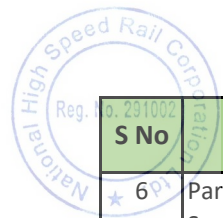
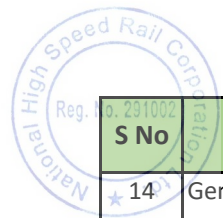




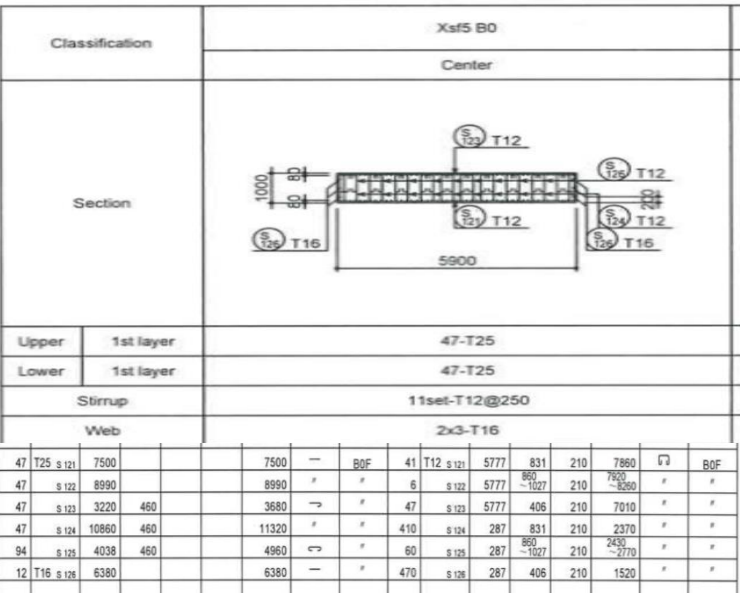
Project		Design and Construction of Civil and Buildings Works including Testing and Commissioning on Design-Build Lump Sum Price basis for Double Line High Speed Railway for Mumbai Underground Station, Cut & Cover Tunnel and Shaft -1 from MAHSR Km. -0.255 to Km. 0.775 at Bandra-Kurla Complex in the State of Maharashtra for the Project for Construction of Mumbai-Ahmedabad High Speed Rail			
Package No.		MAHSR - C - 1			
Response to Bid Queries (Set-3) - 30.04.2020					
S No	Part & Section Reference	Page No / Clause No.	Provision as per Bidding Documents / Subject / Title / Item as mentioned by the Bidder	Bidder Query	Employer's Response
1	Part-1, Section-II, BDS (Vol.1 of 2)	BDS Clause No. ITB-24.1 Page 3 of 34 (16/632)	Last Date for Submission of Tender: The deadline for Bid submission is: Date : 19.03.2020 Time : 15:00 hrs	The Bidder to collect various information for planning for project logistics, material availability and so on, prior to preparation of bid, which required substantial time. Further Bidder requires to depute designer and MEP specialist agency to perform the pretender design works which required a substantial time for competitive bidding. <b>In view of the above bidder requests for extension of last date for submission of bid by 4 weeks.</b> Please Confirm.	Refer Addendum No. 03, Item No. 04.
2	Part-3, Section-VIII, Particular Conditions-Part-A (Vol.1 of 2)	Contract Data of Particular Conditions-1.1.3.3 Page 5 of 67 (570/632)	Time for Completion: 1,638 days For Milestones refer to the table Summary of Milestones below	Considering the volume of the works and uncertainty of time of uncharted utility shifting bidder request to increase the completion period by <b>212 days</b> , i.e. Completion period of the Works to be <b>1850 days</b> and change the key dates accordingly. Please Consider.	The Conditions(s) of the Bidding Documents shall remain unaltered. Refer Addendum No. 02, Item No. 10 for Milestones.
3	Part-2, Section VI-2. Employer's Requirements (Design) (Vol.2 of 2)	Division-01000 General Requirements : 1.1.3 Page 01000-2 of 7 (7/633)	Contractor's Responsibility of Design : The Contractor shall be responsible for the entire detailed design (except for the Structural Design as included in the Employer's Requirements) of the Works and shall ensure that his design is accurate and in compliance with the Contract.....	Bidder Understands that : 1. All Structural design and drawing and detailing will be provided by the Employer. 2. Contractor will be responsible for design of any change specified / instructed by the Engineer or the Employer. 3. Contractor will be responsible for design and detailing of Architectural works and MEP Works only. Please Confirm.	The Condition(s) of the Bidding Documents shall remain unaltered.
4	Bidding Documents – Part 2 Section VI-2. Employer's Requirements (Design Requirements and Criteria)	Contractor's Responsibility of Design Cl. 1.1.2 & 1.1.3 Page 2 of 7 (7 of 633)	Contractor's Responsibility of Design: 1.1.3 : The Contractor shall be responsible for the entire detailed <b>design (except for the Structural Design as included in the Employer's Requirements)</b> of the Works and shall ensure that his design is accurate and in compliance with the Contract.....  1.1.2: The Contractor shall be responsible for verification prior to usage of all the data included in the Employer's Requirements, such as topographical survey, list of utilities, <b>design</b> , construction and manufacturing or installation drawings and establishment of procedures as required by the Employer for the Works as well as quality assurance and control standards for activities at the Site	As specified under Cl. 1.1.3 Bidder being not responsible for structural design under Contractor's Responsibility of Design, please replace the word "design" in Cl. 1.1.2 by "design (except for the Structural Design as included in the Employer's Requirements)"	The Contractor is not responsible for the Structural Design included in the Employer's Requirements. The Condition(s) of the Bidding Documents shall remain unaltered.
5	Bidding Documents - Part 1 Section IV. Bidding Forms	Price Schedule Page 20 of 101 (page 61 of 633)	Schedule No. 2 : Price Schedule 2 – Validation of Survey Data, Investigation, <b>Design</b> and "As-Built" Drawings	In accordance to Bidder's query under Sl. No.4 above and Cl. No. 1.1.3 under "Contractor's Responsibility of Design", Bidder requests to replace the word "Design" in Price Schedule 2 by "Design (except for the Structural Design as included in the Employer's Requirements)"	The Contractor is not required to validate the Structural Design included in the Employer's Requirements. The Conditions(s) of the Bidding Documents shall remain unaltered.



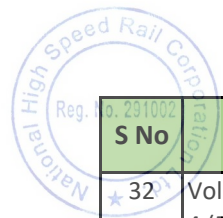
S No	Part & Section Reference	Page No / Clause No.	Provision as per Bidding Documents / Subject / Title / Item as mentioned by the Bidder	Bidder Query	Employer's Response
6	Part-1, Section III. Evaluation and Qualification Criteria (Vol.1 of 2)	3.2(d) (iii)	Construction Experience in Key Activities: For the above or other contracts completed and under implementation as prime contractor (single entity or JV/Consortium member) or management contractor or Subcontractor(vi) between 1st January 2009 and Bid submission deadline, a minimum experience in the following key activities successfully completed: Key Activities: a. Design and execution of MEP works for minimum 2 No. of underground stations of metro rail / railway. b. Design and execution of Architectural works for minimum 2 No. of underground stations of metro rail / railway.	In view of unavailability of such qualified specialist subcontractors with combined experience of design and execution of two UG Metro Stations, the bidder requests to replace " <u>can be specialist Sub-contractor</u> " to " <u>can be specialist Sub-contractor for design and specialist Sub-contractor for execution</u> " under Cl 3.2(d)(iii) Construction Experience in Key Activities for MEP and Architectural Works.	Refer Addendum No. 02, Item No. 06.
7	Part-1, Section III. Evaluation and Qualification Criteria (Vol 1 of 2)	Technical Proposal - Cls.4.2.5 Page 30 of 34 (37/632)	Major Plant and Equipment: The minimum criteria are listed below 1 Batching plant (90 cum/hour) - 3 Nos. 2 Transit Mixer - 60 Nos. 3 JCB/Excavator/Breaker - 30 Nos. 4 Shotcreting machine - 2 Nos.	Bidder Understands, Key plant listed is indicative and Quantity specified is significantly more than actual requirement. Accordingly Bidder requests to modify it as : 1 Batching plant (60 Cum/hour) - 3Nos., 2 Transit Mixer - 20 Nos. 3 JCB/Excavator/Breaker 30 Nos 4 Shotcreting machine 2 Nos Kindly Confirm	The Conditions(s) of the Bidding Documents shall remain unaltered.
8	Part-1, Section VIII. Particular Conditions (PC)-Part A (Vol 1 of 2)	Contract Data to GC Cls. No. 6.5 Page 6 of 67 (571/632)	Normal working hours: Normal working hours - From 8:00 AM to 5:00 PM	Bidder understands that work shall be executed on round the clock basis and there shall be no restriction in working hours. Kindly Confirm.	Refer Addendum No. 02, Item No. 34.
9	Part-1, Section VIII. Particular Conditions (PC)-Part A (Vol 1 of 2)	Contract Data to GC Cls. 14.3(c ) Page 7 of 67 (572/632)	Percentage of Retention: Retention Amount will be deducted in interrim payment @ 10% (ten percent) with a Limit of Retention Money to 3% (Three percent) of the Accepted Contract Amount, less Provisional Sums, if any	To allow requisite cash flow during execution Bidder requests to consider the rate of deduction @ 5% (Five Percent) from interim payment with a limit of 3%(Three percent) towards Retention Money of the Accepted Contract Amount, less Provisional Sums, if any Kindly confirm	The Conditions(s) of the Bidding Documents shall remain unaltered.
10	Part-1, Section VIII. Particular Conditions (PC)-Part A (Vol 1 of 2)	Contract Data to GC Table: Summary of Milestones Page 8 of 67 (573/632)	Table: Summary of Milestones	Bidder Understands, these mile stone period will be finalized by the Engineer / Employer in accordance to factual site condition and interface requirements and on basis of such finalized milestone, Base Line Programme shall be finalized and Bonus / Damages shall be applicable. Kindly Confirm.	The Conditions(s) of the Bidding Documents shall remain unaltered.
11	Part-1, Section VIII. Particular Conditions (PC)-Part A (Vol 1 of 2)	Contract Data to GC Cls. 2.1 Page 5 of 67 (570/632)	access to, and possession of Site: Time for access to, and possession of all parts of, the Site : - 80% area within 1 day Period after the Commencement Date and 100% area progressively within 180 days Period after the Commencement Date	Bidder Understands that 100% Area for site-setup and site establishment within the ROW or adjacent to site and dumping area for Excavated Materials (Un-usable) shall be provided on the Commencement Date. Kindly Confirm.	The Conditions(s) of the Bidding Documents shall remain unaltered.
12	Part-2, Section VI-1. Employer's Requirements (Design ) (Vol.1 of 2)	Clause 1.5, Design Certificate and Third-Party Verification Page 7 of 36 (306/632)	All design submissions shall include a compliant Design Certificate (Form DC) and, where applicable, a Third Party Verifier Certificate (Form 3PVC) thereby	In view of Cl. 1.1.3 - Contractor's Responsibility of Design, Bidders understands that only the design submission carried by Bidder shall include a compliant Design Certificate (Form DC) and, where applicable, a Third Party Verifier Certificate (Form 3PVC). Please confirm.	The Conditions(s) of the Bidding Documents shall remain unaltered.
13	Part 2, Section VI-2 Employer's Requirements (Design Requirements and Criteria)	Annexure 1 Sample pictures -1 to 12		While requesting further details on the requirement of such pictures, Bidder requests to provide detail Technical Specification against each of the sample pictures together with Approved Vendor List for bringing all the contractors on a common platform of bidding.	Annexure-1 Sample Pictures are for reference only. The Contractor shall refer Sub-Clause 1.1 of TS 05010 and Addendum No. 01, Item No. 25.



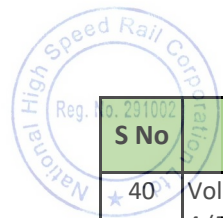
S No	Part & Section Reference	Page No / Clause No.	Provision as per Bidding Documents / Subject / Title / Item as mentioned by the Bidder	Bidder Query	Employer's Response
14	General			Bidder requests to provide an entire set of Auto Cad Drawings for required understanding of Employers Requirement and proper assessment of the Bid Price.	AutoCAD drawings can not be provided at this stage.
15	General			Bidder requests to provide the data sheet i.e. Water Table, Surcharge load etc. for design of Temporary Structures.	The design of temporary structures is the responsibility of the Contractor.
16	Vol 2, Section VI-3 Div 2000	Page 12 of 72, 2.4	Disposal of Muck: The Employer takes no responsibility for the arrangement of dumping areas and these will have to be arranged by the Contractor at his own cost. The Contractor is required to carry out detailed survey to identify dumping areas, clearances required, leads involved etc. The Accepted Contract Amount shall be deemed to have taken into account all the factors	We request NHSRCL to provide the list of identified/ shortlisted possible dumping areas to all bidders to enable proper planning at Bidding stage.	The Condition(s) of the Bidding Documents shall remain unaltered.
17	Vol 2, Section VI-3 Div 2000	Page 12 of 72, 2.4	The excavated material that can be used in the Works, shall be temporarily stockpiled, if required, in a dump site as proposed by the Contractor and agreed by the Engineer and the concerned regulating authorities. Any royalty, if to be paid to local authorities on the excavated material, is to be borne by the Contractor irrespective of whether the excavated material is used for the Works or being used for any other purpose or being disposed off as surplus.	We presume that for suitable material to be used for works or being utilized for any other purpose government royalty charges will be borne by contractor and no any other charges are payable to Employer for utilization of this material. Kindly confirm.	Refer Addendum No. 03, Item No. 8.
18	Vol 1, Section VIII PCC Part A- Contract data	Page 5 of 67, 2.1	Time for access to, and possession of all parts of, the Site On commencement date -80% 180 days from commencement date-20%	We presume that 80% area is for main structures of UG station, cut & cover tunnel & shaft 1. The 20% area is for Entry exit structures which will be available after 180 days. Kindly confirm.	The Condition(s) of the Bidding Documents shall remain unaltered.
19	Vol 1, Section VIII Part A- Contract data	Page 10 of 67	Summary of Milestones Mile stone 7: The following works shall be executed at UG Station, Cut & Cover Tunnel and Shaft-1 up to the Underground Roof Slab Level (URSL) and Roof Slab Level (RSL), as applicable, excluding works to be executed by C-1 Contractor after retrieval of TBM by C-2 contractor, and providing access to E-1 contractor: i. Completion of all civil (structural) works. ii. Completion of the provisions for E-1 contractor in accordance with the requirements specified in GS 04040 Appendix 04000-1.	Mile stone 7 includes completion of all structural works up to roof slab level of UG station, cut & Cover tunnel & Shaft 1 except retrieval shaft area for C2 contractor. These all works are to be completed within 29 months and project completion time is 52 months. The major time taking & complex activities like deep excavation, concreting are covered under mile stone 7 are to be completed within 55% time of total project duration. We request to review the intermediate milestones and allow realistic time for milestones No 3, 4, 5, 6 & 7 without altering the overall completion time.	Refer Addendum No. 02, Item No. 10.
20	Section VI-4, Architectural Drawings	B0-JIC-C14-DRW-S01-STA-NTU-04001-000	Detail Section-1	Detail section 1 indicates semispherical Decorative cast aluminum ,where as Division 05010 page no. 46 of 60 depicts these decorative elements in the form of cone of 500 mm dia and 150 mm height. Please provide the detail drawing of these decorative cast aluminum along with its fixing details on concrete panels.	Refer BD-JIC-C14-DRW-S01-STA-NTU-4001 to 4003 & 06111. The Contractor shall develop during detailed design for the approval of the Engineer.
21	Section VI-4, Architectural Drawings	B0-JIC-C14-DRW-S01-STA-NTU-04001-000	Detail Section-1	Please provide top and bottom fixing details for the column structural mild steel	The Contractor shall develop during detailed design for the approval of the Engineer.
22	Section VI-4, Architectural Drawings		General	The details for at grade landscape is not shown. Please provide details.	The scope of Landscaping is shown in BD-JIC-C14-DRW-S01-STA-NTU-01101, 02108, 02201, 02202, 02203, 02204, 04011 and 06104.  The Contractor shall develop during detailed design for the approval of the Engineer.

S No	Part & Section Reference	Page No / Clause No.	Provision as per Bidding Documents / Subject / Title / Item as mentioned by the Bidder	Bidder Query	Employer's Response																																																																																																									
23	Section VI-4, Reinforcement Drawings	SD-JIC-C14-DRW-S01-CCT-NTU-30120001 SD-JIC-C14-DRW-S01-CCT-NTU-30140001, RC Details of Struts	 <table border="1"> <tr> <td>47</td> <td>T25</td> <td>S 121</td> <td>7500</td> <td></td> <td></td> <td>7500</td> <td>-</td> <td>BOF</td> <td>41</td> <td>T12</td> <td>S 121</td> <td>5777</td> <td>831</td> <td>210</td> <td>7860</td> <td>7</td> <td>BOF</td> </tr> <tr> <td>47</td> <td></td> <td>S 122</td> <td>8990</td> <td></td> <td></td> <td>8990</td> <td>*</td> <td>*</td> <td>6</td> <td>S 122</td> <td>5777</td> <td>807</td> <td>1027</td> <td>210</td> <td>7860</td> <td>*</td> <td>*</td> </tr> <tr> <td>47</td> <td></td> <td>S 123</td> <td>3220</td> <td>460</td> <td></td> <td>3680</td> <td>*</td> <td>*</td> <td>47</td> <td>S 123</td> <td>5777</td> <td>406</td> <td>210</td> <td>7010</td> <td>*</td> <td>*</td> </tr> <tr> <td>47</td> <td></td> <td>S 124</td> <td>10860</td> <td>460</td> <td></td> <td>11320</td> <td>*</td> <td>*</td> <td>410</td> <td>S 124</td> <td>287</td> <td>831</td> <td>210</td> <td>2370</td> <td>*</td> <td>*</td> </tr> <tr> <td>94</td> <td></td> <td>S 125</td> <td>4038</td> <td>460</td> <td></td> <td>4960</td> <td>*</td> <td>*</td> <td>60</td> <td>S 125</td> <td>287</td> <td>807</td> <td>1027</td> <td>210</td> <td>2436</td> <td>*</td> <td>*</td> </tr> <tr> <td>12</td> <td>T16</td> <td>S 126</td> <td>6380</td> <td></td> <td></td> <td>6380</td> <td>-</td> <td>*</td> <td>470</td> <td>S 126</td> <td>287</td> <td>406</td> <td>210</td> <td>1520</td> <td>*</td> <td>*</td> </tr> </table>	47	T25	S 121	7500			7500	-	BOF	41	T12	S 121	5777	831	210	7860	7	BOF	47		S 122	8990			8990	*	*	6	S 122	5777	807	1027	210	7860	*	*	47		S 123	3220	460		3680	*	*	47	S 123	5777	406	210	7010	*	*	47		S 124	10860	460		11320	*	*	410	S 124	287	831	210	2370	*	*	94		S 125	4038	460		4960	*	*	60	S 125	287	807	1027	210	2436	*	*	12	T16	S 126	6380			6380	-	*	470	S 126	287	406	210	1520	*	*	<p>We noticed discrepancy in the Strut reinforcement and it's schedule. Example - Strut Xsf5-B0, the reinforcement presented in schedule is not matching with the section presented. S121 to S126 are stirrups as shown in the section are of T12mm diameter while, schedule shows same bar mark for T25 and T12. Please clarify. The section shows 47-T25 in upper and lower first layer while the schedule shows T25 bars with S121 to S124 with 47 nos, S125 with 97-T25 and S126 with T16. The schedule is not in-line with the section and difficult to co-relate.</p> <p>The same discrepancy is with other struts as well.</p>	Refer Addendum No. 03, Item No. 1
47	T25	S 121	7500			7500	-	BOF	41	T12	S 121	5777	831	210	7860	7	BOF																																																																																													
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24	Section VI-4, Reinforcement Drawings	Reinforcement Schedule	General	The schedule does not include the reinforcement weight summary as provided other MAHSR packages such as C4 & C6.	Refer Addendum No. 03, Item No. 25																																																																																																									
25	Section VI-4, Reinforcement Drawings	SD-JIC-C14-DRW-S01-CCT-NTU-30490001, RC Section at middle section	General	The middle section is not marked in any plan drawing / key layout along with reference. Also the small wall 1000mm thick shown in the section between B0 to B2 is not shown in the plan drawing except between B3 to B4 (underplatform). Please clarify.	Refer all the related Drawings.  The Condition(s) of the Bidding Documents shall remain unaltered.																																																																																																									
26	Section VI-4, Reinforcement Drawings	SD-JIC-C14-DRW-S01-CCT-NTU-30660001, Shade-A and Shade-B	Shade-A, B and Shade C reinforcement details are provided.	Shade-A is marked in the key layout while Shade-B and Shade C are not shown. Please clarify.	Refer Addendum No. 03, Item No. 1																																																																																																									
27	Section VI-4, Reinforcement Drawings	SD-JIC-C14-DRW-S01-CCT-NTU-31100001, Note	<p>Note:</p> <ol style="list-style-type: none"> <li>1. Reinforcement arrangement of wall WTP1 and WTP2 shall refer to Drawing No. SD-JIC-C14-DRW-S01-CCT-NTU-00902000.</li> <li>2. The reinforcement arrangement shown in this drawing can be applied to staircases of half-turn type in station Area.</li> </ol>	Please provide Drawing #00902000	Refer Addendum No. 03, Item No. 1																																																																																																									
28	Section VI-4, Reinforcement Drawings	SD-MTC-D-01-TDS-S01-CCT-NTU-20203-001, Drawing	RC Details of B2 and B1 Slab Level	The bar diameters are not matching with the schedule and sectional elevation.	Refer Addendum No. 01, Item No. 41 for drawings SD-MTC-D01-TDS-S01-CCT-NTU-20213 to 20220 and Addendum No. 02, Item No. 37 for drawings SD-MTC-D01-TDS-S01-CCT-NTU-20200 to 20207 and SD-MTC-D01-TDS-S01-CCT-NTU-210162 to 20165.																																																																																																									
29	Section VI-4, Reinforcement Drawings	SD-MTC-D-01-TDS-S01-CCT-NTU-20203-001, Drawing	RC Details of B2 and B1 Slab Level	Shear links are not shown. Please confirm the requirement of shear links.	Shear links if required for Equipment foundations, Escalator, Lift support shall be detailed by the Contractor as per vendor details during the execution stage.																																																																																																									
30	Section VI-4, Reinforcement Drawings	General	Entry-02	Structural drawings for entry-02 are not shown. Please clarify.	Detailed design of East Entry (Entry-02) is in the scope of the Contractor. Refer Sub-Clause 1.4.1 of GS 05010.																																																																																																									
31	Section VI-4, Reinforcement Drawings	General Notes	Fe500D or Fe550D and HYSD or HYSD TMT	The general notes includes Fe500D and Fe550D, Please clarify the type to be used.	Refer Addendum No. 02, Item No. 37																																																																																																									

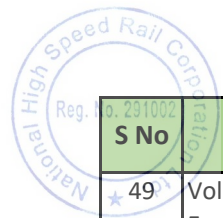




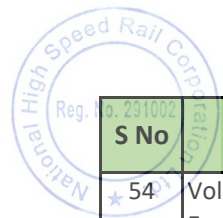
S No	Part & Section Reference	Page No / Clause No.	Provision as per Bidding Documents / Subject / Title / Item as mentioned by the Bidder	Bidder Query	Employer's Response														
32	Volume 2 of 2, Section VI-4 (DRAWINGS). Drg. No. SD-MTC-D01-TDS-S01-CCT-NTU-20152-001	Typical Reinforcement details drawing	Provision of Confining reinforcement for Column.	In the drawing Z2 is marked as confinement zone where as in Drawing No. SD-MTC-D01-TDS-S01-CCT-NTU-20166-000 confined reinforcement given for Z1. Please clarify.	Refer SD-MTC-D01-TDS-S01-CCT-NTU-20152 of Addendum No. 02, Item No. 37.														
33	Volume 2 of 2, Section VI-4 (DRAWINGS). Drg. No. SD-MTC-D01-TDS-S01-CCT-NTU-20168-000	RC DETAILS: COLUMN / WALL SHEET (3 OF 8)	Provision of Confining reinforcement for Shear Wall.	Request to provide Zone length Z1, Z2 and Hoops for Z1 Main, Z1 Others and Z2 as it is not clear in Drawings available in the Tender Documents. Kindly provide Typical longitudinal section for Shear wall showing confinement reinforcement for more Clarity.	Refer SD-MTC-D01-TDS-S01-CCT-NTU-20168 of Addendum No. 01, Item No. 41														
34	Volume 2 of 2, Section VI-4 (DRAWINGS). Drg. No. SD-MTC-D01-TDS-S01-CCT-NTU-20169-000 & SD-MTC-D01-TDS-S01-CCT-NTU-20170-000	RC DETAILS: COLUMN / WALL SHEET (4 OF 8) & (5 of 8)	Reinforcement for Shear Wall	Size of WG7 & WT4A are not matching respective GA Drawings	For wall WT4A refer drawing number SD-MTC-D01-TDS-S01-CCT-NTU-20170 of Addendum No. 01, Item No. 41. For wall WG7 refer drawing number SD-MTC-D01-TDS-S01-CCT-NTU-20169 of Addendum No. 03, Item No. 1.														
35	Volume 2 of 2, Section VI-4 (DRAWINGS). Drg. No. SD-MTC-D01-TDS-S01-CCT-NTU-20169-000 & SD-MTC-D01-TDS-S01-CCT-NTU-20022-000	GENERAL ARRANGEMENT - PLATFORM LEVEL		<p>Mismatches in the Column/Wall marking in platform level and Other level drawings. Please Clarify.</p> <table border="1"> <thead> <tr> <th>Column/Wall marking at platform level</th> <th>Column/Wall marking at B3/Raft level</th> </tr> </thead> <tbody> <tr> <td>WT12</td> <td>WT2</td> </tr> <tr> <td>CT-6</td> <td>WT3</td> </tr> <tr> <td>WT11-11</td> <td>WT4</td> </tr> <tr> <td>WT14-3</td> <td>WT5</td> </tr> <tr> <td>W6-6</td> <td>WG8</td> </tr> <tr> <td>C2</td> <td>CG2</td> </tr> </tbody> </table>	Column/Wall marking at platform level	Column/Wall marking at B3/Raft level	WT12	WT2	CT-6	WT3	WT11-11	WT4	WT14-3	WT5	W6-6	WG8	C2	CG2	Refer Addendum No. 02, Item No. 37.
Column/Wall marking at platform level	Column/Wall marking at B3/Raft level																		
WT12	WT2																		
CT-6	WT3																		
WT11-11	WT4																		
WT14-3	WT5																		
W6-6	WG8																		
C2	CG2																		
36	Volume 2 of 2, Section VI-4 (DRAWINGS). Drg. No. SD-MTC-D01-TDS-S01-CCT-NTU-20154-002	RC DETAILS: B3 (RAFT) LVL. SHEET (1 OF 8)		In raft reinforcement details First layer is provided at 125 c/c where subsequent additional layers (underneath column/wall) are at 150 c/c. With this non-uniform spacing shear, links at 300c/c cannot be placed. Hence, request to provide uniform spacing.	Refer Addendum No. 02, Item No. 37.														
37	Volume 2 of 2, Section VI-4 (DRAWINGS). Drg. No. SD-MTC-D01-TDS-S01-CCT-NTU-20166-000	RC DETAILS: COLUMN/WALL SHEET (1 OF 8)	Reinforcement for column	Request to provide the reinforcement details for Column marked "CT2" above B1 level.	Refer Addendum No. 01, Item No. 41.														
38	Volume 2 of 2, Section VI-4 (DRAWINGS). Drg. No. SD-MTC-D01-TDS-S01-CCT-NTU-4006003, 4008003, 4010003, 4004003 & 4011003	TYPICAL TRACK BED SHEAR CONNECTOR DETAILS FOR UG STATION, SHEAR DOWEL DETAIL (T60S-1 IN 14 WITH RIGID CROSSING) SHEAR DOWEL DETAIL (EJ-TYPE1), SHEAR DOWEL DETAIL (EJ-TYPE2)	Thickness of Track bed	(a). Track bed Thickness dimension (Y) is not available in the Drawing. Request to provide the same. (b). Track bed type EJ-2 is overlapping with T60S-1IN14 with Rigid) by 200mm. Please Clarify.	(a) Refer Annexure 1 of DRC 02000 for Track bed thickness dimension (Y) (b) Refer Addendum No. 03, Item No. 1														
39	Volume 2 of 2, Section VI-4 (DRAWINGS). Drg. No. SD-MTC-D01-TDS-S01-CCT-NTU-20025-002, 20026-002 & 20027-002 and 20032-002 to 20034-002.	GENERAL ARRANGEMENT - B2 LEVEL and GENERAL ARRANGEMENT - B1 LEVEL	Provision of local thickening (2500 mm) in slab below Column.	Request to provide Slab local thickening extent dimensions and its reinforcement details.	Refer SD-MTC-D01-TDS-S01-CCT-NTU-20025 and SD-MTC-D01-TDS-S01-CCT-NTU-20206 of Addendum No. 02, Item No. 37.														



S No	Part & Section Reference	Page No / Clause No.	Provision as per Bidding Documents / Subject / Title / Item as mentioned by the Bidder	Bidder Query	Employer's Response
40	Volume 2 of 2, Section VI-4 (DRAWINGS).Drg. No. SD-MTC-D01-TDS-S01-CCT-NTU-20016-001 TO 20019-001	GENERAL ARRANGEMENT - B3 (RAFT) LEVEL	Station width Tapering starts near grid X39 and ends near X60.	We understand that Station width Tapering starts near grid X39 and ends near X60. Request to provide Length dimension of Tempered Portion for Clarity.	Taper starts from Grid X33 and ends at Grid X65.  Refer Drawing SD-MTC-D01-TDS-S01-CCT-NTU-20003 and 20004
41	Volume 2 of 2, Section VI-4 (DRAWINGS).Drg. No. SD-MTC-D01-TDS-S01-CCT-NTU-20016-001 TO 20200-001 TO 20202-001	RC DETAILS: B2 (SLAB) LVL. SHEET (1 OF 8)	Reinforcement for Sunken slab	Request to provide Reinforcement details for Sunken slab.	Refer Addendum No. 02, Item No. 37.
42	Volume 2 of 2, Section VI-4 (DRAWINGS).Drg. No. SD-MTC-D01-TDS-S01-CCT-NTU-20024-002	GENERAL ARRANGEMENT - B2 LEVEL		We understand from the Drawings that Lift P1 to P4, S2 etc., are starting from B2 level. However, their Lift pit details are not shown in the Drawing. Please Clarify.	RC Details for pits of lifts, escalators etc. shall be provided by the Contractor during execution stage as per the approved architectural/MEP detailed design, to obtain the approval of the Engineer.
43	Volume 2 of 2, Section VI-4 (DRAWINGS).Drg. No. SD-MTC-D01-TDS-S01-CCT-NTU-20152-001 and SD-JIC-C14-DRW-S01-CCT-NTU-44010001	TYPICAL REINFORCEMENT DETAILS AND STANDARD DETAIL OF WATER PROOFING		Specifications for Water Proofing given for Station and Shaft-1 are not matching. Request to Confirm whether different specifications are applicable for Station and Shaft-1.	Water proofing shall be as per technical specifications. Also refer Addendum No. 02, Item No. 37.
44	Volume 2 of 2, Section VI-4 (DRAWINGS).Drg. No. SD-MTC-D01-TDS-S01-CCT-NTU-20051-001	GENERAL ARRANGEMENT WEST ENTRY/EXIT TERRACE LEVEL		Reinforcement Detail for Column marked "CT6a" is not available in the drawing. Request to provide the same.	Refer SD-MTC-D01-TDS-S01-CCT-NTU-20173 released in Addendum No. 01, Item No. 41. Column renamed as CWT5. Also refer Addendum No. 03, Item No. 1 for SD-MTC-D01-TDS-S01-CCT-NTU-20051
45	Volume 2 of 2, Section VI-4 (DRAWINGS).Drg. No. SD-JIC-C14-DRW-S01-CCT-NTU-30570001	RC DETAIL AT LONGITUDINAL SECTION SHED -A	Reinforcement details	Our understanding is that the reinforcement in BBS is for 10.5-metre length of a Both side walls. Please Confirm.	Refer Addendum No. 03, Item no. 25
46	Volume 2 of 2, Section VI-4 (DRAWINGS).Drg. No. SD-JIC-C14-DRW-S01-CCT-NTU-30560001 & 30600001	BBS PROCESSING FOR SECTION SHED A & LONGITUDINAL SECTION SHED A	BBS for Shed A	Our Understanding is that the BBS at Dwg No: 30560001 is for the section with openings & the BBS at Dwg No: 30600001 is for the section in between openings. Please Confirm.	Refer Addendum No. 03, Item no. 25
47	Volume 2 of 2, Section VI-4 (DRAWINGS).Drg. No. SD-JIC-C14-DRW-S01-CCT-NTU-30600001	BBS PROCESSING FOR LONGITUDINAL SECTION SHED A	BBS for Shed A	Our Understanding is that the 'END COLUMN' refers to the wall section at 4 corners & 'STANDARD COLUMN' refers to the section between wall openings. Please confirm.	Bidder's understanding is correct. Also, refer Addendum No. 03, Item no. 25.
48	Volume 2 of 2, Section VI-4 (DRAWINGS).Drg. No. SD-MTC-D01-TDS-S01-CCT-NTU-200017-001, SD-MTC-D01-TDS-S01-CCT-NTU-200028-002 & SD-MTC-D01-TDS-S01-CCT-NTU-200035-002	GENERAL ARRANGEMENT – B3 (Raft level), GENERAL ARRANGEMENT – B2 level & GENERAL ARRANGEMENT – B1 level	Reinforcement for 600 THK Shear Wall (TYP)	The reinforcement details for the 600 THK shear walls are missing. Request you to provide the same. Also kindly provide the reinforcement details around the openings in the walls.	Refer SD-MTC-D01-TDS-S01-CCT-NTU-20243 and 20244 released with Addendum No. 01, Item No. 41 for 600 thick shear wall RC details. Refer Addendum No. 02, Item No. 37, SD-MTC-D01-TDS-S01-CCT-NTU-20248 for reinforcement around openings details.

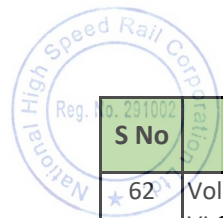


S No	Part & Section Reference	Page No / Clause No.	Provision as per Bidding Documents / Subject / Title / Item as mentioned by the Bidder	Bidder Query	Employer's Response
49	Vol. 2 of 2, Section VI-2 Employer's Requirements (Design Requirement and Criteria), Division 05030 Page 46 of 77	Clause 6.4.10 (b) Car Frame	A suitable car frame fabricated from galvanized cold rolled steel, bolted, or welded together to form a rigid structure shall be provided. The deflection of the members carrying the platform shall not exceed 1/1000th of their span under static conditions with the rated load uniformly distributed over the platform. It shall be able to withstand the operation of the safety gear or any related loading without permanent deformation and shall not transfer the load to the enclosure. Detailed Design including safety factor of the car frame shall be submitted for approval of the Engineer.	Hot rolled will be better option due to its availability as well as to meet the safety factor. i). Kochi Metro tender - specified as Hot/cold rolled. ii). Noida-Greater Noida Metro, Jaipur Metro (Phase-1B) & Kolkata Metro tender - specified as just rolled steel.  Hence the clause to be modified as follows, "A suitable car frame fabricated from galvanized cold or hot rolled steel, bolted, or welded together to form a rigid structure shall be provided. The deflection of the members carrying the platform shall not exceed 1/1000th of their span under static conditions with the rated load uniformly distributed over the platform. It shall be able to withstand the operation of the safety gear or any condition loading without permanent deformation and shall not transfer the load to the enclosure. The safety factor of the frame shall not be less than five (5)."	The Condition(s) of the Bidding Documents shall remain unaltered.
50	Vol. 2 of 2, Section VI-2 Employer's Requirements (Design Requirement and Criteria), Division 05030 Page 54 of 77	Clause 6.4.18 (b) Special Emergency Operations for Lifts	When any fire detection device is activated, all lifts shall automatically be brought to the designated floor (ground floor in case of ground to concourse level and concourse in the case of concourse to platform level or as per requirement of Employer) and shall park there with the doors open for 15-20 seconds and then close. All lifts shall automatically be rendered inoperative after it has been brought to the designated floor. The essential buttons such as "Door Open", intercom and alarm bell on the car operating panels shall remain functional and illuminated. Normal operations of the lifts shall be manually reset by the operation of a reset key switch.	As per IS 14665 (Part2/Sec1) in clause # 8.3.14.2.4 after sequence of operation (Phase 1), the lift shall park with doors open at evacuation floor. Hence the clause to be modified as follows, "When any fire detection device is activated, all lifts shall automatically be brought to the designated floor (ground floor in case of ground to concourse level and concourse in the case of concourse to platform level or as per requirements of Employer) and shall park there with the doors open. All lifts shall automatically be rendered inoperative after it has been brought to the designated floor. The essential buttons such as "Door Open". intercom and alarm bell etc on the car operating panels shall remain functional and illuminated. Normal operations of the lifts shall be manually reset by the operation of a reset key switch".	The Condition(s) of the Bidding Documents shall remain unaltered.
51	Vol. 2 of 2, Section VI-2 Employer's Requirements (Design Requirement and Criteria), Division 05030 Page 57 of 77	Clause 6.4.23 (b) Cable Requirements	The cable conductor shall be a stranded conductor composed of plain annealed copper wire complying with IEC 228, Class 2;	Please allow to use an equivalent Indian standard IS 8130. Hence the clause can be modified as follows, "The conductor shall be of stranded conductor composed of plain annealed copper wire complying with IEC 228, Class 2 / IS 8130".	Refer Sub-Clause 4.1 of GS 04010.  The Condition(s) of the Bidding Documents shall remain unaltered.
52	Vol. 2 of 2, Section VI-2 Employer's Requirements (Design Requirement and Criteria), Division 05030 Page 57 of 77	Clause 6.4.23 (c) Cable Requirements	The insulation shall consist of an extruded layer of cross-linked polyethylene complying with IEC 502;	Please allow to use an equivalent Indian standard IS 7098 Part 1. Hence the clause can be modified as follows, "The insulation shall consist of an extruded layer of cross-linked polyethylene complying with IEC 502 / IS 7098 Part 1 ;	Refer Sub-Clause 4.1 of GS 04010.  The Condition(s) of the Bidding Documents shall remain unaltered.
53	Vol. 2 of 2, Section VI-2 Employer's Requirements (Design Requirement and Criteria), Division 05030 Page 75 of 77	Passenger Lift a) Platform - Concourse Model	Machin Room Less (With Wheelchair function) Right angle two entrance type	From many lift suppliers we understand that Right angle two-entrance type model is not available in their product range. Very few suppliers have indicated that Machin Room Less (With Wheelchair function) Right angle two-entrance type is available only up to 1150 Kg capacity. Hence, please change the model to Machin Room Less (With Wheelchair function) Through two-entrance type.	The Condition(s) of the Bidding Documents shall remain unaltered.

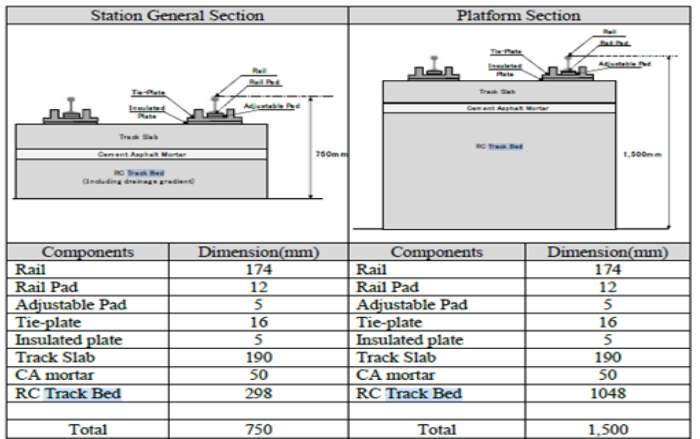


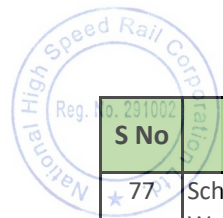
S No	Part & Section Reference	Page No / Clause No.	Provision as per Bidding Documents / Subject / Title / Item as mentioned by the Bidder	Bidder Query	Employer's Response
54	Vol. 2 of 2, Section VI-3 Employer's Requirements (Technical Specifications), Division 05040 page 24 of 74 & Drawing no:BD-JIC-C14-DRW-S01-STE-NTU-00201-002	11.1.2 Cable trays & ladders 11.1.3. Cable trunking Cable tray	Cable trays shall be made of a perforated or ladder type, full wrap around factory-made bends, tees and fixing accessories.	As per the drawings heavy duty covered perforated trays were used for both main power, lighting & sockets. Please confirm whether ladder type trays can be used for main power cables. Also please confirm the usage of cable trunking. Since for lighting & sockets also perforated tray was indicated in the drawing.	Cable trays containment referred in drawings are indicative. The Contractor shall develop during detailed design for approval of the Engineer.
55	Vol. 2 of 2, Section VI-3 Employer's Requirements (Technical Specifications), Division 05040 page 43 of 74	15.Earthing & Lightning protection system Earthing		Please confirm the requirement of Clean earth mat.	Refer Sub-Clause 4.4.9 of DRC 05040.
56	Volume – 2 of 2, Section VI-2, Employer's Requirement (Design Requirement and criteria) Division 05030	- General- Tunnel Ventilation System (TVS)	- General-	Nozzle discharge is located at chainage 0km 450m and air flow direction is towards Shaft 1 (CH 0km 706.669m). If a train fire occurs and train is stopped between station end (CH 0km 210m) and CH 0km 450m (nozzle discharge), the proposed ventilation system might not be able to generate enough air velocity to avoid smoke back-layering. Please provide information regarding requirement of emergency ventilation required in the above mentioned region.	Requirements of emergency ventilation shall be as per Clause 5 of DRC 05030.
57	Volume – 2 of 2, Section VI-2, Employer's Requirement (Design Requirement and criteria) Division 05030	Fire Fighting		Provision for tunnel fire protection not mentioned in the documents, in the schematic diagram provision of fire tanker proposed for tunnel hydrant, kindly confirm.	Refer Sub-Clause 1.1 of DRC 05050.
58	Volume – 2 of 2, Section VI-2, Employer's Requirement (Design Requirement and criteria) Division 05030	Fire Fighting		Provision of gas suppression system not mentioned in the document.	Please Refer Sub-Clause 4.4.3 of DRC 05040 for Fire detection and suppression system for Low Voltage Switchboards and Panels. Gas Suppression System in DSS area is included in the scope of E-1 contractor. Refer Appendix 04000-1 of GS 04000.
59	Volume – 2 of 2, Section VI-2, Employer's Requirement (Design Requirement and criteria) Division 05030	Fire Fighting		Provision of spray nozzle not mentioned in the document, kindly confirm.	Refer Sub-Clause 5.5 of TS 05050.
60	Volume – 2 of 2, Section VI-2, Employer's Requirement (Design Requirement and criteria) Division 05040	Clause 17.5 Page 34 of 58 Electrical		Please confirm if Clean earth mat (separate from Main earth mat) is required for S&T equipments. If yes then what shall be its resistivity.	Refer Sub-Clause 4.4.9 of DRC 05040.
61	Volume – 2 of 2, Section VI-2, Employer's Requirement (Design Requirement and criteria) Division 05040	Clause 6.10.1 & 6.10.2 Page 10 & 11 of 58 Electrical		Please confirm if there is any specific electrical loads for High speed rail system	Sub-Clauses 6.10.1 and 6.10.2 of DRC 05040 are self-explanatory.



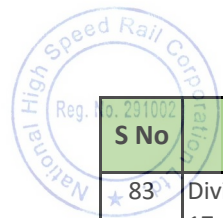


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62	Volume – 2 of 2, Section VI-2, Employer's Requirement (Design Requirement and criteria) Division 05040	Clause 17.5 Page 34 of 58 Electrical		Please confirm the fault level of DSS & S&T UPS for earth mat design	Refer Sub-Clause 4.4.9 of DRC 05040. The Contractor shall interface with E-1 contractor during the detailed design.						
63	BD-JIC-C14-DRW-S01-STA-NTU-022(01-41)	Architecture		Wall material (AAC block work or RCC) of Staircase enclosure walls at all levels is not consistent in Architecture and structure drawings. Hence, we are considering as RCC wall for the same Please confirm.	Refer Note-3 of Addendum No. 01, Item No. 38.						
64	BD-JIC-C14-DRW-S01-STA-NTU-02201 & 02203	Architecture		In structure drawings RCC Columns are shown from URF level going up to entry structures' roof level (On grids Y2, Y3, Y5 & Y6) inside the Aesthetical MS tubular columns/ elements. Whereas these columns are not shown in Architecture drawings. Please confirm which drawings to be followed Architectural or Structural drawings.	Refer Note-3 of Addendum No. 01, Item No. 38.						
65	BD-JIC-C14-DRW-S01-STA-NTU-021(01-03)	Architecture		Grid Dimensions of Elevation is not matching with Floor Plans. Hence, we are following floor plans. Please confirm.	The grid dimensions mentioned in the Floor plans shall be followed.						
66	Volume 2 of 2, Section VI-4 (DRAWINGS). BD-JIC-C14-DRW-S01-STA-NTU-02112-000 & 02110-000	MUMBAI STATION B1 FLOOR ENLARGED PLAN-2, ROOF, MF, URF ENLARGED PLANS	Provision of Spiral Staircase No. M5,M6,M7 & M8	Kindly provide Spiral Staircase details. We understand that its construction material is structural steel. Please confirm.	The stairs are only for maintenance personnel. The Contractor shall propose the material and develop the details during detailed design for the approval of the Engineer.						
67	Volume 2 of 2, Section VI-4 (DRAWINGS). BD-JIC-C14-DRW-S01-STA-NTU-02112-000	MUMBAI STATION B1 FLOOR ENLARGED PLAN-2	Provision of Machine hatch	Kindly provide machine hatch size.	Refer Slab Structural Opening Plan (BD-JIC-C14-DRW-S01-STA-NTU-06260 and BD-JIC-C14-DRW-S01-STA-NTU-06267)						
68	Volume 2 of 2, Section VI-4 (DRAWINGS). SD-MTC-D01-TDS-S01-CCT-NTU-20214-001 & SD-MTC-D01-TDS-S01-CCT-NTU-20164-001	RC DETAILS: B1 (SLAB) LVL. SHEET (2 OF 8) and RC DETAILS: CROSS SECTIONS SHEET (3 OF 5)	Provision of Slab Reinforcement.	Mismatch in Slab reinforcement plan and Section drawings <table border="1" data-bbox="1507 1186 2083 1367"> <thead> <tr> <th colspan="2">Top -ve Reinforcement</th> </tr> <tr> <th>Plan</th> <th>Section</th> </tr> </thead> <tbody> <tr> <td>Y20 @ 150</td> <td>Y20 @ 150 and Y20 @ 300 Alternatively</td> </tr> </tbody> </table> As this mismatch will affect Quantity, Please clarify and confirm the drawing to be followed. Similar mismatch is observed in Cut and Cover portion also.	Top -ve Reinforcement		Plan	Section	Y20 @ 150	Y20 @ 150 and Y20 @ 300 Alternatively	Refer Addendum No. 01, Item No. 41 and Addendum No. 02, Item No. 37.
Top -ve Reinforcement											
Plan	Section										
Y20 @ 150	Y20 @ 150 and Y20 @ 300 Alternatively										
69	Volume 2 of 2, Section VI-4 (DRAWINGS). SD-MTC-D01-TDS-S01-CCT-NTU-20213-001	RC DETAILS: B1 (SLAB) LVL. SHEET (1 OF 8)	Provision of Slab Reinforcement.	Top reinforcement is given as Y20@150+Y16@150. Our understanding is that both above bars are bundled and provided at a spacing of 150 c/c and are curtailed at 3100 from face of the beam. No top reinforcement at mid span. Please confirm.	Refer Addendum No. 01, Item No. 41.						
70	Volume 2 of 2, Section VI-4 (DRAWINGS). BD-JIC-C14-DRW-S01-STA-NTU-07003-000 and 07004-000	MUMBAI STATION ENTRANCE-2 FRAMING PLAN and ELEVATION		1. Member are listed with only outer sizes. Hence, kindly provide member thickness. 2. In plan, all un-named beams are given as SB4 whereas section taken at that location (Section at Y4) are marked as SB2. Please confirm the correctness.	1. Members shown in the drawings are for reference only. The Contractor shall develop during detailed design for the approval of the Engineer. 2. SB4 is correct.						

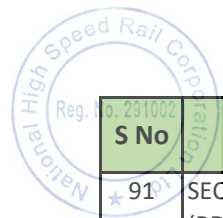
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71	Volume 2 of 2, Section VI-4 (DRAWINGS).BD-JIC-C14-DRW-S01-STA-NTU-02204-000	MUMBAI STATION GROUND FLOOR DETAIL PLAN-4		Our understanding from the drawing is that Structural steel column meant for supporting Louvers are embedded in RCC wall (outer wall). Can we modify the arrangement by fixing the steel column in RCC Tie beams with block work infill wall? Please confirm.	The Contractor shall develop structural support system for louvers during the detailed design for the approval of the Engineer.																																																						
72	Volume 2 of 2, Section VI-2. Employer's Requirements (Design Requirements and Criteria)- Division 02000 /Page No. 2 of 2 & Volume 1 of 2, Section VI-1. Employer's Requirements (General Specifications) Appendix 04000-1/ Page 8 of 20	Division 02000: Civil Works Annexure – 1: Cross-Section Height of the Track & Structure Chapter III: Interface Table for Design, Supply and Installation Items	 <table border="1"> <thead> <tr> <th>Components</th> <th>Dimension(mm)</th> <th>Components</th> <th>Dimension(mm)</th> </tr> </thead> <tbody> <tr> <td>Rail</td> <td>174</td> <td>Rail</td> <td>174</td> </tr> <tr> <td>Rail Pad</td> <td>12</td> <td>Rail Pad</td> <td>12</td> </tr> <tr> <td>Adjustable Pad</td> <td>5</td> <td>Adjustable Pad</td> <td>5</td> </tr> <tr> <td>Tie-plate</td> <td>16</td> <td>Tie-plate</td> <td>16</td> </tr> <tr> <td>Insulated plate</td> <td>5</td> <td>Insulated plate</td> <td>5</td> </tr> <tr> <td>Track Slab</td> <td>190</td> <td>Track Slab</td> <td>190</td> </tr> <tr> <td>CA mortar</td> <td>50</td> <td>CA mortar</td> <td>50</td> </tr> <tr> <td>RC Track Bed</td> <td>298</td> <td>RC Track Bed</td> <td>1048</td> </tr> <tr> <td><b>Total</b></td> <td><b>750</b></td> <td><b>Total</b></td> <td><b>1,500</b></td> </tr> </tbody> </table> <table border="1"> <thead> <tr> <th>No.</th> <th>Interface Description</th> <th>Responsible for the Technical Requirements for the Interface Design</th> <th>Responsible for the Design</th> <th>Responsible for the Supply</th> <th>Responsible for the Installation/ Construction</th> <th>Remarks</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Shear Connector for RC Track Bed at specific locations (curve, turnouts).</td> <td>T-1</td> <td>T-1</td> <td>C-1</td> <td>C-1</td> <td>Structural Design of shear connectors shall be validated by T-1 and provided to C-1. Shear Connector bars shall be provided by C-1.</td> </tr> </tbody> </table>	Components	Dimension(mm)	Components	Dimension(mm)	Rail	174	Rail	174	Rail Pad	12	Rail Pad	12	Adjustable Pad	5	Adjustable Pad	5	Tie-plate	16	Tie-plate	16	Insulated plate	5	Insulated plate	5	Track Slab	190	Track Slab	190	CA mortar	50	CA mortar	50	RC Track Bed	298	RC Track Bed	1048	<b>Total</b>	<b>750</b>	<b>Total</b>	<b>1,500</b>	No.	Interface Description	Responsible for the Technical Requirements for the Interface Design	Responsible for the Design	Responsible for the Supply	Responsible for the Installation/ Construction	Remarks	1	Shear Connector for RC Track Bed at specific locations (curve, turnouts).	T-1	T-1	C-1	C-1	Structural Design of shear connectors shall be validated by T-1 and provided to C-1. Shear Connector bars shall be provided by C-1.	Our understanding from the document is that only shear connectors will be provided by C1 Contractor at B3 Level and rest of the items such as RC track Bed concrete, cement Asphalt mortar, track slab, insulated plate, tie plate, adjustable pad, rail pad and rail are under the scope of T1 Contractor. Please confirm.	The Bidder's understanding in respect of C-1 Contractor's scope is correct.
Components	Dimension(mm)	Components	Dimension(mm)																																																								
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73	Volume 2 of 2 Section VI-4 RI/NHSRC/HSR-MA/ROW/C-1/001 & BD-MTC-D01-TDS-S01-CCT-NTU-20012-000	ROW & TYPICAL EXCAVATION SECTION		The proposed Site for C1 Package encountered highly to completely weathered rock in top to middle layers and moderate to slightly weathered rock layers at the level of station base slab.  Due to this, it is suggested that rock cut slope shall be excavated at safe slope angle at top and bottom layers. Consequently, on each side of ROW an additional distance of 7m is required beyond the proposed ROW. Request employer to increase the ROW accordingly to 10m from the face of the wall.	The Condition(s) of the Bidding Documents shall remain unaltered.																																																						
74	SD-MTC-D01-TDS-S01-CCT-NTU-20188-001,20189,20190	RC Details : Stair 20,21 & 22 (sheet 1 of 2)	Provision of SFR in Beam MB1	<p style="text-align: center;"><b>Mismatch observed in MB1</b></p> <table border="1"> <thead> <tr> <th colspan="2">SFR</th> </tr> <tr> <th>Cross Section</th> <th>In Long Section</th> </tr> </thead> <tbody> <tr> <td>2-Y10</td> <td>2-Y8</td> </tr> </tbody> </table> <p style="text-align: center;"><b>Request to provide correctness.</b></p>	SFR		Cross Section	In Long Section	2-Y10	2-Y8	Refer Addendum No. 03, Item No. 1.																																																
SFR																																																											
Cross Section	In Long Section																																																										
2-Y10	2-Y8																																																										
75	SD-MTC-D01-TDS-S01-CCT-NTU-20163-001	RC DETAILS: CROSS SECTIONS (Sheet 1 of 5)	Y12 @200 (4 Legs) links in the walls	The reinforcement provided in the longitudinal direction of the walls is Y32 @ 150 (EF). However, the links are provided at 200 c/c. kindly clarify. In addition, the shape of the links is not matching with the section X-X of wall section.	Refer Addendum No. 02, Item No. 37.																																																						
76	SD-MTC-D01-TDS-S01-CCT-NTU-20207-001	RC DETAILS: B2 (SLAB) LVL. SHEET (8 OF 8)	Reinforcement details of B2 level slab	The reinforcement details of the B2 level slab from Grid 60 to Grid 77 is missing. Kindly provide the same.	Refer Addendum No. 02, Item No. 37.																																																						



S No	Part & Section Reference	Page No / Clause No.	Provision as per Bidding Documents / Subject / Title / Item as mentioned by the Bidder	Bidder Query	Employer's Response
77	Schedule No. 4 – Civil Works for Cut & Cover Tunnel (Between Ch: 0km239m 669 to 0km489m 669) & Schedule No. 5 – Civil Works for Cut & Cover Tunnel (Between Ch: 0km489m669 to 0km706m669)	Item no 406 & 505	Completion of columns above URSL for IFSC building as per Drawings & Completion of Columns above B1 slab for IFSC Building as per Drawings.	As per provided drawings, there are no columns above URSL slab and B1 slab in the respective Cut & Cover Zones. Only Shear walls are provided. Kindly Update correctness in the Pricing schedules 406 and 505.	Refer Addendum No. 03, Item No. 9 & 10.
78	SD-MTC-D01-TDS-S01-CCT-NTU-200036-002	GENERAL ARRANGEMENT - B1 LEVEL		Beams No. 530, 767, 768 & 769 are available in the GA drawing but not found in the beams schedule and reinforcement details. Request you to provide the same.	Refer Addendum No. 01, Item No. 41 and Addendum No. 02, Item No. 37.
79	SD-MTC-D01-TDS-S01-CCT-NTU-200019-001	GENERAL ARRANGEMENT – B3 (Raft level)	Provision of shear key in Raft Level	As per the section - 2 of drawing number SD-MTC-D01-TDS-S01-CCT-NTU-200083-001 shear key in the Raft level is provided in both sides of the walls. However as per the GA drawings shear key is not shown in both direction from Grid 63 to 72 and shear key is shown in one side for Grids 72- 77. kindly Update the correctness for clarity.	Refer Addendum No. 02, Item No. 37.
80	VOLUME 2 of 2 Section VI-5 Employer's Requirements (Reference Information /Reports) Attachment 1 Geological Survey Report	Geotechnical Investigation  Geological Studies		1. Pictures of Soil and rock samples available in the GIR are not legible. Kindly furnish clear images for our appropriate analysis. 2. If any field undrained shear strength tests are carried out in soft clays such as VST or CPTu kindly furnish the same for our further analysis. 3. Request to furnish outcrop details of rock (if any) near to the proposed UG station, tunnel and shaft areas.	1. The images included in the Section VI-5 of Employer's Requirements are legible when zoomed in. 2.&3. The Employer has provided available information to the Bidder. Refer Addendum No. 03 Item No. 23.
81	General	General		1. Please confirm level of service in concourse and platform area. 2. Please clarify missed Head way to be considered for emergency scenario. 3. Please provide formula for calculation of peak minute boarding passengers as data provided in column 'J' - table-5, annexure 4 of Volume 2 of bidding documents is not in line with NBC. 4. Please provide surge factor for calculation of peak minute and boarding load 5. Please provide operation plan. 6. Pdf of Architecture & structure drawings are not matching. Please confirm which dwg. have to be followed? In absence of any confirmation we are following Arch. Dwg. 7. Track/Horizontal alignment is required urgently in cad format. In absence of cad dwg. we are doing approximation. 8. Please provide finishing schedule.	1., 2., 3., 4. & 5. The Condition(s) of the Bidding Documents shall remain unaltered. 6. Refer Note-3 of Addendum No. 01, Item No. 38 7. AutoCAD drawings cannot be provided at this stage. 8. Please refer architectural drawing (BD-JIC-C14-DRW-S01-STA-NTU-01201 to 01206)
82	Vol-2, page 15 of 77 Division 05030	Clause 1.4.2 Heat Load and UPE	Provision of UPE and OTE	The Bidder understands that the UPE and OTE shall be designed by duly considering the heat load analysis i.e. considering the heat rejection from train braking system, heat rejection from train Air-conditioning system & other heat factors. Query: i. Please provide the heat rejection rate from train Air-conditioning system & Braking system. ii. Please provide the temperature criteria to be maintained in rail level/platform level.	i) Refer Appendix 04000-1, interface table between C-1 and R-1. ii) The platform area is covered under Sub-Clause 1.4.1 Item d), Point x) of DRC 05030. Also refer Addendum No. 03, Item No. 15.

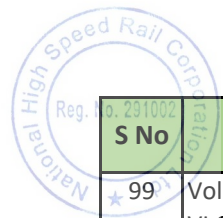


S No	Part & Section Reference	Page No / Clause No.	Provision as per Bidding Documents / Subject / Title / Item as mentioned by the Bidder	Bidder Query	Employer's Response
83	Division 05050, Page no 17 & 18	Clause no- 8 Wastewater Treatment system (Environmental cooling system)	Cooling water makeup	<p>"The treated water shall then be supplied to various consumption points, particularly for flushing purpose via hydro-pneumatic system, and cooling towers for makeup purpose (Environmental control system (ECS)). If there is a shortfall in the quantity of treated or soft water, the remaining water shall come from the soft water supply agency or Municipal treated water supply."</p> <p>Query: please provide the quality parameters of municipal treated water supply/ soft water supply agency to design the water treatment system for ECS.</p>	Refer Sub-Clause 2.1.8 and Table 1 of TS 05050. The Condition(s) of the Bidding Documents shall remain unaltered.
84	Section VI-2, division 05050	Cl.no. 1.1.1 Tunnel drainage & Basement 3 level drainage	Drainage collection	Please confirm whether the Drainage collection from basement 3 (track level) is through drain channel with gratings or pipes with collection chambers. Please do share the related drawings.	Refer Clause 7 of DRC 05050. The entire drainage scheme shall be developed by the Contractor during the detailed design for the approval of the Engineer.
85	Section VI-2, division 05050	Cl.no 2.6 Seepage drain pipe MOC		Please provide the MOC of seepage collection pipe (seepage downtake pipes from B1, B2 to B3 and Floor level seepage/floor drain collection pipes at B3 level).	Refer Sub-Clause no. 2.6 e) of DRC 05050.
86	Volume – 2 of 2, Section VI-2, Employer's Requirement (Design Requirement and Criteria) Division 05040 Page – 11 of 58	6.10.2.h) Essential power load	Small power socket	<p>As per clause, Small power socket shall be Essential power load, however, the SLD (BD-JIC-C14-DRW-S01-STE-NTU-00101/02/03/04-003) indicates DB's for sockets in Normal (dual supply without DG backup) also. Namely GDB-1(L), GDB-1(S), etc.</p> <p>Kindly clarify if socket loads are only Essential power supply or if normally fed sockets also are to be provided. Please do confirm what percentage of Socket loads to be taken on Essential power supply.</p>	<p>Referred drawings are indicative. Sockets shall be provided for all Emergency, Essential and Normal, as per the requirements during detailed design. The Contractor shall develop during detailed design for approval of the Engineer.</p>
87	SECTION VI-4(DRAWINGS)			Clear drawings are not available for reference. Requesting the client to provide clear drawings for working.	New folder of clear PDF files of all the Drawings maybe downloaded for reference by the Bidders through the link provided.
88	SECTION VI-4(DRAWINGS) (BD-JIC-C14-DRW-S01-STE-NTU-00101/02/03/04-003)	Single Line Diagram		The SLD doesn't mention the power distribution schematic clearly. Please confirm which panel is Essential panel fed from DG and which panel is Emergency fed from UPS. Also do provide the nomenclature of naming MDB namely MDB-1ES, MDB-1RE, MDB-1EM. What does "ES", "RE" & "EM" mean. Legends not available.	<p>The SLD drawings are indicative only. The panel using AC-GC (Generator Circuit) supply shall have Generator power supply. Refer SLD Drawing No BD-JIC-C14-DRW-S01-STE-NTU-00102 for UPS fed panel. "ES", "RE", "EM" mean Essential, Reserved, Emergency, respectively. The naming of MDBs is not linked with classification of loads in DRC. The Contractor shall develop during detailed design for approval of the Engineer.</p>
89	SECTION VI-4(DRAWINGS) (BD-JIC-C14-DRW-S01-STE-NTU-00101/02/03/04-003)	Single Line Diagram		Protection requirement for outgoing feeder from MDB and SNDB is not provided. Kindly specify if Inbuilt LSIG release of MCCB and releases in ACB are sufficient or additional protection relays if any are to be considered?	<p>Referred drawings are indicative. The Contractor shall develop during detailed design for approval of the Engineer.</p>
90	SECTION VI-4(DRAWINGS) (BD-JIC-C14-DRW-S01-STE-NTU-00101/02/03/04-003)	Single Line Diagram		Please do specify if TR1 & TR2 feeding MDP1 will be run in parallel or not.	The Contractor shall interface with E-1 contractor during the detailed design.

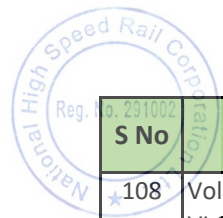


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91	SECTION VI-4(DRAWINGS) (BD-JIC-C14-DRW-S01-STE-NTU-00101/02/03/04-003)	Single Line Diagram		Please do clarify if SMDB shall have bus coupler inbetween the 2 incomers or, they are 2 different bus independent to each other.	SMDBs shown in referred drawings are two independent Bus.
92	Vol. 2 of 2, Section VI-3 Employer's Requirements (Technical Specifications), Division 05040 Page 52 of 74	17 Fire Detection, Alarm and Annunciation System	Fire detection and alarm system for Tunnel	We have considered only Fire detection and alarm system (among ELV systems) for Tunnel. Please clarify whether any other ELV system should be considered for the same and provide necessary technical details & drawings for the same.	The Condition(s) of the Bidding Documents shall remain unaltered.
93	Vol. 2 of 2, Section VI-3 Employer's Requirements (Technical Specifications), Division 05040 Page 52 of 74	17 Fire Detection, Alarm and Annunciation System	Fire detection and alarm system status from Station to Control Center	We have not considered optical fibre cable from Station Fire alarm panel to OCC. Please confirm whether the same needs to be considered in C1 package contractor.	Refer Sub-Clause 4.5.2 of DRC 05040. Also refer Annexure 5 of DRC 05010.
94	Vol. 2 of 2, Section VI-3 Employer's Requirements (Technical Specifications), Division 05050 Page 27 of 32	5.5 Medium velocity open nozzle (Undercarriage protection)		<p>1. Please provide the fire water pump capacity of medium velocity spray system for under carriage protection.</p> <p>2. Also provide the scheme for MVWS system for under carriage protection and clarify the entire length (750 m) to be protected with single deluge system or compartmentalised in to smaller zones.</p> <p>3. Please specify the piping material to be used for Medium velocity water spray system.</p>	<p>1. Refer Addendum No. 01, Item No. 22. However, the exact water pump capacity and design methodology of the system shall be as approved by the local Fire Authority.</p> <p>2. Sub-Clause 5.5 of TS 05050 is self-explanatory.</p> <p>3. Refer Addendum No. 03, Item No. 22.</p>
95	Vol. 2 of 2, Section VI-2 Employer's Requirements (Design requirements and criteria), Division 05050 Page 11 of 22	4) Medium velocity open nozzle (Undercarriage protection)	Sprinklers shall be also provided within escalator areas as per sub-clause 3.4.5.2 and figure no. 3 of part-IV NBC-2016	Please clarify escalators to be protected with Water mist sprinkler system or Automatic sprinkler system. And also specify the piping material to be used.	Refer Sub-Clause 12.4 of DRC 05050 for the sprinkler system and piping material.
96	Volume – 2 of 2, Section VI-2, Employer's Requirement (Design Requirement and criteria) Division 05030	- General- Tunnel Ventilation System (TVS)	- General-	Provide tender drawings (plans and sections) of station, cut and cover tunnel and shaft1.	Refer relevant Structural Drawings provided in Section VI-4.
97	Volume – 2 of 2, Section VI-2, Employer's Requirement (Design Requirement and criteria) Division 05030	Clause5.6 Page 40 of 77 Tunnel Ventilation System (TVS)		<p>It is mentioned that air current of 2m/s approx. shall be generated during emergency operation. Generally, airflow greater than critical velocity in the upstream of fire is maintained to avoid smoke backlayering. Critical velocity is calculated based on fire heat release rate, gradient, area.</p> <p>Please confirm which criteria to follow? 2m/s criteria (as per ER) or critical velocity calculation method. Please note that depending on fire heat release rate, required velocity may be greater than 2m/s</p>	Refer Sub-Clause 5.3.i) of DRC 05030.
98	Volume – 2 of 2, Section VI-2, Employer's Requirement (Design Requirement and criteria) Division 05030	- General- Tunnel Ventilation System (TVS)	- General-	Please provide the Heat dissipation by air conditioners, brakes and carbody of rolling stock.	Refer GS 04000, Appendix 04000-1, Chapter III, 5. Interface between C-1 and R-1.

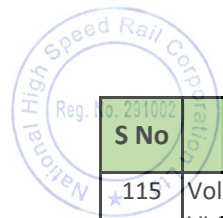




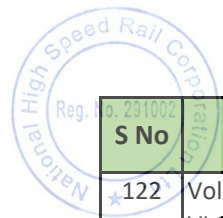
S No	Part & Section Reference	Page No / Clause No.	Provision as per Bidding Documents / Subject / Title / Item as mentioned by the Bidder	Bidder Query	Employer's Response
99	Volume – 2 of 2, Section VI-2, Employer's Requirement (Design Requirement and criteria) Division 05030	Clause5.3(a) Page 37 of 77 Tunnel Ventilation System (TVS)		it is mentioned that fire exhaust flow shall be maintained from station end to shaft1. Is it the mandatory requirement?	The Condition(s) of the Bidding Documents shall remain unaltered.
100	Volume – 2 of 2, Section VI-2, Employer's Requirement (Design Requirement and criteria) Division 05030	- General- Tunnel Ventilation System (TVS)	- General-	Number of air conditioners per car of rolling stock	Refer GS 04000, Appendix 04000-1, Chapter III, 5. Interface between C-1 and R-1.
101	Volume – 2 of 2, Section VI-2, Employer's Requirement (Design Requirement and criteria) Division 05030	- General- Tunnel Ventilation System (TVS)	- General-	Please confirm that platforms are having PSD's or not?	PSD is not in the scope of this Package. However, it is to be provided in future and provisions for placing cables etc. are to be made in the detailed design and execution. Also refer Addendum No. 1 Item No. 18.
102	Volume – 2 of 2, Section VI-2, Employer's Requirement (Design Requirement and criteria) Division 05030	- General- Tunnel Ventilation System (TVS)	- General-	It is not clear from the documents which standard/guidelines to be followed for TVS system. There is no reference of NFPA-130 or European code. Which standard to follow?	The Condition(s) of the Bidding Documents shall remain unaltered.
103	Volume – 2 of 2, Section VI-2, Employer's Requirement (Design Requirement and criteria) Division 05030	Clause5.6(e) Page 38 of 77 Tunnel Ventilation System (TVS)		it is mentioned in ER to maintain the ventilation flow from station end to shaft 1. in the event of train fire in the tunnel the direction of air depends on the fire location. Is it mandatory requirement?	The Condition(s) of the Bidding Documents shall remain unaltered.
104	Volume – 2 of 2, Section VI-2, Employer's Requirement (Design Requirement and criteria) Division 05030	Clause5.3(C) Page 38 of 77 Tunnel Ventilation System (TVS)		it is mentioned in ER that nozzle to be fire rated. However, nozzle is used only for the supply of ambient air in the tunnel. Is it mandatory to have fire rated nozzle please suggest?	The Condition(s) of the Bidding Documents shall remain unaltered.
105	Volume – 2 of 2, Section VI-2, Employer's Requirement (Design Requirement and criteria) Division 05030	Clause5.3(d) Page 38 of 77 Tunnel Ventilation System (TVS)		Is 30 degree nozzle angle is mandatory?	Confirmed, the nozzle angle shall be 30 degrees. The Condition(s) of the Bidding Documents shall remain unaltered.
106	Volume – 2 of 2, Section VI-2, Employer's Requirement (Design Requirement and criteria) Division 05030	Clause5.5 Page 40 of 77 Tunnel Ventilation System (TVS)		There is no temperature criteria mentioned for the normal operation condition in ER. Also, normal operating condition is not clear. Please provide the Normal operating conditions	During peak monsoon & summer, it shall be in ventilation operation mode as per Sub-Clause 5.5 of DRC 05030. Suitable criteria shall be finalized during detailed design.
107	Volume – 2 of 2, Section VI-2, Employer's Requirement (Design Requirement and criteria) Division 05030	Clause1 Page 5 of 77 VAC	General	ECS Basic Design Drawings in CAD & PDF to be furnished.	New folder of clear PDF files of all the Drawings maybe downloaded for reference by the Bidders through the link provided. AutoCAD drawings cannot be provided at this stage.



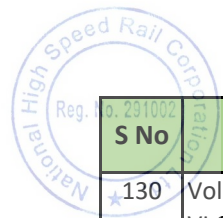
S No	Part & Section Reference	Page No / Clause No.	Provision as per Bidding Documents / Subject / Title / Item as mentioned by the Bidder	Bidder Query	Employer's Response
108	Volume – 2 of 2, Section VI-2, Employer's Requirement (Design Requirement and criteria) Division 05030	Annexure -2 VAC	General	Please provide Occupancy & Heat dissipation load in KW of the Equipment's in Rooms mentioned Below. 1. Ticket Office room 2. Ticket Machine room 3. Station Control Room 4. Auxiliary SER 5. UPS Room 6. GSM 7. SER & DSS Room 8. Rail & Station ER 9. Battery Room	Refer Sub-Clause 1.4.1 of DRC 05030.
109	Volume – 2 of 2, Section VI-2, Employer's Requirement (Design Requirement and criteria) Division 05030	Clause1/1.1.1(f) Page 5 of 77 VAC	General	Please provide Detailed information w.r.t Shops, Kios, kitchen in Commercial spaces. Kindly confirm Air conditioning equipment for commercial space shall be separate from Station	The Condition(s) of the Bidding Documents shall remain unaltered.
110	Volume – 2 of 2, Section VI-2, Employer's Requirement (Design Requirement and criteria) Division 05030	General VAC	General	Please provide the Heat dissipation load in KW of following Equipment's . 1. Escalator 2. Lift 3. AFC Gates 4. Ticket Control Machine	Refer Sub-Clause 1.4.1 of DRC 05030.
111	Volume – 2 of 2, Section VI-2, Employer's Requirement (Design Requirement and criteria) Division 05030	Clause 18.1.1 Page 45 of 58 EXTRA LOW VOLTAGE SYSTEM	Standard and Codes	Barring applicable codes and standards IEC 63044: 2017 Building automation and control system; there is no other codes, standard, regulatory codes are mentioned for designing the Building Management System; Are we supposed to contemplate Codes/Standards like NFPA Etc. nor we just have to confine with IEC 63044:2017	The Contractor shall submit proposal during the detailed design for approval of the Engineer. Refer Sub-Clause 1.4 of DRC 05040.
112	Volume – 2 of 2, Section VI-2, Employer's Requirement (Design Requirement and criteria) Division 05030	Clause 18.1.2 Page 45 of 58 EXTRA LOW VOLTAGE SYSTEM	OCC (Operation Control Centre)	It is understood that OCC is out of the BMS Scope of work (Electrical Work) and BMS shall interface with Operational Control Centre (OCC) through communication system provided by E1 package Contractor. All the condition, provision required including license Etc. for the interfacing with station by OCC is to be rendered by other contractor (responsible for OCC). Only Communication ports as and protocol (defined by OCC contractor) will be designed by ELV Contractor.	The Contractor shall interface with E-1 contractor during the detailed design. Refer Appendix 04000-1 of GS 04000 and Annexure 5 of DRC 05010. The Condition(s) of the Bidding Documents shall remain unaltered.
113	Volume – 2 of 2, Section VI-2, Employer's Requirement (Design Requirement and criteria) Division 05030	Clause 18.1.5 Page 45 of 58 EXTRA LOW VOLTAGE SYSTEM	DDC	DDC (Direct Distributed Digital Control System) are mentioned to be designed for the BMS system however each DDC controller comes with limited I/O capacity. However as per the clause 18.1.23 another industrial controller I.e. PLC is mentioned which is EMI & EMC Compliant., Which controller is to be designed? As there is no other standard written barring IEC 63044: 2017; are we supposed to use Railway application EN-50128, EN 50126, EN ISO 9001?	Direct Distributed Digital Control System shall be used as per Sub-Clause 18.1.5 of DRC 05040. Sub-Clause 18.1.23 refers to integration of different types of Control System with BMS. The Contractor shall propose best international standards and practices for approval of the Engineer wherever it is not specifically mentioned, as per Sub-Clause 1.4 of DRC 05040.
114	Volume – 2 of 2, Section VI-2, Employer's Requirement (Design Requirement and criteria) Division 05030	Clause 18.1.6 Page 46 of 58 EXTRA LOW VOLTAGE SYSTEM	SCADA	All the functionality mentioned in the clause 18.1.6 of SCADA system are to be specified at station SCADA/BMS system like Alarm Management, Trending, Report Generation, Historization Etc.?	All the functionalities specified in Sub-Clause 18.1.6 of DRC 05040 are to be provided as a minimum.



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115	Volume – 2 of 2, Section VI-2, Employer's Requirement (Design Requirement and criteria) Division 05030	Clause 18.1.7 Page 46 of 58  EXTRA LOW VOLTAGE SYSTEM	Input / Output Points	Only high-level system wide description is written from where IO Summary will be driven (Station Electrical Services). However need specific definition of "Others" as it will have direct ramification on commercials and moreover technical provision are to be capture in our design dossier.	Others shall include any system/sub-system mentioned elsewhere in the Bidding Documents, with BMS status, monitoring and control to be provided. The Contractor shall develop during detailed design for approval of the Engineer.
116	Volume – 2 of 2, Section VI-2, Employer's Requirement (Design Requirement and criteria) Division 05030	Clause 18.1.9 Page 47 of 58  EXTRA LOW VOLTAGE SYSTEM	DDC	Physical Communication layer is defined as Ethernet connectivity (EC) which implies all the integration (Third Party) will have to support Ethernet Connectivity, Is this (EC) optional?	It is not optional. The Condition(s) of the Bidding Documents shall remain unaltered.
117	Volume – 2 of 2, Section VI-2, Employer's Requirement (Design Requirement and criteria) Division 05030	Clause 18.1.21(a) Page 49 of 58  EXTRA LOW VOLTAGE SYSTEM	Communication Protocol of Local Connections	Local connections shall be via an Ethernet LAN; can we use any other communication protocol for local connection.	The Condition(s) of the Bidding Documents shall remain unaltered.
118	Volume – 2 of 2, Section VI-2, Employer's Requirement (Design Requirement and criteria) Division 05030	Clause 18.1.22 Page 50 of 58  EXTRA LOW VOLTAGE SYSTEM	Energy Points	Minimum quantification I.e. 50 Nos is specified however what is the maximum number?	The Contractor shall develop during detailed design for approval of the Engineer.
119	Volume – 2 of 2, Section VI-2, Employer's Requirement (Design Requirement and criteria) Division 05030	Clause 18.1.25 Page 50 of 58  EXTRA LOW VOLTAGE SYSTEM	Network loading shall not exceed 80%	The Network loading will be limited to BMS; no third-party communication network work package will be considered in 80% loading.	The Condition(s) of the Bidding Documents shall remain unaltered.
120	Volume – 2 of 2, Section VI-2, Employer's Requirement (Design Requirement and criteria) Division 05030	Clause 18.2 Page 51 of 58  EXTRA LOW VOLTAGE SYSTEM	Fire Detection, Alarm and Annunciation system	Is the NFPA Standard and Codes are to be considered while designing the Fire Detection System?	The Condition(s) of the Bidding Documents shall remain unaltered.
121	Volume – 2 of 2, Section VI-2, Employer's Requirement (Design Requirement and criteria) Division 05030	Clause 18.2.5 Page 54 of 58  EXTRA LOW VOLTAGE SYSTEM	Interface / Integration Requirements	FACP shall only monitor flow switches for sprinkler system (Not controlled) and control and monitoring of gas suppression system	Refer Addendum No. 03, Item No. 18.

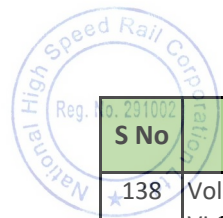


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122	Volume – 2 of 2, Section VI-2, Employer's Requirement (Design Requirement and criteria) Division 05030	Clause 18.2.5 Page 54 of 58 EXTRA LOW VOLTAGE SYSTEM	FACP shall advice on the fire condition to Ticketing System.	More elaboration required about this integration.	The Contractor shall interface with Ticketing System contractor during the detailed design.
123	Volume – 2 of 2, Section VI-2, Employer's Requirement (Design Requirement and criteria) Division 05030	Generic EXTRA LOW VOLTAGE SYSTEM	Generic	a) LHD is not mentioned in the Section VI-2 Employer's Requirements (Design Requirements and Criteria); is there any other document which needs to referred?  b) Class – A or B; Which class is to be followed?	a) Refer Sub-Clause 18.2.14 of DRC 05040.  b) The Contractor shall submit proposal during the detailed design as per NBC-2016 for approval of the Engineer.
124	Volume – 2 of 2, Section VI-2, Employer's Requirement (Design Requirement and criteria) Division 05030	Clause 18.3.4 Page 56 of 58 EXTRA LOW VOLTAGE SYSTEM	Station Building Security zoning plans	What is the principle for security Zone design and what are the variables to be contemplated for designing it?	The Contractor shall develop during detailed design for approval of the Engineer.
125	Volume – 2 of 2, Section VI-2, Employer's Requirement (Design Requirement and criteria) Division 05030	Clause 18.3.11 Page 57 of 58 EXTRA LOW VOLTAGE SYSTEM	Access Control System (ACS)	Integration list with ACS are to be mentioned specifically and its operational philosophy.	The Contractor shall develop during detailed design for approval of the Engineer.
126	Volume – 2 of 2, Section VI-2, Employer's Requirement (Design Requirement and criteria) Division 05030	Clause 18.4 Page 57 of 58 EXTRA LOW VOLTAGE SYSTEM	IT & Data Network System	ELV System will design the IT and Data network system only for local station network for intra-communication between ELV System and its associated third-party system.	Refer Sub-Clause 18.4 of DRC 05040.
127	Volume – 2 of 2, Section VI-2, Employer's Requirement (Design Requirement and criteria) Division 05030	Clause 18.4 Page 57 of 58 EXTRA LOW VOLTAGE SYSTEM	IT & Data Network System	Utilization of WIFI is to be elaborated so that capability can be provisioned accordingly in ELV System	The Contractor shall develop during detailed design for approval of the Engineer.
128	Volume – 2 of 2, Section VI-2, Employer's Requirement (Design Requirement and criteria) Division 05030	Clause 18.5 Page 58 of 58 EXTRA LOW VOLTAGE SYSTEM	Water Leakage Alarm System	We will be designing Level Sensor(s) to probe the level of pit(s) which will be used to indicate the level of pits and accordingly pumps will operate. Is WLD required for Toilet's pit? Moreover, is there any other requirement of WLD in other application within the premises?	Sub-Clause 18.5 of DRC 05040 is self-explanatory.
129	Volume – 2 of 2, Section VI-2, Employer's Requirement (Design Requirement and criteria) Division 05030	Clause 18.5 Page 58 of 58 EXTRA LOW VOLTAGE SYSTEM	Emergency Telephone System	What codes and standard are to be followed for designing Emergency Telephone System?	Refer Sub-Clause 1.4 of DRC 05040.

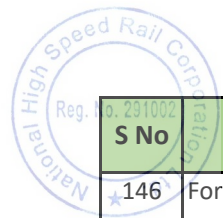


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130	Volume – 2 of 2, Section VI-2, Employer's Requirement (Design Requirement and criteria) Division 05030	Clause 16.2.3 Page 50 of 74  EXTRA LOW VOLTAGE SYSTEM	BMS System Server	BMS servers shall be provided in redundant configuration. Switch-over from duty to stand by shall be made both automatic and manual and no other redundancy at any level of control system will be considered	Sub-Clause 16.2.3 of TS 05040 is self-explanatory.
131	Volume – 2 of 2, Section VI-2, Employer's Requirement (Design Requirement and criteria) Division 05030	Firefighting/Clause no. 1.2.3 Firefighting	Applicable code & standards	Please confirm following code for use- NFPA-13, NFPA-14, NFPA-15, NFPA-20, NFPA-2001 & NFPA-130.	Refer Sub-Clause 1.2.3 of DRC 05050.
132	Volume – 2 of 2, Section VI-2, Employer's Requirement (Design Requirement and criteria) Division 05030	Plumbing/Clause no. 2.1 Plumbing	Domestic water tank	Bidder understand that mentioned 500cum water storage/required is included both Raw water and domestic water. Please confirm.	The Bidding Document specifies the minimum requirement. However, the Contractor shall develop detailed design for the approval of the Engineer.
133	Volume – 2 of 2, Section VI-2, Employer's Requirement (Design Requirement and criteria) Division 05030	Plumbing/Clause no. 4 Plumbing	Rain water drainage system	Please confirm the requirement of rainwater harvesting pits.	There are no rainwater harvesting pits. Refer Sub-Clause 4 of DRC 05050 for rainwater drainage system.
134	Volume – 2 of 2, Section VI-2, Employer's Requirement (Design Requirement and criteria) Division 05030	Plumbing/Table no. 7	Table 7: Design Criteria for Sewerage and Drainage Systems	Bidder understand that mentioned Min diameter pipe as 200 & 250 in sewage design criteria for main header pipes which is connecting to municipal trunk line, not for internal piping size inside the toilets. Please confirm	Bidder's understanding is correct. However, the Contractor shall develop detailed design for the approval of the Engineer.
135	Volume – 2 of 2, Section VI-2, Employer's Requirement (Design Requirement and criteria) Division 05030	Firefighting/Clause no.12.2	General	There shall be sperate system for sprinkler and hydrant along with stand by pump, and confirm the provision of diesel pump for each system.	Refer Addendum No 01, Item No. 20.
136	Volume – 2 of 2, Section VI-2, Employer's Requirement (Design Requirement and criteria) Division 05030	Firefighting/Clause no.5.8.1 Pumps	High Pressure Fire Water Mist Pump	Discharge capacity mentioned 150lpm, please confirm.	Sub-Clause 5.8.1 of TS 05050 is self-explanatory.
137	Volume – 2 of 2, Section VI-2, Employer's Requirement (Design Requirement and criteria) Division 05030	Firefighting/Clause no.5.9 Pumps	Low Pressure Water Mist Sprinkler Pump	Discharge capacity mentioned 1200lpm, please confirm.	Sub-Clause 5.9 of TS 05050 is self-explanatory.

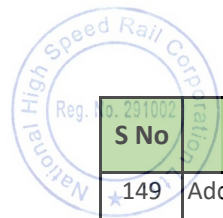




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138	Volume – 2 of 2, Section VI-2, Employer's Requirement (Design Requirement and criteria) Division 05040	Clause 17.4.10(h) Page 31 of 58 Electrical		As per our understanding, dual supply shall be provided at DB to fulfil clause no. 6.2 Page 10 of 58, which will conclude this clause for separate power source for light fixture.	The Bidder's understanding is correct.
139	Volume – 2 of 2, Section VI-2, Employer's Requirement (Design Requirement and criteria) Division 05040	Clause 6.10.1 & 6.10.2 Page 10 & 11 of 58 Electrical		Please confirm the electrical loads for Signalling, & telecom, ticketing, CCTV, PA System, etc.	Refer Appendix 04000-1 of GS 04000 and Annexure 5 of DRC 05010. The Contractor shall interface with E-1 contractor during the detailed design.
140	Volume – 2 of 2, Section VI-2, Employer's Requirement (Design Requirement and criteria) Division 05040	Clause 6.10.3 Page 11 of 58 Electrical		Please confirm normal loads other than lighting & advertisement boards, like chillers, etc.	The Contractor shall develop during detailed design for approval of the Engineer.
141	Volume – 2 of 2, Section VI-2, Employer's Requirement (Design Requirement and criteria) Division 05040	Clause 10.4.1 (a) Page 19 of 74 Electrical		Please confirm the tool/software for power loss measurement/calculation of the system.	Refer Sub-Clause 17.3.1 of DRC 05040. The Contractor shall propose during detailed design for approval of the Engineer.
142	Volume – 2 of 2, Section VI-2, Employer's Requirement (Design Requirement and criteria) Division 05040	Clause 17.3.10 Page 27 of 58 Electrical		Please confirm the reference to be considered or tool/software required for calculation.	Refer Sub-Clause 17.3.1 of DRC 05040. The Contractor shall propose during detailed design for approval of the Engineer.
143	Volume – 2 of 2, Section VI-2, Employer's Requirement (Design Requirement and criteria) Division 05040	Clause 6.1.(v) Page 9 of 58 Electrical		Please confirm the load and scope for electrical supply of shops, kiosks; if supply for shops, kiosks, etc to be taken from different substation or station substation?	Load of electrical supply for shop, kiosk and other commercial areas shall be decided during detail design stage. There will be no separate/different substation, all loads will be fed by the station substation.
144	Volume – 1 of 2, Section VI-1, Employer's Requirement (General specifications) Appendix – 04000-1	Appendix-04000-1 Clause 4. (10) Page 4 of 20 Electrical		Please confirm if Separate UPS is required for telecommunication or a feeder from E&M UPS is sufficient?	E&M UPS is sufficient for telecommunication requirements. The Contractor shall interface with E-1 contractor for telecommunication requirements during the detailed design.
145	Volume – 2 of 2, Section VI-2, Employer's Requirement (Design Requirement and criteria) Division 05040	Clause 17.5 Page 34 of 58 Electrical		Please confirm the earth strip conductor material and the soil resistivity	Refer Addendum No. 03, Item No. 16



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146	Form FIN -3: Declaration on Bankruptcy/Insolvency and Debt Restructuring		The statement of the Bidder as per FIN-3, is to be certified by Chartered Accountant /Company Auditor/ Statutory Auditor.	<p>Since bankruptcy / debt restructuring falls in the purview of the bankers, it is requested to the employer to accept submission of this form duly certified by the bidder's bankers / lenders as well.</p> <p>We refer to recent tenders invited by MMRDA where such declaration can be certified by either Statutory Auditor or Bankers (Please refer Annexure-1).</p> <p>Kindly consider and confirm.</p>	The Condition(s) of the Bidding Documents shall remain unaltered.
147	Forms ELI-1, ELI-2, CON 1.0, 2.0, 3.0, FIN-1, FIN-2, FIN-3, FIR-1, FIR-2, Annexure to Form FIR-2, EXP-1, EXP-2(a), EXP-2(b), ACK		The Referred Forms have to be certified by Chartered Accountant /Company Auditor/ Statutory Auditor.	<p>Please note that a lot of these forms require certification of matters which fall outside the purview of the Chartered Accountant/Statutory Auditor and hence they will be unwilling to certify such forms. Only the forms pertaining to the financial information of the Bidder shall be certified by the Chartered Accountant / Company Auditor/ Statutory Auditor.</p> <p>Hence, apart from the financial information forms (i.e FIN-1, FIN-2, FIN-3, FIR-1, FIR-2, Annexure to FIR-2) , we request the employer to allow self-certification by the bidder for the other forms i.e. ELI-1, ELI-2, CON 1.0, 2.0, 3.0, EXP-1, EXP-2(a), EXP-2(b), ACK.</p> <p>Kindly consider &amp; confirm.</p>	The Condition(s) of the Bidding Documents shall remain unaltered.
148	Form FIR-1, Form FIR-2, Annexure to Form FIR-2		Amount stated in FIR-1 by the Bidder to be Equal or Greater than Amount Stated in the Form of Financial Resources (i) of EQC, Million INR 1,250 plus Total Average Monthly Requirement of Outstanding Contracts Multiplied by 03 (in Million INR)	<p>As per Annexure to FIR 2, Total Average Monthly Requirement of Outstanding Contracts is being worked out by dividing the outstanding contract value by the remaining contact period for all contracts under execution. Please note that the figure so arrived at is nothing but total turnover of the company per month.</p> <p>It should be also noted that the Financial Resources required to achieve monthly turnover of the company are only a small fraction of the turnover i.e. approx. 4-5%. Since all current contract commitments are met by various payments made by the current clients through Running Bills, advances etc, it is highly exaggerated to consider monthly turnover as financial resource requirement.</p> <p>Moreover, the bidder has to state an amount in FIR-1 greater than INR 1250 Million + 3 time the monthly turnover. You will appreciate that the figure so arrived at is unreasonable.</p> <p>Hence, we request the Employer to modify the requirement as:</p> <p>Amount stated in FIR-1 by the Bidder to be Equal or Greater than Amount Stated in the Form of Financial Resources (i) of EQC, Million INR 1,250 plus 5% of the Total Average Monthly Requirement of Outstanding Contracts (in Million INR)</p> <p>Kindly consider &amp; confirm.</p>	The Condition(s) of the Bidding Documents shall remain unaltered.



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149	Addendum 2 Item no. 6  Part 1, Section III, Sub-Clause 3.2 (d) (iii), Column 3, Construction Experience in Key Activities, Page 23, 24 of 34		For the above or other contracts completed and under implementation as prime contractor (single entity or JV/Consortium member) or management contractor or Subcontractor(vi) between 1st January 2009 and Bid submission deadline, a minimum experience in the following key activities successfully completed: Key Activities: a. Execution of MEP works for minimum 2 No. of underground stations of metro rail / railway. b. Execution of Architectural works for minimum 2 No. of underground stations of metro rail / railway. c. Design of MEP works for minimum 2 No. of underground stations of metro rail / railway. d. Design of Architectural works for minimum 2 No. of underground stations of metro rail / railway.	We understand that the requirement for key activities under this clause can be met through specialist sub-contractor(s) as mentioned in the original Bid document Part1,Section III, Sub-Clause 3.2 (d) (iii), Column 4 &5, against Construction Experience in Key Activities, Page 23, 24 of 34 and also as metioned vide "Notes for the bidder" (vii) Page 26 of 34.  Kindly confirm.	The Condition(s) are self-explanatory.  The Condition(s) of the Bidding Documents shall remain unaltered.