Sir M. Visvesvaraya Institute of Technology Bangalore – 562 157



Report on Environmental promotional activities conducted beyond campus

CRITERIA NO.: 7 SUBCRITERIA NO.: 7.1.4

WATER CONSERVATION

BILLS REGARDING WATER CONSERVATION



Ref: BEIPL1125 AC

6, 29/1-B,
Konanakunte Industrial Area,
Amruthnagar Main Road,
Harinagara Cross, Konanakunte,
Bengaluru - 560 062.

Tel: 080-2843 6612 Off. Cell: 99000 83176
E-mail: sales@bisineer.com • services@bisineer.com
Website: www.bisineer.com • www.bisineer.in

Date: 18-Aug-2022

To,

The Secretary

M/s. Sri Krishnadevaraya Educational Trust

Sadashivanagara,

Bangalore.

Dear Sir

SUBJECT JOTE FOR STP REVAMP 200 KLD (BOYS HOSTEL)

Payment Terms:

50% of the total cost of the quoted price should be paid as advance with the confirmation of order and balance 50% against the Proforma Invoice before delivery of the items. Inspection of the items at our works can be arranged from our side before rising the Proforma Invoice.

Delivery and Completion:

The Items quoted will be delivered within 8-12 weeks from the date of confirmation of order along with the advance. The Erection of the system will be completed from our end within three weeks from the date of delivery subject to the completion of all other relevant works from client's end.

S. No.	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
1	BAR SCREEN				
(upply & installation of Bar Screen fabricated in Mild Steel Epoxy quoted (MSEP) material of approved design by using MS Angles & 5mm wide flat etc., complete as per relevant standards, design, technical specification, in accordance with approved shop drawings.	Nos	1.00	20,000	20,000
	MAKE: BISINEER				
2	PIPING MODIFICATION				
	Supply & fixing piping using MS 'B' Class with all necessary specials as required etc., complete in accordance with requirement. Air lines shall be in MS and all other lines shall be in UPVC / CPVC. The Following velocities shall be considered while determining the diameter of the Pipe line.	Lot	1.00	80,000	80,000
i	Air piping - 2 m/s MS B Class				
ii	Sewage piping - 1.5 m/s uPVC				
iii	Treated water piping - 1.5 m/s uPVC				
iv	Sludge piping - 0.8 m/s uPVC Make of MS pipes: Jindal/Praksh/Tata/ EQ				
	Make of uPVC pipes: Ashirwad / EQ	_			se 1 of 5

No.	DESCRIPTION	UNIT	QTY	RATE	t of tank on t
3	RAW SEWAGE TRANFER PUMP				eter of vess
	Supplying, testing and commissioning of electric motor driven vortex type				of t
	Submersible Swage pumps with cutter mechanism with body made of CI			1	sht of
					"
	and impeller in CI construction having discharge capacity and head rating				1
	from all causes as mentioned below, all as per manufacturer	1			
	specifications with auto change over facility for auto operation &	1			
	changing of operating Pump alternatively. The set shall consist of the				
	working, standby pumps. During Peak hour demand there shall be a				
_	provision for both the pumps working if needed.		+		
1	RAW SEWAGE TRANFER PUMP - EQT to SBR TANK	Nos.	2.00	48,000	96
	Discharge capacity	cum/hr.	33.00		
	Total delivery head	m	10		
	No of pumps required	Nos.	2		
	Working pumps	Nos.	2		
	Make: CNP / EQ				
4	COARSE BUBBLE DIFFUSERS	•	-		
	Supplying and fixing in position coarse bubble diffusers in equalization				
	tank and sludge holding tank with necessary piping grid and supporting			1	
	system including connection with the main air supply pipe with ball valves	Nos.	20	2,800	56,
+:	etc., complete				
5	FINE BUBBLE DIFFUSERS IN SBR TANK				
	suppying and fixing non-buoyant fine pore air bubble diffusers with		1 1		
	necessary piping and support grid of 90mm dia, 1m long with EPDM				
	membrane. The support frame retained by two hose clamps fitted to pipe			1	
	lateral by PVC TEE and spectrum saddle arrangement in SBR tank &			- 1	
_	Treated water reuse tank., complete .		45		
а	Diffuser length	No m	46	3,200	1,47,20
_	Diffuser air transfer rating	cum/hr.	10		
	Make: SCOGEN / EQ	cum/m.	10		
6	PRESSURE SAND FILTER SERVICE Price for media replacement for 1200 mm dia vessel. Including media and	Nos.	1.00	47,000	47.00
	replacement service charges	1103.	1.00	47,000	47,000
	ACTIVATED CARRON FILTER				
7	ACTIVATED CARBON FILTER Supplying, testing and commissioning of activated carbon filter in Mild	Nos.	1.00	2,30,000	2,30,000
	Steel coated internally with FRP and painted Outside of sizes as per	200.00000000000	553/477/57/O	_,,50,000	_,50,000
	vendors specification made of appropriate shell & dish ends suitable for				
	10 kg/sq.cm. test pressure and 5 kg/sq.cm. working pressure with				
	suitable valve battery or Multiport valve of suitable dia having a filtration				
	rate of 12 cum/sqm/hr. with initial charge of Activated carbon Media of				
	IV 900 and supporting silica filter media at the Bottom. The media depth			1	
	shall be atleast a minimum of 1000mm bed depth, pressure gauge with			1	- 1
	isolation valves on inlet, outlet, air release valve, strainer for distribution,				
	collection etc., complete				
	l .	Cum/hr.	10.00		
_	Flow rate Design Filtration rate in cum/sqm/hr	cum/sqm/hr	12.00		

	DESCRIPTION .eter of vessel	UNIT	QTY	RATE	AMOUNT
	eight of tank on HOS	m	1.20		
	Eight of talk on nos	m	2.00		
	ELECTRICAL PANEL RECTIFICATION AND NECESARY CABLES				
	providing the necessary cables and existing panel modification as	-	1.00	12.000	
	required.	Serv	1.00	40,000	40,000
	required.		1		
9	RE-COMMISSIONING CHARGES		-		
$\overline{}$	Deploying necessary trained personal including cost of necessary	Lot	1.00	30,000	30,000
	chemicals, consumable required for commissioning the system.	Lot	1.00	30,000	30,000
	the system.				
10	MONITORING INSRTUMENTS		-		
	Supply, Installation, Testing and Commissioning of the following electro		1		
	mechanical Instruments required for monitoring of the plant.				
а	3 Phase digital energy meter in the MCC panel to record the power consumption	No	1.00	12,000	12,00
	of the STP plant. The unit shall be incorporated in the main Control Panel of the		1.00	12,000	12,00
	STP	1			I
b	Mechanical multijet digital flow meter on treated water outlet line of ACF.	No	1.00	35,000	35,00
					l
С	Mechanical multijet digital flow meter on Raw sewage water inlet line of	No	1.00	45,000	45,00
	SBR tank.				
11	GREASE & OIL SEPERATOR				
	Supplying, testing and commissioning of Oil and Grease separator able to	Unit	1.00	7,35,000	7,35,0
	handle as specified below of waste water flow into the system along with		#00380am	President asserts	
	motorised pump system with refill inlet, disposal pipe and Inspection			1	1
	Window. The grease separator plant shall be suitable for indoors			1	1
	installation; With integrated sludge trap; Operating side: right/left;				1
	Draining connection, Recieving and emptying chamber with drain plug				ĺ
	socket; Inspection window with glass, Free Flow Impeller pump with				ĺ
	provision for external draining and internal cleaning stop valve upstream				1
	of disposal pump; Odour-proof maintenance opening, diameter: 450 mm;				1
	Filling device with for refilling; connections for inlet and outflow The				1
	control panel shall be as required.				1
	pacity: 10,000 LPH				1
	Note: Inlet and outlet plumbing works with material shall be done by	<i>y</i>			
D-	client as required.				ļ
	The state of the s	-			
12	Providing the tank cleaning service for cleaning all existing tanks. Carrying	g LS	1.00	1,75,000	1,75,
	away the existing sludge and making suitable changes like core cutting as	٥	1387/Seec.	it Tildle LAS-A tildesenter	N W € (Exercises
	per the requirement. Removing of defunct pipe line and old electrons	3			
	mechanical equipment from the STP room to outside. Providing	<u></u>			
	mechanical equipment from the STF Toolii to Satisfact	⁵			
	neccessary pedestal for new equipment and tanks etc.				
	TOTAL FOR SYSTEM				17,48,
	TOTALTOROTOLEM				2.14
	GST @ 18%				3,14,
	TOTAL INCLUDING GST				20,02,

Note: The volume of the existing raw sewage tank is 36 KL, Since it is a hostel building project there will be a surge load. Hence we recommend to add 60 KL for raw sewage collection inaddition.

	CAN HEARING TO		
. No.	DESCRIPTION	UNIT QTY	RATE
ERMS AND CONDIT	TIONS		
	STP ERECTION BATTE	RY LIMITS	

DESCRIPTION OF WORK

1 Civil works:

- a Bisineer shall prepare the necessary general arrangement drawings and after approval of the same by the consultant | Engineer in Charge submit the complete shop drawings for approval before the civil works commences.
- b Bisineer shall co-ordinate with the client and civil works agency to clarify any doubts in line with the approved shop drawings. The structural drawings are to be made by the building's structural consultant and executed by the client according to the same and the client shall also verify and ascertain the same is inline with the requirements.

2 Piping in STP:

- The piping and sizes of the pipes in the STP will be designed considering the following velocities:
- i Air piping 2 m/s. MS B Class
- ii Sewage piping 1.5 m/s. uPVC
- ii Treated water piping 1.5 m/s. uPVC
- iv Sludge piping 0.8 m/s. uPVC
- Gravity piping 0.5 m/s. uPVC
- vi Overflow piping 0.3 m/s. uPVC



3 Sewage piping:

The sewage piping connection into the bar screen chamber as per requirement shall be in client's scope.

4 Electrical supply:

- Power supply for erection, testing shall be made available to Bisineer, free of cost by the client. The internal distribution with necessary distribution board shall be the responsibility of Bisineer.
- b For commissioning the plant feeder of adequate size shall be provided from the electrical distribution with end terminations as per requirement. Details of which will be intimated to the client at the time of erection.
- 5 Sludge:
- The sludge generated during the treatment of the sewage shall have to be handled and disposed by the client.
- 6 Air circulation:
- Ventilation of the plant room shall be planned by the client in case of basement STP plants. For plants above the ground and in open normal axial exhaust fans shall be provided by the client as per the requirement.

7 Excess treated water disposal:

- a The client shall make adequate provisions for the disposal of excess treated water in terms of pump and its water level control system. The termination of the pipe beyond the pump room shall be taken up by the client.
- 8 Noise & acoustic protection:
- For equipments like blowers and reciprocating pumps etc, they shall be provided with acoustic enclosures by the client if found required.
- 9 Ultra Filtration

To achieve the latest PCB Guidelines of <2 NTU of Turbidity in the STP Treated water, Ultra filtration is mandatory and it is quoted as optional equipment.

10 Puddle Flanges

Dage 4 of 5

eription M/s. Bisineer Engineering India Pvt Ltd				
	Unit	Qty	Rate in Rs	Amount
PIPING MODIFICATION				in Rs
Supply & fixing piping using MS 'B' Class with all necessary specials as required etc., complete in accordance with requirement. Air lines shall be in MS and all other lines shall be in UPVC / CPVC. The Following velocities shall be considered while determining the diameter of the Pipe line.	Lot	1	80000	80000
a Air piping - 2 m/s, - MS B Class				
b Sewage piping - 1.5 m/s, - uPVC				0
c Treated water piping - 1.5 m/s, - uPVC				0
d Sludge piping - 0.8 m/s uPVC				0
e Make of MS pipes: Jindal/Praksh/Tata/ EQ				0
r Make of uPVC pipes: Ashirwad / EQ				0
2 COARSE BUBBLE DIFFUSERS				0
Supplying and fixing in position coarse bubble diffusers in equalization tank and sludge holding tank with necessary piping grid and supporting system including connection with the main air supply pipe with ball valves etc., complete	Nos	20	2800	56000
FINE BUBBLE DIFFUSERS IN SBR TANK suppying and fixing non-buoyant fine pore air bubble diffusers with necessary piping and support grid of 90mm dia, 1m long with EPDM membrane. The support frame retained by two hose clamps fitted to pipe lateral by PVC TEE and spectrum saddle arrangement in SBR tank & of each water reuse tank., complete				
a In SBR Tan	Nos	46	3200	147200
b Diffuser length	m	1	3200	147200
c Diffuser air transfer rating	cum/hr	10		0
d Make: SCOGEN / EQ				
PRESSURE SAND FILTER SERVICE Price for media replacement for 1200 mm dia vessel. Including media and replacement service charges	Nos	1	47000	47000
5 ELECTRICAL PANEL RECTIFICATION AND NECESARY CABLES providing the necessary cables and existing panel modification as required.	Service	1	40000	40000
RE-COMMISSIONING CHARGES Deploying necessary trained personal including cost of necessary chemicals, consumable required for commissioning the system.	Lot	1	30000	30000
7 TANK CLEANING AND CIVIL WORKS Providing the tank cleaning service for cleaning all existing tanks. Carrying away the existing sludge and making suitable changes like core cutting as The requirement. Removing of defunct pipe line and old electro Lanical equipment from the STP room to outside. Providing neccessary pedestal for new equipment and tanks etc	LS	1	175000	175000
			Total	575200
			Less Discount	1,75,200
(Rupees Four Lakhs Only)			Total	4,00,000

(K.SYAMA PAJU)
SEGRETARY

SRI KRISHNAD WARAYA EDUCATIONAL TRUST # 16, Ballan Road, Sadashiyanagar, Bengaluru - 560 080.

Ref.No.KET/ VIT/ 209 /2022 - 2023/ 1022

M/s. Asianet Groups Water Tank Cleaning Services,

Mp/258, GF, 5th Main, ITI Layout, 80 Feet Road, Malathahalli,

Bengaluru- 560 056.

Acc. Aug token, 18/10 = 934/4070/5 Contact Person: Mr. Kempe Gowda: 9986970451

Date: 20.02.2023

Dear Sirs.

Sub: Order for Cleaning of sumps/ water tanks at Sir MVIT Campus. 4 Jean

Ref: Your quotation No.ANGP-202210070, dated 28.11.2022.

With reference to the above, we are pleased to place an order for cleaning of sumps / water tanks at Sir M. Visvesvaraya Institute of Technology, Krishnadevarayanagar, Hunasamaranahalli, Off International Airport Road, Bengaluru -562 157 at a cost of Rs.41,385/- (Rupees Forty One Thousand Three Hundred Eighty Five Only) as per the details enclosed:

TERMS & CONDITIONS:

- 1. GST: Extra as applicable
- 2. Measurements can be at actual
- 3. Variation could be Max ± 5%
- 4. Completion of work: Within one week.
- 5. Payment: Within 15 days from satisfactory completion of work.

You are requested to note that sump/water tank cleaning work done by you at the College Campus is subject to inspection and approval by the Estate Officer-Cum-Project Engineer, Wardens and the Principal's, Sir MVIT & KCDS. If cleaning is not satisfactory, the same should be redone by you immediately at your own cost. After executing the work, the bill be handed over to the Project Engineer for processing it for payment.

Please acknowledge.

Thanking you,

Yours faithfully,

(K.SYAMARAJU

Encl: As above

Copy to:

(1) The Principal, Sir MVIT, Bengaluru.

(2) The Principal, KCDS, Bengaluru.

(3) Estate Officer-Cum-Project Engg, Sir MVIT, Bengaluru.

(4) The Warden, Men's Hostel, Sir MVIT/KCDS, Bengaluru

(5) The Warden, Ladies Hostel, Sir MVIT/KCDS, Bengaluru.

Ref.No.VIT/4000, dated 16/12/2022.

To ensure that, the bill is certified by you, the Project Engineer both the Wardens and the Principals before being sent to Trust Office for payment.

(6) Accounts Officer, Sri KET, Bengaluru.

BY KB/-

Particulars	Measurements in Mtrs	Capacity in Ltrs	Qty	Rate in Rs	Amount in Rs
	SIR MVIT				
New Block Sump No.1	2.50x5.60x40	55982	1	0.04	
Block OHI	7.30x8.60x1,50	82671	1	0.04	2,239.28
multic Canteen OHT	Plastic Tank	2000	1	0.04	3,306.84
and Ladies Toilet Block OHT	2.0x1.30x2.10	5460	1	500.00 650.00	500.00
Transport Division Sump	6.10x2.8x2.20	41035	1	0.04	650.00
17:00:1	KHRC	41033	1	0.04	1,641.40
General Hospital Sump	7.30x3.30x3.10	72802	1	0.04	2,912.08
General Hospital OHT	2.20x4.0x1.30	11440	i	900.00	900.00
General Hospital OHT	Plastic Tank	3000	i	500.00	500.00
General Hospital OHT	4.70x4.50x1.10	23970	i	0.04	958.80
Ochcia Frespital Offi	GENTS HOSTEL	23710		0.04	938.80
Mess Block OHT	6.00x6.00x1.40	40865	1	0.04	1,634.60
Gents Hostel No.1 Back side Sump	3.80x2.2x2	16720	i	1,100.00	
Gents Hostel No.1 OHT	3.80x6.20x2	31052	<u> </u>	0.04	1,100.00
Gents Hostel No.1 Solar OHT	Plastic Tank	3000	1	500.00	1,242.08
P.G.Sump	6.00x3.75x2.50	56851	i		500.00
P.G.OHT	4.30x4.10x1.80	18788	i	0.04	2,274.04
Gents Hostel No.2 Right side OHT	7.20x7.80x1.40	64337	-i-	0.04	751.52 2,573.48
Gents Hostel No.2 Solar OHT		3000			
Gents Hostel No.2 Solar OHT	Plastic Tank Plastic Tank	3000	1	500.00	500.00
				0.04	The second second
Gents Hostel No.2 OHT Left side	7.10x2.60x1.60	26384	•		1,055.36
Gents Hostel No.2 Solar OHT	Plastic Tank	2000	1	500.00	500.00
Gents Hostel No.2 Solar OHT	Plastic Tank	2000	1	500.00	500.00
C. H. CH. LOUT	LADIES HOSTEL	2,005		000	000.00
Ladies Hostel No.1 OHT	4.00x4.70x1.80	24995	1	0.04	999.80
Ladies Hostel No.1 Solar OHT	Plastic Tank	2000	1	500.00	500.00
Ladies Hostel New Block Sump No.1	4.80×3.10×3.00	81730	_!	0.04	3,269.20
Ladies Hostel New Block Sump No.2	5.00x3.00x3.00	45000	1	0.04	1,800.00
Ladies Hostel New Block OHT	7.10x7.00x2.00	51135	1	0.04	2,045.40
	STAFF QUARTERS	1000		100.00	#110.00
Engineer College Principal Quarters	Plastic Tank	1000	1	500.00	500.00
Dental College Principal Quarters	Plastic Tank	2000	_!!	500.00	500.00
Teaching Staff Quarters Sump	5.60x4.20x2.60	61152	- !	0.04	2,446.08
Teaching Staff Quarters OHT	4.50x3.00x1.50	20250	1	1,300.00	1,300.00
Middle Block OHT	4.30x2.50x1.50	16125	!	1,100.00	1,100.00
Non Teaching Staff Quarters OHT	4.30×2.50×1.50	16125	1	1,100.00	1,100.00
New Block for HOD OHT No.1 New Block for HOD OHT No.2	3.40x3.20x2.20	25344	1	0.04	749.68
	3.40x3.20x2.30	25024	1	0.04	581.08

(Rupees Forty Seven Thusand Seven Hundred Only)

(K.SYAMA RAJU) SECRETARY

12

10	Description INUS. Disincer Engineering India Pvt Ltd	Unit	Qty	Rate in Rs	Amount
ī	PIPING MODIFICATION Supply & fixing piping using MS 'B' Class with all necessary specials as required etc., complete in The Following velocities shall be considered while december 1.	Lot	1	80000	in Rs 80000
_	shall be considered while determining the diameter of the Pipe line.				
a	Air piping - 2 m/s MS B Class		_		(
ь	Sewage piping - 1.5 m/s. – uPVC				(
c	Treated water piping - 1.5 m/s uPVC				(
d	Sludge piping - 0.8 m/s uPVC				(
c	Make of MS pipes: Jindal/Praksh/Tata/ EQ				(
r	Make of uPVC pipes: Ashirwad / EQ				(
2	COARSE BUBBLE DIFFUSERS Supplying and fixing in position coarse bubble diffusers in equalization tank and sludge holding tank with necessary piping grid and supporting system including connection with the main air supply pipe with ball valves etc., complete	Nos	20	2800	56000
3	FINE BUBBLE DIFFUSERS IN SBR TANK suppying and fixing non-buoyant fine pore air bubble diffusers with necessary piping and support grid of 90mm dia, 1m long with EPDM membrane. The support frame retained by two hose clamps fitted to pipe lateral by PVC TEE and spectrum saddle arrangement in SBR tank & Treated water reuse tank., complete			21-	
a	In SBR Tan	Nos	46	3200	14720
Ь	Diffuser length	m	1	3200	11120
С	Diffuser air transfer rating	cum/hr	10		
d	Make: SCOGEN / EQ				
	PRESSURE SAND FILTER SERVICE Price for media replacement for 1200 mm dia vessel. Including media and replacement service charges	Nos	1	47000	4700
5	ELECTRICAL PANEL RECTIFICATION AND NECESARY CABLES providing the necessary cables and existing panel modification as required.	Service	1	40000	4000
1	RE-COMMISSIONING CHARGES Deploying necessary trained personal including cost of necessary hemicals, consumable required for commissioning the system.	Lot	1	30000	3000
P	ANK CLEANING AND CIVIL WORKS roviding the tank cleaning service for cleaning all existing tanks. Carrying way the existing sludge and making suitable changes like core cutting as or the requirement. Removing of defunct pipe line and old electro	LS	1	175000	17500
p	echanical equipment from the STP room to outside. Providing eccessary pedestal for new equipment and tanks etc				-1-
p	eccessary pedestal for new equipment and tanks etc			Total	5757
p	eccessary pedestal for new equipment and tanks etc			Total Less Discount	5752 1,75,2

(Rupees Four Lakhs Only)

(K.SYAMA RAJU) SECRETARY