

National High-Speed Rail Corporation Limited
(A Joint Sector Company of Govt. of India and Participating State Government)
2nd Floor, Asia Bhawan, Road No. 205, Sector-9, Dwarka, New Delhi-110077, India

Addendum no. 1

Country: INDIA

Name of Work: Design and Build works for construction of Sabarmati High Speed Rail Terminal for Mumbai-Ahmedabad High Speed Rail

Date: 19.09.2018

Package No. NHSRCL/ CO/ SBI- HUB/ 2018/ 7

Item No.	Refer Clause No.	Amendment										
1.	Volume IV Section 10 Page No. 66 of 394 Clause 05030 Sub- clause 5	<p><i>Add list of makes for 3 materials:</i></p> <p style="text-align: center;">5. LIST OF MAKES- PLUMBING & FIRE FIGHTING WORKS</p> <table border="1" style="width: 100%;"> <thead> <tr> <th style="text-align: center;">Details of Equipment/ Material</th> <th style="text-align: center;">Approved Makes</th> </tr> </thead> <tbody> <tr> <td colspan="2" style="text-align: center;">Plumbing & Fire Fighting Works</td> </tr> <tr> <td>Sewage Treatment Plant</td> <td>Brisanzia, BS Envirotech, Oxibee Solutions</td> </tr> <tr> <td>Polypropylene Pipes</td> <td>Poloplast Poloplast 3S, Rehau Raupiano plus, Huliot Huliot ultra silent plus</td> </tr> <tr> <td>Solar Water Heater</td> <td>Havells, V-Guard, Racold</td> </tr> </tbody> </table>	Details of Equipment/ Material	Approved Makes	Plumbing & Fire Fighting Works		Sewage Treatment Plant	Brisanzia, BS Envirotech, Oxibee Solutions	Polypropylene Pipes	Poloplast Poloplast 3S, Rehau Raupiano plus, Huliot Huliot ultra silent plus	Solar Water Heater	Havells, V-Guard, Racold
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2.	Volume IV Section 11 Page no. 254 of 394 Clause 04010 Sub- clause 4.10	<p><i>Add sub-clause :</i></p> <p>4.10 Dual Energy Metering Specifications of Dual Energy Meter To measure power consumption from 2 sources [Grid & DG], Dual energy meter shall be installed with following minimum features:</p> <ul style="list-style-type: none"> • Measurement of electrical parameters in 50Hz \pm 5% electrical network with dual register to measure energy drawn from 2 different sources. • Full range of display of basic 3 phase voltage, current, power and energy parameters, Power factor, frequency, % unbalance, meter operation timer and run hours. • Automatic switching of display based on input source as Grid supply or DG through DG sending input. • Accuracy– Four quadrant power and two quadrant energy measurement complying to IEC 62053-22 for active Energy Class 0.5. Accuracy of \pm 0.5% of the readings for voltage and current parameters with sampling rate of 32 samples per cycle for precision measurements. • Communication for remote monitoring – Industrial standard RS-485 serial port on Modbus protocol. 										



S.No.	Refer Clause No.	Amendment
		<ul style="list-style-type: none"> Tamper cover – securing against accidental touch of voltage, current and control power input signals. Meter shall conform to IS: 13779 or Equivalent IEC Code.
3.	Volume IV Section 10 Page No. 83 of 394 Clause 06020 Sub- clause 2.3.5	<p><i>Add paragraph in sub-clause 2.3.5:</i></p> <p>2.3.5 “3 Phase dual energy meter shall be installed for all shops / Kiosk / restaurants / offices on respective floors, complete with all wiring, billing and recharge software and shall be integrated with BMS. Complete metering solution including PC, Software etc. shall be provided.”</p>
4.	Volume III Section 9 Page no. 49 of 243 Clause 01020 Sub-clause 1.9.3 e.	<p><i>Add sub-clause :</i></p> <p>1.9.3 e. Installation of Single Tier of sprinklers for Office floors (4th-9th floor) with provision for second layer of sprinkler.</p>
5.	Volume IV Section 10 Page no. 83 of 394 Clause 06020 Sub-clause 2.3.4	<p><i>Add paragraph in sub-clause 2.3.4:</i></p> <p>2.3.4 Main LV Panel to have sufficient number of outgoing breakers to integrate Power generated through solar PV panels. Solar PV Plant is not in scope of the Contractor.</p>
6.	Volume IV Section 10 Page no. 98 of 394 Clause 06020 Sub- clause 4.2 o)	<p><i>Add sub-clause :</i></p> <p>4.2 o) All speakers and other devices shall be wired with Fire survival cable CWZ LPCB certified.</p>
7.	Volume IV Section 10 Page no. 101 of 394 Clause 06020 Sub- clause 4.3 g)	<p><i>Add paragraph in sub-clause 4.3 g):</i></p> <p>4.3 g) All cameras shall be with video analytics feature enabled.</p>
8.	Volume IV Section 10 Page no. 101 of 394 Clause no. 06020 Sub-clause 4.3 i)	<p><i>Add paragraph in sub-clause 4.3 i):</i></p> <p>4.3 i) Biometric readers shall be provided at 20 locations. Location of the readers shall be decided in detail design stage. Boom barriers shall be provided at 8 locations. Location of boom barriers shall be part of detail design stage.</p>
9.	Volume IV Section 11 Page no. 303 of 394 Clause no. 04020 Sub- clause 5	<p><i>Add paragraph in sub-clause 5:</i></p> <p>5 Wiring of all IP based CCTV cameras shall be done with CAT-6 Cable in PVC Conduit / Armoured CAT-6 Cable.</p>
10.	Volume IV Section 10 Page no. 92 of 394 Clause no. 06020 Sub-clause 3.2 c. (vi)	<p><i>Add sub-clause :</i></p> <p>3.2 c. (vi) Multicore armoured cable for BMS shall be considered.</p>
11.	Volume IV Section 10 Page no. 92 of 394 Clause no. 06020 Sub-clause 3.2 c. (vii)	<p><i>Add sub-clause :</i></p> <p>3.2 c. (vii) Single user license for IBMS System is required to be provided.</p>



S.No.	Refer Clause No.	Amendment															
12.	Volume IV Section 10 Page no. 50 of 394 Clause no. 05010 Sub-clause 3.9	<i>Add sub-clause :</i> 3.9 Diversity Factor - 90% to be considered for HVAC head load calculations.															
13.	Volume III Section 9 Page no. 58 of 243 Clause no. 01020 Sub-clause 1.9.7	<i>Add sub-clause :</i> 1.9.7 Gas Supply Planning of entire route for gas pipe line along with coordination with gas supply agency shall be in the scope of Contractor.															
14.	Volume IV Section 10 Page no. 26 of 394 Clause no. 03010 Sub-clause 12	<p><i>Add sub-clause :</i></p> <p>12. LIST OF MAKES- STRUCTURAL WORKS</p> <table border="1"> <thead> <tr> <th>S.No.</th> <th>Details of Materials /Products</th> <th>Manufacturer's Name</th> </tr> </thead> <tbody> <tr> <td>1.</td> <td>Reinforcement Bars</td> <td>SAIL, Rashtriya Ispat Nigam Ltd., TISCO,JSW Steel, Jindal Steel & Power Ltd., IISCO</td> </tr> <tr> <td>2.</td> <td>Cement</td> <td>Ultratech, Ambuja, ACC, JK Super, Birla Cement</td> </tr> <tr> <td>3.</td> <td>Structural Steel</td> <td>TATA, ESSAR, Jindal Steel & Power Ltd., JSW, IISCO</td> </tr> <tr> <td>4.</td> <td>Hollow Sections, Pipes</td> <td>TATA, JSW, Jindal Steel & Power Ltd</td> </tr> </tbody> </table>	S.No.	Details of Materials /Products	Manufacturer's Name	1.	Reinforcement Bars	SAIL, Rashtriya Ispat Nigam Ltd., TISCO,JSW Steel, Jindal Steel & Power Ltd., IISCO	2.	Cement	Ultratech, Ambuja, ACC, JK Super, Birla Cement	3.	Structural Steel	TATA, ESSAR, Jindal Steel & Power Ltd., JSW, IISCO	4.	Hollow Sections, Pipes	TATA, JSW, Jindal Steel & Power Ltd
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15.	Volume IV Section 11 Page no. 363 of 394 Clause no. 05010 Sub-clause 6.2(i)	<i>Add sub clause:</i> 6.2 (i) Fly Ash shall not permitted in concrete works.															

Place: New Delhi
Date: 19-09-2018



Sd/-

Sh. Indudhara Sastry
General Manager (Contract),
NHSRCL