

**KOLKATA METROPOLITAN WATER AND SANITATION AUTHORITY
OFFICE OF THE SUPERINTENDING ENGINEER (GAP)
34A & B, SashiBhusanDey Street, Kolkata-700 012.**

Corrigendum-2

**COUNTRY - INDIA
NATIONAL GANGA RIVER BASIN PROJECT
(WORLD BANK FUNDED)
International Competitive Bidding**

Date: 05.01.2016

“(i) Design and build two nos. sewage treatment plants of installed capacity 18 MLD and 6 MLD including all appurtenant structures & allied works; (ii) survey, review the designs, redesign where necessary, and build new underground sewerage network of about 247 km length including survey, design, construction of 12 Nos. pumping stations including all appurtenant structures & allied works; and (iii) operation & maintenance of the complete works of sewage treatment plant, sewerage network and pumping stations for a period of 10 years in BARRACKPORE MUNICIPAL TOWN, West Bengal, India”.

ICB Package No: SE (GAP)/3T-1/10/287 Date: 28.10.2015

Tender No. SE (GAP)/T-18 of 2015-16

Sl. No	Description of items/ clause no./ page no.	As per BID Document	Revised as
1	Special conditions of contract Article -2/ Page – 347 and 348	<p>Article 2: Contract Term, Timing and Completion</p> <p>9. Clause 2.1.2 (1) – Expiration of Contract The Contract shall terminate 10 years after Operations Starting Date.</p> <p>10. Clause 2.3.2 and Clause 2.3.6 (1) Time for Completion The Time for completion of the Design – Build Services shall be 27 months from the Effective Date.</p> <p>11. Clause 2.3.6 (2) – Maximum Liquidated Damages – Delay The Maximum Liquidated Damages – Delay shall be 10 % of the Design-Build price of the Project.</p> <p>12. Clause 2.3.6 (2) Delay in Completion - Liquidated Damages The Operator shall be liable to pay Liquidated Damages to the Owner in accordance with GCC clause 2.3.6 (2) if the Operator fails to achieve the contracted activities for ensuring completion of the works as follows.</p>	<p>Article 2: Contract Term, Timing and Completion</p> <p>9. Clause 2.1.2 (1) – Expiration of Contract The Contract shall terminate 10 years after Operations Starting Date.</p> <p>10. Clause 2.3.2 and Clause 2.3.6 (1) Time for Completion The Time for completion of the Design – Build Services shall be 36months from the Effective Date.</p> <p>11. Clause 2.3.6 (2) – Maximum Liquidated Damages – Delay The Maximum Liquidated Damages – Delay shall be 10 % of the Design-Build price of the Project.</p> <p>12. Clause 2.3.6 (2) Delay in Completion - Liquidated Damages The Operator shall be liable to pay Liquidated Damages to the Owner in accordance with GCC clause 2.3.6 (2) if the Operator fails to achieve the contracted activities for ensuring completion of the works as follows.</p>

S . N	Activity/Milestone	Target Completion Time	Liquidated damages per day for delay in completion of activity/Milestone
1	Completion of works of 10% of Contract value of Design Build Services stipulated in the signed contract	4.5 months	INR 110000or US\$ 1834.....
2	Completion of works of 20% (cumulative) of Contract value of Design Build Services stipulated in the signed contract	9 months	INR110000or US\$ 1834
3	Completion of works of 40% (cumulative) of Contract value of Design Build Services stipulated in the signed contract	13.5 months	INR 220000 or US\$ 3668 <i>[Insert amount equivalent to 0.05% of 20% of estimated value of Design-Build Services - rounded off to thousands of INR or hundreds of US dollar]</i>
4	Completion of works of 60% (cumulative) of Contract value of Design Build Services stipulated in the signed contract	18.5 months	INR 220000 or US\$ 3668
5	Completion of works of 75% (cumulative) of Contract value of Design Build Services stipulated in the signed contract	23 months	INR 165000 or US\$ 2750
6	Completion of works of contracted Design-Build Services in all respects	27 months	0.05 % (Zero point zero five Percent) of the Value of the Design Build Services stipulated

S . N	Activity/Milestone	Target Completion Time	Liquidated damages per day for delay in completion of activity/Milestone
1	Completion of works of 10% of Contract value of Design Build Services stipulated in the signed contract	6 months	INR 110000or US\$ 1834.....
2	Completion of works of 20% (cumulative) of Contract value of Design Build Services stipulated in the signed contract	12 months	INR110000or US\$ 1834
3	Completion of works of 40% (cumulative) of Contract value of Design Build Services stipulated in the signed contract	18 months	INR 220000 or US\$ 3668 <i>[Insert amount equivalent to 0.05% of 20% of estimated value of Design-Build Services - rounded off to thousands of INR or hundreds of US dollar]</i>
4	Completion of works of 60% (cumulative) of Contract value of Design Build Services stipulated in the signed contract	22 months	INR 220000 or US\$ 3668
5	Completion of works of 75% (cumulative) of Contract value of Design Build Services stipulated in the signed contract	28 months	INR 165000 or US\$ 2750
6	Completion of works of contracted Design-Build Services in all respects	36 months	0.05 % (Zero point zero five Percent) of the Value of the Design Build Services stipulated

				in the signed contract for each day of delay beyond the Completion Time.				in the signed contract for each day of delay beyond the Completion Time.
2		Tender No. not included in the NIT of Bid Document.			Tender No. SE(GAP)/T-18 of 2015-16			
3	Annexure A – Part h, Qualification Criteria, Section -1, Cl. 1.4(a) & (b), Page-254 & 255	<p>(a) The Bidder shall provide evidence that</p> <ol style="list-style-type: none"> 1. It has Designed, developed, built, tested and commissioned at least one Sewage Treatment Plant of 11 MLD capacity of secondary treatment of sewage during the last 7years preceding the bid submission date. 2. The bidder or his nominated sub-contractor has successfully commissioned at least one Sewage Treatment Plant of 11 MLD capacity of the same process technology as proposed for this Contract which has been operating successfully (meeting the required performance standards) for a period of minimum 2 consecutive years over a period of last 7 years. 3. The Bidder has the experience in operating and maintaining successfully at least one Sewage Treatment Plant of 11 MLD capacity for secondary treatment of sewage of any process technology for a period of 1 year during the last 7years preceding the bid submission date. 4. The treatment technology proposed for this contract has been adopted (not necessarily 			<p>(a) The Bidder shall provide evidence that</p> <ol style="list-style-type: none"> 1. It has Designed, developed, built, tested and commissioned at least one Sewage Treatment Plant of 10 MLD capacity of secondary treatment of sewage during the last 8years preceding the bid submission date. 2. The bidder or his nominated sub-contractor has successfully commissioned at least one Sewage Treatment Plant of 10 MLD capacity of the same process technology as proposed for this Contract which has been operating successfully (meeting the required performance standards) for a period of minimum 2 consecutive years over a period of last 8 years. 3. The Bidder has the experience in operating and maintaining successfully at least one Sewage Treatment Plant of 10 MLD capacity for secondary treatment of sewage of any process technology for a period of 1 year during the last 8years preceding the bid submission date. 4. The treatment technology proposed for this contract has been adopted (not necessarily built by the bidder) in at least 3 other locations 			

built by the bidder) in at least 3 other locations having similar climatic conditions during last 7 years and that such STPs have been operating successfully (meeting the required performance standards) for a period of minimum 2 years over a period of last 7 years.

5. It has designed, developed, built, tested and commissioned at least one Sewerage Network (including Pumping Stations) of 110 Km Length of Sewerage Network of which 9% should be equal to or above 300 mm during the last 7 years preceding the bid submission date.
 6. It has designed, developed, built, tested and commissioned at least two Sewage Pumping Stations during last 7 years preceding the bid submission date.
 7. It has operated and maintained at least one Sewerage Network (including Pumping stations) of 110 Km length for a period of 1 year during last 7 years.
- (b) For the purpose of demonstrating its experience in accordance with Section 1.4 (a), the Bidder, whether a single entity or a joint venture may claim the experience of its sub-contractors and sub-consultants nominated in the Information Forms for 1.4(a) (2), 1.4(a) (6), and 1.4(a) (7).

having similar climatic conditions during last 8 years and that such STPs have been operating successfully (meeting the required performance standards) for a period of minimum 2 years over a period of last 8 years.

5. It has designed, developed, built, tested and commissioned at least one Sewerage Network (including Pumping Stations) of 110 Km Length of Sewerage Network (in two Contracts) of which 9% should be equal to or above 300 mm during the last 8 years preceding the bid submission date.
 6. It has designed, developed, built, tested and commissioned at least two Sewage Pumping Stations during last 8 years preceding the bid submission date.
 7. It has operated and maintained at least one Sewerage Network of 110 Km length and one Pumping station for a period of 1 year during last 8 years.
- (b) For the purpose of demonstrating its experience in accordance with Section 1.4 (a), the Bidder, whether a single entity or a joint venture may claim the experience of its sub-contractors and sub-consultants nominated in the Information Forms for 1.4(a) (2), 1.4(a) (6), and 1.4(a) (7).

4
Bill of Quantities of Civil Works, Pg-79 of 631, Table

Sl No	Description of item	Quantity	Unit	Rate (Rs) in Fi	Amount
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Sl No.	Description of item	Quantity	Unit	Rate (Rs) in Figure	Amount
2.6	Construction of House connection pit/inspection chamber upto 1200 mm.	15000	No		

AB9 S.No 2.6	<p>2.6 Construction of House connection pit/inspection chamber upto 1200 mm. (depth) cast-in-situ with minimum 250 mm Brick work and supply, fitting and fixing with Plastic Fibre Reinforced Concrete (PFRC)/ Steel Fibre Reinforced Concrete (SFRC) / Polypropylene Fibre Reinforced Concrete (PPFRC) Manhole cover (conforming to latest version of IS 12592)of clear opening 600 mm. dia with matching 15000 No. PRICE SCHEDULE</p> <p>frame of gradeMD-10/HD-20/EHD-35 as per loading condition at site & packing around with PCC (1:2:4), complete as per design, drawing, specification and as directed by the DBO Engineer including connection with nearby manhole chamber by 150 mm. dia. double wall corrugated (DWC) HDPE pipe of stiffness class designation SN 8(conforming to relevant I. S. Specification) /160 mm. dia. UPVC pipe of stiffness class designation SN 8(with ISI mark intended for underground (buried) non pressure gravity sewer applications conforming to relevant I. S. Specification);including excavation in all sorts of soil, barricading, lighting arrangement, hire and labour charges of close timbering / sheet piling /MS joists, temporary road restoration as per approved design and drawing and retention of shoring where ever necessary, backfilling and compaction of trenches with appropriate materials, Protection and shifting of underground and overhead utilities if necessary, dismantling of any type of road crust, restoration of damaged portion of the said road in its original position and disposal of surplus materials shall be included). The work shall be complete as per drawing, Technical specification in schedule 10 and as directed</p>	15000	No	g u r e		<p>(depth) cast-in-situ with minimum 250mm Brick work and supply, fitting and fixing with Plastic Fibre Reinforced Concrete (PFRC)/ Steel Fibre Reinforced Concrete (SFRC) / Polypropylene Fibre Reinforced Concrete (PPFRC) Manhole cover (conforming to latest version of IS 12592)of clear opening 600 mm. dia with matching 15000 No. PRICE SCHEDULE</p> <p>frame of gradeMD-10/HD-20/EHD-35 as per loading condition at site & packing around with PCC (1:2:4), complete as per design, drawing, specification and as directed by the DBO Engineer including connection with nearby manhole chamber by 150 mm. dia. double wall corrugated (DWC) HDPE pipe (excluding supplying and laying of the said pipe)of stiffness classdesignation SN 8(conforming to relevant I.S. Specification) intended for underground (buried) non pressure gravity sewer applications conforming to relevant I. S. Specification);including excavation in all sorts of soil, barricading, lighting arrangement, hire and labour charges of close timbering / sheet piling /MS joists, temporary road restoration as per approved design and drawing and retention of shoring where ever necessary,backfilling and compaction of trencheswith appropriate materials, Protection andshifting of underground and overheadutilities if necessary, dismantling of anytype of road crust, restoration of damagedportion of the said road in its originalposition and disposal of surplus materialsshall be included). The work shall becomplete as per drawing, Technicalspecification in schedule 10 and as directedby the DBO Engineer. The rate shall includeconnection to new manholes/ pits bygrouting the annular space with 1:2:4cement concrete complete in all respect.</p>				
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		by the DBO Engineer. The rate shall include connection to new manholes/ pits by grouting the annular space with 1:2:4 cement concrete complete in all respect.													
5	Performance security, Pg-44	<table border="1"> <thead> <tr> <th>ITB SECTION REFERENCE</th> <th>REQUIRED INFORMATION</th> </tr> </thead> <tbody> <tr> <td>ITB 6.5</td> <td>Amount of Performance Security: 10 % of the total Contract Price including O&M of 10 years. For this purpose, the total contract price shall be determined as under on the basis of Bid Prices quoted by the bidder in various Parts of Price Schedule: Total Contract Price = Design Build Price for STP as per Part A + Total O & M Price for STP for the 10 year period as per Parts B & C, assuming indicative sewage flow rate reaching the STP during respective years of the O&M period as indicated in Appendix to Bid (Indicative Flow) + Total price of BOQ items as per Part D + Total O & M Price for Sewerage Network and SPSs for the 10 year period as per Part E.</td> </tr> </tbody> </table>	ITB SECTION REFERENCE	REQUIRED INFORMATION	ITB 6.5	Amount of Performance Security: 10 % of the total Contract Price including O&M of 10 years. For this purpose, the total contract price shall be determined as under on the basis of Bid Prices quoted by the bidder in various Parts of Price Schedule: Total Contract Price = Design Build Price for STP as per Part A + Total O & M Price for STP for the 10 year period as per Parts B & C, assuming indicative sewage flow rate reaching the STP during respective years of the O&M period as indicated in Appendix to Bid (Indicative Flow) + Total price of BOQ items as per Part D + Total O & M Price for Sewerage Network and SPSs for the 10 year period as per Part E.	<table border="1"> <thead> <tr> <th>ITB SECTION REFERENCE</th> <th>REQUIRED INFORMATION</th> </tr> </thead> <tbody> <tr> <td>ITB 6.5</td> <td>Amount of Performance Security: 10 % of the total Contract Price including O&M of 10 years. For this purpose, the total contract price shall be determined as under on the basis of Bid Prices quoted by the bidder in various Parts of Price Schedule: Total Contract Price = Design Build Price for STP as per Part A + Total O & M Price for STP for the 10 year period as per Parts B & C, assuming indicative sewage flow rate reaching the STP during respective years of the O&M period as indicated in Appendix to Bid (Indicative Flow) + Total price of BOQ items as per Part D + Total O & M Price for Sewerage Network and SPSs for the 10 year period as per Part E.</td> </tr> </tbody> </table>	ITB SECTION REFERENCE	REQUIRED INFORMATION	ITB 6.5	Amount of Performance Security: 10 % of the total Contract Price including O&M of 10 years. For this purpose, the total contract price shall be determined as under on the basis of Bid Prices quoted by the bidder in various Parts of Price Schedule: Total Contract Price = Design Build Price for STP as per Part A + Total O & M Price for STP for the 10 year period as per Parts B & C, assuming indicative sewage flow rate reaching the STP during respective years of the O&M period as indicated in Appendix to Bid (Indicative Flow) + Total price of BOQ items as per Part D + Total O & M Price for Sewerage Network and SPSs for the 10 year period as per Part E.				
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6	Performance security, Pg-350	<p><u>SCC</u> 19. Clause 5.5.1 (2) (a) – Performance Security The Operator shall provide a Performance Security of 10 % (Ten percent) of the total Contract Price, i.e. Design-Build price plus total O&M Price for the O&M period of 10 years. For this purpose the Total Contract Price shall be determined as under on the basis of Operator’s Bid Prices quoted in various Parts of the Price Schedule and incorporated in Schedule 5 of the Contract. Total Contract Price = Design Build Price for STP as per Part A + Total O & M Price for STP for the 10 year period as per Parts B & C, assuming indicative sewage flow rate reaching the STP during respective years of the O&M period as indicated in Appendix to Bid (Indicative Flow) + Total price of BOQ items as per Part D + Total O & M Price for Sewerage Network and SPSs for the 10 year period as per Part E.</p>	<p><u>SCC</u> 19. Clause 5.5.1 (2) (a) – Performance Security: The Operator shall provide a Performance Security of 10 % (Ten percent) of the total Contract Price, i.e. Design-Build price plus total O&M Price for the O&M period of 10 years For this purpose the Total Contract Price shall be determined as under on the basis of Operator’s Bid Prices quoted in various Parts of the Price Schedule and incorporated in Schedule 5 of the Contract. Total Contract Price = Design Build Price for STP as per Part A + Total O & M Price for STP for the 10 year period as per Parts B & C, assuming indicative sewage flow rate reaching the STP during respective years of the O&M period as indicated in Appendix to Bid (Indicative Flow) + Total price of BOQ items as per Part D + Total O & M Price for Sewerage Network and SPSs for the 10 year period as per Part E.</p> <p><u>The following provisions are added:</u> <u>In the event that the Operator is unable to obtain from its bank, the Bank Guarantee of the duration specified above towards Performance Security, it shall furnish Owner the explanation for the same. Provided the Owner is satisfied with such explanation, the Operator shall be allowed to submit initially the Performance Security valid until 180 days after the completion of the Design Build Period stipulated in SCC</u></p>												

[subject to the condition that the Performance Security shall be renewed from time to time so as to be valid until 180 days after the End Date \(i.e. completion of the O&M period of 10 years\) or any extension to the End Date.](#)

[It shall be the responsibility of the Operator to furnish extension of the Performance Security Guarantee from time to time at least 120 days prior to the expiry of the current Performance Security. In case the renewed Performance Security is not received by the Owner at least 60 days prior to the expiry date of the current Performance Security, the Owner will be free to take measures for enforcement/forfeiture of the Performance Security without any further notice to the Operator."](#)

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Sewerage Network, Table Ab7/ Sl. No. A3, Page-69

Sl. No.	Description of Items	Tendered Cost ¹⁶		
		Civil Works	E& M Works	Total
1	2	3	4	5
Part 1 – Construction works				
A	Sewerage Network			
3	Relocation of utilities			

Sl. No.	Description of Items	Tendered Cost ¹⁶		
		Civil Works	E& M Works	Total
1	2	3	4	5
Part 1 – Construction works				
A	Sewerage Network			
3	Deleted			

8

Pg-366, Cl-13.1.11

3. The acquisition of all data and information necessary to prepare the Design and that are required to demonstrate that the **16 MLD** STP meets or exceeds the Technical Standards;
 4. Preparation of Design development documents, based on the approved HFD/schematic Design documents accepted by the Owner, consisting of drawings and other documents appropriate to the size of the **16 MLD** STP to describe the units and character of the entire proposed plant including architectural, mechanical, civil works, and electrical systems, materials, operations, landscaping, and such other elements as may be appropriate;

3. The acquisition of all data and information necessary to prepare the Design and that are required to demonstrate that the **18 MLD** STP meets or exceeds the Technical Standards;
 4. Preparation of Design development documents, based on the approved HFD /schematic Design documents accepted by the Owner, consisting of drawings and other documents appropriate to the size of the **18 MLD** STP to describe the units and character of the entire proposed plant including architectural, mechanical, civil works, and electrical systems, materials, operations, landscaping, and such other elements as may be appropriate;

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Pg-368, Cl-13.3

b. Design and Construction of **-16 MLD** STP including MPS2 (18 MLD & 6 MLD) and all allied /ancillary works with an approach road to enter the facility and then carry out STP Operation & Maintenance for 10 years by way of other services. Operator

b. Design and Construction of **-18 MLD** STP including MPS2 (18 MLD & 6 MLD) and all allied /ancillary works with an approach road to enter the facility and then carry out STP Operation & Maintenance for 10 years by way of other services. Operator

		shall verify these details as per site condition.					shall verify these details as per site condition.				
Sl No.	Description of item	Quantity	Unit	Rate (Rs) in Figure	Amount	Sl No.	Description of item	Quantity	Unit	Rate (Rs) in Figure	Amount
4	Construction of Brick masonry Rectangular cast-in-situ manholes in accordance with the provisions laid down in latest version of IS 4111 (Part 1) with chamber of size 900mm x 900 mm or equivalent area (inside measurement) including supplying and fixing of polypropylene coated footrests/ cast iron make foot-rest, shuttering, staging, reinforcement, bailing out/ dewatering (by pumps or other means) of water , supply, fitting and fixing with Steel Fibre Reinforced Concrete (SFRC) / Plastic Fibre Reinforced Concrete (PFRC) / Polypropylene Fibre Reinforced Concrete (PPFRC) Manhole cover (conforming to latest version of IS 12592) of clear opening 600 mm. with matching frame of grade HD-20/EHD-35 as per site requirement & packing around with PCC (1:2:4), complete as per design, drawing, specification and as directed by the DBO Engineer. (Excavation in all sorts of soil, barricading, lighting arrangement, traffic diversion arrangement, hire and labour charges of 3753 each PRICE SCHEDULE close timbering / sheet piling / MS joists acting as soldier beams with MS plate including MS joist Waller beams, temporary road restoration as per approved design and drawing and retention of shoring where ever necessary, backfilling and compaction of trenches with appropriate materials, Protection and shifting of underground and overhead utilities if necessary, dismantling of any type of road crust by mechanical/manual means, restoration of damaged portion of the said road in its original position and disposal of spoils / surplus earth, and debris to a destination decided by EIC in consultation with ULB upto their jurisdiction to be arranged by bidder (No extra lead will be						Construction of Brick masonry Rectangular cast-in-situ manholes in accordance with the provisions laid down in latest version of IS 4111 (Part 1) with chamber of minimum size 900mm x 900 mm or equivalent area (inside measurement) including supplying and fixing of polypropylene coated footrests/ cast iron make foot-rest, shuttering, staging, reinforcement, bailing out/ dewatering (by pumps or other means) of water , supply, fitting and fixing with Steel Fibre Reinforced Concrete (SFRC) / Plastic Fibre Reinforced Concrete (PFRC) / Polypropylene Fibre Reinforced Concrete (PPFRC) Manhole cover (conforming to latest version of IS 12592) of clear opening 600 mm. with matching frame of grade HD-20/EHD-35 as per site requirement & packing around with PCC (1:2:4), complete as per design, drawing, specification and as directed by the DBO Engineer. (Excavation in all sorts of soil, barricading, lighting arrangement, traffic diversion arrangement, hire and labour charges of 3753 each PRICE SCHEDULE close timbering / sheet piling / MS joists acting as soldier beams with MS plate including MS joist Waller beams, temporary road restoration as per approved design and drawing and retention of shoring where ever necessary, backfilling and compaction of trenches with appropriate materials, Protection and shifting of underground and overhead utilities if necessary, dismantling of any type of road crust by mechanical/manual means, restoration of damaged portion of the said road in its original position and disposal of spoils / surplus earth, and debris to a destination decided by EIC in consultation with ULB upto their jurisdiction				

	iv.	Total suspended solids, mg/L	≤ 30	iii.	COD, mg/L	<u>50*</u>
	v.	Total Nitrogen, mg/L	≤ 10	iv.	Total suspended solids, mg/L	<u>10*</u>
	vi.	Total Phosphate as P, mg/l	≤ 5	v.	Total Nitrogen, mg/L	<u>10*</u>
	vii.	Fecal Coliforms MPN/100 ml	Desirable -1000 / 100ml Permissible – 10000 / 100ml	vi.	Total Phosphate as P, mg/l	<u>2*</u>
				vii.	NH4-N, mg/l	<u>5*</u>
				viii.	Fecal Coliforms MPN/100 ml	<u><230</u>

• Maximum value

Barha

**Superintending Engineer (GAP), KMW&SA
34 A&B S.B. Dey Street, 1st Floor, Kolkata-700012.
West Bengal, India.**