Addendum 3 (S.No.99).
541	Part 2, Section VI, Volume 4, Clause 4.3.2, Page 27	Unless otherwise specified, all telecommunication equipment shall be designed for operation continuously in temperatures of -5oC to +55oC.	-5 Deg C to 50 Deg C not applicable for VRLA Battery	Please refer Clause 4.3.5 and amended Clause 4.3.2. Please refer Addendum 3 (S.No.102).
542	Part 2, Section VI, Volume 4, Clause 12.3.1, Page 116	For high availability the Battery Backup System at each location shall include 2 numbers of SMPS based 48 V Battery Chargers in Hot Standby configuration with individual 48 V Battery Bank for each Battery Charger.	Please confirm if 2x 100% 48V SMPS will be in sharing mode and not hot stand by	Please refer Addendum 3 (S.No.144).
543	Part 2, Section VI, Volume 4, Clause 12.3.10(9), Page 117	Fan Failure	Fan failure alarm can't be given as fans are in module level and not at system level	Please refer Addendum 3 (S.No.146).

S. No.	Reference to Bidding Document (Consisting of Part, Section, Volume, Reference Clause, Page no. etc.)	As Per Tender	Clarification sought by the Bidders	DFCC's Response
544	Part 2, Section VI, Volume 4, Clause 12.3.10(10), Page 117	Temperature Compensation Failure	This requirement is very OEM Specific and not available from all OEMs and hence should be removed.	Please refer Addendum 3 (S.No.147).
545	Part 2, Section VI, Volume 4, Clause 6.5.1.3, Page 46	Layer-3 Switches shall be capable of working with DC Power Supply with range of -40 to -54V. Power Supply Module should be redundant and inbuilt in the switch.	If the switch does not work on this power supply, then can we plan an additional converter or AC Power Supply	Provision of Additional Converter shall not be permitted. Provisions in the Bidding Document shall prevail.
546	Part 2, Section VI, Volume 2		Location Plan for TSS, SP, SSP is requested to be provided by DFCC indicating right of way for better understanding.	Please refer Addendum 3 (S.No. 180). For further details Site visits may be carried out.
547	Part 2, Section VI, Volume 2		For merging of DFCC lines with IR network, details of existing OHE layout plan to be made available, to assess power block requirement & modifications, if required.	Yard plans are available in Part 4 – Reference Document. For further details Site visits may be carried out.
548	Part 1, Section IV, Page 92	The percentage figures as filled in column 3 by the Employer for the apportionment of the Contract Price for completion of the Works corresponding to the items given above, and in the subsequent Price Schedules for Cost Centres/Sub-Cost Centres are fixed and the	Since the scale of this project is huge and a bit of execution flexibility is required, We would request DFCC to remove the percentage apportionment limits. This would help to improve the Project Cash Flow.	Please refer Addendum 3 (S.No.8).

S. No.	Reference to Bidding Document (Consisting of Part, Section, Volume, Reference Clause, Page no. etc.)	As Per Tender	Clarification sought by the Bidders	DFCC's Response
		payment will be released for different cost centre/sub-cost centres as per respective weightings of the Contract price.		
549	Part 3, Section VIII, Sub-clause 4.4 Subcontractors, Page 10	"The contractor shall not subcontract more than 30% of the total Works in terms of Value excluding the Work subcontracted to Sub Contractors named in the Contract."	Since there has been major scope change in the Telecom scope from the PQ stage e.g. scope for GSM-R and CCTV have been added into the requirements after the PQ. Therefore, Contractor should have the right to add another Telecom Subcontractor under specialized category based on new requirements, beyond the 30% Criteria.	No. Please refer PQ Document for the subject bid document issued earlier this requirement was to be met by one member of the JV or can be a specialist sub contractor. However, sub-contracting scope has been increased from 30% to 40%. Please refer Addendum 3 (S.No. 176).
550	Part 3, Section VIII, Sub-clause 4.4 Subcontractors, Page 10	"The contractor shall not subcontract more than 30% of the total Works in terms of Value excluding the Work subcontracted to Sub Contractors named in the Contract."	We would request that Sub-Contractor for Vol 5 Building & structures incld. E&M should be allowed as a Specialized Sub contractor beyond the 30% Criteria. After reading the Tender, we found this package has a major scope in terms of execution/logistics which was not clear at the PQ stage. Therefore, Contractor should have the right to add another Subcontractor for the scope of Vol. 5, under specialized category.	Please refer Addendum 3 (S.No.176).
551	Part 2, Section VI, Volume 4, Clause	The OFC System shall be a highly reliable system since it shall be the primary means of communications	Please suggest the number of SDH Nodes to be considered in the BOM. Also indicate the number of SDH nodes i.e. STM-16 to be	Provisions in the Bidding Document are sufficiently clear.

S. No.	Reference to Bidding Document (Consisting of Part, Section, Volume, Reference Clause, Page no. etc.)	As Per Tender	Clarification sought by the Bidders	DFCC's Response
	5.1.1 (1), Page 28,	between OCC.	considered in First network and STM-4 to be considered in Second network.	BOM for the SDH Nodes shall be determined by Bidder/Contractor.
552	Part 2, Section VI, Volume 4, Clause 5.3.3.2, Page 29	Optical fibre cables of the First Network shall be terminated at Optical Distribution Frames (ODFs) in TERs at OCC, Stations and any other location as required. Employer shall hire from M/s RCIL required Optical Fibres from RCIL POP at Bhaupur (IR) to RCIL POP at Allahabad (IR). ….	Telecommunication Equipment Rooms (TERs) at Auto Section Locations, LC Gates, Interfacing IR Stations, GSM-R Locations, TSSs, SPs, SSPs, IMDs, IMSDs, Staff Residential Colonies etc. Kindly confirm the locations for the same. Also Please indicate the number of NE to be provided in the first network and the number of NE's provided in the second network.	Provisions in the Bidding Document are sufficiently clear. Number of NE to be determined by Bidder/Contractor.
553	Part 2, Section VI, Volume 4, Clause 5.5.1.1 (6), Page 37	optical link budget calculations for all the transmission links;	Please indicate the distance between the stations i.e. for the first network (STM-16) and for the second network (STM-4). Distances are required to calculate the link engineering.	Please refer to Part 4 – Reference Documents.
554	Part 2, Section VI, Volume 4, Clause 5.5.1.1 (10), Page 37		Request you to please provide the indicative network diagram with provision of First network and second Network.	Provisions in the Bidding Document are sufficiently clear. Please refer Clauses 5.3.3 and 5.3.4.
555	Part 2, Section VI, Volume 4		Please provide us the information for the Services required to run on SDH platform and the Data networking Platform.	Provisions in the Bidding Document are sufficiently clear.

S. No.	Reference to Bidding Document (Consisting of Part, Section, Volume, Reference Clause, Page no. etc.)	As Per Tender	Clarification sought by the Bidders	DFCC's Response
556	Part 2, Section VI, Volume 4		Flexible Access Multiplexer is provided, wherever the SDH node is provided.	Please refer Clause 5.3.5.5
557	Part 2, Section VI, Volume 4, Clause 5.5.3.4, Page 40	The NMS shall be equipped with a proven real-time, multi-tasking operating system to support centralised network management of the OFC equipment …..	Network management System for the SDH and PDH are different with Different hardware and different software.	Please refer Addendum 3 (S.No.108).
558	Part 2, Section VI, Volume 4, Clause 5.5.3.3.4, Page 39	Flexible Access Multiplex Equipment shall support Omnibus Operation of Voice in Data Channels ….	Omnibus communication or conference facility is required or not	Provisions in the Bidding Document are sufficiently clear. The equipment shall support Omnibus Operation of Voice in Data Channels. Its requirements shall be determined by the Bidder / Contractor.
559	Part 2, Section VI, Volume 4		is E1 (1+1) protection required in PDH mux,	Please refer to Amended Clause 5.3.7.7 (S.No. 106).
560	Part 2, Section VI, Volume 4, Clause 5.5.3.3.9, Page 39	Flexible Access Multiplex Equipment shall operate satisfactorily at 48V+ 20% DC. ….	-48V DC Power redundancy (1+1) would be offered	Refer to Chapter 12 for 48 V DC Battery Back-up Requirements.
561	Part 2, Section VI, Volume 4, Clause 5.5.1.1, Page 37	Details on the specifications of each low speed data and voice channel interfaces below E1 level; …..	Low speed data interfaces : please confirm the actual data interfaces would be used by end customer, as all types of interface specifications is mentioned in tender	Provisions in the Bidding Document are sufficiently clear. Requirement is to be determined by the Bidder / Contractor.

S. No.	Reference to Bidding Document (Consisting of Part, Section, Volume, Reference Clause, Page no. etc.)	As Per Tender	Clarification sought by the Bidders	DFCC's Response
562	Part 2, Section VI, Volume 4, Clause 5.5.3.3.10.1, Page 39	voice interface selectable on two or four wires E&M signalling	Voice interface: please confirm actual voice services to be used by end customer, or please mention the card types to be used / deployed by end customer per PDH MUX	Provisions in the Bidding Document are sufficiently clear. Requirement is to be determined by the Bidder / Contractor.
563	Part 2, Section VI, Volume 4, Clause 6.1.1, Page 42	An extensive Data Networking System shall be provided for meeting the Packet Data Communications requirements of Bhaupur-Khurja section of EDFC. Data Networking System which is a Wide Area Network (WAN), shall, inter-alia, cover OCC, Stations, IMDs, and IMSDs.	As per the tender, Layer-3 Switches are required, with 4x10G with 24x10/100/1000BaseT. Please indicate the locations of Data Networking Switches. As per the Particular Specification, data networking switches are required at OCC, all Stations, IMDs, and IMSDs. Please indicate the tentative BOM for the switches.	Provisions in the Bidding Document are sufficiently clear. BOM for the Switches to be determined by Bidder / Contractor.
564	Part 2, Section VI, Volume 4, Clause 6.5.1.3, Page 46	Layer-3 Switches shall be capable of working with DC Power Supply with range of -40 to -54V. Power Supply Module should be redundant and inbuilt in the switch.	Layer-3 Switches & Layer-2 switches shall be capable of working with DC Power Supply with range of -40 to -54V. If the switch does not work on this power supply, then can we plan an additional converter?	Provision of Additional Converter is not permitted. Provisions in the Bidding Document shall prevail.
565	Part 2, Section VI, Volume 4		Distances between the stations to calculate the link engineering for the Switches and to know the type of transceivers.	Please refer to Part 4 – Reference Documents.
566	Part 2, Section VI, Volume 4		We will consider the L2 POE Switch with AC Power supply.	The switch shall be provided as per Clause 6.5.2.3.
567	Part 2, Section VI,	**Scope of Supply for Data**	Please share the tentative BOM for the	Provisions in the Bidding Document are

S. No.	Reference to Bidding Document (Consisting of Part, Section, Volume, Reference Clause, Page no. etc.)	As Per Tender	Clarification sought by the Bidders	DFCC's Response
	Volume 4, Clause 6.2(2), Page 43	**Networking System** The scope of supply shall include, but not be limited to	Switches. For layer-3 Switches, is only consider at stations. Please also indicate the location of Layer-2 switches.	sufficiently clear. BOM for the Switches to be determined by Bidder / Contractor. Location of Layer-2 Switches to be determined by Bidder / Contractor.
568	Part 2, Section VI, Volume 4, Clause 6.1.8, Page 42		Please share the list of Junction stations, & interconnect station, to consider the Wi-Fi System	Please refer Part 4 – Reference Documents.
569	Part 2, Section VI, Volume 4		Please consider the building area for OCC, junction station and interconnect stations to calculate the number of access points for Wi-Fi.	Please refer Part 2, Section VI, Volume 5 and Part 4- Reference Documents.
570	Part 2, Section VI, Volume 4, Clause 7.3.4.6, Page 55		DLT Phone quantity is not available in the document. Please share the same.	Provisions in the Bidding Document are sufficiently clear. Direct Line Telephones Quantity shall be determined by Bidder / Contractor.
571	Part 2, Section VI, Volume 4, Clause 7.3.3.6, Page 50		Please share the topology Diagram for interconnection of SDH network for PRI and IP Trunk connectivity between the sites.	Provisions in the Bidding Document are sufficiently clear. Topology Diagram shall be developed by Bidder / Contractor.
572	Part 2, Section VI, Volume 4, Clause 7.3.4.2, Page 53		In specifications dedicated Interconnection digital trunks for DLT network is mentioned. Can we consider IP channels for the same?	Digital trunk lines have been stipulated for the reason of voice quality. Provisions in the Bidding Document

S. No.	Reference to Bidding Document (Consisting of Part, Section, Volume, Reference Clause, Page no. etc.)	As Per Tender	Clarification sought by the Bidders	DFCC's Response
				shall prevail.
573	Part 2, Section VI, Volume 4, Clause 7.3.3.3 & 7.5.1.3, Page 50 & 59		Number of required Analog ports and digital ports are different in clause 7.3.3.1 and 7.5.1.3. Which one do we have to consider for the final BOM?	Clause 7.3.3.1 covers requirement of Telephone Sets to be provided as part of Administrative Telephone Network, while Clause 7.5.1.3 covered requirements of Equipped Ports to be provided in PBXs as part of Administrative Telephone Network. Please refer Addendum 3 (S.No. 119).
574	Part 2, Section VI, Volume 4, Clause 7.5.2, Page 60		Do we need to consider the VOIP based EPABX as a completely different EPABX or a part of PBX network?	Provisions in the Bidding Document are sufficiently clear. Please refer to clauses 7.3.3.5 & 7.3.3.6.
575	Part 2, Section VI, Volume 4, Clause 7.5.2, Page 60		If VOIP based EPABX is different EPABX in that case communication between both the EPABX is required or not? (If yes, on which media (IP Trunks or Digital Trunks)	Provisions in the Bidding Document are sufficiently clear. Please refer to clauses 7.3.3.5 & 7.3.3.6.
576	Part 2, Section VI, Volume 4, Clause 7.5.2.2, Page 60		In VOIP EPABX, specifications of IP phone is not mentioned. Please share the same.	Provisions in the Bidding Document are sufficiently clear. As IP Voice Phones are not to be provided under this Contract, specifications of the same are not mentioned.

S. No.	Reference to Bidding Document (Consisting of Part, Section, Volume, Reference Clause, Page no. etc.)	As Per Tender	Clarification sought by the Bidders	DFCC's Response
577	Part 2, Section VI, Volume 4, Clause 7.3.3.6, Page 50		In case of failure of E1 links between the PBX's, all calls should be routed via IP Telephony server using IP link(s) over WAN as an alternate route, without requirement of any manual intervention. Can we consider IP Trunks as first priority for interconnection and E1 Digital trunk as secondary link or backup link?	E1 links have been stipulated as primary means of communication for reason of voice quality. Provisions in the Bidding Document shall prevail.
578	Part 2, Section VI, Volume 4		Please share the tentative BOM.	Provisions in the Bidding Document are sufficiently clear. BOM to be determined by Bidder / Contractor.
579	Part 2, Section VI, Volume 4		Port for DID lines (Page-50/Clause No-7.5.1.3 (6). It is not clear that these DID lines are analog PSTN lines, ISDN or E&M circuits. **Please Clarify.**	Please refer Addendum 3 (S.No.119).
580	Part 2, Section VI, Volume 4, Clause 3.1.2, Page 20		Battery codal life is 4 years and not 15 years	Please refer Addendum 3 (S.No.99).
581	Part 2, Section VI, Volume 4, Clause 3.6, Page 22		EMC will be RDSO Spec for 48V SMPS Power plant	EMC for overall Telecommunication Works shall be done as per Clause 3.6.
582	Part 2, Section VI, Volume 4, Clause		-5 Deg C to 50 Deg C not applicable for VRLA Battery	Please refer Clause 4.3.5 and amended Clause 4.3.2.

S. No.	Reference to Bidding Document (Consisting of Part, Section, Volume, Reference Clause, Page no. etc.)	As Per Tender	Clarification sought by the Bidders	DFCC's Response
	4.3, Page 27			
583	Part 2, Section VI, Volume 4, Clause 12.3.1, Page 116		2x 100% 48V SMPS will be in sharing mode and not hot stand by	Please refer Addendum 3 (S.No.144).
584	Part 2, Section VI, Volume 4, Clause 12.3.10 (9), Page 117		Fan failure alarm can't be given as fans are in module level and not at system level	Please refer Addendum 3 (S.No.146).
585	Part 2, Section VI, Volume 4, Clause 12.3.10 (10), Page 117		Temperature compensation failure is not possible to provide	Please refer Addendum 3 (S.No.147).
586	Part 2, Section VI, Volume 4, Clause 11.5.2.1.1 (9), Page 104	Shutter Speed : 1 to 1/1,00,000	1 to 1/10000s is standard and same is also asked in PTZ Camera. Request you to Pls change it to 1s to 1/10000s	Please refer Addendum 3 (S.No.134).
587	Part 2, Section VI, Volume 4, Clause 11.5.2.1.1 (7), Page 103	Sensitivity : Scene Illumination (at F1.2, 50 IRE & Shutter Speed 1/50). Colour Mode : 0.5 Lux Night Mode (Black & White) : 0.05 Lux	Request you to Pls lower the shutter speed as 1/25s to get the full frame. For CMOS sensor 1/50s is not ideal to get the real time video.	Provisions in the Bidding Document shall prevail.

S. No.	Reference to Bidding Document (Consisting of Part, Section, Volume, Reference Clause, Page no. etc.)	As Per Tender	Clarification sought by the Bidders	DFCC's Response
588	Part 2, Section VI, Volume 4, Clause 11.5.2.2.1 (11), Page 105	Enclosure: IP 54/NEMA–3 or better	IP 54Dust protected (ingress of dust is not entirely prevented, but it must not enter in sufficient quantity to interfere with the. satisfactory operation of the equipment). Since it is an indoor camera so Request you to pls change it Vandal resistant IK10 rating	Provisions in the Bidding documents shall prevail.
589	Part 2, Section VI, Volume 4, Clause 11.5.2.3 (6), Page 106	Sensitivity and Scene Illumination (at F1.2, 50 IRE & Shutter Speed 1/50). Colour Mode: 0.1 Lux Night Mode (Black & White) : 0.1 Lux	No OEM has F Value F=1.2 in PTZ Camera. Pls change it to F 1.6 also 0.1 in Colour and 0.01lux in B/W at 50 IRE, speed 1/50s is not possible in PTZ Camera. Request to change lux level color 1 lux or better and B/W 0.04 lux or better at 50 IRE, 1/30 s shutter speeds. At 1/50 sec you will not get the real time video in CMOS sensor.	Please refer Addendum 3 (S.No.137). As regards Focal Length, Provisions in the Bidding documents shall prevail.
590	Part 2, Section VI, Volume 4, Clause 11.5.2.3 (10), Page 106	Lens: 35 X Optical Zoom or better	35X or better Optical zoom in HD PTZ Camera is specific to only one vendor. Pls change it to 30x or better for better competition.	Please refer Addendum 3 (S.No.138).
591	Part 2, Section VI, Volume 4, Chapter 10		**Queries for VHF Transceiver:** Quantity of 25 watt VHF transceivers along with power supply & associated accessories are not mentioned anywhere in the chapter 10. Please specify qty of 25 watt VHF transceiver base station.	Please refer Clauses 10.1.1 & 10.1.2.

S. No.	Reference to Bidding Document (Consisting of Part, Section, Volume, Reference Clause, Page no. etc.)	As Per Tender	Clarification sought by the Bidders	DFCC's Response
592	Part 2, Section VI, Volume 3, Clause 2.2.7(1)(f), Page 24	The Point machines and the ground connections supplied by the Contractor shall be compatible with turnouts and derailing switches provided by the CST contractor. The contractor shall interface with the CST contractor for the same.	Type of turn outs required should be provided at bidding stage so as to design the right type of Equipment needed for PMs.	Please refer Clause 2.2.7(1)(a) for details of turnouts. For further details please interface with CST contractor.
593	Part 2, Section VI, Volume 3, Clause 2.2.7(2)(a), Page 24	Non trailable Point machines shall be used. Electric Point machines shall be provided with external Clamp. RDSO's approval shall be taken if the Point machines and the ground connections supplied are not as per IRS/RDSO specification.	Clamp Lock for Point Machines for Canted rail is not RDSO approved.	Existing provision are sufficiently clear.
594	Part 2, Section VI, Volume 3, Clause 2.2.7(3)(c), Page 25	No point machines shall be installed in between the main line tracks.	The Installation of PMs will depend on the space provided by the CST Contractor and should be removed.	Existing provisions shall prevail. Please refer Part 2, Section VI, Volume 3, Clause 9.5 for interface with the CST contractor.
595	Part 2, Section VI, Volume 3, Clause 2.2.8 (9), Page 26	The use of relays within the signaling sub system shall, however be minimized by design.	This point is not clear, most of the interfaces required are through Relays since RDSO IXL specifications are designed in the same way.	Use of other means such as serial interface is permitted with RDSO's approval.
596	Part 2, Section VI, Volume 3, Clause 2.2.9(2)(a), Page 27	The Control terminal shall work with 230V ± 10%, 50 Hz AC power supply, for which IPS/UPS of	Is this requirement separate from the Full IPS being provided or can the Control Works station be powered from the same	There is no requirement to provide a separate IPS/UPS. Please refer Addendum 3 (S.No.75).

S. No.	Reference to Bidding Document (Consisting of Part, Section, Volume, Reference Clause, Page no. etc.)	As Per Tender	Clarification sought by the Bidders	DFCC's Response
		adequate capacity to maintain the control terminal for 4 hours shall be supplied along with the system.	IPS as for others systems	
597	Part 2, Section VI, Volume 3, Clause 3.1.1, Page 71	The Signalling system is to be designed, keeping adequate safety margins, to accommodate 9 minute headway or better and a speed potential of 100 Kmph on the main line and 50 Kmph on the passing loops.	This will also depend on the Characteristics of the Rolling stock like Braking characteristics.	Please refer to Table 5.2.1 – Rolling Stock Characteristics in Part 2, Section VI, Volume 2. Also please refer Addendum 3 (S.No.79).
598	Part 2, Section VI, Volume 3, Clause 3.3.10 (2), Page 73	Duplicated system shall change seamlessly when one system fails. If duplicated system has changing time, the contractor shall show that its system shall not obstruct the train operation.	This requirement should be limited to some sub-systems only since not all systems can be duplicated, especially out door.	The requirement is for only those systems that have been provided with redundancy or duplication.
599	Part 2, Section VI, Volume 3, Clause 3.4.9 (8), Page 74	When requested by the User and with the exception of variables that can be set only through direct contact with train borne equipment, the System shall enable variable settings and limits that affect the operation of the railway, to be adjusted from the OCC.	This a CTC function since only TMS is required in OCC this is very difficult to achieve.	Please refer Addendum 3 (S.No.82).
600	Part 2, Section VI,	Portable Fire Extinguishers shall be provided in Station and Auto	This requirement is not clear, is there a requirement to provide fire extinguishers	The System contractor shall provide the Fire extinguishers and Smoke and Fire

S. No.	Reference to Bidding Document (Consisting of Part, Section, Volume, Reference Clause, Page no. etc.)	As Per Tender	Clarification sought by the Bidders	DFCC's Response
	Volume 3, Clause 4.3.3, Page 96	section location Interlocking structures' Signalling Equipment room and the Power Supply Equipment rooms. Portable fire extinguishers shall be compliant to NFPA 10 standard and suited for electrical equipment fires.	from the Signaling Provider also.	detection and Alarm system. Please refer Addendum 3 (S.No.85).
601	Part 2, Section VI, Volume 3, Clause 4.4.10, Page 97	All the Outdoor installations viz. Signals, Location boxes, Lifting barriers, Track devices etc. shall be earthed. The earthing conductor to be connected to these devices/ equipment should be bonded by exothermic weld connection using magnetic mould.	It should be allowed to bolt the earthing to the boxes instead of exothermic welding which will make it easier for maintenance and stolen replacement.	Not agreed. Existing provisions shall prevail
602	Part 2, Section VI, Volume 3, Clause 4.4.14, Page 98	The connection between any two moving parts, like doors with Bonding Ring Conductor, etc. should be connected by 316L Stainless Steel Flexible braids, which are UL listed, RoHS compliant and meeting IEC 60439.1 & IEC 61439.1.	This should depend on the Designer regarding equipment to justify and meet the requirements through any means.	Not agreed. Existing provisions shall prevail.
603	Part 2, Section VI, Volume 3, Clause 5,7,5, Page 102	The EI application logic for every station will have to be tested completely for all tests including Control Table, Hot standby tests	The EI logic testing during FAT stage could effect the delivery lead times and hence FAT tests should be limited to HW tests only and SW logic for individual stations	Not agreed. Existing provisions shall prevail

S. No.	Reference to Bidding Document (Consisting of Part, Section, Volume, Reference Clause, Page no. etc.)	As Per Tender	Clarification sought by the Bidders	DFCC's Response
		etc. as part of FAT.	should be allowed to be checked under the System acceptance tests	
604	Part 2, Section VI, Volume 3, Clause 7.2.2(2), Page 113	The Maintenance Plan shall describe the Contractor's proposed maintenance regime for preventive and corrective maintenance of the system, including, but not limited to the following:	Is preventive maintenance in the scope of the contractor.	Refer Part 2, Section VI, Volume 3, Clause 7.4 for maintenance support to be provided by the Contractor during DNP.
605	Part 2, Section VI, Volume 3, Clause 7.2.4(2), Page 114	The Contractor shall submit enough copies of O&M manuals sufficient for distribution to all officials responsible for operation and maintenance of the section.	Number of copies required should be provided in the bid document since it makes unlimited scope for providing copies.	Please refer Addendum 3 (S.No.89).
606	Part 2, Section VI, Volume 3, Clause 7.3.7, Page 115	The Contractor shall provide training to the Employer's staff for use of new version, as and when incorporated.	This should be included in the total Training required under the contract requirement and not a separate item	The Training man-hours have not been quantified. Existing provisions shall prevail.
607	Part 2, Section VI, Volume 3, Clause 7.3.8(1), Page 315	All source and executable code including all data configuration tables.	Source Code requirement's should be clarified.	The requirement is that all source code and executable code including data configuration tables for the software developed and delivered/ modified after installation shall be given to the Engineer.
608	Part 2, Section VI,	The Contractor shall provide	The repairs should be limited to design	Clause is sufficiently clear. It refers to

S. No.	Reference to Bidding Document (Consisting of Part, Section, Volume, Reference Clause, Page no. etc.)	As Per Tender	Clarification sought by the Bidders	DFCC's Response
	Volume 3, Clause 7.4.3, Page 115	workshop repair services of all defective and faulty items of the system.	defects only and not related to damaged cards	defective and faulty items and not damaged items. Existing provision shall prevail.
609	Part 2, Section VI, Volume 3, Clause 7.4.6(5), Page 116	The maximum turnaround time for workshop repair shall be less than twenty eight (28) days. The turnaround time count will start from the time the defective part is removed from the system and will continue till the part is repaired and returned back to stock or the system. Any extension of workshop repair time shall be agreed with the Engineer.	Repair turnaround time should include time if the equipment is already replaced.	Query not clear.
610	Part 4		Request you to provide EDFC chainage at Track merging locations with Indian railway track. Also indicate the distance of all SRJs from nearby OHE mast.	Alignment plans, yard plans and Building plans etc. have been included in Part 4 – Reference documents. For further details, if any. site visit may be carried out.
611	Part 4		Request you to give EDFC chainage for TSS, SP, SSP locations and mark the same on alignment plan.	Please refer reply to Query 610.
612	Part 2, Section Vi, Volume 2		Please confirm whether Bolted Base type of mast would be acceptable or not.	Please refer reply to Query 21.

S. No.	Reference to Bidding Document (Consisting of Part, Section, Volume, Reference Clause, Page no. etc.)	As Per Tender	Clarification sought by the Bidders	DFCC's Response
613	Part 4		Request you to provide table of curves giving all the details in regular format.	Alignment plans have been given in Part 4 – Reference Documents. These are indicative. Final approved plan and details of curves shall be collected from CST Contractor during execution. These shall be an interface issue.
614	Part 2, Section Vi, Volume 2		Since very high level of filling is envisaged at TSS SP SSP locations and current HFL could not be ascertained. Please confirm whether formation level of sub-station will be above the existing ground level.	Please refer reply to Query 321.
615	Part 1		Please confirm that Custom duty exemption will be applicable for import of raw materials for manufacturing of goods or not.	Please refer Clause 29.8 of Part 1 and Sub-Clause 4.11 of Part 3.
616	Part 2, Section VI, Volume 3		Please confirm that prototype testing of equipment's which are carried out during three years' time period before supply date, will be considered or not.	Query not clear.
617	PART 1, Section II, ITB 19.1, Page 43	The deadline for submission of First Stage Technical Proposals is: Date: 31.03.2014 Time: 15:00 Hrs	We request you to kindly extend the tender submission date at least by 10 weeks from present deadline.	Please refer reply to query at S.No. 228.

S. No.	Reference to Bidding Document (Consisting of Part, Section, Volume, Reference Clause, Page no. etc.)	As Per Tender	Clarification sought by the Bidders	DFCC's Response
618	Part-1, Section I. Clause 4, Page 10	A Bidder may be a private entity or a government-owned entity—subject to ITB 4.5—or any combination of such entities in the form of a joint venture, or association (JVA) under an existing agreement or with the intent to enter into such an agreement supported by a letter of intent.	Pl clarify the Minimum % of share required by each member of the Joint Venture/Association.	There is no specific requirement regarding minimum percentage of JV share. However, each JV member should continue to meet the requirment as specified in the PQ document.
619	Part - 3, Section VIII. Sub-Clause 13.8, Page 19	"Ln", "Cn", "Sn", "Kn", "Wn", "En", "Tn", "Mn" and "Fn" are the current cost indices or reference prices for period "n", expressed in the relevant currency of payment, each of which is applicable to the relevant tabulated cost element on the date 49 days prior to the last day of the period, (to which the particular Payment Certificate relates) as detailed in the Annexure I to Appendix to tender "Lo", "Co", "So", "Ko", "Wo", "Eo", "To", "Mo" and "Fo" are the base cost indices or reference prices, expressed in the relevant currency of payment, each of which is applicable to the relevant tabulated cost element on the Base Date, as	Pl clarify the basis of deciding the Base Date and Current Date for price adjustment	Provisions in the Bidding Document shall prevail. Base date is as defined by GC Sub Clause 1.1.3.1. Current Date will be as per Part -3, Section VIII, GC Sub Clause 13.8, Page 19 of 44.

S. No.	Reference to Bidding Document (Consisting of Part, Section, Volume, Reference Clause, Page no. etc.)	As Per Tender	Clarification sought by the Bidders	DFCC's Response
		detailed in the Annexure I to Appendix to tender		
620	Part 2, Section VI, Volume 2, Clause 4.4.2.6.d, Page 23	Prototype test report/certificate for offered item is to be submitted. Fresh prototype test is to be conducted, if the same has not been carried out (i) In last three years (prior to date of First stage Technical Bid Opening)	We understand that prototype test carried out on same rating or higher rating of equipment(s) to be supplied for other projects of DFCCIL shall also be considered as Fresh prototype test and the prototype test can be carried out after the First Stage Technical Bid Opening. Kindly Confirm.	Please refer Addendum 3 (S.No. 25 & 26).
621	Part 2, Section VI, Volume 3, Clause 2.2.4 (1)(e), Page 18	The primary train detection technique to be used is by the use of Digital Axle Counting technology. Where required, a secondary means of train detection can be used to supplement the primary with the approval of the Engineer.	Please clarify, where do you envisage this secondary means of train detection would be required. Scope shall be elaborated.	Please refer response to query at S. No. 145.
622	Part 2, Section VI, Volume 3, Clause 2.2.4 (2) (h) (i), Page 20	Use of different transmission media like Quad cable and OFC shall preferably be adopted between Field units and Central Evaluator for Main & Supervisory systems and for UP & DN systems.	TO have OFC connectivity between Field units and Central evaluators, the central evaluators for supervisory have to be installed in Location Boxes near wheel sensors. In this case the track status can be transmitted to the Station Equipment Room through OFC. For doing this, Power supply equipment and OFC should be made available in	There is no restriction on placement of Evaluators or use of OFC. Please refer Addendum 3 (S.No. 71). Also, refer response to query at S. No. 151.

S. No.	Reference to Bidding Document (Consisting of Part, Section, Volume, Reference Clause, Page no. etc.)	As Per Tender	Clarification sought by the Bidders	DFCC's Response
			respective location boxes. Please confirm.	
623	Part 2, Section VI, Volume 3, Clause 2.2.11(i)(ii), Page 31	Following Typical alarms (but not limited to) shall be generated by the system: (ii) Axle counter: Operating voltage low	Axle counter system cannot monitor power supply being the analog input. This shall be monitored using external data logger system.	The requirement is for monitoring of Axle counter power supply, which can be achieved through any means, including use of data logger.
624	Part 2, Section VI, Volume 3, Clause 3.1 OF APPENDIX 5, Page 209	As RH is unmanned, not easily approachable as compared to stations, it is not desirable to keep vital electronic equipment like evaluators of MSDACs at RH. Also keeping evaluators at RH would make all the track sections available at RH, which would require their repetition from RH to stations for indication & signal control circuit. This would increase the number of relays to be repeated from RH to stations. Therefore, in the scheme, the vital electronic equipment like evaluators of MSDACs have been kept at stations only.	Please confirm, where the track status relay is required.	Please refer Addendum 3 (S.No.71).
625	Part 2, Section VI, Volume 3, Clause 4.3 OF APPENDIX	The first DP of a track section shall be located at not more than 13m from the foot of the signal controlled by that track section. The other DP	We understand from the sketch that it shall be DP7 of AS-8 instead of DP6. Please confirm.	Please refer response to query at S. No. 467.

S. No.	Reference to Bidding Document (Consisting of Part, Section, Volume, Reference Clause, Page no. etc.)	As Per Tender	Clarification sought by the Bidders	DFCC's Response
	5, Page 209	of that track section shall be not less than overlap distance from the foot of the next signal in the direction of movement. For example, DP6 of 10T is at not less than overlap distance (120m in this case) from foot of the signal AS-8.		
626	Part 2, Section VI, Volume 3, Clause 4.7 OF APPENDIX 5, Page 209	Evaluator to each DP will require1/2 quad.	Specification shall be generic as some axle counter requires 1 QUAD per wheel sensor also.	Please refer Addendum 3 (S.No.71).
627	Part 2, Section VI, Volume 3, Clause 5.1 OF APPENDIX 5, Page 210	To minimize the requirement of repeating the aspect relays of signals fed from RH to stations for indication purpose, maximum number of signals (up to 2.8 kms) have been fed from the stations & least number of signals from RH. The locations of RH be so chosen that all the signals fed from RH are within 2.8 kms.	Please clarify how the signals close to RH will be driven, from the station through relays and repeaters or by an Interlocking system in RH.	The signals close to RH will obviously be driven from interlocking kept in RH. The guidelines of Chapter 10, Appendix 5 shall be used to design only the Track Vacancy Detection system. Please refer Addendum 3 (S.No.71&96).
628	Part 2, Section VI, Volume 3		Please confirm, Will there be a Interlocking system available in the RH which can reduce copper cable between station and RH	Please refer to Clauses 2.2.3(1)(b) and 1.4.13 of Part 2, Section VI, Volume 3 as per which number of interlocking & interlocking structures and their location will be determined by contractor's design.

S. No.	Reference to Bidding Document (Consisting of Part, Section, Volume, Reference Clause, Page no. etc.)	As Per Tender	Clarification sought by the Bidders	DFCC's Response
629	Part 2, Section VI, Volume 3		Please clarify the Earthing Requirements for Track side electronics. (Maintenance free earth / Signal Earth to be provided)	Please refer to Clause 4.4 of Part 2, Section VI, Volume 3 under which the Earthing requirements for both Outdoor and Indoor Signalling systems is covered.
630	Part 2, Section VI, Volume 2		Please specify the height of finished top of TSS from the Rail Level (RL)	Please refer reply to Query 41.
631	Part 2, Section VI, Volume 2		Pl specify the height of finished TSS level to be kept with respect to available ground level, or whether DFCCIL will arrange soil filling from their existing civil contractor	Please refer reply to Query 41. DFCCIL shall not arrange soil filling from CST Contractors.
632	Part 2, Section VI, Volume 4		**Queries for Optical Fiber Based Communication System:** 1) Please suggest the number of SDH Nodes to be considered in the BOM. Also indicate the number of SDH nodes i.e. STM-16 to be considered in First network and STM-4 to be considered in Second network. 2) Telecommunication Equipment Rooms (TERs) at Auto Section Locations, LC Gates, Interfacing IR Stations, GSM-R Locations, TSSs, SPs, SSPs, IMDs, IMSDs, Staff Residential Colonies etc. Kindly confirm the locations for the same. Also Please indicate the number	1) Provisions in the Bidding Document are sufficiently clear. BOM for the SDH Nodes to be determined by Bidder/Contractor. 2) Provisions in the Bidding Document are sufficiently clear. Number of NE to be determined by Bidder/Contractor.

S. No.	Reference to Bidding Document (Consisting of Part, Section, Volume, Reference Clause, Page no. etc.)	As Per Tender	Clarification sought by the Bidders	DFCC's Response
			of NE to be provided in the first network and the number of NE's provided in the second network. 3) Please indicate the distance between the stations i.e for the first network (STM-16) and for the second network (STM-4). Distances are required to calculate the link engineering. 4) Request you to please provide the indicative network diagram with provision of First network and second Network. 5) Please provide us the information for the Services required to run on SDH platform and the Data networking Platform. 6) Flexible Access Multiplexer is provided, wherever the SDH node is provided.	3) Please refer Part 4 – Reference Documents. 4) Provision in the Bidding Document are sufficiently clear. Please refer Clauses 5.3.3 and 5.3.4. 5) Provisions in the Bidding Document are sufficiently clear. 6) Please refer Clause 5.3.5.5
633	Part 2, Section VI, Volume 4		1) Network management System for the SDH and PDH are different with Different hardware and different software. 2) Omnibus communication or conference facilty is required or not	1) Please refer Addendum 3 (S.No.108). 2) Provisions in the Bidding Document are sufficiently clear. The equipment shall support Omnibus Operation of Voice in Data Channels. Its requirements

S. No.	Reference to Bidding Document (Consisting of Part, Section, Volume, Reference Clause, Page no. etc.)	As Per Tender	Clarification sought by the Bidders	DFCC's Response
				shall be determined by the Bidder / Contractor.
			3) is E1 (1+1) protection required in PDH mux, 4) -48V DC Power redudancy (1+1) would be offered 5) Low speed data interfaces : please confirm the actual data interfaces would be used by end customer, as all types of interface specifications is mentioned in tender Queries for Optical Fiber Based Communication System: 6) Voice interface: please confirm actual voice services to be used by end customer, or please mention the card types to be used / deployed by end customer per PDH Mux .	3) Please refer Addendum 3 (S.No.106). 4) Refer to Chapter 12 for 48 V DC Battery Back-up Requirements 5) Provisions in the Bidding Document are sufficiently clear. Requirment is to be determined by Bidder/Contrctor. 6) Provisions in the Bidding Document are sufficiently clear. Requirement is to be determined by the Bidder/Contractor.
634	Part 2, Section VI, Volume 4		Queries for Data Networking System: 1) As per the tender, Layer-3 Switches	

S. No.	Reference to Bidding Document (Consisting of Part, Section, Volume, Reference Clause, Page no. etc.)	As Per Tender	Clarification sought by the Bidders	DFCC's Response
			are required, with 4x10G with 24x10/100/1000BaseT. Please indicate the locations of Data Networking Switches. As per the Particular Specification, data networking switches are required at OCC, all Stations, IMDs, and IMSDs. Please indicate the tentative BOM for the switches. 2) Layer-3 Switches & Layer-2 switches shall be capable of working with DC Power Supply with range of -40 to -54V. If the switch does not work on this power supply, then can we plan an additional converter? 3) Distances between the stations to calculate the link engineering for the Switches and to know the type of transceivers. 4) We will consider the L2 POE Switch with AC Power supply. 5) Please share the tentative BOM for the Switches. For layer-3 Switches, is only consider at stations. Please also indicate the location of Layer-2 switches. 6) Please share the list of Junction stations, & interconnect station, to consider the Wi-Fi System	1) Provisions in the Bidding Document are sufficiently clear. BOM for the Switches to be determined by Bidder / Contractor. 2) Provision of Additional Converter is not permitted. Provisions in the Bidding Document shall prevail. 3) Please refer Part 4 – Reference Documents. 4) The switch shall be provided as per Clause 6.5.2.3. 5) Provisions in the Bidding Document are sufficiently clear. BOM for the Switches to be determined by Bidder / Contractor. Location of Layer-2 Switches to be determined by Bidder / Contractor. 6) Please refer Part 4 – Reference Documents.

S. No.	Reference to Bidding Document (Consisting of Part, Section, Volume, Reference Clause, Page no. etc.)	As Per Tender	Clarification sought by the Bidders	DFCC's Response
			7) Please consider the building area for OCC, junction station and interconnect stations to calculate the number of access points for wi-fi.	7) Please refer Part 2, Section VI, Volume 5 and Part 4- Reference Documents.
635	Part 2, Section VI, Volume 4, Clause 7.3.4.6, Page 55		DLT Phone quantity is not available in the document. Please share the same.	Provisions in the Bidding Document are sufficiently clear. Direct Line Telephones Quantity shall be determined by Bidder / Contractor.
636	Part 2, Section VI, Volume 4, Clause 7.3.3.6, Page 50		Please share the topology Diagram for interconnection of SDH network for PRI and IP Trunk connectivity between the sites.	Provisions in the Bidding Document are sufficiently clear. Topology Diagram shall be developed by Bidder / Contractor.
637	Part 2, Section VI, Volume 4, Clause 7.3.4.2, Page 53		In specifications dedicated Interconnection digital trunks for DLT network is mentioned. Can we consider IP channels for the same?	Digital trunk lines have been stipulated for the reason of voice quality. Provisions in the Bidding Document shall prevail.
638	Part 2, Section VI, Volume 4, Clause 7.3.3.3 & 7.5.1.3, Page 50 & 59		Number of required Analog ports and digital ports are different in clause 7.3.3.1 and 7.5.1.3. Which one do we have to consider for the final BOM?	Clause 7.3.3.1 covers requirement of Telephone Sets to be provided as part of Administrative Telephone Network, while Clause 7.5.1.3 covered requirements of Equipped Ports to be provided in PBXs as part of Administrative Telephone Network. Please refer Addendum 3 (S.No. 119).

S. No.	Reference to Bidding Document (Consisting of Part, Section, Volume, Reference Clause, Page no. etc.)	As Per Tender	Clarification sought by the Bidders	DFCC's Response
639	Part 2, Section VI, Volume 4, Clause 7.5.2, Page 60		Do we need to consider the VOIP based EPABX as a completely different EPABX or a part of PBX network?	Provisions in the Bidding Document are sufficiently clear. Please refer to clauses 7.3.3.5 & 7.3.3.6.
640	Part 2, Section VI, Volume 4, Clause 7.5.2, Page 60		If VOIP based EPABX is different EPABX in that case communication between both the EPABX is required or not? (If yes, on which media (IP Trunks or Digital Trunks)	Provisions in the Bidding Document are sufficiently clear. Please refer to clauses 7.3.3.5 & 7.3.3.6.
641	Part 2, Section VI, Volume 4, Clause 7.5.2.2, Page 60		In VOIP EPABX, specifications of IP phone is not mentioned. Please share the same.	Provisions in the Bidding Document are sufficiently clear. As IP Voice Phones are not to be provided under this Contract, specifications of the same are not mentioned.
642	Part 2, Section VI, Volume 4, Clause 7.3.3.6, Page 50		In case of failure of E1 links between the PBX's, all calls should be routed via IP Telephony server using IP link(s) over WAN as an alternate route, without requirement of any manual intervention. Can we consider IP Trunks as first priority for interconnection and E1 Digital trunk as secondary link or backup link?	E1 links have been stipulated as primary means of communication for reason of voice quality. Provisions in the Bidding Document shall prevail.
643	Part 2, Section VI, Volume 4, Clause 7.5.1.3 (6), Page 59		Port for DID lines (Page-50/Clause No-7.5.1.3 (6). It is not clear that these DID lines are analog PSTN lines, ISDN or E&M	Please refer Addendum 3 (S.No.119).

S. No.	Reference to Bidding Document (Consisting of Part, Section, Volume, Reference Clause, Page no. etc.)	As Per Tender	Clarification sought by the Bidders	DFCC's Response
			circuits. **Please Clarify.**	
644	Part 2, Section VI, Volume 4, Clause 3.1.2, Page 20		Battery codal life is 4 years and not 15 years.	Please refer Addendum 3 (S.No.99).
645	Part 2, Section VI, Volume 4, Clause 3.6, Page 22		EMC will be RDSO Spec for 48V SMPS Power plant.	EMC for overall Telecommunication Works shall be as per Clause 3.6.
646	Part 2, Section VI, Volume 4, Clause 4.3. Page 27		-5 Deg C to 50 Deg C not applicable for VRLA Battery	Please refer Clause 4.3.5 and amended Clause 4.3.2. Please refer Addendum 3 (S.No.102).
647	Part 2, Section VI, Volume 4, Clause 12.3.1,Page 116		2x 100% 48V SMPS will be in sharing mode and not hot stand by	Please refer Addendum 3 (S.No.144).
648	Part 2, Section VI, Volume 4, Clause 12.3.10 (9), Page 117		Fan failure alarm can't be given as fans are in module level and not at system level	Please refer Addendum 3 (S.No.146).
649	Part 2, Section VI, Volume 4, Clause 12.3.10 (10), Page 117		Temperature compensation failure is not possible to provide	Please refer Addendum 3 (S.No.147).

S. No.	Reference to Bidding Document (Consisting of Part, Section, Volume, Reference Clause, Page no. etc.)	As Per Tender	Clarification sought by the Bidders	DFCC's Response
650	Part 2, Section VI, Volume 3, Clause 1.4.3, Page 9	The LC gates in the section shall be protected with semi-automatic Gate signals. The gateman shall be provided with audio visual 'Approach Warning' when the train hits the approach warning track section. Once the gateman has closed the gate and the train has reached the approach locking track section, the LC gate barriers will get 'Approach locked'. The route will then get automatically set and gate signals get cleared if the relevant track sections ahead are clear. The route will get automatically released after passage of train beyond LC gate	Kindly indicate the distance for approach warning & approach locking.	Please refer to Part 2, Section VI, Volume 3 Chapter 10, Appendix 2 Para 12 where Approach Locking distance on DFCCIL tracks has been specified as 4 Kms.
651	Part 2, Section VI, Volume 3, Clause. 2.2.10 (1), Page 28	The power supply scheme for Signalling and Telecommunication System should be based on 230V 50Hz AC supply. The power supply is being made available under PS (Electrification) Vol. 5 Part 2. The "Electrification System" will provide Auto Change over Switch (ACO) near/inside the S&T Power Supply Equipment room on which they will terminate the Power Supply.	Can we use common power supply for signalling & Telecom equipment both.	Provisions of Clause 2.2.10 are sufficiently clear. The power supply for Signalling and Telecommunication systems will be common till Main AC Distribution Box, after which they will be separated. The IPS/UPS for Signalling system shall be separate from UPS of Telecommunication system.

S. No.	Reference to Bidding Document (Consisting of Part, Section, Volume, Reference Clause, Page no. etc.)	As Per Tender	Clarification sought by the Bidders	DFCC's Response
652	Part-2 Section VI, Volume 2, Clause 4.2, Page No 20 of 291		In the table Maximum temperature for metallic object under the sun is mentioned as 70^{o}C. We understand that, for Ampacity calculations of OHL conductors, start and end value to be considered will be 50^{o}C and 100^{o}C respectively. Kindly confirm our understanding.	Provisions in Clause 4.2, Part-2 Section VI, Volume 2, shall prevail. For OHL conductors please refer to Clause 8.4 Part-2 Section VI, Volume 2.
653	Part-2 Section VI, Volume 2, Clause 14.3, Page No 147 of 291		Since there is no redundancy available in OHE components / fittings, we understand that the Reliability class R3 and R4 are applicable only to the Power Supply system and not for the Overhead Equipment system. Kindly confirm our understanding.	Provisions in Clause 14.3, Page No 147 of 291, Part-2 Section VI, Volume 2 shall prevail.
654	Part-2 Section VI, Volume 2, Clause 10.1.2 (9.e), Page No 83 of 291	Protective provisions relating to electrical safety and earthing of SCADA equipment which include earthing of equipment, cables and non-current carrying metallic components, etc.	Since SCADA equipment required clean earthing pit. So scope of same is not clear	Provisions in Clause 10.1.2 (9.e), Page No 83 of 291 Part-2 Section VI, Volume 2, shall prevail.
655	Part-2 Section VI, Volume 2, Clause 10.1.2 (9.l), Page No 83 of 291	Web server with android based client application	Details explanation of this functionality required	Please refer Addendum 3 (S.No.45).

S. No.	Reference to Bidding Document (Consisting of Part, Section, Volume, Reference Clause, Page no. etc.)	As Per Tender	Clarification sought by the Bidders	DFCC's Response
656	Part-2 Section VI, Volume 2, Clause 10.2.1 (e), Page No 84 of 291	SCADA system shall be self monitoring i.e. failure of any piece of equipment down to the individual printed circuit boards shall cause an alarm locally and at the OCC.	SCADA can self monitor upto module level like CPU, Power Supply, Communication card and I/O cards. Details of failure of internal circuit not possible. Hence scope for same to be defined clearly.	Please refer Addendum 3 (S.No.47).
657	Part-2 Section VI, Volume 2, Clause 10.2.1 (f), Page No 84 of 291	SCADA system shall incorporate hardware and software for access control features that prevents access by unauthorized persons; the unsuccessful login shall be alarmed and logged at OCC.	Is this means Access control of building entry?	Please refer reply to Query 278
658	Part-2 Section VI, Volume 2, Section VI, Clause 10.2.1 (l), Page No 85 of 291	All SCADA system equipment shall operate satisfactorily in the very high "electrical noise" environment normally associated with Freight systems due to electrical fields created by traction supplies and strong magnetic fields. Equipment shall be immune to the effects of conducted and radiated electrical interferences.	This should be applicable to RTU not SCADA component since SCADA is inside closed building.	Provisions in Clause 10.2.1 (I), Page 84 Part 2, Section VI, Volume 2 shall prevail.
659	Part-2 Section VI, Volume 2, Clause 10.7.2 (f), Page No 90 of 291	In event of communication failure at any control Post, that particular post shall record changes within the switching station until	Communication failure Time/ No of event limit is not clear	Please refer Clause No. 10.10.2(38)(a)(iv), Part-2 Section VI, Volume 2, Page 111 Please refer Addendum 3 (S.No.58).

S. No.	Reference to Bidding Document (Consisting of Part, Section, Volume, Reference Clause, Page no. etc.)	As Per Tender	Clarification sought by the Bidders	DFCC's Response
		communications are restored and RTU shall update current status and change history shall be Transferred to the master station for recording in the logs of Events.		
660	Part-2 Section VI, Volume 2, Clause 10.7 (3), Page No 90 of 291	SCADA System shall have an MTTR of 30 Minutes	Shall be applicable for SCADA system only. Communication failure cannot be included.	Please refer Addendum 3 (S.No.52)
661	Part-2 Section VI, Volume 2, Clause 10.10.1 (2), Page No 96 of 291	The software shall fully support file transfers between RTU & OCC as defined by different IEC 60870-5 series of standards;	Need clarification of this functionality.	Please refer Addendum 3 (S.No.53).
662	Part-2 Section VI, Volume 2, Clause 10.10.2 (1) (a), Page No 96 of 291	The SCADA system shall be capable of acquiring measurands i.e. analogue inputs from the TSS and SP including transients. The measurand data shall be time tagged at OCC.	Capturing transients data through RTU is not possible.	Please refer reply to Query 383.
663	Part-2 Section VI, Volume 2, Clause 10.10.2 (3), Page No 97 of 291	Option to abort a command shall be available with the operator till it has not been acknowledged for execution at the switching station.	Command abort in 3 sec is not possible because by this defined time either command got executed or else if given back command failed alarm to operator if not got	Please refer Addendum 3 (S.No.55).

S. No.	Reference to Bidding Document (Consisting of Part, Section, Volume, Reference Clause, Page no. etc.)	As Per Tender	Clarification sought by the Bidders	DFCC's Response
		In case the command is issued to more than one RTUs and acknowledgement for execution is not received at OCC from any one RTU, the command shall be automatically aborted within 3 seconds as a fail-safe measure. Any command which does not get executed within the specified time of 3 seconds, shall be automatically cancelled and confirmation to this effect communicated to operator.	executed.	
664	Part-2 Section VI, Volume 2, Clause 37 (c) (ii), Page No 110 of 291	All servers shall be industrial grade servers;	IT hardware (Sever and workstation) from standard manufacturer like HP/DELL/IBM/Fujitsu does not supply industrial grade hardware.	Please refer Addendum 3 (S.No.57).
665	Part-1, Section II, Clause 30.1-Appendix to tender, Page No 45 of 134	The currency(ies) of the bid and the payment currency (ies) shall be as described below: a) The prices shall be quoted by the Bidder entirely in Indian Rupees (the name of the currency of Employer's country) and further referred to as "the local currency". A Bidder expecting to incur expenditures in other currencies for inputs to the Works supplied from outside the Employer's country	It is understood that the payment will be made in the currencies (Local & Foreign) as intimated by the Bidder in Appendix to the Bid of Letter of Bid. However while revisiting the clause, it seems that while making payment of Foreign currencies, a conversion will be made from foreign currency to local currency by using the exchange rate of the Base Date. It also mentions that the rate of exchange as mentioned above is used so	Provisions in the Bidding Document shall prevail.

S. No.	Reference to Bidding Document (Consisting of Part, Section, Volume, Reference Clause, Page no. etc.)	As Per Tender	Clarification sought by the Bidders	DFCC's Response
		(referred to as "the foreign currency requirements") shall indicate in the Appendix to Bid of Letter of Bid – Two Stage Bidding, Second Stage Bid, (Form – LOB – SS) the percentage (s) of the Bid Price, needed by him for the payment of such foreign currency requirements, limited to no more than three foreign currencies. b) For the purpose of conversion of foreign currency in to local currency i.e. Indian Rupees (INR) or vice versa, Bidders shall use the Reference Rates of Foreign Currency published by Reserve Bank of India (www.rbiorg.in), on the Base Date (28 days prior to the last date of second stage bid submission). In case a particular currency rate is not published by Reserve Bank of India, then the selling rate of such currency shall be taken from the following internet web site on the Base Date: http://www.oanda.com In case the exchange rates are not available on the above website also, then mid-market rate of such	that no exchange risk will be borne by the successful We request you to change the "base date" to the date of making payment or to make the payment in the different currencies mentioned by the bidders to serve the purpose of reducing the exchange risk.	

S. No.	Reference to Bidding Document (Consisting of Part, Section, Volume, Reference Clause, Page no. etc.)	As Per Tender	Clarification sought by the Bidders	DFCC's Response
		currency shall be taken from the alternate web site http://www.xe.com for the same date. c) In respect of procurement of Goods and Services from off shore sources Indian cost indices shall not apply. For procurement of Goods and Services from off shore sources applicable whole sale cost index for the relevant input of the respective country shall apply. In case a published index for such goods or services is not available the whole sale prices index of relevant category of the respective country shall be used. The rates of exchange as mentioned above shall apply for all payments		