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From: **Dan Gipson**

Date: **15 January 2021**

To: **Mark Akmenkalns**

Company: **BP Civils**

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Your ref: **D1938 - Manor Road Nurseries**

Our ref: **WQ14763**

Pages: **1 of 5**

**Re: 'PRIVATE' FOUL WATER PUMPING STATION –
Manor Road Nurseries, Manor Road, Hayling Island, PO11 7LR**

We have pleasure in enclosing details of our quotation based on the information supplied for the supply of pumping equipment for a privately owned (non-adoptable) Foul Water pumping station. Including pumps, pedestals, internal pump station pipework & valves, control panel, kiosk, level controls, lifting chains, guide rails, shackles, M&E installation and commissioning for your consideration.

Foul Water Pump Station – serving 9 x domestic properties
Each Pump Rated at a minimum of 3.8 L/s (for self-cleansing the 80mmØ rising main)

We have offered a dual pump station and the pump units offered are of the submersible vortex impeller type, guide rail mounted, with **80mmØ maximum solids handling capacity**, designed to operate on a duty / assist / standby basis.

We offer the supply of pumps and associated equipment for installation within a **2700mmØ x 3650mm deep** (internal dimensions) precast pump chamber of concrete ring design which has been sized by others.

Storage Note: 24hr emergency storage within the FW pump chamber below the lowest incoming inlet IL (3.35) down to base chamber (2.35) amounts to approx. 5.7m³ which is suitable for a maximum population of 38 people / 150 litres / per person / per day (as calculated and specified by others).

The concrete pump chamber is to be supplied and installed on site by others and you will need to ensure that the pump chamber has a good, flat and solid concrete base for us to fix our pump pedestals down onto.

We will install dual 80mm diameter uPVC discharge pipework and brass valves including 2 x non-return valves and 1 x gate-valve within the pump chamber. Our pipework will terminate inside the pump chamber with a 3" - 90mm PE adaptor for connection onto the rising main.

EXCLUSION: We exclude the supply and installation of the pump station access cover & frame.

A precast concrete cover slab with a minimum clear access opening of **1200mm x 675mm** will need to be supplied and installed on site by others for the initial installation as well as unhindered pump removal and installation for future maintenance. **See pump station plan view drawing for access opening position and minimum clear access opening size.**

The access cover and frame must be positioned in the centre of the pump chamber, directly over where the pumps will be installed, with the rising main positioned straight and on the centre line of the long section of the access cover. **See pump station plan view drawing.**

The cable duct and vent pipe can be as high as possible in the pump chamber. To ensure that the rising main is fully ascending at all times, the outlet level of the rising main at the pump station will need to be lower than the IL at the receiving manhole so approx. 1200mm below cover level.

When installing the rising main, please allow at least 1000mm length of pipe in the pump chamber so we can cut back and make our connection onto. The rising main must be central to the pump station and access opening so that we can arrange the pumps suitably inside the chamber. Any deviation in the rising main must be made outside the chamber. **See pump station plan view drawing.**

We have based this quotation on the following information and levels. We would ask you to advise us if any of the information detailed below has been interpreted incorrectly as this could affect the operation and performance of the pump station and we may have to revise this quotation.

Pump Station Cover Level	6.00
Rising Main Outlet Level at Pump Station	4.80 – to ensure rising main is fully ascending
Pump Station Lowest Inlet IL	3.35
Pump Station Base Level at pump	2.35
IL at Receiving Discharge Manhole	4.97
Full Horizontal Length of the Rising Main	6.5m Max. (Note: Must be fully ascending at all times)

TENDER FOR SUBMERSIBLE FOUL WATER PUMPING STATION

Number of Pump(s)	: Two (2)
Pump Type	: 80-150
Explosion-proof	: No – suitable for installation in a NON hazardous area only
Capacity per Pump (approx.)	: Minimum 3.8 L/s (for self-cleansing the rising main)
Maximum Solids Capacity	: 80mmØ
Impeller Design	: Vortex
Motor Rating (P2)	: 1.67 kW
Motor Speed	: 1370 r/min
Supply Voltage	: <u>400v – Three Phase & Neutral</u>
Full Load Current	: 3.71 A
Method of Starting	: DOL
Level Control	: Floatswitches x 4
Control Sequence	: Duty / Assist / Standby
Length of Cable	: 20 metres
Pump Chamber (by others)	: <u>PCC 2700mmØ x 3650mm deep (internal dims.)</u>
Access Cover (by others)	: <u>1200x675mm</u> minimum clear access opening for pump maintenance
Pump Outlet Branch	: DN80
Pump Station Pipework	: 80mm uPVC grey pipe BS/EN1452 & BS4346
Rising Main (by others)	: <u>90mmOD PE100 SDR17 (Internal Diameter of approx. 78.7mm)</u>
Separate Valve Chamber	: No - Valves installed in pump chamber
Final Discharge	: 3" - 90mm PE adaptor terminating inside the chamber

IMPORTANT NOTE: The foul pumps offered have a maximum solids handling capacity of 80mmØ and are designed to transfer bodily waste, toilet paper and household wash waters only. They are not designed to transfer sanitary towels, condoms, cotton wool and other fibrous items such as nappies and baby/wet-wipes, or any other foreign objects, which if flushed down the system might cause blockages within the pumps, station pipework & valves, rising main and downstream sewers.

PRICE / COMMERCIAL SCHEDULE

PRICE:

Supply/deliver/ M&E installation and Commissioning only of pumping equipment including dual pumps, control panel, kiosk, level controls and lifting chains amounts to: **£7,592.00 + VAT**

If we are unable to commission on the same day as installation and a return visit is required to commission the pump station, an additional charge would apply.

SPECIFICATION FOR SUBMERSIBLE PUMPS AND ACCESSORIES

PUMPS:

The water tight IP68 fully flood-proof motor and the hydraulic section form a compact robust unit.

The rotor shaft is supported in lubricated for life ball bearings.

Shaft sealing between motor and hydraulic section by means of high quality sealing unit using a silicon carbide mechanical seal, independent of direction of rotation and resistant to temperature shock. Motor side – oil lubricated lip seal

Materials of Construction:

Motor housing	: Cast iron
Motor shaft	: Stainless steel
Volute	: Cast iron
Impeller	: Cast iron

AUTO COUPLING SYSTEM

To allow easy removal of pumpsets from wet well for maintenance purposes incorporating 90° duckfoot pedestal / bend, guide rail top mounting bracket and guide rail adaptor to pump discharge connection. Also included galvanised mild steel guide rail and suitably rated galvanised lifting chain according to sump depth.

PIPES AND VALVES

Each pump fitted with individual delivery pipes complete with non-return valves terminating in a common isolation valve and discharge pipe at high level for connection to the rising main.

LEVEL CONTROLS

Encapsulated non – mercury floatswitches complete with counterweights and suspension brackets.

CONTROL PANEL

Dual pump 415v control panel in an IP54 mildsteel dust and damp protected enclosure.

Control panel includes:

- Door interlocked isolator
- Motor fuses
- DOL Contactor starters
- Hand/Off/Auto selector switches
- Supply on indication
- Individual pump run and trip lamps
- High-level alarm buzzer
- 3 x VFC (Common Pump Fail & HLA) – for building into BMS system by others

KIOSK – Green mild steel kiosk (concrete plinth mounted by others) to house control panel externally – 1250mm(h) X 1250mm(w) X 400mm(d) c/w high level beacon and guard on top of kiosk.

We recommend that the control panel kiosk is installed in an unobstructed area as close to the pump chamber as possible and within clear and direct eye line for servicing and maintenance purposes.

We have allowed for 20m power cables on the pumps and 20m cables on the level controls on the understanding that the maximum horizontal straight distance from the pump chamber to the control panel kiosk will be 10m. If 20m long cables will not be long enough then we can provide additional costs for extended cable lengths if necessary up to a maximum of 30m.

NOTES & ASSUMPTIONS:

- We have allowed for our standard operating and maintenance manual available electronically only, issued after final commissioning and on receipt of final payment.
 - We have included for M&E installation and commissioning to be made within one continuous visit. If any return visits are required for any reason, an additional charge would be invoiced.
 - It is assumed that all access to site will be fully unhindered. Should access be prohibited, additional costs may be incurred.
 - As standard, all equipment supplied and installed carries a 12 month manufacturer's warranty from the date of commissioning (not practical completion), covering manufacturing defects only.
 - We have based our pump selection on the assumption that a **400v (three phase & neutral)** mains power supply will be available unless otherwise advised. This would be preferable to 230v (1 phase) for more power, better reliability, and greater solids handling.
 - We exclude the supply and installation of the rising main which must be **90mmOD PE100 SDR17 (Internal Diameter of approx. 78.7mm)**.
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PUMP STATION EXCLUSIONS:

- **The supply and installation of the pump station access cover and frame. Please note the minimum required clear access opening size on the pump station plan view drawing provided.**
 - **The supply, installation and testing of all rising main pipework.**
 - **We exclude all civil works and will advise of civil requirements including making good, cable duct with draw cord and supply and installation of vent pipework.**
 - **It will be the responsibility of the contractor to install a 100mmØ cable duct (with draw cord) from the pump chamber back to the control panel location.**
 - **We exclude the supply/connection of the incoming mains electrical cable to our control panel.**
 - **Pump Station site specific drawings.**
 - **Extended and Collateral warranties.**
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INSTALLATION:

From receipt of an official order, we would require notice in advance of at least **6/8 working weeks** prior to your required date of M&E installation to allow us to schedule our engineers and ensure that all equipment has arrived in time from our suppliers and manufacturers. Exact installation dates to be confirmed once orders have been placed and we have received confirmation from the suppliers and manufacturers of their delivery lead times at time of order.

We will wait to be instructed to procure materials for this project, please take note of the long lead time materials and advise. If you would like us to order all equipment and hold them at our premises in advance of your required installation date then you will be invoiced for all equipment being held at Willow Pumps regardless of the fact that it is not on site and a vesting certificate will be provided.

Alternatively you can provide us with a programme and call off materials as and when you need them, again please take note of the long lead items to make sure you have them in time.

If an arranged installation is aborted, cancelled or postponed through no fault of our own then you will be invoiced for all equipment being held at our premises.

OPTIONAL EXTRAS (if required):

- 1) To supply heater feed, heater & stat, 25mmØ double insulated meter tails and fuse switch within larger kiosk. **Extra £350.00 + VAT.**
- 2) GSM Telemetry unit c/w SIM card, 1-year monitoring and high gain aerial.
After the first year, it will be the responsibility of the end user on site or the appointed pump maintenance contractor to ensure that the pump station is monitored and that the SIM card is kept active and in credit at all times. Note: The use of a GSM telemetry unit would be subject to location and signal strength / network at the control panel location. **Extra £715.00 + VAT.**

PRICES: Strictly nett, excluding VAT and valid for 90 days from date of this quotation.

PAYMENT TERMS: To be confirmed upon satisfactory credit checks.

EXCLUSIONS: Payment retentions, liquidated & consequential damages and performance bonds.

TERMS AND CONDITIONS: Willow Pumps Ltd Standard Terms and Conditions would apply including title of goods until paid for in full and excludes retention's and liquidated damages.

We hope we have interpreted your requirements correctly. However, should you have any questions, or require and further assistance then please do not hesitate to contact us.

Regards



Dan Gipson

<u>Issue</u>	<u>Date</u>	<u>Comments</u>
1 st Issue	15/01/2021	

Pump Station Maintenance Quotation (Private – non adoptable)

<u>SITE NAME:</u>	Manor Road Nurseries, Manor Road, Hayling Island, PO11 7LR				<u>WQ14763</u>
<u>PUMP STATION</u>	<u>PUMP TYPE & QUANTITY</u>	<u>CHAMBER TYPE / SIZE</u>	<u>MOTOR RATINGS</u>	<u>SERVICE VISITS PER ANNUM</u>	<u>TOTAL COST PER ANNUM</u>
1 x Foul Water Pump Station -Serving 9 x domestic dwellings	2 x Fmax 80-150	PCC Chamber 2.7mØ x 3.65m Deep	1.67kW / 3.71A DOL 400v / 3 Ph	1 x Annual 3 x Interim	£1,180.00 + VAT / Per Annum
<u>OPTIONAL COSTS:</u>	GSM Telemetry unit including first 12 months monitoring c/w SIM / Data card				£715.00 + vat (if required)
	Monitoring – Additional 12 months monitoring (after first 12 months)				£130.00 + vat per annum (if required)
Note: If the telemetry unit is ordered after the manufacture of the control panel and after M&E Installation an additional cost of £560.00 + vat would be applicable to re-attend site to install the Telemetry unit.					
SCOPE OF WORK:	To carry out routine servicing & inspection of the above pump station at the above frequency and cost.				
TERMS & CONDITIONS					
1. Willow Pumps Limited Terms & Conditions apply 2. All prices and rates are exclusive of VAT 3. Net 30 days 4. This quotation is valid for 30 days			5. Callouts are chargeable, extra to above costs 6. The limit of chargeable replacements without order is £150 7. Renewal of contract will be automatic subject to inflation 8. Termination of contract is subject to 3 month notification		

We accept the above quotation – Name (PRINT): _____ Date: _____

Signature: _____ On behalf of: _____

INVOICE ADDRESS		NOTES: Client to confirm if visits to be pre-arranged with site. Client to provide clear and safe access to the pump chamber and control panel and provide adequate parking within a reasonable distance from the pump chamber. Please also provide any other information you think may be helpful/important to our office/engineers.
ORDER NUMBER		
SITE POSTCODE		
SITE CONTACT		
SITE TEL NUMBER		

EMERGENCY CALL OUT

Call out rates to contracted service customers:

Use of our emergency call out facility would be charged extra as follows:

Normal working hours (08:00 - 16:00):	£65.00 / hour
Evenings/Saturdays:	£85.00.00 / hour
Sundays/Bank Holidays:	£110.00 / hour

There is a minimum 4 hour call charge. £260.00 + VAT

The above hourly rates would apply to both travelling time and time spent on site.

Non contracted customers are as follows:

Normal working hours (08:00 - 16:00):	£85.00 / hour
Evenings/Saturdays:	£110.00.00 / hour
Sundays/Bank Holidays:	£150.00 / hour

There is a minimum 4 hour call charge. £340.00 + VAT

Should a tanker & jetter unit be required to clean out the pumping chamber, we can arrange this at extra cost.

***** IMPORTANT NOTE:** By signing this contract, you will be in contract with us (Willow Pumps Ltd) until you declare otherwise. There must be a minimum notice of 3 months, unless written agreement states otherwise. Your contract will be reviewed on an annual basis, whereby it is possible that there will be uplift in the fee, which will be provided to you in the form of a new contract to sign before we proceed. All necessary purchase orders must be provided in advance, in full, to process invoices via our accounts department. If you have any questions or queries, please do not hesitate to contact us. ***

PUMP STATION SERVICING & MAINTENANCE

We strongly recommend that a Service and Maintenance Agreement for the pump station is taken out from the date of commissioning, particularly if the pump station is to be used during the construction period. It is the responsibility of the main contractor to ensure the pump chamber is kept free of all site debris entering the pumping system as any damage caused by this would invalidate the warranty on the pumps and associated equipment.

Data sheet: technical data

Project name WQ14763 Manor Road Nurseries
Project ID Manor Road Nurseries

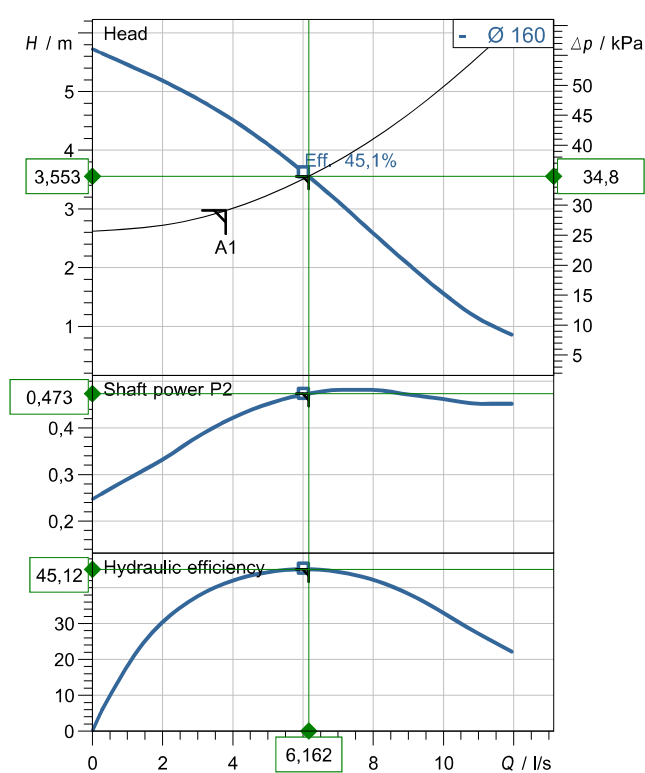
Item-No.
Design Submersible motor pump
Type / Coding Amarex Fmax 080-150/016 F 4 US G

Customer
Contact
E-mail
Phone

Company
Contact
E-mail
Phone

14.01.2021

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demand data

Flow 3,80 l/s
Total head 2,98 m
Geodetic head 2,62 m
Media Water
Liquid temperature 20 °C

Pump data

Make KSB
Type Amarex Fmax 080-150/016 F 4 US G
Design Submersible motor pump
Specific design Single head pump
No. of pumps 1
Standby pump No
Max. Liquid temperature

Hydraulic data (Duty point)

Flow 6,16 l/s
Total head 3,55 m

Material / Seal

Casing Grey cast iron EN-GJL-250 (A 48 Class 35B)
Cover Grey cast iron EN-GJL-250 (A 48 Class 35B)
Suction cover material Grey cast iron EN-GJL-250 (A 48 Class 35B)
Discharge cover Grey cast iron EN-GJL-250 (A 48 Class 35B)
Shaft 1.4021
Impeller Grey cast iron EN-GJL-250 (A 48 Class 35B)

Dimensions

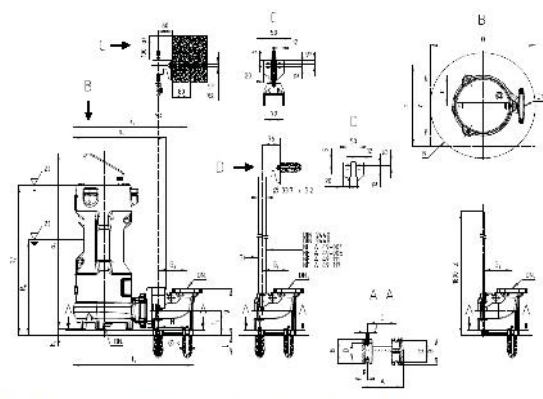
Discharge flange standard DN 80

Motor data

Power uptake 2,13 kW
Rated power 1,67 kW
Speed 1370 1/min
Rated voltage 400 V
Rated current 3,71 A

Article-Info

ID no. / Type code 39110131
Weight loaded 68 kg
Gross price Price on req. EUR
PL 15.01.2021
Price group



FOUL WATER PS PLAN VIEW

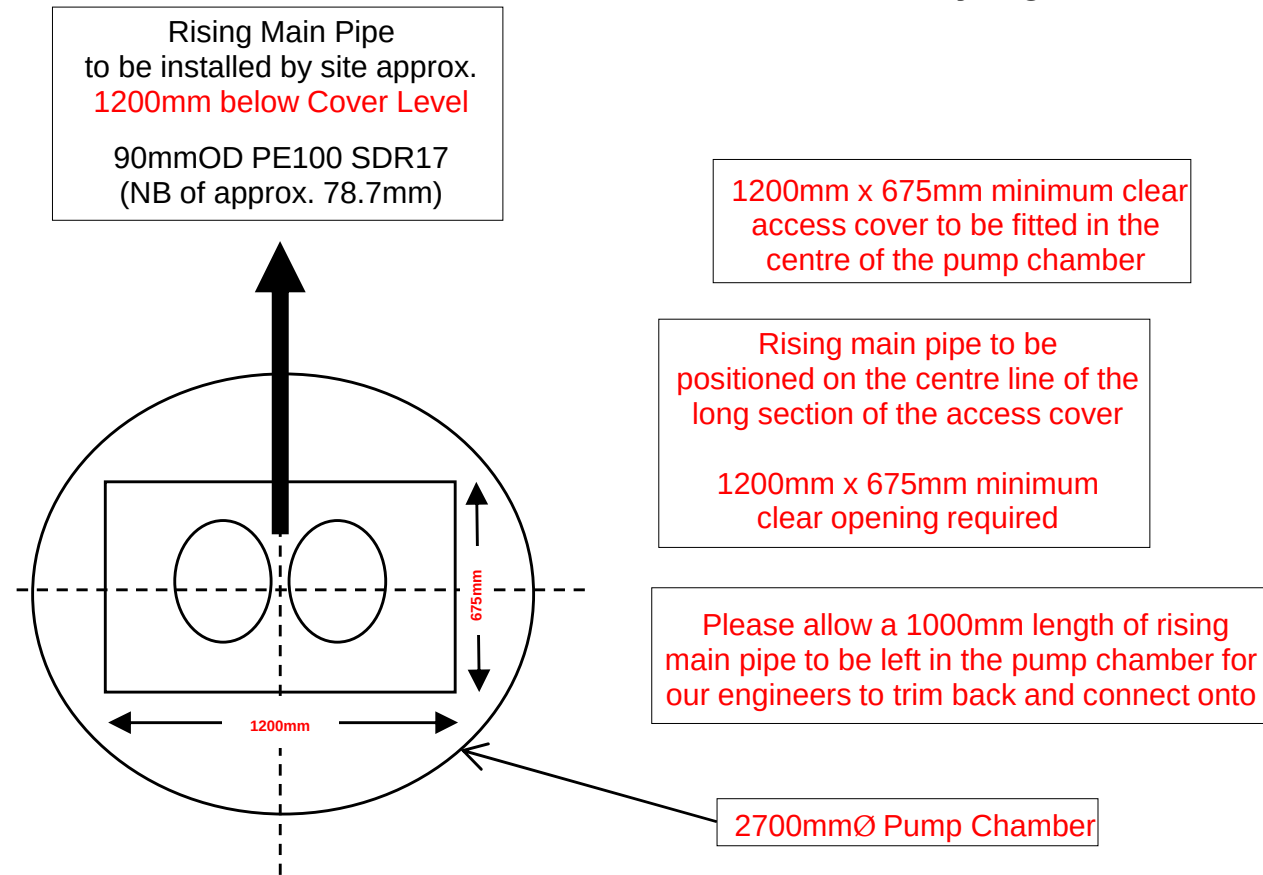


Date: **15 January 2021**

Ref: **WQ14763**

CONCRETE PUMP STATION PLAN VIEW

Site: **Manor Road Nurseries
Hayling Island**



NOT TO SCALE