SECTION 6

FINANCIAL BID

(BILL OF QUANTITIES)

Preamble

1. The Bill of Quantities shall be read in conjunction with the Instructions to Bidders, condition of contract, technical specification and drawings.
2. The quantities given in the bill of quantities are estimated and provisional, and are given to provide a common basis for Bidding. The basis of payment will be the actual quantities of work ordered and carried out, as measured by the contractor and verified by the Engineer and valued at the rate and prices tendered in the priced Bill of quantities, where applicable and otherwise as such rate prices as the Engineer may fixed within the terms of the contract.
3. The rate and prices tendered in the price bill of quantities shall, except in so far as it is otherwise provided under the contract include all constructional plan, labour, supervision, materials, erection, maintenance, insurance, profit, taxes and duties together with all general risk , liabilities and obligation set out or implied in the contract.
4. The rate and prices shall be quoted entirely in Indian currency.
5. A rate or price shall be entered against each item in the bill of quantities, whether quantities are stated or not. The cost of items against which the contractor has failed to enter a rate of price shall be deemed to be covered by other rates and prices entered in the Bill of Quantities.
6. The whole cost of complying with the provision of the contract shall be included in the item provided in the priced Bill of quantities, and where no items are provided the cost shall be deemed to be distributed among the rate and prices entered for the related items of works.
7. General direction and description of work and materials are not necessarily repeated or summarized in the Bill of quantities. References to the relevant section of the contract documentation shall be made before entering rate or prices against each item in the bill of quantities.
8. The method of measurement of completed work for payment shall be in accordance with the specification given in Section3 – GCC and Section 4 – Contract Data.
9. Errors will be corrected by the employer for any arithmetic errors pursuant to clause 29 of the instructions to Bidders.
10. Rock is defined as all materials which, in the opinion of the Engineer, require blasting, or the used of metals wedges and sledgehammer, or the used of compressed air drilling for each removal, and which cannot be extracted by ripping with a tractor of at least 150 kw with a single rear mounted heavy duty ripper.

BILL OF QUANTITIES

Sl. No	Description of Item (with brief specification and reference to book of specification)	Unit	Qnty	Rate (Rs.)		Amount (Rs.)
				(in figures)	*(in words)*	*(in figure)*
PART A. CIVIL WORKS:						
1	**CLEAR WATER PUMP HOUSE:** Construction of R.C.C. framed structures for clear Water Pump House.	Lot	1			
2	**CLEAR WATER RISING MAIN:** (i) Procurement of 219.10 (OD) M.S ERW Pipe- API 5L. Grade-52)					
	(a) 5.60mm thick.	Rm	2000			
	(b) 4.80mm thick	Rm	3000			
	(ii) Field welding including cutting, making bends of required degrees, etc. (a) 5.60mm thick	Rm	2000			
	(b)4.80mm thick	Rm	3000			
	(iii) Grit shot blasting	Rm	5000			
	(iv) Internal coating of M.S ERW Pipe (Liquid epoxy painting) (a) 5.60mm thick	Rm	2000			
	(b) 4.80mm thick	Rm	3000			
	(v) Wrapping and coating of external pipe.	Rm	5000			
	(vi) Laying including earthwork.	Rm	5000			
	(vii) Construction of Valve Chamber	No.	*			
	(viii) Construction of Thrust Block.	No.	*			
	(ix) Construction of R.C.C Anchor Block.	No.	*			
	(x) Procurement of necessary Valves.	No.	*			
	(* - to be assessed by the bidder)					
					Sub-Total:	

3	**BUILDINGS:**					
	i) Construction of R.C.C frame structure for Control Room	m^2	56.65			
	(ii) Construction of R.C.C frame structure for Bill Counter cum Site Office.	m^2	87.15			
	(iii) Construction of Assam type building for Installation of D.G set for Raw Water Pump sets	m^2	60.24			
				Sub-Total:		
4	**RESTORATION OF DAMAGED PAVEMENT ROAD:** Along rising main.	Rm	606			
5	**SECURITY FENCING:** 1.8m high polysteel Goat proof Fencing with 2.40m angle Iron post 50 x 50 x 6mm size placed 2.00m apart embedded in Cement Concrete block 1:3:6 of size 25x25x60cm fixing with nails and wire etc. including earth work complete for - Pump house complex	Rm	270			
6	**RENOVATION/IMPROVEMENT OF EXISTING WATER SUPPLY:** (i) INTAKE & FOOTPATH TO INTAKE: Construction of Lahmun lui & Kurung lui Intakes Weir & Footpath to intake for laying of Gravity main at Lahmun lui & Kurung lui					
	(ii) GRAVITY MAIN: Providing, Fitting, fixing of G.I pipes complete with all G.I fittings including cutting, jointing and laying in trenches. (a) Gravity main from Kurung Lui (1) 80mm dia - 50cm depth	Rm	2500			

		(2) 80mm dia - Overground	Rm	1000			
		(b) Gravity main from Lahmun Lui (1) 80mm dia - 50cm depth - 1500Rm	Rm	1500			
		(2) 80mm dia - Overground - 1000Rm	Rm	1000			
		(c) Construction of Support Pillar	No	10			
		(d) Carriage of Materials to worksite					
	(iii) RETAINING WALL		Rm	165			
	(iv) APPROACH ROAD TO PUMP HOUSES		Rm	600			
					Sub-Total:		
7		**<u>FEEDING MAINS:</u>** (a) Providing, Fitting, fixing G.I pipes complete with all G.I fittings including cutting, jointing and laying in trenches to a minimum depth of 100cm below ground level in all types of soil including trimmings, dressing, levelling in gradient, refilling of trenches in 20cm layers watering and and ramming, removing surplus earth and bringing back to its original position etc. all complete as per design and direction of Engineer-in-Charge					
		(i) Mizo Veng to Luangpawl-100mm dia.	Rm	4085			
		(ii) Mizo Veng to Hospital - 100mm dia	Rm	2585			
		(iii) Mizo Veng to Hmunsam (a)100mm dia	Rm	2698			
		(iv) Mizo Veng to Dinthar (a) 100mm dia.	Rm	3000			
		(v) Mizo Veng to DC Tanky 100mm dia	Rm	1459			
		(b) Procurement of valves:					
		(c) Construction of Valve Chamber:	Nos	16			
					Sub-Total:		

8	**DISTRIBUTION MAIN TO ZONAL RESERVOIR:** Providing, Fitting, fixing G.I pipes complete with all G.I fittings including cutting, jointing and laying in trenches to a minimum depth of 100cm below ground level in all types of soil including trimmings, dressing, levelling in gradient, refilling of trenches in 20cm layers watering and and ramming, removing surplus earth and bringing back to its original position etc. all complete as per direction of Engineer-in-Charge.					
	(a) From Luangpawl Zonal Tank to IR Reservoir. 80mm dia	Rm	1000			
	(b) From Luangpawl Zonal Tank to JNV. 80mm dia	Rm	3500			
	(c) From Hmunsam to Govt Mamit College - 80mm dia	Rm	1700			
	(d) Construction of Valve Chamber	Nos	8			
				Sub-Total:		
9	**MAIN RESERVOIR:** Design and construction of RCC Over Head Main Reservoir with stagging columns, bracing beams, combined footing foundation, inspection ladder, inlet & outlet pipe arrangement at Mizo Veng. -300000 lit	lit	300000			
10	**ZONAL RESERVOIRS:** (i) Design and construction of RCC Over Head Zonal Reservoir with stagging columns, bracing beams, combined footing foundation, inspection ladder, inlet & outlet pipe arrangement -2,00,000 lit					

		(a) At Luangpawl	No	1			
		(b) At Hospital Complex	No	1			
		(ii) Design and construction of RCC Reservoir resting on ground with all inlet and outlet arrangment. Inspection Ladder at Dinthar Tlang-2,00,000 lits.	No	1			
		(iii) Design and construction of RCC Reservoir resting on ground at 4th I.R : 1,00,000 lits	No	1			
		(iv) Design and construction of RCC Reservoir (OH) 1,00,000 lits. including stagging columns, bracing, beams, combined footing, etc complete.					
		(a) At Gov't Mamit College:	No	1			
		(b) At JNV.	No	1			
					Sub-Total:		
11	**DISTRIBUTION NETWORK:** **(i) Providing, Fitting, fixing G.I pipes** complete with all G.I fittings including cutting, jointing and laying in trenches to a minimum depth of 100cm below ground level in all types of soil including trimmings, dressing, levelling in gradient, refilling of trenches in 20cm layers watering and and ramming, removing surplus earth and bringing back to its original position etc. all complete as per direction of Engineer-in-Charge.						
		(a) Distribution line Repair/Replacement: While working at Distribution Line, a lot of Unforeseen existing Private Water connections may be Damaged which can not repair due to old and rusting are to be replaced. 20mm ϕ GI(M) Pipe	Rm	2000			

(b) Luangpawl Zonal Area (ZONE 1)					
40 mm ϕ GI(M) Pipe	Rm	2130			
50mm ϕ GI(M) Pipe	Rm	1740			
65 mm ϕ GI(M) Pipe	Rm	2460			
80 mm ϕ GI(M) Pipe	Rm	2750			
100 mm ϕ GI(M) Pipe	Rm	2550			
			Sub- Total		
(c) Hospital Zonal Area (ZONE 2)					
40 mm ϕ GI(M) Pipe	Rm	2200			
50mm ϕ GI(M) Pipe	Rm	4040			
65 mm ϕ GI(M) Pipe	Rm	3760			
80 mm ϕ GI(M) Pipe	Rm	1550			
100 mm ϕ GI(M) Pipe	Rm	1660			
			Sub- Total		
(d) Hmunsam Zonal Area (ZONE 3)					
40 mm ϕ GI(M) Pipe	Rm	1850			
50mm ϕ GI(M) Pipe	Rm	2950			
65 mm ϕ GI(M) Pipe	Rm	4170			
80 mm ϕ GI(M) Pipe	Rm	1770			
100 mm ϕ GI(M) Pipe	Rm	1680			
			Sub- Total		
(e) Mizo Veng Zonal Area (Zone 4)					
40 mm ϕ GI(M) Pipe	Rm	2230			
50mm ϕ GI(M) Pipe	Rm	1320			
65 mm ϕ GI(M) Pipe	Rm	7131			
80 mm ϕ GI(M) Pipe	Rm	1600			
100 mm ϕ GI(M) Pipe	Rm	1650			
			Sub- Total		

		(f) DC/LAD Zonal Area (ZONE 5)					
		40 mm ϕ GI(M) Pipe	Rm	1950			
		50mm ϕ GI(M) Pipe	Rm	2290			
		65 mm ϕ GI(M) Pipe	Rm	2800			
		80 mm ϕ GI(M) Pipe	Rm	1500			
		100 mm ϕ GI(M) Pipe	Rm	1450			
		Sub- Total					
		(g) Dinthar Zonal Area (ZONE 6)					
		40 mm ϕ GI(M) Pipe	Rm	1900			
		50mm ϕ GI(M) Pipe	Rm	2290			
		65 mm ϕ GI(M) Pipe	Rm	3697			
		80 mm ϕ GI(M) Pipe	Rm	1250			
		100 mm ϕ GI(M) Pipe	Rm	1510			
		Sub- Total					
		Sub-total (i)					
	(ii) CONSTRUCTION OF T-CLUSTERS						
		Zone 1	No	58			
		Zone 2	No	70			
		Zone 3	No	61			
		Zone 4	No	113			
		Zone 5	No	27			
		Zone 6	No	58			
		Sub-total (ii)					
	(iii) CONSTRUCTION OF VALVE CHAMBER		No	18			
		Sub- Total (i-iii)					
12	**PROCUREMENT OF TOOLS & VALVES**						
13	**<u>RESTORATION OF DAMAGED PAVEMENT ROADS:</u>** Along the distribution system		Rm	19710			
						TOTAL OF (A)	

PART B. Supply, Installation and Commissioning of Plants and Machineries:

1	**CLEAR WATER PUMPING MACHINERIES:** (i) Supply, Installation, testing & Commissioning of electric Motor driven clear water centrifugal pumpset suitable for discharge of 110m3/hr at a total Head of 847m including control panel, cabling, earthing, c.c foundation, etc. All Complete.	Set	2			
	(ii) Supply, Installation, Testing & Commissioning of Diesel Engine driven pump set with accessories like fuel Tank, Silencer, foundation plinth, fuel piping, base plate, companion flange, etc with pressure gauges for delivering 110m^3/hr against a total head of 847m, all complete.	Set	1			
2	**HOT CRANE:** Supply, installation, testing and commissioning of 10 MT. HOT crane along with horizontal girder longitutional rails lifting chain, etc. at Pump House.	Set	1			
3	**ELECTRO CHLORINATION SYSTEM:** Supply, Installation, testing and commissioning of Electro-chlorinator	Set	1			
4	**RENOVATION/IMPROVEMENT OF EXISTING WATER SUPPLY:**					
	(i) Procurement of existing Raw Water pump set for 50% standby with control panel	set	1			
	(ii) Procurement of Silent DG Set, including testing & commissioning, etc all complete. (a) 380KVA for existing replacement	No	1			
	(b) 200KVA for Raw Water pump	No	1			

5	**<u>POWER SUPPLY:</u>** Construction of 11KV Line (1.50 KM), 2x1000KVA Distribution Transformer, 1x250KVA Transformer, Maintenance for 1year, etc.					
				TOTAL OF (B)		
				TOTAL OF (A + B)		

Notes :-

1. Items for which no rate or price has been entered in will not be paid for by the Employer when executed and shall be deemed covered by the other rates and prices in the bill of quantities. [refer: ITB Clause 13.2 and GCC Clause 43.3]
2. Unit Rate and prices shall be quoted by the Bidder in Indian Rupee [ITB Clause 14.1]
3. Where there is a discrepancy between the rate in figure and words, the rate in word will be governed [ITB Clause 27.1 (a)]
4. Where there is a discrepancy between the unit rate and the line item total resulting from multiplying the unit rate by quantity, the unit rate quoted shall govern[ITB Clause 27.1 (b)]