



Site Plant & Equipment Specifications

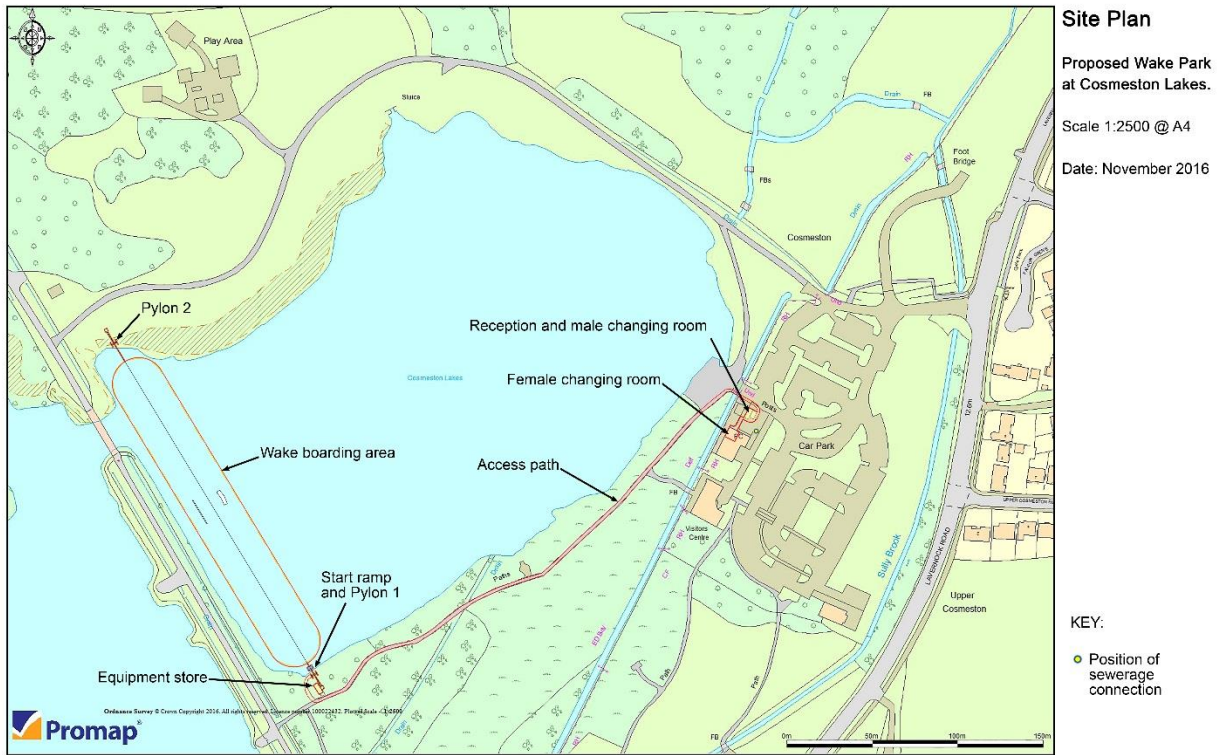
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Synopsis

The Site Plant & Equipment document gives a full list with dimensions and drawings/pictures of all the items which will be introduced to Cosmeston Lakes Country Park for Cosmeston Lakes Wake Park.



The Wake Park Site Plan

Cable System

The Cable System - Sesitec System 2.0

The Wake Park will use the Sesitec System 2.0 cable system. The system is a portable, straight line cable system powered by a frequency regulated electric drive motor.

The system will consist of two pylons, one at either end of a 214m 'course' with an elevated 8mm galvanised running cable between the pylons. The system motor sits on top of the start / motor pylon. The motor can be seen, coloured red, in the diagram below.

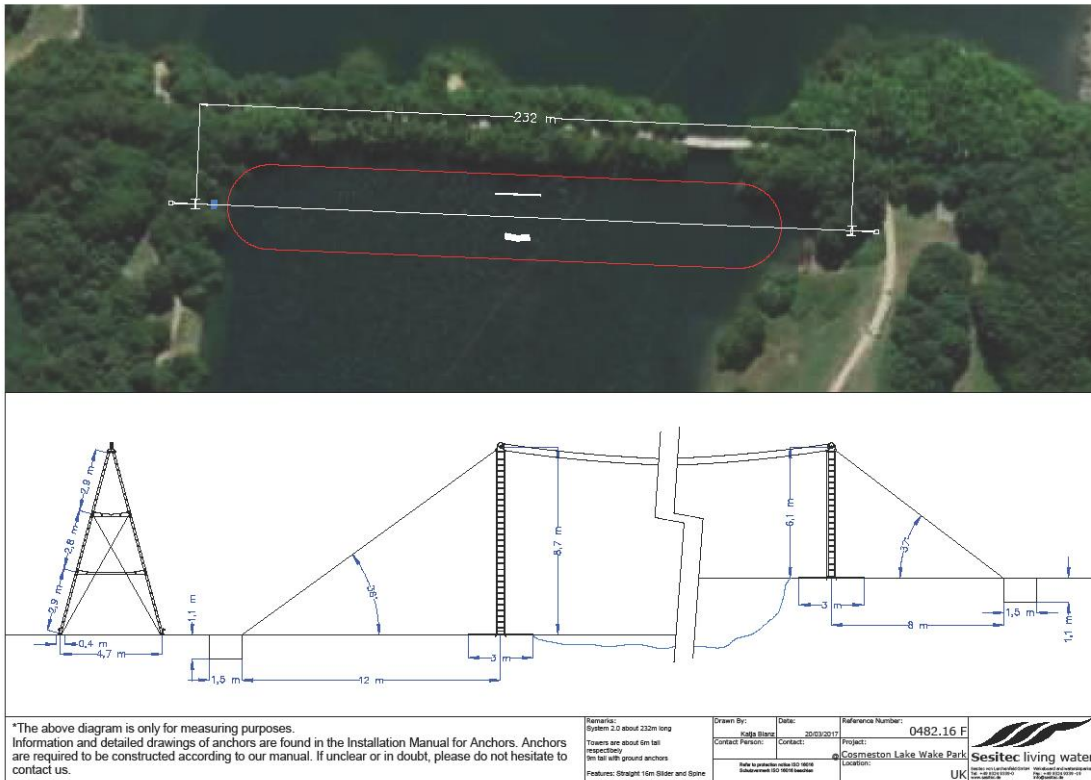
All the main steel components of the system are hot dip galvanised with stainless steel rigging cables and cross wires.



The start pylon on the Sesitec 2.0 cable system at JB Ski Wake Park in Surrey

The pylon at the southern bank is 8.7m high and 4.7m wide at the base and will sit on the lake side approximately 3m from the water's edge. The northern pylon is 6.1m high and 3.3m wide at the base, and will sit on the lake side approximately 7m from the water's edge. The side ladders of the pylons are 40cm wide and allow access to the wake park staff to the pulley wheel and motor on the top of the pylons.

The Cosmeston Wake Park system dimensions can be seen in the manufacturer's system diagram



The start pylon on the Southern Bank



The supporting pylon on the Northern Bank

We will install locked 'no climb' panels to the sides of the ladders to stop unauthorised access to the towers. The panels can be removed by our staff for access to the pylons.



'No climb' panels installed at Salford Wake Park, UK

Cable System Anchor Points

Each pylon will require an anchor point to secure the pylon in position. A hole will be dug measuring 1.5m x 1.5m x 1.5m at approximately 12m behind each pylon. The hole will be clad with plywood and filled with rebar reinforcing steel cables and then filled with concrete to a height of 1.1m. The anchor points will then be covered in earth with only the securing anchor points being visible above the ground.

The Cable System Equipment and Engineering Store

An insulated and secure shipping container will be positioned behind the cable system motor pylon (Pylon 1) on the Southern bank of the wake park. The container is 2.44m x 2.44m x 2.59m and coloured green.

The store will contain the system power supply, the control box and the system operator's controller console. The cable system mechanical equipment and the safety boat engine will also be stored in the container when not in use.

Rental wakeboards, kneeboards and other instructional equipment will also be stored in the container as they are specific to the cable site and best stored close to the start area.

The System Power Supply

The cable system requires a 3 phase power supply. A new power supply will be provided to a secure metering and control cabinet that will be housed behind the Cosmeston Lakes Country Park Visitors Centre.

A supply will then be run to the equipment store which is located behind the start pylon. The power will access the store from beneath the ground and be terminated in a specialist unit.

The System 2.0 Control Box



Each system has a control box which is 100cm x 60cm x 60cm. The main system power supply runs to the control box and then to the electric motor on the system pylon. The control box also accepts the controller console connection for running the cable system.

The control box will be housed securely within the cable system equipment store and secured to the base of the store.

The System 2.0 Controller Console



The cable system operator will 'drive' the cable with a controller console. The console is plugged into the System 2.0 control box during operational hours and removed when not in use. The controller console will be stored in the cable system store when not in use.

The Wake Park Start Pontoon

To enable the wake park customer to enter the water safely and to provide a working platform for the cable operator we will construct a timber framed pontoon at the water's edge at the wake park start position.



The start pontoon, system motor pylon and cable system storage container

Water Buoyage Safety System

A full-length floating buoy system will run north to south alongside the wake park's eastern boundary to mark the wake park boundary and to ensure the safety of our customers from other water users. This will also assist the country park in restricting movement of water craft into the western lake at Cosmeston.

The buoys are 5m long and 58cm wide and coloured yellow. They have a D ring on either end for securing together and anchor lines will be dropped to the lake bed to hold the buoys in place.



Safety buoys being used at another sports facility

Cable Park Features

The cable park will have park features in place to enhance the customer's enjoyment and progression in the sport. They are an essential component of any successful cable park.

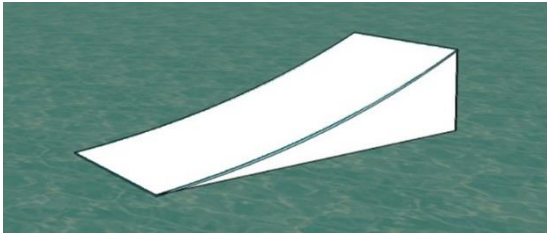
The features are floating standalone units that will be moved around the park to change the configuration of the course available for the customer. This keeps the park fresh for returning customers and challenging enough to allow progression of a rider's skill level. Features are secured with polysteel rope to concrete block anchors that sit on the dock floor which can be lifted and moved around the park with the feature.

All our park features will be made by Industry Wake Parks in the UK. They are designed and fabricated by engineers with over four decades of engineering experience. They are constructed from a fully galvanised mild steel box section framework with polypropylene surface and sides. They are filled with Styrofoam floatation and the structure is secured together using stainless steel hex bolts and nylok nut attachments.



Park Features at Liverpool Cable Park

The Kicker



The kicker is the bread and butter of any wake park. It is suitable for all standards of rider from the beginner to the professional. Boat style tricks can be performed off the kicker such as spins, inverts and grabs.

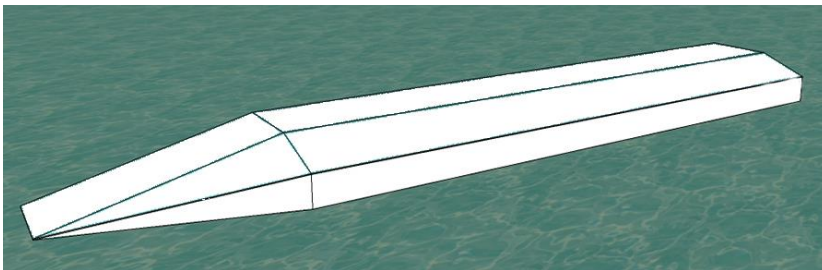
The park will have a small kicker for introducing riders to park features and one large kicker for more advanced riders.

The small kicker measures 3.66m x 2.32m x 0.91m

The large kicker measures 4.88m x 2.32m x 1.22m

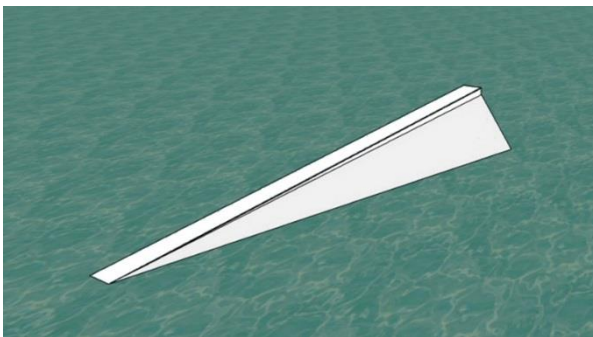
The Box with a Bank Rail

The box with a bank rail is a feature that allows many different variations of ride and trick combinations. By combining the box with the bank rail it caters for all levels of rider – from the intermediate rider first navigating a box to the more advanced rider who will use the box and the banked rail. By combining the box with a banked rail the park has two features in one, thus saving space on the water.



The box measures 15.85m x 2.4m x 0.8m

The Incline



The incline rail is another bread and butter rail for wake parks, it offers the perfect entry level obstacle for beginners looking to hit their first obstacle and is still great fun for advanced riders learning more technical manoeuvres.

The Incline measures 7.32m x 1.52m x 1.22m

The Cable Park Reception Area

The Park Reception

The cable park reception area will be the customer welcoming point and will be hosted in a 3.66m x 2.44m x 2.59m insulated shipping container to be placed near the boat wash at Cosmeston Lakes.



A computer generated image shows the reception with a single door entry and window. The male changing room unit is located behind the office.

The Changing Rooms

The male changing and shower room will also be located within a 6.10m x 2.44m x 2.59m insulated shipping container and will be located behind the office area.

Both containers will be delivered in a uniformed green colour to blend into the park's natural surroundings.



A computer-generated impression of the office and male changing area containers

The female changing and shower room will be located in the park office which is located to the right of the toilets in the visitor centre building. It has an external facing door that faces the boat wash area and measures 4.80m x 2.25m.

Electric Supply Cabinet

A secure power supply cabinet will be located behind the visitor's centre, alongside the already established power wash unit, and will host the power supplies needed at the wake park – the supply will enter and exit the cabinet from under the ground. The cabinet is a standard 304 grade stainless steel secure unit which is coloured green and measures 460mm x 260mm x 1125 mm.

