

KALLIDAIKURICHI TOWN PANCHAYAT**SBM 2.0 -LWM 2021-22****TENDER SCHEDULE**

Name Of Work: Construction of Decentralised Sewage Treatment Plant for waste water at Thimmarajapuram-360KLD , Ambasamudram main road Esat ,west sides ,Veerapuram west street-112KLD ,Yegamparam street ,Mudaliappapuram east street-108KLD ,Vembadiamman kovil street ,Pagalikoothar street,Kumarakovil middle street ,East street -110KLD,Veerapuram esat street,Mudaliappapuram Street-100KLD ,Subramaniyapuram Street ,Subramaniyapuram Yathavar street-52KLD ,Providing Sewage treatment Filter bed at Ramachanrapuram street ,Kanthapuram street ,Madavilagam street ,Vellalar street ,Kottai edakudi street,Edakkudi street in Kallidaikurichi Town Panchayat, Tirunelveli District.

Estimate Amount: Rs.320.00 Lakhs.

Sl.No	Qty	Description of Items	Rate in		Per Unit	Amount
			Figures	Words		
1	1.00 Nos.	Supply,delivery ,erection and commissioning FRP Package Sewage Treatment Plant of 3, 60,000 liters per day capacity consisting of 4 Nos of Fiber glass reinforced Plastic (FRP) tank made by Filament winding (HOOP & HELICAL winding) process from suitable polyester resin and glass fiber with hollow ribbing of polymeric material encased on the outside of the tank with Polyester resin and fiber glass to make tank suitable for underground application up to an over burden of 2.0 meters in soil. STP unit having 4 FRP Tanks diameter of 2.2 mtr with usual process variation and having a length of 12.15 mtr with usual process variation. The tank thickness should be minimum 9.5mm. The STP Unit have three zones – first zone to work as anoxic tank created dishend type with suitable curved partition of FRP; second zone as an Aerobic Zone to be created by Curved dishend type partition of FRP with advanced MBBR Bio media with a surface area to volume ratio of minimum of 400 Sq.Mtr/Cubic meter suitably encased in a filtering arrangement to allow free movement of the media within fixed space created by the Fitting arrangement; the third zone to work as sedimentation zone.Aerobic zone have Air Blowers installed for providing required design air flow by grid aeration in the zone for speedy reduction of BOD. Air blower will be operated by based on the DO level in the aeration tank. Sedimentation zone have submersible pump of the size of 0.5 HP for pumping the activated sludge back to the anoxic zone by way of PVC pipes of 50 mm dia. on a regular interval basis. STP plant to be controlled by automatic control panel made from sheet molded compound of size 600 x 250 x 500 mm consisting of other accessories such as PVC Pip Fittings, 16 nos Nylon Strap of 7000 mm length,32 Numbers of Concrete RCC Deadman Block having dimension of 300 x 250 x 300 mm, 4 nos manhole cover of 600 mm.Raw Sewage Transfer Pump 2 Nos (1W + 1S), Online DO level meter including loading ,unloadingg,transportation charges etc complete			1No(Each)	

Bidder's Signature

Sl.No	Qty		Description of Items	Rate in		Per Unit	Amount
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2	2.00	Nos.	Supply,delivery ,erection and commissioningFRP Package Sewage Treatment Plant of 1,12,000 liters per day capacity consisting of 2 Nos of Fiber glass reinforced Plastic (FRP) tank made by Filament winding (HOOP & HELICAL winding) process from suitable polyester resin and glass fiber with hollow ribbing of polymeric material encased on the outside of the tank with Polyester resin and fiber glass to make tank suitable for underground application up to an over burden of 2.0 meters in soil. STP Unit having 2 FRP Tanks diameter of 2.2 mtr with usual process variation and having a length of 8.21 mtr & 7.15 mtr with usual process variation.The tank thickness should be minimum 9.5mm. The STP Unit have three zones – first zone to work as anoxic tank created dishend type with suitable curved partition of FRP; second zone as an Aerobic Zone to be created by Curved dishend type partition of FRP with advanced MBBR Bio media with a surface area to volume ratio of minimum of 400 Sq.Mtr/Cubic meter suitably encased in a filtering arrangement to allow free movement of the media within fixed space created by the Fitting arrangement; the third zone to work as sedimentation zone.Aerobic zone have Air Blowers installed for providing required design air flow by grid aeration in the zone for speedy reduction of BOD.Air blower will be operated by based on the DO level in the aeration tank. Sedimentation zone have submersible pump of the size of 0.5 HP for pumping the activated sludge back to the anoxic zone by way of PVC pipes of 50 mm dia. on a regular interval basis. STP plant to be controlled by automatic control panel made from sheet molded compound of size 600 x 250 x 500 mm consisting of other accessories such as PVC Pip Fittings, 6 nos Nylon Strap of 7000 mm length,12 Numbers of Concrete RCC Deadman Block having dimension of 300 x 250 x 300 mm, 4 nos manhole cover of 600 mm. Raw Sewage Transfer Pump 2 Nos (1W + 1S) Online DO level meter -1 No including loading ,unloadingg,transportation charges etc complete.			1No(Each)	

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Sl.No	Qty		Description of Items	Rate in		Per Unit	Amount
				Figures	Words		
3	3.00	Nos.	Supply,delivery ,erection and commissioningFRP Package Sewage Treatment Plant of 1,00,000 liters per day capacity consisting of 2 Nos of Fiber glass reinforced Plastic (FRP) tank made by Filament winding (HOOP & HELICAL winding) process from suitable polyester resin and glass fiber with hollow ribbing of polymeric material encased on the outside of the tank with Polyester resin and fiber glass to make tank suitable for underground application up to an over burden of 2.0 meters in soil. STP Unit having 2 FRP Tank diameter of 2.2 mtr with usual process variation and having a length of 8.21 mtr & 7.15 mtr with usual process variation. The tank thickness should be minimum 9.5mmThe STP Unit have three zones – first zone to work as anoxic tank created dishend type with suitable curved partition of FRP; second zone as an Aerobic Zone to be created by Curved dishend type partition of FRP with advanced MBBR Bio media with a surface area to volume ratio of minimum of 400 Sq.Mtr/Cubic meter suitably encased in a filtering arrangement to allow free movement of the media within fixed space created by the Fitting arrangement; the third zone to work as sedimentation zone.Aerobic zone have Air Blowers installed for providing required design air flow by grid aeration in the zone for speedy reduction of BOD.Air blower will be operated by based on the DO level in the aeration tank. Sedimentation zone have submersible pump of the size of 0.5 HP for pumping the activated sludge back to the anoxic zone by way of PVC pipes of 50 mm dia. on a regular interval basis. STP plant to be controlled by automatic control panel made from sheet molded compound of size 600 x 250 x 500 mm consisting of other accessories such as PVC Pip Fittings, 12 nos Nylon Strap of 7000 mm length,6 Numbers of Concrete RCC Deadman Block having dimension of 300 x 250 x 300 mm, 4 nos manhole cover of 600 mm.Raw Sewage Transfer Pump 2 Nos (1W + 1S), Online DO level meter -1 No including loading ,unloadingg,transportation charges etc complete			1No(Each)	

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Sl.No	Qty		Description of Items	Rate in		Per Unit	Amount
				Figures	Words		
4	2.00	Nos.	Supply,delivery ,erection and commissioningFRP Package Sewage Treatment Plant of 52,000 liters per day capacity consisting of 1 No of Fiber glass reinforced Plastic (FRP) tank made by Filament winding process from suitable polyester resin and glass fiber with hollow ribbing of polymeric material encased on the outside of the tank with Polyester resin and fiber glass to make tank suitable for underground application up to an over burden of 2.0 meters in soil. STP Tank having diameter of 2.2 mtr with usual process variation and having a length of 7.15 mtr with usual process variation. The tank thickness should be minimum 9.5mmThe tank to have zones – first zone to work as anoxic tank created dishend type with suitable curved partition of FRP; second zone as an Aerobic Zone to be created by Curved dishend type partition of FRP with advanced MBBR Bio media with a surface area to volume ratio of minimum of 400 Sq.Mtr/Cubic meter suitably encased in a filtering arrangement to allow free movement of the media within fixed space created by the Fitting arrangement; the third zone to work as sedimentation zone.Aerobic zone have Air Blowers installed for providing required design air flow by grid aeration in the zone for speedy reduction of BOD. Air blower will be operated by based on the DO level in the aeration tank.Sedimentation zone have submersible pump of the size of 0.5 HP for pumping the activated sludge back to the anoxic zone by way of PVC pipes of 50 mm dia. on a regular interval basis. STP plant to be controlled by automatic control panel made from sheet molded compound of size 600 x 250 x 500 mm consisting of other accessories such as PVC Pip Fittings, 3 nos Nylon Strap of 7000 mm length,6 Numbers of Concrete RCC Deadman Block having dimension of 300 x 250 x 300 mm, 4 nos manhole cover of 600 mm.Raw Sewage Transfer Pump 2 Nos (1W + 1S), Online DO level meter -1 No including loading ,unloadingg,transportation charges etc complete			1No(Each)	

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Sl.No	Qty		Description of Items	Rate in		Per Unit	Amount
				Figures	Words		
5	6.00	Nos.	Supply and Delivery, Installation, Erection, Commissioning of Fiber reinforced Plastic (FRP) based Bio Septic tank capacity of 10,000 Litres (10 KL) - Horizontal cylindrical type suitable for underground application. Scope of Supply : Supply & Installation of FST-10-01 model has a dimension of 2.95 mtr (Length) x 2.22 mtr (Dia) with necessary pipe nozzles and Rib provision. The tank will supply along with 2 nos Nylon strap of 7000 mm length, 4 numbers of Concrete RCC Deadman Block having dimension of 300x250x300mm, 4 nos manhole cover of 600mm. Process Description : The tank works as a collection cum septic tank, where settleable solids are settle down and further degraded anaerobically at the bottom zone or sewage will be pumping into the further process including, unloading and transportation charges etc complete.			1No(Each)	
6	1132.00	cum	Earth work excavation and depositing on the bank with initial lead and lift of 10 metres and initial lift of 2 metres in hard stiff clay stiff block cotton hard red earth murrum, gravel stoney earth and earth mixed with small size boulders and hard gravelly soils (SS 20 B) etc., complete as per standard specification			1CUM (One Cubic Metre)	
7	122.40	cum	Plain cement concrete Using 1:4:8 mix (One cement , four Sand and Eight aggregates) using 40 mm ISS HBG metal including cost and conveyance of all materials to work site and all labour charges for mixing, laying,consolidating and curing etc complete as per the standard specifications. TNDSS NO: 28 V, VI (S2) V,VI (S5A) VII			1CUM (One Cubic Metre)	
8	161.00	cum	Random Rubble masonry in Cement Mortar 1:5 Mix (one cement, five sand) using new best rough and bond stones from approved quarry including cost and conveyance of all materials to site. Loading and unloading charges and labour charges for mixing. laying and curing etc. complete. complying with std. specifications.			1CUM (One Cubic Metre)	

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Sl.No	Qty		Description of Items	Rate in		Per Unit	Amount
				Figures	Words		
9	80.00	cum	Brick work in following Cement Mortar using best quality II class table moulded chamber burnt bricks of size 9" x 4-1/2" x 3" for foundation and basement including curing, etc., complete complying with standard specification.			1CUM (One Cubic Metre)	
10			Supplying and erecting centering to sides and soffits including supports and strutting with necessary cross bracing for plain surface such as RCC slabs rectangular beams all beams lintels etc., centering for soffits upto 3 meter height using mild steel sheet of size 90 cm x 60 cm x 10 mm gauge with MS angles of size 25mm x 25mm x 3mm laid over silver oak (CW) joists of size 10cm x 6cm spaced upto 90cm c/c and casurina props or 10 cm to 13 cm dia spaced at 0.750 cm c/c complying with standard specifications as per TNDSS NO : 30 & 86.				
A	401.00		Grade Beam			1SQM (One Square Metre)	
B	90.00	sqm	Below 1mt			1SQM (One Square Metre)	
C	60.00	sqm	Above 1mt			1SQM (One Square Metre)	

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Sl.No	Qty		Description of Items	Rate in		Per Unit	Amount
				Figures	Words		
D	540.00	sqm	PCC works			1SQM (One Square Metre)	
11	16800.00	Kg	Supplying and fabrication of steel and placing in position of TMT steel rods for RCC works as per design given including cost of steel and GI binding wire in all floors etc., complete complying with standard specification in TNDSS NO:97 V,VI (S6) VII (S6), VII-3.			1Kg (One Kilo grame)	
12	163.50	cum	Providing and laying in position, Standardised Concrete Mix M-20 Grade in accordance with IS:456-2000, using 20mm and down graded hard broken granite stone jelly for all RCC items of works with minimum cement content 325 Kg/m ³ and maximum water cement ratio of 0.55, including admixture (plasticiser/super plasticiser) in recommended proportions as per IS:9103 to accelerate, retard setting of concrete, improve workability without impairing strength and durability with about (5 cu.m) 7730 Kg of 20mm machine crushed stone jelly and with about (3.3 cum) 5156 Kg of 10-12mm machine crushed stone jelly and with about (4.79 cum) 7670 Kg of sand, but excluding cost of reinforcement grill and fabricating charges, centering and shuttering and also including laying, vibrating with mechanical vibrators, finishing, curing, etc, and Providing fixtures like fan clamps in the RCC floor/roof slabs wherever necessary without claiming extra, complete complying with standard specification and as directed by the departmental officers. The coarse and fine aggregates to be used should comply with the requirements of IS Standards. (No separate payment will be made by the Department for the excess usage of materials).			1CUM (One Cubic Metre)	
13	86.00	cum	Plain Cement Concrete 1:2:4 Mix (one part cement, two part sand and Four part of aggregate) using 40% of 40mm size and 60% of 20 mm size ISS HBG metal from approved quarry including cost and conveyance of all materials to site. Loading and unloading charges and labour charges for mixing. Laying and curing etc., complete as per TNDSS NO: 28 & VI (S2) VI (S5A) VII standard specifications as directed by Engineer incharge.			1CUM (One Cubic Metre)	

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Sl.No	Qty		Description of Items	Rate in		Per Unit	Amount
				Figures	Words		
14	532.00	sqm	Plastering in Cement Mortar 1:4 Mix (one cement, four sand) 12mm thick including cost and conveyance of all materials to site, loading and unloading charges and labour charges for mixing, laying and curing etc. complete. Complying with std. specifications.			1SQM (One Square Metre)	
15	1480.00	kg	Supplying and fixing of M.S grill of approved design for doors, windows and ventilators using necessary mild steel flats for inner and outer members which should be fixed to window frames inclusive of priming coat of best approved quality red oxide primer etc., complete complying with standard specifications.			1KG (One kilograme)	
16	48.00	sqm	Painting Two Coats on new Iron works with best synthetic enamel paint of approved colour and quality including cost of all materials to site and all labour charges for mixing applying and proper curing etc., Complete as per Standard Specifications for 10 sqm – 10m2.			1SQM (One Square Metre)	
17	288.00	sqm	Exterior Emulsion paint Two coats with good quality of approved Emulsion paint including cost of all materials to site and all labour charges for mixing applying and proper curing etc., Complete as per Standard Specifications for 10 sqm			1SQM (One Square Metre)	
18	144.00	cum	Collection, Supply and Filling of MSand to the specified thick including cost and conveyance of MSand from approved quarry and stocking the same at road side to Departmental guage for premeasurement as directed by the Departmental Officers including labour charges for spreading in layers not exceeding 75 mm thick (or) as specified by the departmental officers, levelling, sectioning etc., and all other charges for tools and plants employed for the work and all other incidental charges such as barricading and providing danger lights etc., complete as per standard specification. as per clause 301 & 305 of MORTH			1CUM (One Cubic Metre)	
19	40.00	Nos.	Supply & fixing of Manhole cover size 0.60x0.60m including cost and conveyance of all materials to site and all labour charges for filling and all other incidental charges therefore etc complete			1No(Each)	

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Sl.No	Qty		Description of Items	Rate in		Per Unit	Amount
				Figures	Words		
20	24.00	cum	Supply and delivery of 40mm HBG ISS metal including cost and conveyance of all materials to site and all labour charges for filling and all other incidental charges therefore etc complete			1CUM (One Cubic Metre)	
21	24.00	cum	Supply and delivery of 20mm HBG ISS metal including cost and conveyance of all materials to site and all labour charges for filling and all other incidental charges therefore etc complete			1CUM (One Cubic Metre)	
22	30.00	Rm	Supply and delivery of 200mm Dia PVC Pipe including cost and conveyance of all materials to site including all labour charges and all other incidental charges therefore etc			1Rm (One Running Metre)	

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