

CORRIGENDUM - 4

Sl. No.	Section	Existing	Amended As																																																																																																									
1	Section-2 Clause 3.3a	<p>Availability by owning at least 50% of the required following key and critical equipment's for this work and the remaining 50% can be deployed on lease/hire for all works provided, the relevant documents (Commitment agreements etc..) for availability for this work are to be furnished: The intending tenderer/firm/company/Joint venture should furnish details of ownership / lease certificates of the following minimum requirement of machineries:</p> <p style="text-align: center;">APPENDIX-05 PLANT AND EQUIPMENT</p> <p style="text-align: center;">Key and Critical Equipments</p> <table border="1"> <thead> <tr> <th>S. No.</th> <th>Type of Equipment required for the work</th> <th>Proposed to be Deployed (Minimum)</th> <th>Remarks</th> </tr> </thead> <tbody> <tr> <td>1.</td> <td>Piling Equipment Rotary Rig / Hydraulic Rig for soil boring and rock boring including diamond bits for rock boring.</td> <td>12 nos.</td> <td>50% own+50% Lease / Hire</td> </tr> <tr> <td>2.</td> <td>Piling rig (Tripod) with conventional winch</td> <td>24 nos.</td> <td>50% own+50% Lease / Hire</td> </tr> <tr> <td>3.</td> <td>Fully Automatic and Computerized Batching Plant -1 nos. (2 of 60 Cum / h) and (2 of 30 Cum / h) minimum or equivalent capacity in different configuration at casting yard with a RO of suitable capacity for proper quality of water.</td> <td>4 nos.</td> <td>50% own+50% Lease / Hire</td> </tr> <tr> <td>4.</td> <td>Concrete boom placers</td> <td>4 nos.</td> <td>50% Own+50% Lease / Hire</td> </tr> <tr> <td>5.</td> <td>Concrete pumps with sufficient pipes</td> <td>8 nos.</td> <td>50% own+50% Lease / Hire</td> </tr> <tr> <td>6.</td> <td>Transit Mixers</td> <td>24 nos.</td> <td>50% own+50% Lease / Hire</td> </tr> <tr> <td>7.</td> <td>Launching Girder to Launch Box segments as per site requirements (Maximum permissible age in years is 10 Years).The suitable launcher for U-girder launching fully automatic, capable of negotiating 200m radius curve and 3% gradient, speed of trolley carrying U-girder for launching with load 2km / hr. and without load 3km / hr. to be mobilized. The minimum of two numbers of LG for launching of U-girders with motorized bogies for handling and transportation of U-girders to be mobilized.)</td> <td>6 nos.</td> <td>50% own+50% Hire / Lease</td> </tr> <tr> <td>8.</td> <td>Crane of suitable capacity for Erection of LG Girders, / U Girders / Box Girders.</td> <td>4 nos.</td> <td>50% own+50% Hire / Lease</td> </tr> <tr> <td>9.</td> <td>Cranes in casting yard / site of suitable capacity</td> <td>6 nos.</td> <td>50% own+50% Hire / Lease</td> </tr> <tr> <td>10.</td> <td>Gantry of suitable capacity in casting yard</td> <td>10 nos.</td> <td>50% own+50% Hire / Lease</td> </tr> <tr> <td colspan="4" style="text-align: center;">Road work, Embankment and cutting works.</td> </tr> <tr> <td>11.</td> <td>Hydraulic excavator (1 cum bucket)</td> <td>12 nos.</td> <td>50% own+50% Lease / Hire</td> </tr> <tr> <td>12.</td> <td>Tippers / trucks (10 / 14 cum capacity)</td> <td>60 nos.</td> <td>50% own+50% Lease / Hire</td> </tr> <tr> <td>13.</td> <td>Dozer of suitable capacity</td> <td>10 nos.</td> <td>50% own+50% Lease / Hire</td> </tr> </tbody> </table>	S. No.	Type of Equipment required for the work	Proposed to be Deployed (Minimum)	Remarks	1.	Piling Equipment Rotary Rig / Hydraulic Rig for soil boring and rock boring including diamond bits for rock boring.	12 nos.	50% own+50% Lease / Hire	2.	Piling rig (Tripod) with conventional winch	24 nos.	50% own+50% Lease / Hire	3.	Fully Automatic and Computerized Batching Plant -1 nos. (2 of 60 Cum / h) and (2 of 30 Cum / h) minimum or equivalent capacity in different configuration at casting yard with a RO of suitable capacity for proper quality of water.	4 nos.	50% own+50% Lease / Hire	4.	Concrete boom placers	4 nos.	50% Own+50% Lease / Hire	5.	Concrete pumps with sufficient pipes	8 nos.	50% own+50% Lease / Hire	6.	Transit Mixers	24 nos.	50% own+50% Lease / Hire	7.	Launching Girder to Launch Box segments as per site requirements (Maximum permissible age in years is 10 Years).The suitable launcher for U-girder launching fully automatic, capable of negotiating 200m radius curve and 3% gradient, speed of trolley carrying U-girder for launching with load 2km / hr. and without load 3km / hr. to be mobilized. The minimum of two numbers of LG for launching of U-girders with motorized bogies for handling and transportation of U-girders to be mobilized.)	6 nos.	50% own+50% Hire / Lease	8.	Crane of suitable capacity for Erection of LG Girders, / U Girders / Box Girders.	4 nos.	50% own+50% Hire / Lease	9.	Cranes in casting yard / site of suitable capacity	6 nos.	50% own+50% Hire / Lease	10.	Gantry of suitable capacity in casting yard	10 nos.	50% own+50% Hire / Lease	Road work, Embankment and cutting works.				11.	Hydraulic excavator (1 cum bucket)	12 nos.	50% own+50% Lease / Hire	12.	Tippers / trucks (10 / 14 cum capacity)	60 nos.	50% own+50% Lease / Hire	13.	Dozer of suitable capacity	10 nos.	50% own+50% Lease / Hire	<p>The Contractor shall ensure in advance the availability of necessary plant and machinery to meet the program requirements as and when the work fronts are available to achieve the progress as per the specified milestones and to complete the work within the stipulated completion period. Penalty, as specified in note no. 4 of Appendix - 5 of Section 8A Part – 1 will be imposed for non-deployment of minimum key plant and equipment.</p> <p>The tenderer shall deploy additional machinery as circumstances warrant at no extra cost to meet the targets.</p> <p style="text-align: center;">APPENDIX-05 PLANT AND EQUIPMENT</p> <p style="text-align: center;">Key and Critical Equipments</p> <table border="1"> <thead> <tr> <th>S. No.</th> <th>Type of Equipment required for the work</th> <th>Proposed to be Deployed (Minimum)</th> </tr> </thead> <tbody> <tr> <td>1.</td> <td>Piling Equipment Rotary Rig / Hydraulic Rig for soil boring and rock boring including diamond bits for rock boring.</td> <td>12 nos.</td> </tr> <tr> <td>2.</td> <td>Piling rig (Tripod) with conventional winch</td> <td>24 nos.</td> </tr> <tr> <td>3.</td> <td>Fully Automatic and Computerized Batching Plant -1 nos. (2 of 60 Cum / h) and (2 of 30 Cum / h) minimum or equivalent capacity in different configuration at casting yard with a RO of suitable capacity for proper quality of water.</td> <td>4 nos.</td> </tr> <tr> <td>4.</td> <td>Concrete boom placers</td> <td>4 nos.</td> </tr> <tr> <td>5.</td> <td>Concrete pumps with sufficient pipes</td> <td>8 nos.</td> </tr> <tr> <td>6.</td> <td>Transit Mixers</td> <td>24 nos.</td> </tr> <tr> <td>7.</td> <td>Launching Girder to Launch Box segments as per site requirements (Maximum permissible age in years is 10 Years).The suitable launcher for U-girder launching fully automatic, capable of negotiating 200m radius curve and 3% gradient, speed of trolley carrying U-girder for launching with load 2km / hr. and without load 3km / hr. to be mobilized. The minimum of two numbers of LG for launching of U-girders with motorized bogies for handling and transportation of U-girders to be mobilized.)</td> <td>4 Nos. for Box Girder 2 Nos. for U-Girder</td> </tr> <tr> <td>8.</td> <td>Crane of suitable capacity for Erection of LG Girders, / U Girders / Box Girders.</td> <td>4 nos.</td> </tr> <tr> <td>9.</td> <td>Cranes in casting yard / site of suitable capacity</td> <td>4 nos.</td> </tr> <tr> <td>10.</td> <td>Gantry of suitable capacity in casting yard</td> <td>8 nos.</td> </tr> <tr> <td colspan="3" style="text-align: center;">Road work, Embankment and cutting works.</td> </tr> <tr> <td>11.</td> <td>Hydraulic excavator (1 cum bucket)</td> <td>12 nos.</td> </tr> <tr> <td>12.</td> <td>Tippers / trucks (10 / 14 cum capacity)</td> <td>60 nos.</td> </tr> <tr> <td>13.</td> <td>Dozer of suitable capacity</td> <td>10 nos.</td> </tr> </tbody> </table>	S. No.	Type of Equipment required for the work	Proposed to be Deployed (Minimum)	1.	Piling Equipment Rotary Rig / Hydraulic Rig for soil boring and rock boring including diamond bits for rock boring.	12 nos.	2.	Piling rig (Tripod) with conventional winch	24 nos.	3.	Fully Automatic and Computerized Batching Plant -1 nos. (2 of 60 Cum / h) and (2 of 30 Cum / h) minimum or equivalent capacity in different configuration at casting yard with a RO of suitable capacity for proper quality of water.	4 nos.	4.	Concrete boom placers	4 nos.	5.	Concrete pumps with sufficient pipes	8 nos.	6.	Transit Mixers	24 nos.	7.	Launching Girder to Launch Box segments as per site requirements (Maximum permissible age in years is 10 Years).The suitable launcher for U-girder launching fully automatic, capable of negotiating 200m radius curve and 3% gradient, speed of trolley carrying U-girder for launching with load 2km / hr. and without load 3km / hr. to be mobilized. The minimum of two numbers of LG for launching of U-girders with motorized bogies for handling and transportation of U-girders to be mobilized.)	4 Nos. for Box Girder 2 Nos. for U-Girder	8.	Crane of suitable capacity for Erection of LG Girders, / U Girders / Box Girders.	4 nos.	9.	Cranes in casting yard / site of suitable capacity	4 nos.	10.	Gantry of suitable capacity in casting yard	8 nos.	Road work, Embankment and cutting works.			11.	Hydraulic excavator (1 cum bucket)	12 nos.	12.	Tippers / trucks (10 / 14 cum capacity)	60 nos.	13.	Dozer of suitable capacity	10 nos.
S. No.	Type of Equipment required for the work	Proposed to be Deployed (Minimum)	Remarks																																																																																																									
1.	Piling Equipment Rotary Rig / Hydraulic Rig for soil boring and rock boring including diamond bits for rock boring.	12 nos.	50% own+50% Lease / Hire																																																																																																									
2.	Piling rig (Tripod) with conventional winch	24 nos.	50% own+50% Lease / Hire																																																																																																									
3.	Fully Automatic and Computerized Batching Plant -1 nos. (2 of 60 Cum / h) and (2 of 30 Cum / h) minimum or equivalent capacity in different configuration at casting yard with a RO of suitable capacity for proper quality of water.	4 nos.	50% own+50% Lease / Hire																																																																																																									
4.	Concrete boom placers	4 nos.	50% Own+50% Lease / Hire																																																																																																									
5.	Concrete pumps with sufficient pipes	8 nos.	50% own+50% Lease / Hire																																																																																																									
6.	Transit Mixers	24 nos.	50% own+50% Lease / Hire																																																																																																									
7.	Launching Girder to Launch Box segments as per site requirements (Maximum permissible age in years is 10 Years).The suitable launcher for U-girder launching fully automatic, capable of negotiating 200m radius curve and 3% gradient, speed of trolley carrying U-girder for launching with load 2km / hr. and without load 3km / hr. to be mobilized. The minimum of two numbers of LG for launching of U-girders with motorized bogies for handling and transportation of U-girders to be mobilized.)	6 nos.	50% own+50% Hire / Lease																																																																																																									
8.	Crane of suitable capacity for Erection of LG Girders, / U Girders / Box Girders.	4 nos.	50% own+50% Hire / Lease																																																																																																									
9.	Cranes in casting yard / site of suitable capacity	6 nos.	50% own+50% Hire / Lease																																																																																																									
10.	Gantry of suitable capacity in casting yard	10 nos.	50% own+50% Hire / Lease																																																																																																									
Road work, Embankment and cutting works.																																																																																																												
11.	Hydraulic excavator (1 cum bucket)	12 nos.	50% own+50% Lease / Hire																																																																																																									
12.	Tippers / trucks (10 / 14 cum capacity)	60 nos.	50% own+50% Lease / Hire																																																																																																									
13.	Dozer of suitable capacity	10 nos.	50% own+50% Lease / Hire																																																																																																									
S. No.	Type of Equipment required for the work	Proposed to be Deployed (Minimum)																																																																																																										
1.	Piling Equipment Rotary Rig / Hydraulic Rig for soil boring and rock boring including diamond bits for rock boring.	12 nos.																																																																																																										
2.	Piling rig (Tripod) with conventional winch	24 nos.																																																																																																										
3.	Fully Automatic and Computerized Batching Plant -1 nos. (2 of 60 Cum / h) and (2 of 30 Cum / h) minimum or equivalent capacity in different configuration at casting yard with a RO of suitable capacity for proper quality of water.	4 nos.																																																																																																										
4.	Concrete boom placers	4 nos.																																																																																																										
5.	Concrete pumps with sufficient pipes	8 nos.																																																																																																										
6.	Transit Mixers	24 nos.																																																																																																										
7.	Launching Girder to Launch Box segments as per site requirements (Maximum permissible age in years is 10 Years).The suitable launcher for U-girder launching fully automatic, capable of negotiating 200m radius curve and 3% gradient, speed of trolley carrying U-girder for launching with load 2km / hr. and without load 3km / hr. to be mobilized. The minimum of two numbers of LG for launching of U-girders with motorized bogies for handling and transportation of U-girders to be mobilized.)	4 Nos. for Box Girder 2 Nos. for U-Girder																																																																																																										
8.	Crane of suitable capacity for Erection of LG Girders, / U Girders / Box Girders.	4 nos.																																																																																																										
9.	Cranes in casting yard / site of suitable capacity	4 nos.																																																																																																										
10.	Gantry of suitable capacity in casting yard	8 nos.																																																																																																										
Road work, Embankment and cutting works.																																																																																																												
11.	Hydraulic excavator (1 cum bucket)	12 nos.																																																																																																										
12.	Tippers / trucks (10 / 14 cum capacity)	60 nos.																																																																																																										
13.	Dozer of suitable capacity	10 nos.																																																																																																										

S. No.	Type of Equipment required for the work	Proposed to be Deployed (Minimum)	Remarks
14.	Front end loader with suitable capacity	10 nos.	50% own+50% Lease / Hire
15	Vibratory roller 8 / 10-ton capacity	10 nos.	50% own+50% Lease / Hire
16.	Smooth wheeled roller 10-ton capacity	6 nos.	50% own+50% Lease / Hire
17.	Water tanker of 6000 lit capacity	10 nos.	50% own+50% Lease / Hire
18.	Motor Grader	10 nos.	50% own+50% Lease / Hire
19.	Back hoe loader of suitable capacity	6 nos.	50% own+50% Lease / Hire
20	Plate Vibratory Roller	5 nos.	60% own+40% Lease / Hire
21	Slope Compactor Roller	6 nos.	50% own+50% Lease / Hire

(I) Other Plant and equipment to be deployed The Tenderer shall furnish the details of Own basis or Lease / Hire basis for the following equipment

Sl. No.	Type of Equipment Required for the Work	Proposed to be Deployed (Minimum)	Remarks
1	Pile cap Shutters	24 sets	
2	Pier and pier cap Shutter, staging and supporting arrangement for all type of Piers	24 Sets	
3	Pre cast Post tension shutter staging support for Casting of Pier caps	10 Beds with Shutters	
4.	Pre cast post-tension I Girder Beds along with necessary shutter and support arrangements	8 Beds with Shutters	
5.	Portal shuttering & staging of required capacity in Viaduct	8 nos.	
6.	Minimum number of pre-casting beds for Box / U girders along with shutters and supporting for straight and curved spans.	9 nos. of long line and 9 nos. for S1 Segments.	
7.	250 MT or more capacity suitable cranes for erection of I Girders / RCC Portals, super structures of Viaduct work	4 nos.	
8..	Trolley to transport U / Box Girder of 200 MT weight over the erected span	4 nos.	
9.	Trailers / MAV for carrying U Girder / Box segments of Suitable capacity as per site requirement	12 nos.	

S. No.	Type of Equipment required for the work	Proposed to be Deployed (Minimum)
14.	Front end loader with suitable capacity	10 nos.
15	Vibratory roller 8 / 10-ton capacity	10 nos.
16.	Smooth wheeled roller 10-ton capacity	6 nos.
17.	Water tanker of 6000 lit capacity	10 nos.
18.	Motor Grader	10 nos.
19.	Back hoe loader of suitable capacity	6 nos.
20	Plate Vibratory Roller	5 nos.
21	Slope Compactor Roller	6 nos.

(I) Other Plant and equipment to be deployed The Tenderer shall furnish the details of Own basis or Lease / Hire basis for the following equipment

Sl. No.	Type of Equipment Required for the Work	Proposed to be Deployed (Minimum)
1	Pile cap Shutters	24 sets
2	Pier and pier cap Shutter, staging and supporting arrangement for all type of Piers	21 Sets
3	Pre cast Post tension shutter staging support for Casting of Pier caps	10 Beds with Shutters
4.	Pre cast post-tension I Girder Beds along with necessary shutter and support arrangements	8 Beds with Shutters
5.	Portal shuttering & staging of required capacity in Viaduct	8 nos.
6.	Minimum number of pre-casting beds for Box / U girders along with shutters and supporting for straight and curved spans.	9 nos. of long line and 9 nos. for S1 Segments.
7.	250 MT or more capacity suitable cranes for erection of I Girders / RCC Portals, super structures of Viaduct work	4 nos.
8.	Trolley to transport U / Box Girder of 200 MT weight over the erected span	4 nos.
9.	Trailers / MAV for carrying U Girder / Box segments of Suitable capacity as per site requirement	12 nos.

Sl. No.	Type of Equipment Required for the Work	Proposed to be Deployed (Minimum)	Remarks
10	Trailers / MAV for carrying I Girders / Pier caps and other Precast elements of Suitable capacity as per site requirement	4 nos.	
11	Gantry for parapet erection	4 sets	
12.	Man-lift for adequate height	10 nos.	
13.	Parapet, Crash Barriers & Friction slab Shutters	6 Sets	
Road work, Embankment and cutting works.			
14	Crane 5 MT capacity	4 nos.	
15.	Crane 35 MT capacity	10 nos.	
16.	Generators 125 KVA	10 nos.	
17	Pneumatic road roller	3 nos.	
18	Tandem road roller	3 nos.	
19	Survey equipment's: Total stations and auto level	5 sets	

Sl. No.	Type of Equipment Required for the Work	Proposed to be Deployed (Minimum)
10	Trailers / MAV for carrying I Girders / Pier caps and other Precast elements of Suitable capacity as per site requirement	4 nos.
11	Gantry for parapet erection	4 sets
12.	Man-lift for adequate height	10 nos.
13.	Parapet, Crash Barriers & Friction slab Shutters	6 Sets
Road work, Embankment and cutting works.		
14	Crane 5 MT capacity	4 nos.
15.	Crane 35 MT capacity	8 nos.
16.	Generators 125 KVA	10 nos.
17	Pneumatic road roller	3 nos.
18	Tandem road roller	3 nos.
19	Survey equipment's: Total stations and auto level	5 sets

2	Section-6: Contract Data Sl. No. 24 Page No 112	1% of the Accepted Contract Amount after six months commencement of work as per Letter of Award.	Section-6: Contract Data 1% of the Accepted Contract Amount after six months commencement of work as per Letter of Award. However, the IPCs for the amount less than 1% shall be considered on case-to-case basis by the Employer based on site condition, weather conditions, financial constraints, progress of work etc.
3	Section 9 Price Schedules	Schedule-C consists of Lump sum provision to be operated for incidental and unforeseen items likely to be necessary while executing the work. These items will be executed under schedule of rates 2021-22, published by KPWD. The cost under this Schedule stands fixed at Rs 19,00,00,000/- and this amount is provided as fixed Amount in the summary of Financial Bid/Price Schedule	Schedule-C consists of Lump sum provision to be operated for incidental and unforeseen items likely to be necessary while executing the work. These items will be executed under latest schedule of rates published by KPWD. The cost under this Schedule stands fixed at Rs 19,00,00,000/- and this amount is provided as fixed amount in the summary of Financial Bid/Price Schedule.
4	Page No. 243 Section 8A: Part-1 1.1 Scope of the Work: A. Viaduct Work: Cl. 41.	Laps joints are permitted in Pile, Pile cap, raft, piers, pier caps, portals, pier-arm, I-Girders girder and portal beams. However, mechanical couplers in place of lap joints can be used only in pile cap and raft without extra cost.	Laps joints are permitted wherever required. However, mechanical couplers in place of lap joints may be permitted by the Employer without any extra payment, with the specific approval of Employer/Engineer for the specific elements / members / works / locations on case-to-case basis.

5	Section-8A Part-1 APPENDIX-04 Organization chart and key positions	Appendix 04 organization chart and key positions The Key Positions (not limited to) and corresponding qualification and experience are as under:	Appendix 04 organization chart and key positions The Key Positions (not limited to) and corresponding qualification and experience are as under:
		Sl. No. 13. Senior Civil Engineer of organization chart and key positions Min.No.Required - 15 Nos	Sl. No. 13. Senior Civil Engineer of organization chart and key positions Min.No.Required - 16 Nos
		Sl. No. 14. Civil Engineer of organization chart and key positions Min.No.Required - 28 Nos	Sl. No. 14. Civil Engineer of organization chart and key positions Min.No.Required - 26 Nos
		Sl. No. 16. Junior Civil Engineer of organization chart and key positions Min.No.Required - 50 Nos	Sl. No. 16. Junior Civil Engineer of organization chart and key positions Min.No.Required - 48 Nos
		Sl. No. 18. Safety Engineer / Officers of organization chart and key positions Min.No.Required - 14 Nos	Sl. No. 18. Safety Engineer / Officers of organization chart and key positions Min.No.Required - 10 Nos
6	Clause-40/cc Price Adjustment	<p>CLAUSE-40/CC PRICE ADJUSTMENT 40.1.6 Change In Law Change in Law means the occurrence or coming into force of the following, at any time after the last Date of submission of tender: Any new Central and State Taxes, duties, cess, levies, which is imposed or any existing Central and State Taxes, duties, cess, levies & royalties are withdrawn after the due date of submission of tender and which impacts the performance of the contractor with increased cost, or which results in extra financial gains to the contractor due to decreased cost in execution of contract. Such additional or reduced cost shall be certified by the Engineer after examining records provided by the contractor and shall be paid by or credited to the employer. However, change in the rate of any existing tax will not be considered as change in Law.</p>	<p>CLAUSE-40/CC PRICE ADJUSTMENT 40.1.6 Change In Law Change in Law means the occurrence or coming into force of the following, at any time after the last Date of submission of tender: Any new Central and State Taxes, duties, cess, levies, which is imposed or any existing Central and State Taxes, duties, cess, levies & royalties are withdrawn after the due date of submission of tender and which impacts the performance of the contractor with increased cost, or which results in extra financial gains to the contractor due to decreased cost in execution of contract. Such additional or reduced cost shall be certified by the Engineer after examining records provided by the contractor and shall be paid by or credited to the employer. Change in the rate of any existing tax (Including GST) will be considered as change in law and additional or the reduced cost shall be paid by or credited to the Employer, as the case may be.</p>
7	New Clause- 29.1/ITT- Performance Security	Within 28 days of receipt of the Letter of Acceptance, the successful tenderer shall deliver to the Employer a Performance Security in any of the forms given below for an amount equivalent to 10% of the Contract price plus additional security for unbalanced tenders (additional security at 50% of the estimated cost of the unbalanced component) in accordance with Clause 25.5 of ITT and Clause 43 of the Conditions of Contract.	Within 28 days of receipt of the Letter of Acceptance, the successful tenderer shall deliver to the Employer a Performance Security in any of the forms given below for an amount equivalent to 3% of the Contract price plus additional security for unbalanced tenders (additional security at 50% of the estimated cost of the unbalanced component) in accordance with Clause 25.5 of ITT and Clause 43 of the Conditions of Contract.
8	Section – 8A : Part-2, Employer’s Requirement– general information and scope of work	4.3 ROAD UNDER BRIDGES (RUB) / ROAD OVER BRIDGES (ROB) The Site includes the following RUB (Road Under Railway line) / ROB (Road Over Railway line):	4.3 ROAD UNDER BRIDGES (RUB) / ROAD OVER BRIDGES (ROB) The Site includes the following RUB (Road Under Railway line)/ ROB (Road Over Railway line):
	Tender Drawing No. KRIDE/BSRP/C4/TD/ MRUB /13/05 - MINOR RUB DETAILS (CORRIDOR - 04)		

		MINOR RUB DETAILS (CORRIDOR - 04)								MINOR RUB DETAILS (CORRIDOR - 04)											
		Sl. No	IR Chainage	BSRP Chainage	Ex.Bridge No.	Level	Exg. Bridge		Proposed Bridge				Sl. No	IR Chainage	BSRP Chainage	Ex.Bridge No.	Level	Exg. Bridge		Proposed Bridge	
		CHANNASANDRA TO RAJANUKUNTE SECTION (CH: 03/423 to CH:25/848)																			
		1	04/800	25.949	539A	At Grade	RCC Box	1 x 20.295x5.5	RCC Box	2x7.50x5.5			1	04/800	25.949	539A	At Grade	RCC Box	1 x 20.29 x5.5	RCC Box	2 x 7.50 x 5.5
		2	05/800	26.950	538A				RCC Box	1 x 9.50 x 7.0			2	6/630	27.775	538	At Grade	RCC Box	3 x 7.35 + 3 x 4.72	RCC Box	1 x 6.0 x 7.0
		3	10/459	31.630	529A	At Grade	RccBox	1 x 5.0 x 3.75	RCC Box	1 x 5.0 x 4.15			3	10/459	31.630	529A	At Grade	RCC Box	1 x 5.0 x 3.75	RCC Box	1 x 5.0 x 4.15
		4	11/375	32.535	528A	At Grade	RccBox	2x8.75x5.5	RCC Box	2x8.75x5.5			4	11/375	32.535	528A	At Grade	RCC Box	2 x 8.75 x 5.5	RCC Box	2 x 8.75 x 5.5
9	Section-8A: Part-1, EMPLOYER'S REQUIREMENT- GENERAL INFORMATION AND SCOPE OF WORK	1.1 DETAILED SCOPE OF THE WORK A. VIADUCT WORK 59) Maintaining including watch & ward and repairs of the barricading provided as per above item no.81 including cost of all contractors' men, materials, tools and plants required in this regard.										1.1 DETAILED SCOPE OF THE WORK A. VIADUCT WORK 59) Maintaining including watch & ward and repairs of the barricading provided as per above item including cost of all contractors' men, materials, tools and plants required in this regard.									
10	SECTION-3: QUALIFICATION INFORMATION & BIDDING FORMS	We/I, _____, having registered office at _____ do hereby certify that "I have read the clause regarding restrictions on procurement from a bidder of a country which shares a land border with India and on sub-contracting to contractors from such countries; I certify that this bidder is not from such a country or, if from such a country, has been registered with the competent Authority and will not sub-contract any work to a contractor from such countries unless such contractor is registered with the competent Authority. I hereby certify that his bidder fulfils all requirements in this regard and is eligible to be considered. (Where applicable, evidence of valid registration the Competent Authority shall be attached.)"										We/I, _____, having registered office at _____ do hereby certify that "I have read the clause regarding restrictions on procurement from a bidder of a country which shares a land border with India and on sub-contracting to contractors from such countries; I certify that this bidder is not from such a country or, if from such a country, has been registered with the competent Authority and will not sub-contract any work to a contractor from such countries unless such contractor is registered with the competent Authority. I hereby certify that this bidder fulfils all requirements in this regard and is eligible to be considered. (Where applicable, evidence of valid registration the Competent Authority shall be attached.)"									
11	Section-8A:PART-2, EMPLOYER'S REQUIREMENT- GENERAL INFORMATION AND SCOPE OF WORK	4.4 BSRP/RAILWAY STATIONS The Site includes the following BSRP/Railway stations of corridor - 4. The Proposed Station locations may change as per the site conditions, availability of land etc., during finalisation of GAD after awarding the work. Nothing will be paid extra for the change/cancellation of station locations or introduction of new stations.										4.4 4.4 BSRP/RAILWAY STATIONS The Site includes the following BSRP/Railway stations of corridor - 4. The Proposed Station locations may change as per the site conditions, availability of land etc., during finalisation of GAD after awarding the work. Nothing will be paid extra for the change/cancellation of station locations or introduction of new At Grade stations.									
12	Section-9 Price Schedules											Page numbers from 864 to 872 are not available. These page numbers shall be treated as omitted from the bid document.									

<p>13</p>	<p>Section 3 – Qualification Information and Bidding Forms Clause 1.4 Table</p>	<table border="1"> <thead> <tr> <th rowspan="2">Year</th> <th rowspan="2">Name of Work</th> <th rowspan="2">Name of Employer</th> <th colspan="6">Quantity of work performed (As mentioned in Qualification of the Tenderer Clause 3.2)</th> <th rowspan="2">Remarks (Indicate contract Reference Contract no., Award Date, Completion Date, Role in Contract, Total Contract Amount, JV Participation Proportion)</th> </tr> <tr> <th>Completion of PSC Super Structure Launching (Km)</th> <th>Completion of 40 m Pre-Cast PSC Girder/ Steel I Girder</th> <th>Earthwork in Cutting and Embankment (In Cum)</th> <th>RCC and PSC Concrete (In Cum)</th> <th>Detailed Design Experience</th> <th></th> </tr> </thead> <tbody> <tr><td>2017-2018</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>2018-2019</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>2019-2020</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>2020-2021</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>2021-2022</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> </tbody> </table>	Year	Name of Work	Name of Employer	Quantity of work performed (As mentioned in Qualification of the Tenderer Clause 3.2)						Remarks (Indicate contract Reference Contract no., Award Date, Completion Date, Role in Contract, Total Contract Amount, JV Participation Proportion)	Completion of PSC Super Structure Launching (Km)	Completion of 40 m Pre-Cast PSC Girder/ Steel I Girder	Earthwork in Cutting and Embankment (In Cum)	RCC and PSC Concrete (In Cum)	Detailed Design Experience		2017-2018									2018-2019									2019-2020									2020-2021									2021-2022									<table border="1"> <thead> <tr> <th rowspan="2">Year</th> <th rowspan="2">Name of Work</th> <th rowspan="2">Name of Employer</th> <th colspan="6">Quantity of work performed (As mentioned in Qualification of the Tenderer Clause 3.2)</th> <th rowspan="2">Remarks (Indicate contract Reference Contract no., Award Date, Completion Date, Role in Contract, Total Contract Amount, JV Participation Proportion)</th> </tr> <tr> <th>Completion of PSC Super Structure Launching (Km)</th> <th>Completion of 40 m Pre-Cast PSC Girder/ Steel I Girder</th> <th>Earthwork in Cutting and Embankment (In Cum)</th> <th>Blanketing work (In Cum)</th> <th>RCC and PSC Concrete (In Cum)</th> <th>Detailed Design Experience</th> </tr> </thead> <tbody> <tr><td>2017-2018</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>2018-2019</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>2019-2020</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>2020-2021</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>2021-2022</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> </tbody> </table>	Year	Name of Work	Name of Employer	Quantity of work performed (As mentioned in Qualification of the Tenderer Clause 3.2)						Remarks (Indicate contract Reference Contract no., Award Date, Completion Date, Role in Contract, Total Contract Amount, JV Participation Proportion)	Completion of PSC Super Structure Launching (Km)	Completion of 40 m Pre-Cast PSC Girder/ Steel I Girder	Earthwork in Cutting and Embankment (In Cum)	Blanketing work (In Cum)	RCC and PSC Concrete (In Cum)	Detailed Design Experience	2017-2018									2018-2019									2019-2020									2020-2021									2021-2022								
Year	Name of Work	Name of Employer				Quantity of work performed (As mentioned in Qualification of the Tenderer Clause 3.2)							Remarks (Indicate contract Reference Contract no., Award Date, Completion Date, Role in Contract, Total Contract Amount, JV Participation Proportion)																																																																																																																
			Completion of PSC Super Structure Launching (Km)	Completion of 40 m Pre-Cast PSC Girder/ Steel I Girder	Earthwork in Cutting and Embankment (In Cum)	RCC and PSC Concrete (In Cum)	Detailed Design Experience																																																																																																																						
2017-2018																																																																																																																													
2018-2019																																																																																																																													
2019-2020																																																																																																																													
2020-2021																																																																																																																													
2021-2022																																																																																																																													
Year	Name of Work	Name of Employer	Quantity of work performed (As mentioned in Qualification of the Tenderer Clause 3.2)						Remarks (Indicate contract Reference Contract no., Award Date, Completion Date, Role in Contract, Total Contract Amount, JV Participation Proportion)																																																																																																																				
			Completion of PSC Super Structure Launching (Km)	Completion of 40 m Pre-Cast PSC Girder/ Steel I Girder	Earthwork in Cutting and Embankment (In Cum)	Blanketing work (In Cum)	RCC and PSC Concrete (In Cum)	Detailed Design Experience																																																																																																																					
2017-2018																																																																																																																													
2018-2019																																																																																																																													
2019-2020																																																																																																																													
2020-2021																																																																																																																													
2021-2022																																																																																																																													
<p>14</p>	<p>Section - 8A. Part-1</p>	<p><u>Clause: III.B.I. Page No.237.</u> The Proposed scope for the formation of stabling lines is at four locations and the details from Employer's Requirements is reproduced below:- KM: (-)0.635 to KM: (-)0.481- 2 nos. KM: 0.158 to KM: 0.587 - 4 nos. KM: 2.367 to KM: 2.624 - 1 nos. KM: 19.037 to KM: 19.775 - 2 nos. <u>Under Head F, Cl. 84:</u> Siding line, Stabling lines, pocket tracks and cross overs as show in the GAD are in the scope of work.</p>	<p>Stabling lines:</p> <table border="1"> <thead> <tr> <th>Sl. No</th> <th>Location</th> <th>Chainage From</th> <th>Chainage To</th> <th>No of Stabling Lines</th> </tr> </thead> <tbody> <tr><td>1</td><td>Before Heelalige Station</td><td>(-)0.635</td><td>(-)0.481</td><td>2</td></tr> <tr><td>2</td><td>After Heelalige Station</td><td>0.158</td><td>0.587</td><td>4</td></tr> <tr><td>3</td><td>Before Singena Agrahara Station</td><td>2.367</td><td>2.624</td><td>1</td></tr> <tr><td>4</td><td>Huskur Station</td><td>5.065</td><td>5.792</td><td>5</td></tr> <tr><td>5</td><td>Before Bellandur Station</td><td>12.600</td><td>12.917</td><td>1</td></tr> <tr><td>6</td><td>After Doddanekundi Station</td><td>19.037</td><td>19.775</td><td>2</td></tr> <tr><td>7</td><td>Before Thanisandra Station</td><td>29.146</td><td>30.035</td><td>7</td></tr> <tr><td>8</td><td>After Rajanukunte Station</td><td>45.987</td><td>46.672</td><td>2</td></tr> </tbody> </table>	Sl. No	Location	Chainage From	Chainage To	No of Stabling Lines	1	Before Heelalige Station	(-)0.635	(-)0.481	2	2	After Heelalige Station	0.158	0.587	4	3	Before Singena Agrahara Station	2.367	2.624	1	4	Huskur Station	5.065	5.792	5	5	Before Bellandur Station	12.600	12.917	1	6	After Doddanekundi Station	19.037	19.775	2	7	Before Thanisandra Station	29.146	30.035	7	8	After Rajanukunte Station	45.987	46.672	2																																																																													
Sl. No	Location	Chainage From	Chainage To	No of Stabling Lines																																																																																																																									
1	Before Heelalige Station	(-)0.635	(-)0.481	2																																																																																																																									
2	After Heelalige Station	0.158	0.587	4																																																																																																																									
3	Before Singena Agrahara Station	2.367	2.624	1																																																																																																																									
4	Huskur Station	5.065	5.792	5																																																																																																																									
5	Before Bellandur Station	12.600	12.917	1																																																																																																																									
6	After Doddanekundi Station	19.037	19.775	2																																																																																																																									
7	Before Thanisandra Station	29.146	30.035	7																																																																																																																									
8	After Rajanukunte Station	45.987	46.672	2																																																																																																																									
<p>15</p>	<p>PageNo.385 Section 8A: Part-2- Employers Requirement General Information & Scope of Work</p>	<p>Section E, Cl.7.12. Noise barriers</p>	<p>Details are attached as under Polycarbonate (PC) sheet is proposed for the Noise barrier, following are the properties of the PC sheet to be installed :</p> <ul style="list-style-type: none"> ▪ Most effective in sound reduction and can reduce sound upto 36dB(A) ▪ Light in weight ▪ Impact Resistant – Strong and impact resistant. Does not shatter with stone impact or any other impact either. ▪ Transparent – Translucent materials provide 88% light transmission capability ▪ High Temperature resistant from 40°C -100°C ▪ UV resistant on both sides to withstand adverse weather conditions and do not crack or break with strong sun ▪ Non-Corrosive ▪ Fire resistant - Class B Fire Resistant ▪ Specific Gravity of 1.2g/cm³ ▪ 100% recyclable – Eco-friendly ▪ Design Friendly- Flexible in designs on horizontal curve and vertical bends, versatile and mouldable ▪ Easy in installation and maintenance ▪ The supporting frames are galvanized and are corrosion resistant 																																																																																																																										

						<p>Construction Specification</p> <ul style="list-style-type: none"> The construction consists of MS/Galvanized steel frame as horizontal and vertical posts specially designed aluminium pressure pad with rubber gasket use to grip polycarbonate sheet tightly. The standard Polycarbonate noise barriers are designed to achieve 22-36 STC rating. All Polycarbonate sheets are UV coated and have warranty upto 10years. The Height of the noise barriers required at all sections – 1.5m – 2.0m Average on top of 1m concrete parapet <p>Total Estimated quantity for elevated viaduct portion is 2.25km Approx</p>					
16	Section 9 Price Schedules	Sl. No.	Stage Payments	Percentage of Cost of Schedule - A	Payable unit	Percentage breakup (Weightages)	Sl. No.	Stage Payments	Percentage of Cost of Schedule - A	Payable unit	Percentage breakup (Weightages)
		1	2	3	4	5	1	2	3	4	5
		1.	Commissioning of Casting Yard (Contractor and Engineer shall make joint program of commissioning of various activities of casting yard. Payment shall be released on monthly basis based on progress achieved as certified by Engineer).	96% of the cost of Schedule-A	Proportionately till Commissioning	1%	1.	Commissioning of Casting Yard (Contractor and Engineer shall make joint program of commissioning of various activities of casting yard. Payment shall be released on monthly basis based on progress achieved as certified by Engineer).	96% of the cost of Schedule-A	Proportionately till Commissioning	1%
		2.	Pile Foundations including testing of Piles, routine pile load tests, ND Tests, Soil Boring, Trial trenching, GPR Survey at specific locations etc.		Per Pile Group	15%	2.	Pile Foundations including testing of Piles, routine pile load tests, ND Tests, Soil Boring, Trial trenching, GPR Survey at specific locations etc.		Per Pile Group	15%
		3.	Pile Caps, Open Foundations including PCC, shoring, Plate Load Test.		Per Pile Cap / Open Foundations	10%	3.	Pile Caps, Open Foundations including PCC, shoring, Plate Load Test.		Per Pile Cap / Open Foundations	10%
		4.	Piers including Pier Caps, Portal, Eccentric Piers, Precast Pier Caps & Pre-stressing, Pedestals, Median, Crash Barrier & Shear Keys/Stopppers.		per pier	15%	4.	Piers including Pier Caps, Portal, Eccentric Piers, Precast Pier Caps & Pre-stressing, Pedestals, Median, Crash Barrier & Shear Keys/Stopppers.		per pier	15%
		5.	Casting of segments of Box Girders / U Girders / I-Girders including parapet.		per span	30%	5.	Casting of segments of Box Girders / U Girders / I-Girders including parapet.		per span	30%
		6.	Supply and Erection of Composite Steel Girders/open web girder for viaduct.		per span	3%	6.	Supply and Erection of Composite Steel Girders/open web girder for viaduct. a. Receipt of material at site – 40% (of 3%) (On submission of Indemnity bond etc.) b. Fabrication- 20% (of 3%) c. Transportation / Erection / Launching - 20% (of 3%) d. Completion in all respects- 20% (of 3%)		per span	3%
		7.	Erection of segments of Box Girders / U Girders / I-Girders including parapet including pre-stressing, grouting etc., all complete.		per span	13%					
		8.	Bearing - Supply and fixing for all spans including Elastomeric Bearing and POT-PTFE Bearings. Note: 50 % on supply and 50% on fixing.		per span	2%	8.	Bearing - Supply and fixing for all spans including Elastomeric Bearing and POT-PTFE Bearings. Note: 50 % on supply and 50% on fixing.		per span	2%
		9.	Providing & Fixing Expansion Joints (Omega Joints and Strip Seal Joints) Note: 50 % on supply and 50% on fixing.		per span	1%					
10.	Misc. Items: Completion of the work in all respects including	per span	7%								

		railing, G.I. Brackets for cable, earthing, manholes, rainwater harvesting, clearing of sites in all respects so that area is in traffic worthy condition, drainage pipes, hand rails, drainage spouts, down take pipes including connecting to rain water harvesting, Traffic/Cautioning Sign Boards, Road Diversions, Setting out, Span Load testing of Girders, Dismantling and transportation, etc.				9.	Providing & Fixing Expansion Joints (Omega Joints and Strip Seal Joints) Note: 50 % on supply and 50% on fixing.	per span	1%
		11. All other balance works to complete the entire work as per the scope & specifications and handing over of viaduct to K-RIDE.	LS	3%		10.	Misc. Items: Completion of the work in all respects including railing, G.I. Brackets for cable, earthing, manholes, rainwater harvesting, clearing of sites in all respects so that area is in traffic worthy condition, drainage pipes, hand rails, drainage spouts, down take pipes including connecting to rain water harvesting, Traffic/Cautioning Sign Boards, Road Diversions, Setting out, Span Load testing of Girders, Dismantling and transportation, etc.	per span	7%
		TOTAL							100%
						11.	All other balance works to complete the entire work as per the scope & specifications and handing over of viaduct to K-RIDE.	LS	3%
						TOTAL			100%

K-RIDE