

NATIONAL HIGH SPEED RAIL CORPORATION LIMITED (NHSRCL)

(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. 6

Country: INDIA

Name of Work: Construction of Tunnelling Works including Testing and Commissioning for Double Line High Speed Railway using Tunnel Boring Machine (TBM) and New Austrian Tunnelling Method (NATM) between Mumbai Underground Station at Bandra-Kurla Complex (MAHSR Km. 0.773) and Shilphata (MAHSR Km. 21.150) in the State of Maharashtra for the Project for Construction of Mumbai-Ahmedabad High Speed Rail

Date: 09.09.2019

Loan Agreement No.: ID-P277 & ID-P279

IFB Number: Package No. MAHSR-C-2

Following are to be considered -

Item No.	Refer Para No.	Original/Existing	Revised												
1.	Part 2, Section VI-3, Drawings Attachment No 1 of Addendum No 2		<p>Drawings have been modified and new Drawings have been added. The Drawings which have been revised are shown in 'Blue', the Drawings which have been newly added are shown in 'Red' and the Drawings which have been deleted are shown as strikethrough.</p> <p>Refer Attachment No. 1 of this Addendum for revised and new Drawings.</p> <p>Attachment No 1 may be downloaded by the Bidders who have purchased the Bid Document, through the link provided to the respective Bidders.</p>												
2.	Part 2, Section VI-2, Sub-Clause 4.8 (2), Table 10, Page No. 36 of 199	<table border="1"> <thead> <tr> <th>Item</th> <th>Material in Use</th> </tr> </thead> <tbody> <tr> <td>Steel</td> <td>IS: 2062 - Hot Rolled Medium and High Tensile Structural Steel – Specification Grade E350</td> </tr> </tbody> </table>	Item	Material in Use	Steel	IS: 2062 - Hot Rolled Medium and High Tensile Structural Steel – Specification Grade E350	<table border="1"> <thead> <tr> <th>Item</th> <th>Material in Use</th> </tr> </thead> <tbody> <tr> <td rowspan="3">Steel</td> <td>IS: 2062 - Hot Rolled Medium and High Tensile Structural Steel</td> </tr> <tr> <td>Main Tunnel</td> <td>Grade E410 or as shown in the Drawing whichever is higher.</td> </tr> <tr> <td>Equipment Room</td> <td>Grade E350 or as shown in the Drawing whichever is higher.</td> </tr> </tbody> </table>	Item	Material in Use	Steel	IS: 2062 - Hot Rolled Medium and High Tensile Structural Steel	Main Tunnel	Grade E410 or as shown in the Drawing whichever is higher.	Equipment Room	Grade E350 or as shown in the Drawing whichever is higher.
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3.	Part 2, Section VI-2, Sub-Clause 4.24(5), Page No. 57 of 199	Waterproofing of Equipment Rooms shall be ensured with the help of gaskets as shown in the Drawings.	Waterproofing of <i>steel segments</i> of Equipment Rooms shall be ensured with the help of EPDM gaskets as shown in the Drawings. <i>The connection of steel segments of the Equipment Rooms with steel segments of the Main Tunnel shall be made waterproof as shown in the Drawings. The Contractor shall submit method statement for providing connection of the Equipment Rooms with the Main Tunnel to the Engineer for his approval.</i>												
4.	Part 2, Section VI-1, Division 08000, Appendix 08000-1: Safety, Occupational Health and	Appendix 08000-1: Safety, Occupational Health and Environment Management Manual	<p align="center"><Replace existing Appendix 08000-1 by the following></p> <p align="center">Refer Attachment No. 2 of this Addendum for revised Appendix.</p>												

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	Environment Management Manual																
5.	Part-1, Section IV, Sub-Clause 2.7, Attachment No 1 of Addendum No 4 Page 87 of 89	Bill No.	Item No.	Description	Amount				Bill No.	Item No.	Description	Amount					
					Local – INR	Foreign- JPY	Foreign – USD	Foreign – EUR				Local – INR	Foreign- JPY	Foreign – USD	Foreign – EUR		
		5	501	Utility support above and below MIDC road near Main Tunnel Portal a) Investigations b) Design and construction of: (i) Temporary road diversion (ii) Steel decking (iii) Utility support c) Precautionary measures for NATM excavation considering utility supports method d) Reinstatement Note: Refer to Sub-clause 2.3 and 2.9 of Sub-Division 06060, Division 06000 of the General Specifications.	600,000,000				5	501	Utility support above and below MIDC road near Main Tunnel Portal a) Investigations b) Design and construction of: (i) Temporary road diversion (ii) Steel decking (iii) Utility support c) Precautionary measures for NATM excavation considering utility supports method d) Reinstatement Note: Refer to Sub-clause 2.3 and 2.9 of Sub-Division 06060, Division 06000 of the General Specifications. <i>Released materials of utility support shall be the property of the Contractor.</i>	600,000,000					
		Unchartered Utilities				100,000,000				Unchartered Utilities				100,000,000			
		Cost of DB*				57,000,000				Cost of DB*				57,000,000			
		Total for Specified Provisional Sums (Carried forward to Grand Summary, p. __)				757,000,000				Total for Specified Provisional Sums (Carried forward to Grand Summary, p. __)				757,000,000			
		Provisional Sums included and so designated in the Bill of Quantities shall be expended in whole or in part at the directions of the Engineer, except for the provisional sum for the cost of the DB, which requires no prior instruction of the Engineer, in accordance with Sub-Clause 13.5 and Clause 13.6 of the General Conditions.															
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6.	Part-2, Section VI-2, Clause 7, Page 175 of 199		<Add the following Sub-Clause 7.18 after existing Sub-Clause 7.17 (introduced in Addendum No. 3 Item No. 93)> 7.18. The Contractor shall carry out topographic survey of existing ground at Shaft-2, Shaft-3, Main Tunnel Portal and Adit Tunnel Portal before starting any permanent reinstatement works and other associated works. The Contractor shall be responsible for carrying out minor changes in the Drawings of boundary walls, retaining walls, drains, chain link fencing, cable ducts, metaled access roads/access roads/roads and gates to suit the actual ground conditions with the approval of the Engineer. Nothing extra shall be payable to the Contractor on this account. Such minor changes shall not amount to variation under Sub-Clause 13.5 of General Condition.																														
7.	Part-2, Section VI-1, Division 04000, Sub-Division 04090, Clause 2, Page No 68 of 100	The access to and possession of Works Area at Shaft 2, Shaft 3, Main Tunnel Portal and Adit Portal as shown in the Drawings Nos. TD-JIC-IC1-TDC-B01-UST-NTU-00160000, TD-JIC-IC1-TDC-B01-UST-NTU-00170000, TD-JIC-IC1-TDC-B01-UST-NTU-00180000 & TD-JIC-IC1-TDC-B01-UST-NTU-00190000 respectively. shall be made available as per following schedule - <table border="1" data-bbox="513 989 1697 1289"> <thead> <tr> <th>S. No.</th> <th>Location description</th> <th>Schedule of hand over of the Site within the time after the Commencement Date (days)</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Shaft 2</td> <td>120</td> </tr> <tr> <td>2</td> <td>Shaft 3</td> <td>01</td> </tr> <tr> <td>3</td> <td>Adit Portal</td> <td>90</td> </tr> <tr> <td>4</td> <td>Main Tunnel Portal</td> <td>60</td> </tr> </tbody> </table>	S. No.	Location description	Schedule of hand over of the Site within the time after the Commencement Date (days)	1	Shaft 2	120	2	Shaft 3	01	3	Adit Portal	90	4	Main Tunnel Portal	60	The access to and possession of Works Area at Shaft 2, Shaft 3, Main Tunnel Portal and Adit Portal as shown in the Drawings Nos. <i>TD-JIC-IC1-TDC-B01-UST-NTU-00160001</i> , <i>TD-JIC-IC1-TDC-B01-UST-NTU-00170002</i> , TD-JIC-IC1-TDC-B01-UST-NTU-00180000 & <i>TD-JIC-IC1-TDC-B01-UST-NTU-00190001</i> respectively. shall be made available as per following schedule – <table border="1" data-bbox="1754 999 2861 1304"> <thead> <tr> <th>S. No.</th> <th>Location description</th> <th>Schedule of hand over of the Site within the time after the Commencement Date (days)</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Shaft 2</td> <td>30</td> </tr> <tr> <td>2</td> <td>Shaft 3</td> <td>01</td> </tr> <tr> <td>3</td> <td>Adit Portal</td> <td>01</td> </tr> <tr> <td>4</td> <td>Main Tunnel Portal</td> <td>60</td> </tr> </tbody> </table>	S. No.	Location description	Schedule of hand over of the Site within the time after the Commencement Date (days)	1	Shaft 2	30	2	Shaft 3	01	3	Adit Portal	01	4	Main Tunnel Portal	60
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8.	Part-3, Section VIII, Part-A Contract Data, Sub-Clause 2.1, Time for access to, and possession of all parts of, the Site Page No 6 of 33	<table border="1" data-bbox="513 1371 1697 1654"> <thead> <tr> <th>S. No.</th> <th>Location description</th> <th>Schedule of hand over of the Site within the time after the Commencement Date (days)</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Shaft 2</td> <td>120</td> </tr> <tr> <td>2</td> <td>Shaft 3</td> <td>01</td> </tr> <tr> <td>3</td> <td>Adit Portal</td> <td>90</td> </tr> <tr> <td>4</td> <td>Main Tunnel Portal</td> <td>60</td> </tr> </tbody> </table>	S. No.	Location description	Schedule of hand over of the Site within the time after the Commencement Date (days)	1	Shaft 2	120	2	Shaft 3	01	3	Adit Portal	90	4	Main Tunnel Portal	60	<table border="1" data-bbox="1724 1371 2861 1654"> <thead> <tr> <th>S. No.</th> <th>Location description</th> <th>Schedule of hand over of the Site within the time after the Commencement Date (days)</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Shaft 2</td> <td>30</td> </tr> <tr> <td>2</td> <td>Shaft 3</td> <td>01</td> </tr> <tr> <td>3</td> <td>Adit Portal</td> <td>01</td> </tr> <tr> <td>4</td> <td>Main Tunnel Portal</td> <td>60</td> </tr> </tbody> </table>	S. No.	Location description	Schedule of hand over of the Site within the time after the Commencement Date (days)	1	Shaft 2	30	2	Shaft 3	01	3	Adit Portal	01	4	Main Tunnel Portal	60
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9.	Part 3, Section VIII, Part-A Contract Data, Sub-Clause 14.2, Advance Payment, Page 6 of 33, Addendum No 3 Item No. 99	15% (fifteen percent) of the Accepted Contract Amount less Provisional Sums payable in the currencies and proportions in which the Accepted Contract Amount is payable. The Advance Payment shall be made in two instalments as under: a) 10 (ten) percent: On submission of a Performance Security; and b) 5 (five) percent: On submission of proof of placement of order for three (3) TBMs.	15% (fifteen percent) of the Accepted Contract Amount less Provisional Sums payable in the currencies and proportions in which the Accepted Contract Amount is payable, on submission of the Performance Security.																														

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10.	Part 3, Section VIII, Part-B Specific Provisions, Sub-Clause 8.1 Commencement of Works, Page 13 of 33 Addendum No 3 Item No 101	Replace Sub-paragraph (d) of the Sub-Clause 8.1 with the following: (d) receipt by the Contractor of the Advance Payment under Sub-Clause 14.2 a) [Advance Payment] provided that the corresponding bank guarantee has been delivered by the Contractor within 28 days from the date of signing of the Contract Agreement. If the Contractor fails to deliver the guarantee within such 28 days, this sub-paragraph (d) shall not be applied.						Replace Sub-paragraph (d) of the Sub-Clause 8.1 with the following: (d) receipt by the Contractor of the Advance Payment under Sub-Clause 14.2 [Advance Payment] provided that the corresponding bank guarantee has been delivered by the Contractor within 28 days from the date of signing of the Contract Agreement. If the Contractor fails to deliver the guarantee within such 28 days, this sub-paragraph (d) shall not be applied.							
11.	Part 2, Section VI-1, Division 04000, Appendix-04000-1, Chapter-3, Table 3, Item 2, Page 93 of 100	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	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
		2	Ground treatment of area to be used for arrival of TBM at ground surface of shaft by grouting before commencement of excavation of shaft1	C-2	C-2	C-2	C-2	Programme and method statement of grouting to be given by C-2 to C-1. C-1 shall be responsible for allowing access and reasonable working area to C-2. The schedule for working shall be decided jointly by C-1 and C-2. The work of grouting shall be done by C-2.	2	Ground improvement of area to be used for arrival of TBM at ground surface of Shaft 1.	C-2	C-2	C-2	C-2	Programme and method statement of <i>ground improvement</i> to be given by C-2 to C-1. C-1 shall be responsible for allowing access and reasonable working area to C-2. The schedule for working shall be decided jointly by C-1 and C-2. The work of <i>ground improvement</i> shall be done by C-2.
12.	Part-3, Section VIII, Part-A Contract Data, Sub-Clause 14.5(c)(i), Plants and Materials, Page 7 of 33	Plant and Materials for payment when delivered to the Site: Reinforcement Steel (for item no. 205,216,306,314,323,331,406,508 and 516)						Plant and Materials for payment when delivered to the Site: Reinforcement Steel (for item nos. 205,216,306,314,323,331,406(a),508 and 516) <i>and material for one pass joints and dowel joints (under item nos. 401 and 402)</i>							
13.	Part-2, Section VI-2, Clause 8, Item No 406, Attachment 3 of Addendum 4, Page No. 2 of 20	a) & b) The method of measurement for these items shall be the same as that of item No. 205.						a) The method of measurement for <i>this item</i> shall be the same as that of item No. 205. b) <i>The quantity of glass fibre reinforced polymer rods shall be measured in MT as per the Drawings. Wastages and binding material, etc. shall not be measured and cost of these items shall be deemed to be included in the rates. The payment for the item shall be made at Unit Rate per MT, entered in the Priced Bill of Quantities</i>							