PLANNING DESIGN ENVIRONMENT

PENRHOS LEISURE VILLAGE
CONSTRUCTION METHOD STATEMENT FOR PROTECTION OF BIODIVERSITY FEATURES

(Report Ref: 2977.029)
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for

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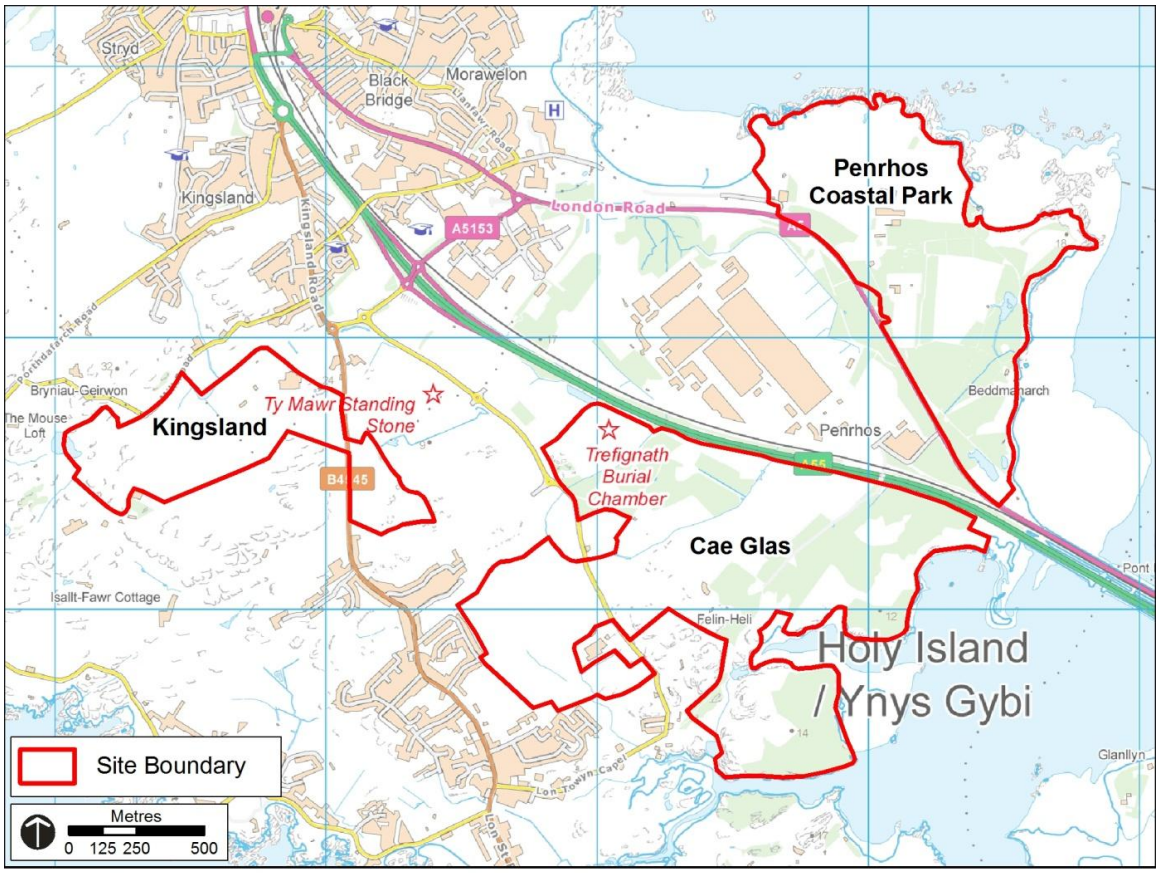
DRAWINGS

1.0 Introduction

1.1 The Penrhos Leisure Village is a proposed residential and leisure development on Holyhead Island, Anglesey. The site comprises three distinct areas at Penrhos Coastal Park (CP), Cae Glas and Kingsland. These areas are shown below in Figure 1.

Figure 1: Location of Penrhos site and context of site areas.



1.2 The following ecological surveys have been undertaken across the site on behalf of Land and Lakes (Anglesey) Limited:

- Desktop study – Capita Symonds (2010), TEP (2011 and 2012)
- Extended Phase 1 Habitat Survey –Capita Symonds (2010), updated by TEP (2011)
- Tree Survey – TEP (2011)
- NVC Phase 2 vegetation surveys – Capita Symonds (2010), TEP (2011)
- Breeding Bird survey – Capita Symonds (2010), TEP (2011)

- Winter Bird survey – Capita Symonds (early 2011), TEP (2011 to 2012)
- Amphibian survey – Capita Symonds (2009 and 2010), TEP (2012)
- Reptile survey – Capita Symonds (2010), TEP (2011 and 2012)
- Bat surveys – Capita Symonds (2010), TEP (2011 and 2012)
- Badger survey – TEP (2011 and 2012)
- Red squirrel – TEP (2011)
- Water vole survey – Capita Symonds (2010), TEP (2012)

1.3 The Ecology Chapter of an Environment Statement (TEP REF 2977.024) details the ecological surveys carried out for the Penrhos Leisure Village site, assesses any impacts that the development may have on these receptors and details mitigation measures that will be implemented. The species surveys carried out are also detailed in a number of individual stand-alone technical reports.

1.4 This document provides methods of construction to be adhered to throughout the construction of the Penrhos Leisure Village to ensure that there will be no long term impacts on any species of conservation priority. The method statement focuses on reptiles, water vole (*Arvicola amphibious*), bluebell (*Hyacinthoides non-scripta*), brown hare (*Lepus europaeus*), amphibians and breeding birds. These have been identified during previous ecological surveys as valuable ecological receptors that could potentially be impacted by development works at this site.

2.0 Reptiles

Survey Information

2.1 Common lizard had historically been recorded within 1km of the Penrhos CP, Cae Glas and Kingsland areas during the early 1990s. Common lizard and slow worm have also previously been recorded at the south east corner of Kingsland.

2.2 Common lizard and slow-worm were observed along the coastal strip of Penrhos CP during surveys undertaken by Capita Symonds in 2010. However no reptiles were recorded within areas of potential reptile habitat located beyond the coastal strip at Penrhos CP during 2012. Incidental observations of common lizard were observed in the south east-facing coastal habitats of Cae Glas.

2.3 During 2011, both common lizard and slow worm were recorded within the Cae Glas area (TEP report: 2977.013). Slow worm were only recorded within one location in the south eastern corner of Trearddur Mews on one occasion. The majority of common lizard records were concentrated in the capped landfill area adjacent to the inland sea in the north east of Cae Glas.

2.4 No reptiles were recorded in the Kingsland area.

Impacts and Implications

2.5 Slow-worm and viviparous lizard are all protected, under the *Wildlife and Countryside Act 1981* (as amended), against intentional killing or injury.

2.6 The majority of suitable reptile habitat within Cae Glas and Penrhos CP is not affected by the proposals. Some habitat loss will however occur at Cae Glas.

2.7 The potential impacts of the proposed development at Penrhos CP on reptiles include destruction of foraging habitat, hibernacula and the possible injury and/or death of reptiles.

2.8 There is a possibility that reptiles could be harmed during habitat management activities undertaken in reptile habitats such as grassland cutting.

2.9 The stone walls at the field boundaries within the north of Penrhos CP and the rubble piles present adjacent to the farm buildings may be used as reptile refugia. It is likely that these features will be lost through construction works. However, some stone walls will be retained where development priorities allow.

2.10 A range of Reasonable Avoidance Measures (RAMs) will therefore need to be implemented to protect reptiles during construction works.

Habitat Creation

2.11 Habitat creation proposals at Penrhos CP and Cae Glas will ensure that the overall amount of reptile habitat available is increased.

2.12 New shelter opportunities for reptiles are being provided at Penrhos CP in the form of a long stretch of new dry stone wall around the perimeter of the headland lodges and a series of planted hibernacula bunds with associated wildflower grassland and gorse scrub interspersed between the headland lodges.

2.13 Additional reptile habitat is being provided through the construction of a 4m high, 800m long earth bund along the north boundary of Cae Glas. The bund will contain open south facing areas along its length to provide basking opportunities for reptiles. The bund will also function as a wildlife corridor for reptiles and other wildlife.

2.14 All reptile habitat enhancement works will be carried out within existing areas of reptile interest.

Working Methods

2.15 The proposed reptile hibernacula, including the stretches of wall, and hibernacula bunds will be constructed prior to the commencement of all site clearance works and other construction activities.

2.16 A range of RAMs will be implemented to protect reptiles during the construction phase. These are outlined below.

RAMs

- Any destruction of potential reptile hibernacula (walls, log piles, rubble piles) will only be undertaken outside of the period November to February to reduce disturbance of reptiles during the hibernation period. Destructive searching of the hibernacula will need to be carried out by an ecologist prior to and during removal.

- There are a number of areas where buildings will be constructed in areas where reptiles are known to be present. At Penrhos CP these areas include The Hub and woodland lodges located to the east and north east of this. At Cae Glas this includes the area to the north east of The Hub, south of the A55. These areas are illustrated on drawings D2977.005 and D2977.006.

- Prior to these works commencing, habitats within these locations will be enhanced for reptiles in selected locations. This will involve the creation of a number of hibernacula bunds and wildflower grassland planting. These areas will be connected to existing reptile habitat to be retained. The location of these proposed enhanced areas is illustrated at Drawings D2977.005 and D2977.006. Because the planted hibernacula bunds are to be created in open pasture areas, it will be sufficient to hand search the areas to be affected prior to constructing them.

- Following the creation of the enhanced reptile habitat areas, the footprint of the areas to be developed will need to be fenced with temporary reptile fencing, and any reptiles present within these areas caught and relocated by an ecologist to the areas enhanced for reptiles.

- The relocation of reptiles will involve placing artificial refugia (reptile tins) across these areas. Both bitumen and metal corrugated refugia should be used. The reptile tins would need to be allowed to 'bed-in' for seven days prior to commencement of reptile relocation. Reptiles would be removed from the area over a period of seven visits to check the tins in days of suitable weather.

- A period of 5 clear days with visits where reptiles are not recorded would be needed prior to allowing construction works in these areas to take place.

- During clearance works an ecologist would need to be present on site to catch any remaining reptiles by hand and relocate them.

- The fencing will need to be retained for the duration of the construction works in this footprint. Protective fencing, such as Heras fencing, should be installed at least 1m from the inner edge of the exclusion fencing to prevent damage by construction vehicles.

- Destructive searching by an ecologist and phased vegetation clearance (grass cutting) will be required within the footprint of site compounds and key access routes that affect suitable reptile habitats.

Monitoring

2.17 Reptile surveys will be undertaken at the site in 2014, 2017 and 2020 to monitor reptile populations using this area. The Wildlife Management Plan would be reviewed in the light of survey findings if necessary.

3.0 Water vole

Survey Information

3.1 Water voles occur in a ditch on the north boundary of Trearrdur Mews and within the main Anglesey Aluminium plant site. It is assumed that water voles are present on some ditches within Cae Glas that will be directly affected by development.

3.2 Evidence of water voles was identified along the ditch on the north west boundary of Trearrdur Mews on the west side of Cae Glas.

3.3 A water vole was observed in Ditch 11. This ditch will not be affected by development proposals. Ditch 14 is suitable for water voles. The east end of Ditch 16, also in Cae Glas, is also suitable for water voles.

Impacts and Implications

3.4 The water vole receives full protection under the *Wildlife and Countryside Act 1981 (Variation of Schedule 5) (England) Order 2008.*

3.5 Watercourses in or adjacent to Penrhos CP and Kingsland have low to moderate suitability to support water voles. None will be significantly affected by proposals, although ditch 27 will be located within a proposed water vole habitat area in Kingsland.

3.6 Within Cae Glas, ditch 11 was confirmed to support water voles, although only part of this ditch borders the site and will not be affected by proposals. Ditches that will be affected by the proposals include ditches 14, 15 and 16. These have low to moderate suitability for water voles. Their main value is likely to be as permeable corridors which connect with ditch 11. Proposals are unlikely to result in adverse effects on known water vole populations on ditch 11, as works will be downstream of this area.

3.7 There is a possibility that the new proposed water vole ditch habitat to be located adjacent to new car parking areas at the north end of Cae Glas could be affected by urban run-off from the car park. This could result in a reduction in water quality resulting in a degradation of water vole habitat, should water voles colonise the area.

Working Methods

3.8 To ensure that water voles are not disturbed, pre-construction surveys will be undertaken to determine the locations of any burrows. Any burrows present will be marked and protected for the duration of works through fencing at a minimum distance of 8m from the top of the bank to prevent access by machinery or storage of materials in these locations.

3.9 Scrub covering ditches 14, 15 and 16 will be cut back to allow unrestricted access for a repeat inspection to ensure that no water vole activity is evident. In the unlikely event that water vole activity is subsequently confirmed on any of these ditches, this method statement will be updated to ensure that killing, injury or disturbance to these animals is avoided.

3.10 Water flow will be improved along ditches 14 and 16 to enhance habitat quality for water voles in Cae Glas. Remodelling of these ditches will ensure that the new channel is profiled to benefit water voles. At least one bank will be profiled to offer burrowing opportunities. Similar measures will be implemented around the margins of the two new waterbodies to be created in Cae Glas.

3.11 A new ditch will be created along the west edge of the new car park in the north of Cae Glas provided that hydrological survey indicates that the ditch would be likely to contain water.

Monitoring

3.12 Monitoring of potential water vole activity on waterbodies within the Penrhos sites will be undertaken in 2014, 2017 and 2020 to determine if active water vole burrows are present. The Wildlife Management Plan would be reviewed in the light of survey findings if necessary.

4.0 Native Bluebell

Survey Information

4.1. The protected plant species native bluebell *Hyacinthoides non-scripta* was recorded within parts of the woodland at Penrhos CP. Bluebells were recorded in 15 out of 26 woodland blocks at Penrhos CP during the 2010 habitat survey. Bluebells were also recorded as widespread within woodland associated with the Cae Glas Farm and Tre-gof ruins at Cae Glas.

4.2. Although some bluebells appear to be hybrids it has been assumed that all bluebells will require protection.

Impacts and Implications

4.3. The majority of woodland areas in Penrhos CP which support bluebells will be retained as a part of development proposals. However the proposed development will result in some woodland areas, which currently support bluebells, being lost.

Bluebell Translocation

4.4. A survey will be completed in the appropriate season (late April to early June) prior to tree felling to identify the current presence and locations of viable native bluebell within areas to be affected by tree removal works. The locations of the bluebells to be translocated will then be marked up. This survey will also identify suitable receptor sites to translocate bluebells to.

4.5. Any bluebells located within these areas, including bluebells located at the base of hedgerows, will be translocated (relocated) to suitable retained areas of publically accessible woodland within Penrhos CP and Cae Glas using suitable methods. The method would likely involve uprooting the entire bluebell plant with the surrounding soil and re-planting them with the surrounding soil still attached. Translocation works will be undertaken after the bluebells have finished seeding, but while the plant is still visible above ground (May to June).

4.6. The bluebells will be translocated with as much surrounding soil as possible (both around and below the bulbs). Where appropriate, the surrounding plants adjacent to the bluebells will also be translocated. This will maximise the chance of the translocation being successful.

4.7. Bluebell seed may also be harvested, if seasons are appropriate (May to June), to assist re-establishment of the plant in other suitable locations.

Monitoring

4.8. The sensitivity of bluebells and uncommon coastal plant species to trampling will be highlighted on interpretation boards. Wardens will monitor any loss of distribution in bluebells due to trampling within Cae Glas and the Penrhos CP.

5.0 Brown Hare

Survey Information

5.1. Brown hares have not been recorded within the Penrhos site during any of the ecological surveys undertaken. However due to the habitats available there is a small chance that this species is present within the site.

Impacts and Implications

5.2. If brown hare were present within the site there would be a potential for hare mortality to occur during initial site clearance works.

Working Methods

5.3. All tall vegetation within working areas will be cleared/strimmed during initial site clearance works to reduce habitat suitability within these areas for hares.

5.4. Vegetation will be cleared from a central point outwards, so as to allow hares to disperse. All vegetation to be cleared will be walked and disturbed by a contractor immediately prior to cutting to ensure hares are absent from the area.

6.0 Amphibians

Survey Information

6.1 Four amphibian species were recorded during the 2012 survey including smooth newt, palmate newt, common frog and common toad.

6.2 The locations of the ponds at Penrhos are shown at Drawing G2977.048. At Penrhos CP, common toad and common frog are present at on-site ponds 1 and 3. At Cae Glas only common frog was recorded on-site at Cae Glas (Pond 5) although smooth/palmate newt and common toad were recorded in off-site ponds. All four species were recorded in Pond 23 at Kingsland although no development works are proposed within 250m of Pond 23.

6.3 Common toad was recorded in a total of eight ponds. None of these ponds will be lost as a result of the proposed development, so there will be no impact on toad breeding habitat, but there will be a loss of terrestrial habitat associated with the development.

Impacts and Implications

6.4 The new lodge development in the vicinity of the common toad ponds at Penrhos CP and increased use of footpaths will not significantly influence the dispersal of amphibians across the site.

6.5 Limited development activities will occur within 50m of amphibian breeding ponds at Penrhos CP (Ponds 1 and 3) and Cae Glas (Ponds 5, 15 and 16).

6.6 Proposals within the vicinity of amphibian breeding ponds include plantation felling and ground clearance within 50m and 250m of some amphibian breeding ponds. None of the ponds will be lost to the development.

6.7 The terrestrial habitat losses are not considered to significantly affect the availability of shelter, foraging or ranging habitats for the small populations which are supported by amphibian breeding ponds.

6.8 Toads and other amphibians will benefit from pond habitat enhancement works proposed at three ponds at Penrhos CP as well as the creation of two new waterbodies at Cae Glas.

6.9 There is a small potential for amphibians to be harmed during construction works within the site where these works affect tall vegetation or suitable refuge features including rubble piles and log piles.

Working Methods

6.10 As best practice, a number of RAMs will be implemented to avoid any injury or killing of amphibians during construction works. These will include:

- An ecologist will advise prior to works commencing if any natural refuges need to be dismantled by hand under supervision.

- Where applicable, prior to construction works commencing, the grassland and any tall vegetation within the site will be strimmed to a height of approximately 150mm and then hand-searched by an ecologist for amphibians. Arisings shall be removed to suitable locations outside the works footprint. Grassland swards outside the works area shall be left un-strimmed.

- The grassland will be left for 48 hours before cutting the sward to ground level and removing the arisings from the footprint. The area will then be hand searched again by an ecologist before allowing the construction works to commence.

Monitoring

6.11 The ponds within the Penrhos CP, Cae Glas and Kingsland site will be re-surveyed for amphibians in 2014, 2017 and 2020 to monitor the amphibian populations within the site.

7.0 Breeding Birds

Survey Information

7.1 Penrhos CP, Cae Glas and Kingsland were surveyed for breeding birds by Capita Symonds in 2010 and by TEP in 2011 (TEP Report: 2977.018).

7.2 A total of 45 bird species were observed at both Penrhos CP and Cae Glas during the 2011 inland breeding bird survey. Thirty one bird species were observed during the 2011 breeding bird survey at Kingsland.

7.3 A grey heron colony was also identified within the north conifer plantation at Cae Glas.

Impacts

7.4 There is no development planned within the vicinity of the heronry at Cae Glas. This will therefore not be impacted by the development.

7.5 A number of bird species have been found to nest in buildings within Penrhos, including jackdaw and pied flycatcher. There is a risk of nests and young birds being harmed if building demolition is undertaken during the bird breeding season (March to early September) without pre-construction nesting checks first being undertaken.

7.6 A number of bird species are known to nest in trees, shrubs and tall vegetation throughout the Penrhos CP, Cae Glas and Kingsland sites. There is a risk of nests and young birds being harmed if vegetation clearance is undertaken during the bird breeding season without pre-construction nesting checks first being undertaken.

7.7 All nesting birds are protected under the *Wildlife and Countryside Act 1981* (as amended). There is no provision under the licensing system for disturbance/destruction of nests to facilitate development.

7.8 Common crossbill have been recorded within the Cae Glas Nature Reserve. This species is protected under Schedule 1 of the *Wildlife and Countryside Act, 1981.* Schedule 1 bird species are subject to additional protection making it an offence to disturb these birds while they are nest building, or at a nest containing eggs or young, or disturb the dependent young of such a bird.

7.9 Common crossbill nest in conifers at the edges of woodland or within scattered groups or lines of trees. They can breed any time between January and July.It is possible that proposed footpaths within the Cae Glas Nature Reserve could affect common crossbill if undertaken between January and July.

Working Methods

7.10 Vegetation removal and building demolition should be undertaken during late September to February to avoid the bird nesting season. If vegetation removal

or building demolition is undertaken during the bird nesting season (March to early September) then the following best practice measures will be used:

7.11 A nesting bird check of vegetation will be undertaken by a suitably qualified ecologist prior to felling and dense scrub clearance works. If nesting birds are found then the vegetation must remain until the young have fledged the nest.

7.12 A nesting bird check of any buildings to be demolished will be undertaken by a suitably qualified ecologist prior to demolition. If nesting birds are found then the building must be left undisturbed until the young have fledged the nest.

7.13 If birds are found nesting, a stand-off from the nest will be enforced for the duration of the nesting period until the young have fledged. The stand-off distance required will be considered on a case-by-case basis, as the likelihood of disturbance on a nest will depend on a range of factors which will vary according to the nest location. The stand-off distance will be established on site by an ecologist.

7.14 In addition if tree felling works are required within the Cae Glas Nature Reserve during the period January to July, a nesting bird check of vegetation will be undertaken by a suitably qualified ecologist prior to felling and dense scrub clearance works. If crossbills are likely to be nesting, then any further nesting bird checks would need to be carried out by a licenced ornithologist. If a nest is found a stand-off from the nest will be enforced for the duration of the nesting period until the young have fledged.

8.0 Other Non-Protected Wildlife

Survey Information

8.1 It is likely that a range of other non-protected species are present within the site including foxes and rabbits.

8.2 Although these species are not protected by conservation law, they are protected under general animal welfare legislation (i.e. *Animal Welfare Regulations, 1996*).

8.3 If any burrows are identified during earthworks, then an ecologist will be called on to site to supervise destruction activities. It is likely that any destruction of fox or rabbit burrows would need to be carried out by hand.

DRAWINGS

Area of reptile interest

RAMs will be implemented in this area to protect reptiles during the construction phase.

This area will also contain the reptile habitat enhancement area.

Masterplan received from Planit Consultants – August 2012			
D2977.005a	Revised red line boundary	MW	9/5/13
Revision	Description	Amended by	Date

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Project

Penrhos Leisure Village

Title

Area of Reptile Interest – Penrhos CP

Drwg No		
D2977.005		
Scale		
Not to scale		
Drawn by	Checked by	Date
MW	TR	28-02-13

Area of reptile interest

RAMs will be implemented in this area to protect reptiles during the construction phase.

This area will also contain the reptile habitat enhancement area.

Masterplan received from Planit Consultants – August 2012			
D2977.006a	Revised red line boundary	MW	9/5/13
Revision	Description	Amended by	Date

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Project

Penrhos Leisure Village

Title

Area of Reptile Interest – Cae Glas

Drwg No	D2977.006	
Scale	Not to scale	
Drawn by: MW	Checked by: TR	Date: 28-02-13

Key

- Site boundary
- Qualifies as UKBAP habbitat (supports common toad)
- Other ponds
- 250m from site
- 500m from site

Rev	Description	Dwn	Appvd	Date

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Project:
Penrhos Leisure Village

Title:
Pond location plan

Map No.
G2977.048

Scale:	Date:
1:12,500 @ A3	01/08/12

Drawn:	Checked:	Approved:
GAR	RH	**RH**