



# DHAKA WATER SUPPLY NETWORK IMPROVEMENT PROJECT

Dhaka Water Supply & Sewerage Authority

**WASA BHABAN**

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শেখ হাসিনার মূলনীতি  
গ্রাম শহরের উন্নতি

Memo No: 46.113.624.00.00. 908.2021, 422

Date: 10.03.22

**Subject: Minutes of Pre-Bid meeting held on 1<sup>st</sup> March, 2022 for NCB-02.6; "Construction of DTWs (Remaining DTWs of ICB-02.11) under DWSNIP of Dhaka WASA".**

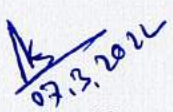
A Pre-Bid meeting for Construction of DTWs (Remaining DTWs of ICB-02.11) under DWSNIP of Dhaka WASA (package no NCB-02.6) was held at 3.00 p.m (Bangladesh Standard Time) on 1<sup>st</sup> March, 2022 as per section 2 (Bid Data Sheet) Reference Clause ITB 7.4 of the Bidding document issued dated 13 February, 2022. The meeting was presided over by the Md. Abdul Latif, Project Director and other PMU officials from DWSNIP attended the meeting. Also Representatives from DMS Consultants and bidders attended the meeting. A list of attendees is attached herewith as in **Annexure-A**.

At the starting, the chairperson welcomed all and requested all the participants to introduce themselves. Then the Procurement Expert gave a brief power point presentation on the bidding document.

It may be mentioned that some of the bidders said their queries in the meeting. During the meeting all the queries were discussed elaborately and a list of all the queries along with their clarification are compiled and attached herewith as in **Annexure-B**.

It may be noted that there are some issues which have been needed to change in the bidding document as per requirement to the response to the queries of the bidders. Those issues have been addressed as an amendment to the bidding document and attached herewith in **Annexure-C**.

As there was no other points the meeting was ended with vote of thanks by the chair.

  
Md. Abdul Latif  
Project Director  
Dhaka Water Supply Network Improvement Project  
Dhaka WASA.

CC:

1. The Director (Technical), Dhaka WASA.
2. Additional Chief Engineer (RPD), Dhaka WASA.
3. Deputy Project Director, DWSNIP, Dhaka WASA.
4. Executive Engineer, DWSNIP, Dhaka WASA.
5. Team Leader, DMS Consultants, DWSNIP, Dhaka WASA.
6. M/s.....
7. PA to Managing Director, Dhaka WASA ( for kind information to the Hon'ble Managing Director)
8. Office Copy.




### Annexure-B

#### **Queries from the Bidders and Clarification from the Employer**

Sl.No	Reference	Description	Queries	Clarification
1.	IFB and Section-3 ( Evaluation and Qualification Criteria) Clause 2.3.2 Page 3-5; Clause 2.3.3 Page 3-6 and Clause 2.4.1 Page 3-7	Average Annual Construction Turnover, Financial Resources and Contracts of Similar Size and Nature	One Bidder request to Employer to revise the Qualification criteria of the Bidders such as Average Annual Construction Turnover, Financial Resources and Contracts of Similar Size and Nature	The amount of the Bidders qualification criteria such as Average Annual Construction Turnover, Financial Resources and Contracts of Similar Size and Nature was given by ADB. These criteria will be revised and provided as an amendment of bidding document.
2.	Section-4 (Bidding Documents) Bill of Quantities, part C: page 4-29	Unit (Lump sum ) for Construction of Pump House, Delivery line, Wash out line, R.S Joist and Boundary Wall for 9 nos DTWs	One Bidder request to Employer to provide elaborate/item wise bill of quantities for Boundary wall and Pump house instead of lump sum unit.	Bill of Quantities will be provided
3	Section-6 (Employers Requirements), Clause 1.3.26; page 6-11	Step Draw Down and Discharge Test	One Bidder request to Employer to decrease specific capacity of DTWs.	No change, all bidders have to follow this.

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### Annexure-C: Amendment

Sl. No	Ref. no.	page no.	Clause amended	Existing Provision in the Bidding document (only relevant part is reproduced)	Amended provision in the bidding document (only relevant part is reproduced)
1.	Section-3 (Evaluation and Qualification Criteria) Clause 2.3.2	3-5	Average annual Construction turnover	Minimum average annual Construction turnover of <b>BDT 190,000,000.00</b> calculated as total certified payments received for contracts in progress or completed, within the last 3 years.	Minimum average annual Construction turnover of <b>BDT 140,000,000.00</b> calculated as total certified payments received for contracts in progress or completed, within the last 3 years.
2.	Section-3 (Evaluation and Qualification Criteria) Clause 2.3.3	3-6	financial resources	For Single Entities: The Bidder must demonstrate that its financial resources defined in FIN - 3, less its financial obligations for its current contract commitments defined in FIN - 4, meet or exceed the total requirement for the Subject Contract of <b>BDT 32,000,000.00</b> and The joint venture must demonstrate that the combined financial resources of all partners defined in FIN - 3, less all the partners' total financial obligations for the current contract commitments defined in FIN - 4, meet or exceed the total requirement for the Subject Contract of <b>BDT 32,000,000.00</b>	For Single Entities: The Bidder must demonstrate that its financial resources defined in FIN - 3, less its financial obligations for its current contract commitments defined in FIN - 4, meet or exceed the total requirement for the Subject Contract of <b>BDT 22,000,000.00</b> and The joint venture must demonstrate that the combined financial resources of all partners defined in FIN - 3, less all the partners' total financial obligations for the current contract commitments defined in FIN - 4, meet or exceed the total requirement for the Subject Contract of <b>BDT 22,000,000.00</b>
3.	Section-3 (Evaluation and Qualification Criteria) Clause 2.4.1	3-7	Contracts of Similar Size and Nature	Participation in at least 2 (two) contracts that have been successfully or substantially completed within the last 5 years and that is similar to the proposed contract, where the value of the Bidder's participation in each contract exceeds <b>BDT 100,000,000.00</b> 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 Requirements).	Participation in at least 2 (two) contracts that have been successfully or substantially completed within the last 5 years and that is similar to the proposed contract, where the value of the Bidder's participation in each contract exceeds <b>BDT 72,200,000.00</b> 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 Requirements).



4.	Invitation for Bid	1	Qualification Criteria for Bidders	<b>Average Annual Construction Turnover:</b> The minimum average annual Construction turnover of US\$ 2,240,566.04 or BDT 190,000,000.00 calculated as total payments received by the Bidder for contracts completed or under execution over the last 3 (Three) years.	<b>Average Annual Construction Turnover:</b> The minimum average annual Construction turnover of US\$ 1,650,943.4 or BDT 140,000,000.00 calculated as total payments received by the Bidder for contracts completed or under execution over the last 3 (Three) years.
5.	Invitation for Bid	1	Qualification Criteria for Bidders	<b>Contractual Experience:</b> Successful completion as main supplier within the last 5 (five) years, of at least 2 (two) contracts each valued at US\$ 1,179,245.28 or BDT 100,000,000.00 with nature, and complexity similar to the scope of supply.	<b>Contractual Experience:</b> Successful completion as main supplier within the last 5 (five) years, of at least 2 (two) contracts each valued at US\$ 8,514,15.09 or BDT 72,200,000.00 with nature, and complexity similar to the scope of supply.
6.	Invitation for Bid	1	Qualification Criteria for Bidders	<b>Cash Flow Capacity:</b> Availability of or access to liquid assets, lines of credit, and other finances sufficient to meet cash flow requirement which is US\$ 377,358.49 or BDT 32,000,000.00	<b>Cash Flow Capacity:</b> Availability of or access to liquid assets, lines of credit, and other finances sufficient to meet cash flow requirement which is US\$ 259,433.962 or BDT 22,000,000.00









## 2.2 Pending Litigation and Arbitration

Pending litigation and arbitration criterion shall not apply.

### 2.2.1 Pending Litigation and Arbitration

Criteria	Compliance Requirements				Documents
Requirement	Single Entity	Joint Venture			Submission Requirements
		All Partners Combined	Each Partner	One Partner	
All pending litigation and arbitration, if any, shall be treated as resolved against the Bidder and so shall in total not represent more than 50 percent of the Bidder's net worth calculated as the difference between total assets and total liabilities.	must meet requirement by itself or as partner to past or existing Joint Venture	not applicable	must meet requirement by itself or as partner to past or existing Joint Venture	not applicable	Form LIT - 1

## 2.3 Financial Situation

### 2.3.1 Historical Financial Performance

Criteria	Compliance Requirements				Documents
Requirement	Single Entity	Joint Venture			Submission Requirements
		All Partners Combined	Each Partner	One Partner	
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 3 (three) 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.	must meet requirement	not applicable	must meet requirement	not applicable	Form FIN - 1 with attachments

### 2.3.2 Average Annual Construction Turnover

Criteria	Compliance Requirements				Documents
Requirement	Single Entity	Joint Venture			Submission Requirements
		All Partners Combined	Each Partner	One Partner	
Minimum average annual Construction turnover of <b>BDT 140,000,000.00</b> calculated as total certified payments received for contracts in progress or completed, within the last 3 years.	must meet requirement	must meet requirement	must meet 25% of the requirement	must meet 40% of the requirement	Form FIN - 2



## 2.3.3 Financial Resources

Criteria	Compliance Requirements				Documents
Requirement	Single Entity	Joint Venture			Submission Requirements
		All Partners Combined	Each Partner	One Partner	
For Single Entities: The Bidder must demonstrate that its financial resources defined in FIN - 3, less its financial obligations for its current contract commitments defined in FIN - 4, meet or exceed the total requirement for the Subject Contract of <b>BDT 22,000,000.00</b>	must meet requirement	not applicable	not applicable	not applicable	Form FIN - 3 and Form FIN - 4
For Joint Ventures: (1) One partner must demonstrate that its financial resources defined in FIN - 3, less its financial obligations for its own current contract commitments defined in FIN - 4, meet or exceed its required share of 40% from the total requirement for the Subject Contract. AND	not applicable	not applicable	not applicable	must meet requirement	Form FIN - 3 and Form FIN - 4
(2) Each partner must demonstrate that its financial resources defined in FIN - 3, less its financial obligations for its own current contract commitments defined in FIN - 4, meet or exceed its required share of 25% from the total requirement for the Subject Contract. AND	not applicable	not applicable	must meet requirement	not applicable	Form FIN - 3 and Form FIN - 4
(3) The joint venture must demonstrate that the combined financial resources of all partners defined in FIN - 3, less all the partners' total financial obligations for the current contract commitments defined in FIN - 4, meet or exceed the total requirement for the Subject Contract of <b>BDT 22,000,000.00</b>	not applicable	must meet requirement	not applicable	not applicable	Form FIN - 3 and Form FIN - 4



## 2.4 Bidder's Experience

### 2.4.1 Contracts of Similar Size and Nature

Criteria	Compliance Requirements				Documents
Requirement	Single Entity	Joint Venture			Submission Requirements
		All Partners Combined	Each Partner	One Partner	
Participation in at least 2 (two) contracts that have been successfully or substantially completed within the last 5 years and that is similar to the proposed contract, where the value of the Bidder's participation in each contract exceeds <b>BDT 72,200,000.00</b> . 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 Requirements).	must meet requirement	must meet requirement as follows: Either one partner must meet requirement Or any two partners must each demonstrate one (1) successfully or substantially completed contract of similar size and nature	not applicable	must meet requirement	<ul style="list-style-type: none"> <li>Form EXP - 1</li> <li>Supporting documents to substantiate this experience requirements (ex. Completion certificates),</li> </ul>

### 2.4.2 Construction Experience in Key Activities

May be complied with by specialist subcontractors. The employer shall require evidence of the subcontracting agreement from the bidder. A specialist subcontractor is a specialist enterprise engaged for highly specialized processes, which the main contractor cannot provide.)

Criteria	Compliance Requirements				Documents
Requirement	Single Entity	Joint Venture			Submission Requirements
		All Partners Combined	Each Partner	One Partner	
For the above two or other contracts executed during the period stipulated in 2.4.1 above, a minimum experience in the following key activities:	must meet requirements	must meet requirement as follows: In the case of a joint venture bidder, at least one of the partners must have experience in the key activity if the bidder itself (not its subcontractor) will carry out the relevant activity.	not applicable	not applicable	Form EXP - 2
<b>A – Key Construction activities:</b>					
<b>A.1)</b> Drilling and open bore hole at a minimum diameter of 700 mm to 750 mm to a depth upto Pump housing pipe( Maximum 120 m)and 550-600mm upto bottom of the target depth maximum 320m in continuous operation.					Supporting documents to substantiate this experience requirements (ex. Completion certificates),
<b>A.2)</b> The experience in installation of 200mm dia Stainless Steel Screens, 200mm dia Mild Steel Blind Casing Pipe, 200mm dia Mild Steel Sand Trap, 450mmx200mm dia Mild Steel Reducing Cone and 450mm dia Mild Steel Housing Casing Pipe etc.; minimum 10 (ten) no's within last 5 (five) years.					
<b>A.3)</b> Experience in fixture design, sand/gravel packing, development test, recovery test etc.; minimum 10 (ten) no's within last 5 (five) years.					

**Part C : Constraction of Pump House, Delivery line, Wash Out line, R.S Joist and Boundary Wall for 9 Nos DTWs.**

**Name of Item: Construction of 9 (Nine) Number of Pump House with Related Works.**

Sl. No	Basis of	Description of item	Qty	Unit	Unit Rate (BDT)	Total Amount (BDT)
1	2	3	4	5	6	7
<b>Schedule-1</b>						
<b>Schedule-2</b>						
1	PWD-2.1	Earth work in excavation in all kinds of soil for foundation trenches including layout, providing center lines, local bench-mark pillars, levelling, ramming and preparing the base, fixing bamboo spikes and marking layout with chalk powder, providing necessary tools and plants, protecting and maintaining the trench dry etc., stacking, cleaning the excavated earth at a safe distance out of the area enclosed by the layout etc. all complete and accepted by the Engineer-in-charge, subject to submit method statement of carrying out excavation work to the Engineer-in-charge for approval. However, engineer's approval shall not relieve the contractor of his responsibilities and obligations under the contract.				
	PWD-2.1.3	Earthwork in excavation in foundation trenches up to 1.5 m depth and maximum 10 m lead: in medium stiff clayey soil.	237.43	Cum		
2	PWD-3.1	One layer brick flat soling in foundation or in floor with first class/picked jhama bricks including preparation of bed and filling the interstices with local sand, leveling etc. complete and accepted by the Engineer-in-charge	204.46	Sqm		
3	PWD-3.4	Mass concrete (1:3:6) in foundation or in floor with cement, sand (F.M. 1.2) and picked jhama brick chips including breaking of chips, screening, mixing, laying, compacting to required level and curing for at least 7 days including the supply of water, electricity, costs of tools & plants and other charges etc. all complete and accepted by the Engineer-in-charge. (Cement: CEM-II/A-M)				
	PWD-3.4.1	Mass concrete in foundation (1:3:6) with cement, brick chips and sand of F.M. 1.2	16.05	Cum		
4	PWD-3.6	Damp proof course (DPC) (1:1.5:3) of cement concrete with cement, sand and picked jhama brick chips or stone chips including breaking of chips, screening, centering, shuttering, casting, curing and finishing with a coat of bitumen including the supply of water, electricity, costs of tools & plants and other charges etc. all complete and accepted by Engineer-in-charge. (Cement: CEM-II/A-M)				
	PWD-3.6.1	75 mm thick damp proof course (1:1.5:3) with cement, 50% Sylhet sand (F.M. 2.2) & 50% local sand (F.M. 1.2) and picked jhama brick chips.	22.02	Sqm		
5	PWD-2.10.1	Sand filling in foundation trenches and plinth with sand having F.M. 0.5 to 0.8 in 150 mm layers including leveling, watering and compaction to achieve minimum dry density of 95% with optimum moisture content (Modified proctor test) by ramming each layer up to finished level as per design supplied by the design office only, all complete and accepted by the Engineer-in-charge.	143.79	Cum		
6	PWD-2.13	Earth filling in foundation trenches and plinth in 150 mm layer with earth available within 90 m of the building site to achieve minimum dry density of 95% with optimum moisture content (Modified proctor test) including carrying, watering, leveling, dressing and compacting to a specified percentage each layer up to finished level etc. all complete and accepted by Engineer-in-charge.	160.83	Cum		

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Sl. No	Basis of	Description of item	Qty	Unit	Unit Rate (BDT)	Total Amount (BDT)
1	2	3	4	5	6	7
7	PWD-4.3	Brick works with first class bricks with cement sand (F.M. 1:2) mortar (1:4) in exterior walls including filling the interstices with mortar, raking out joints, cleaning and soaking the bricks at least for 24 hours before use and washing of sand, necessary scaffolding, curing at least for 7 days etc. all complete including cost of water, electricity and other charges (measurement to given as 250 mm width for one brick length and 375 mm for one brick and a half brick length) accepted by the Engineer-in-charge. (Cement: CEM-IVA-M) In ground floor	20.14	Cum		
8	PWD-4.16	125 mm brick works with first class bricks with cement sand (F.M. 1:2) mortar (1:4) and making bond with connected walls including necessary scaffolding, raking out joints, cleaning and soaking the bricks for at least 24 hours before use and washing of sand, curing at least for 7 days in all floors including cost of water, electricity and other charges etc. all complete and accepted by the Engineer-in-charge. (Cement: CEM-IVA-M) In ground floor	253.44	Sqm		
9	PWD-7.1	Reinforced cement concrete works with minimum cement content relates to mix ratio 1:2:4 having minimum $f_{cr} = 24$ MPa, satisfying a specified compressive strength $f_{cd} = 19$ MPa at 28 days on standard cylinders as per standard practice of Code ACI/BNBC/ASTM, cement conforming to BDS EN-197-1-CEM-I, 52.5N (52.5 MPa) / ASTM-C 150 Type - I, best quality sand [50% quantity of best local sand (F.M. 1:2) and 50% quantity of Sylhet sand or coarse sand of equivalent F.M. 2:2] and 20 mm down well graded picked jhama brick chips conforming to ASTM C-33 including breaking chips and screening, making and placing shutter in position maintaining true to plumb, making shutter water-tight properly, placing reinforcement in position; mixing in standard mixer machine with hopper fed by standard measuring boxes or mixing in batching plant, casting in forms, compacting by vibrator machine and curing at least for 28 days, removing centering-shuttering after specified time approved; including cost of water, electricity, testing charges of materials and cylinders as required, other charges etc. all complete, approved and accepted by the Engineer-in-charge. (Rate is excluding the cost of reinforcement and its fabrication, placing, binding etc. and the cost of shuttering & centering)				
	PWD-7.1.1	Individual & combined footing, pile cap, raft/mat, floor slab and foundation beam up to plinth level	30.72	Cum		
	PWD-7.1.2	Pedestal, column, column capital, lift wall and wall up to ground floor	6.02	Cum		
	PWD-7.1.3	Floor / roof slab, T-beam, L-beam and rectangular beam, tie beam, lintel, stair case slab and step etc. up to ground floor	33.54	Cum		
	PWD-7.1.4	Cornice, railing, drop wall, louver, fins, sunshade, false ceiling, waffle and ribbed floor slab etc. up to ground floor	3.00	Cum		
10	PWD-7.15	Form work for centering and water tight shuttering as per drawing with wooden planks (Jam/Jarul) of different thickness including supply of polythene sheet (1kg covering 6.5sqm) for making shuttering leakproof for all sorts of R.C.C. works in building construction including fitting, fixing by nails, tie rods, nuts and bolts to desired shape and size including leveling and removing the forms etc. after specified period including the cost of all materials as per direction of Engineer in charge.				
	PWD-7.15.1	Individual and continuous footing of column, raft etc. with 25mm thick wooden planks.	103.68	Sqm		



Sl. No	Basis of	Description of item	Qty	Unit	Unit Rate (BDT)	Total Amount (BDT)
1	2	3	4	5	6	7
	PWD-7.15.2	Foundation beam	142.53	Sqm		
	PWD-7.15.3	Pedestal, column, wall	96.12	Sqm		
	PWD-7.15.4	Tie beam & Lintel	33.59	Sqm		
	PWD-7.15.5	T-beam, L-beam, rectangular beam, Tie beam & Lintel	60.48	Sqm		
	PWD-7.15.6	Floor & roof slab	214.88	Sqm		
	PWD-7.15.8	Sunshade, false ceiling,	45.19	Sqm		
11	PWD-8.1.2	Grade 400 (RB 400 /RB 400W: complying BDS ISO 6935-2:2006) ribbed or deformed bar produced and marked according to Bangladesh standard, with minimum yield strength, $f_y$ (ReH)= 400 MPa but $f_y$ not exceeding 450 MPa and whatever is the yield strength within allowable limit as per BNBC/ ACI 318, the ratio of ultimate tensile strength $f_u$ to yield strength $f_y$ , shall be at least 1.25 and minimum elongation after fracture and minimum total elongation at maximum force is 16% and 8% respectively : up to ground floor.	10,975.09	Kg		
12	PWD-3.7	Supplying and laying of single layer polythene sheet weighing one kilogram per 6.5 square meter in floor or any where below cement concrete complete in all respect and accepted by Engineer-in-charge.	184.76	Sqm		
13	PWD-17.4	Average 100 mm thick finished lime terracing with 20 mm down graded first class brick chips (khao), surki from 1st class bricks and minimum lime content 500 kg per 2.83 cubic meter (stone lime brought at site, not being powdered in open air and to be slaked in presence of engineer-in-charge and to be measured in volume three days after slaking for using in the mix) in the proportion 7:2:2 (brick chips : surki : lime) including preparation of the mix on the ground by making a suitable platform under proper polythene cover. Cutting the mix twice daily with limewater (1:10) at least for 7 days until the mix attain desirable consistency. Laying the mix in proper slope, beating the same with standard „koppa“ for minimum 7 days to gain maximum consolidation, making ghoondy and neat finishing with lime Surki mortar (1:2) and curing for 21 days providing polythene cover after each day work and cleaning etc. complete in all respect accepted by the Engineer-in-charge.	16.11	Cum		
14	PWD-15.17	Pre-cast ventilators of minimum 25 mm thick of any design with cement sand (F.M.1.2) mortar (1:4) fitted and fixed in position, finishing with cement sand (F.M. 1.2) plaster (1:6) including necessary scaffolding and curing, in all floors accepted by the Engineer-incharge. (Cement: CEM-II/A-M)	2.43	Sqm		
15	PWD-8.4	Supplying fan hook 300-grade (RB 300) of 16 mm diameter M.S. rod (one meter straight length) having rounded hook at the middle of bar in proper size so as to be concealed within fan cup including fabrication, fitting and fixing in all floor accepted by the Engineer-in-charge.	9	Each		

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Sl. No	Basis of	Description of item	Qty	Unit	Unit Rate (BDT)	Total Amount (BDT)
1	2	3	4	5	6	7
16	PWD-12.15.2	Supplying, fitting and fixing M.S. door shutter made with 38 mm x 38 mm x 6 mm angle outer frame, inner member 25 mm x 6 mm F.I. bar, cladding with 16 BWG M.S. sheet, 04 nos. 75 mm long hinge, 02 nos locking arrangement with 50 mm x 50 mm x 6 mm M.S. angle chowkat including all charges for welding, riveting etc. including cost of supplying all essential fittings like iron hinges, socket bolts, clamps, for fitting and fixing the frame, making necessary holes in brick walls and R.C.C works and fitting with C.C. (1:2:4) and mending good the damages including all cost of carriage, workshop charges, electricity, and labour for fittings, fixing, curing etc. all complete and accepted by the Engineer-in-charge. (Rate is excluding the costs of painting).	48.20	Sqm		
17	PWD-13.3	Supplying, fitting and fixing window grills of any design made with 20 mm x 5 mm F.I. bar as inner and outer section; including fabricating, welding, cost of electricity and tools and plants etc. complete for all floors accepted by the Engineer-in-charge. (Total weight per sqm should be min 12 kg. and add or deduct. @ Tk. 143.00 for each kg/sqm excess or less respectively).	40.10	Sqm		
18	6.1	Supplying, fitting and fixing country made glazed wall tiles complying BDS ISO 13008: 2015, irrespective of color &/or design, with 20 mm thick cement sand (F.M. 1.2) mortar (1:3) base and raking out the joints with white cement including cutting, laying and hire charge of machine and finishing with care etc. including cost of water, electricity and other charges complete in all respect and accepted by the Engineer-in-charge. (Cement: CEMII/A-M). In ground floor				
	6.1.1	Wall tiles less than, equal or equivalent to 250 mm x 330 mm in sizes	127.58	Sqm		
19	6.1	Supplying, fitting and fixing country made GP (Gress Porcellanto) glazed or unglazed homogeneous floor tiles complying BDS ISO 13008: 2015, water absorption $\leq 0.5\%$ , modulus of rupture (MOR) $\geq 27$ N/mm <sup>2</sup> , irrespective of color &/or design, with cement sand (F.M. 1.2) mortar (1:4) base and raking out the joints with white cement including cutting and laying the tiles in proper way and finishing with care etc. all complete and accepted by the Engineer-in-charge. (Cement: CEM-II/A-M). In ground floor				
	6.1.2	GP (homogeneous) 400 mm x 400 mm floor tiles	19.44	Sqm		
20	PWD-15.1	Minimum 12 mm thick cement sand (F.M. 1.2) plaster (1:4) with fresh cement to both inner and outer surface of wall, finishing the corner and edges including washing of sand, cleaning the surface, curing at least for 7 days, cost of water, electricity, scaffolding and other charges etc. all complete in all respect as per drawing and accepted by the Engineer-in-charge. (Cement: CEM-II/A-M) ground floor.	578.34	Sqm		
21	PWD-15.2	Minimum 12 mm thick cement sand (F.M. 1.2) plaster with neat cement finishing to plinth wall with cement (1:4) up to 150 mm below ground level including washing of sand, finishing the edges and corners and curing at least for 7 days, cost of water, electricity, scaffolding and other charges etc. all complete in all respect as per drawing and accepted by the Engineer-in-charge. (Cement: CEM-II/A-M) ground floor.	56.70	Sqm		









Sl. No.	Basis of	Description of item	Qty.	Unit	Unit Rate (BDT)	Total Amount (BDT)
1	2	3	4	5	6	7
22	PWD-15.3	Minimum 12 mm thick cement sand (F.M. 1:2) plaster with neat cement finishing to dado with cement (1:4) up to 150 mm including washing of sand, finishing the edges and corners and curing at least for 7 days, cost of water, electricity, scaffolding and other charges etc. all complete in all respect as per drawing and accepted by the Engineer-in-charge. (Cement: CEM-II/A-M) ground floor.	24.30	Sqm		
23	PWD-15.8	Rule pointing to brick wall with cement sand (F.M. 1:2) mortar (1:2) with fresh cement and raking out the joints, curing at least for 7 days, cost of water, electricity, scaffolding and other charges etc. all complete in all respect as per drawing and accepted by the Engineer-in-charge. (Cement: CEM-II/A-M) ground floor.	279.77	Sqm		
24	PWD-15.10	Providing drip course or nosing at the edge of sunshade or cornice with cement sand (F.M. 1:2) mortar (1:2) with fresh cement, curing at least for 7 days, cost of water, electricity, scaffolding and other charges etc. all complete in all respect as per drawing and accepted by the Engineer-in-charge.	330.03	m		
25	PWD-16.1.1	Exterior standard acrylic emulsion paint of approved best quality and color having water resisting properties and resistance properties against fungi, fading & flaking delivered from authorized local agent of the manufacturer (Berger weather coat smooth/Elite smooth exterior/ Asian apex weather coat or equivalent brand) in a sealed container; applying to exterior surface with surface preparation including cleaning, drying, making free from dirt, grease, wax, removing all chalked and scaled materials, fungus, mending good the surface defects using sand paper and necessary scaffolding; applying 1 coat of exterior sealer of specified brand on prepared surface; then applying 1 coat of exterior putty of specified brand for levelling, spot filling, crack filling and cutting by sand paper/zero water paper; finally applying 2 coats of exterior emulsion paint spreading by brush/roller/spray & necessary scaffolding etc. upto desired finishing, elapsing specified time for drying or recoating; all complete in all floors and accepted by the Engineer-in-charge.	279.77	Sqm		
26	PWD-16.2.1	Interior standard acrylic emulsion paint (plastic or matt finish) of approved best quality and colour delivered from authorized local agent of the manufacturer (Berger robbialac plastic emulsion/Asian apcolite plastic emulsion or equivalent brand) in a sealed container; applying to interior wall and ceiling with surface preparation including cleaning drying, making free from dirt, grease, wax, removing all chalked and scaled materials, fungus, mending good the surface defects using sand paper and necessary scaffolding; applying 1 coat of interior sealer of specified brand on prepared surface; then applying 1 coat of interior putty of specified brand for levelling, spot filling, crack filling and cutting by sand paper/zero water paper; finally applying 2 coats of interior emulsion paint spreading by brush/roller/spray & necessary scaffolding etc. upto desired finishing, elapsing specified time for drying or recoating; all	578.34	Sqm		




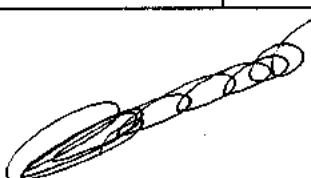



Sl. No.	Basis of	Description of item.	Qty.	Unit	Unit Rate (BDT)	Total Amount (BDT)
1	2	3	4	5	6	7
27	PWD-16.3.1	Standard synthetic enamel paint of approved best quality and colour delivered from authorized local agent of the manufacturer (Berger jhilk synthetic enamel/Elite quick drying/Asian decora synthetic enamel or equivalent brand) in a sealed container, having high water resistance, high bondability, flexibility property; using specified brand thinner <b>applying to metallic or wooden surface</b> by brass/roller/spray in 2 coats over single coat anti-corrosive coating including cleaning, drying, making free from dirt, grease, wax, removing all chalked and scaled materials, all complete in all floors and accepted by the Engineer-in-charge.	265.69	Sqm		
28	PWD-26.5	Supplying, fitting and fixing of Bangladesh pattern, long pan with foot-rest, made of vitreous China clay and preparing the base of pan with cement mortar (1:4) and with wire mesh or rods, if necessary in all floors including making holes wherever required and mending good the damages and fitting, fixing, finishing etc. complete with all necessary fittings and connections approved and accepted by the Engineer- in- charge. (530 mm x 430 mm x 210 mm size & 12.5 kg of weight)				
	PWD-26.5.1.1	a) White	9	Each		
29	PWD-26.2	Supplying, fitting and fixing of European type glazed porcelain low-down, capacity 10 liter, 490 mm x 190 mm x 350 mm in size, approximately 14 kg of weight, on walls by screws and F.I. bar clamps, rowel plugs, making holes wherever required and mending good the damages and fitting, fixing & finishing etc. complete with all necessary fittings and connections approved and accepted by the Engineer- in- charge.				
	PWD-26.2.1	White	9	Each		
30	PWD-26.9	Supplying, fitting and fixing of white glazed vitreous W/H wash basin excluding pedestal, fitting, fixing the same in position with heavy type C.I. Brackets. 30 mm dia PVC waste water pipe with brass coupling (not exceeding 750 mm in length), basin waste with chain plug including making holes in walls and floors and fitting with wall, screws and mending good the damages, finishing etc. all complete approved and accepted by the Engineer-in-charge. (600 mm x 465 mm x 225 mm in size ,14kg of weight)				
	PWD-26.9.1.1	White	9	Each		
31	PWD-26.18	Supplying, fitting and fixing of 450 mm x 600 mm size and 5 mm thick unframed super quality mirror with hard boards at the back with all necessary fitting including making holes in walls and mending good the damages with cement mortar (1:4) etc. all complete approved and accepted by the Engineer-in-charge. (Made in Japan or equivalent).	9	Each		
32	PWD-26.20	Supplying, fitting and fixing of super quality 600 mm x 125 mm coloured glass shelf having 5 mm thickness with fancy C.P. brackets, screws and frames including making holes in walls and mending good the damages with cement mortar (1:4) etc. all complete approved and accepted by the Engineer- in- charge.	9	Each		
33	PWD-26.22	Supplying, fitting and fixing of super quality C.P. towel rail of 600 mm long and 20 mm in dia with C.P. holder including making drills in walls and mending good the damages with cement mortar (1:4) etc. all complete approved and accepted by the Engineer- in- charge.	9	Each		






Sl. No	Basis of	Description of item	Qty	Unit	Unit Rate (BDT)	Total Amount (BDT)
1	2	3	4	5	6	7
34	PWD-26.24	Supplying, fitting and fixing of standard porcelain toilet paper holder of 150 mm x 150 mm x 126 mm size including making drills in walls and mending good the damages with cement mortar (1:4) etc. all complete approved and accepted by the Engineer- in- charge.				
	PWD-26.24.1	Light Colored	9	Each		
35	PWD-26.26	Supplying, fitting and fixing of standard size soap tray including making holes in walls and mending good the damages with cement mortar (1:4) etc. all complete approved and accepted by the Engineer- in- charge.				
	PWD-26.26.1	C.P. soap tray	18	Each		
36	PWD-26.28.1	Supplying, fitting and fixing of 125 mm dia stainless steel floor grating in traps or in drains including making holes in walls/floors and mending good the damages with cement mortar (1:4) etc. all complete approved and accepted by the Engineer- in- charge.	9	Each		
37	PWD-26.33	Supplying 50 mm inside dia best quality uPVC waste and ventilation pipe having specific gravity 1.35 - 1.45, wall thickness 2.5 mm - 3.0 mm, and other physical, chemical, thermal, fire resistivity properties etc. as per BSTI approved manufacturer standards or ASTM, BS/ISO/IS standards fitting and fixing in position with sockets, bends, of uPVC Pipe with all accessories such as Round grating /domed roof grating bands, sockets etc. approved and accepted by the Engineer- in- charge.	27	P/m		
38	PWD-26.34	Supplying 100 mm inside dia best quality uPVC soil, waste and ventilation pipe having specific gravity 1.35-1.45, wall thickness 3.4- 4.0 mm, and other physical, chemical, thermal, fire resistivity properties etc. as per BSTI approved manufacturer standards or ASTM, BS/ISO/IS standards fitting and fixing in position with sockets, bends, with all accessories such as round rating/domed roof grating bands, sockets etc. approved and accepted by the Engineer- in- charge.	117	P/m		
39	PWD-26.36	Supplying, fitting and fixing of G.I. pipe with all special fittings, such as bends, elbows, sockets, reducing sockets, Tee, unions, jam-nuts etc. including cutting trenches where necessary and fitting the same with earth duly rammed and fixing in walls with holder bats and making hole in floors, walls and consequent mending good the damages etc. all complete in all respects approved and accepted by the Engineer- in- charge.				
	PWD-26.36.1	a). 12.5 mm dia G.I. pipe with wall thickness 2.65 mm, outside diameter min 17.8 mm, weight 1.31 kg/m, can withstand min 50 kg/cm2 hydraulic pressure.	90	P/m		
	PWD-26.36.2	b). 20 mm dia G.I. pipe with wall thickness 2.65 mm, outside diameter min 25.3 mm, weight 1.7 kg/m, can withstand min 50 kg/cm2 hydraulic pressure.	90	P/m		
40	PWD-26.51.2	Supplying different inside dia best quality uPVC clean out / trap having specific gravity 1.35 -1.45 and other physical, chemical, thermal, fire resistivity properties etc. as per BSTI approved manufacturer standards or ASTM, BS/ISO/IS standards, fitting				
	PWD-26.51.2	100 mm dia uPVC „P" or „S" trap	9	Each		
41	PWD-26.52	Supplying, fitting and fixing of best quality faucets etc. complete approved and accepted by the Engineer- in- charge.				
	PWD-26.52.1	12 mm dia CP bib cock	18	Each		
42	PWD-26.53	Supplying, fitting and fixing of best quality CP pillar cock etc. complete approved and accepted by the Engineer- in- charge.				



Sl. No	Basis of	Description of item	Qty	Unit	Unit Rate (BDT)	Total Amount (BDT)
1	2	3	4	5	6	7
	PWD-26.53.1	12 mm dia CP medium quality pillar cock	9	Each		
43	PWD-26.63	Supplying, fitting and fixing of angle stop cock etc. complete approved and accepted by the Engineer-in-charge.				
	PWD-26.63.1	12 mm dia CP surface mounted angle stop cock (heavy type)	18	Each		
44	PWD-26.80	Construction of masonry inspection pit with 250 mm thick brick work in cement mortar (1:4) including necessary earth work, side filling and one layer brick flat soling, 75 mm thick (1:3:6) base concrete for making invert channel and 12 mm thick (1:2) cement plaster with neat finishing etc. all complete up to a depth of 700 mm approved and accepted by the Engineer-in-charge.				
	PWD-26.80.2	Clear 525 mm x 525 mm and depth 675 mm to	18	Each		
45	Approved rate	Construction of soak well of different sizes with 38 mm thick R.C.C. ring 36" dia with 10' x 12' depth Honey comb work cement mortar (1:6) as per design as per drawing with R.C.C. cover, filling the sand including supplying and fabricating M.S rod casting, cutting and billing out water including cost of all materials etc. all complete as per drawing, design and direction of the Engineer-in charge. a) For 10 users (10 Nos ring)	45	Each		
46	PWD-1.1.6	Concealed conduit wiring for following point looping at the switch board with earth terminal with 1C-2x1.5 sqmm PVC insulated and sheathed stranded cable (BYM) & same size PVC insulated ECC (BYA) (Green / White color) including circuit wiring with 1C-2x2.5 sqmm PVC insulated and sheathed stranded cable (BYM) & same size PVC insulated ECC (BYA) Green / White color through PVC conduit (one conduit from switch board to common point on ceiling is considered to draw 3 pair of cable) of reputed manufacturer of minimum 25 mm Dia. & 1.5 mm wall thickness complete with 18 SWG GP sheet / PVC switch board & pull box with 3mm thick ebonite sheet cover, without switch, fixing materials etc. (without switch) as required including mending the damages good. All electrical contacts shall be of brass / copper connected through connector or soldering (no twisting shall be allowed) and cables shall be manufactured and tested according to relevant IEC / BDS / BS / VDE standards and as per detailed specification mentioned in Annexure-1. The work shall be carried out as per direction & approval of the Engineer. <b>Cables manufactured by govt. of BANGLADESH owned / shared company Ltd. (Eastern cables) approved by the Engineer.</b>				
	PWD-1.1.6 (i)	a) Light / exhaust or wall bracket fan point	63	Each		
	PWD-1.1.6 (ii)	b) Fan point	9	Each		
	PWD-15.4 (20)	c) 2-Pin 5 amps Socket point (outlet with control switch on switch	9	Each		
47	PWD-1.2.9	Concealed conduit wiring with the following PVC insulated stranded cable (BYA) & PVC Insulated Green / White colour ECC wire (BYA) through PVC conduit of reputed manufacturer complete with 18 SWG GP sheet pull box with 3mm thick ebonite sheet cover, fixing materials, other accessories etc. as required including mending the damages good. All electrical contacts shall be of brass / copper connected through connector or soldering (no twisting shall be allowed) and cables shall be manufactured and tested according to relevant IEC / BDS / BS / VDE standards and as per detailed specification mentioned in Annexure-1. The work shall be carried out as per direction & approval of the Engineer.				
	PWD-1.2.9.2	1C-2x2.5sqmm (BYA) cable with 2.5sqmm (BYA) ECC wire through PVC pipe of minimum inner Dia. 18 mm having wall thickness of 1.5 mm	180	m		

Sl. No	Basis of	Description of item	Qty	Unit	Unit Rate (BDT)	Total Amount (BDT)
1	2	3	4	5	6	7
48	PWD-4.4	Providing & fixing on a prepared board 250 volt grade following single pole miniature circuit breaker (SPMCBS) having minimum breaking capacity 6-KA with thermal overcurrent and instantaneous electromagnetic short circuit release provision.				
	PWD-4.4.1	SPMCBS of DORMAN SMITH / MEM / SIEMENS / VIRTZRO / HAGER / FEDERAL / KAWAMURA / ABB / HAVELLS / LEGRAND / MERLIN GERIN / SCHNEIDER or equivalent brand accepted / approved by the engineer.				
	PWD-4.4.1(i)	5 - 40 Amps.	18	Each		
49	PWD-18.1	Supplying & fixing AC capacitor type ceiling fan (without regulator) of following specifications and sizes complete with minimum 305 mm (1 ft) long and 0.75 -1.0" dia, 2.3 mm thickness MS pipe down rod, tempered cast aluminum blades, 2.5 µf 400V AC capacitor, canopy, double Z ball bearing, best quality silicon sheet core, best quality copper made super enamel wire, aluminum alloyed casting body having safety pin with powder coated heat / docu paint as required etc. connecting PVC wire complete as required. Rated voltage : 220 volts Rated frequency : 50 Hz Rated speed : 300 rpm ± 5 % Service value : Minimum 3.5 m3 / min / watt Temperature rise : Maximum 55°C Class of insulation : Class-E Noise level: 60 db at a distance 1 meter.				
	PWD-18.1.1	1400 mm. (56") Sweep				
	PWD-18.1.1 (i)	Input power: Maximum 65 watt.	9	Each		
50	PWD-18.2	Providing and fixing of following axial flow A.C capacitor type wall mounted exhaust fan complete with blade, steel frame standard wall louver shutter, PVC insulated connecting wire etc complete as required including cutting wall and mending good the damages as per direction of the Engineer.				
	PWD-18.2 (ii)	8" Exhaust fan plastic body (foreign made accepted / approved by the Engineer).	9	Each		
51	PWD-6A.20	Supply & fixing of the following energy savings lamp (CFL) having illuminate even at low voltage as 110 volts. Built in short circuit & over voltage protection feature & 8000 hrs. (minimum) lifetime, 230V / 250V, 50Hz manufacturers by OSRAM / PHILIPS / ENERGY PAC / CBE / CORONA / HAVELLS / GE EDISON / EASTERN / PRODIP / MEP / METRO / HARMONICS / SUPERSTAR / TRANSTEC / ENERGY+ or equivalent brand accepted / approved by the Engineer .				
	PWD-6A.20.3	8 watt screw type lamp E-27 CDL	18	Each		
	PWD-6A.20.4	23 watt spiral screw type lamp E-27	18	Each		
	LS	c) 40 watt LED light	9	Each		
52	Approved rate	Carrying and supplying of wooden table 4'-0"x2'-6"x2'-6" in Size. The table shall be a drawer at the right (1'-6"x1'-0"x5". The size of the wood will be ¾" thick and a Foreign made Lock and key . The leg of the table will be 2½" x 2½", Frame 4"x1" and top ¾" thick . Wood will be well seasoned shil korai with well varnished etc. all complete as per direction of the E/C.	9	Each		
53	L. S.	Carrying and supplying of std. Size wooden chair, the leg of the chair will be 1¼"x1¼", Frame 2½"x1" handle 1¼"x1¼" Three tana will be attached at the back of the chair Upper tana will be 3"x1" and lower two will be 2"x1" in size. Top of chair will be ¾" thick. Wood will be well seasoned seal korai and Well varnished etc.all complete as per direction of the E/C.	9	Each		
54	L. S.	Supply Lock For Pump House, Main Gate, Toilet, CL	36	Each		



Sl. No	Basis of	Description of item	Qty	Unit	Unit Rate (BDT)	Total Amount (BDT)
1	2	3	4	5	6	7
55	Market Price	Supply & Fitting Fixing at Different Pump House Lighting sign board Size (2'-6"x 2'-0"x 6") with S,S Frame of all complete as per direction of the E/C.	9	Each		
56	L. S.	Labor charge for site cleaning removing the waste materials from the complete and marker post as per direction of the Engineer-in charge.	9	item		
57	DWASA 1.13	Demolisation of the existing RCC/CC/Brick sewer deck slab/foundation/wall/railing/abutment/beam etc. with soiling under RCC/CC in bed, without disturbing the foundation soil and dumping the materials to a safe place as per direction of the Engineer.				
		a). RC.C/C.C work.	18	P/m²		
		c). Brick work.	18	P/m²		
58	PWD 4. 17	Earthing the electrical installation with 40mm (1.5") Dia. G.I. pip (earth Electrode) having 6.35mm Dia. hole across the pipe a 305mm. interval securely bonded by soldering with 2 nos. of No-2 SWG HDHC earth leads(at the top of the electrode) with il protection by 20mm (3/4") Dia. G.I. pipe up-to plinth level run at depth of 609.6mm (2ft...) below G.L up-to main board to b complete for maintaining earth resistance within 1 ohm. Depth of bottom of main electrode at 179S4min. (42.Aft.) from GL & length of electrode 17 1 92min. (40ft.) All price shall be included VAT, TAX, IT, loading & unloading etc and As per E/C.	9.00	Nos		
59	PWD 4.18	Construction of earthing inspection pit inside measurement 600mm x 600mm with 250mm thick brick in cement mortar(1:4) wit 100mm thick RCC top slab(1:2:4) with 1% re-enforcement 450mm Dia. water sealed CI manhole cover with locking arrangement including necessary earth work, side filling and one brick fla soling 75mm thick (1:3:6) base concrete for making inlet channe & 12mm thick (1:2) cement plaster with neat finishing etc. a complete up to depth of 0.73 meter.	9.00	each		
60	PWD-2.11	50 mm down graded picked jhama khoa consolidation in foundation trenches by mixing the same with best quality local sand (F.M. 1.2) in 2:1 (khoa: sand) proportion to achieve minimum dry density of 95% with optimum moisture content (Modified proctor test) including breaking and screening chips, laying and spreading in 150 mm layers uniformly and compacting etc. all complete and accepted by the Engineer-in-charge.	7.77	Cum		
Provisional Item (Which will be done as per approval of competent Authority)						
61	PWD-2.4	Supplying of wooden ballah having an average diameter not less than 150 mm (without barks) at one third distance from larger end with a minimum end diameter of 100 mm for retaining purpose and driving to a depth as per design and drawing by any method including all arrangement for staging, hoisting, carrying etc. complete and accepted by the Engineer-in-charge.	432.00	m		
Grand Total Taka=						
In Word:						







**Part C : Construction of Pump House, Delivery line, Wash Out line, R.S Joist and Boundary Wall for 9 Nos DTWs.**

**Name of Item: Construction / Re-Construction of 09 (Nine) Nos. boundary wall with related works.**

Sl. No	Basis of rate	Description of Item	Qty	Unit	Unit Rate (BDT)	Total Amount (BDT)
1	2	3	4	5	6	7
1	PWD-2.1	Earth work in excavation in all kinds of soil for foundation trenches including layout, providing center lines, local bench-mark pillars, levelling, ramming and preparing the base, fixing bamboo spikes and marking layout with chalk powder, providing necessary tools and plants, protecting and maintaining the trench dry etc., stacking, cleaning the excavated earth at a safe distance out of the area enclosed by the layout etc. all complete and accepted by the Engineer-in-charge, subject to submit method statement of carrying out excavation work to the Engineer-in-charge for approval. However, engineer's approval shall not relieve the contractor of his responsibilities and obligations under the contract.				
	PWD-2.1.3	Earthwork in excavation in foundation trenches up to 1.5 m depth and maximum 10 m lead; in medium stiff clayey soil.				
			394.247	Cum		
2	PWD-3.1	One layer brick flat soling in foundation or in floor with first class/picked jhama bricks including preparation of bed and filling the interstices with local sand, leveling etc. complete and accepted by the Engineer-in-charge				
			437.756	Sqm		
3	PWD-3.3	Brick on end edging including preparation of bed and filling the interstices with local sand, leveling, maintaining alignment and grid etc. all complete and accepted by the Engineer-in-charge				
			164.634	rm		
4	PWD-3.4	Mass concrete (1:3:6) in foundation or in floor with cement, sand (F.M. 1.2) and picked jhama brick chips including breaking of chips, screening, mixing, laying, compacting to required level and curing for at least 7 days including the supply of water, electricity, costs of tools & plants and other charges etc. all complete and accepted by the Engineer-in-charge. (Cement: CEM-II/A-M)				
	PWD-3.4.1	Mass concrete in foundation (1:3:6) with cement, brick chips and sand				
			39.536	Cum		
5	PWD-2.10.1	Sand filling in foundation trenches and plinth with sand having F.M. 0.5 to 0.8 in 150 mm layers including leveling, watering and compaction to achieve minimum dry density of 95% with optimum moisture content (Modified proctor test) by ramming each layer up to finished level as per design supplied by the design office only, all complete and accepted by the Engineer-in-charge.				
			317.096	Cum		
6	PWD-2.13	Earth filling in foundation trenches and plinth in 150 mm layer with earth available within 90 m of the building site to achieve minimum dry density of 95% with optimum moisture content (Modified proctor test) including carrying, watering, leveling, dressing and compacting to a specified percentage each layer up to finished level etc. all complete and accepted by Engineer-in-charge.				
			62.914	Cum		
7	PWD-4.3	Brick works with first class bricks with cement sand (F.M. 1:2) mortar (1:4) in exterior walls including filling the interstices with mortar, raking out joints, cleaning and soaking the bricks at least for 24 hours before use and washing of sand, necessary scaffolding, curing at least for 7 days etc. all complete including cost of water, electricity and other charges (measurement to given as 250 mm width for one brick length and 375 mm for one brick and a half brick length) accepted by the Engineer-in-charge. (Cement: CEM-II/A-M) In ground floor				
			64.694	Cum		
8	PWD-4.16	125 mm brick works with first class bricks with cement sand (F.M. 1:2) mortar (1:4) and making bond with connected walls including necessary scaffolding, raking out joints, cleaning and soaking the bricks for at least 24 hours before use and washing of sand, curing at least for 7 days in all floors including cost of water, electricity and other charges etc. all complete and accepted by the Engineer-in-charge (Cement: CEM-II/A-M) In ground floor				
			147.349	Sqm		



Name of Item: Construction / Re-Construction of 09 (Nine) Nos. boundary wall with related works.

Sl. No	Basic of rate	Description of Item	Qty	Unit	Unit Rate (BDT)	Total Amount (BDT)
1	2	3	4	5	6	7
9	PWD-7.1	Reinforced cement concrete works with minimum cement content relates to mix ratio 1:2:4 having minimum fcr = 24 MPa, satisfying a specified compressive strength fcc= 19 MPa at 28 days on standard cylinders as per standard practice of Code ACI/BNBC/ASTM, cement conforming to BDS EN-197-1-CEM-I, 52.5N (52.5 MPa) / ASTM-C 150 Type - I, best quality sand [50% quantity of best local sand (F.M. 1.2) and 50% quantity of Sylhet sand or coarse sand of equivalent F.M. 2.2] and 20 mm down well graded picked jhama brick chips conforming to ASTM C-33 including breaking chips and screening, making and placing shutter in position maintaining true to plumb, making shutter water-tight properly, placing reinforcement in position; mixing in standard mixer machine with hopper fed by standard measuring boxes or mixing in batching plant, casting in forms, compacting by vibrator machine and curing at least for 28 days, removing centering-shuttering after specified time approved, including cost of water, electricity, testing charges of materials and cylinders as required, other charges etc. all complete, approved and accepted by the Engineer-in-charge. (Rate is excluding the cost of reinforcement and its fabrication, placing, binding etc. and the cost of shuttering & centering)				
	7.1.1	Individual & combined footing, pile cap, raft/mat, floor slab and foundation beam up to plinth level	45.667	Cum		
	PWD-7.1.2	Pedestal, column, column capital, lift wall and wall up to ground floor	21.967	Cum		
	PWD-7.1.3	Floor / roof slab, T-beam, L-beam and rectangular beam, tie beam, lintel, stair case slab and step etc. up to ground floor	9.316	Cum		
10	PWD-7.15	Form work for centering and water tight shuttering as per drawing with wooden planks (Jam/Jarul) of different thickness including supply of polythene sheet (1kg covering 6.5sqm) for making shuttering leakproof for all sorts of R.C.C. works in building construction including fitting fixing by nails, tie rods, nuts and bolts to desired shape and size including leveling and removing the forms etc. after specified period including the cost of all materials as per direction of Engineer in charge.				
	PWD-7.15.1	Individual and continuous footing of column, raft etc. with 25mm thick wooden planks.	198.749	Sqm		
	PWD-7.15.2	Foundation beam	111.349	Sqm		
	PWD-7.15.3	Pedestal, column, wall	439.144	Sqm		
	PWD-7.15.4	Tie beam & Lintel	134.624	Sqm		
11	PWD-8.1.2	Grade 400 (RB 400 /RB 400W/ complying BDS ISO 5935-2:2006) ribbed or deformed bar produced and marked according to Bangladesh standard, with minimum yield strength, fy (ReH)= 400 MPa but fy not exceeding 450 MPa and whatever is the yield strength within allowable limit as per BNBC/ ACI 318, the ratio of ultimate tensile strength fu to yield strength fy, shall be at least 1.25 and minimum elongation after fracture and minimum total elongation at maximum force is 16% and 8% respectively : up to ground floor.	9,720.088	Kg		
12	PWD-3.7	Supplying and laying of single layer polythene sheet weighing one kilogram per 6.5 square meter in floor or any where below cement concrete complete in all respect and accepted by Engineer-in-charge.	109.756	rm		
13	PWD-15.1	Minimum 12 mm thick cement sand (F.M. 1.2) plaster (1:4) with fresh cement to both inner and outer surface of wall, finishing the corner and edges including washing of sand, cleaning the surface, curing at least for 7 days, cost of water, electricity, scaffolding and other charges etc. all complete in all respect as per drawing and accepted by the Engineer in-charge. (Cement: CEM-II/A-M) ground floor.	1,039.501	Sqm		
14	PWD-15.8	Rule pointing to brick wall with cement sand (F.M. 1.2) mortar (1:2) with fresh cement and raking out the joints, curing at least for 7 days, cost of water, electricity, scaffolding and other charges etc. all complete in all respect as per drawing and accepted by the Engineer-in-charge. (Cement: CEM-II/A-M) ground floor.	147.349	Sqm		

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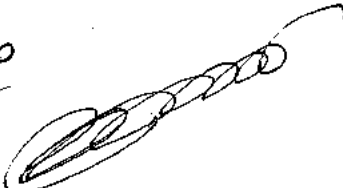

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Name of Item: Construction / Re-Construction of 09 (Nine) Nos. boundary wall with related works.

Sl. No.	Basis of rate	Description of item	Qty	Unit	Unit Rate (BDT)	Total Amount (BDT)
15	PWD-16.1.1	Exterior standard acrylic emulsion paint of approved best quality and color having water resisting properties and resistance properties against fungi, fading & flaking delivered from authorized local agent of the manufacturer (Berger weather coat smooth/Elite smooth exterior/Asian apex weather coat or equivalent brand) in a sealed container; applying to exterior surface with surface preparation including cleaning, drying, making free from dirt, grease, wax, removing all chalked and scaled materials, fungus, mending good the surface defects using sand paper and necessary scaffolding; applying 1 coat of exterior sealer of specified brand on prepared surface; then applying 1 coat of exterior putty of specified brand for levelling, spot filling, crack filling and cutting by sand paper/zero water paper; finally applying 2 coats of exterior emulsion paint spreading by brush/roller/spray & necessary scaffolding etc. upto desired finishing, elapsing specified time for drying or recoating; all complete in all floors and accepted by the Engineer-in-charge.				
		(Pointing Item+Plastering item)	1,186.850	Sqm		
16	PWD-19.3	Construction of M. S. gate with the supply of 2"x1/2" M. S. flatbar outer frame and wheel, runner, and necessary 3/8" dia M. S. rod and flat bar of size 1"x1/4" & 2" dia C.I. wheel including locking arrangement 3'-6"x2'-4" naughtly gate to be fixed with hinges of including all necessary fabrication at also including Supply of 2 1/2"x2 1/2"x1/4" M. S. angle 2"x1/2" M. S. flatbar clump, 1'-3" long, 1" dia 6" long boll and nut, 3/4" dia and 5/8" dia M. S. haspbolt, welding, revetting etc. Fainting of the gate two coats with approved paint, red oxidized priming etc. all complete as per aproved drawing, design & direction of the E/C.				
			60.279	Sqm		
17	PWD-21.2	Supplying, fitting and fixing steel grill fencing of any design and shape made with 19 mm x 3 mm tube (angle box made with 2 Nos. 19 x 19 x 3 mm angle in by continuous welding) placed vertically @ 150 mm c/c and welding the said vertical boxes with two Nos. horizontal 25 x 25 x 6 mm angle box (made with 2 Nos. 25 x 25 x 6 mm angle by welding), placing one at bottom and another at top and again fitted and fixed by welding the said horizontal tube box (with vertical 38 x 38 x 6 mm angle box post made with 2 Nos. 38 x 38 x 6 mm angle by welding) provided 1800 mm c/c including embedding the tube box post in brick R.C.C. pillar or core wall up to 375 mm depth after cutting grooves in wall/pillar including mending good the damages with C.C. (1:2:4) and finishing, curing, 2 coats of approved synthetic enamel paint over a coat anti-corrosive paint etc. all complete as per design, drawing and accepted by the Engineer. (Rate is excluding the cost of painting)				
			221.023	Sqm		
18	PWD-16.3.1	Painting to Grills, M.S. Gate, M.S. angle & other M.S. Materials: Standard synthetic enamel paint of approved best quality and colour delivered from authorized local agent of the manufacturer (Berger jhlik synthetic enamel/Elite quick drying/Asian decora synthetic enamel or equivalent brand) in a sealed container, having high water resistance, high bondability, flexibility property; using specified brand thinner applying to metallic or wooden surface by brass/roller/spray in 2 coats over single coat anti-corrosive coating including cleaning, drying, making free from dirt, grease, wax, removing all chalked and scaled materials, all complete in all floors and accepted by the Engineer-in-charge.				
			80.372	Sqm		
19	LS	Making Dhaka WASA Monogram (Height of the monogram =0.75m, width =0.50m) out side of boundary wall (alternatively English & Bangali) and painting to Monogram as per Specification & direction of the Engineering in Charge.				
			160			
20	L.S.	Making signboard supplying all necessary materials and writedown necessary text etc all complete as per direction of the Engineer in				
			9	L.S		
21	LS	Site Clear	9.00	L.S		
Provisional Item (Which will be done as per approval of competent Authority)						
22	PWD-2.4	Supplying of wooden ballah having an average diameter not less than 150 mm (without barks) at one third distance from larger end with a minimum end diameter of 100 mm for retaining purpose and driving to a depth as per design and drawing by any method including all arrangement for staging, hoisting, carrying etc complete and accepted by the Engineer-in-charge. (Boundary column, Gate column)				
			528 000	m		
Total cost						

In word:



**Part C : Construction of Pump House, Delivery line, Wash Out line, R.S Joist and Boundary Wall for 9 Nos DTWs.**

**Name of Item : Construction of 9 (Nine) Nos R.S Joist with Related Works.**

SL No	Basis of Rate	Description of item	Qty	Unit	Unit Rate (BDT)	Total Amount (BDT)
1	2	3	4	5	6	7
1	PWD-2.1	Earth work in excavation in all kinds of soil for foundation trenches including layout, providing center lines, local bench-mark pillars, levelling, ramming and preparing the base, fixing bamboo spikes and marking layout with chalk powder, providing necessary tools and plants, protecting and maintaining the trench dry etc., stacking, cleaning the excavated earth at a safe distance out of the area enclosed by the layout etc. all complete and accepted by the Engineer-in-charge, subject to submit method statement of carrying out excavation work to the Engineer-in-charge for approval. However, engineer's approval shall not relieve the contractor of his responsibilities and obligations under the contract.				
	PWD-2.1.3	Earthwork in excavation in foundation trenches up to 1.5 m depth and maximum 10 m lead: in medium stiff clayey soil.	203.83	Cum		
2	PWD-3.1	One layer brick flat soling in foundation or in floor with first class/picked jhama bricks including preparation of bed and filling the interstices with local sand, leveling etc. complete and accepted by the Engineer-in-charge	41.82	Sqm		
3	PWD-3.4	Mass concrete (1:3:6) in foundation or in floor with cement, sand (F.M. 1.2) and picked jhama brick chips including breaking of chips, screening, mixing, laying, compacting to required level and curing for at least 7 days including the supply of water, electricity, costs of tools & plants and other charges etc. all complete and accepted by the Engineer-in-charge.(Cement, CEM-II/A-M)				
	PWD-3.4.1	Mass concrete in foundation (1:3:6) with cement, brick chips and sand of F.M. 1.2	3.19	Cum		
4	PWD-2.10.1	Sand filling in foundation trenches and plinth with sand having F.M. 0.5 to 0.8 in 150 mm layers including leveling, watering and compaction to achieve minimum dry density of 95% with optimum moisture content (Modified proctor test) by ramming each layer up to finished level as per design supplied by the design office only, all complete and accepted by the Engineer-in-charge.	179.53	Cum		
5	PWD-7.1	Reinforced cement concrete works with minimum cement content relates to mix ratio 1:2:4 having minimum $f_{cr} = 24$ MPa, satisfying a specified compressive strength $f_{cu} = 19$ MPa at 28 days on standard cylinders as per standard practice of Code ACI/BNBC/ASTM, cement conforming to BDS EN-197-1-CEM-I, 52.5N (52.5 MPa) / ASTM-C 150 Type - I, best quality sand [50% quantity of best local sand (F.M. 1.2) and 50% quantity of Sylhet sand or coarse sand of equivalent F.M. 2.2] and 20 mm down well graded picked jhama brick chips conforming to ASTM C-33 including breaking chips and screening, making and placing shutter in position maintaining true to plumb; making shutter water-tight properly, placing reinforcement in position; mixing in standard mixer machine with hopper fed by standard measuring boxes or mixing in batching plant, casting in forms, compacting by vibrator machine and curing at least for 28 days, removing centering-shuttering after specified time approved; including cost of water, electricity, testing charges of materials and cylinders as required, other charges etc. all complete, approved and accepted by the Engineer-in-charge. (Rate is excluding the cost of reinforcement and its fabrication, placing, binding etc. and the cost of shuttering & centering)				
5.1	PWD-7.1.1	Individual & combined footing, pile cap, raft/mat, floor slab and foundation beam up to plinth level	18.83	Cum		

UH

2

Ramp

13




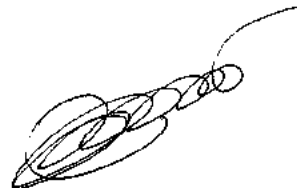
SL No	Basis of Rate	Description of item	Qty	Unit	Unit Rate (BDT)	Total Amount (BDT)
1	2	3	4	5	6	7
5.2	PWD-7.1.2	Pedestal, column, column capital, lift wall and wall up to ground floor	8.16	Cum		
6	PWD-7.15	Form work for centering and water tight shuttering as per drawing with wooden planks (Jam/Jarul) of different thickness including supply of polythene sheet (1kg covering 6.5sqm) for making shuttering leakproof for all sorts of R.C.C. works in building construction including fitting, fixing by nails, tie rods, nuts and bolts to desired shape and size including leveling and removing the forms etc. after specified period including the cost of all materials as per direction of Engineer in charge.				
6.1	PWD-7.15.1	Individual and continuous footing of column, raft etc. with 25mm thick wooden planks.	35.13	Sqm		
6.2	PWD-7.15.3	Pedestal, column, wall	220.85	Sqm		
7	PWD-8.1.2	Grade 400 (RB 400 /RB 400W: complying BDS ISO 6935-2:2006) ribbed or deformed bar produced and marked according to Bangladesh standard, with minimum yield strength, fy (ReH)= 400 MPa but fy not exceeding 450 MPa and whatever is the yield strength within allowable limit as per BNBC/ ACI 318, the ratio of ultimate tensile strength fu to yield strength fy, shall be at least 1.25 and minimum elongation after fracture and minimum total elongation at maximum force is 16% and 8% respectively : up to ground floor.	3,981.06	kg		
8	PWD-15.3	Minimum 12 mm thick cement sand (F.M. 1:2) plaster with neat cement finishing to dado with cement (1:4) up to 150 mm including washing of sand, finishing the edges and corners and curing at least for 7 days, cost of water, electricity, scaffolding and other charges etc. all complete in all respect as per drawing and accepted by the Engineer-in-charge. (Cement: CEM-II/A-M) ground floor.	133.58	Sqm		
9	PWD-16.1.1	Exterior standard acrylic emulsion paint of approved best quality and color having water resisting properties and resistance properties against fungi, fading & flaking delivered from authorized local agent of the manufacturer (Berger weather coat smooth/Elite smooth exterior/ Asian apex weather coat or equivalent brand) in a sealed container; applying to exterior surface with surface preparation including cleaning, drying, making free from dirt, grease, wax, removing all chalked and scaled materials, fungus, mending good the surface defects using sand paper and necessary scaffolding; applying 1 coat of exterior sealer of specified brand on prepared surface; then applying 1 coat of exterior putty of specified brand for levelling, spot filling, crack filling and cutting by sand paper/zero water paper; finally applying 2 coats of exterior emulsion paint spreading by brush/roller/spray & necessary scaffolding etc. upto desired finishing, elapsing specified time for drying or recoating; all complete in all floors and accepted by the Engineer-in-charge.	133.58	Sqm		
10	DWASA1 6.6	Supplying, fitting & fixing C.I. foot step in the R.C.C Column as per direction of the E/C	288	No.		
11	Market price	Supplying 12"x6" M.S Joist fitting and fixing in position as per drawing, specification and direction of the Engineer-in charge.	36.00	mm		
12	Market price	Supplying 12"x6"x1/4"mm thick M.S plate with welded joint, fitting and fixing in position as per drawing, specification and direction of the Engineer-in charge.	18.00	Nrs.		







SL No	Basis of Rate	Description of item	Qty	Unit	Unit Rate (BDT)	Total Amount (BDT)
1	2	3	4	5	6	7
13	PWD-16.3.1	Painting to Joist: Standard synthetic enamel paint of approved best quality and colour delivered from authorized local agent of the manufacturer (Berger jhlik synthetic enamel/Elite quick drying/Asian decora synthetic enamel or equivalent brand) in a sealed container, having high water resistance, high bondability, flexibility property; using specified brand thinner applying to metallic or wooden surface by brass/roller/spray in 2 coats over single coat anti-corrosive coating including cleaning, drying, making free from dirt, grease, wax, removing all chalked and scaled materials, all complete in all floors and accepted by the Engineer-in-charge.	31.21	Sqm		
14	LS	Site cleaning work for the Deep Tube Well compound, removal all unusable materials from the site with contractor's own arrangement etc. all complete as per direction of the engineer-in-charge.	9	Item		
15	PWD-2.11	50 mm down graded picked jhama khoa consolidation in foundation trenches by mixing the same with best quality local sand (F.M. 1.2) in 2:1 (khoa: sand) proportion to achieve minimum dry density of 95% with optimum moisture content (Modified proctor test) including breaking and screening chips, laying and spreading in 150 mm layers uniformly and compacting etc. all complete and accepted by the Engineer-in-charge	12.49	Cum		
<b>Provisional Item (Which will be done as per approval of competent Authority)</b>						
16	PWD-2.4	Supplying of wooden ballah having an average diameter not less than 150 mm (without barks) at one third distance from larger end with a minimum end diameter of 100 mm for retaining purpose and driving to a depth as per design and drawing by any method including all arrangement for staging, hoisting, carrying etc. complete and accepted by the Engineer-in-charge.	146.34	m		
<b>Total Cost</b>						
<b>In word :</b>						





**Part C : Construction of Pump House, Delivery line, Wash Out line, R.S Joist and Boundary Wall for 9 Nos DTWs.**

**Name of Item: Construction of 09 (Nine) Nos Delivery main and wash out line of DTW with related works.**

Sl. No	Basis of Rate	Description of item	Qty	Unit	Unit Rate (BDT)	Total Amount (BDT)
1	2	3	4	5	6	7

**Schedule-1: Construction of delivery main and washout line.**

1	WASA-1	Supply, lay, fitting and fixing of uPVC (Unplasticized polyvinyl chloride)/DI/PE/MS/HDPE water pipelines (including supply of materials, fittings, Equipment described in schedule) in accordance with the technical specification and the standard detailed drawings, of any diameter specified below. The rate includes for excavation in all kinds of soil, BFS/HBB/Bituminous road, CC, RCC road surface except rock to the full depth of trench required by the specifications, precautions necessary to avoid damage of underground utility services, (any damage Contractor shall repair by his own cost) including removing the excavated earth & stacking the same to safe distance without any traffic obstacles, dewatering of the trench to keep dry condition at all times, including all necessary shoring, boxing, must be protected from any collapse of trench sides, preparation of trench bottom, at depth of 1.2.M, transport (all kinds of materials, equipment, pipes & fittings) to site, laying, jointing and cleaning of the water pipes; disposal of surplus excavated material and transport back surplus materials to Dhaka WASA stores (materials supplied by Dhaka WASA described in Annexure ----) as per specifications and direction of Engineering in charge (cost of excess excavated earth would be deducted as per deptt material rate)				
	WASA-1/3/o	i) 200 mm dia HDPE Pipe PN 10, SDR17 & PE100	120	m		
	WASA-1/3/m	ii) 160 mm dia HDPE Pipe PN 10, SDR17 & PE100	120	m		
	WASA-1/7/d	iii) 200 mm dia (6mm wall thickness) M.S. Pipe	60	m		
2	WASA-3	Supply, lay, fitting and fixing of DI/CI/MS/GI fittings for PVC/HDPE pipes in accordance with the technical specifications, standard detailed drawings and direction of Engineering in charge.				
	WASA-3/12/b	i) 150×90° MS Bend (6mm thick)	20	Each		
	WASA-3/16/c	ii) 200×150mm MS Reducer	10	Each		
	WASA-3/11/c	iii) 200×45° M.S. bend (6mm thick)	20	Each		
	WASA-3/14/e	iv) 200×150×200 M.S (with flange) Tee	10	Each		
	WASA-5/1/b	v) 150 mm dia flange type Gate Valve	10	Each		
	WASA-5/1/c	vi) 200 mm dia flange type Gate Valve	14	Each		
	WASA-4/6/c	vii) 200 mm dia M.S Flange adopter	18	Each		
	WASA-4/2/b	viii) 150 mm dia C.I Dresser Coupling in/c nut-bolts	10	Each		
	WASA-4/2/c	ix) 200 mm dia C.I Dresser Coupling in/c nut-bolts	10	Each		
	Analysis	x) 150 mm dia MS Special (M.S. - HDPE) Dresser Coupling in/c nut-bolts	10	Each		
	Analysis	xi) 200 mm dia MS Special (M.S. - HDPE) Dresser Coupling in/c nut-bolts	30	Each		
	WASA-1/7/d	xii) 200 mm dia (short Piece ) (6mm wall thickness) M.S. Pipe. ( If	5	m		
3		Supply, lay, fitting and fixing of HDPE Fittings for PVC/HDPE pipes in				
	Analysis	i) 200×200×200mm dia HDPE EF Tee	10	Each		
	Analysis	ii) 160×90° HDPE EF Bend	10	Each		
	Analysis	iii) 160mm dia HDPE EF Sleeve	10	Each		
	Analysis	iv) 200mm dia HDPE EF Sleeve	30	Each		
4	WASA-24	Supply, lay, fitting and fixing of different types of fittings for Delivery main &				
	WASA-24/a	i) 200 mm dia Non-return Valve	10	Each		
	WASA-24/b	ii) 200 mm dia Flow meter SCADA compatible	10	Each		
	WASA-24/c	iii) 3" to 4" dia Pressure meter 300 PSI Made in UK/USA/Japan.	10	Each		
	WASA-24/d	iv) 350-200×20 mm th M.S Flange	90	Each		
	WASA-24/e	v) 350-150×20 mm thick M.S Flange	50	Each		
	WASA-24/f	vi) 75×20 mm dia Nut Bolts	1280	Each		
	WASA-24/h	vii) 20 mm dia M.S Anchor nut Bolt	40	Each		
	Analysis	viii) 350-200×5 mm thick rubber gasket	200	Each		
	Analysis	ix) 350-150×5 mm thick rubber gasket	100	Each		

*[Handwritten signatures and marks]*

Sl. No	Basis of Rate	Description of item	Qty	Unit	Unit Rate (BDT)	Total Amount (BDT)
1	2	3	4	5	6	7
	Analysis	x) 50 mm dia flange type Air release Valve (double acting) with necessary	10	Each		
	Analysis	xi) 50 mm dia flange type SS Gate Valve (Provision for Fire hydrant) with	10	Each		
5		Supply, lay, fitting and fixing of D/C/MS/GI fittings for Installation of Delivery line in accordance with the technical specifications, standard detailed drawings and direction of Engineering in charge.				
	Analysis	ii) 200 x 150 mm dia 90° MS Reducing Bend	10	Each		
	Analysis	iii) Base plate 8 mm Thickness (one pair)	10	Each		
	Analysis	iii) Clamp (one pair)	10	Each		
	Analysis	iv) 150/100 mm dia (short Piece with flange) 10mm wall thickness MS Pipe	30	m		
6	PWD-2.10.1	<b>Pipe bedding surrounding:</b> Supply, depositing and compaction of	94.98	Cum		
7	PWD-2.10.1	<b>Main backfill of trenches:</b> Supply depositing and compaction of fine	124.41	Cum		
8	WASA-7	Back filling by excavated granular soil including depositing and	2.02	Cum		
9	WASA-8	Temporary reinstatement of rigid and flexible paved road by compacted				
		<b>A. Asphalt/concrete road surface.</b>	189.00	Sqm		
		<b>B. Katcha road/BFS/HBB Rd.</b>	2.02	Sqm		
10	WASA-9	Excavation and removal of loose soil from site and the back fill of the	57.42	Cum		
11	WASA-13	The excavation of trial holes and the completion of back fill with approved	202.50	Cum		
12	WASA-14	Interconnection of water pipelines to any existing water supply networks,				
	WASA-14/1-3	a) 100 to 225mm dia PVC	10	No.		
13	PWD-3.4	Placing of Mass concrete 1: 3:6 for the anchor blocks at all bends, tees	2.43	Cum		
14	WASA-20	<b>Hire charge of de-watering pump:</b> Bailing out of all water from pipe	10	day		
15	PWD-16.3.1	<b>Painting to Delivery main &amp; washout line:</b> Standard synthetic	5.36	Sqm		
		<b>Sub total (Shedule-1) Tk=</b>				
		<b>Shedule-2: Construction of sluice valve chamber &amp; pillar for delivery line support.</b>				
16	PWD-2.1.3	Earth work in excavation in all kinds of soil for foundation trenches				
		Earthwork in excavation in foundation trenches up to 1.5 m depth and maximum 10 m lead; in medium stiff clayey soil.	86.77	Cum		
17	PWD-3.1	One layer brick flat soling in foundation or in floor with first class/picked	29.56	Sqm		
18	PWD-3.4.1	Mass concrete (1:3:6) in foundation or in floor with cement, sand (F.M.				
		Mass concrete in foundation (1:3:6) with cement, brick chips and sand of	4.78	Cum		
19	PWD-2.10.1	Sand filling in foundation trenches and plinth with sand having F.M. 0.5 to	48.62	Cum		
20	PWD-2.13	Earth filling in foundation trenches and plinth in 150 mm layer with earth available within 90 m of the building site to achieve minimum dry density of	10.00	Cum		
21	PWD-4.3	Brick works with first class bricks with cement sand (F.M. 1:2) mortar (1:4) in exterior walls including filling the interstices with mortar, raking out joints.	15.08	Cum		
22	PWD-7.1.1	Reinforced cement concrete works with minimum cement content relates to mix ratio 1:2:4 having minimum fcr = 24 MPa, satisfying a specified	9.62	Cum		
23	PWD-7.15.1	Form work for centering and water tight shuttering as per drawing with wooden planks (Jam/Jaruli) of different thickness including supply of	81.32	Sqm		
24	PWD-8.1.2	Supplying, fabrication and fixing to detail as per design : ribbed or Grade 400 (RB 400 /RB 400V: complying BDS ISO 6935-2:2006) ribbed	938.09	Kg		
25	PWD-15.2	Minimum 12 mm thick cement sand (F.M. 1:2) plaster with neat cement	116.48	Sqm		
26	WASA-10	Bituminous coating to the external faces of chamber and service pits at all depths, in accordance with the Technical Specification. To include for the	66.56	Sqm		
27	WASA-11	Water tightness testing of completed Gate valve and washout chambers	4	Nos.		
28	L.S.	Site Cleaning as per direction of E/C	1	Item		
		<b>Sub total (Shedule-2) Tk</b>				
		<b>Total Cost</b>				

In word :

