



Off Mains Drainage Specialists
Survey, Design, Installations, Maintenance

SOW for the installation of a new Sewage Treatment Centre.

Date

26/02/2019

Services Performed By:

Avant Installations Ltd
24 Brownrigg Close
Middleton
M24 4BU

Services Performed For:

Mr & Mrs Cockburn
Bowland Retreat Lodges
The Beeches
BB7 9PH

Our Reference:

Avant 0679

Site Address:

The Beeches Retreat Park.

Engineer:

Chris Tate

This scope of works # Avant 0679 (hereinafter called the "SOW").

Scope of works.

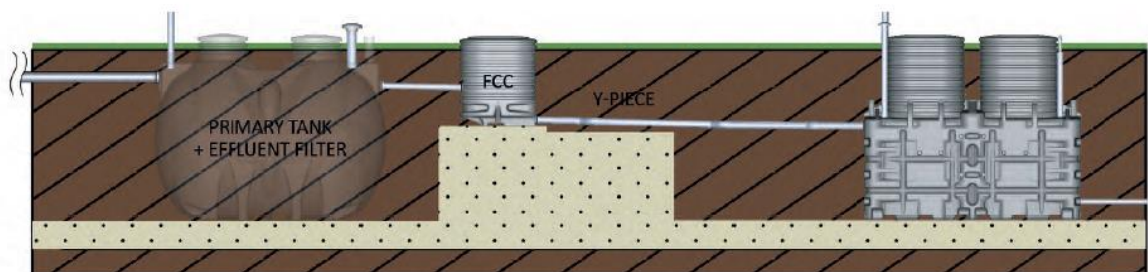
Following a site attendance, the following recommendations for works can be made.

It is proposed a Biorock Ecorock 5000 system is installed to treat the waste water for the Bowland Retreat Lodges.

The system comprises of a ST1 10,000 Primary tank, EcoRock 5000 Treatment unit. Flow chamber and splitter unit. Pump chamber.

It is proposed the system is installed along with a seasonal soak away/ partial drainage field which will the release to the drainage ditch located in the corner of the field.

The Bio rock will treat the waste water with out the use of electricity. Power will be required for the pump chamber to allow the release at the correct level for the partial drainage field to function correctly. Power will only be used at times of loading.



Sewage treatment plant installation.

- Installation of BioRock ST10,000.
- Installation of BioRock EcoRock 5000
- Installation of BioRock Splitter chamber.
- Installation of pump chamber.
- Installation of concrete base and a concrete plinth surround 600mm High.
- Connection to sites inlet system.
- Air vents installed as required.
- Preparation of risk and method statements to meet with HSE and CDM requirements.
- Commissioning of the system.
- Work areas left level with back of bucket.
- All waste left on site.
- Avant will take care will carrying out excavations but will not be responsible for damage to existing services while carrying out works.
- Power supply for pump chamber, cable will be installed, connection to be carried out by client's contractor.

The cost to carry out this work is £6840.00 + Vat £8208.00 Inc Vat

Costs for carrying out works are based on good ground conditions. Should bed rock, high-water table or unstable grounds be encountered additional costs may be incurred.

Partial drainage field, seasonal soak away installation.

- 30m Seasonal soak away, installed. 600mm wide trench. 600mm deep. Lined with Geo textile membrane. Solid slotted 110mm pipe. Trench filled clean pea gravel. 10.8 M3. Aggregate at 2.2 ton per m3 23.76 Tons.
- Connection on the drainage ditch made.
- Preparation of risk and method statements to meet with HSE and CDM requirements.
- Commissioning of the system.
- Work areas left level with back of bucket.
- All waste left on site.
- Avant will take care will carrying out excavations but will not be responsible for damage to existing services while carrying out works.

The cost to carry out this work is £3120.00 + Vat £3744.00 Inc Vat

Method Statement – (Example)

Item	Description of Works	No. Trades	Duration (Days)	Plant/Tools Required	Materials
1.0	Set up site. Carry out a full CAT scan of the site before any excavations take place.			• Safety Signs • Heras Fencing • C.A.T Scanner • Skip • PPE • Site WC	• Sterlingboards • Plastic Sheeting
1.1	Setting out of works as show in scope of works			• Hand tool • Speed line paint	
2.0	Take up and set aside land scape materials.			• Hand Tools • C.A.T Scanner • PPE	
2.1	Excavate and install structural shuttering if required to allow and maintain safe access in to work environment.			• Excavator • Skip loader. • Shutter box • Lifting slings/chains	

	Shuttering is not included with standard costs for installation. A de water pump may be required to control ground water. Excavation to be 150mm lower than the base of the tank.			• Edge and access protection. • NC2 Compliance Kit • Gas Detector. • PPE • Skips	
2.2	Installation of new concrete sub base for the STP. Bottom of excavation to be levelled. Concrete provided by external supplier. Concrete to be place in situ using excavator bucket. Second operative to carry out banks duty.			• Excavator • Concrete truck • Edge protection • Hand tools • NC2 Compliance kit	• Concrete C25 semi dry. • Tank
2.3	Installation of new sewage treatment centre, New STP to be lifted in to place using tested chains/slugs attached to the excavator with approved shackles. Second engineer to act as banks man. No one is to be present in excavation while tank is installed.			• Excavator • Lifting chains/slugs • Hand tools • PPE	
2.4	Surrounding of new STP with concrete to meet with wet site specification as per manufactures details. Steel shutter box to be lined with 50mm polystyrene, Concrete to then be placed around the tank up to required level			• Excavator • Concrete truck • Water pipe/hose • Hand tools • PPE	• Polystyrene sheets 50mm • Concrete C25
2.5	With the new tank installed inlet and outlet connections to be made, once connections are made pipe work to be flushed before commissioning to remove any debris from the lines. CCTV completed and recording made for QA			• Excavator. • Hand tools • PPE • CCTV	• Pipe work • Pipe bedding.
3.0	Electrical (Not required for septic tank installation) connection to be made by NIC qualified engineer. NIC not included in costs. Supply to be connected to tank by means stated in manufactures installation guidance. Supply cable to be SWA core cable. Control measures to be provided on supply. RCD & MCB protection. Cable to have marker tape place above before backfilling.			• Hand tools • Cordless power tools • Tester • PPE	• SWA Cable. • Ducting • Control equipment as required.
4.0	Excavation to be back filled once installation works have been completed. Spoil to be place and compacted with hand tamp as required. Finishing to be applied as pre-works records show. Or as agreed with home owner.			• Excavator • Hand tools	•

Plant & Welfare Facilities Required

- Excavator
- Skip loading dumper.
- Lifting chains/slides
- Lifting shackles
- Hand tools
- De watering pump
- Petrol cut off saw
- 7kg Breaker
- Site Fencing
- Welfare Facilities
- C.A.T Scanner
- Drain Camera
- Hose pip
- Laser level

Completion Criteria

Contractor shall have fulfilled its obligations when:

- Contractor accomplishes the Contractor activities described within this SOW
- The Home Owner agrees that works have been carried out as per the agreed specification to an acceptable standard.
- Site has been vacated and all plant and materials removed.

Terms

Care will be taken while carrying out the works stated. Damage to surfaces will be incurred while carrying out works due to the nature of the equipment required to carry out the works. Although care will be taken, Avant cannot be held responsible for damage while carrying out described works.

Costs for carrying out works are based on good ground conditions. Should bed rock, high-water table or unstable grounds be encountered additional costs may be incurred.

Care will be taken while reinstating excavations, Avant will not be responsible for any further settlement once Avant have left site.

Payment terms are 50% pre-works payment 3 weeks before start date. 50% completion payment upon completion of works.

Project Variation Procedure

The following process will be followed if a change to this SOW or a Variation of works is required:

- A project variation request will be submitted to Chris Tate. The variation must describe the change, the rationale for the change, and the effect the change will have on the project.
- Avant will review the proposed change and determine whether to submit the request to the other party.
- If variation works are agreed, works will be booked in at the request of the Avant engineer.
- Upon completion of the variation works, these will be invoiced separately to the initial authorized project.