



COSMESTON LAKES WAKE PARK

DESIGN AND ACCESS STATEMENT

March 2017



COSMESTON LAKES WAKE PARK

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COSMESTON LAKES WAKE PARK



1. INTRODUCTION



COSMESTON LAKES WAKE PARK

INTRODUCTION

The design and access statement for the proposed cable driven wakeboarding sporting facility at Cosmeston Lakes Country Park allows us the applicants to give as much information regarding the proposed development to members of the Vale of Glamorgan Council planning department and all interested parties.

Wakeboarding

Wakeboarding is a surface based water sport and is often described as being similar to water-skiing in the same way as snowboarding is to snow skiing. Wakeboarding as a sport developed in the late 1980's with the first mass produced wakeboard being available in 1991. Wakeboarding competitions started to emerge in the USA in the early 1990's and the World Wakeboarding Association was founded in 1993.

The International Waterski and Wakeboard Federation (IWWF) is today the governing body for 7 water-ski and wakeboard disciplines and is part of the International Olympic Committee. Cable wakeboarding was shortlisted to the final 8 sports to be included in the 2020 Olympics in Tokyo.

Wakeboarding has now developed to being one of the fastest growing sports world-wide and thanks to cable systems, is now accessible to everyone.

Wakeboarding and Water-skiing is governed in the UK by British Water Ski and Wakeboard (BWSW).

The Wakeboarding Cable System

Wakeboarding and water-skiing are activities traditionally associated with the participant being towed behind a boat. Cable wakeboarding uses an elevated cable system to tow the participant.

The water-ski / wakeboard cable system was developed in Germany during the 1960's. The first commercial cable system was installed in Benidorm in 1966, and is still running today.

The system is driven by a quiet electric motor which runs an elevated cable at around 9m from the water surface. The participant holds on to a trailing line and handle as the cable pulls them along the water.

Cable Wakeboarding in the UK

Cable wakeboarding has developed quickly in the UK with 22 straight line and 11 full size cable parks in the UK and Ireland as of November 2016.

Wakeboarding can be enjoyed by everyone with the youngest participants being around six years old all the way through to participants in their eighties.

The nearest wakeboard cable park to South Wales is currently based in the Cotswolds, over 90 minutes' drive away.

Having a wakeboarding cable park at Cosmeston will provide South Wales with a new and exciting sporting facility that will promote sports participation and an active lifestyle. Having a facility based in the beautiful natural surroundings of Cosmeston Lakes Country Park will also help to bring tourists from the UK and further afield to South Wales and the Vale of Glamorgan.

In the UK the British Disabled Water Ski Association (BDWSA), based at Heron Lakes in Staines, aim to introduce newcomers to the fantastic sports of water-skiing and wakeboarding, regardless of physical or learning ability. Participants from South Wales regularly travel for over 2 hours to use the Heron Lakes facility. Cosmeston Lakes Wake Park will work with the BDWSA to give access to participants from the South Wales area to water-skiing and wakeboarding at Cosmeston.





2. PLACE



COSMESTON LAKES WAKE PARK

2.1 COSMESTON LAKES

Cosmeston Lakes is a very popular country park site visited by approximately 250,000 people per year. The site has good access from Lavernock Road and ample parking spaces. The site structure is well established with existing building providing all necessary services.

The water area at Cosmeston currently has access licences for local groups but they are all ad-hoc. Having an established permanent sporting facility at Cosmeston will bring many benefits to the site in its offering to the water sports community and to the local population. The facility will offer a new and exciting sport to local customers and will help increase tourism to the local area, for attracting UK and European visitors through day and short break visits.

Cosmeston Lakes Country Park is located 1.5 miles south of Penarth on the B4267 Lavernock Road to Sully.

The area to the North of the park is home to the Glamorganshire Golf Club and to the east of the park is a housing estate.

The areas to the South and West remain as fields.

Existing Buildings

Cosmeston Lakes has a number of established buildings on site. There is a visitor centre, a separate café facility and toilet facilities. The visitor centre building also houses council staff offices and storage and a workshop for the site equipment. There is also a walled boat wash facility on site.

The Cosmeston Medieval Village has been developed as a 14th century village and is located to the South of the parks' main car park and visitor centre area.



East Lake



Landing Stage on East Lake



Cosmeston Medieval Village



COSMESTON LAKES WAKE PARK

2.2 HISTORIC DEVELOPMENT

Cosmeston Lakes Country Park has a long and interesting history starting life as 4 quarry sites which operated from 1890 to 1970 to provide limestone for the local cement works.

Once the quarrying ceased two of the quarries were used as landfill sites by the council for household waste until 1978. The land fill activity stopped in 1978 and the country park was developed.

The Cosmeston Lakes Country Park site was opened in 1978 extending to over 100 hectares developed to provide 12 ha of open water divided into two lakes and many small ponds, over 3 ha of wetland and reed beds, 20 ha of broad leaved woodland and over 30 ha of wildflower meadows and open grassland. The woodland, meadows and wetland habitats at Cosmeston Lakes are all sensitively managed providing a haven for local wildlife gaining Local Nature Reserve status in 2013.

On the western side are the Dovecot Fields separated by Sully Brook running through the middle where the remains of a medieval dovecot can be seen. Adjacent to this is a reconstructed 14th century medieval village where costumed guides show visitors around the period furnished buildings.

The gravel paths and wooden boardwalks are easily accessible to everyone and many people visit again and again.



Aerial View



Existing Reception Building



East Lake



Cosmeston Medieval Village



COSMESTON LAKES WAKE PARK

2.3 MOVEMENT

Public Transport, Walking and Cycling

The development is well located for access by non-car modes of transportation, in line with the requirements of Chapter 8 of Planning Policy Wales Edition 9 (Nov 2016). A facility located within the Cosmeston Lakes Country Park also provides opportunities for linked trips in combination with other journeys for leisure and recreation.

A regular bus service to Cosmeston is provided by Cardiff Bus number 94. These services run from Wood Street, Cardiff to Barry via Penarth, Cosmeston Lakes and Sully and return on the same route, offering access to Cosmeston Lakes from many locations within the Vale of Glamorgan. The bus stops are positioned immediately outside the country park entrance.

Penarth railway station is within 1.4 mile walking distance of the site allowing access by foot or bicycle. The Penarth line connects directly with Cardiff's Central Station providing connections with other residential areas of the city and across the South Wales region, as well as nationally.

The site is well provided for access on foot and by cycle from Penarth along the old Penarth to Barry railway extension and Lavernock Road. A pavement is located directly outside the site that allows access to and from Penarth.

Highways & Parking

Lavernock Road is a single carriageway with a 30 mph speed limit. There is a footway on the eastern side of the road and the highway is lit in the direction of Penarth. The access road serving Cosmeston Lakes has been constructed to modern geometry standards with generous entrance/egress splays and reasonable stopping sight distances. The pedestrian footway extends along this access road to connect with the perimeter path of Cosmeston Lakes affording very good standards of accessibility.

Cosmeston Lakes Country Park has indicated its willingness to share the existing access and private car parking facilities, numbering in excess of 700, as this will help to increase activity in the area and interest in the park. It is anticipated that the proposals will increase patronage levels generally at the park.



Likely Impact on Movement

The development is anticipated to generate up to 50 customers a day at peak times during the summer months.

Visitor numbers are self-limiting with a maximum of 4 riders per hour due to the capacity of the cable-tow system. Taking account of changing and training/safety briefing, it is anticipated that an average stay would be an hour and a half to two hours with a maximum of 4 customers per hour.

It is difficult to predict spectator numbers and although the proposals are unlikely to be a strong attractor of casual spectators it is reasonable to assume that parents, teachers and friends may also be in attendance. No formal events are planned through the proposals and if these should arise as the development matures then these will take place at weekends.

Staff numbers are low at 3 full time equivalents.

The nature of the proposed land use is unusual by transport planning standards and accordingly no existing database trip data is available to make any comparisons. The vehicle trips below are estimated on the basis of the good availability of walking and cycling opportunities, of nearby public transport connections, and car sharing.

Trip generation figures suggest that the proposals will not give rise to significant additional journeys upon Lavernock Road and that additional journeys can easily be absorbed within daily trip level fluctuations. The demand for car and minibus parking that will arise can comfortably be accommodated within the existing parking provision available at Cosmeston Lakes Country Park.



2.4 PLANNING CONTEXT

Planning Policy

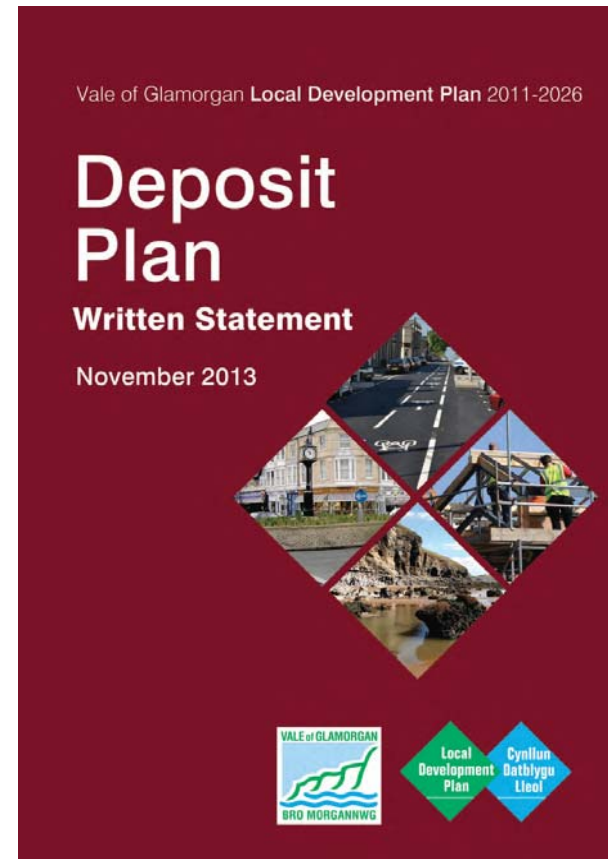
We have chosen Cosmeston Lakes as a location for South Wales' only Wake Park as we believe the site is a stunning natural location and is within easy reach of Newport, Cardiff, Bridgend and Swansea and the towns within the Vale of Glamorgan and the South Wales Valleys.

We hope to draw visitors from local areas as well as from further afield, including international visitors through Cardiff Airport. We will work with Cosmeston Lakes and local companies to offer an outdoor activity and sporting facility coupled with local accommodation and local restaurants and pubs which will encourage visitors to stay locally for day visits, overnight stays and weekend breaks. Weekend / short trip packages could be formed to include wake park access and accommodation with access being by road, rail or air. This is in line with priority 'PR1' listed in the Vale of Glamorgan's Rural Local Development Strategy and Action Plan 2014 – 2020.

Having studied the Vale of Glamorgan Destination Management Plan we hope that the wake park will help to develop the Vale of Glamorgan as an attractive and stimulating destination whilst providing a high quality visitor experience as a place to visit, with things to do and meeting people who share the same passions for sport and outdoor activities. We aim to provide a novel and new experience for new customers and an exciting and dynamic sporting facility for established wakeboard riders set in an attractive natural setting.

Planning History

The planning history of the site at Cosmeston Lakes dates back to 1981 with the development of the country park buildings. Public conveniences and a warden's office were added in 1986 and an extension to the park was granted in 1987. An application was made in 1987 for residential development at the site – but this was refused. The car park was enhanced in 1989 with an amendment of the layout and surfacing works.



A Destination Management Plan for the Vale of Glamorgan



RURAL LOCAL DEVELOPMENT STRATEGY AND ACTION PLAN

VALE OF GLAMORGAN RDP 2014 – 2020



More recently an application has been made for in 2016 for a change of use of an existing exhibition area in the Visitors Centre to an Ice Cream Parlour with facilities to purchase snacks and hot/cold drinks.

An application has recently been made in November 2016 to change of use of two barn buildings (Tithe Barn and Reeves Barn) and associated land, forming part of Cosmeston Medieval Village, to allow civil marriages and wedding events. This application is currently with the Vale of Glamorgan Council awaiting decision.



Cosmeston Medieval Village



COSMESTON LAKES WAKE PARK

2.5 ECOLOGY ASSESSMENT

The Site Context

The proposed Wake Boarding Park sits within Cosmeston Lakes Special Site of Scientific Interest (SSSI) which comprises two lakes created from flooded limestone quarries. The park is open to the public, the lakes are surrounded by a network of public footpaths, vehicular access tracks, car parking facilities and picnic areas. The eastern lake - the proposed location for wakeboarding activities - is bordered by reedbed habitat, ponds, woodland, areas of dense scrub and amenity grassland. The western lake, in contrast, is less accessible to the public and is associated with relatively large expanses of scrub, reed-bed, woodland and historical quarry faces.

Parkland and woodland associated with the wider Country Park and a golf course lie immediately adjacent to the boundaries of the SSSI whilst land to the west opens onto agricultural fields, delineated by native hedgerows and through which the Sully Brook flows. The Country Park and SSSI is located on the southern boundaries of the town of Penarth and is within 800 metres of the southern welsh coastline.

Ecological Appraisal

An Ecological Appraisal has been prepared by The Environmental Dimension Partnership (EDP) on behalf of Cosmeston Lakes Wake Park, to consider the ecological implications of proposed development at Cosmeston Lakes, Penarth and can be found in Appendix A.

To inform potential ecological constraints and opportunities for development, a Desk Study and Extended Phase I Habitat survey were undertaken on 27 January 2017. During the site visit a detailed search of the Application Site was also undertaken for evidence of badger, otter and water vole. An assessment of trees to determine their potential to support bat roosts was undertaken, in addition to an assessment of all waterbodies onsite to determine their suitability to support great crested newt was also completed during the site visit.

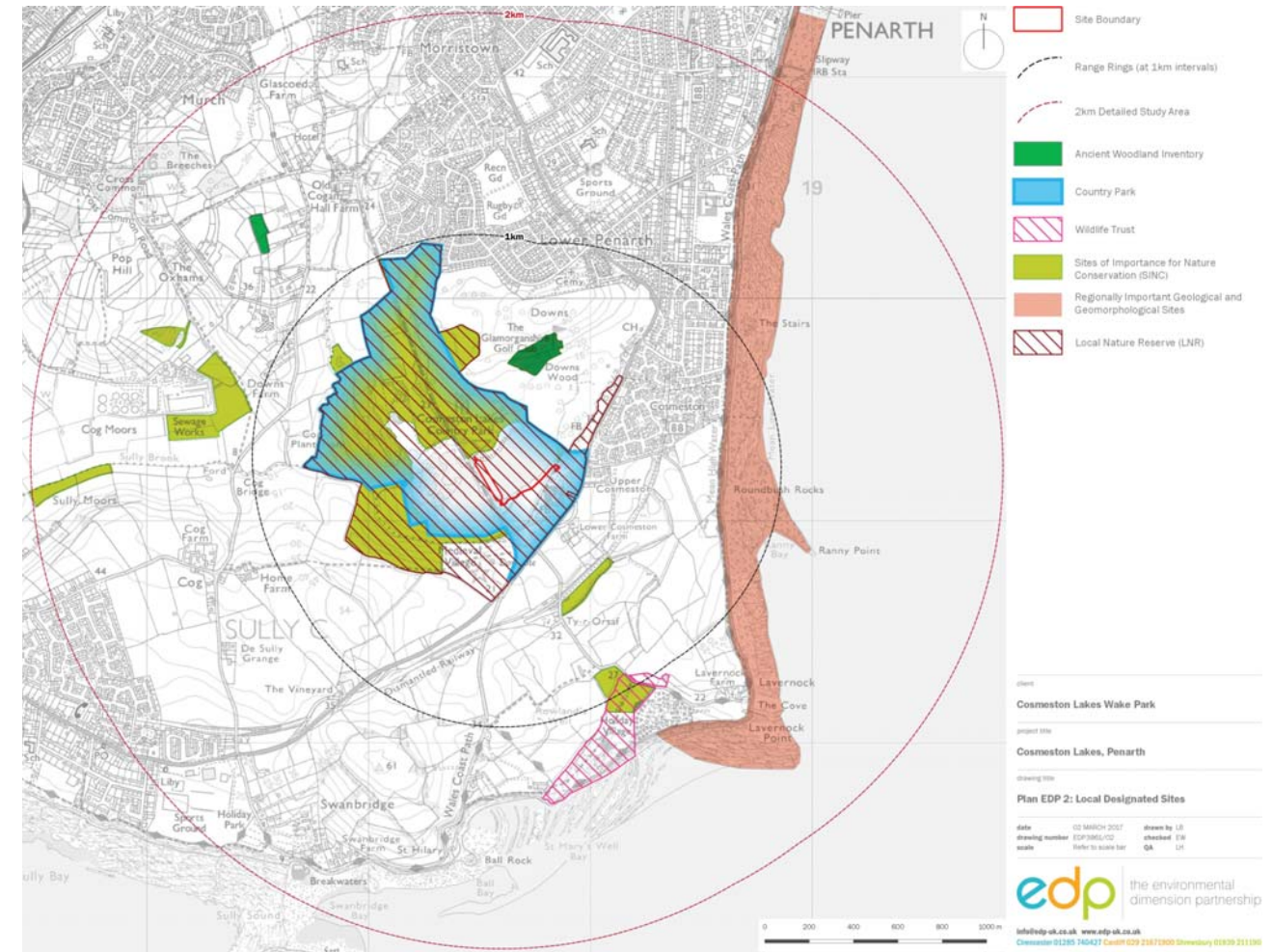
EDP's desk and field based baseline investigations

confirm the inclusion of the Application Site within the boundaries of Cosmeston Lakes Site of Special Scientific Interest (SSSI), Local Nature Reserve (LNR) and Country Park, with the development proposals focusing on the eastern lake. Additionally, the Application Site supports a variety of habitats including broadleaved woodland, swamp, scrub and amenity grassland, with the potential to support protected and notable species including birds, otter, badger and common reptiles.

However, given the small scale and scope of the proposed development, those habitats and species present/potentially present within and around the Application Site are not considered to pose 'in principle' constraints to the proposals. Additionally, it is considered that whilst the Application Site is partially located within a statutorily protected site, its qualifying features could be sufficiently protected from any adverse impacts arising from the proposed development through the implementation of appropriate avoidance and mitigation measures during the construction and operational phases.

Planning Policy Wales Technical Advice Note (TAN) 5 sets out policies specific to the protection of biodiversity and geological conservation through the planning system, requiring the conservation and enhancement of the natural environment at all levels, whilst ensuring no net loss to natural heritage. Avoidance and protection measures will therefore be key to ensure no adverse impacts upon key ecological receptors will arise during the construction and operational phases, in addition to requirements for monitoring and management over the long term so as to ensure the maintenance of favourable condition of Cosmeston Lakes SSSI.

On this basis, EDP finds that by virtue of the relatively limited constraint posed by the site's habitats and protected species interest, coupled with the small scale and scope of the proposed mitigation measures, the scheme is capable of compliance with relevant planning policy for the conservation of the natural environment at all levels. There is therefore no reason, in ecological terms why detailed planning permission should be refused. The scheme is therefore commended to Vale of Glamorgan County Council as an ecologically sensitive response to the implementation of new recreational facilities within Cosmeston Lakes SSSI/LNR/Country Park.



East Lake



East Lake



COSMESTON LAKES WAKE PARK

2.6 ARBORICULTURAL CONDITION ASSESSMENT

Tree Survey Summary

The survey identified six items, one tree and five groups of trees. Further detail can be found in Schedule EDP 1 to the rear of this report.

Consultation with the online resource of Vale of Glamorgan Council has found that the trees are not the subject of a Tree Preservation Order, nor are they within a designated Conservation Area.

All surveyed trees are in fair condition, showing vigorous growth, a full crown and good form. The items are showing no extraneous signs of stress or vascular dysfunction.

All items identified are native or naturalised species in keeping with the localised habitat.

Image EDP 1 – Image EDP 4 are situated at the southern extent of the proposed development looking north.

Image EDP 1 shows T1, an early mature sycamore of 8m tall in fair condition situated on the water's edge. It bifurcates from the base and shows some minor signs of historic damage.



EDP 1



EDP 3



EDP 4

Image EDP 2 shows G2, a collection of small Hawthorn trees, situated at the southern end of the site surrounding the proposed location for the anchor points.

Image EDP 3 shows item G3, comprising a small group of Hawthorn overhanging the water's edge, encompassing one larger item surrounded by several younger items, likely to have self-set into the area.

Image EDP 4 shows a view northwards up the lake and shows the collection of Hawthorn overhanging the water.

Image EDP 5 and Image EDP 6 are situated at the northern extent of the development looking south.

Image EDP 5 depicts G5, a young collection of Alder trees.



EDP 5



EDP 6



EDP 2





3. PROCESS

3 PROCESS

3.1 CHOICE OF SITE WITHIN SOUTH WALES

At present there are no wakeboarding parks in South Wales. When looking for a cable wakeboarding site we looked for a site close to Cardiff that would offer

- A site with clean, calm water with minimal boating activity
- A site that offered areas where customers, their family and friends could relax and enjoy
- Water surface protection from the prevailing South Westerly winds
- Good vehicular access for visitors and facility management
- Good public transport links, cycling and walking access
- On site areas for an office and changing facilities for customers




Cardiff Bay was considered - but the site is very open, has a large amount of water traffic, and does not have immediate parking and supporting facility areas

East Bute Dock in Cardiff was considered – this site had many positive aspects, but due to the high density buildings around the dock we were unable to find a suitable space for office and changing rooms and customer parking

Open field sites to the East and West of Cardiff were considered for digging a purpose built lake with supporting facilities. This proved very difficult due to the price of land and access.

Cosmeston Lakes Country Park looked to satisfy all of our requirements for a cable wake park.

KEY

-  Cosmeston Lakes
-  Cardiff Bay
-  East Bute Dock



3.2 SITE ANALYSIS OF COSMESTON LAKES

Site Analysis

Cosmeston Lakes is a very popular country park site visited by approximately 250,000 people per year. The site has good access from Lavernock Road and ample parking spaces. The site structure is well established with existing building providing all necessary services.

The water area at Cosmeston currently has access licences for local groups but they are all ad-hoc. Having an established permanent sporting facility at Cosmeston will bring many benefits to the site in its offering to the water sports community and to the local population. The facility will offer a new and exciting sport to local customers and will help increase tourism to the local area, for attracting UK and European visitors through day and short break visits.

Location for Proposed Facilities

When analysing the Cosmeston site we decided that the best location for our operational buildings would be near to the visitor centre – this would allow visitors to the area to see what additional facilities are available on site. The shower and changing areas are to be located near to the existing toilet facilities so as to be close to the existing services and the water and sewerage services.

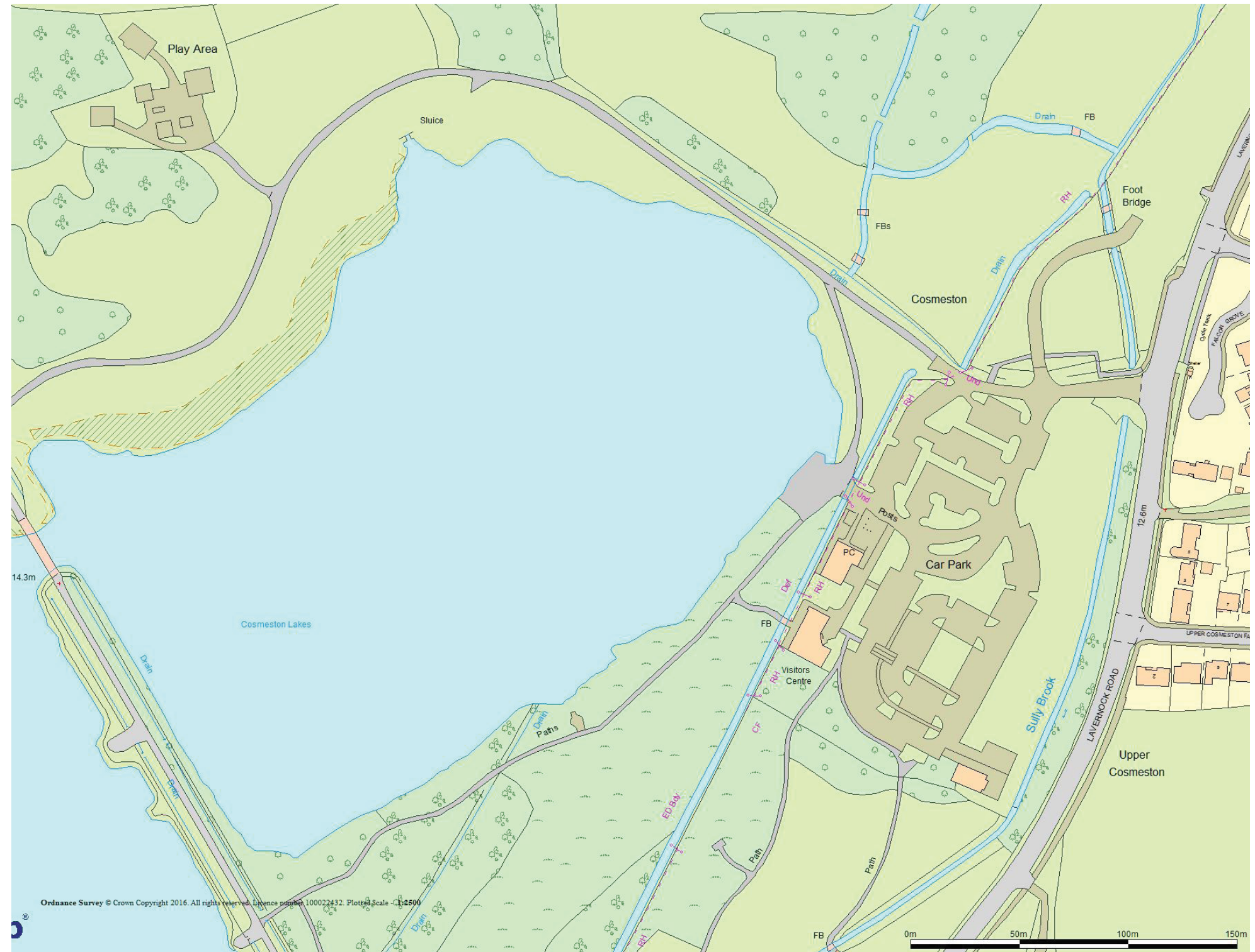
Site Constraints

Memorial trees - there are no memorial trees within the area of proposed development

The cable park start area in the south west corner of the lake has a number of established trees in place. An arboricultural inspection and impact assessment has been conducted.

The northern end of the cable park has a tree line close to the water's edge with grass areas behind these trees. The cable structure and ground anchor will be placed behind the tree line so as not to disturb the established trees.

Flooding assessment - following consultation with staff at Cosmeston Lakes it was found that there has never been any flooding of the lakes at Cosmeston and as a result there is no historic data of water levels at the lake.



3.3 CHOICE OF SITE WITHIN COSMESTON LAKES

Scheme 1

When we first started looking at Cosmeston Lakes as a suitable location for a cable park we noted that there are two lakes at the site – the east and the west lake. Upon approaching the staff at Cosmeston we discovered that the west lake is closed for all water activities.

Scheme 2

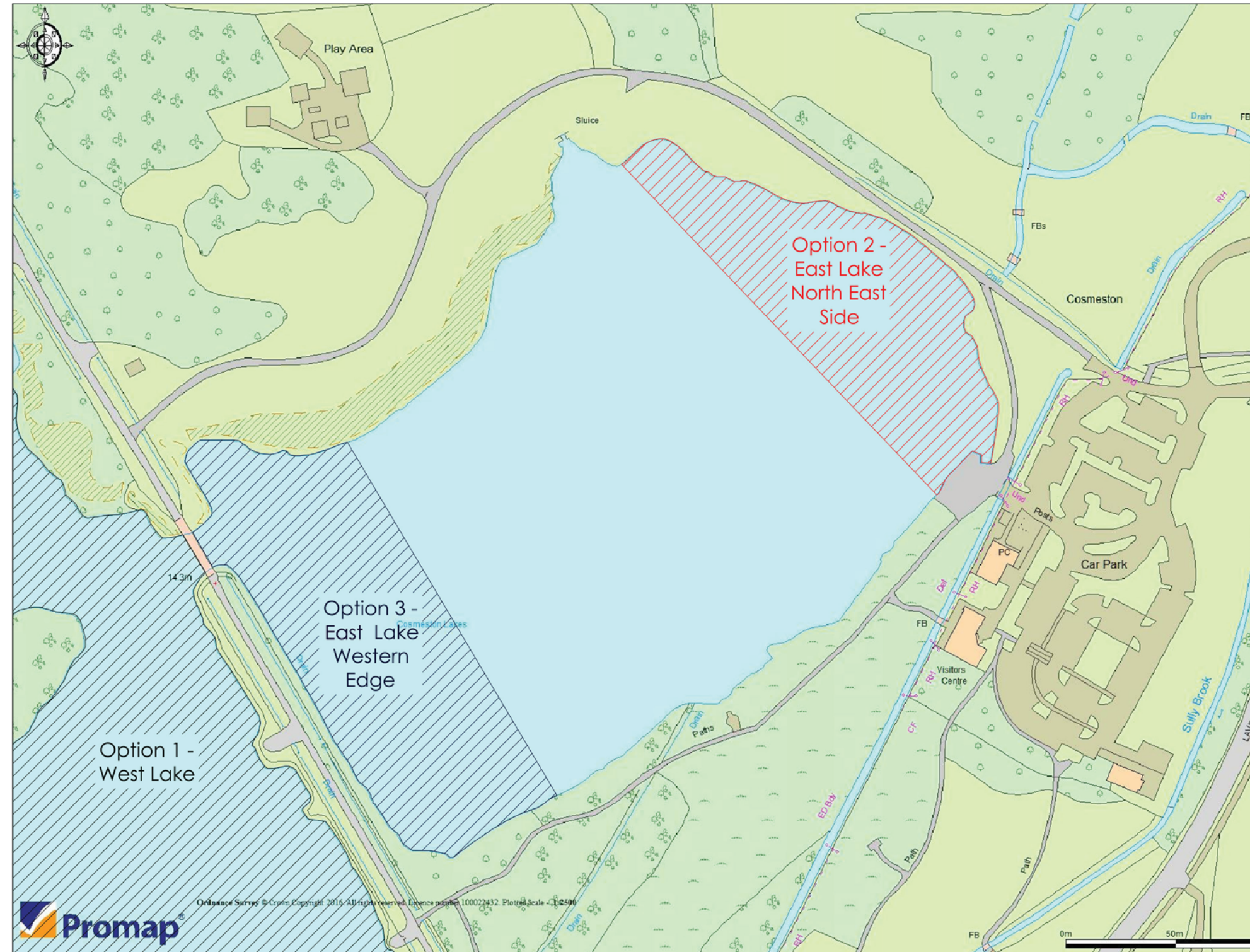
The east lake at Cosmeston has many potential areas suitable for a cable system installation. We looked at the north eastern corner of the lake as there is good access – it is close to the car park – and access for staff and customers to the water is relatively easy. Unfortunately, the north eastern section does suffer badly from water surface chop in the prevailing south western winds.

Scheme 3

Having examined the site in more detail the area best suited for a cable park has been identified as the western edge of the east lake. The straight edge of the lake offers a natural boundary for the cable park and the access at the south western end is good for all members of the public.

The tree and hedge growth along the western bank offers excellent shelter from the prevailing south westerly winds. The proposed cable park will run from South to North within a 50m wide section of the western bank.

There are ample car parking facilities at Cosmeston Lakes and an overflow car park is available at peak times. A hard stand area in front of the boat wash facility offers an ideal location for an office and changing rooms with water and sewerage services also available.



3.4 APPEARANCE

Buildings

We appreciate that shipping container exteriors do not satisfy everyone's visual expectation for a country park. With this in mind we researched many different options for the shipping containers –

- Painting in one of many different colours – green, to match the trees, grey to blend into the sky
- Vinyl wrapping of a country scene, a wakeboarder, large birds/swans or sky
- Timber cladding applied to the container sides
- Shrub or tree planting close to the containers

As each person's perception will be different we are proposing that we deliver the containers to site sprayed in a neutral dark green – which will match the surrounding summer leaves.

Pylons

The pylons are manufactured in Germany and made from steel that is galvanised to stop rusting.

We had considered having the galvanisation treated and painting the pylons a different colour to minimise its appearance – but this would be expensive and we feel unnecessary. The grey galvanised finish is neutral in colour and dull in appearance and opposed to being a gloss finish. The structures merge into a cloudy sky and can very easily be undetectable from a distance.

Pontoons

The pontoon will consist of vertical wooden posts being placed into the water and a decking frame being built onto the supporting posts. A deck will then be built onto the framework. We will try and use as much recycled timber for the construction of the pontoon making sure that clean new timber is used when in contact with the water so as not to cause any contamination from recycled materials.

When we can we will also aim to use recycled plastic sections – these are reinforced internally – these sections are a lot more expensive than timber, but do last a lot longer due to the material used.





4. PROPOSAL



COSMESTON LAKES WAKE PARK

4 PROPOSAL



4.1 COSMESTON LAKES SHOWING THE LOCATION OF THE ELEMENTS OF THE SCHEME



COSMESTON LAKES WAKE PARK

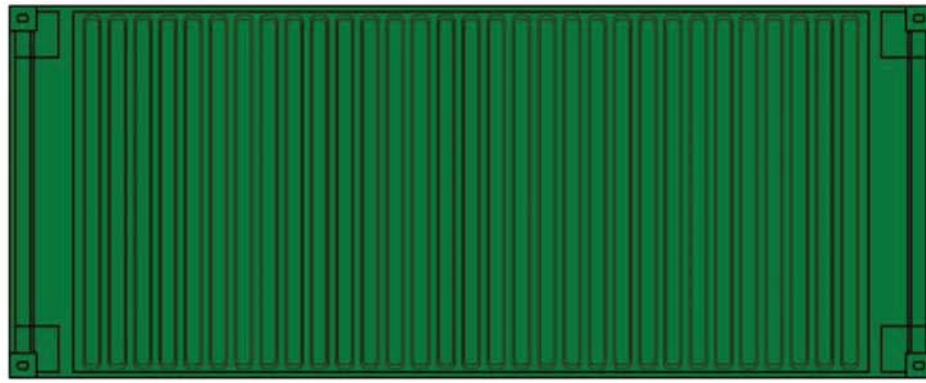
4 PROPOSAL



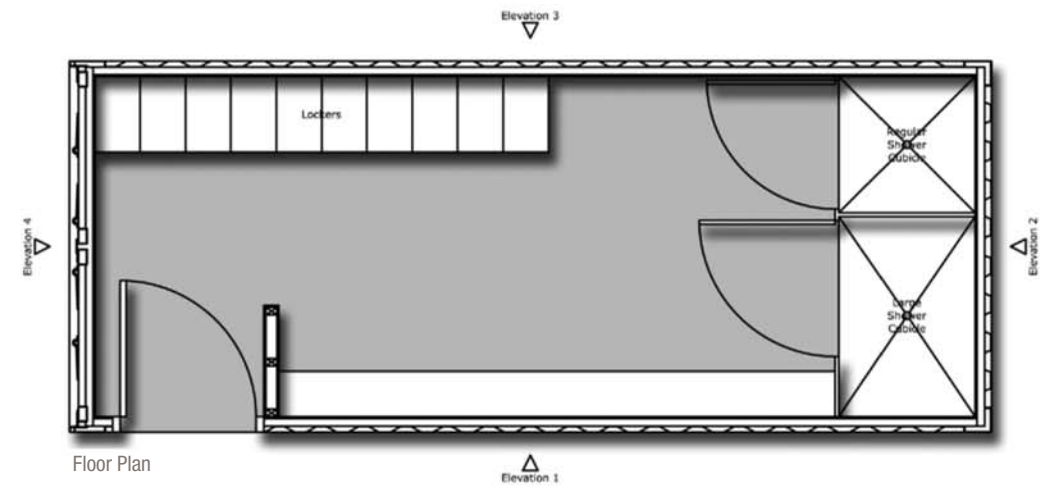
4.2 LOCATION OF CHANGING AND RECEPTION BUILDING



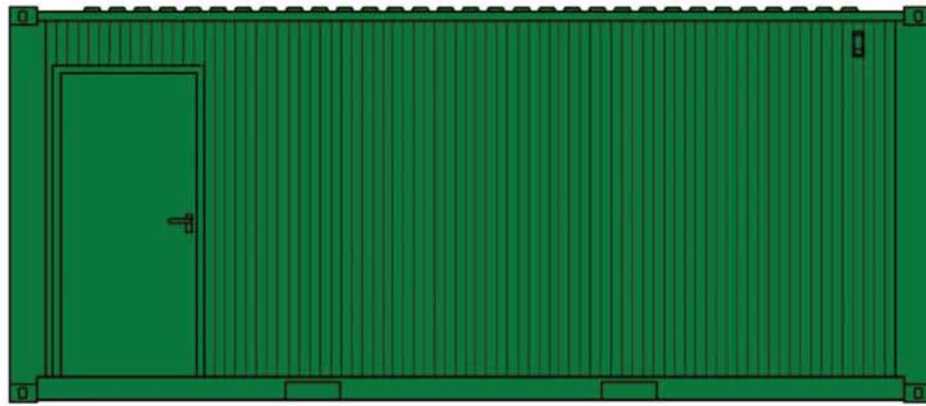
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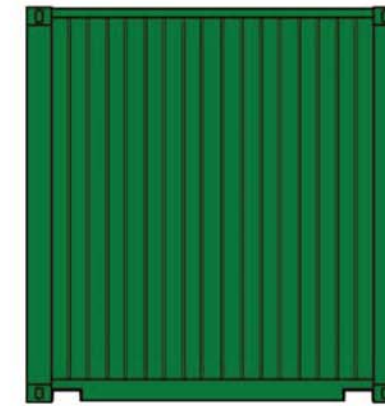
Roof Plan



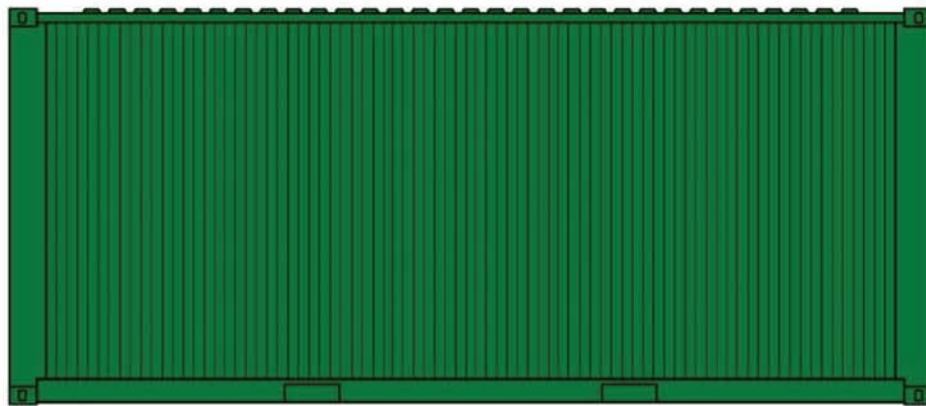
Floor Plan



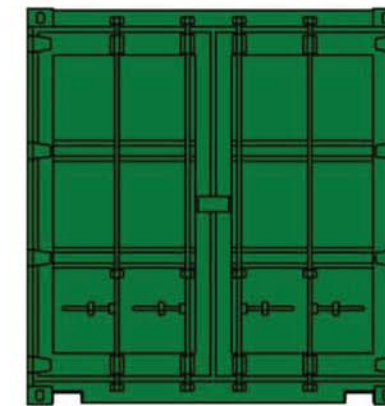
Elevation 1



Elevation 2



Elevation 3



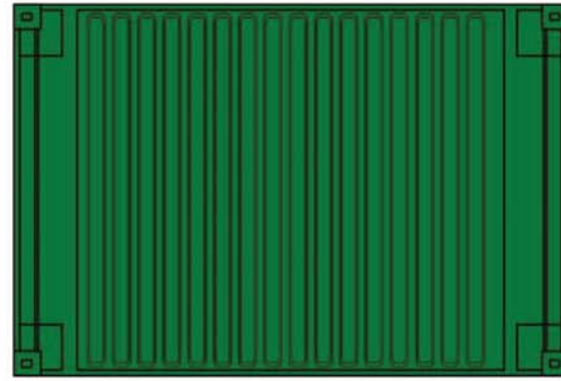
Elevation 4

4.3 CHANGING BUILDING

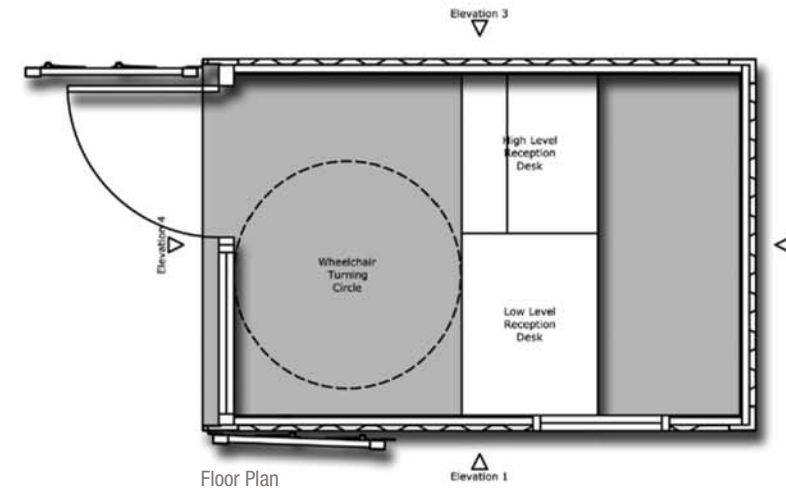


COSMESTON LAKES WAKE PARK

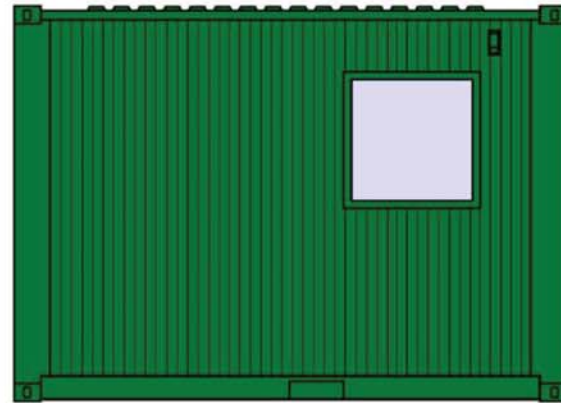
4 PROPOSAL



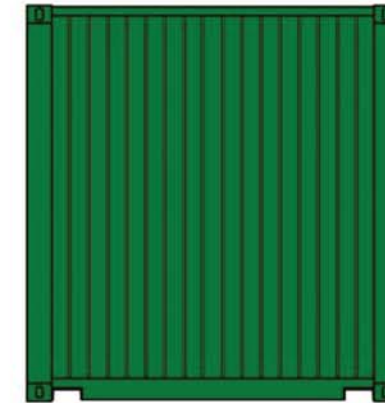
Roof Plan



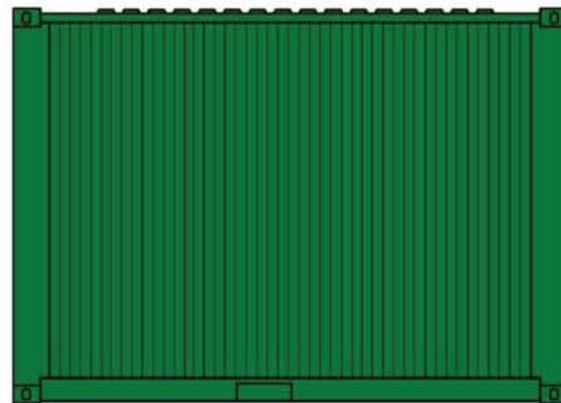
Floor Plan



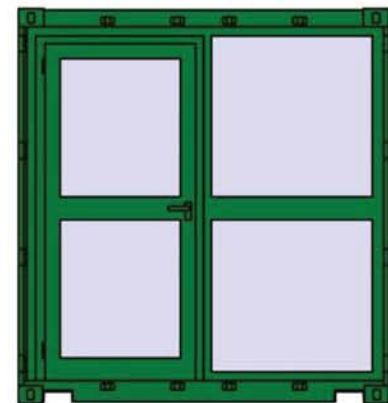
Elevation 1



Elevation 2



Elevation 3



Elevation 4 (Open)



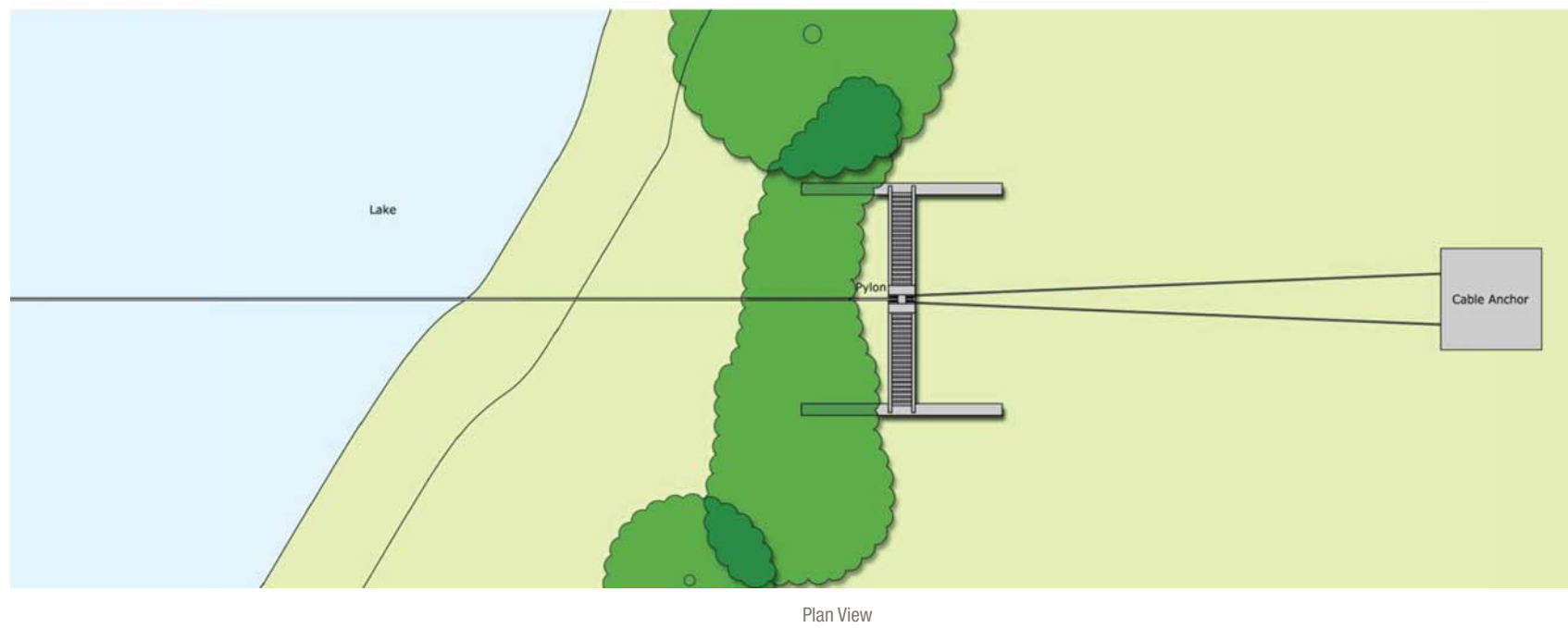
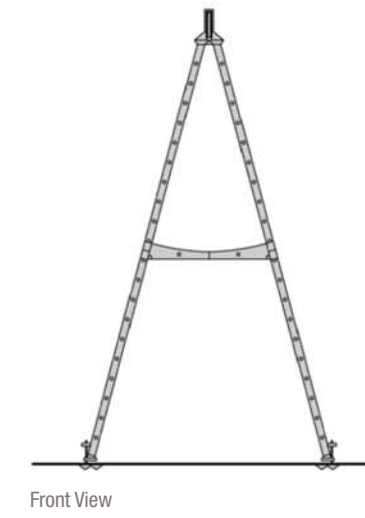
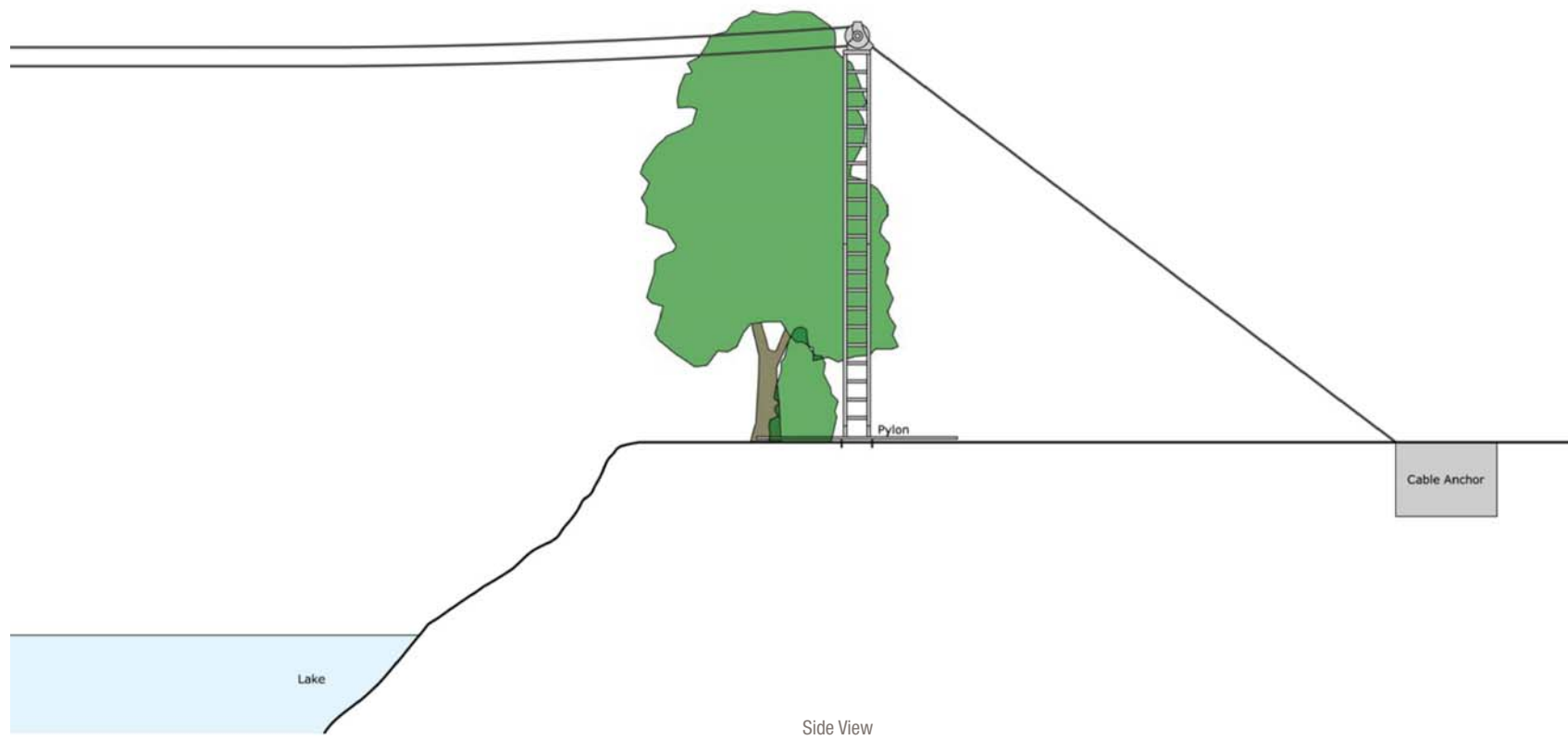
Elevation 4 (Closed)

4.4 RECEPTION BUILDING



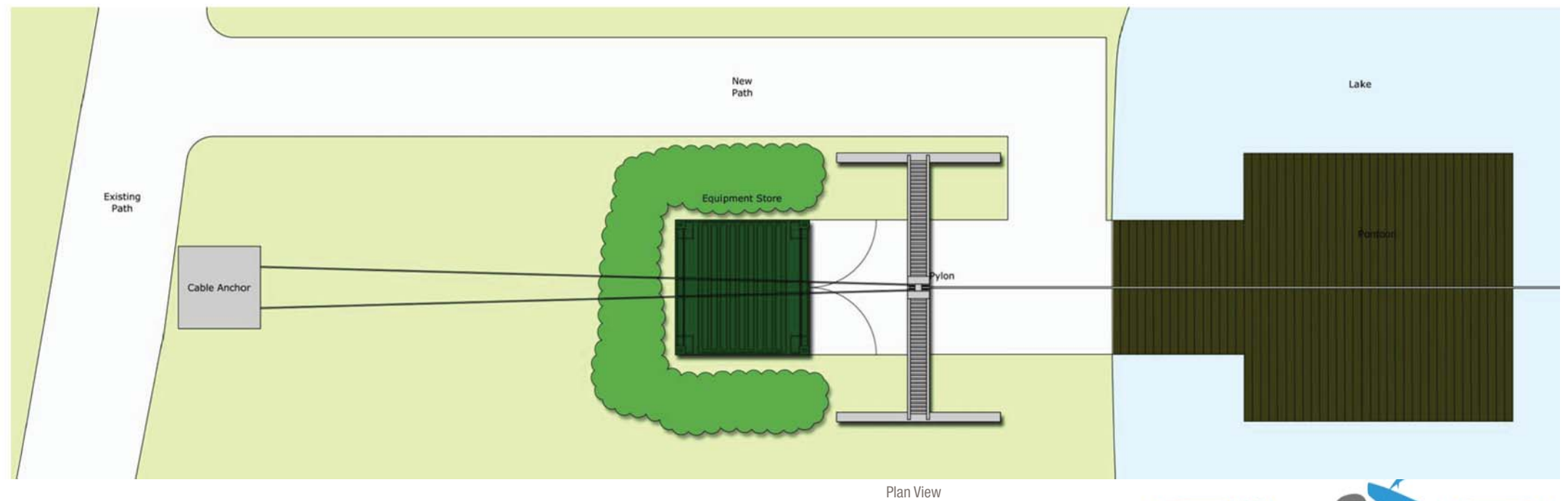
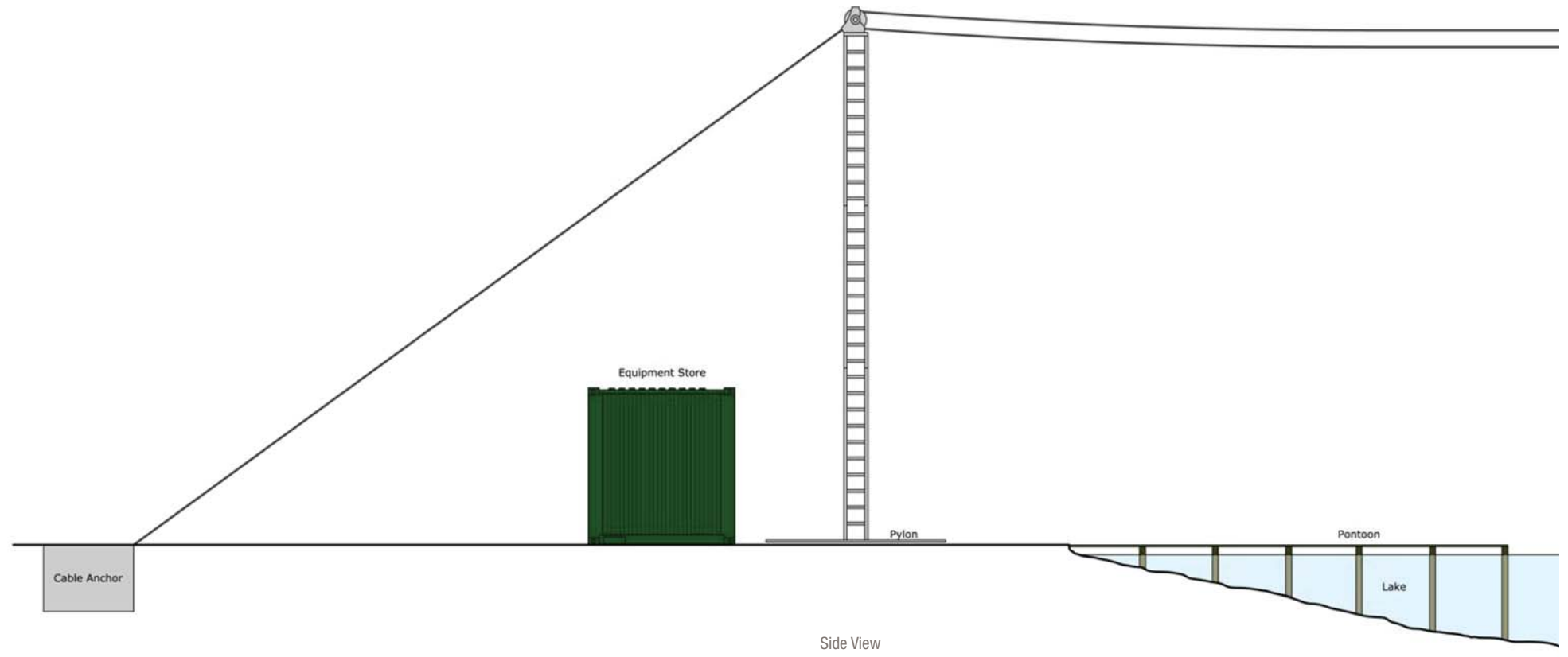
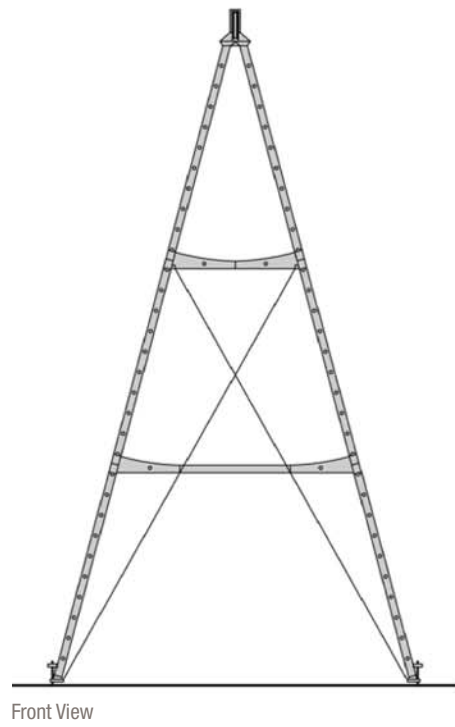
COSMESTON LAKES WAKE PARK

4 PROPOSAL



4.5 NORTH PYLON

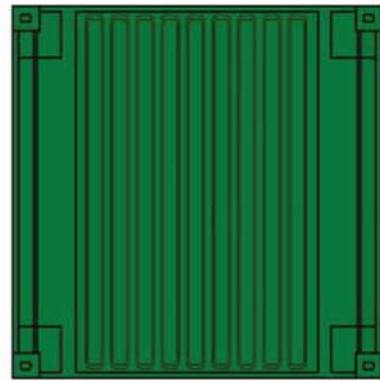
4 PROPOSAL



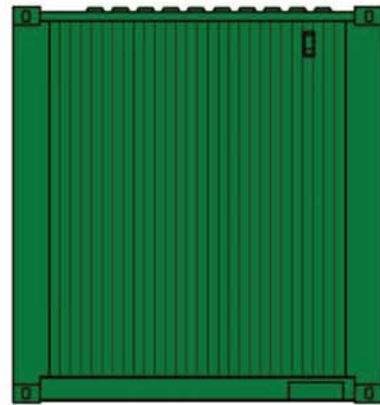
4.6 SOUTH PYLON



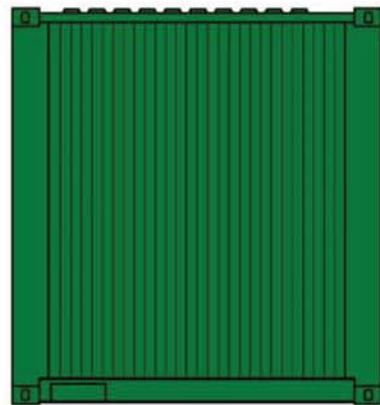
4 PROPOSAL



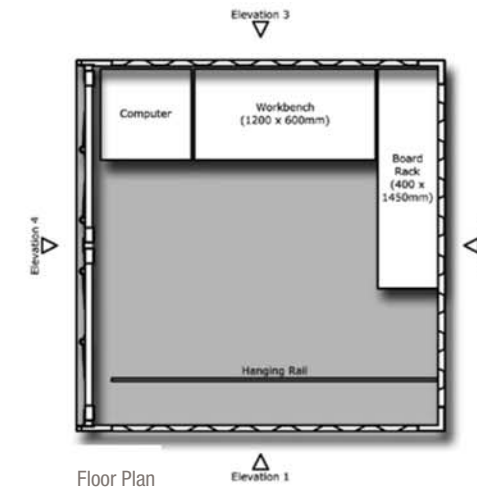
Roof Plan



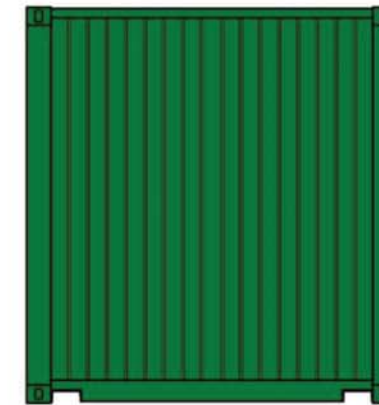
Elevation 1



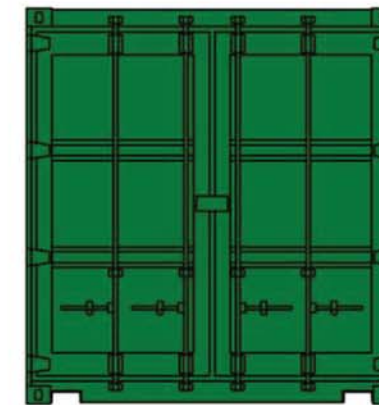
Elevation



Floor Plan



Elevation 2



Elevation 4

4.7 EQUIPMENT BUILDING



COSMESTON LAKES WAKE PARK

4 PROPOSAL



South Pylon



Changing and Reception Buildings



North Pylon



Changing and Reception Buildings

4.8 CGI IMAGES

4.9 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.



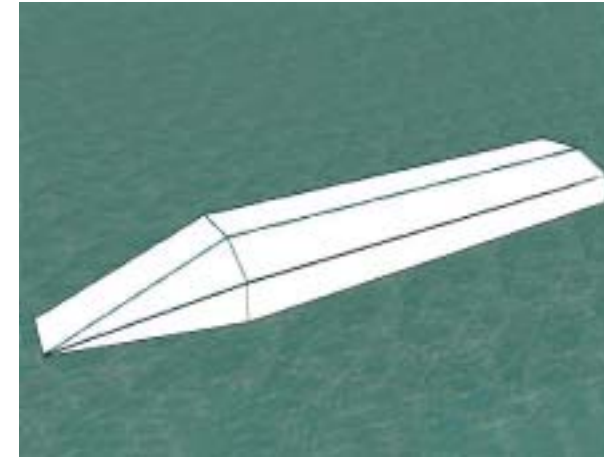
The Kicker

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

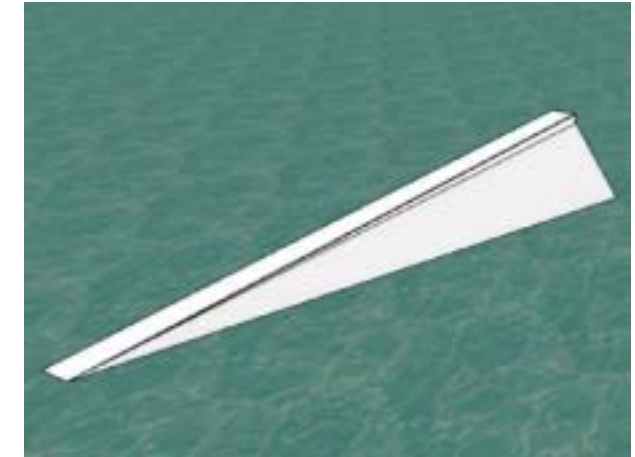


The Box with a Bank Rail

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 park will have one box with a bank rail.

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 park will have a one incline rail feature.

The Incline measures 7.32m x 1.52m x 1.22m



Liverpool Wake Park



Salford Quays Wake Park



COSMESTON LAKES WAKE PARK

4.10 ECOLOGY MITIGATION STRATEGY

Design Measures

The following design measures have been implemented into the proposals to ensure impacts upon the ecology of the Application Site are avoided and/or minimised as far as possible:

- The arrangement of the of the Wake Park away from sensitive habitats, where possible, to minimise/avoid adverse impacts. Reception and changing areas will be located within existing areas of hardstanding whilst the cable system will be constructed within habitats of limited nature conservation value;
- Operation of the Wake Park from late March to the end of October to avoid impacts to wintering wildfowl.
- Operation of the Wake Park to be restricted to daylight hours only during the operational period to avoid impacts to foraging/commuting bat communities and disturbance to otter.

Construction Measures

Reasonable avoidance measures and best working practices to ensure the protection and maintenance of sensitive habitats during the construction phase are detailed below:

- Measures to prevent adverse changes to water quality within the eastern lake and adjacent wetland features during the construction period, with reference to the Environment Agency's Pollution Prevention Guidelines, including PPG5 'Works and maintenance in or near water.'
- The location of any work compound(s) and storage areas, including the storage of any fuel, chemicals, plant or machinery;
- Species-specific working methodologies to ensure the avoidance of harm to wildlife, particularly in relation to breeding birds, otter, badger, reptiles and polecat should be prepared for implementation/consideration during all pre-construction and construction phases.
- A timetable of all key tasks to be undertaken as part of pre-construction and construction works, taking into account all species and habitat sensitivities.

Monitoring and Maintenance Measures

Details of the future monitoring and maintenance of the Application Site over the longterm will include the following measures:

- The inclusion and maintenance of protective barriers/bunds, to protect the adjacent western lake from wakeboard activities; and
- The monitoring of biophysical changes to sensitive habitats, namely the eastern lake, and the management of recreational impacts including littering, erosion and damage, with identified remedial measures to address any significant issues.

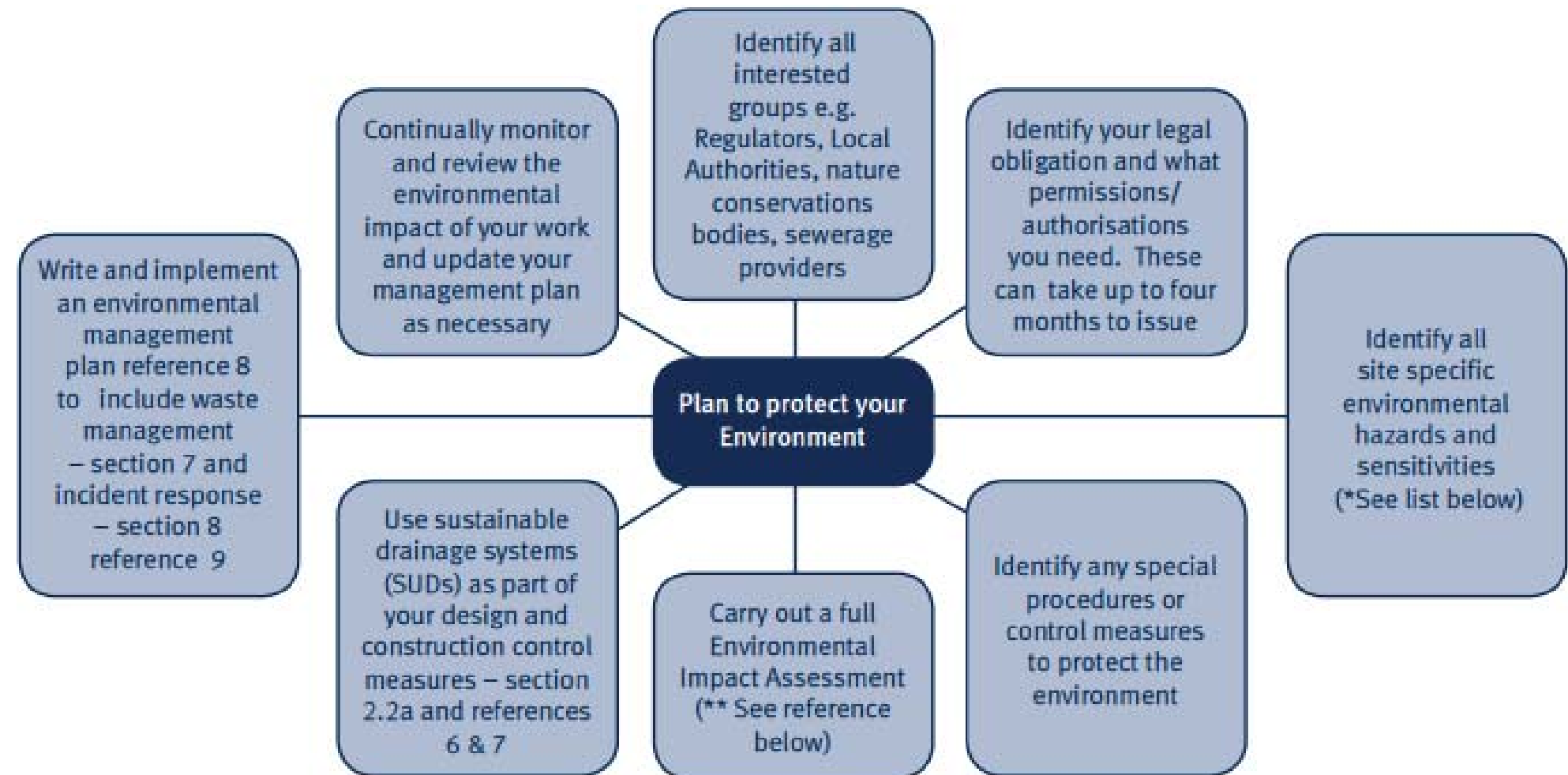


Diagram from PPG5 'Works and Maintenance in or Near Water'



4.11 ARBORICULTURAL MITIGATION STRATEGY

This Arboricultural Impact Assessment (AIA) has been prepared following site based observations, a desktop study of the survey data and consideration of the site plan and the following recommendations have been arisen from it which will be adhered to:

Trees

Any scheme in proximity to trees has the potential to cause harm to those trees unless control measures are identified and acted upon; as such it is essential to consider the relationship between the proposed scheme and the retained trees to identify what precautions are necessary and proportionate. The scheme has the potential to impact upon the above ground (canopy, stems and branches) and below ground (rooting environment) parts of the trees.

Whilst some clear and obvious physical damage can occur to trees during the construction phase, such as to stems and branches, other impacts are not always so immediately evident, such as damage to the soil structure by compaction and or changes in ground levels causing root damage, altering the water table and affecting moisture availability.

This AIA recognises that construction activities pose a real and significant threat to the subject trees and assesses the likely impacts of the proposals on the tree stock and where appropriate, provides mitigation with the view of achieving a harmonious relationship between the trees and the built form.

Consideration has been given to retaining all trees where possible; however, ultimately the removal of any tree is dependent on its proximity to the footprint of any proposal and associated landscaping.

Birds

It is an offence under Wildlife and Countryside Act (WCA) of 1981, as amended by the Countryside and Rights of Way (CRoW) Act 2000, to:

- Kill, injure or take any wild birds;
- Damage or destroy nests that are in use or are being built;
- Take or destroy eggs; and
- Intentionally or recklessly disturb any wild bird while it is nest building, or at (or near) a nest containing eggs or young, or disturb the dependent young of any bird.

Bats

All bats are legally protected by the WCA and CRoW Act. Further protection is conferred by the Conservation of Habitats and Species Regulations 2010, following the European Habitats Directive (1992). These Acts and Regulations include provisions making it illegal to:

- Recklessly or deliberately kill, injure or capture bats;
- Recklessly or deliberately disturb bats (whether in a roost or not); and
- Damage, destroy or obstruct access to bat roosts (whether in use or not).



4.12 SUSTAINABILITY

Buildings

We have chosen to use second hand containers at the site and to have them re-sprayed rather than buying new containers.

Pylons

We will use recycled timber in the construction of our protection barriers around the pylons and on the start pontoon and start area where possible.

Pontoons

We will where possible also use recycled and reinforced plastic boards and structural elements for the bench and start pontoon. These recycled boards are coloured and textured to look the same as their timber equivalent but last for years longer than timber.

The Park in Use

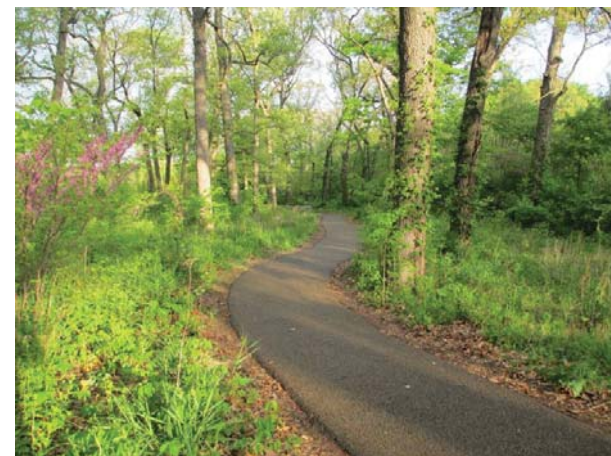
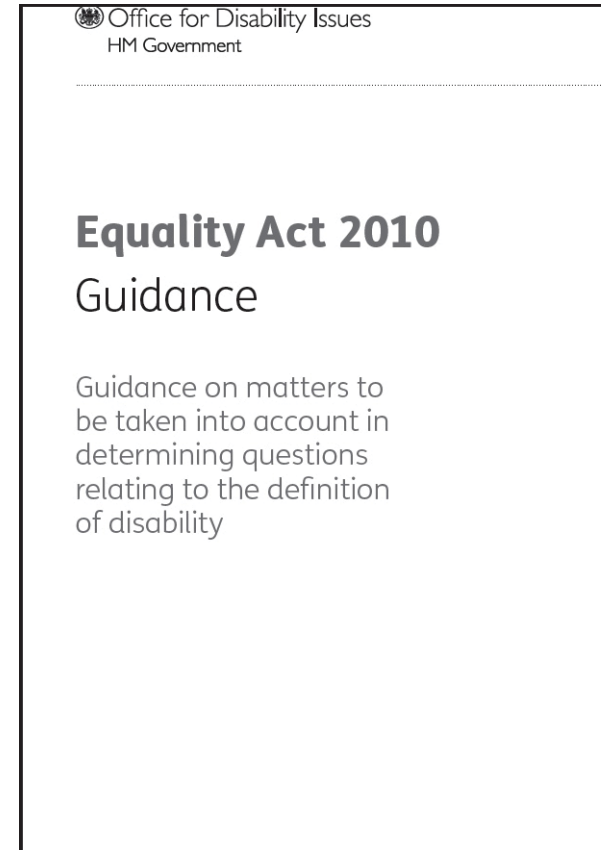
We will endeavour to re-use materials on site during the operation of the cable site – and will always look for recycled materials for the site.



4.13 ACCESS FOR ALL

To enable safe access for all of our customers and visitors to the wake park we propose making the following additions to the area

- Laying a porous resin and gravel path from the existing main walkway to the water's edge. This will allow safe footing and accessibility for wheel chairs and prams and pushchairs. With the path being porous any water falling on the path will pass through and the pathway will remain accessible.
- Laying a lake edge porous area to help with drainage when customers exit the water. This will ensure that the lake edge does not become muddy and slippery under foot.
- Installing a bench behind the main pylon to enable people who are waiting or watching the wakeboarding to sit.





5. SUMMARY

5.1 COSMESTON LAKES WAKEBOARDING PARK

The proposed installation of a Wakeboarding Park at Cosmeston Lakes Country Park consists of an 'out and back' elevated cable system which is to be located along the western edge of the Cosmeston Eastern Lake. The wake park reception and changing are to be located near the Cosmeston Visitors Centre and we propose using the existing car parking facilities.

The development of the wake park will provide for a landmark water sports facility in a scheme that is wholly sympathetic to the existing visual qualities at Cosmeston Lakes. The facility will be easily accessible to all members of the community, and will encourage healthy lifestyles and enhance the current offering of activities at Cosmeston Lakes and its tourism potential. The accompanying documentation address design and operational matters in more detail.

We aim to build and develop a successful sporting facility to take participants from beginner to competition level and we will have specific sessions during the week that cater for children's clubs, ladies only groups, competition training and skills clinics, as well as regular open public sessions.

Cosmeston Lakes Wake Park will be a stop on the established UK Grass Roots Tour which currently has fifteen stops during the year and encourages everyone from first timers to seasoned competitors to compete, have fun and progress their skills and to travel to different wake parks.

We have chosen Cosmeston Lakes as a location for South Wales' only Wake Park as we believe the site is a stunning natural location and is within easy reach of Newport, Cardiff, Bridgend and Swansea and the towns within the Vale of Glamorgan and the South Wales Valleys.

We hope to draw visitors from local areas as well as from further afield, including international visitors through Cardiff Airport. We will work with Cosmeston Lakes and local companies to offer an outdoor activity and sporting facility coupled with local accommodation and local

restaurants and pubs which will encourage visitors to stay locally for day visits, overnight stays and weekend breaks. Weekend / short trip packages could be formed to include wake park access and accommodation with access being by road, rail or air. This is in line with priority 'PR1' listed in the Vale of Glamorgan's Rural Local Development Strategy and Action Plan 2014 – 2020.

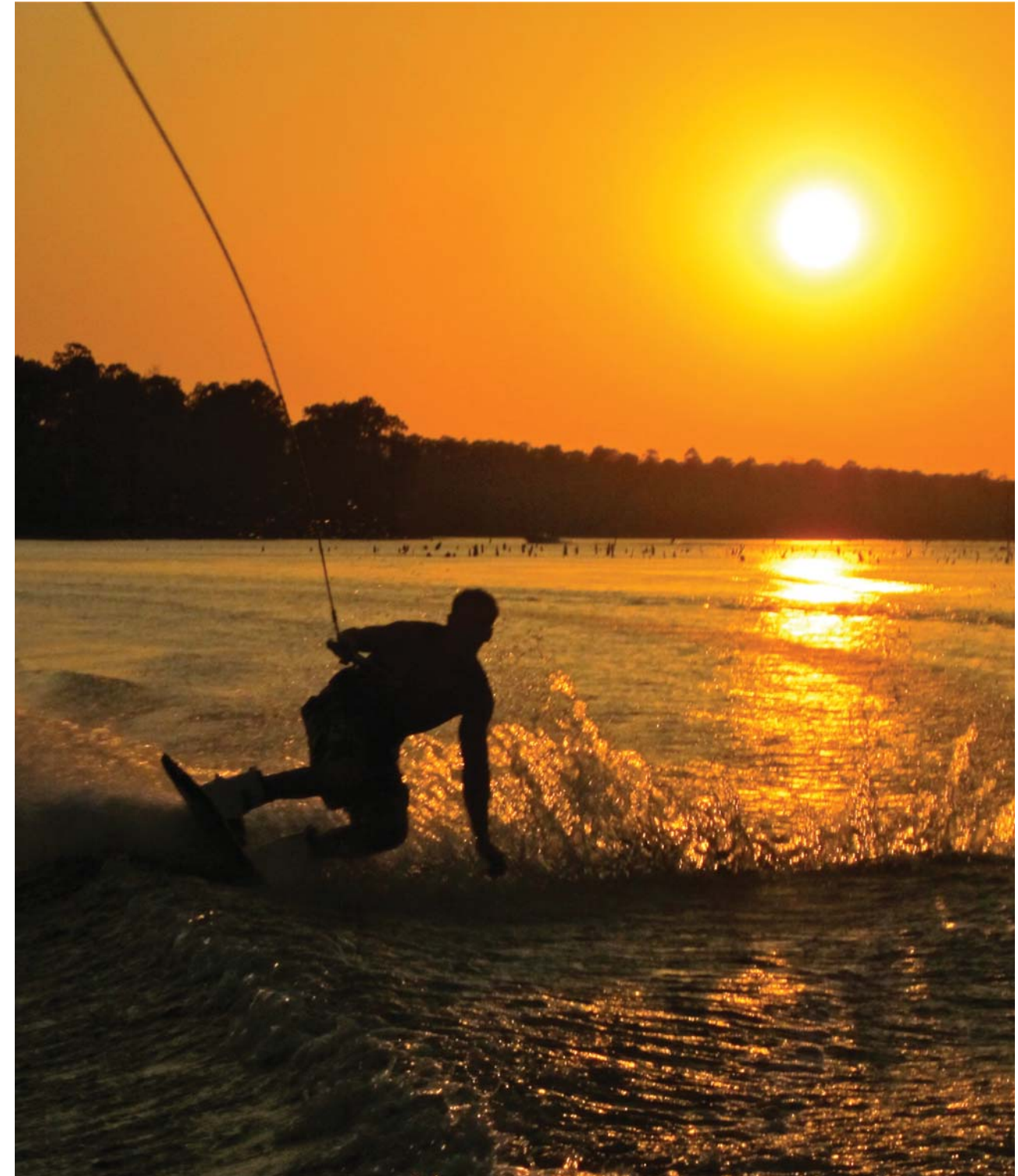
Having studied the Vale of Glamorgan Destination Management Plan we hope that the wake park will help to develop the Vale of Glamorgan as an attractive and stimulating destination whilst providing a high-quality visitor experience as a place to visit, with things to do and meeting people who share the same passions for sport and outdoor activities.

We aim to provide a novel and new experience for new customers and an exciting and dynamic sporting facility for established wakeboard riders set in an attractive natural setting.

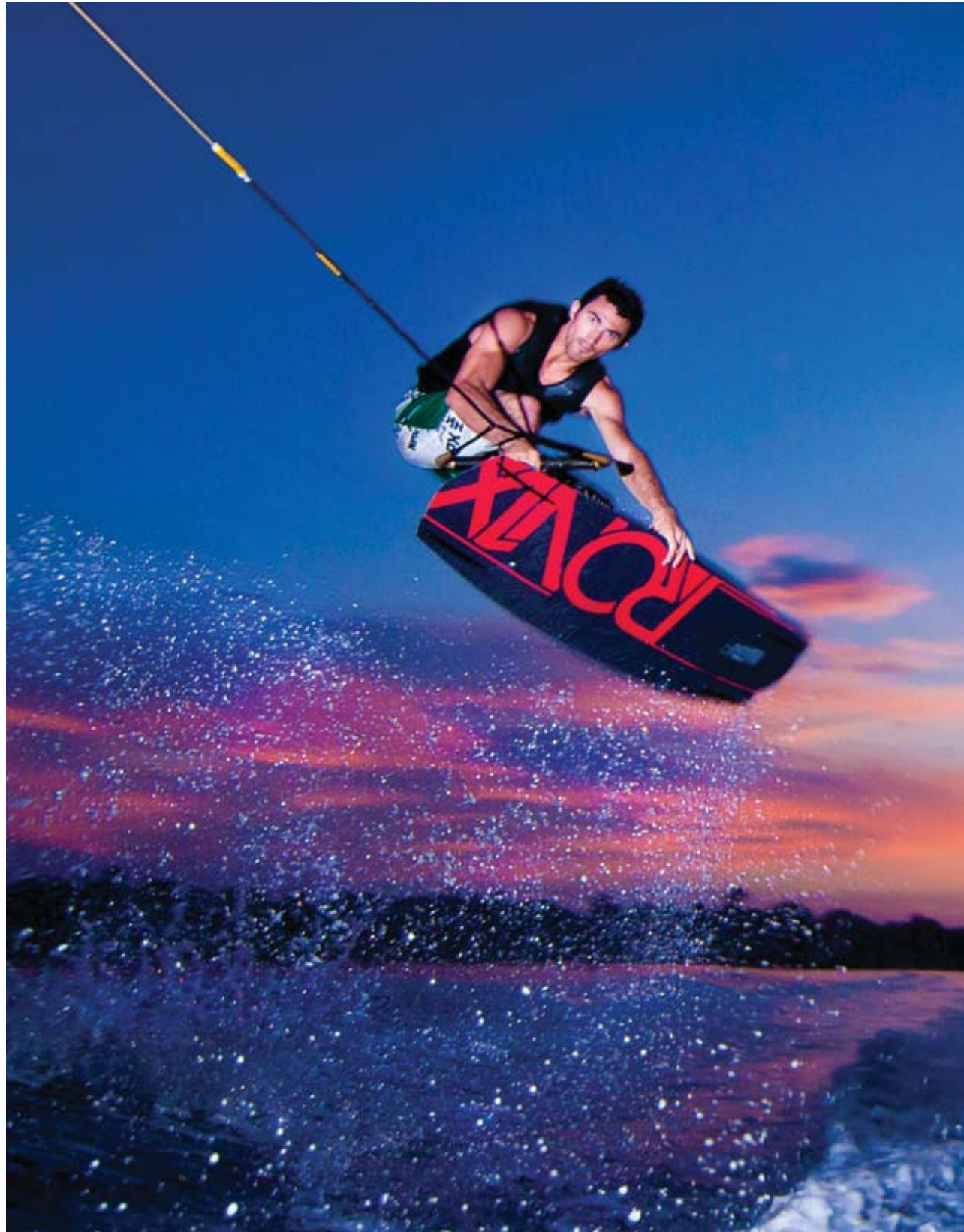
Summary

The benefits of siting a Wakeboarding Park at Cosmeston Lakes include –

- A unique sporting / activity attraction in South Wales
- Will attract new visitors to Cosmeston Lakes from Cardiff and South Wales – 1.5 million people live within 45 minutes' drive – to both participate and as spectators
- Will help raise the profile of the Vale of Glamorgan across the UK by adding Cosmeston Lakes onto the UK wakeboarding competition circuit
- We have already secured the support of key organisations for a wakeboarding park in South Wales – Natural Resources Wales, Sport Wales, Visit Wales, Welsh Government, British Water-Ski and Wakeboard and the International Water-ski and Wakeboard Federation.



COSMESTON LAKES WAKE PARK



6. APPENDIX

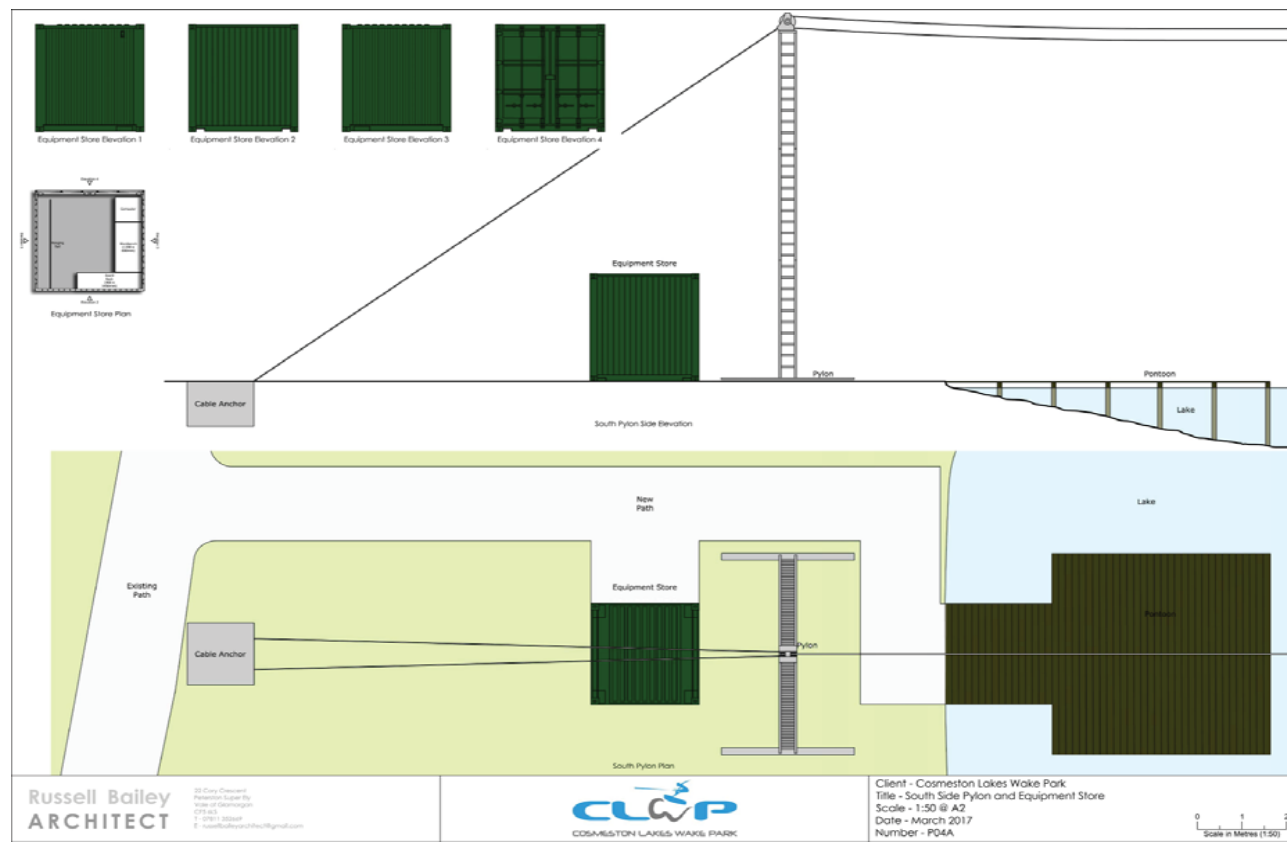


COSMESTON LAKES WAKE PARK



APPENDIX A

ARCHITECTURAL DRAWINGS





**Cosmeston
Lakes Wake
Park, Penarth**

**Arboricultural
Condition
Inspection and
Impact
Assessment**

Prepared by:
**The
Environmental
Dimension
Partnership Ltd
(EDP)**

On behalf of:
**Cosmeston Lakes
Wake Park**

March 2017
Report Reference
EDP3861_02

APPENDIX B

ARBORICULTURAL CONDITION INSPECTION AND IMPACT
ASSESSMENT



COSMESTON LAKES WAKE PARK



**Cosmeston
Lakes, Penarth**

**Ecological
Baseline Report**

Prepared by:
**The Environmental
Dimension
Partnership Ltd
(EDP)**

On behalf of:
**Cosmeston Lakes
Wake Park**

March 2017
Report Reference
EDP3861_01

APPENDIX C

ECOLOGICAL BASELINE REPORT



COSMESTON LAKES WAKE PARK



Operational Plan

28th November 2016

APPENDIX D OPERATIONAL PLAN





Site Plant & Equipment Specifications

28th November 2016

APPENDIX E

PARK PLANT AND EQUIPMENT





Transport Statement

28th November 2016

APPENDIX F

TRANSPORT STATEMENT

