

**Clarifications to Bidder's Queries**

Sl. No.	Bid Volume No. and Section No.	Clause / Sub Clause No.	Page No	Bidder's Queries	Response
1.	Press NIT No. 01 (2019-20)	—	1 of 2	<p>Purchase Bid Document</p> <p>Bidder understand that downloaded bid documents can be submitted along with required Tender fee in the form of DD.</p> <p>Please confirm.</p>	As per Bid document.
2.	Section-2	BDS Clause No. ITB 19.3	2 of 4	<p>Bid security</p> <p>As per RBI norms Bidder request Employer to provide following to facilitate preparation of Bank Guarantee:</p> <p>(i) Employer Bank details like Name of the Bank, Branch Name with code, Branch address, IFSC code for issuing of Bank Guarantee.</p> <p>(ii) Name and detail address of the Beneficiary.</p> <p>Please arrange.</p>	<p>(i) Employer bank details are not required for preparation of Bank Guarantee</p> <p>(ii) Name and address of Beneficiary are given below:</p> <p>Executive Engineer (EAP)-III Delhi Jal Board, Overhead Tank, Ashok Vihar, Delhi-110052, India.</p>
3.	Section-2	BDS Clause No. ITB 12.1	2 of 3	<p>Bill of Quantities and Daywork Schedule</p> <p>As the space in the BOQ is too short to fill-up data in all blank spaces. Hence Bidder seeks permission from the Employer to reproduce the BOQ and fill-up the required columns. The same shall be attached along with original blank BOQ.</p> <p>Or</p> <p>Bidder request from Employer to provide editable copy of BOQ such that all data can be typed or printed.</p> <p>Please provide.</p>	Bidder can reproduce the BOQ without any alteration.

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4.	Section-8	PCC Sub-Clause No. 14.3 (c)	4 of 8	<p>Percentage of Retention Bidder requests uniform deduction @5% from every interim R.A. bill, to be replaced by BG of equivalent amount (to be mutually decided later on).</p> <p>Released of BG: - 90% to be released at the end of completion of work and balance 10% within 30 days of commissioning of work.</p> <p>Please consider and confirm.</p>	As per Bid document.
5.	Section-6, Annex C	Clause No. 37	8	<p>Draft initial Environmental Examination Report: Construction works (pipeline) Bidder understands that obtaining all kinds of clearances are not in the scope of his tender.</p> <p>Please confirm.</p>	Refer C&A (Corrigendum & Addendum) No.3, S.No.16.
6.	Section-8, Part-B	PCC (Special Provision) sub clause No. 4.19	8 of 13	<p>Electricity, Water &amp; Gas Bidder request Employer to provide tentative tariff of electricity per KW chargeable by local Electricity Supply Agency.</p>	To obtain applicable Tariff of electricity per KW from concerned Electricity Supply Agency.
7.	Section-8, Part-B	PCC (Special Provision) subclause No. 5.1	8 of 14	<p>General Design Obligation From this clause Bidder understands that Bidder has to check and verify the Design &amp; Drawings of Employers. Please confirm.</p> <p>Please provide us with detailed design with calculations thereof for subject contract for the above reason.</p>	Refer C&A (Corrigendum & Addendum) No.3 S.No.17

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8.	Price Bid Volume-6	Schedule No 1(a). Design Build- Civil Works. Part (D) Design Services	—	<p>Schedule No 1(a). Design Build- Civil Works. Part (D) Design Services From BOQ it is clear that for all works you have specified estimated quantities for item of works where design service is not involved except Part (D), Which is coming under 'Design Service' only.</p> <p>Whereas under design service: - (I) SIP, Contractor has to review of employer's data as per section-6, Clause 6.1.15 and submit for employer's approval.</p> <p>(ii) Survey and Site Investigation, Contractor has to provide detail survey and site investigation based on employer's report as provided in the documents.</p> <p>Please confirm.</p>	<p>(i) Confirmed.</p> <p>(ii) Refer C&amp;A (Corrigendum &amp; Addendum) No.3 S.No.29 "PART D"</p>
9.	General	—	—	<p>Scope or Work On reviewing of Tender documents, Bidder understands followings:</p> <p>(I) Identification &amp; Relocation of existing service lines are not in contractor scope.</p> <p>(ii) As per evident from the documents all detailed design of pipe line /UGR/Other equipment &amp; structures completed and BOQ provided in SOR. Further bidder has been asked to provide a SIP to propose possible Value Engineering.</p> <p>(a) Bidder request employer for the issuance of existing design data to study to facilitate the same.</p> <p>(b) Bidder also request employer to elaborate the detail Scope of</p>	<p>(i) The portion of existing transmission line which is to be retained is already given under Table 6.13 to 6.15 of section 6.</p> <p>(ii) Refer C&amp;A (Corrigendum &amp; Addendum) No.3 S.No.17</p>

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				Work under this Contract.	
10.	General	_____	_____	Pre-Bid Queries The tender document being very voluminous & elaborate we are in the process of detailed study. Hence bidder request opportunities to raise further clarification, if required, in phase	Refer clause ITB 7.1 of Bid document.
11.		Section-2, BDS, Clause No. ITB 11.2(g)	2-3	We have noted that under this clause you have asked the bidder to submit "Cost of Bid document (Tender Fee)", in the form of Demand Draft, in original, under Technical Bid part.  Hence bidder understands that downloaded bid documents can be submitted along with required Tender Fee, in the form of DD, with original Technical Bid.  This was earlier requested to you also vide our Pre-Bid Queries-Set I under sl.no.1.  Kindly accept and confirm.	As per Bid document.
12.		Section-3, EQC, Clause No. 2.4.1 & 2.4.2	3 - 9 to 3 - 11	The bidder understands from the document that the design responsibility of the contractor is limited to either verification of existing designs or to submit alternative design.  Further bidder also noticed that for all construction experience requirement, vide clause no. 2.4, including experience in key activities (referring clause 2.4.1 & 2.4.2), only the construction experience of bidder is asked except the pumping system (being generally designed by equipment manufacturer) and experience of UGR.  Since separate requirement for design part is mentioned	Refer C&A (Corrigendum & Addendum) No.3 S.No.17.  As per Bid document..

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				<p>elsewhere in document for either verification or alternate design, bidder understands basically client is looking for construction experience of the bidder under clause no. 2.4 except equipment supply.</p> <p>If the understanding of the bidder is correct then the requirement as stated in clause no. 2.4.2 (iv) may be modified accordingly.</p> <p>Kindly consider &amp; confirm.</p>	
13.		Section -3, EQC, Clause No. 2.4.2	3 - 10 to 3 - 11	<p>Under the construction experience in key activity you have asked for previous experience of UGR of the bidder.</p> <p>You would agree that construction of OHR of same capacity is more technically demanding than that of an UGR of same capacity.</p> <p>Under the above context bidder request for consideration of acceptance of previous construction experience of UGR and / or OHR of the specified capacity.</p> <p>Kindly consider &amp; approve</p>	Refer C&A (Corrigendum & Addendum) No.3 S.No. 2.
14.		Section- 8, PCC Sub -Clause No. 14.3(c)	8 - 4	<p>Bidder requests employer for uniform deduction of @5% from every interim R.A. bill; the deducted retention money to be replaced BG of equivalent amount (to be mutually decided later on).</p> <p>Please consider &amp; confirm.</p>	As per Bid document.

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15.		Section-8, PCC, Schedule - 3, Sl. No. 2	8 - 36	<p>To maintain easy cash flow requirement during execution of the work, bidder requests employer to modify the payment schedule for Design-Build Contract Period as follows: -</p> <p>(a) For Rising mains, common feeder mains and other pipelines including all pipeline accessories.</p> <p>(i) 65% of the cost of pipeline on supply of material at site.</p> <p>(ii) 20% against laying, jointing, hydro testing and road restoration work</p> <p>(iii) 15 % against commissioning and successful demonstrating of the performance for the 3 months testing period.</p> <p>Kindly consider &amp; confirm.</p>	As per Bid document.
16.		Clause 2.4.1		<p>Contracts of similar size and nature</p> <p>It is mentioned in this clause that "Participation in at least contract similar to the proposed works that has been successfully or substantially* completed within the last 10 years from the date of issue of tender notice.</p> <p>The similarity of the Bidder's participation shall be based on the physical size, nature of works, complexity, methods, technology, or other characteristics as described in Section 6 (Employer's requirement). - One contract of value of the Bidder's participation exceeds INR 1350 million or its equivalent".</p> <p>We presume that for the above criteria experience of having executed any drinking water supply project will meet the qualification requirement. Please confirm.</p>	As per Bid document.
17.		Clause 2.4.2 (iii)		<p>Construction Experience in Key activities</p> <p>Experience in construction and commissioning of trenchless technology works of 1.0 kms or above in a single or multiple Contract and at least 1 (one) work of minimum 1000 mm diameter</p>	As per Bid document.

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				<p>of the carrier pipe in Single stretch of 60 m minimum in a contract 10 last years.</p> <p>The subject clause may please be modified as: Experience in construction and commissioning of trenchless technology works of 1.0 kms or above in a single or multiple Contract and at least 1 (one) work of minimum 1000 mm diameter of the carrier pipe in Single stretch of <b>30 m</b> minimum in a contract 10 last years.</p>	
18.	Volume-1 Section-8		5 of 8	<p>Retention money In the referred clause "50% of Retention money applicable to Completion of works can be released against Bank Guarantee after accumulation of limit of Retention money. Balance 50% Retention money can be released against Bank Guarantee within 30 days of successful commissioning of the works. The validity of these Bank Guarantees will be 6 months beyond commissioning of the works and the same will be released accordingly".</p> <p>We request you to consider release of Retention money against Bank Guarantee during construction period. 50% of the Bank Guarantee shall be released against sectional/whole completion of the works. Balance 50% retention money Bank Guarantee can be released on completion of 6 months of sectional/whole commissioning of the works. please confirm.</p>	As per Bid document.
19.	Bill No. 1a	Item No.29a	4 of 27	<p>DI Butterfly Valve There is no provision in the BOQ for fixing of Butterfly valve (700 mm dia to 1500 mm dia) and no provision for CI/DI specials for 400 mm to 600 mm dia valve.</p> <p>Please include the same in the BOQ.</p>	Refer BOQ items at S.No. 29c.29d and 44.

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20.	Bill No. 1a	Item No.46	7 of 27	Trenchless Technology- MS Casing Pipe We understand that the pipe dia mentioned in the BOQ is carrier pipe. Hence, we request you to provide the MS Casing pipe dia and thickness.	Refer C&A (Corrigendum & Addendum) No.3 S.No.28-(43)
21.	Volume-6 Price Bid  Volume-1		3 of 3	Form TECH-1 Guaranteed Electrical Power Consumption Column # 05 It is indicated that <b><i>"Cost of Power consumed in INR @ INR 7.3 per KWH (1) = (3) X 7"</i></b> <b>Also</b> Power Consumption Guarantee <b><i>"iii. The Evaluation shall further be considered as: Based on the pumps &amp; equipment selected, the bidder shall provide guaranteed power consumption (Total power requirement) during operation and maintenance period as per format of Tech-1 given under section-4. this guaranteed power consumption shall be multiplied by the current rate of electricity charge of Rs. 7.20 per KWH and shall be added to present Value (PV) of (O&amp;M) for each year and for the total duration of O&amp;M period."</i></b>  It is indicated that cost of power consumed to be multiplied by INR Rs. 7.30 whereas the multiplication factor is shown as Rs.7 (as X7) & also it is indicated that the tender will be evaluated with electricity charges of Rs. 7.20 per KWH. We presume that the power units shall be multiplied by INR Rs. 7.  Please confirm.	Refer C&A (Corrigendum & Addendum) No.3 S.No.26



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22.	Volume-1, Section-8		5 of 8	<p>Return of Performance Security It is indicated that <b><i>“Return of Performance Security Design-Build Performance Security 75% to be released at the end of the retention period (365 days after issuance of the commissioning Certificate) 25% to be released after issue of Contract Completion Certificate.”</i></b></p> <p>Since the Contract Completion Certificate is issued after completion of O&amp;M period &amp; a separate performance security BG is being submitted for O&amp;M period. We request you to release 100% of Design-Build Performance Security after retention period. Please confirm.</p>	As per Bid Document..
23.	General			<p>Advance Payment Recovery Please provide the details for recovery of advance payment from interim payment certificates.</p>	Refer standard GCC clause 14.2 of FIDIC Gold book.
24.	Volume-4 Drawing_0.pdf			<p>Drawing The drawings provided with the tender got partially uploaded. We request you to please provide editable drawings for our reference.</p>	Bidders are advised to purchase the printed original copy of the tender document and refer same for complete set of drawings in more legible text.
25.	General			<p>Trail Run Period We presume that the trial run period is inclusive of construction period. Please confirm the trail run period.</p>	As per Bid document.
26.	Form Tech-1	Guaranteed Electrical Power Consumption		<p>ML of Water Suppling during year The provide discharge of pump sets is not matching the required amount of water to be supplied during O&amp;M period- Please clarify.</p>	Pump sets are designed for discharge at the end of 15 years; Whereas in <i>“Form Tech-1”</i> , Year 1 to Year 10 discharge are given. These values are different from each other and cannot match.

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27.	Bill 1(b)-1.1,1.3		1 of 24	Pump Set Discharge The indicated pump sets discharge capacities are arrived considering 24 hours of operation of required demand please confirm.	Refer C&A (Corrigendum & Addendum) No.3 S.No.13 & 14.
28.	General	---	---	Project duration We presume that, total duration is 42 months (10 years O&M concurrent with one-year Defect Liability Period) of which, SIP period of 4 months followed by Construction duration of 38 months. Kindly confirm.	Total duration for design build is including service Improvement Plan (SIP) period days.  Refer PCC Clause 1.1.78 at Page 8-1 and Clause 8.2 &9.2 at Page 8-3 of Volume 1.
29.	Volume 1 Section 8, PCC	14.10	8-5	Payment of Retention Money  As per referred clause, <i>"50% of Retention Money applicable to Completion of works can be released against Bank Guarantee after accumulation of limit of Retention Money."</i> In order to facilitate better cash flow for the project, we request you to consider upfront Bank Guarantee of 5% in lieu of cash retention. Kindly consider and confirm.	.As per Bid document.
30.	Volume 1 Section 8, PCC	9.6	8-4	Delay damages for Design-Build  As per the referred clause, <i>"0.02 % of the Accepted Contract Amount of Design Build works of sections or full Design Build work (excluding Operation services) on per day basis pertaining to each sections or full completion of Design Build."</i> <i>Maximum amount of sectional delay damages limited to 10% of Accepted Contract Amount of the section and Maximum amount of</i>	. As per Bid document.

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				<p><i>delay damages equal to 10% of Accepted Contract Amount for the Design Build."</i></p> <p>We request you to consider 0.01 % of the amount of unachieved portion of works per day of sections and consider maximum amount of sectional delay damages. It is a general practice across India that the LD cap for project is 10% of contract value for design build. Hence, we presume that the overall liquidated damages including Delay damages is limited to 10% of Contract value for Design-Build.</p> <p>Kindly confirm.</p>	
31.	Volume 1 Section 8, PCC	9.6	8-4	<p>Delay damages for Design-Build</p> <p>We understand that if the project is completed within the stipulated time schedule, the liquidated damages levied at intermediate milestone/sections will be reimbursed. Please confirm if our understanding is correct.</p>	Confirmed.
32.	Volume 1 Section 8, PCC	14.7(b)	8-5	<p>Minimum amount of Interim Payment certificate</p> <p>As per the referred clause, "<i>Minimum Amount of Interim Payment Certificate: 1% of the Accepted Contract Price for Design - Build portion</i>"</p> <p>We request you to consider monthly payment for Design-Build portion based on the payment terms and as per actual progress of work. Kindly confirm.</p>	As per Bid document.
33.	Volume 1 Section 8, PCC (Schedule 3)	4	8-40	<p>Adjustments for changes in costs</p> <p>Since the project has substantial quantum of DI pipes and no scope for MDPE/PVC Pipes, we request you to provide a separate</p>	Refer "Table of adjustment Data" under section 4 of volume-1 of bid document.

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				formulae and Pig iron WPI index for calculating the price adjustment for DI pipes and remove Rubber and Plastic Products. Kindly confirm.	"Bidders proposed weighting" for various index are to be selected and entered by Bidders. Bidders are free to assign "0" weightage for MDPE/PVC pipes under this Table.						
34.	General	---	---	Priority of document Kindly provide the order for priority of documents to be considered.	Refer Standard GCC clause 1.5 of FIDIC Gold book.						
35.	Volume 1 Section 8 Particular Conditions of Contract	Schedule 3 Contractor's Payment (2a)	8-36	<div>Payment for Design-Build period 2.a. For Rising mains, common feeder mains and other pipelines including all pipeline accessories</div> <table><tr><th>As per tender conditions :</th><th>Request you to consider as below:</th></tr><tr><td>60% of the cost of pipeline on supply and stacking of material at site, maximum up to 5 Km</td><td>70% of the cost of pipeline on supply and stacking of material at site, maximum up to 10 Km irrespective of diameter.</td></tr><tr><td>20% of the cost of pipeline on laying, jointing, sectional hydro testing of pipes and restoration of road as specified in bid document which will be suitable for vehicle movement</td><td>20% of the cost of pipeline on laying, jointing, sectional hydro testing of pipes and restoration of road as specified in bid document which will be suitable for vehicle movement</td></tr></table>	As per tender conditions :	Request you to consider as below:	60% of the cost of pipeline on supply and stacking of material at site, maximum up to 5 Km	70% of the cost of pipeline on supply and stacking of material at site, maximum up to 10 Km irrespective of diameter.	20% of the cost of pipeline on laying, jointing, sectional hydro testing of pipes and restoration of road as specified in bid document which will be suitable for vehicle movement	20% of the cost of pipeline on laying, jointing, sectional hydro testing of pipes and restoration of road as specified in bid document which will be suitable for vehicle movement	As per Bid document.
As per tender conditions :	Request you to consider as below:										
60% of the cost of pipeline on supply and stacking of material at site, maximum up to 5 Km	70% of the cost of pipeline on supply and stacking of material at site, maximum up to 10 Km irrespective of diameter.										
20% of the cost of pipeline on laying, jointing, sectional hydro testing of pipes and restoration of road as specified in bid document which will be suitable for vehicle movement	20% of the cost of pipeline on laying, jointing, sectional hydro testing of pipes and restoration of road as specified in bid document which will be suitable for vehicle movement										

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				20% on commissioning and successful demonstrating of the performance for the 3 months testing period	10% on commissioning.	
				We request you to consider the above payment terms in order to facilitate better cash flow in the project. Kindly confirm.		
36.	Volume 1 Section 8 Particular Conditions of Contract	Schedule 3 Contractor's Payment (2b)	8-36	Payment for Design-Build period 2.b. For Mechanical/ Electrical, Instrumentation and other items		As per Bid document.
				<b>As per tender conditions:</b>	<b>Request you to consider as below:</b>	
				60% of the agreed price, against supply and storage of material at Site;	75% of the agreed price, against supply and storage of material at Site;	
				20% on installation of the equipment;	15% on installation of the equipment;	
				10% on testing and trial run completed successfully	5% on testing and trial run completed successfully	
				10% on commissioning of the equipment.	5% on commissioning of the equipment.	
				We request you to consider the above payment terms in order to facilitate better cash flow in the project. Kindly confirm.		

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37.	Volume I Section 8	6.13	8-18	<p>Resettlement scope and cost</p> <p>As per the referred clause, <i>"The Contractor shall comply with (i) the measures and requirements set forth in the updated and approved Resettlement Plan (RP) attached in Section 6, Employer's Requirement, to the extent it concerns Impacts on affected people during construction; and (ii) any corrective or preventive actions set out in safeguards monitoring reports that the Employer will prepare from time to time to monitor implementation of the Resettlement Plan."</i></p> <p>We presume that scope and cost associated with resettlement works will be borne by the Employer. Kindly confirm.</p>	As per Bid document.								
38.	Volume 1 Section 8 Particular Conditions of Contract	Schedule 3 Contractor's Payment (3)	8-37	<table><tr><td colspan="2">Payment for Operation Services Period</td></tr><tr><td colspan="2">3. For the Period post Final Taking Over</td></tr><tr><td><b>As per tender conditions:</b></td><td><b>Request you to consider as below:</b></td></tr><tr><td>Fixed Payment equal to 75% of the eligible Total Payment for Operation Services with service delivery in water supply</td><td>Fixed Payment equal to 80% of the eligible Total Payment for Operation Services with service delivery in water supply</td></tr></table>	Payment for Operation Services Period		3. For the Period post Final Taking Over		<b>As per tender conditions:</b>	<b>Request you to consider as below:</b>	Fixed Payment equal to 75% of the eligible Total Payment for Operation Services with service delivery in water supply	Fixed Payment equal to 80% of the eligible Total Payment for Operation Services with service delivery in water supply	Refer C&A (Corrigendum & Addendum) No.3 S.No.20.
Payment for Operation Services Period													
3. For the Period post Final Taking Over													
<b>As per tender conditions:</b>	<b>Request you to consider as below:</b>												
Fixed Payment equal to 75% of the eligible Total Payment for Operation Services with service delivery in water supply	Fixed Payment equal to 80% of the eligible Total Payment for Operation Services with service delivery in water supply												

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				<table><tr><td>Performance equal to 25% of the eligible Total Payment for Operation Services with service delivery in water supply and sewerage system as per Schedule 5: Performance Targets and Measurement</td><td>Performance equal to 20% of the eligible Total Payment for Operation Services with service delivery in water supply and sewerage system as per Schedule 5: Performance Targets and Measurement</td></tr></table>		Performance equal to 25% of the eligible Total Payment for Operation Services with service delivery in water supply and sewerage system as per Schedule 5: Performance Targets and Measurement	Performance equal to 20% of the eligible Total Payment for Operation Services with service delivery in water supply and sewerage system as per Schedule 5: Performance Targets and Measurement							
Performance equal to 25% of the eligible Total Payment for Operation Services with service delivery in water supply and sewerage system as per Schedule 5: Performance Targets and Measurement	Performance equal to 20% of the eligible Total Payment for Operation Services with service delivery in water supply and sewerage system as per Schedule 5: Performance Targets and Measurement													
				We request you to consider the above payment terms in order to facilitate better cash flow in the project. Kindly confirm.										
39.	Volume 1 Section 8 Particular Conditions of Contract	Schedule 3 Contractor's Payment (3.2.1)	8-38	<table><tr><td colspan="2">Payment for performance Parameter</td></tr><tr><td>Parameter &amp; reference</td><td>% of eligible monthly Operation Service payment</td></tr><tr><td>Real Physical losses in transmission i.e. leakage in the transmission main through pipe joints or vales etc.</td><td>20%</td></tr><tr><td>Guaranteed Electrical Power Consumption. - To be applicable for Pumping stations as and when same are commissioned</td><td>As per clause 4.19 of Particular conditions.</td></tr></table>		Payment for performance Parameter		Parameter & reference	% of eligible monthly Operation Service payment	Real Physical losses in transmission i.e. leakage in the transmission main through pipe joints or vales etc.	20%	Guaranteed Electrical Power Consumption. - To be applicable for Pumping stations as and when same are commissioned	As per clause 4.19 of Particular conditions.	Refer C&A (Corrigendum & Addendum) <b>No.3</b> S.No.20 .
Payment for performance Parameter														
Parameter & reference	% of eligible monthly Operation Service payment													
Real Physical losses in transmission i.e. leakage in the transmission main through pipe joints or vales etc.	20%													
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				We request you to consider the above payment terms in order to facilitate better cash flow in the project. Kindly confirm.										

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40.	Volume 1 Section 8, PCC	13.3	8-25	Variation Procedure From the referred clause we understand that, increase in BOQ quantity variation up to 20% will be payable as per the BOQ rate and variation above 20% will be payable at market rate / mutually agreed rates between DJB and the contractor during the execution of project. Please confirm.	As per Bid document.
41.	Volume 1 Due Diligence Report	9	vii	Temporary disruption to income generation We understand that, during construction unavoidable impacts may temporary disrupt income generation activities along the transmission mains and if any livelihood/ business activity is completely shut down due to construction activity, the affected business will be compensated for lost income by the Employer. Kindly confirm.	Confirmed.
42.	General	-	-	Permissions & licenses We presume that the required right of access to the site, right of way and necessary area of land for temporary, permanent structures and Archeological areas shall be provided to us by Employer with all permissions and clearances from defense, forest department, Archeological Survey of India (ASI) etc., and encumbrances free, including payment of necessary charges, depository fees to all the authorities. Kindly confirm.	Refer C&A (Corrigendum & Addendum) No.3 S.No.18.
43.	General	-	-	Right of Way We understand that necessary width of right of way required for laying pipeline shall be provided to us free of cost and free from all encumbrances, clearances from all authorities including Forest department, Railways, NH etc. and including compensation to private land owners. Please confirm if our understanding is correct.	Refer C&A (Corrigendum & Addendum) No.3 S.No.18.



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44.	Volume 6 Price Bid	15	-	<p>Extra items payment As per the referred clause, <i>"The Contractor shall be bound to execute extra items of work as directed by the Engineer. The rates for extra items will be as per rates decided under Contract Conditions."</i> We understand that any extra items executed by the contractor shall be paid at actual market rates prevailing at the time of execution. Kindly confirm.</p>	As per Bid document.
45.	General	-	-	<p>Removal &amp; Shifting of existing Utilities We understand that during execution of work, cost involved in removal &amp; shifting of both underground &amp; over ground utilities like existing pipelines, transmission towers and others will be the responsibility of contractor and will be reimbursed at actuals by the department. Kindly confirm</p>	As per Bid document.
46.	Volume 1 Section 6	6.2.2	6-45	<p>Damages during Utility Shifting Since the project is located in core urban area, with thick population and it is likely that the utilities may be damaged without the knowledge of the contractor.  We presume that any cost involved in rectifying the damages, which are investigated well in advance of the start of construction work will be paid at actuals. Kindly confirm</p>	As per Bid document.
47.	General	-	-	<p>Existing infrastructure We understand that the bidder has to integrate the existing pipelines with the newly installed pipelines. In such event, it will be difficult for the bidder to access prevailing condition of existing pipelines &amp; to achieve the performance targets during O&amp;M.</p>	As per Bid document.

**Clarifications to Bidder's Queries**

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				Hence, we would like to bring to your kind notice, it will difficult to maintain the physical losses for a maximum of 2% by integrating with existing works. Hence kindly allow bidders to reduce these losses gradually or phase-wise from the current scenario.	
48.	Volume 1 Section 6 Employer's Requirement	6.1.19 Management Information System	6-38	Management Information System (MIS) As per the referred clause, the contractor shall establish management information system but meter reading, billing, complaint redressal etc. are not in the scope of the contractor. Hence we presume that the same in the not in the scope of this package. Kindly confirm.	As per Bid document.
49.	Volume 1 Section 6 & Section 8	Provision of temporary services	6-48	Water tankers As per the referred clause, during construction stage the contractor may install temporary lines or may arrange for supply by tankers but scope of this package doesn't constitute distribution. Hence we presume that the same is not required. Kindly confirm.	Refer clause 114 at page 39 of IEE under section 6 of Bid document.
50.	Volume 1 Part B	Table 13	62	Construction stage Environmental Monitoring plan From the referred table, various activities under the construction stage EMP is mentioned as part of BOQ items. We would like to bring to your kind notice that the same is not provided in the BOQ. Kindly include the same and issue necessary amendments.	Refer C&A (Corrigendum & Addendum) No.3 S.No. 28-(44)
51.	Section 6 Employer's Requirement	6.1.9	6-31	Asset Replacement As per the referred clause, contractor has to propose the Asset Replacement as a part of SIP. It is requested to provide the Payment mechanism for the Asset replacement.	Refer 2 <sup>nd</sup> para of standard GCC clause 14.17 given in FDIC Gold book.
52.	Volume 1 Section 6	114 Draft initial Environmental	39	Pipeline Scope As per referred clause, " <i>Replacement of existing distribution network, and shifting the water connections from the existing to new</i> "	Not related to the project

**Clarifications to Bidder's Queries**

Sl. No.	Bid Volume No. and Section No.	Clause / Sub Clause No.	Page No	Bidder's Queries	Response
		Examination		<p><i>lines will disturb the water supply services, though temporarily. Once the new pipeline laid, all the consumer connections on the old pipeline will be transferred to the new pipeline. This new pipeline shall be connected to the existing water system and commissioned to ensure water supply to the consumers."</i></p> <p>We presume that the proposed pipeline shall be laid adjacent / above the existing pipeline and removal of old pipes is not under the scope of Contractor.</p> <p>Also, If it is necessitated to remove the old pipe, it shall be treated as extra item and paid at actuals. Kindly confirm.</p>	As per Bid document.
53.	Volume -1 Section 6	6.1.5.1, Table 6.6	6-11	<p>UGR size and liquid depth</p> <p>Referred clause states that "<i>Size of the proposed UGR is 125x80m and liquid depth is 5m, ground level is 210.0 and invert level is 204</i>". We presume that size, level and liquid depth given in NIT are indicative and the bidder is free to choose size, level and liquid depth as per design requirement. Kindly confirm.</p>	As per Bid document.
54.	Volume-3 Particular Specifications (Civil Work)	1.1.6	7	<p>Minimum thickness</p> <p>Referred clause states that "<i>Minimum thickness of wall is 225, base slab as 250mm and roof slab as 200mm</i>". We request you to allow the bidder to consider minimum thickness as per design requirement.</p>	As per Bid document.
55.	Volume-3 Particular Specifications (Civil Work)	1.1.3, vii	5	<p>Ground water table</p> <p>As per the referred clause, "<i>The design water table for uplift shall be considered at least 2m (seasonal variation) above that indicated by the Contractor's own investigation or that approved by Employer prior to design, whichever is maximum</i>". We request you to allow</p>	As per Bid document.

**Clarifications to Bidder's Queries**

Sl. No.	Bid Volume No. and Section No.	Clause / Sub Clause No.	Page No	Bidder's Queries	Response
				the bidder to consider ground water table as per geotechnical investigation report during execution for design of structures.	
56.	Volume-3 Particular Specifications (Civil Work	1.3.9	34	Rehabilitation of existing structures In the referred specification, rehabilitation works are specified under “ <i>Civil work rehabilitation</i> ” whereas there are no works related to rehabilitations mentioned in BoQ and “ <i>Broad Scope of Services (volume 1, section 6 – 6.1.7)</i> ”. Hence, we presume that there is no scope of rehabilitation works under this contract and if it is necessitated to execute any rehabilitation works, the same shall be paid at actuals. Kindly confirm.	As per Bid document.
57.	Volume-3 Particular Specifications (Civil Work)	1.3.8.3	34	Thrust block As per the referred clause “ <i>The minimum grade of concrete for construction of thrust block shall be M-25. Minimum required reinforcement to be provided, but not less than 10 dia bars at 200mm c/c, all faces, both directions</i> ”. We request you to allow the bidder to consider the grade of concrete as M20 and reinforcement of 8@200 c/c for thrust block.	As per Bid document
58.	Volume-3 Particular Specifications (Civil Work)	1.1.2 (iv)	4	Seismic zone and zone factor Referred clause states that “ <i>Earthquake loads, and designs shall be conforming to I.S. 1893 considering seismic Zone IV/V as the case may be for Delhi Importance factor shall be taken as minimum 1.5 and zone factor Z= 0.63</i> ”. We kindly request you to allow the bidder to consider the seismic zone as IV and zone factor of 0.24 as per IS 1893. Kindly confirm.	As per Bid document

**Clarifications to Bidder's Queries**

Sl. No.	Bid Volume No. and Section No.	Clause / Sub Clause No.	Page No	Bidder's Queries	Response
59.	Volume-3 Particular Specifications (Civil Work)	1.1.4, vii	6	Top of wall Referred clause states that " <i>The top of walls of liquid tanks/sumps shall be minimum 500mm above FGL</i> ". We request you to allow the bidder to consider the top of the wall as per design requirement. Kindly confirm.	As per Bid document
60.	Volume-6 Price bid	Part A Item no:1 to 52	-	Transmission Pipeline - Civil Quantities We presume that civil quantities given in BOQ (Transmission Pipeline) for pipeline works shall be inclusive of quantities for anchor / thrust block, valve chambers, crossing of drain / drainage / canals, culverts / bridges including pipe supporting pillars along the transmission pipelines. Kindly confirm.	As per Bid document.
61.	Volume-6 Price bid	Part B Item no:1 to 145	-	UGR cum Pump House We presume that civil quantities given in part B item no:1 to 145 is inclusive of quantities for UGR, Pump House, Electrical building, control room and other allied civil works in the campus. Kindly confirm.	As per Bid document.
62.	Volume -1 Section 6	6.1.8.3	6-30	Provisions of Road Restoration From the referred clause, we understand that only temporary road restoration is in contractor's scope and need not do any permanent road restoration (Both BT and CC) as the provision for the same is not available in the BOQ. Kindly confirm. Also, we request you to provide specifications for temporary road restoration.	Refer C&A (Corrigendum & Addendum) No.3 S.No.8
63.	Volume 6	Price Bid	Part C – Item no 1	Road Restoration (DMC Road) – Construction of Subgrade From the referred BOQ item, we understand that civil quantities given in BOQ for temporary road restoration (motorable condition)	Refer C&A (Corrigendum & Addendum) No.3 S.No.8 & 28-(45)

**Clarifications to Bidder's Queries**

Sl. No.	Bid Volume No. and Section No.	Clause / Sub Clause No.	Page No	Bidder's Queries	Response
				until permanent road restoration is carried out by the MCD as specified in clause 6.1.8.3 (Volume 01, Section 6). Kindly confirm.	
64.	Volume -2 Specification - Civil works	12.4.4.3.1 & 5.11.1.4 & 5.11.7.1 & 11.5.1	165 & 26 & 31 & 132	<p>Slope for Excavation</p> <p><i>"The trench excavation of pipe line shall be in accordance with IS 12288. Pipe trenches shall be excavated to the lines and levels shown on the drawings or as directed by the Employer. The depth of the excavated trench shall be as given in the drawings or as directed by the Employer."</i></p> <p><i>"All excavations shall be done to the minimum dimension as required for safety and working facility. Prior approval of Employer shall be obtained by Contractor in each individual case, for the method he proposes to adopt for the excavation, including setting out, dimensions, side slopes, dewatering, disposal, etc."</i></p> <p><i>"The trench excavation of pipe line shall be in accordance with IS 12288. Pipe trenches shall be excavated to the lines and levels shown on the drawings or as directed by the Employer. The depth of the excavated trench shall be as given in the drawings or as directed by the Employer."</i></p> <p><i>"All excavations shall be done to the minimum dimension as required for safety and working facility. Prior approval of Employer shall be obtained by Contractor in each individual case, for the method he proposes to adopt for the excavation, including setting out, dimensions, side slopes, dewatering, disposal, etc."</i></p>	Refer C&A (Corrigendum & Addendum) No.3 S.No.7-(XI).

**Clarifications to Bidder's Queries**

Sl. No.	Bid Volume No. and Section No.	Clause / Sub Clause No.	Page No	Bidder's Queries	Response
				<p><i>"All excavation shall be measured net. Dimensions for purpose of payment shall be reckoned on the mean horizontal area of the excavation multiplied by the mean depth from the surface of the ground in accordance with the Drawings. Reasonable working space, beyond concrete dimensions and shuttering where considered necessary in the opinion of Employer will be allowed in excavation and considered for payment".</i></p> <p>From the above clauses, we understand that the contractor shall maintain reasonable working space and required slope to ensure the safety and stability of the trench excavation as per safety protections as mentioned above, have to be incorporated in the work process and meeting the IS 12288 &amp; IS 5822 codal provisions. Hence the slope as mentioned above shall not be considered as excess excavation and it shall be paid against respective excavation items at actuals. Kindly confirm.</p>	
65.	Volume -1 Section 6	6.1.7 Table 6.18	6-27	<p>Demolition of Existing structures</p> <p>From the referred clause, we understand that the demolition of existing UGR and Pump house, related ancillary building after construction of the new proposed units is in contractor's scope and the same shall be payable through relevant BOQ item at actuals (Item no 143 to 145). Kindly confirm.</p>	As per Bid document.
66.	Volume - 3 Particular Specification	1.3.3.1.2	13	<p>Cement</p> <p>As per the referred clause, we infer that OPC has to be used for construction of all structures. As there are limited manufacturers</p>	As per Bid document.



**Clarifications to Bidder's Queries**

Sl. No.	Bid Volume No. and Section No.	Clause / Sub Clause No.	Page No	Bidder's Queries	Response
				and substantial increase in demand for OPC, we request you to allow the bidder to consider PPC confirming to IS 8112 or IS 12269. Kindly consider.	
67.	Volume - 3 Particular Specification	1.3.3.1.3	14	Quarry Materials – Sand Since the project consists of voluminous concrete works and the availability of river sand is becoming scarce, we request you to allow the bidder to use manufactured / crushed sand in concrete works, which meets the design criteria and satisfies the codal provision. Kindly consider and confirm.	As per Bid document.
68.	Volume - 3 Particular Specification	1.3.3.1	18	Brickwork We request you to allow the bidder to use Fly ash Bricks in masonry works, which meets the design criteria and satisfies the codal provision. Kindly consider and confirm.	As per Bid document.
69.	Volume - 3 Particular Specification	1.3.5.4	28	Epoxy based coatings Referred clause states that " <i>The multiple coats shall achieve DFT to provide an effective life of 10 years. The coating shall be easily repairable/ reapplied. In general epoxy based coatings shall be used</i> ". We request you to kindly provide epoxy coating thickness (microns) need to be consider by the bidder. Kindly consider and confirm.	Refer BOQ Item no. 140 under Schedule 1(a) of Price bid.
70.	Volume 6	Price Bid	Part A Item No - 47 & 48	Trenchless Technology From the referred BOQ items, we understand that product pipe shall be laid using trenchless technology by Auger boring and Manual pipe jacking method. We request you to furnish preliminary soil strata for these stretches. In addition to this please specify the tentative cover depth required	As per Bid document.  Refer Geotechnical Investigation Report given under section 6.



**Clarifications to Bidder's Queries**

Sl. No.	Bid Volume No. and Section No.	Clause / Sub Clause No.	Page No	Bidder's Queries	Response
				for laying these pipes. Kindly confirm.	
71.	General	-	-	Royalties for earth / Building Rubbish / Waste Material disposal We understand that payment if any made by the contractor towards royalties shall be reimbursed by the employer at actuals, since the disposal materials (Disposal of moorum / building rubbish / malba /similar unserviceable, dismantled or waste material) will be the property of employer and stacked at employer premises. Kindly confirm.	As per Bid document.
72.	General	-	-	Transmission Pipeline We presume that during detailed design any suggested / additional changes in (Transmission) pipeline alignment necessitated and if there is any change in quantities and execution methodology the same shall be paid at actuals through relevant BOQ items. Kindly confirm.	As per Bid document.
73.	Volume 4	GEN/15	-	Pipe Trench details In general, total depth of excavation for laying pipe shall be pipe diameter plus top cover (depth between Ground level and crown of pipe) varies from 0.9 or 1 m. While, the drawing provided for depth of trench detail seems to be on the higher side (3.5m). Hence, in order to have parity among bidders, we request you to provide the revised depth of top cover to be considered. Kindly consider and issue necessary amendment.	Refer C&A (Corrigendum & Addendum) No.3 S.No.25-(1).

**Clarifications to Bidder's Queries**

Sl. No.	Bid Volume No. and Section No.	Clause / Sub Clause No.	Page No	Bidder's Queries	Response
74.	General	-	-	Geotechnical investigation report Kindly provide the geotechnical investigation report at the proposed UGR and Pump House locations if the same is available with DJB.	Refer Geotechnical Investigation Report given under section 6.
75.	General	-	-	Fly Ash We presume that the bidder is free to use fly ash in concrete works, which meets the design criteria and satisfies the codal provision. Kindly confirm.	As per Bid Document.
76.	Volume - 6 Price BID, Schedule-1(a) & Technical Bid - Volume 2 Standard Specifications 6.2.1.2 Standard Specifications (Mechanical Works)	Item 26  &  2.2	Bill - 1(a) Page 3 of 27  &  11	MOC of Sluice Valve In the referred item in Price Bid, the MOC of sluice valve is indicated as CI. However, in the referred Clause of Volume 2, the MOC of body is mentioned as DI. We understand that the MOC of Sluice Valve shall be DI as per Specifications given in Volume 2. Kindly confirm.	Refer C&A (Corrigendum & Addendum) No.3 S.No.29-(26).
77.	Volume -6 Price BID, Schedule- 1(a) & Technical Bid - Volume 2 Standard	Item 28a  &  2.5	Bill - 1(a) Page 4 of 27  &	MOC of Air Valve In the referred item in Price Bid, the MOC of air valve is not indicated. However, in the referred Clause of Volume 2, the MOC of body is mentioned as DI. We understand that the MOC of Air Valve shall DI be as per Specifications given in Volume 2. Kindly confirm.	Refer C&A (Corrigendum & Addendum) No.3 S.No.29-(28a).

**Clarifications to Bidder's Queries**

Sl. No.	Bid Volume No. and Section No.	Clause / Sub Clause No.	Page No	Bidder's Queries	Response
	Specifications, 6.2.1.2 Standard Specifications (Mechanical Works)		14		
78.	Volume -6 Price BID, Schedule-1(b) & Technical Bid - Volume 1, Section 6– Employer's Requirements	Item 1, 1.1 & 1.3 & Table 6.10	Bill 1(b)- Page 1 of 24 & 6-13, 6-15	<p>Mismatch between total flow from pumps and demand requirement As per the referred item 1.1, total flow from this pump (Towards Peera Garhi) is equal to  <math>2084 \text{ m}^3/\text{hr} \times 4 \text{ (working)} \times 22 \text{ (hours of pumping)} / 1000 = 40.35 \text{ MLD}</math> whereas as per referred Clause 6.10, the intermediate demand for this area is indicated as 41.30 MLD which is more than total flow through pumps.</p> <p>Similarly, as per the referred items 1.3, total flow from this pump (Towards Burari A and SGT Nagar) is equal to  <math>2605 \text{ m}^3/\text{hr} \times 4 \text{ (working)} \times 22 \text{ (hours of pumping)} / 1000 = 50.43 \text{ MLD}</math> whereas as per referred Clause 6.10, the intermediate demand for this area is indicated as 56.97 MLD which is more than total flow through pumps.</p> <p>Also, as per referred table 6.9, the intermediate demand &amp; head of line 1 &amp; 2 is indicated as (41.10 + 21.02) MGD @ 24 m head and demand for line 3 is indicated as 44.88 MGD @ 32.5 m head, which does not match with the total flow and head of pumps indicated in the Price Bid.</p> <p>Hence, we understand that the flow and head of pumps provided in</p>	Refer C&A (Corrigendum & Addendum) No.3 S.No.13 & 14.

**Clarifications to Bidder's Queries**

Sl. No.	Bid Volume No. and Section No.	Clause / Sub Clause No.	Page No	Bidder's Queries	Response
				Price Bid is correct and shall prevail. Any change in pump flow and head shall be payable as per actuals. Kindly confirm.	
79.	General	-	-	<p>Demands for Hydraulics Verification</p> <p>Kindly provide the bidders with the demands for the following locations for verification of hydraulics.</p> <p>BurariB, Holambi KalanI, Sirasapur, Rohini Sector 19, Rohini Sector 15,Rohini Sector 16, Rohini Sector 17, Rohini Sector 11, Rohini Sector 7</p>	Refer C&A (Corrigendum & Addendum) No.3 S.No.15
80.	Volume -6 Price BID, Schedule-1(a)	Item 47	Bill - 1(a) Page 8 of 27	<p>Trenchless Technology</p> <p>As per referred clause, product pipe shall be laid using trenchless technology by Auger boring.</p> <p>We request you to furnish preliminary soil strata for these stretches. Also, we presume that only product pipe shall be installed in these trenches, there will not be any casing pipe. Kindly confirm.</p> <p>Also, kindly provide Diameter wise split up for Product Pipe to be installed with Auger Boring Method.</p>	<p>As per Bid document.</p> <p>Refer Geotechnical Investigation Report given under section 6.</p> <p>As per Bid document.</p>
81.	Volume -6 Price BID, Schedule-1(a)	26, 27a, 27b, 28a, 28b, 29a	Bill - 1(a) Page 3 of 27,	<p>Valve Chambers</p> <p>Valve chambers is not quantified in the BoQ for the referred item of valves. Please provide the same.</p>	Component of Chambers are included in respective Civil BOQ items.

**Clarifications to Bidder's Queries**

Sl. No.	Bid Volume No. and Section No.	Clause / Sub Clause No.	Page No	Bidder's Queries	Response
			28		
82.	Volume -6 Price BID			Conditional Assessment and SIP, Topo survey, Consumer Survey Since the project involves utilization of Existing Pipeline, conditional assessment of pipelines is mandatory prior to its utilization. Hence request you to include item for conditional assessment in BOQ. Furthermore, request you to include provision for Consumer Survey and Topographical survey in BOQ.	Refer C&A (Corrigendum & Addendum) No.3 S.No.28-(42&46).
83.	Volume -6 Price BID, Schedule-1(a)	Item 44, 45	Bill - 1(a) Page 7 of 27	DI Specials Specials are categorized as "above 600" and "below 600". Kindly provide Diameter wise split up for DI Specials.	As per Bid document.
84.	Volume 1 Technical Bid, Section 6 Employers Requirement & Volume-6 Price Bid, Schedule-1(a)	Table 6.9: Technical information and details & Item 41	6-13 & Bill - 1(a) Page 7 of 27	Length and Diameter of Proposed transmission line In the referred clause of Volume 1, the length of proposed transmission line is indicated as 37.278 Km (100 to 1500 mm), whereas as per the referred items in Price Bid, total length of pipeline proposed is 21.172 Km which is less than the quantity given in Volume-1. We understand that the length, diameter, class of pipeline provided in Price Bid is correct and shall prevail. Kindly confirm.	Refer complete pipe length given under BOQ items no.34,35, 41 and 46.
85.	Volume-6 Price Bid, Schedule-1(a), Part B	Item 1 & Table 6.6	Bill - 1(a) Page 9	Capacity of UGR In the referred item in Price Bid, the capacity of UGR is mentioned as 120 MLD, whereas as per the referred Clause in Volume 1,	Refer C&A (Corrigendum & Addendum) No.3 S.No.29 – (PART B).

**Clarifications to Bidder's Queries**

Sl. No.	Bid Volume No. and Section No.	Clause / Sub Clause No.	Page No	Bidder's Queries	Response
	& Volume 1 Technical Bid, Section 6 Employers Requirement		of 27 & 6-11	<p>capacity of UGR = <math>125 \times 80 \times 5 / 1000 = 50</math> ML.</p> <p>In the referred Table 6.6, 2 Hours of retention time is indicated. We understand that 2 hours of detention should be considered for calculating UGR capacity. Kindly confirm.</p> <p>Also, as per our understanding, 120 MLD indicated in the referred Clause of Price Bid is a typographical error and capacity of UGR shall be 50 ML. Kindly confirm.</p>	
86.	Volume-6 Price Bid, Schedule-1(a), Part B & Volume 1 Technical Bid, Section 6 Employers Requirement	Item 1 & 6.1.6	Bill - 1(a) Page 9 of 27 & 6-27	<p>Number of Proposed UGR at Existing WTP Campus</p> <p>As per the referred clause in Price Bid, 1 number of UGR and Pump house is proposed to be constructed in existing WTP Campus, whereas as per referred Clause in Volume 1, 3 number of UGR and 1 number of Pump House is proposed.</p> <p>We presume that this is typographical error and only one UGR and Pump House shall be considered. Kindly confirm.</p>	Refer C&A (Corrigendum & Addendum) No.3 S.No.3.
87.	Volume 1 Technical Bid, Section 6 Employers Requirement	Table 6.13: Detail of Line – 3, Table 6.14: Detail of Line -2	6-23, 6-24, 6-25	<p>Interconnection between existing and proposed pipeline</p> <p>In the referred Tables 6.13 &amp; 6.14, several interconnections between existing and proposed pipeline are mentioned. Since, the existing lines are now functional and are supplying water to UGRs, to provide interconnection between existing and proposed can be done when the existing lines are shutdown. Kindly provide the shutdown period for interconnection between existing and proposed pipeline.</p>	Refer C&A (Corrigendum & Addendum) No.3 S.No.10

**Clarifications to Bidder's Queries**

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88.	Volume-6 Price Bid, Schedule-1(b)	Item 16	Bill 1(b)-Page 8 of 24	<p>Capacity of Surge Vessel</p> <p>In the referred Item 16 in Price Bid, the following surge vessels are indicated -</p> <ol style="list-style-type: none"> <li>1. For 1500mm dia - Line -3 (Towards Peera Garhi) - Tentative capacity of vessel – 63 cum</li> <li>2. For 1400mm dia - Line -1 Towards Burari-A) - Tentative capacity of vessel – 80 cum</li> <li>3. For 1100mm dia – Line -2 (Towards SGT Nagar) - Tentative capacity of vessel – 90 cum</li> </ol> <p>We understand that the capacities given in the BoQ is correct and if there is change in capacity of surge vessel during detailed engineering the same shall be payable as per actuals. Kindly confirm.</p>	Refer C&A (Corrigendum & Addendum) No.3 S.No 5.
89.	Volume-6 Price Bid, Schedule-1(a)	Item 26, 28a & 28b	Bill - 1(a) Page 4 of 27	<p>Mismatch between isolation valve and air valve quantities</p> <p>In the referred items in Price Bid, isolation valves of sizes 100 mm – 1 Number, 150 mm – 6 Number and 200 mm – 5 Number are indicated whereas air valves of sizes 100 mm – 3 Number, 150 mm – 4 Number and 200 mm – 5 Number are indicated, which is a clear mismatch. Kindly revise the sizes of these valves.</p>	As per Bid document.
90.	Volume-6 Price Bid, Schedule-1(a)	Item 36	Bill - 1(a) Page 6 of 27	<p>Specials for Pipeline and valves</p> <p>In the referred clause, MS Specials are indicated. We understand that these MS specials are for pipeline as well as valve fittings. Kindly confirm.</p>	Confirmed.
91.	Volume 6 BOQ	Sl.no 35 &36	-	<p>External coating of MS pipe &amp; MS specials</p> <p>As per the referred clause, the external coating of MS pipe is specified as outside epoxy. We request you to kindly specify the thickness of the coating</p>	Refer C&A (Corrigendum & Addendum) No.3 S.No.28-(47)



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Sl. No.	Bid Volume No. and Section No.	Clause / Sub Clause No.	Page No	Bidder's Queries	Response
92.	Volume 6 BOQ & Volume 2 Standard specifications (civil)	36 & 11.1.12	Pg 143	Inside coating of MS special As per the referred clause in the BOQ , the inside lining of MS special is specified as cement mortar lining. However in the clauses of standard specifications, inside lining of MS special has the option of food grade epoxy, PU coating in lieu of CML. Kindly confirm coating of MS Special	As per Bid document.
93.	Volume 2 Standard specifications (civil)	11.1.13	Pg 143	Coal tar enamel coating specifications As per the referred clause, all the MS pipe line laid underground shall have an external coating of coal tar enamel coating as per IS 10221. Please note that the coal tar enamel coating has become obsolete in the market due to the hazardous and pollution reasons. We request you to kindly consider the option of coal tar based tape coating as per IS 15337:2003.	As per Bid document.
94.	Volume 6 BOQ Standard specifications (civil)	36 & 11.1.4	- & Pg 124	MS special As per the referred clause, its specifies for manufacturing of MS special at factory. We request you kindly consider for the site fabrication for MS specials	As per Bid document.
95.	General	-	-	Alignment of pipes We understand that the total pipeline length as per BOQ for this package is 37.65 km. We request you kindly provide us the breakup of pipeline to be laid underground and pipe to be laid above ground	Refer C&A (Corrigendum & Addendum) No.3 S.No.7-(XV)
96.	Volume 1 Technical Bid, Section 6 Employers	Table 6.10: Technical details of proposed Mechanical	6-15	Hours of operation In the referred table 6.10, the flow of pumps is calculated as per 22 hours of operation. We understand that the hours of operation of pumping machinery should be 22 hours. Kindly confirm.	Refer C&A (Corrigendum & Addendum) No.3 S.No.13&14



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Sl. No.	Bid Volume No. and Section No.	Clause / Sub Clause No.	Page No	Bidder's Queries	Response
	Requirement	pumps			
97.	Volume 1 Technical Bid	Table 3: UGR wise Population Projection and Water Demand	5	Water demand for the command area of proposed scheme In the referred table 3, it is indicated as “40% from Haiderpur” and 4.86 MGD is being subtracted from demand of corresponding UGR. We understand that 4.86 MGD of water is being fed to the proposed system. Kindly confirm our understanding.	Refer C&A (Corrigendum & Addendum) No.3 S.No.15.
98.	Volume 1 Technical Bid Section 6 Employers Requirement	6.1.5.1 New CWR/UGR and single PS for WTP	6-8	Invert Levels of existing filter houses water channel of existing WTPs “For commissioning of new UGR, existing filter houses water channel of existing WTPs are to be connected to new UGRs. The new UGR is to be connected with outlet of Existing Filters considering hydraulics so that clear water from Filter can flow by gravity to new UGR.” The referred Clause states that existing filter houses water channel shall be connected to proposed UGR. Kindly provide us with the levels of existing filter house water channels to fix top water level of Single proposed UGR.	To visit & inspect the site.
99.	Volume 3 Particular specifications	9	Page 3	EOT Cranes As per the referred table, the type of girder for EOT crane is not specified. As the capacity of EOT crane is 5 MT. we presume it shall be single girder. Kindly clarify.	As per Bid document.
100.	Volume 2 Standard specifications (mech)	2.2	Pg 11	Seating type for sluice valve As per referred clause, we understand that Valves less than 250mm diameter shall be resilient type and 300mm and above shall be metal – seated. As per the standard practice, resilient type sluice valve is predominately used in such applications irrespective of	As per Bid document.

**Clarifications to Bidder's Queries**

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				diameters across all water supply projects because of its ease of operation. Hence, we request you to kindly consider resilient type sluice valve for all diameters.	
101.	Volume 3 Particular specifications (water supply works)	4	Pg 7	Electrical actuators for valves As per the referred clause, electrical actuators for butterfly valves shall be modulating type. However type of actuators for electrically operated sluice valves is not specified. As we understand that the purpose of the sluice valve is for isolation purpose, non-modulating type of actuators to be considered. Kindly confirm.	Confirmed.
102.	Volume 1 Section 6- Employer's requirement	6.1.5.9	6-26	Type of Surge vessels As per the referred clause, it doesn't mention about the type of air vessel for this package, Kindly provide the specifications of air vessel	Refer C&A (Corrigendum & Addendum) No.3 S.No.5 .
103.	Vol – 2 / 6.2.1.3 Standard Specifications: (Electrical Works) & Vol-4 Drawings	2. General Information & Dwg No: DJB/PMC/DWSII P/04/BID/TM/ELE /18	278 of 408 & 26 to 28	Electrical Scope of Works for the proposed scheme As per the referred clause <i>"Incoming power supply is available at 11kV, 3 phase, 50Hz, solidly earthed system from Power Company (NDPL/BSES)."</i> From the above Clause, SLD & Price Schedule, we understand that Bidders Electrical Scope of works starts from receiving 11kV, 3Ph, 3Wire, 50 Hz Power supply from M/s NDPL/BSES up to 11kV HT Switchgear inside the UGR Cum PH Premises and further distribution up to tail end. Kindly confirm.	Refer C&A (Corrigendum & Addendum) No.3 S.No.25-(1)
104.	Vol – 2 / 6.2.1.3 Standard Specifications: (Electrical	4.2 Transformer	284 of 408	Efficiency Class for LT Distribution Transformers As per the referred clause <i>"Transformers should also comply to "Bureau of Energy Efficiency Notification No. 2/11(5)/03-BEE-3 issued by Ministry of Power " and the IS: 1180 Level 2."</i>	

**Clarifications to Bidder's Queries**

Sl. No.	Bid Volume No. and Section No.	Clause / Sub Clause No.	Page No	Bidder's Queries	Response
	Works)			With respect to above clause, Level 2 Efficiency class has specified for Distribution Transformer. As per the Gazette of India Notification on Amendments in IS 1180-2014 (Implemented from January-2017), Level-2 Efficiency class has been changed as Star-1 rated and start-1 shall be followed. Kindly Confirm.	Refer C&A (Corrigendum & Addendum) No.3 S.No.21
105.	Vol – 2 / 6.2.1.3 Standard Specifications: (Electrical Works) & Vol-3 / Section 6.2.2.4 Particular Specifications (Electrical Works)	Electrical Scope Of Work & Section 6.2.2.4 Particular Specifications (Electrical Works)	277 of 408 & 79 to 144	Motor voltage As per the referred Clause in Vol-2 <i>“11/0.433kV Transformer with LT System has been specified”</i> whereas per the referred Clause in Vol-3 and Vol-6 Price Bid <i>“11/3.6kV HT Transformer with 3.3kV HT System has been specified”</i>  From the above Clause, SLD & Price Schedule, we understand that all the main Clear water Pumps proposed under this scheme shall be operated with 3.3kV HT Motors and not 415V LT Motors. Kindly Confirm	Confirmed
106.	Vol – 1	Section 4 - Bidding Forms & Section 3 - Evaluation and Qualification Criteria	4-30 & 3-3	Guaranteed Electrical Power Consumption As per the referred table, <i>“FORM TECH-1 Guaranteed Electrical Power Consumption – In Column No 4 : Cost of Power consumed in INR @ <b>INR 7.3 per kWh</b>”</i> whereas per the referred Clause <i>“This guaranteed power consumption shall be multiplied by the current rate of electricity charges of <b>Rs. 7.20 per kWh</b>.</i> Kindly clarify.	Refer C&A (Corrigendum & Addendum) No.3 S.No.26

**Clarifications to Bidder's Queries**

Sl. No.	Bid Volume No. and Section No.	Clause / Sub Clause No.	Page No	Bidder's Queries	Response
107.	Vol-1	6.1.5.5 Proposed Electrical Works under Clear Water Pumping Station:	6-15	<p>Electrical system Design Year</p> <p>As per the referred clause <i>"The proposed water Transmission System targets to meet water demand up to year 2051, whereas the Electro-Mechanical components are designed to meet the demand up to the intermediate year 2036."</i></p> <p>From the referred clause we understand that, All the Electrical Equipment (Electrical Buildings, Transformer, Switchgears, Starters, Cables etc.) shall be designed for Intermediate load (Year 2036) requirement.</p> <p>Kindly Confirm.</p>	Confirmed
108.	Vol - 1 & Vol - 4 & Vol - 6	Table 6.11: Details of Proposed Electrical Components & Item No:3.0 HT & LT Transformers	4-30 & 56 of 69	<p>Transformer rating</p> <p>As per the referred clause in Vol-1 and As per SLD (DJB/PMC/DWSIIP/04/BID/TM/ELE/18) <i>"6300kVA, 11/3.3kV ONAN Transformer has been specified"</i> Whereas as referred from Item rate BOQ <i>"5000kVA, 11/3.3kV ONAN Transformer has been specified"</i>.</p> <p>Kindly clarify.</p>	Refer C&A (Corrigendum & Addendum) No.3 S.No.25-(1).
109.	Vol-1 & Vol-3	Table 6.10: Technical details of proposed Mechanical pumps &	6-15 & 87 of 144	<p>Transformer Rating</p> <p>As per the referred clauses <i>"The proposed Transformer shall be suitable to catering loads under CWPS-I,II &amp; III and each of 4Working + 2 Standby Configuration."</i></p> <p>As per the referred clauses <i>"The proposed Transformer shall be suitable to catering loads under Rohini UGR Main (Line-4),</i></p>	Confirmed

**Clarifications to Bidder's Queries**

Sl. No.	Bid Volume No. and Section No.	Clause / Sub Clause No.	Page No	Bidder's Queries	Response
		4. Mv Induction Motors		<p><i>Peeragarhi UGR main (Line-3) and Burari A and Sanjay Gandhi Transport Nagar UGR Main (Line - 1 &amp; 2) and each of 4Working + 2 Standby Configuration."</i></p> <p>From the above clauses, the proposed Transformer shall be suitable to design for the Proposed CWPS-I, II &amp; III Loads. Kindly confirm.</p>	
110.	Volume-3	Control room design	132/14 4 Page 36	<p>Provision for Construction of Control room in Price bid</p> <p>As per the referred clause, control room to be provided under this package.</p> <p>Whereas, construction of control room is not available in Volume-6 (Price bid).</p> <p>Kindly provide the dimensions of the control room and amend the BOQ accordingly.</p>	As per Bid document.
111.	Volume-3	(a) Design and Construction Requirements	108/14 4 Page 11	<p>Approved Vendor list</p> <p>As per the referred clause, contractor shall refer the approved vendor list for PLC system and hardware.</p> <p>Whereas, the approved vendor list is not available in the tender document.</p> <p>Kindly provide the approved vendor list for our necessary consideration.</p>	Refer C&A (Corrigendum & Addendum) No.3 S.No.27&7-(XII).
112.	Volume-3	A. Control center Overview	133/14 4 Page 36	<p>Detailed technical specification of CCTV System</p> <p>As per the referred clause, CCTV system to be provided. Whereas, there is no provision for the same in BOQ.</p> <p>Also, provide the requirement for all pump house and detailed technical specification of CCTV system.</p>	Refer C&A (Corrigendum & Addendum) No.3 S.No.22

**Clarifications to Bidder's Queries**

Sl. No.	Bid Volume No. and Section No.	Clause / Sub Clause No.	Page No	Bidder's Queries	Response
113.	Volume-3	A. Control center Overview	133/14 4 Page 36	Detailed technical specification of Fire alarm system As per the referred clause, Fire alarm system to be provided. Whereas, there is no provision for the same in BOQ. Also, provide the requirement for all pump house and detailed technical specification of Fire alarm system.	Refer C&A (Corrigendum & Addendum) No.3 S.No.22.
114.	Volume-1	Automation for Recycle Pump House	6-18	Scope of Automation for Recycle pump house As per the referred clause, new PLC/SCADA system has been proposed for this pump house. We understand that, field instruments and cables are already available and scope of contractor is to provide only PLC/SCADA system. Kindly clarify and amend the BOQ and System architecture accordingly. Also, provide the existing instrument list, IO details and P&ID for our necessary consideration of PLC/SCADA system.	As per Bid document.
115.	Volume 1 Section 6	6.1.7 & Table 1, S. No. 18	6-28 & 7	Rechlorination system for distribution As per referred clause 6.1.7 states that, " <i>Design, installation, commission Vacuum chlorinators of liquid chlorine at UGR in WTP with 3nos of specified capacity is mentioned</i> ".  Whereas in the pg. no 202 Table 1 states that, " <i>Design, installation, commission Vacuum chlorinators of liquid chlorine at UGR in WTP with 3nos of specified capacity is mentioned</i> ".  We presume that there is no rechlorination scope in this tender for the distribution scheme. Kindly confirm.	Confirmed.
116.	Volume 1 Section 8	Schedule 3: Contractor's Payment	8-37	Payment for Operation Services Period Referred clause states that, " <i>In the event of water supplied is less than the guaranteed minimum volume for the month during the</i>	As per Bid document.

**Clarifications to Bidder's Queries**

Sl. No.	Bid Volume No. and Section No.	Clause / Sub Clause No.	Page No	Bidder's Queries	Response
		Point 3		<p><i>Operation Services Period the payment will be made as below:</i></p> <p><i>Only fixed payment equivalent to 80% of guaranteed minimum volume for the shortfall below 80% of guaranteed minimum volume will be paid to the contractor and no other claim in this regard will be applicable"</i></p> <p>As per the referred clause, the O&amp;M payment is divided into two components i.e. 75% fixed &amp; 25% variable, and fixed O&amp;M payment is linked only with manpower deployed. Hence, we presume that the contractor will be penalized on variable fee only. Kindly confirm.</p>	
117.	Volume 1 Section 6	6.1.9 & 6.1.20	6-30 & 6-39	<p>O&amp;M period</p> <p>The earlier clause states that O&amp;M period starts after transition period (90 days after mobilization period).</p> <p>Whereas latter clause states that <b>O&amp;M period starts from final taking over date to contract completion date i.e. 10 years.</b></p> <p>Kindly clarify the exact period for O&amp;M.</p>	Refer PCC clause 1.1.78.
118.	Volume 1 Section 6	Table 6.24	6-57	<p>Personnel requirement</p> <p>We understand that mentioned manpower will be supplied after final taking over date i.e. from (42-162 months) to contract completion period and the penalty for the same is applicable for same period as mentioned above. Kindly confirm.</p>	As per Bid document.
119.	General	-	-	<p>Additional set of queries</p> <p>We request you to kindly accept additional set of queries, which will be send after Site Visit.</p>	As per Bid document.



**Clarifications to Bidder's Queries**

Sl. No.	Bid Volume No. and Section No.	Clause / Sub Clause No.	Page No	Bidder's Queries	Response
120.	Vol-IV	Drawings		Soft copy of drawings provided are not legible and are on smaller page size. Please provide full page complete drawings.	Bidders are advised to purchase the printed original copy of the tender document and refer same for complete set of drawings in more legible text.
121.	Price Bid	Item no. 1		KV rating of Drive motor of HSC pumps Allow use of LT motors up to 250 KW rating as per CPHEEO water supply manual.	As Per Bid document.
122.	Price Bid	Item no. 2 & 3		Suction / delivery pipeline work for pump house Due to limited space and for better adjustment and fitting of pipes and specials within pump house pipeline work, allow use of MS pipe and fitting instead of DI.	As per Bid document.
123.	Price Bid	Item no.9		Non return valve Allow use of D/F DI Dual plate check valve conforming to API 594 or equivalent international standard as applicable.	As Per Bid document.
124.	Vol-II, Standard Specification	Clause 5.2.1.6)		EOT crane Type of crane: For 5 Tonnes capacity EOT Single Girder crane is adequate and requires less Head room. Accordingly, allow use of Single Girder EOT.	As Per Bid document.
125.	Price bid	Item no.11		EOT crane In Description "Manually operated chain pulley block" is mentioned. Please clarify if these are Hand operated Cranes.	Refer C&A (Corrigendum & Addendum) No.3 S.No.29-(11)
126.	Price bid	Item no.11		EOT crane Please provide Span and Lift of EOT crane to quote reasonably.	Refer relevant GA drawings attached in drawing volumes.
127.	Price bid	Item no.15		Sluice Gates Please provide CL-PL distance and class of Gates as same are missing from BOQ and specifications.	Refer GA drawing.



**Clarifications to Bidder's Queries**

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128.	Volume_01	Cl. 2.3. 2	Pg 45 of 697	Proposed Instrumentation & Automation for the Water Pumping Station Kindly arrange to furnish the distance between Pump House and WTP as Information received from field digital as well as analogue regarding status of operation of pumps, flow, level , operation of valves, pressure ,residual chlorine analyser shall be displayed on HMI via Ethernet switch and data shall be interfaced to WTP PLC through Fibre optics cable.	Details will be shared with successful bidder.
129.	Vol.04, Technical Bid drawings			PLC System Architecture The HMI & PLC System shall be supplied as per enclosed System Architecture, while SCADA System along with OPC server is mentioned in standard / Particular Technical specifications (Vol.02 & 03), kindly clarify.	As per Bid Document
130.	Vol.6, Price Bid	Cl. Part D (1.00)		SCADA for Complete Package The PLC System with HMI is to be considered for proposed CWR & Pump House only or for 3nos of Clear water Pump House as mentioned in the referred clause, kindly clarify.	As per Bid Document
131.	General	-	-	11 KV Supply Overhead Line / cable We understand that 11 KV supply Line tapped from nearest substation to proposed Pump House is in the scope of Client, The 11 KV cable from outgoing of Metering module onward shall be in bidder's scope, kindly confirm.	As per Bid document.
132.	Volume_01	Cl. 20.2	Pg 22 of 697	Format and Signing of Bid Referred Clause states that <i>"The original and all copies of the Bid shall be typed or written in indelible ink and shall be signed by a person duly authorized to sign on behalf of the Bidder"</i> We understand that the said clause implies that Original bid has to prepared, signed, numbered on each page followed by creating no. of copies for submission. Kindly confirm our understanding is correct.	Confirmed.

**Clarifications to Bidder's Queries**

Sl. No.	Bid Volume No. and Section No.	Clause / Sub Clause No.	Page No	Bidder's Queries	Response
133.	Volume_01	Cl. 2.3.1	Pg 45 of 697	<p>Historical Financial Performance  Referred Clause asks for submission of audited financial statements for the last 5 (FY2012/13- FY2017/18) years. As the tender is due for submission in February 2020 (i.e. FY 2018/19), <u>last five financial years for bid purpose would be FY2013/14- FY2018/19.</u></p> <p>Please Confirm.</p>	Refer C&A (Corrigendum & Addendum) No.3 S.No.1.
134.	Volume_01	Cl. 2.3.2	Pg 45 of 697	<p>Annual Construction turnover  In case of bid submitted by Joint Venture One partner has to meet 40% of the requirement, However balance 60% can be met by other Joint Venture partners.  We would like to bring in your notice that such a scenario allows even a financially weak Joint Venture member to be Lead Partner in the JV Further it may also leads to bid submission by any non-relevant/ Non water industry bidder to participate in JV as a Lead member having maximum majority of the stake in Joint Venture.  Success of projects of such size and nature requires experience bidders thus we request to amend the criteria of 40% be met by Lead Partner &amp; that with Water related business.</p> <p>Kindly Accept our request.</p>	As per Bid Document
135.	Volume_01	Cl. 2.4.1. 2	Pg 48 of 697	<p>Similar Work of INR 1350 Million  We are sure you shall agree that none of the construction items costs the same as it used to be 10 years back. It is a well-known fact that cost of every item has increased many folds and the value of a project that had awarded /completed 9 years back shall not remained the same if it has to execute today. All the major state Employers (PHED – Rajasthan, MP Jal Nigam Maryadit, JUIDCo Jharkhand etc.) acknowledge this fact and</p>	As per Bid Document

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				<p>thus allow for the escalation of project value completed earlier to bring them to its present value by applying additional weightage.</p> <p>In line with Standard Bidding Document of tenders floated by various state govt., we request you to consider providing “cost of executed projects/ schemes/ works (capital and O&amp;M) shall be given additional weightage @ 10% per year to bring the same to current price level to account for price escalation.”</p>	
136.	Volume_01	Cl. 4 2	Pg 643 of 697	<p>Performance Security Amount Design – Build Performance Security – 10 % of the Design-Build Contract Price Operations Services Performance Security – 10% of the Operation Services Contract Price</p> <p>We would like to bring to your kind notice that, Amount of Performance Security asked is very high and this is one of the key reason that most of the EPC companies are not able to participate and leading to lesser competition and affecting the credit limit of bidder.</p> <p>Further, with banking regulations getting stiffer every day pledging a Bank Guarantee is as good as pledging cash equivalent to clients. We as one of the EPC construction company would like to bring in your kind attention that almost 30 - 40% of the Contractors payment are withheld with Client till the contract completion in lieu of Performance Security/ Retention Money/ Trial Run &amp; Commissioning Payment etc. Such withhold of payments leads to Negative cash flows for entire project period, which translates into additional interest cost and increasing the cost of contract for bidder/contractor. Further such cost are never part of Dept estimates.</p> <p>Majority of Government, bodies / tender inviting authorities ask for lower Performance Security/ Retention money to</p>	Refer C&A (Corrigendum & Addendum) No.3 S.No.19.

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				<p>reduce bidders financial burden and allow contractors to maximize the available advantage of their financial resources. One of the recent tenders invited :-</p> <ul style="list-style-type: none"> <li>• <i>Augmentation &amp; Strengthening of Ranchi Urban Water Supply Scheme Phase-II Package B under Ranchi Municipal Corporation</i> invited by <b>JUIDCO</b> having <b>Performance security of 2%.</b></li> <li>• <i>Renovation work of selected projects under JMADA Dhanbad Water supply scheme</i> invited by <b>JMADA</b> having <b>Performance security of 2%.</b></li> </ul> <p>Considering above points we request you to kindly relook into the value of Performance security and accept our request to reduce it to 2%.</p> <p><b>Design – Build Performance Security – 2 % of the Design-Build Contract Price</b></p> <p>The Performance Security for the O&amp;M Period should be 10% of the total yearly O&amp;M value in the respective year of the O &amp; M period</p>	
137.	Volume_01	Cl. 4 2	Pg 644 of 697	<p>Return of Performance Security Per Referred Clause</p> <ul style="list-style-type: none"> <li>• <i>“Design-Build Performance Security: 75% to be released at the end of the Retention Period (365 days after issuance of the Commissioning Certificate)</i></li> <li>• <i>25% to be released after issue of Contract Completion Certificate”</i></li> </ul> <p>EPC contracts are practically completed after issuance of Commissioning certificate as the same is issued after trial run period, which in most cases extends from 1 to 3 months on project-to-project basis. What follows is related to Operation &amp; Maintenance efficiency of the contractor for which they submits a</p>	As per Bid Document.

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				<p>separate O&amp;M performance security. Holding 25% of the Performance security until the contract completion, which extends for another 10 more years would affect Contractor Credit Limits and Increase the cost of Project.</p> <p>We request to kindly release the 50% of the Design-Build Performance Security: within 1 months of issuance of the Commissioning Certificate &amp; balance 50% of the Design Build Performance Security at the end of the Retention Period (365 days after issuance of the Commissioning Certificate).</p> <p>Same is being followed in most of the tender invited by Other Municipalities and other International Funded Project.</p> <p>For Example: In a project invited by CMWSSB (Chennai Metro Water Board) for Conveyance Of 150 Mld Of Product Water Through Pipeline From The Desalination Plant At Nemmeli On East Coast Road, South Of Chennai And Upto Pallavaram And All Allied Works Including O&amp;M For 20 Years <b>funded by KFW</b>, following is the clause:</p> <p>"50% of the performance security of the Design Build (Construction) portion of works will be released along with the final bill after issue of certificate of completion. Balance 50% will be released after the expiry of the Defect Liability Period."</p>	
138.	Volume_01	Cl. 14.3 (c )	Pg 645 of 697	<p>Percentage of Retention 10% of the Interim Payment Certificates</p> <p>In light of the facts mentioned in pt. 5, we request to reduce the percentage deduction from Interim Payment Certificate to 5%. You may please appreciate that such relaxation will enable the contractor's access to more liquid funds, which translates into better cash flow and faster/smooth execution of project. Kindly Accept.</p>	As per Bid Document

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139.	Volume_01	Cl. 4 2	Pg 677 of 697	<p>Payment terms                      Payment for Design Build Contract Period                      We would like to highlight the current payment terms are very stringent and make project non-viable and non-feasible for the bidder as it leads to huge negative cash flows.                      Majority of payment against material, i.e., 20% is released after commissioning and 3 months testing period.                      We request for relaxation in Material payment terms to smoothen the cash flow of contractor during contract execution :</p> <ul style="list-style-type: none"> <li>• Against Supply: 70%</li> <li>• Laying Jointing: 20 %</li> <li>• Testing: 5%</li> <li>• Commissioning: 5%</li> </ul> <p>Same is being followed in Other Similar Tender Other Municipalities and other International Funded Project.                      For Example: In a project invited by CMWSSB (Chennai Metro Water Board) for Conveyance Of 150 Mld Of Product Water Through Pipeline From The Desalination Plant At Nemmeli On East Coast Road, South Of Chennai And Upto Pallavaram And All Allied Works Including O&amp;M For 20 Years <b>funded by KFW, same payment terms have been used.</b></p>	As per Bid Document
140.	<b>Volume 6, Price Bid</b>	<b>Clause no-28</b>		<p><b>For the period between Final Taking Over Date to Contract Completion:</b> Based upon the MLD of water supplied to the service area measured at the starting point of transmission lines. Once all the transmission lines are commissioned, Design Build Period will be over and Final O&amp;M period will start. The payment will be made as per the MLD of water supply to all Transmission lines from the Clear Water Pumping Stations with the guaranteed minimum payment towards the guaranteed estimated year wise water supply quantity as per Section 6: Employers Requirements. The payment</p>	

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				<p>for operation services will be as per the provisions of Schedule 3 – Contractors Payment and achievement of Performance Target stipulated as per Schedule 5 of Conditions of Contract, Section 8, Vol 1.</p> <p>As per Schedule 5, Operation Services will attract penalty which is not justified in any case, As during construction Phase, We will not be able to maintain these physical losses as this is the existing transmission main and contractor cannot achieve it, We request you to kindly revoke it and make provision of fixed payment applicable to contractor during this Period</p> <p><b>1. For the Period between Final taking over Date to Contract Completion</b></p> <p>Maximum physical losses 2% of the Volume of water</p> <p>To be achieved for complete stretch of transmission main starting from WTP to the end of outfalls at 11 no. UGR's and maintained throughout the contract period till the end of the Contract.</p> <p>More than 6% compliance will attract penalty.</p>	As per Bid Document
141.	General	-	-	<p>No BOQ item provided to quote rates for Operation and maintenance period during Construction Phase</p> <p>We could not find any item in the BOQ provided where we can quote our rates for Operation and services period during Construction Phase. Kindly clarify the same</p>	As per Bid Document
142.	Volume _01_ Technical Bid 3.2.2	Section 8	Pg 8-38	<p><b>Physical losses in transmission Payment payable to the Operator (As percentage of total agreed O&amp;M payment for the billing period)</b></p> <p>2 % of clear water input into the transmission main 25%</p> <p>From more than 2% to 4% 15%</p> <p>From more than 4% to 6% 5%</p> <p>From more than 6%, penalty will be deducted from the other due payments</p>	As per Bid Document



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				<p>From more than 6% to 8% -5.0%</p> <p>From more than 8% to 10% -10.0%</p> <p>From more than 10% to 12% -15.0%</p> <p>From more than 12% -25.0%</p> <p>We request you to remove the negative penalty for achieving this KPI, As same is practiced in water supply projects.</p>	
143.	General	-	-	<p>Health Condition and Technical Specifications of the Electro-mechanical items which Operator has to operate during construction phase.</p> <p>For the Period between Final taking over Date to Contract Completion, we understand the Contractor has to operate and maintain existing Assets including pumping stations, booster pumping stations, <b><u>We request you to kindly share the technical details and with their health condition as on date.</u></b></p>	As per Bid Document
144.	Volume 1	Section 6– Employer's Requirements	Pg 6-52	<p><b>Operating Performance Report</b></p> <ul style="list-style-type: none"> <li>The Contractor shall also submit an Operating Performance Report (OPR); the OPR shall include: a detailed progress report on the implementation of the SIP; monthly water account with details of bulk water supplied by the Employer and received at UGR, distribution and billed; Performance Standards achieved or maintained during the month; staff details engaged at various centres; exceptional reports on emergencies; financial information on project cash flows, consumer grievance redressal etc</li> </ul> <p>We understand that, Metering, billing, and Complaint management of consumers is not in our scope, However we these details to submit our Operation Performance Report. These details will be provided to us by Employer. Kindly Confirm</p>	Refer C&A (Corrigendum & Addendum) No.3 S.No.12.



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Sl. No.	Bid Volume No. and Section No.	Clause / Sub Clause No.	Page No	Bidder's Queries	Response
145.	General	-	-	To ensure the supply of potable water Since WTP is not in our scope, Contractor will not be responsible for water quality. Kindly Clarify.	Refer C&A (Corrigendum & Addendum) No.3 S.No.12.
146.	Volume 1 Section 6– Employer's Requirements	Clause 6.1.9	Pg 6-30	The Contractor shall operate and maintain the water supply to the consumers, undertake periodic and breakdown maintenance of E&M equipment, civil structures, office premises, distribution network, valves, bulk flow and consumer meters, service connection, electronic Instrumentation associated with SCADA, required consumables including daily cleaning and guarding of all installations, management of consumer complaint centres, etc. We understand that our scope is to deliver water to 11 UGR's as such our scope is excluded for consumer meters, service connections, management of consumer complaint centres. Kindly provide clarification for the same.	Refer C&A (Corrigendum & Addendum) No.3 S.No.4
147.	Volume 1, Technical Bid	Section 6– Employer's Requirements	Pg no 6-39	Replacement of equipment, assets or infrastructure which is not part of the Contractor's work or agreed in the SIP for replacement shall be paid separately. All these need to be part of the Asset Replacement Schedule which is indicated in previous portion of this section. The Contractor will include costs for repairs of bulk flow meters, valves, panels, motor pumps and all other equipment and its spares including battery, and other equipment in his quoted price. We understand that during construction phase all the EMI equipment which contractor has to operate and are existing Assets of Employer. Cost of replacement/ repair and their spares will be borne by Employer. Kindly confirm.	As per Bid Document

**Clarifications to Bidder's Queries**

Sl. No.	Bid Volume No. and Section No.	Clause / Sub Clause No.	Page No	Bidder's Queries	Response
148.	General	-	-	Billing frequency for operation and maintenance services Kindly confirm the frequency of payment for operational services; Also confirm if the same is on Monthly basis.	As per Bid Document.
149.	-	14.7 (b) of PCC	-	Minimum Amount of Interim Payment Certificates We request DJB to relax Minimum Amount of Interim Payment Certificates from 1% to bill for month wise actual work done so as to enable the contractor to maintain positive cash flow.	As per Bid document.
150.	-	4 of PCC	-	Adjustment for changes in costs – Price Variation Percentage components for Labour, Cement, Steel, HDPE/PVC, Machineries and other Materials is not defined. Kindly provide the percentage component for calculation of price variation.	As per Bid document.
151.	-	-	-	Permission We presume that in principle permission from different authority are in place and there may not be any delay impact on the schedule of work.  Kindly confirm.	Refer C&A (Corrigendum & Addendum) No.3 S.No.18
152.		General Eligibility Criteria		The eligibility for work experience is not as per the DJB approved General Contract Conditions being followed for all the tenders. In the tender, you have asked for only single work experience for Rs. 135 Cr. For this project haven approx. value of Rs. 225 Cr. It is requested that Delhi Jal Board should ask for  One completed work of 60% value with enhancement of 7% to arrive at current price level OR Two completed work of 40% value with enhancement of 7% to arrive at current price level  OR	. As per Bid Document

**Clarifications to Bidder's Queries**

Sl. No.	Bid Volume No. and Section No.	Clause / Sub Clause No.	Page No	Bidder's Queries	Response
				Three completed work of 30% value with enhancement of 7% to arrive at current price level. Which is being the standard practice followed by Delhi Jal Board. The above eligibility criteria is requested as per the General Contract Conditions of Delhi Jal Board to have healthy competition in bidding.	
153.		Guaranteed Power Consumption		Under this head, the quantum of water supplied throughout the year as given in the table seems to be unrealistic because the total pumping by running 8 Nos. working pumping set for 22 hrs / day throughout the years comes to 1,50,745 ML. It is therefore requested to review the same so that the realistic figure of guaranteed Power Consumption can be calculated before bidding.	Refer C&A (Corrigendum & Addendum) No.3 S.No.26.
154.				The schedule of approved makes of electrical & mechanical components is not given in the tender documents which may please be given so that the manufacturer could be requested to give the rates for the items being manufactured by them at the earliest before bidding.	Refer C&A (Corrigendum & Addendum) No.3 S.No.27.

**Delhi Water Supply Improvement Investment Program-Tranche-1 (ADB-47176-IND),  
Delhi Jal Board**

**NIT No. 01 (2019-20)**

**Transmission System Improvement and Construction of Clear Water Reservoirs &  
Pumping Stations for Wazirabad WTP Command area including SCADA &  
Instrumentation**

**Corrigendum & Addendum No. 03**

S. No.	Clause reference	Corrigendum & Addendum					
1.	Volume-1 Section 3 Table 2.3.1 “Historical Financial Performance” At page 3-6	Replace 1 <sup>st</sup> column under “Table 2.3.1 Historical Financial Performance” with following: <table><tr><th>As per Bid Document</th><th>Replaced as</th></tr><tr><td>Submission of audited financial statements or, if not required by the law of the Bidder’s country, other financial statements acceptable to the Employer, for the last 5 (FY2012/13-FY2017/18) years to demonstrate the current soundness of the Bidder’s financial position. As a minimum, the Bidder’s net worth for the last year calculated as the difference between total assets and total liabilities should be positive.</td><td>Submission of audited financial statements or, if not required by the law of the Bidder’s country, other financial statements acceptable to the Employer, for the last 5 <b>(FY2014/15-FY2018/19)</b> years to demonstrate the current soundness of the Bidder’s financial position. As a minimum, the Bidder’s net worth for the last year calculated as the difference between total assets and total liabilities should be positive.</td></tr></table>		As per Bid Document	Replaced as	Submission of audited financial statements or, if not required by the law of the Bidder’s country, other financial statements acceptable to the Employer, for the last 5 (FY2012/13-FY2017/18) years to demonstrate the current soundness of the Bidder’s financial position. As a minimum, the Bidder’s net worth for the last year calculated as the difference between total assets and total liabilities should be positive.	Submission of audited financial statements or, if not required by the law of the Bidder’s country, other financial statements acceptable to the Employer, for the last 5 <b>(FY2014/15-FY2018/19)</b> years to demonstrate the current soundness of the Bidder’s financial position. As a minimum, the Bidder’s net worth for the last year calculated as the difference between total assets and total liabilities should be positive.
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2.	Volume-1 Section -3, EQC Clause No. 2.4.2 Page 3 - 11	Replace last row, 1st column under Table with following: <table><tr><th>As per Bid Document</th><th>Replaced as</th></tr><tr><td>(iv) Participation in at least one contract that have been successfully completed within the last 10 years prior to the bid submission date, where in scope of works under the contract includes Design, Construction and Commissioning of Underground Reservoir for minimum capacity of 10 million liters”.</td><td>(iv) Participation in at least one contract that have been successfully completed within the last 10 years prior to the bid submission date, where in scope of works under the contract includes Design, Construction and Commissioning of Underground Reservoir <b>or Over Head Tank</b> for minimum capacity of 10 million liters”.</td></tr></table>		As per Bid Document	Replaced as	(iv) Participation in at least one contract that have been successfully completed within the last 10 years prior to the bid submission date, where in scope of works under the contract includes Design, Construction and Commissioning of Underground Reservoir for minimum capacity of 10 million liters”.	(iv) Participation in at least one contract that have been successfully completed within the last 10 years prior to the bid submission date, where in scope of works under the contract includes Design, Construction and Commissioning of Underground Reservoir <b>or Over Head Tank</b> for minimum capacity of 10 million liters”.
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3.	Volume-1 Section 5 Para 6.1.6 at page 6-27	Replace first line of first para as below: <table><tr><th>As per Bid Document</th><th>Replaced as</th></tr><tr><td>Three new UGR/CWR along with single Pump house and ancillary buildings are proposed under this package.</td><td><b>One</b> new UGR/CWR along with single Pump house and ancillary buildings are proposed under this package.</td></tr></table>		As per Bid Document	Replaced as	Three new UGR/CWR along with single Pump house and ancillary buildings are proposed under this package.	<b>One</b> new UGR/CWR along with single Pump house and ancillary buildings are proposed under this package.
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4.	Volume-1 Section 6 Clause 6.1.9 Pg 6-30	2 <sup>nd</sup> & 3 <sup>rd</sup> Para at page 6-30 as “Immediately after the Commencement..... Complaint centers, etc” stands deleted.					
5.	volume-1 Section 6 Clause 6.1.5.9	Add following sentence below table 6.17  Surge vessels shall be pressure type and MoC shall be Mild steel. The capacity of surge vessel indicated in the bid document is the minimum requirement. Bidders to provide capacity of Vessel as per latest Design Criterion from approved recognized institute like IIT. Nothing extra will be paid over quoted rates.					
6.	Volume-1 Section 6 Clause 6.1.7	Table 6.18 under clause 6.1.7 modified as below: Row at s.no. 18 of Table 6.18 at page 6-28 stands deleted.					
7.	Volume-1 Section 6 Part-I Construction works at Page 6-30	Add Following Para under “Part-I Construction works” at Page 6-36,  XI Contractor to submit cross section of pipe line trench according to codal provision as a part of SIP, including cover depth of Trenchless portion. The excavation quantities to be executed and shall be paid as per trench section under approved SIP.  XII proposed Make of E&M Equipment  XIII Hydraulic Model study including Pump head & discharges  XIV Surge Analysis and Capacity of surge vessel  XV Alignment of Pipe Line Route					
8.	Volume-1 Section 6 Clause 6.1.8.3 Provisions of Road Restoration, Page 6-36	Replace Following Text under clause “6.1.8.3 Provisions of Road Restoration” <table><tr><th>As per Bid Document</th><th>Replaced as</th></tr><tr><td>Permanent road restoration shall be carried out by the MCD.</td><td>Permanent road restoration of CC roads is covered in contractor’s scope. Corresponding Quantities for same has been included in BOQ Items. Permanent road restoration of all other roads shall be carried out by the MCD.</td></tr></table>		As per Bid Document	Replaced as	Permanent road restoration shall be carried out by the MCD.	Permanent road restoration of CC roads is covered in contractor’s scope. Corresponding Quantities for same has been included in BOQ Items. Permanent road restoration of all other roads shall be carried out by the MCD.
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9.	Volume-1 Section-6 Para 6.5	Substitute Table 6.23 with following Table.					

**Table 6.23: Personnel Requirements during Design Build Period**

<u>Sr. No.</u>	<u>Position</u>	<u>Requirement</u>	<u>Total Work Experience</u> [years]	<u>Experience In Similar Work</u> [years]
1)	Project Manager (1 No.)	In field office, from Commencement date on regular basis	15	10
2)	Water Supply Engineer(1 No)	In design or field office	12	6
3)	Hydraulic Modelling Engineer (1No)	In design or field office	12	6
4)	Sr. Construction Engineer (2 Nos.)	In field office during construction activities	12	6
5)	Construction Engineer (2 Nos)	In field office during	8	4

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			construction activities						
	6)	Quality Control Engineer (1 No.)	In field office	10	5				
	7)	Material cum store in charge (1 No.)	In field office	10	5				
	8)	Environmental Health and Safety (EHS) Supervisor (1 No.)	In field office as required in accordance with provisions of Contract	10	5				
	9)	Quantity Surveyor (2 Nos.)	In field office from commencement of construction work	5	3				
	10)	Mechanical Engineer (1 No)	In design and/or field office during design, Procurement, installation, testing and commissioning activities	10	5				
	11)	Electrical Engineer (1 No.)		10	5				
	12)	Instrumentation Engineer (1 No.)		10	5				
10.	Volume-1 Section 6 Clause 6.1.6 Suggested implementation Schedule	Add Following at the end of Para “6.1.6 Suggested implementation Schedule”  Interconnection between existing and proposed pipelines: Shut down period will depend upon real time balancing storage available at UGR of affected command area and accepted tolerance duration for disrupted services. Shut down period shall be decided during construction stage.							
11.	Volume-1 Section 6 Para 6.5	Substitute Title of Table 6.24 as below: <table><tr><th>As per Bid Document</th><th>Replaced as</th></tr><tr><td>Table 6.24 Personnel Requirements During the Operation Services Period (5 – 162 months)</td><td>Table 6.24 Personnel Requirements During the Operation Services Period</td></tr></table>				As per Bid Document	Replaced as	Table 6.24 Personnel Requirements During the Operation Services Period (5 – 162 months)	Table 6.24 Personnel Requirements During the Operation Services Period
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Table 6.24 Personnel Requirements During the Operation Services Period (5 – 162 months)	Table 6.24 Personnel Requirements During the Operation Services Period								
12.	Volume-1 Section 6 Operating Performance Report at Page 6-52,	Substitute 1 <sup>st</sup> para as below: <table><tr><th>As per Bid Document</th><th>Replaced as</th></tr><tr><td><ul style="list-style-type: none"><li>The Contractor shall also submit an Operating Performance Report (OPR); the OPR shall include: a detailed progress report on the implementation of the SIP; monthly water account with details of bulk water supplied by the Employer and received at UGR, distribution and billed; Performance Standards achieved or maintained during the month; staff details engaged at various centres; exceptional reports on emergencies; financial information</li></ul></td><td><ul style="list-style-type: none"><li>The Contractor shall also submit an Operating Performance Report (OPR); the OPR shall include: a detailed progress report on the implementation of the SIP; details of bulk water supplied by the Employer and received at UGR, Performance Standards achieved or maintained during the month; staff details engaged at various centres; exceptional reports on emergencies; financial information on project cash flows, consumer grievance redressal etc. Consumer meter</li></ul></td></tr></table>				As per Bid Document	Replaced as	<ul style="list-style-type: none"><li>The Contractor shall also submit an Operating Performance Report (OPR); the OPR shall include: a detailed progress report on the implementation of the SIP; monthly water account with details of bulk water supplied by the Employer and received at UGR, distribution and billed; Performance Standards achieved or maintained during the month; staff details engaged at various centres; exceptional reports on emergencies; financial information</li></ul>	<ul style="list-style-type: none"><li>The Contractor shall also submit an Operating Performance Report (OPR); the OPR shall include: a detailed progress report on the implementation of the SIP; details of bulk water supplied by the Employer and received at UGR, Performance Standards achieved or maintained during the month; staff details engaged at various centres; exceptional reports on emergencies; financial information on project cash flows, consumer grievance redressal etc. Consumer meter</li></ul>
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			on project cash flows, consumer grievance redressal etc.	reading and billing is not covered under contractor's scope.  Contractors scope shall include Bulk flow Meter reading of UGR's.  Complaint redressal is limited to complaints related to transition main such as leakage or disruption to public during repair activities. Contractor will ensure same quality of water supplied to UGRs as available from WTP as per conditions of contract..																																							
13.	Volume-1 Section 6 Table 6.10	Substitute Table 6.10 as below  <b>Table 6.10: Technical details of proposed Mechanical pumps</b> <table><tr><th>Item description</th><th>Total Actual Peak Demand for 2036 (MGD)</th><th>Nos. of Pump (W + S)</th><th>Capacity of each pump Selected based on Treatment Plant Capacity (MGD)</th><th>Head (m)</th><th>Motor Rating of each pump (KW)</th></tr><tr><td>Rohini UGR Main (Line-4)</td><td>37.20</td><td>6 nos. (4W + 2S)</td><td colspan="3">Only Space &amp; provision for connection in future considered. Pumps are not covered under scope of this package.</td></tr><tr><td>Peeragarhi UGR main (Line-3)</td><td>41.09</td><td>6 nos. (4W + 2S)</td><td>10.273</td><td>32</td><td>250</td></tr><tr><td>Burari A and Sanjay Gandhi Transport Nagar UGR Main (Line -1 &amp; 2)</td><td>56.87</td><td>6 nos. (4W + 2S)</td><td>14.22</td><td>25</td><td>250</td></tr></table>						Item description	Total Actual Peak Demand for 2036 (MGD)	Nos. of Pump (W + S)	Capacity of each pump Selected based on Treatment Plant Capacity (MGD)	Head (m)	Motor Rating of each pump (KW)	Rohini UGR Main (Line-4)	37.20	6 nos. (4W + 2S)	Only Space & provision for connection in future considered. Pumps are not covered under scope of this package.			Peeragarhi UGR main (Line-3)	41.09	6 nos. (4W + 2S)	10.273	32	250	Burari A and Sanjay Gandhi Transport Nagar UGR Main (Line -1 & 2)	56.87	6 nos. (4W + 2S)	14.22	25	250												
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14.	Volume-1 Section 6 Table 6.9	Substitute last rows of Table 6.9 as below  <table><tr><td colspan="6"><b>New proposed- 37.278 Km , Existing retained- 10.98 Km , Total Network- 48.26 km</b></td></tr><tr><td>Pump (2051)**</td><td>46.19 MGD @ 28 M</td><td>21.30 MGD @ 24 M</td><td>43.98 MGD @ 32 M</td><td>39.25 MGD @ 28 M</td><td></td></tr><tr><td>Pump (2036)**</td><td>37.62 MGD @ 23 M</td><td>19.25 MGD @ 22</td><td>41.09 MGD @ 30 M</td><td>37.20 MGD @ 23 M</td><td></td></tr></table>						<b>New proposed- 37.278 Km , Existing retained- 10.98 Km , Total Network- 48.26 km</b>						Pump (2051)**	46.19 MGD @ 28 M	21.30 MGD @ 24 M	43.98 MGD @ 32 M	39.25 MGD @ 28 M		Pump (2036)**	37.62 MGD @ 23 M	19.25 MGD @ 22	41.09 MGD @ 30 M	37.20 MGD @ 23 M																			
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15.	Volume-1 Section 6 Table 6.9 -A	Insert a new Table 6.9-A as below																																									
		<table><tr><th colspan="6">TABLE 6.9 A</th></tr><tr><th colspan="3">Line 1-Wazirabad WTP to Burari UGR</th><th colspan="3">Demand (MGD)</th></tr><tr><th>S. No.</th><th>UGR</th><th>Name of UGR</th><th>Year 2021</th><th>Year 2036</th><th>Year 2051</th></tr><tr><td>1</td><td>P-10</td><td>Burari TPA</td><td>14.09</td><td>15.57</td><td>16.98</td></tr><tr><td>2</td><td>P-09</td><td>Burari A</td><td>8.74</td><td>13.57</td><td>18.2</td></tr><tr><td>3</td><td>P-05</td><td>Siraspur</td><td>5.62</td><td>8.29</td><td>10.74</td></tr></table>						TABLE 6.9 A						Line 1-Wazirabad WTP to Burari UGR			Demand (MGD)			S. No.	UGR	Name of UGR	Year 2021	Year 2036	Year 2051	1	P-10	Burari TPA	14.09	15.57	16.98	2	P-09	Burari A	8.74	13.57	18.2	3	P-05	Siraspur	5.62	8.29	10.74
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	4	P-08	Burari B	0.13	0.23	0.33
	<b>Total</b>			<b>28.58</b>	<b>37.66</b>	<b>46.25</b>
	<b>Line 2-Wazirabad WTP to Sanjay Gandhi Transport Nagar UGR</b>			<b>Demand (MGD)</b>		
	S. No.	UGR	Name of UGR	Year 2021	Year 2036	Year 2051
	1	C-01	Sanjay Gandhi Transport Nagar	4.44	5.24	6.01
	2	C-02	CD Park	8.07	8.67	9.24
	3	C-02A	Fruit Mandi	1.48	1.48	1.48
	4	C-03 B	Mukherjee Nagar	3.35	3.92	4.59
	<b>Total</b>			<b>17.34</b>	<b>19.31</b>	<b>21.32</b>
	<b>Line 3-Wazirabad WTP to Peeragarhi UGR</b>			<b>Demand (MGD)</b>		
	S. No.	UGR	Name of UGR	Year 2021	Year 2036	Year 2051
	1	C-03	Model Town	5.38	7.47	8.72
	2	H-06	Pitampura	8.69	8.99	9.29
	3	H-08	Lawrence Road	13.79	14	14.22
	4	G-01	Peeragarhi	4.21	4.66	5.09
	5	G-02	Punjabi Bagh	5.5	6.13	6.72
	<b>Total</b>			<b>37.57</b>	<b>41.25</b>	<b>44.04</b>
	<b>Total Line 1+Line 2+Line3</b>			<b>83.49</b>	<b>98.22</b>	<b>111.61</b>
16.	Volume-1 Section 6 Annex C "IEE", Clause 37		<p>Add Following at the end of 1<sup>st</sup> Para of Clause No. 37, at Page 8,</p> <p>"Contractor has to obtain all necessary environmental clearances/ permissions prior to start construction work. Contractor shall Prepare application and liaison with concerned authorities so as to obtain all statutory clearances and approvals required in accordance to standard procedures from Government of NCT Delhi and/or Government of India, including all environmental clearances, permission from highway and railway authorities, inland waterway authorities, forest authorities and any other such authorities as may be required. DJB shall provide required assistance to obtain the clearance. DJB shall also issue necessary Letters/application for issue of clearances".</p>			
17.	Volume-1 Section 8 PCC clause 5.1		<p>PCC clause 5.1, page 8-14 to be read as below:</p> <p>Replace the first sentence of Sub-Clause 5.1 with the following: Contractor shall review the Designs available with the Employer, improve the same if necessary and own the responsibility of designs for project execution. The contractor will refine overall design as may be necessary for long term efficiency, effectiveness and sustainability. Contractor to include "value engineering" as a part of SIP. The Contractor shall carry out and be responsible for, the design of the Works, including any site surveys, subsoil investigations and all other activities necessary for proper execution of the project.</p>			
18.	Volume-1 Section 8 PCC clause 4.13		<p>Please add following PCC Clause "4.13 Right of way and Facilities"</p> <p>Employer shall provide required assistance and issue necessary Letters for obtaining right of way. Necessary Permissions and licenses required for execution of works are to be arranged by contractor. Employer shall provide required assistance and also provide necessary Letters/application for issue of licenses/permissions. Statutory Fee or charges paid by the contractor to Government agencies towards license or permissions shall be reimbursed by Employer from provisional sum as per actual.</p>			



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19.	Volume-1 Section 8 PCC clause 4.2	Replace 3 <sup>rd</sup> para under clause 4.2., page 8-2 as below: <table><tr><th>As per Bid Document</th><th>Replaced as</th></tr><tr><td><b>Amount of Performance Security</b> Two Separate Performance Securities to be furnished by the Contractor as indicated below:<ul style="list-style-type: none"><li>Design – Build Performance Security – 10 % of the Design-Build Contract Price</li><li>Operations Services Performance Security – 10% of the Operation Services Contract Price</li></ul></td><td><b>Amount of Performance Security</b> Two Separate Performance Securities to be furnished by the Contractor as indicated below:<ul style="list-style-type: none"><li>Design – Build Performance Security – <b>5 %</b> of the Design-Build Contract Price</li><li>Operations Services Performance Security – <b>5%</b> of the Operation Services Contract Price</li></ul></td></tr></table>	As per Bid Document	Replaced as	<b>Amount of Performance Security</b> Two Separate Performance Securities to be furnished by the Contractor as indicated below: <ul style="list-style-type: none"><li>Design – Build Performance Security – 10 % of the Design-Build Contract Price</li><li>Operations Services Performance Security – 10% of the Operation Services Contract Price</li></ul>	<b>Amount of Performance Security</b> Two Separate Performance Securities to be furnished by the Contractor as indicated below: <ul style="list-style-type: none"><li>Design – Build Performance Security – <b>5 %</b> of the Design-Build Contract Price</li><li>Operations Services Performance Security – <b>5%</b> of the Operation Services Contract Price</li></ul>
As per Bid Document	Replaced as					
<b>Amount of Performance Security</b> Two Separate Performance Securities to be furnished by the Contractor as indicated below: <ul style="list-style-type: none"><li>Design – Build Performance Security – 10 % of the Design-Build Contract Price</li><li>Operations Services Performance Security – 10% of the Operation Services Contract Price</li></ul>	<b>Amount of Performance Security</b> Two Separate Performance Securities to be furnished by the Contractor as indicated below: <ul style="list-style-type: none"><li>Design – Build Performance Security – <b>5 %</b> of the Design-Build Contract Price</li><li>Operations Services Performance Security – <b>5%</b> of the Operation Services Contract Price</li></ul>					
20.	Volume-1 section 8 Para 3.	Substitute Complete Para 3. with the following :				
<p><b>3. Payment for Operation Services Period:</b></p> <p>Payment for the Operation Services would comprise two components, namely Fixed payment and Performance payment, as follows:</p> <ul style="list-style-type: none"><li>a. Fixed Payment equal to 80% of the eligible Total Payment for Operation Services with service delivery in water supply</li><li>b. Performance Payment equal to 20% of the eligible Total Payment for Operation Services with service delivery in water supply system <b>as per Schedule 5: Performance Targets and Measurement</b></li></ul> <p>The unit for payment of Operation Services should be as follows:</p> <ul style="list-style-type: none"><li>Based upon the MLD of water supplied to the all 11 nos. UGR's measured at the inlet of UGR's.</li></ul> <p>In the event of water supplied is less than the guaranteed minimum volume for the month during the Operation Services Period the payment will be made as below:</p> <ul style="list-style-type: none"><li>For the actual volume of water supplied by DJB : Payment will be made As per Fixed and Variable portion of payments as stipulated in the contract.</li><li>Only fixed payment equivalent to 80% of guaranteed minimum volume for the shortfall below 80% of guaranteed minimum volume will be paid to the contractor and no other claim in this regard will be applicable</li></ul> <p><b>3.1 Fixed Payment</b></p> <p>The Fixed Payment shall be paid to the Contractor on a monthly basis subject to fulfilment of the following conditions:</p> <ul style="list-style-type: none"><li>(i) Maintaining the minimum personnel as specified in contract during the previous month.</li><li>(ii) Compliance with the obligations under the Contract.</li><li>(iii) Providing daily water supply to the citizens in the service area (in case of water supply except the extraordinary situation where water is not supplied by DJB).</li></ul> <p><b>3.2 Performance payment, incentives and damages</b></p> <p>A maximum of 20% of the total agreed Payment for Operation Services for the period post Final Taking Over date will be based on achieving performance as shown in <b>Schedule 5: Performance Target and Measurement</b> during Operation Services under the contract.</p> <p>Contractor is eligible to get performance payment i.e 20%, as applicable, if he meets the threshold limits of all the performance indicators. The breakdown of performance payment related to performance indicators are listed in sub sections 3.2.1 and 3.2.2 below.</p> <p><b>3.2.1 Performance based payment for Water Supply System</b></p>						

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Breakup for various criteria in water supply system is as given below:

**For the Period Post Final Taking Over Date**

S.N.	Parameter & reference	% of eligible monthly Operation Service payment
1	Real Physical losses in transmission i.e. leakage in the transmission main through pipe joints or vales etc.	20 %
2	Guaranteed Electrical Power Consumption. - To be applicable for Pumping stations as and when same are commissioned	As per clause 4.19 of Particular conditions.
	<b>TOTAL</b>	—

**3.2.2 The following are the details of the applicable Penalties towards meeting of the Performance Targets.**

1. Real Physical losses in transmission i.e. leakage in the transmission main through pipe joints or vales etc.:

To be achieved at the end of commissioning date and maintained throughout the O&M contract period till the end of the Contract.

The following are payment milestones and penalty proposed for this KPI.

Physical losses in transmission	Payment payable to the Operator (As percentage of total agreed O&M payment for the billing period)
Up to 2 % of clear water input into the transmission main	20%
From more than 2% to 4%	15%
From more than 4% to 6%	5%
From more than 6%, penalty will be deducted from the other due payments	
From more than 6% to 8%	-5.0%
From more than 8% to 10%	-10.0%
From more than 10% to 12%	-15.0%
From more than 12%	-20.0%

2. Guaranteed Electrical Power Consumption:

To be achieved at the end of commissioning date and maintained throughout the O&M contract period till the end of the Contract.

The Bidders' attention is directed to the fact that the operating costs for low efficiency Pumps and equipment will be substantially higher than the operating costs for high efficiency Pumps and equipment, and that the cost differential over the ten year period used in this calculation will, in all probability, greatly exceed any incremental capital cost savings which may be realised by offering lower efficiency Pumps & equipment. Bidders are encouraged to offer Pump and equipment which has high efficiencies at the specified operating conditions.

The bidder is required to submit the Guaranteed Electrical Power Consumption at clear water Pumping stations as per Form TECH-1 of price bid along with his bid. The Energy consumption for the entire O&M period is guaranteed by contractor to be not more than the figures given in Form TECH-1 above.

Further bidders may note that the Cost of Guaranteed Power Consumption and life cycle cost of Operation and maintenance calculated as per procedure stipulated **at para 1.7 at section 3** will be added to the Bid Price (Design Build costs) to obtain the Evaluated Bid Price upon which the decision for award of contract will be based.

The following penalty will be imposed for this KPI.

Any cost of electricity over and above the guaranteed power consumption by the Contractor will be deducted by Employer from the operations services payment due to the Contractor.

Penalty/ Amount to be deducted (INR) = Rate of Power (INR per kWh) X Excess Power consumed (Kwh)

The rate of Power at any particular period shall be as per tariff notified / charged by power utility company for that particular

**Delhi Water Supply Improvement Investment Program-Tranche-1 (ADB-47176-IND),  
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	period.					
21.	Volume-2 para 6.2.1.3 Standard Specifications: (Electrical Works) Transformer Page 284 of 408	Replace para under clause 6.2.1.3 as below: <table><tr><th>As per Bid Document</th><th>Replaced as</th></tr><tr><td>Transformers should also comply to "Bureau of Energy Efficiency Notification No. 2/11(5)/03-BEE-3 issued by Ministry of Power " and the IS: 1180 Level 2.</td><td>Transformers should also comply to "Bureau of Energy Efficiency Notification No. 2/11(5)/03-BEE-3 issued by Ministry of Power " and the IS: 1180 Level 2 or Star four.</td></tr></table>	As per Bid Document	Replaced as	Transformers should also comply to "Bureau of Energy Efficiency Notification No. 2/11(5)/03-BEE-3 issued by Ministry of Power " and the IS: 1180 Level 2.	Transformers should also comply to "Bureau of Energy Efficiency Notification No. 2/11(5)/03-BEE-3 issued by Ministry of Power " and the IS: 1180 Level 2 or Star four.
As per Bid Document	Replaced as					
Transformers should also comply to "Bureau of Energy Efficiency Notification No. 2/11(5)/03-BEE-3 issued by Ministry of Power " and the IS: 1180 Level 2.	Transformers should also comply to "Bureau of Energy Efficiency Notification No. 2/11(5)/03-BEE-3 issued by Ministry of Power " and the IS: 1180 Level 2 or Star four.					
22.	Volume-3 Para "A. Control center Overview" at page Page 37	1)Add following sentence at the end of para  "m) Bullet type CCTV for Indoor and PTZ type for outdoor application shall be used. Qty shall be as follows- Entrance Gate-1, Panel Room-1, Pump House-1, UGR-2"  2) Please add following at the end of Para A  "Bidder to consider cost of all above under BOQ Item no. 1.00 under "Part D SCADA for complete package" of Schedule 1(b)				
23.	Volume 3 Particular specifications (Mechanical works) Clause 2 Butterfly valve Page 1	Replace 5 <sup>th</sup> row as below <table><tr><th>As per Bid Document</th><th>Replaced as</th></tr><tr><td>Type of operation Mot-Motorised</td><td>Type of operation Mot-Motorised (Modulating duties)</td></tr></table>	As per Bid Document	Replaced as	Type of operation Mot-Motorised	Type of operation Mot-Motorised (Modulating duties)
As per Bid Document	Replaced as					
Type of operation Mot-Motorised	Type of operation Mot-Motorised (Modulating duties)					
24.	Volume 3 Particular specifications (Mechanical works) Clause 3 Sluice valve Pg 2	Replace 5 <sup>th</sup> row as below <table><tr><th>As per Bid Document</th><th>Replaced as</th></tr><tr><td>Type of operation Mot-Motorised / Man-manual</td><td>Type of operation Mot-Motorised (Modulating duties except pump suction line) Man-manual</td></tr></table>	As per Bid Document	Replaced as	Type of operation Mot-Motorised / Man-manual	Type of operation Mot-Motorised (Modulating duties except pump suction line) Man-manual
As per Bid Document	Replaced as					
Type of operation Mot-Motorised / Man-manual	Type of operation Mot-Motorised (Modulating duties except pump suction line) Man-manual					
25.	Volume-4 Drawing No. DJB/PMC/DWSIIP/04/BID/ TM/SLD/21	1. Substitute Drawing No. DJB/PMC/DWSIIP/04/BID/TM/SLD/21 with Revised Drawing attached -SLD -DJB/PMC/DWSIIP/04/BID/TM/SLD/21-REV-01  2. Substitute Drawing No. GEN/15 with revised Drawings attached GEN/15A& 15B.				
26.	Volume-6 "Form TECH-1 Guaranteed Electrical Power Consumption" of price Bid	Substitute TECH-1 Guaranteed Electrical Power Consumption", as attached:				
27.	Volume-6 List of makes	Bidders to refer attached DJB circular regarding approved list of makes. These are for reference purpose and equivalent makes shall also be accepted				
28.	Volume-6 Preamble to Price Bid schedule	Please add following paras : 42. Copy of Survey Data and AutoCad survey Drawings available with Employer shall be provided to successful Bidder. Contractor has to carryout Verification of survey and additional geotechnical investigations as may be necessary. Bidder to quote their cost towards above work under BOQ Item at " Part (D) design services of Schedule 1(a)". Contractor has to own the responsibility for Complete survey & Geotech investigations as per the requirements of execution of project.				

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		<p>43. For Trenchless pipes, Pipe dia mentioned in the BOQ pertains to carrier pipe.</p> <p>44.. Cost towards EMP -Scope of work to be covered by Contractor for “ EMP” is given at last column of Table 18 at page 81 of IEE under section 6 of Volume-1 EMP Cost-Bidders to quote cost towards Item “C Plain cement Concrete (PCC) layer on the trench immediately after the backfilling”; under separate head at BOQ item no.52 of part A of Schedule 1 (a) at page 9 of 27. Balance EMP cost (i.e. excluding PCC layer cost) to be assessed and quoted by bidder under item no. (iv), Schedule no. 2 , at page 19 of 24 of price Bid .</p> <p>45. Temporary road restoration of all roads is covered in contractor's scope. Permanent road restoration of CC roads is covered in contractor's scope. Corresponding Quantities for same has been included in BOQ Items. The temporary road specification shall be P.C.C. 1:3:6 (1 Cement: 3 coarse sand (zone-III): 6 graded stone aggregate 20 mm nominal size) as per BOQ Item no.52 of Schedule 1(a).</p> <p>46. Cost of SIP is covered under BOQ Item no, 1 of part D Design services at Page 27 of 27 of price bid. Condition assessment and consumer survey are not included under contractors scope.</p> <p>47. Item nos. 35 &amp;36 under Schedule 1(a). External coating of MS pipe &amp; MS specials. For Underground laying of MS pipes Coal Tar of 4mm is used for outside coating. The minimum thickness of epoxy coating for External coating of MS pipe above ground shall be as per IS 3589 and AWWA C210, NFA 49709.The minimum thickness of dry film in shall be minimum 406 micron or manufacturers recommendations whichever is more.</p>
29.	<p><b>Volume-6</b></p> <p><b>Price Bid schedule</b></p> <p><b>BOQ Items</b></p>	<p><b>Substitute following BOQ Items under Price bid Schedule as given below:</b></p>

As per Bid Document		Replaced as	
Price Bid- Schedule No. 1(a)- Design-Build :Civil Works			
26	Providing and fixing C.I. sluice valves (with cap) complete with bolts, nuts, rubber insertions etc. (the tail pieces if required will be paid separately) : (For Air Valve)	26	Providing and fixing <b>D.I.</b> sluice valves (with cap) complete with bolts, nuts, rubber insertions etc. (the tail pieces if required will be paid separately) : (For Air Valve)
28a	Providing & fixing of Double orifice type Kinectic Air Valve of rating PN 1.0 as per standard specifications combined with screw doen isolating valve, providing flange Joints two numbers, small orifice elastic ball resting on a gun metal nipple, large orifice vulcanite ball seating on moulded seat ring, inlet face drilled, insurance, third party inspection charges, loading, Unloading transportation upto departmental stores/ site etc complete as per IS 14845 specifications or as directed by Engineer-In-Charge. These rates are	28a	Providing & fixing of Double orifice type Temper Proof Kinectic <b>D.I.</b> Air Valve of rating PN 1.0 as per standard specifications combined with screw down isolating valve, providing flange Joints two numbers, small orifice elastic ball resting on a gun metal nipple, large orifice vulcanite ball seating on moulded seat ring, inlet face drilled, insurance, third party inspection charges, loading, Unloading transportation upto departmental stores/ site etc complete as per IS 14845 specifications or as directed by Engineer-In-Charge. These rates are excluding excise duty component.

**Delhi Water Supply Improvement Investment Program-Tranche-1 (ADB-47176-IND),  
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	excluding excise duty component.				
<b>PART B - CONSTRUCTION OF 1 UGR's OF 120 MLD CAPACITY WITH CLEAR WATER PUMP HOUSE</b>				<b>PART B - CONSTRUCTION OF 1 UGR OF 50 ML CAPACITY WITH CLEAR WATER PUMP HOUSE</b>	
<b>PART D – Design services</b>				<b>PART D – Design services</b>	
1	Preparation & Finalization of Service Improvement Plan(SIP) with Design Services.	Job	1	1	Preparation & Finalization of Service Improvement Plan(SIP) with Design Services.
2	Cost of Survey and Site Investigation.	Job	1	2	Cost towards carrying out verification of Survey and carrying out Investigations
					a) Verification of Topographical Survey
					b) Verification of UGR Survey ( 150mX 120 m)
					c) DGPS Survey
					d) Benchmark Establishment
					e)Carrying out Geotechnical survey
TOTAL OF Total of Schedule NO. 1 (a) i.e. TOTAL OF PART A TO D (Carried to Schedule 1)				Total of Schedule NO. 1 (a) i.e. TOTAL OF PART A TO D (Carried to Schedule 1)	
Price Bid- Schedule No. 1(b)- Design-Build: Electromechanical Works					
1.1	2084 m3/hr,34m, (4W + 2S) - For Line -3 (Towards Peera Garhi)	Nos	6	1.1	1946 m3/hr,32 m, (4W + 2S) - For Line -3 (Towards Peera Garhi)
1.3	2605 m3/hr,26m, (4W + 2S) - For Line -1 (Towards Burari-A) & Line -2 (Towards SGT Nagar)	Nos	6	1.2	2693 m3/hr,25m, (4W + 2S) - For Line -1 (Towards Burari-A) & Line -2 (Towards SGT Nagar)
11	<b>EOT Crane</b>			11	<b>EOT Crane</b>
					Supply installation testing & commissioning of approved make EOT Crane <b>Single Girder</b> with geared travelling trolley complete with <b>Electrically</b> operated chain pulley block, long travel rail track ( 40 mm sq.bar ),moving or cross girder,brake, safety devices etc as per technical specifications and complete in all respect as per the direction of the Engineer. The works includes all labour, jointing material, nut & bolts and giving satisfactory testing etc. complete as per instructions of Engineer in charge. The works include all type of

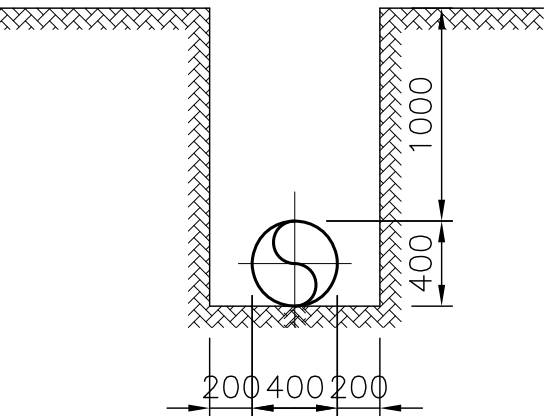
**Delhi Water Supply Improvement Investment Program-Tranche-1 (ADB-47176-IND),  
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	Supply installation testing & commissioning of approved make EOT Crane with geared travelling trolley complete with manually operated chain pulley block, long travel rail track ( 40 mm sq.bar ),moving or cross girder,brake, safety devices etc as per technical specifications and complete in all respect as per the direction of the Engineer. The works includes all labour, jointing material, nut & bolts and giving satisfactory testing etc. complete as per instructions of Engineer in charge. The works include all type of accessories as require for complete installation.		accessories as require for complete installation.				
3.2	Supply, Installation, Testing and commissioning of copper wound ISI marked Transformer 3.3 KV/0.415kV, Three Phase, 50 Hz, DYN 11, ONAN type , Standard accessories like, conservator, Silicagel breather, radiator, fins, HT & LT cable end boxes or Bus Duct flange, Lifting lugs, Bi-directional Plain/ Flanged Rollers,Earthing terminal,Air relaese plug.Off load tap changer (+5% to -10% in steps of 2.5%), winding / Top oil temperature rise of 45°C/40°C, ISI marked drain valves, Dial type temperature gauge, first fill oil, Epoxy based paint etc having max. total losses as per energy efficiency level - 2 at basic Insulation level conforming to IS 2026 (Part- I to Part - II), latest ammended and IS 1180 Part-I : 2014 BEE star level - I as per Govt. of India, Ministry of power notification Dated 16th Dec., 2016. Transformers described as above and as per the following continuous rating	3.2	Supply, Installation, Testing and commissioning of copper wound ISI marked Transformer <b>11 kV/433V</b> Three Phase, 50 Hz, DYN 11, <b>AN type</b> , Standard accessories like, conservator, Silicagel breather, radiator, fins, HT & LT cable end boxes or Bus Duct flange, Lifting lugs, Bi-directional Plain/ Flanged Rollers,Earthing terminal,Air relaese plug.Off load tap changer (+5% to -10% in steps of 2.5%), winding / Top oil temperature rise of 45°C/40°C, ISI marked drain valves, Dial type temperature gauge, first fill oil, Epoxy based paint etc having max. total losses as per energy efficiency level - 2 at basic Insulation level conforming to IS 2026 (Part- I to Part - II), latest ammended and IS 1180 Part-I : 2014 BEE star level - I as per Govt. of India, Ministry of power notification Dated 16th Dec., 2016. Transformers described as above and as per the following continuous rating				
	Total of Schedule 1 i.e. Total of Schedule 1(a) and 1 (b) (Carried to Schedule 6, Summary)		Total of Schedule 1 i.e. Total of Schedule 1(a) and 1 (b) (Carried to Schedule 5, Summary)				
Price Bid- Schedule No. 3: Operation Services							
i	Year 1	ML	199,301	i	Year 1	ML	143,590
ii	Year 2	ML	201,110	ii	Year 2	ML	145,220
ii	Year 3	ML	202,902	ii	Year 3	ML	146,850
iv	Year 4	ML	204,711	iv	Year 4	ML	148,480
v	Year 5	ML	206,519	v	Year 5	ML	150,110
vi	Year 6	ML	208,328	vi	Year 6	ML	151,740
vii	Year 7	ML	210,137	vii	Year 7	ML	153,370
viii	Year 8	ML	211,929	viii	Year 8	ML	155,000
ix	Year 9	ML	213,737	ix	Year 9	ML	156,630
x	Year 10	ML	215,546	x	Year 10	ML	158,260

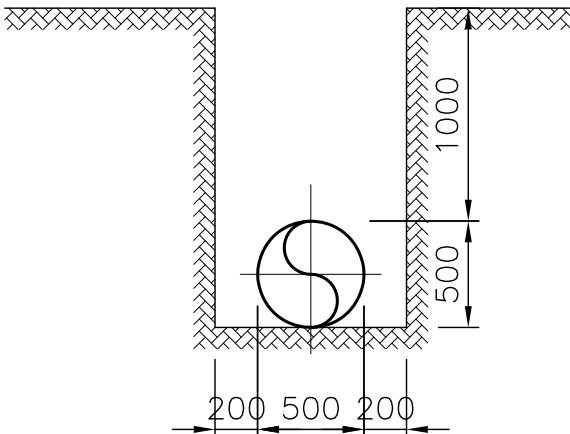
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Schedule No. 5 : Summary of Bill of Quantities	
Bidders may note that the Cost of Guaranteed Power Consumption and life cycle cost of Operation and maintenance calculated as per procedure stipulated at <b>ITB 36.6</b> will be added to the Bid Price (Design Build costs) to obtain the Evaluated Bid Price upon which the decision for award of contract will be based	Bidders may note that the Cost of Guaranteed Power Consumption and life cycle cost of Operation and maintenance calculated as per procedure stipulated at <b>clause 1.7 under section 3 of Volume-1</b> will be added to the Bid Price (Design Build costs) to obtain the Evaluated Bid Price upon which the decision for award of contract will be based

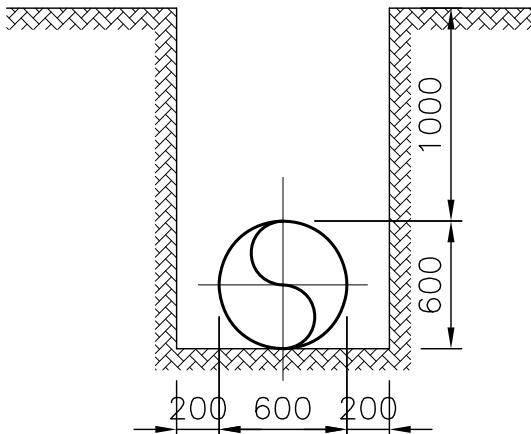
CROSS SECTIONAL EXCAVATION DETAIL OF DI PIPELINES



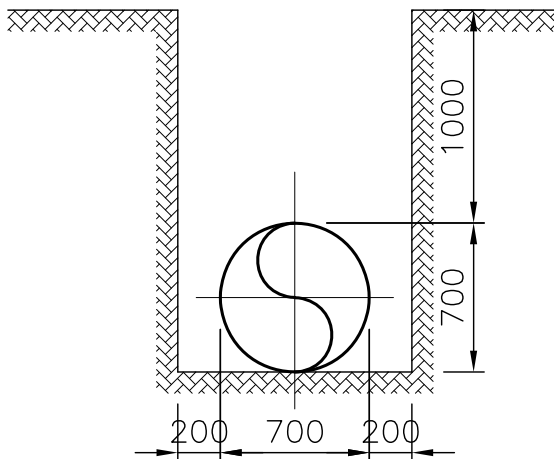
400 DIA DI PIPE  
TRENCH DETAILS



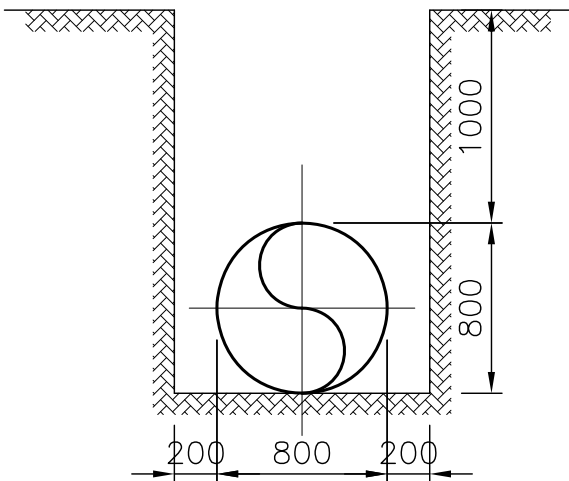
500 DIA DI PIPE  
TRENCH DETAILS



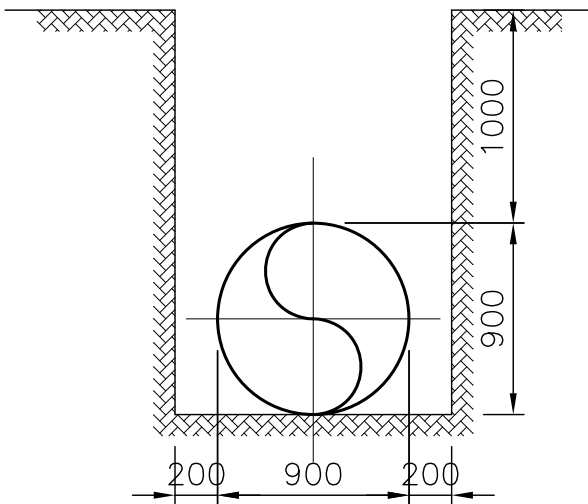
600 DIA DI PIPE  
TRENCH DETAILS



700 DIA DI PIPE  
TRENCH DETAILS



800 DIA DI PIPE  
TRENCH DETAILS



900 DIA DI PIPE  
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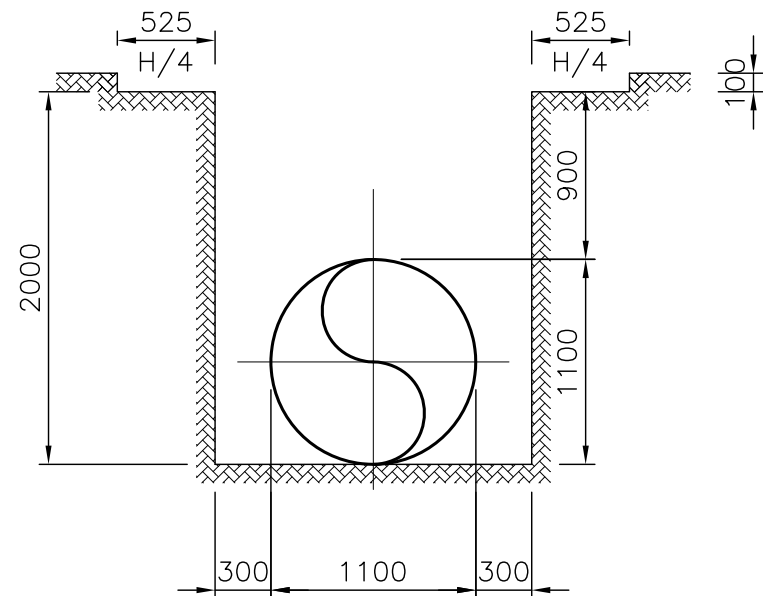
- NOTES
1. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE INDICATED.
  2. NOMINAL DIAMETER OF PIPE = DN.
  3. OUTER DIAMETER OF PIPE = BC.
  4. BACKFILLING WITH APPROVED SELECTED EXCAVATED MATERIAL AND COMPACTION SHALL BE DONE BY HAND OR APPROVED MECHANICAL METHODS IN LAYERS OF 150 MM WITH SPECIAL CARE TO AVOID DAMAGE OF THE PIPE WHILE ACHIEVING REQUIRED COMPACTION.
  5. BACKFILLING SHALL BE DONE WITH EXCAVATED MATERIAL BY HAND OR APPROVED MECHANICAL METHODS IN LAYERS NOT EXCEEDING 150MM THICKNESS AFTER COMPACTING, WETTED AND COMPACTED TO A DENSITY OF NOT LESS THAN 90% OF MAXIMUM DRY DENSITY AT OPTIMUM MOISTURE CONTENT OF THE SURROUNDING MATERIAL.

BID PURPOSE ONLY

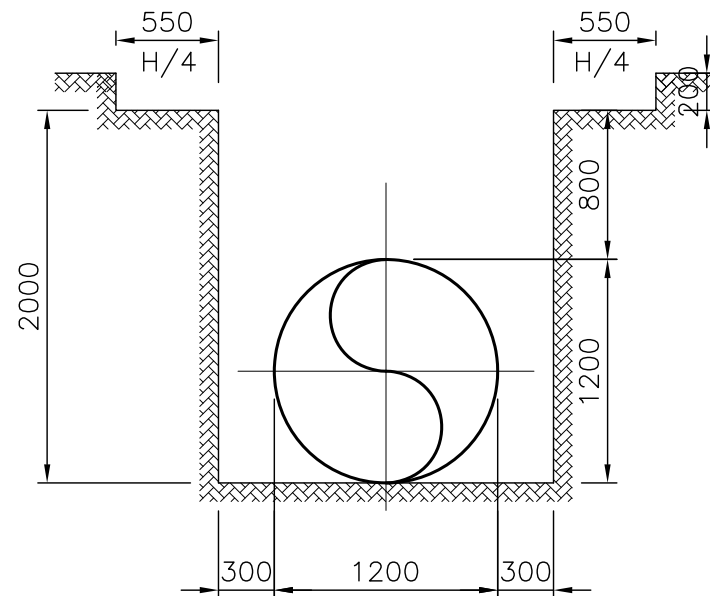
TO									
ISSUE	DATE	DESCRIPTION	BY	CHECKED	APPD.				
Project : ADB Assisted Delhi Water Supply Improvement Investment Program in Wazirabad Water Treatment Plant Command Area									
Client : DELHI JAL BOARD									
Project Management Consultant (PMC) : NJS Consultants Co., Ltd. (Japan) In Joint Venture with ICRA Management Consulting Services Ltd. Tata Consulting Engineers Ltd. NJS Engineers India Pvt. Ltd.									
Package Name : Transmission System Improvement and Construction of Clear Water Reservoirs & Pumping Stations for Wazirabad WTP Command Area Including SCADA & Instrumentation for Package DWSIIP/04									
Title : MAP SHOWING OF PIPE TRENCH DETAILS FOR DI PIPELINES									
CHECKED BY :	PLS	APPROVED BY :	MS						
DRAWN BY :	SKUBB/NT	DESIGNED BY :	ASG						
SCALE	DRAWING NUMBER	DATE	S. SIZE	REV.					
NTS	DJB/PMC/DWSIIP/04/BID/TM/GEN/15A	13/01/2020	A3	R1					



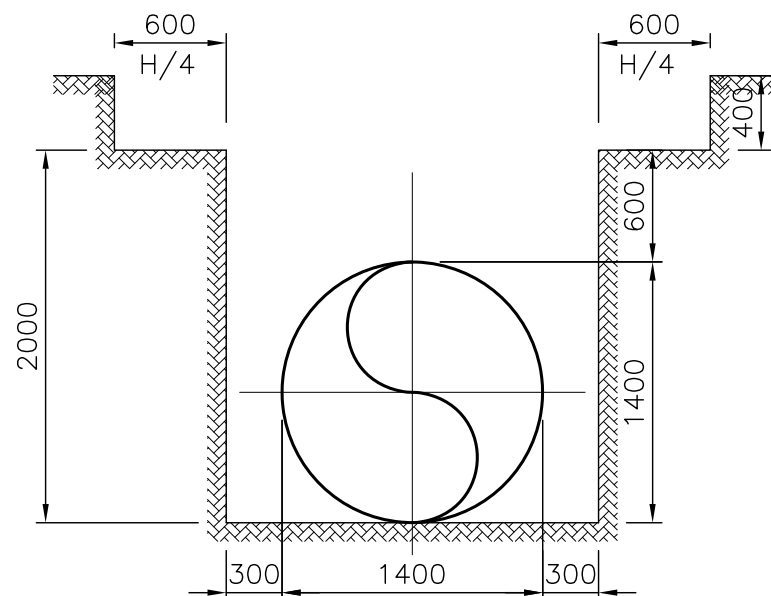
CROSS SECTIONAL EXCAVATION DETAIL OF MS PIPELINES



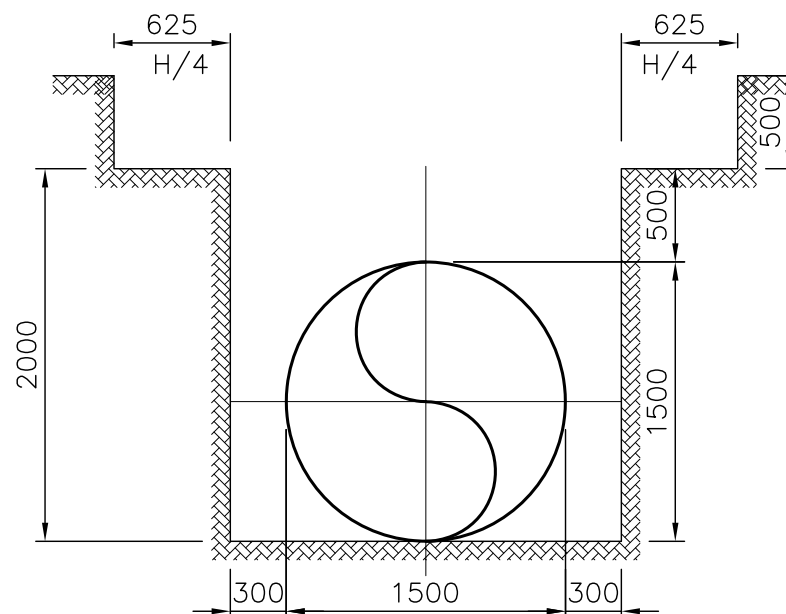
1100 DIA MS PIPE  
TRENCH DETAILS



1200 DIA MS PIPE  
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1500 DIA MS PIPE  
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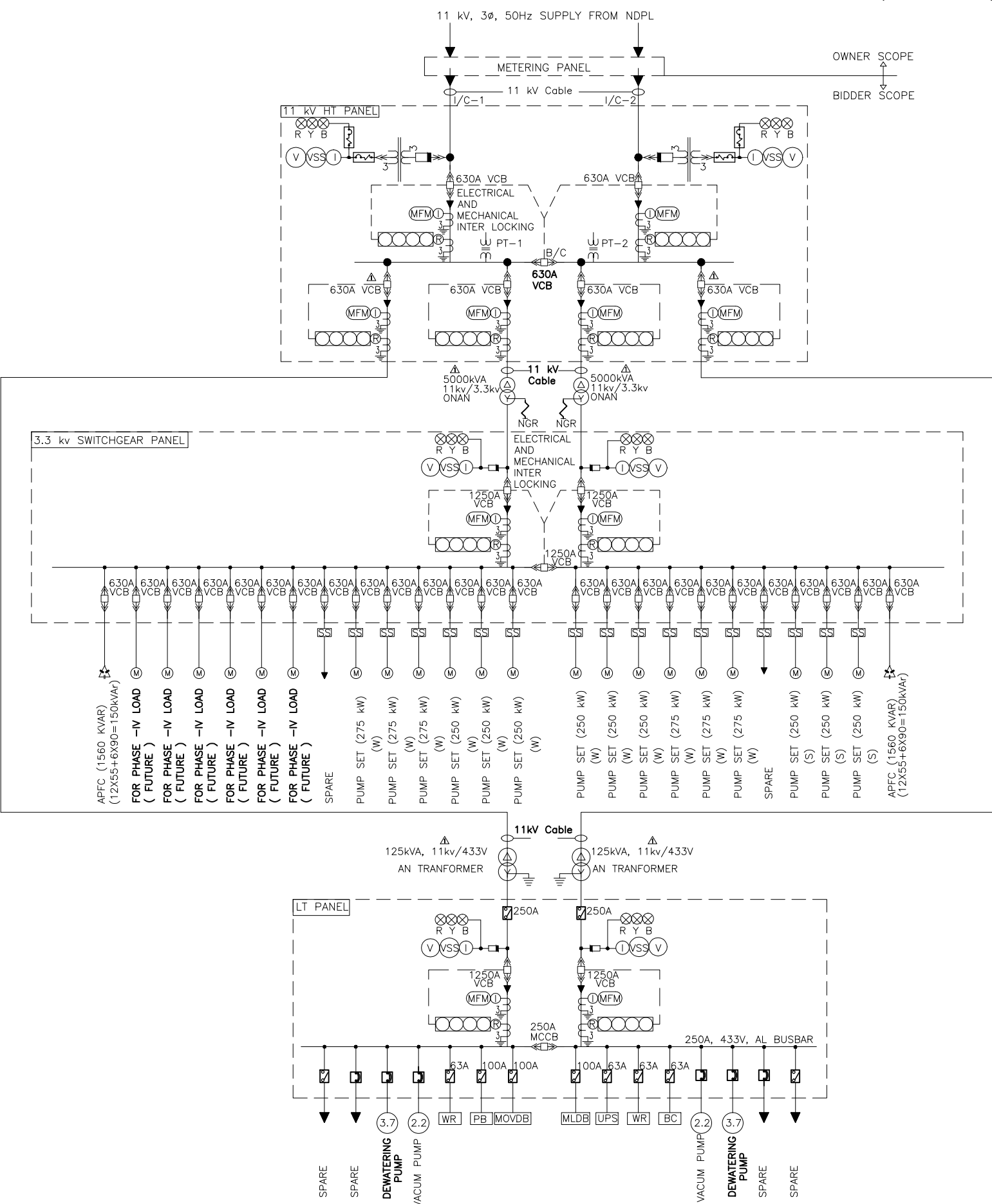
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BID PURPOSE ONLY

TO									
ISSUE	DATE	DESCRIPTION	BY	CHECKED	APPD.				
Project : ADB Assisted Delhi Water Supply Improvement Investment Program in Wazirabad Water Treatment Plant Command Area									
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Title : MAP SHOWING OF PIPE TRENCH DETAILS FOR MS PIPELINES									
CHECKED BY :	PLS	APPROVED BY :	MS						
DRAWN BY :	SKUBB/NT	DESIGNED BY :	ASG						
SCALE	DRAWING NUMBER	DATE	S. SIZE	REV.					
NTS	DJB/PMC/DWSIIP/04/BID/TM/GEN/15B	13/01/2020	A3	R1					

KEY SLD FOR CLEAR WATER PUMPING STATION 120MGD WTP AT WAZIRABAD (PROPOSED)



LEGENDS:

- VACCUUM CIRCUIT BREAKER (VCB) (DRAW OUT TYPE)
- AIR CIRCUIT BREAKER (ACB) (DRAW OUT TYPE)
- MCCB
- MPCB
- TRANSFORMER
- MOTOR
- SOFT STARTER
- CONTACTOR
- BATTER CHARGER
- POTENTIAL TRANSFORMER
- CURRENT TRANSFORMER
- FUSE
- WELDING RECEPTACLE
- ACTUATOR POWER DB
- MAIN LIGHTING DISTRIBUTION BOARD
- PROTECTION RELAYS
- MULTI FUNCTION METER
- INDICATION LAMP
- VOLTAGE SELECTOR SWITCH
- VOLTMETER
- INDICATING
- RELAYING
- CAPACITOR BANK
- DRAW OUT TYPE BREAKER

NOTES:

- CAPACITY OF EACH EQUIPMENT IS TENTATIVE AND WILL BE FINALISED DURING DETAILED ENGINEERING.
- ALL THE EQUIPMENTS WILL BE AS PER RELEVANT IS/IEC STANDARD.
- 110V DC SUPPLY WOULD BE USED FOR CLOSING & TRIPPING COIL, ALARM AND ANNUNCIATION CIRCUITS.
- ALL INDICATION LAMPS SHALL BE LED CLUSTER TYPE.
- THE INCOMING SUPPLY IS AVAILABLE FROM TWO SOURCES. ANY SINGLE SOURCE SHOULD BE ABLE TO OPERATE THE ENTIRE PLANT IN CASE OF INTERRUPTION / FAILURE OF OTHER SOURCES.
- ALL RELAYS PROVIDED ARE NUMERICAL MICROPROCESSOR BASED ONLY.
- ALL METERS ARE DIGITAL TYPE ONLY.
- ALL EQUIPMENT ARE SUITABLE FOR AUTOMATION / SCADA.
- THE RATING, SIZES & OTHER DETAILS ARE FOR TENDER PURPOSE ONLY AND MAY BE CHANGED DURING DETAILED ENGINEERING AS PER ACTUAL REQUIREMENTS
- 20% SPARE PANEL HAVE TO BE PROVIDED ON EACH DISTRIBUTION BOARD.
- RATINGS INDICATED AS ARE TENTATIVE AND WILL BE FINALISED AND WILL BE FINALISED AT THE TIME OF DETAILED ENGINEERING.
- OPERATION PHILOSOPHY OF THE PUMP TO BE INCORPORATED AS PER P&ID OF THE PUMPING STATION.
- EOT CRANE AND EXHAUST FANS ARE TO BE FEEDED BY PDB.
- INCOMERS AND BUS COUPLER OF HT PANEL SHALL BE INTERLOCKED IN SUCH AWAY THAT ONE INCOMER AND BUS COUPLER WILL BE ON AT A TIME OR BOTH INCOMERS WILL BE ON BUS COUPLER IS OFF.
- THE B/C ACB AT 415 V SHALL NORMALLY BE CLOSED.

01	13.01.20	6300KVA TRAFO. CHANGE TO 5000KVA, 125KVA TRAFO. CONNECTED TO 11KV HT PANEL	AK	SRS	SG
00	07.12.19	FOR TENDER PURPOSE	SKU/BB/NT	SRS/PLS	SM
REV.	DATE	DESCRIPTION	BY	CHECK	APPD.
Project : ADB Assisted Delhi Water Supply Improvement Investment Program in Wazirabad Water Treatment Plant Command Area					
Client : DELHI JAL BOARD					
Project Management Consultant (PMC) : NJS Consultants Co., Ltd. (Japan) in Joint Venture with ICRA Management Consulting Services Ltd.      Tata Consulting Engineers Ltd. NJS Engineers India Pvt. Ltd.					
Package Name : Transmission System Improvement and Construction of Clear Water Reservoirs & Pumping Stations for Wazirabad WTP Command Area Including SCADA & Instrumentation for Package DWSIIP/04					
Title : KEY SLD FOR CLEAR WATER PUMPING STATION 120MGD WTP AT WAZIRABAD (PROPOSED)					
CHECKED BY :		SRS/PLS	APPROVED BY :		SM
DRAWN BY :		SKU/BB/NT	DESIGNED BY :		SRS
SCALE	DRAWING NUMBER		DATE	S. SIZE	REV.
NTS	DJB/PMC/DWSIIP/04/TM/SLD/21		13/01/2020	A3	R1

**FORM TECH-1 Guaranteed Electrical Power Consumption**

<b>Year</b>	<b>Kwhr / ML of water supplied (1)</b>	<b>ML of water supplied during year (2)</b>	<b>Total kWhr Consumed in Year (3) = (1) x (2)</b>	<b>Cost of Power consumed in INR @ INR 7.20 per KWH (4) = (3) X 7.20</b>
OM-1		143,590		
OM-2		145,220		
OM-3		146,850		
OM-4		148,480		
OM-5		150,110		
OM-6		151,740		
OM-7		153,370		
OM-8		155,000		
OM-9		156,630		
OM-10		158,260		
			Total Cost of Power from OM-1 to OM-10	

23/10

**DELHI JAL BOARD; GOVT. OF NCT OF DELHI**  
**OFFICE OF THE SUPERINTENDING ENGINEER (SDW)II**  
**RITHALA SEWAGE TREATMENT PLANT; ROHINI**  
**DELHI 110085**

No SE(SDW)II/ 128

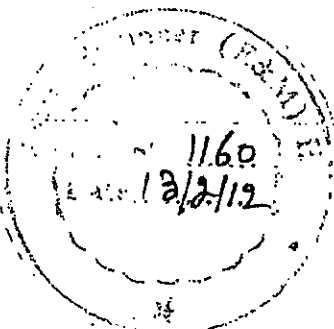
Dated 7 - 2 - 13

**CIRCULAR**

The comprehensive list of approved makes for procurement of E&M equipments to be installed in all projects in DJB is as under :-

- ✓ 1. Pump Centrifugal- M&P/KBL/Jyoti/KSB/LUBI.
- ✓ 2. Motors- Jyoti/KEC/Crompton/ABB/Siemens/BHEL.
- ✓ 3. Valves- KBL/IVC/VAG/Dorot.
- ✓ 4. Sluice Gates - Jash /IVC.
- ✓ 5. Crane & Hoist - Hercules (India)/Wh. Bready/AVON/REVA.
- ✓ 6. Chain Pulley Block- INDEF/Hercules/REVA/ Wh. Bready.
- ✓ 7. Actuator- Rotark/Auma India/Limitorque.
- ✓ 8. 11KV Switch Gear-ABB/ Kirloskar Systems/BHEL/Jyoti/ Siemens/Crompton.
- ✓ 9. 415V Switch Gear/Bus Duct-L&T/Siemens/ABB/C&S/Schneider/GE/EE.
- ✓ 10. Power Transformer- KEC/Crompton/BBL/ BHEL/ABB/Siemens.
- ✓ 11. Cables (power & control)- Fort Gloster/ICL/CCI/ICC/Universal/Grandlay.
- ✓ 12. Lighting Switch Gear/Ballast-Philips/Bajaj/Crompton/Havells.
- ✓ 13. Power capacitors & APFC relays-Siemens/L&T/BHEL/Crompton/ Khatau/ABB.
- ✓ 14. Soft Starters- INNOVATIVE/JAISHREE/ Siemens/ABB/L&T/Schneider.
- ✓ 15. MCB/MCCB- L&T/Siemens /Havells /Indocop /MDS/Cutler Hammer/C&S.
- ✓ 16. Flow Meters- ABB/Forbes Marshall/Siemens/E&H/KENT.
- ✓ 17. PLC SYSTEM/SCADA - Siemens/Rockwell/ABB/Schneider/E&H/Tata  
Honeywell/KLG/Yokogawa.
- ✓ 18. Instrumentation- Emmerson /ABB/E&H/Siemens.
- ✓ 19. VFD- L&T/Schneider/Siemens/ABB/Danfoss.
- ✓ 20. Bar Screens-JASH/JOHNSON.

EE(SDW) VI



21. Submersible Pumps for Tube well - SU/BS/Mody/Great India/Skype/ABS  
KBL/KSB/GGL/LUBL.

This list supersedes all previous circular issued on the subject.

This list shall be reviewed periodically i.e. once in 6 months for new additions o deletions of makes. All concerned are requested to forward only the most deservin cases for approval of makes, if any, to the office of CE (SDW) N&W.

Issued with ref. to Circulars No. F-2/DJB/CE (SDW) N&W/2012/1831-90 dt.19 09-2012 and F-2/DJB/CE (SDW) N&W/2013/2556 to 597 dt. 21-01-2013.

  
SE (SDW) II

All CEs (E&M)  
All SEs (E&M)  
All EEs (E&M)

Copy to: -

1. CEO for kind information
2. Member (Finance)/(Admin)/(WS)/(Dr)
3. All CE(Civil)s

  
SE (SDW) II