

**Extended Phase 1,
Preliminary Bat Roost Assessment and Emergence Surveys**

For

Wales & West Housing - Loreto Convent

April 2023 – Updated July 2023

3260/11

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1 Llys Clwyd, Cwrt Y Dderwen, Ffordd Celyn, Ruthin, Denbighshire LL15 1NJ
 email: rml@rmlconsult.com web: www.rmlconsult.com
 Tel: +44(0)1824 704366
 Registered in England and Wales No. 1848683 VAT Reg No. 401 424 313



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1 Llys Clwyd, Cwrt Y Dderwen, Ffordd Celyn, Ruthin, Denbighshire LL15 1NJ
 email: rml@rmlconsult.com web: www.rmlconsult.com
 Tel: +44(0)1824 704366
 Registered in England and Wales No. 1848683 VAT Reg No. 401 424 313



Executive Summary

Richards, Moorehead and Laing (RML) Ltd were commissioned by Wales & West Housing to undertake an Extended Phase 1 habitat survey, to include a Preliminary Roost Assessment (PRA) and emergence surveys for bats at Loreto Convent, Abbey Road, Llandudno.

It is understood that planning permission will be sought for the demolition of the buildings in order to construct residential dwellings and associated infrastructure. An ecological survey is required to identify any ecological constraints. The initial surveys (Phase 1 and PRA) were undertaken on the 14th March 2023 by RML. Emergence surveys for bats were conducted in June and July 2023.

This report presents the findings of the Extended Phase 1 habitat survey, Preliminary Roost Assessment and bat activity surveys, and provides an assessment of the potential effects on ecological features which may result from the proposed works.

No Section 7 habitats would be disturbed/lost. The site is considered to be of low biodiversity value. Statutory designated sites occur adjacent to the site. There are areas of Invasive Non-Native Species (INNS) which must not be disturbed or caused to spread by the works.

The site has little value for protected or notable species, and none were recorded on site during the surveys, with the exception of herring gulls, a species of conservation concern. No bats were recorded roosting within the structures. Reasonable Avoidance Measures (RAM's) have been advised for species such as nesting birds and hedgehogs, should they be found on site. **Further surveys have been advised FOR reptiles (if suitable habitat for reptiles is affected) mitigation for these species would be determined after the advised surveys.**

Preliminary biodiversity enhancements including the provision of native planting in landscape proposals, provisions for bats and nesting birds and the removal or control of invasive plants have been advised.



1 Llys Clwyd, Cwrt Y Dderwen, Ffordd Celyn, Ruthin, Denbighshire LL15 1NJ

email: rml@rmlconsult.com web: www.rmlconsult.com

Tel: +44(0)1824 704366

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1 INTRODUCTION

1.1 Background

1.1.1 Richards, Moorehead and Laing (RML) Ltd were commissioned by Wales & West Housing to undertake an Extended Phase 1 habitat survey, to include a Preliminary Roost Assessment (PRA) and emergence surveys for bats at Loreto Convent, Abbey Road, Llandudno located at central OS grid reference SH 77295 82239, referred to as 'the site' here after.

1.1.2 It is understood that planning permission will be sought for the demolition of Loreto Convent and the construction of residential dwellings. The proposals are at the Feasibility stage. An ecological survey is required to identify any ecological constraints. An initial survey was undertaken on the 14th March 2023 by RML. Following this, two bat emergence surveys were conducted in June and July 2023 and static detectors were deployed in suitable locations.

1.2 Site location and description

1.2.1 A site location plan is provided in **Appendix A**.

1.2.2 The site lies adjacent to Abbey Road at the foot of The Great Orme, Llandudno. The surrounding townscape is of residential two and three story detached dwellings with on and off-street parking. St David Hospice is located adjacent, to the west of the site.

1.2.3 Access is gained from two entrances off Abbey Road located to the south.

1.3 Survey objectives

1.3.1 This report presents the methodology and results of an Extended Phase 1 habitat survey, Preliminary Roost Assessment, and bat surveys. Recommendations are also provided for further survey work, potential mitigation and enhancement measures to inform a future application for planning permission for the site.

1.3.2 The aims of the survey, and report are to:

- Inform the ecological baseline;



1 Llys Clwyd, Cwrt Y Dderwen, Ffordd Celyn, Ruthin, Denbighshire LL15 1NJ

email: rml@rmlconsult.com web: www.rmlconsult.com

Tel: +44(0)1824 704366

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- Conduct a Preliminary Roost Assessment (PRA) to assesses the potential of the structures to support bats and nesting birds and to check for evidence of both species;
- Conduct two abet emergence surveys surveys and deploy static detectors to determine which bat species utilise the site;
- Identify the likely ecological constraints associated with the proposed Scheme;
- Identify any further survey work; and
- Recommend avoidance and/or mitigation measures where possible, to ensure compliance with nature conservation legislation and to highlight any potentially significant ecological effects.

1.4 Scheme proposal

1.4.1 The proposal is for the demolition of Loreto Convent and the construction of residential dwellings, parking, associated infrastructure and landscaping.

1.4.2 A feasibility layout and designs are provided in **Appendix B**. These are indicative only.

1.5 Personnel assurance

1.5.1 The surveys were led by Donna Hall. Donna is a Principal Ecologist with RML and a full member of CIEEM with over 19 years' experience working within multi-disciplinary consultancies. Donna holds protected species survey licenses for bats which cover all counties in England (Class 2) and Wales (S091777-1) and has held her licence for thirteen years. In that time Donna has conducted numerous activity surveys for bats and has held development licenses in respect of lesser horseshoes (*Rhinolophus hipposideros*), brown long-eared (*Plecotus auratus*) and pipistrelle bats (*Pipistrellus sp*).

1.5.2 Ecologist Katy Morris is a Qualifying member of CIEEM and is accredited on the above bat licence. Katy has a BSc in Environmental Science from Liverpool John Moores University. She has a keen interest in bats. Katy has experience of surveying bats,



1 Llys Clwyd, Cwrt Y Dderwen, Ffordd Celyn, Ruthin, Denbighshire LL15 1NJ
 email: rml@rmlconsult.com web: www.rmlconsult.com
 Tel: +44(0)1824 704366
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dormice, otters, reptiles, and great crested newts. She is also proficient in Phase 1 habitat surveys and is extending her repertoire to include invertebrates, NVC habitat surveys, QGIS and Qfield. Katy is currently involved in numerous voluntary bat activities, including roost monitoring, bat care and handling.

- 1.5.3 Bat surveyor assistance was provided by Rhodri Edwards (RML), Robert Jones (RML-Accredited licence holder), Dr Adam Lynch (RML), Bev Plummer (NRW licence # SO92542-1) and Ian Plummer.



1 Llys Clwyd, Cwrt Y Dderwen, Ffordd Celyn, Ruthin, Denbighshire LL15 1NJ

email: rml@rmlconsult.com web: www.rmlconsult.com

Tel: +44(0)1824 704366

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2 LEGISLATION AND PLANNING POLICIES

2.1 Habitats and species

2.1.1 Certain habitats and species are subject to protection as laid out in the Wildlife & Countryside Act 1981 (WCA 1981) (as amended) and/or the Conservation of Habitat and Species Regulations 2017 (the 2017 Regulations) as amended by the Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019 (the 2019 Regulations).

2.1.2 For a summary of the offences under this legislation refer to **Appendix C**.

2.2 Environment (Wales) Act 2016

2.2.1 The Environment (Wales) Act 2016 introduces a new, enhanced Biodiversity and Resilience of Ecosystem Duty on public bodies to ensure that biodiversity is an integral part of decision-making. Public authorities will be required to report on the actions they are taking to improve biodiversity and promote ecosystem resilience.

2.2.2 Section 6 of the Act places a duty on public authorities to seek to maintain and enhance biological diversity (referred to as biodiversity). All public bodies, statutory undertakers, Ministers of the Crown and other public office holders are required to apply the duty when they are carrying on any functions in Wales, or in relation to Wales.

2.2.3 Section 7 of the Act is similar to the duty in section 42 of the Natural Environment and Rural Communities Act (NERC) 2006 which it replaces. It places a duty on the Welsh Ministers to publish, review and revise lists of living organisms and types of habitats in Wales which they consider are of key significance to sustain and improve biodiversity in relation to Wales.



1 Llys Clwyd, Cwrt Y Dderwen, Ffordd Celyn, Ruthin, Denbighshire LL15 1NJ

email: rml@rmlconsult.com web: www.rmlconsult.com

Tel: +44(0)1824 704366

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2.3 Planning Policy Wales (Edition 11, 2021)¹

2.3.1 Edition 11 of PPW was published in February 2021. Chapter 6 of PPW 11: *'Distinctive and Natural Places'* details objectives in relation to nature conservation, as well as several other environmental topics. These include but are not limited to:

- Integrating Green Infrastructure and Development;
- Biodiversity and Resilience of Ecosystems Duty (Section 6 Duty);
- Protection and Management of Designated Sites;
- Protection for Non-statutory Designations;
- Maintaining and Enhancing Biodiversity;
- Protection of Species;
- Protection of Trees, Woodlands and Hedgerows; and,
- Protection of coastal areas.

2.4 Technical Advice Note 5

2.4.1 Technical Advice Note (TAN) 5 (Welsh Assembly Government 2009)² relates to nature conservation and planning and provides advice about how the land use planning system should contribute to protecting and enhancing biodiversity and geological conservation. The TAN provides advice for local planning authorities on:

- The key principles of positive planning for nature conservation;
- Nature conservation and Local Development Plans;
- Nature conservation in development management procedures;

¹ https://gov.wales/sites/default/files/publications/2021-02/planning-policy-wales-edition-11_0.

² Technical Advice Note 5: Nature Conservation and Planning (<https://gov.wales/docs/desh/policy/100730tan5en.pdf>) as supplemented



- Development affecting protected internationally and nationally designated sites and habitats; and,
- Development affecting protected and priority habitats and species.

2.5 Local Planning Policy

2.5.1 The adopted Local Development Plan (current at the time of writing) for Conwy County Borough Council sets out several local policies to ensure the protection and development of biodiversity³.

2.6 Demonstrating net Benefits for Biodiversity

2.6.1 Any planning proposal must demonstrate that it has both maintained and enhanced biodiversity and built resilient ecological networks. Biodiversity enhancements that achieve Net Benefits for Biodiversity (NBB) must be delivered following (i.e., additionally to) implementation of the stepwise approach of firstly avoiding, then minimising, mitigating and as a last resort compensating for, adverse impacts on the environment in a development. Finally, where the adverse effect on the environment clearly outweighs other material considerations, the development should be refused. This process is detailed in Planning Policy Wales 11 (para. 6.4.21, p. 142).

2.6.2 A net benefit for biodiversity can be achieved through a range of actions, ranging from bat and bird boxes to large-scale creation, and/or restoration or long-term management of habitats.

³ <https://www.conwy.gov.uk/en/Resident/Planning-Building-Control-and-Conservation/Strategic-Planning-Policy/Adopted-Local-Development-Plan-LDP/Adopted-Local-Development-Plan-LDP.aspx>



3 METHODOLOGY

3.1 Desk study

3.1.1 The North Wales Environmental Information Service (COFNOD) was contacted on the 8th March 2023 to obtain the following ecological data:

- Details of any statutory and non-statutory nature conservation designations within 10 km⁴ of the site; and
- Records of any legally protected or other notable species within 2 km⁵ of the site.
- Records of bat species within 5 km of the site.

3.1.2 A review of Ordnance Survey maps and aerial images was undertaken to identify the presence of waterbodies within 500 m of the site and assess habitat connectivity and quality.

3.1.3 A copy of the public records available from COFNOD can be provided upon request.

3.2 Field Survey

Extended Phase 1 survey

3.2.1 A Phase 1 habitat survey was conducted on 14th March 2023 by Donna Hall and Katy Morris to determine the current baseline of all land within the ‘redline’ boundary of the site, as shown in **Appendix A**. The weather conditions during the survey were cold with a strong wind, no rain and a temperature of 6°C.

3.2.2 An Extended Phase 1 habitat survey is a standardised method of recording habitat types and characteristic vegetation, as set out in the Handbook for Phase 1 Habitat Survey – a technique for Environmental Audit (JNCC 2010). The Phase 1 survey method is ‘extended’ through the additional recording of specific features indicating

⁴ Only those sites within 2 km of the scheme proposals are reported within this document. Cofnod data can be provided upon request.

⁵ Due to the number recorded on the cofnod data, only bird species within 1 km of the scheme proposals are reported within this document. Cofnod data can be provided upon request.



the presence, or likely presence, of protected species or other species of nature conservation significance (also referred to as ‘notable’ species).

3.2.3 The area was surveyed on foot and all habitats were mapped according to the Handbook for Phase 1 Habitat Survey⁶. Habitats were described and recorded using the JNCC alphanumeric codes. Specific points of interest were identified as numbered ‘Target Notes’ (TN). A full description of each is presented in **Appendix D**.

3.2.4 The ‘Extended’ element of the Phase 1 survey was completed by looking for evidence of protected and notable species (which includes species listed on Section 7 of the Environment (Wales) Act 2016) and by identifying habitats within the red line boundary which could be capable of supporting them. These include:

- water bodies with suitable habitat for amphibians, particularly great crested newts (*Triturus cristatus*) (GCN) and other amphibians including common toad (*Bufo bufo*);
- presence of features within trees and structures suitable for bat roosts;
- signs of badger (*Meles meles*) activity, for example setts, latrines, dung pits, runs, guard hairs and footprints;
- suitable habitats for breeding and wintering birds;
- habitats suitable for reptiles;
- habitats likely to support a diverse invertebrate population; and,
- presence of invasive non-native plant species (INNS).

Preliminary Roost Assessment

3.2.5 The Bat Survey Good Practise Guidelines (BCT, 2016)⁷ were used as a basis to evaluate the buildings, trees and surrounding habitat for its potential to support bats, as summarised in as summarised in **Table 1**.

⁶ JNCC (Joint Nature Conservation Committee). (2010). Handbook for Phase 1 habitat survey: A technique for environmental audit. JNCC, Peterborough.

⁷ Collins, J. (ed) (2016) Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd Edition). The Bat Conservation Trust, London



Table 1. Bat Conservation Trust (BCT) assesment of Potential Roost Features (PRF)

Suitability	Description of roosting habitats	Commuting and foraging habitats
Negligible	Negligible habitat features on site likely to be used by roosting bats.	Lack of vegetation and foraging habitat within vicinity of the site and no connections to semi-natural habitats. Site located in a highly urbanised environment.
Low	<p>A structure with one or more potential roost sites that could be used by individual bats opportunistically but unlikely to be suitable for maternity or hibernation.</p> <p>No visible features within tree structure such as crevices, holes in trunk, hazard beam splits. However, it may have ivy cladding and hidden features due to the size and age of the tree.</p>	Small amount of isolated habitat on site providing a potential foraging resource i.e., a single tree or a patch of introduced shrub. Maybe linked to small amount of adjacent semi-natural habitat surrounding site, however there are no distinct links to habitat further away.
Moderate	A structure or tree with one or more potential roost features that could be used by a larger number of bats but unlikely to support a roost of high conservation concern.	Suitable continuous habitat with good connectivity to the wider landscape such as trees, scrub, hedgerow, grassland.
High	A structure or tree with one or more potential roost sites that are obviously suitable for use by larger numbers of bats on a more regular basis and offers more long-term security and likely to support a roost of high conservation concern.	Site is close and connected to known roosts. The site habitat is of high quality for foraging bats and includes features such as woodland, tree lined water courses, field margins and hedgerows. The site is well connected within the landscape to surrounding habitats and strong linear features such as hedgerows and tree lines extend from the site to the wider landscape.
Confirmed	Presence of field signs indicative of a bat roost including staining and scratch marks around a potential roost entry point combined with the following; urine staining, droppings clustered beneath a potential roosting feature and the presence of live or dead bats.	N/A

3.2.6 A detailed external and internal assessment of the buildings subject to demolition was undertaken on the 14th March 2023, in conjunction with the Phase 1. This involved checking for bats and any direct evidence of bats (e.g., droppings, staining,



1 Llys Clwyd, Cwrt Y Dderwen, Ffordd Celyn, Ruthin, Denbighshire LL15 1NJ

email: rml@rmlconsult.com web: www.rmlconsult.com

Tel: +44(0)1824 704366

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feeding remains etc). As well as identifying any potential access points into the building which could be used by bats and the overall roost potential of the building.

3.2.7 The surveyors were equipped with a high-powered torch, close focus binoculars, endoscope and ladder.

Bat activity survey

3.2.8 Two emergence surveys were conducted on 7th June 2023 and 5th July 2023 with seven surveyors present each time.

3.2.9 The surveys started approximately 15 minutes before sunset and continued for 1 hour and 30 minutes. Surveyors were equipped with Anabat Walkabout, and Anabat Swift bat detectors, to record bat call data for later analysis. Night Vision Aids (NVAs) including thermal imaging binoculars x 1 and thermal imaging monocular x 3 were used to view roof areas and potential roost features where needed. During the activity survey any bat activity was noted by the surveyor, including species, the locations of any emerging bats, flight paths and general activity, commuting foraging etc and the timings of these encounters.

3.2.10 For the first survey, surveyors were position as follows:

- Surveyor 1 was located at the front of the main dwelling with viewpoints of south / front aspect of the hall and Clifton buildings.
- Surveyor 2 was located at the front of the main dwelling with viewpoints of south / front aspect of the hall and Eithinog building.
- Surveyor 3 was located to the west of the Eithinog building with views along the west aspect.
- Surveyor 4 was located at the rear of the buildings with views of the garages and workshop.
- Surveyor 5 was located in the rear gardens with views across the north aspects of the main roof of The Wing, and Hall and Clifton buildings.



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- Surveyor 6 was located in the rear gardens with views of the north aspect of the Clifton buildings and the self-catering building.
- Surveyor 7 was located to the north-east with views of the north aspect of the rear cottage.

3.2.11 For the second survey, surveyor effort was concentrated on those buildings considered to have moderate roost potential or where areas were not accessible during the first survey (the internal courtyard area). No further surveys were conducted to the garage or workshop (Surveyor position number 4 for survey number 1) or the west aspect (Surveyor position number 3 for survey number 1). The garage and workshop were lit internally and have low potential to support roosting bats. The west aspect is lit from the adjacent property and has low potential to support roosting bats. For the second surveys, surveyors 1,2 and 6 remained in the same locations.

- Surveyor 7 was located to view the south and east aspect of the cottage.
- Surveyors 5 and 4 were located within the inner courtyard. Surveyor number 5 had views to the east and south aspect of The Wing. Surveyor 4 had views to the roof of the self-catering cottages and west aspect of the Clifton range.
- Surveyor 3 was located in a similar position to surveyor number 5 (first survey) located to the rear gardens with views across the north aspects of the main roof of The Wing, and Hall and Clifton buildings

3.2.12 Existing site layout with surveyor's locations shown are provided in **Appendix E**.

Static Detector Survey

3.2.13 In addition to the activity surveys, automated monitoring surveys were undertaken using static bat detectors (Anabat Swift) to record bat activity over continuous periods. These were deployed within the basements of Eithinog and Clifton buildings from 13/06/2023 to 19/06/2023. The statics were also deployed within the roof void



1 Llys Clwyd, Cwrt Y Dderwen, Ffordd Celyn, Ruthin, Denbighshire LL15 1NJ

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Tel: +44(0)1824 704366

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of The Wing. These were deployed for a period of seven nights from 19/06/2023 to 26/06/2023. Other roof voids were discounted owing to their suitability and accessibility. The roof of the Main Hall was inaccessible, in addition, this roof and the roofs of the Eithinog and Clifton range are dominated by seagulls which predate on bats thereby reducing the potential of these structures to support bat roosts. The locations of the static detectors are shown in **Appendix E**.

- 3.2.14 The recordings from the statics were used to identify species of bat within the site and measure levels of activity throughout the night. This method is often used in picking up hard to detect bats such as brown long eared bats (*Plecotus auratus*), which have weak calls and are not always detected using handheld devices.
- 3.2.15 The detectors were programmed and positioned by an ecologist with suitable training in static detector functionality and deployment.

3.3 Data analysis

Activity survey

- 3.3.1 Recordings made with the Walkabout detectors were later analysed in the office by a suitably trained/experienced ecologist using Anabat Insight software. Using the Batclassify species auto ID plugin set at 70% ID certainty threshold, to identify species encountered, calls were then manually checked by a competent bat ecologist to ensure ID accuracy.
- 3.3.2 Video footage obtained from the thermal NVA's was analysed.

Static detector survey

- 3.3.3 After completion of the survey period, the detectors were retrieved from the site, data was downloaded and then analysed both using Anabat Insight and manually checking by a suitably experienced ecologist. The static detector data was used to assess the following.
- Species present within the site;



- Frequency of the bat activity; and
- Frequency of individual species activity.

3.4 Nesting bird checks

3.4.1 During the bat surveys, any evidence of nesting birds was noted and reported on.

3.5 Limitations

- 3.5.1 There was no access to the interior of the cottage at the rear of the property as this building is unsafe to enter.
- 3.5.2 There was no access into the potential loft space above the school hall, as the loft hatches were too high to access safely.
- 3.5.3 There was no access to the interior of the two garages. Access was possible to all other areas of the buildings.



1 Llys Clwyd, Cwrt Y Dderwen, Ffordd Celyn, Ruthin, Denbighshire LL15 1NJ
email: rml@rmlconsult.com web: www.rmlconsult.com
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4 RESULTS

4.1 Desk study

Statutory designated sites

4.1.1 There are seven statutory designated sites within 2 km. These consist of two Special Area of Conservation (SAC), one Special Protection Area (SPA), two Site of Special Scientific Interest (SSSI), one National Nature Reserve (NNR) and one Local Nature Reserve (LNR). The locations of the statutory designated sites are show in **Appendix F**.

Table 2 Statutory designated sites within 2 km of the site.

Site name	Site Designation	Distance from site	Reason for notification
UK0014788 Great Orme's Head / Pen Y Gogarth	Special Area of Conservation (SAC)	Adjacent to the rear of the site.	Annex I Habitats that are a primary reason for selection of this site. <ul style="list-style-type: none"> 4030 European dry heaths. 6210 Semi-natural dry grasslands and scrubland facies on calcareous substrates (<i>Festuco-Bromeetalia</i>) (*important orchid sites). Annex I habitats present as a qualifying feature, but not a primary reason for selection of this site. <ul style="list-style-type: none"> 1230 Vegetated Sea cliffs of the Atlantic and Baltic Coasts
UK0030202 Y Fenai a Bae Conwy / Menai Strait and Conwy Bay	SAC	935 m west	Annex I Habitats that are a primary reason for selection of this site. <ul style="list-style-type: none"> 1110 Sandbanks which are slightly covered by sea water all the time. 1140 Mudflats and sandflats not covered aby seawater at low tide. 1170 Reefs. Annex I habitats present as a qualifying feature, but not a primary reason for selection of this site. <ul style="list-style-type: none"> 1160 Large shallow inlets and bays. 8330 Submerged or partially submerged sea caves.
UK9020294 liverpool Bay / Bae Lerpwl	Special Protection Area (SPA)	935 m west	It is classified for the protection of red-throated diver (<i>Gavia stellata</i>), common scoter (<i>Melanitta nigra</i>), and little gull (<i>Hydrocoloeus minutus</i>) in the non-breeding season; common tern (<i>Sterna hirundo</i>) and little tern (<i>Sterna albifrons</i>) in the breeding season, and an



1 Llys Clwyd, Cwrt Y Dderwen, Ffordd Celyn, Ruthin, Denbighshire LL15 1NJ

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Tel: +44(0)1824 704366

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Site name	Site Designation	Distance from site	Reason for notification
			internationally important waterbird assemblage.
Pen Y Gogarth / Great Ormes Head	Site of Special Scientific Interest (SSSI)		The site supports the following features of special interest. The site is significant for its Carboniferous Limestone which contains nationally important faunal assemblages in coastal cliffs, inland outcrops, disused quarries and road sections. Additionally, the Great Orme Copper Mines provide the best UK example of an internationally important class of ore referred to as the Copper-Dolomite association.
Aber Afon Conwy	SSSI	943 m south west	Aber Afon Conwy is of special interest for its marine and terrestrial invertebrate biology. This coastal plain estuary is of particular importance as it has the largest extent, most complete zonation, richest variety and best examples of high quality intertidal estuarine communities, between Bardsey Island and Great Ormes Head.
00111 Maes Y Facrell, Pen Y Gogarth	National Nature Reserve (NNR)	460 north	As Pen Y Gogarth / Great Ormes Head SSSI above
Great Orme's Head	Local Nature Reserve (LNR)	Adjacent to the rear of the site	As Pen Y Gogarth / Great Ormes Head SSSI above

Non-statutory designated sites

- 4.1.2 There is one North Wales Wildlife Trust site, and two Wildlife Sites located within 2 km of the site; The non-statutory sites are listed in **Table 3**.



1 Llys Clwyd, Cwrt Y Dderwen, Ffordd Celyn, Ruthin, Denbighshire LL15 1NJ

email: rml@rmlconsult.com web: www.rmlconsult.com

Tel: +44(0)1824 704366

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Table 3: non-statutory designated sites within 2 km of the site.

Site name	Site Designation	Distance from site	Reason for notification
Gogarth	North Wales Wildlife Trust (NWWT)	1.25 km north west	Choughs (<i>Pyrrhocorax pyrrhocorax</i>) and the silver-studded blue butterfly (<i>Plebejus argus</i>). Limestone grasslands.
West shore, Llandudno	Wildlife Site (WS)	355 m west	Vegetated shingle.
Deganwy Dunes	(WS)	885 m south	Dune grasslands (golf course).

4.2 Protected and notable species

4.2.1 The following section presents the findings of the desk study provided by COFNOD (species records within 2 km⁸ of the surveyed area within the last 10 years) supplied on 8th March 2023.

4.2.2 Where a species or species group has been omitted, this is due to an absence of records and/or no suitability on site to support the species. As such, omitted species are not considered to be affected by the schemes proposals.

Amphibians and reptiles

4.2.3 There were no records of amphibians within the site, however there were records within 2 km of the surveyed area in the last 10 years.

4.2.4 The records were for the following:

- Common lizard (*Zootoca vivipara*) 119 m north within the Pen Y Gogarth / Great Ormes Head SAC.
- Slow-worm (*Anguis fragilis*) 119 m north within the Pen Y Gogarth / Great Ormes Head SAC.

⁸ 1km for bird records



- Common toad (*Rana temporaria*) in 20218, 1174 m north west within the Pen Y Gogarth / Great Ormes Head SAC.
- Common frog (*Bufo bufo*) in 2018, 1174 m north west within the Pen Y Gogarth / Great Ormes Head SAC.
- Palmate newt (*Lissotriton helveticus*) 1249 m south

Badger

4.2.5 No records of badgers (*Meles meles*) were recorded within the site. There were 13 records of badgers within 2 km of the surveyed area in the last 10 years. The nearest record to the surveyed area was 1271 m north, where badger footprints were found in a garden. No badger setts or other evidence of badgers were recorded within the surveyed area.

Bats

4.2.6 There were no records returned for the site. However, there was five records of bats within 2 km of the site within the last 10 years.

4.2.7 The species of bats recorded were:

- Soprano pipistrelle (*Pipistrellus pygmaeus*) 239 m east.
- Common pipistrelle (*Pipistrellus pipistrellus*) 362 m north
- Brown long-eared (*Plecotus auratus*) 747 m east
- Common pipistrelle 962 m north-east
- Common pipistrelle 1885 m north-west



1 Llys Clwyd, Cwrt Y Dderwen, Ffordd Celyn, Ruthin, Denbighshire LL15 1NJ

email: rml@rmlconsult.com web: www.rmlconsult.com

Tel: +44(0)1824 704366

Registered in England and Wales No. 1848683 VAT Reg No. 401 424 313



Birds

4.2.8 No records for birds were returned for the site, as noted on the cofnod data. There were 2120 records of birds in the last 10 years within 2 km of the site, **Table 4** below includes the notable species⁹.

Table 4: Notable bird species within 1 km

Scientific Name	English Name	Location from site	Legislative protection
<i>Prunella modularis</i>	Dunnoek	213 m north	WCA UKBR-A
<i>Larus argentatus</i>	Herring gull	247 m south west	WCA, UKBR-R
<i>Arenaria interpres</i>	Oystercatcher	247 m south west	WCA, UKBR-A
<i>Sterna paradisaea</i>	Artic tern	323 m north east	UKBR UKBR-A
<i>Numenius arquata</i>	Curlew	323 m north east	WCA UKBR-R
<i>Falco tinnunculus</i>	Kestrel	369 m north west	WCA UKBR-A
<i>Pyrhacorax pyrrhacorax</i>	Chough	465 m east	EPS WCA1 S7 UKBR-G
<i>Hirundo rustica</i>	Swallow	590 m west	WCA UKBR-G
<i>Sturnus vulgaris</i>	Starling	722 m north	WCA UKBR-R
<i>Passer domesticus</i>	House sparrow	843 m north west	WCA UKBR-R
<i>Phalacrocorax aristotelis</i>	Shag	843 m north west	WCA, UKBR-R
<i>Rissa tridactyla</i>	Kittiwake	843 m north-west	WCA1 UKBR-R
<i>Cuculus canorus</i>	Cuckoo	880 m north	WCA UKBR-R
<i>Emberiza schoeniclus</i>	Reed bunting	961 m south	WCA UKBR-A

EPS: European Protected Species
 UKBR-G: RSPB/BTO Birds of Conservation Concern – Green list (not based on IUCN criteria),
 UKBR-A: RSPB/BTO Birds of Conservation Concern – Amber list (not based on IUCN criteria),
 UKBR-R: RSPB/BTO Birds of Conservation Concern – Red list (not based on IUCN criteria).
 WCA: Wildlife & Countryside Act 1981, Schedule 1.1 – Birds which are protected at all times.
 S7 = Section 7 Species

⁹ Species with European and/or UK Legal Protection, Section 7 Species or UK BAP Priority Species and Red list species as noted on cofnod



1 Llys Clwyd, Cwrt Y Dderwen, Ffordd Celyn, Ruthin, Denbighshire LL15 1NJ

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Hedgehogs

- 4.2.9 There were no records from within the site for hedgehog (*Erinaceus europaeus*). There were 26 records returned for hedgehogs within 2 km of the site in the last 10 years, the nearest record was 104 m east along Abbey Road, which was a live sighting in 2017.

Invertebrates

- 4.2.10 There were 1045 records of invertebrates returned within 2 km of the site in the last 10 years. The closest record as noted on cofnod was for the silver-studded blue (*Plebejus argus cretaceous*), a Section 7 species which was recorded within 119 m of the site. A full public list of species from Cofnod can be provided upon request.

4.3 Review of previous reports

- 4.3.1 A review of an ecological survey report for the adjacent site¹⁰ conducted in 2014 by TEP was made.
- 4.3.2 Slow worms and common lizards were identified on the site and occupied the habitats north of the buildings (at the rear of the site). This area is connected directly with the terraced gardens at the rear of the site subject to this report.
- 4.3.3 One confirmed non-maternity roost is present on the adjacent site, this building was retained and is located within 100 m.

4.4 Habitats

- 4.4.1 The site consists of hardstanding (**TN 9**), the main building consisting of two former manor houses (Eithinog to the west and Clifton to the east), with a school hall joining the buildings in the middle. There are further buildings at the rear (The Wing, Self-

¹⁰ September (2014) Loreto Convent, Abbey Road, Llandudno, Ecological assessment for Loreto Developments Ltd. TEP.



Catering room and The Cottage), forming a rectangle with an enclosed court yard in the middle.

- 4.4.2 There were garages and a workshop at the rear of the main buildings.
- 4.4.3 At the rear of the buildings lies landscaped ornamental gardens which are terraced with limestone supporting walls. The gardens consist of semi-improved grasslands, scattered trees, and introduced shrub.
- 4.4.4 The dominant habitats, their location and extent are shown on a Phase 1 Plan in **Appendix G**. Target notes and photographs of key habitat features, where appropriate, are provided in **Appendices D & H** respectively. Briefly, the habitat types on site comprise:

Dense continuous scrub (A2.2)

- 4.4.5 An area to the east of the inner courtyard was overgrown with brambles (*Rubus fruticosus*), ivy (*Hedera sp.*) and crab apple tree (*Malus sylvestris*).

Parkland, scattered trees (A3.1)

- 4.4.6 The gardens to the rear of the property had a number of scattered trees indicated on the Phase 1 plan in **Appendix G**, these trees included fruit trees and coniferous trees.

Neutral semi-improved grassland (B2.2)

- 4.4.7 There were two areas of semi-improved grass land to the front of the building, which formed a bank between the hardstanding car park and the building.
- 4.4.8 There were areas of semi-improved grassland in the garden at the rear of the property which included of yarrow (*Achillea millefolium*), chickweed (*Stellaria media*) and daisy (*Bellis perennis*). This area is subject to regular mowing.

Introduced shrub (J1.4)

- 4.4.9 The rear gardens had areas of introduced shrubs along the terraces and there was an area of raised plant bed within the inner courtyard.



Species poor hedge (J2.3.2)

- 4.4.10 Species poor hedges dominated by privet (*Ligustrum vulgare*) occur at the rear of the property, between the self-catering building and the gardens and also along the boundary with Abbey Road.

Fence (J2.4)

- 4.4.11 There was a metal wire fence on the rear boundary, between the site and The Great Orme. There was a wooden slatted fence on the western boundary between the site and St David's Hospice. There was a wooden slatted fence above a wall along the middle terrace of the garden.

Wall (J2.5)

- 4.4.12 There were low limestone walls, between levels of the terraces in the rear gardens. At the front of the building, there was a stone wall which has been rendered, this is associated with the boundary of the site and Abbey Road.

Building (J3.6)

- 4.4.13 The site consists of a large rectangular building made up of two former manor houses, (Eithinog and Clifton), with a school hall in-between. There were three further buildings to the rear (The Wing, Self-catering and The Cottage). The Cottage which was not accessible due to health and safety.
- 4.4.14 There was a court yard in the middle of the rectangle of buildings.
- 4.4.15 There were two separate garage buildings and a workshop west of the side to the rear of the main building.

Hardstanding (J5):

- 4.4.16 An area of hardstanding was present in front of the of the building and forming a large car park. There was hardstanding forming footpaths around the extent of the building, in the inner courtyard and paths throughout the gardens at the rear of the property.



1 Llys Clwyd, Cwrt Y Dderwen, Ffordd Celyn, Ruthin, Denbighshire LL15 1NJ
 email: rml@rmlconsult.com web: www.rmlconsult.com
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4.5 Preliminary Roost Assessment

Building external

4.5.1 The buildings forming the Manor houses, The Wing, Self-catering and school hall were constructed of brick walls with pebble dash, which were in good condition with no cracks, gaps or crevices observed. The roofs were generally in good condition with some gaps under ridge tiles and missing or slipped slates which are illustrated at **Target Notes 5 and 6** of the phase 1 plan. The windows were all intact, none were broken. The buildings, with the exception of the self-catering apartments, are all vacant.

4.5.2 The cottage at the rear of the site had gaps under the fascia boarding into the roof, and a hole in the soffit box. There were loose and slipped tiles on the roof. There was access into the basement via a door which had no evidence of bats.

4.5.3 The roof on the two garages and workshop were in good condition, slate tiles were bitumen felt lined. There were some missing mortar on the east edge of the roof **Target Note 4**. The walls were constructed of brick which had been pebble dashed.

4.5.4 The Wing building, was constructed of brick, which had been pebbled dashed, and has a slated tile roof. The soffit boxes were intact, however there were some minor gaps behind them.

Building interior

4.5.5 The buildings were unoccupied at the time of survey. The interior consisted of school hall, kitchens and washrooms, a large dining room with associated kitchen. Examples of the rooms are provided in the photograph references in **Appendix H**.

Building loft space

4.5.6 There was access to 18 hatches into loft spaces within the buildings. Most of the hatches provided access to a void in-between the ceiling and a false suspended ceiling. There was loft spaces consisted of those with white lime wash to the back of



1 Llys Clwyd, Cwrt Y Dderwen, Ffordd Celyn, Ruthin, Denbighshire LL15 1NJ

email: rml@rmlconsult.com web: www.rmlconsult.com

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the slate roof tiles and others which were more traditional with bitumen felt lined tiles and wooden trusses and rafters.

Boiler rooms/basement

4.5.7 There were two separate basements, one in Eithinog and the other in the Clifton buildings.

4.5.8 The basement in Eithinog was made up of four separate rooms with associated corridors. The walls were stone which had been painted white with a concrete floor. The rooms contained an office with access to a store. There was a boiler room which had an air vent with possible bird nesting material **Target Note 8**. The boiler room and store rooms had a metal corrugated ceiling.

4.5.9 The basement under Clifton consisted of a boiler room and store room. The walls were stone with white paint, there was a hole in the east wall where the pipes left the boiler room. The ceiling consisted of plaster board.

4.6 Priority habitats

4.6.1 No Priority habitats were found within the site at the time of survey.

4.7 Protected and notable species

4.7.1 The following section presents the findings of the Extended Phase 1 Habitat survey conducted on the 14th March 2023.

4.7.2 Where a species or species group has been omitted, this is due to there being no evidence or no suitability on site to support the species and as such are not considered to be affected by the schemes proposals.

Flora

4.7.3 No species of note were recorded during the survey.



1 Llys Clwyd, Cwrt Y Dderwen, Ffordd Celyn, Ruthin, Denbighshire LL15 1NJ
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Amphibians and Reptiles

- 4.7.4 Much of the site has reduced habitat suitability for reptiles and amphibians (semi-improved grassland and hardstanding particularly). However, there are some suitable areas which offer more habitat structure and diversity within the surveyed area, these include the areas of raised beds and the limestone walls, located at the rear of the site in the terraced gardens, **Target Note 2**.
- 4.7.5 There were no ponds on site which could support amphibians. No ponds were observed within 250 m using Defra Magic Maps¹¹.

Bats

- 4.7.6 The trees within the surveyed area offered unsuitable potential for roosting bats due to their small size and the exposed location.
- 4.7.7 The buildings on site offer low – moderate potential for roosting bats:
- The garages and workshop have low potential to support roosting bats.
 - There were some gaps under tiles, ridge tiles, and slipped slates on the roofs. **Target Note 5 and 6.**
 - Most of the loft spaces provided unsuitable roosting potential, they were either located between the lowered ceiling and the actual ceiling of a room or the slate tiles were backed with a white wash instead of the favoured bitumen felt backed tiles. Gulls and pigeons occur within some of the roof voids, with gulls occupying the roof elevations of the hall, Clifton and Eithinog range.

¹¹ Magic Maps Application <https://magic.defra.gov.uk/magicmap.aspx>



- On the second floor of Clifton in room 201, the loft space had wooden trusses and rafters with bitumen felt lined slate tiles, loft insulation, few gaps and low bat roost potential.
- The first-floor loft space of Eithinog was occupied by pigeons, **Target Note 7**. Half of the tiles were backed with bitumen felt and the other half were white lime washed. There was a hole in the roof observed. No evidence of bats was noted.
- First floor loft access in The Wing, was draughty, and had traditional wooden rafters with steel beams. The roof was newer and intact with no accessible gaps. No evidence of bats was noted and was considered to offer low roosting potential for bats.
- The cottage had moderate potential for crevice dwelling bats behind soffit boxes and under roof tiles. No internal access is possible.

4.7.8 In summary, all the buildings were considered to have low potential to support bat roosts, with the exception of the cottage, which was considered to have moderate potential to support bats.

4.8 Bat activity survey

4.8.1 The weather variables during the surveys are provided in **Table 5**:

Table 5: The weather variables for the activity surveys.

Date	Time of sunset	Survey start / end times	Weather conditions at start/end times
07/06/2023	21:39	Start: 21:30 End: 23:11	Start: 16°C, calm with some gusts, 5% cloud 49% rH, no precipitation, 98.4 lux End: 14.3°C, calm with some gusts, 5% cloud, 48% rH, no precipitation, 0.015 lux



Date	Time of sunset	Survey start / end times	Weather conditions at start/end times
05/07/2023	21:44	Start: 21:30 End: 23:00	Start: 16°C, windy, 70% cloud 56% rH, no precipitation, 179 lux End: 14°C, calm, 90% cloud, 64% rH, no precipitation, 0.01lux

4.8.2 During the activity survey, no bats were seen to emerge from any of the buildings on site. During the first survey common pipistrelle (*Pipistrellus pipistrellus*) passes were recorded, which were registered between 22:18 and 22:59, with most of the activity at the rear of the site along the tree/ vegetation line and one pass of a Noctule *Nyctalus noctula*. No bats were detected during the second survey visit.

4.9 Static detector survey

4.9.1 The static detector deployed for seven consecutive nights in the loft space and six consecutive nights in the basements, picked up no bat calls.

Breeding birds

4.9.2 The site offers some potential for nesting birds. The trees and shrubs in the rear garden were suitable for small garden birds and there are pigeons in the roof of Eithinog. There were no signs of swallows/swift's nests on the outside of the building at the time of survey.

4.9.3 Herring gulls (*Larus argentatus*) were recorded on the roof of the main hall, Clifton and Eithinog buildings, including young. This species is a Red list species on the Birds of Conservation Concern¹² due to ongoing population declines and wintering population declines and is protected under the Wildlife and Countryside Act.

Hedgehogs

4.9.4 This species could utilise the grassland and ornamental gardens located to the north for foraging and dispersal into the wider landscape, and potentially hibernation sites in the overgrown and undisturbed areas of the garden.

¹² <https://www.bto.org/sites/default/files/publications/bocc-5-a5-4pp-single-pages.pdf>



Invertebrates

4.9.5 Due to the site's moderate floristic diversity limited to the rear of the site and significant areas of hardstanding, the site has reduced potential for invertebrate species in its current state, except for areas within the terraced gardens to the rear, these areas are subject to management.

4.10 Invasive non-native / problematic species

4.10.1 The term *invasive species* refers to non-native plants and animals introduced into wild habitats either deliberately or inadvertently. These species are often able to proliferate rapidly by outcompeting native species that occupy similar ecological niches.

4.10.2 Small stand of montbretia occurs along the top terrace of the rear garden of the site, **Target Note 1**, Montbretia is a species listed on Schedule 9 of the Wildlife & Countryside Act.

4.10.3 There is one clump of the problematic species Buddleia on the east boundary of the rear garden, this species is not a Schedule 9 species, however it is considered a problematic species **Target Note 3**.

4.11 Priority and notable species

Table 6 lists the species with known presence or potential to be present on the site which are Priority Species listed on Section 7 of the Environment (Wales) Act 2016 or are considered notable and relevant to the site in question.

Table 6: Summary of Priority Species

Species group	Species	Site Context
Reptiles	Slow-worm Common lizard	Some limited suitable habitats on site.
Birds	Environment Wales Act (2016) S 7 list 51 species of bird of	The trees could provide suitable nesting and foraging habitat for birds.



Species group	Species	Site Context
	which at least one was noted on site.	Herring gulls were recorded nesting on site with young present, which are a red listed species.
Mammals	Bats	Roosts present on adjacent site. Some habitat for foraging and commuting bats, however the site is exposed and some areas subject to illumination from adjacent buildings. The existing hedgerows, grassland and trees provide foraging and commuting corridors. Low to moderate roost potential, though no evidence of roosting bats noted during the surveys.
	Hedgehog	Suitable habitat within the undisturbed areas of the terraced garden habitat.



1 Llys Clwyd, Cwrt Y Dderwen, Ffordd Celyn, Ruthin, Denbighshire LL15 1NJ
 email: rml@rmlconsult.com web: www.rmlconsult.com
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5 EVALUATION AND RECOMMENDATIONS

5.1 Summary

5.1.1 The following section discuss the potential effects of the works, current at the time of writing, upon the ecology interest at the site and advises upon methods which can either avoid, mitigate, or compensate for these effects.

5.1.2 Potential effects which could arise from the construction of the new residential dwellings include the following:

- Direct loss of and disturbance to habitats and species;
- Increased noise, disturbance, and risk of pollution during construction; and,
- Disturbance/propagation of INNS and/or problematic species.

5.2 Designated sites and non-statutory sites

5.2.1 The nearest statutory designated site is the SAC and SSSI Pen Y Gogarth / Great Ormes Head and the Great Orme's Head LNR, which is adjacent to the north of the site.

5.2.2 Direct or indirect effects to statutory designated sites may occur, due to their proximity to the scheme (north adjacent of the surveyed area).

5.2.3 Other statutory designated sites such as Fenai a Bae Conwy / Menai Strait and Conwy Bay SAC and Liverpool Bay / Bae Lerpwl SPA are sufficiently distant from the surveyed area for there to be no direct pollution pathways. Both the SAC and SPA are separated from the surveyed area by roads, housing and other infrastructure. Due to the intervening distance and absence of connectivity it is considered that there will be no direct impacts, such as habitat loss, or indirect disturbance impacts upon these designated sites of nature conservation interest.

5.2.4 Other designated sites such as the Wildlife Sites lie 355m to the south west of the surveyed area and is similarly isolated from a direct impact potentially arising from the scheme.



1 Llys Clwyd, Cwrt Y Dderwen, Ffordd Celyn, Ruthin, Denbighshire LL15 1NJ

email: rml@rmlconsult.com web: www.rmlconsult.com

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5.3 Effects on Habitats

- 5.3.1 The dominant habitats within the surveyed area are man-made, offer negligible biodiversity value and therefore will not be affected ecologically by any proposed demolition and construction.
- 5.3.2 The key impact is likely to arise from dust and emissions from heavy equipment during the demolition and construction.
- 5.3.3 The semi-improved grassland, scattered trees, introduced shrubs of the gardens are understood to be retained by the development therefore these habitats will not be lost.
- 5.3.4 The introduced shrub and dense scrub associated with the inner courtyard will be lost. They are of low diversity and are isolated by the surrounding buildings, reducing connectivity to the wider landscape, hence of low habitat value.
- 5.3.5 All of the semi-natural habitats on site lack overall sufficient size to provide enhanced benefits to wildlife.
- 5.3.6 In summary, the habitats on site provide very little in the way of biodiversity value as the site is predominantly man-made, hard standing and structures. No Section 7 habitats as listed under the Environment (Wales) Act 2016 would be lost.

Recommendations

- 5.3.7 The proposals should aim to include landscape planting which contains a more diverse native flora including species of local provenance and/or those which are a benefit to pollinating insects. This could include areas of tree or shrub planting to attract pollinators, and less managed areas should have a wild flower mix planting.



1 Llys Clwyd, Cwrt Y Dderwen, Ffordd Celyn, Ruthin, Denbighshire LL15 1NJ
email: rml@rmlconsult.com web: www.rmlconsult.com
Tel: +44(0)1824 704366
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5.4 Effects on Protected and notable species

Amphibians and reptiles

Potential effects

5.4.1 The main interest for reptiles and amphibians comprises of areas within the gardens at the rear of the site, over grown raised beds and the limestone walls. Any encroachment upon these habitats may inadvertently disturb these species.

Recommendations

5.4.2 If the proposals change, and the garden area and associated walls are to be affected, it is recommended that 7 present/absent surveys are carried following guideline set out by Froglife¹³. These surveys would inform appropriate and proportional mitigation.

Bats

Potential effects

5.4.3 No bats have been identified roosting during the PRA, activity survey, inspections and collection/deployment of the static bat detectors, the results indicate that the probability of encountering bats is highly unlikely.

Recommendations

5.4.4 It is advised that no further emergence surveys are required and that there are no timing restrictions to the works¹⁴. However, as a precaution, it is recommended that prior to the demolition of the buildings an inspection by a bat licensed ecologist is carried out. If a bat is discovered, the following procedure would be followed:

- Works would stop immediately.

¹³ <https://www.froglife.org/wp-content/uploads/2013/06/Reptile-survey-booklet-3mm-bleed.pdf>

¹⁴ If demolition works are delayed for more than a year from the date of these surveys (July 2023) then further emergence surveys and inspections are advised, please refer to the CIEEM Advice Note on the Lifespan of Ecological reports and Surveys which can be found here: <https://cieem.net/wp-content/uploads/2019/04/Advice-Note.pdf>



- Unless it is in immediate danger, the bat must **only** be handled by the NRW licenced bat surveyor with handling endorsement.
- The ecologist would re-assess the location where the bat was found and determine whether works can continue, and the precautions to take.

5.4.5 The bat/s would be retained by the bat licenced ecologist and released at dusk, at the same location. The capture and handling of any bats will only be undertaken by **licensed bat workers**. Injured bats will immediately be taken into care (as directed by The Bat Workers Manual, s7.3, pp. 64-66, 3rd Edition, 2004).

5.4.6 Whether bats are found roosting or not, consideration should be given to the installation of integrated bat boxes into the proposed new structures or placed externally onto suitable aspects (ideally a south-east or south-west aspect and where aspects are not subject to lighting and are close to connecting habitat) to enhance and achieve biodiversity objectives, examples of bat mitigation are shown in **Appendix I**.

Birds

5.4.7 All breeding birds are protected under the Wildlife and Countryside Act 1981 (as amended) which makes it an offence to intentionally take, damage or destroy a wild bird's nest while it is being used; or built; or intentionally take/destroy a wild bird's egg.

5.4.8 The main impact on nesting birds would arise if vegetation clearance, demolition works and disturbance are conducted within the nesting bird season (considered to be March - August inclusive but can be earlier or later in the season dependent upon local climatic conditions).

Recommendations

5.4.9 Removal of vegetation which could support nesting birds should be undertaken outside the bird breeding season. It is advised that if works are programmed to start



at a time which conflicts with this, then site clearance works (i.e., the removal of the tall ruderal habitat, scrub, trees etc if required) is scheduled ahead of the main site preparation and clearance works. If cut or flailed, any regrowth should be kept short to deter nesting birds. If this is not possible, a suitably experienced ecologist will need to conduct a nesting bird check immediately before vegetation removal. Any active nests should be left undisturbed with a suitable buffer (dependent upon species found) until the nest is no longer in use.

- 5.4.10 Demolition of buildings which could support nesting birds (for example herring gulls) should be undertaken outside the bird breeding season. It is advised that if works are programmed to start at a time which conflicts with this, a suitably experienced ecologist will need to conduct a nesting bird check immediately before any demolition. If nesting birds are present, in particular gulls, then a licence would be required to remove/disturb the nest and consultation with Natural Resources Wales and the LPA would be required.
- 5.4.11 Consideration should be given to the installation of bird boxes on the new buildings around the site. Sparrow nest boxes could be placed on the northern and eastern sides of buildings. Example bird boxes are provided in **Appendix I**.

Hedgehogs

Potential effects

- 5.4.12 Hedgehogs may use the undisturbed areas of the garden for foraging and dispersal into the wider landscape.

Recommendations

- 5.4.13 If any hedgehogs are found during site clearance and preparation works, where this is required to the landscaped garden area to the north, then they must be removed to a suitable location outside the working area. If any trenches/excavations are dug, then these must be either covered over each night or installed with an egress.



1 Llys Clwyd, Cwrt Y Dderwen, Ffordd Celyn, Ruthin, Denbighshire LL15 1NJ
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Invertebrates

5.4.14 The area of vegetation to be lost to this development (at the time of writing) is the introduced shrub and scrub within the inner courtyard. This area of vegetation to be affected by the proposed demolition is of low biodiversity value. Consequently, there is no significant effect on invertebrates.

Non-native invasive/problematic species.

5.4.15 The proposals have the potential to disturb the invasive species, montbretia, a factsheet is provided in **Appendix J** and the problematic species buddleia.

5.4.16 Montbretia occurs in a small patch along the upper most of the terrace levels and may not be disturbed. Where works affect INNS, a separate method statement should be produced by an approved contractor which details the measures to be adopted for the removal, control, and eradication of these species from site. This should be done in conjunction with the landowner/manager of the site.

5.4.17 It will also be necessary to ensure that these species are not allowed to spread off site during the construction of the new building, by any means. This information should be included in a Precautionary Working Method Statement (PWMS) produced and supplied by the contractor.

5.4.18 The eradication of INNS from site would present a net benefit for biodiversity.



1 Llys Clwyd, Cwrt Y Dderwen, Ffordd Celyn, Ruthin, Denbighshire LL15 1NJ

email: rml@rmlconsult.com web: www.rmlconsult.com

Tel: +44(0)1824 704366

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6 Conclusions

- 6.1.1 This report presents the findings of the extended Phase 1 habitat survey, Preliminary Roost Assessment and bat activity surveys, and provides an assessment of the potential effects on ecological features which may result from the proposed works.
- 6.1.2 No Priority habitats would be disturbed/lost. Statutory designated sites occur adjacent to the site, and could be subject to indirect effects.
- 6.1.3 There are areas of INNS, which must not be disturbed or caused to spread by the works. If disturbed, a precautionary working method statement (PWMS) by an approved contractor should be written, to include a biosecurity risk assessment, control, eradication, and management of this species. This should be written in consultation with the landowner/occupier.
- 6.1.4 The site has little value for protected or notable species, and none were recorded on site with the exception of herring gulls (a species of conservation concern). Reasonable Avoidance Measures (RAM's), which include pre-demolition site surveys have been advised.
- 6.1.5 It is recommended that no further emergence surveys for bats are required unless demolition is delayed for more than one year from the date of the last emergence survey conducted to inform this report (July 2023). If bats are found roosting within the structure, during the recommended pre-demolition checks, then Reasonable Avoidance Measures have been advised.
- 6.1.6 Biodiversity enhancements including the provision of native planting in landscape proposals, provisions for bats, nesting birds and the removal or control of invasive plants have been advised.
- 6.1.7 The details in this report will remain valid for a period of up to two years from the date of this report (July 2023)¹⁵ after which if no site works have commenced, the

¹⁵ Dependent on species as per guidance produced by CIEEM provided at <https://cieem.net/wp-content/uploads/2019/04/Advice-Note.pdf>



validity of this assessment should be reviewed to determine whether further updates are necessary.



1 Llys Clwyd, Cwrt Y Dderwen, Ffordd Celyn, Ruthin, Denbighshire LL15 1NJ
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Tel: +44(0)1824 704366
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7 References

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- HMSO, 1981. *The Wildlife & Countryside Act 1981 (as amended)*, Norwich: Her Majesty's Stationary Office.
- HMSO, 2016. Environment (Wales) Act 2016.
- HMSO, 2017. The Conservation of Habitats and Species Regulations 2017. (as amended)
- JNCC, 2010. Handbook for Phase 1 Habitat Survey: A technique for environmental audit. 3rd ed. Peterborough: Joint Nature Conservation Committee.



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Tel: +44(0)1824 704366
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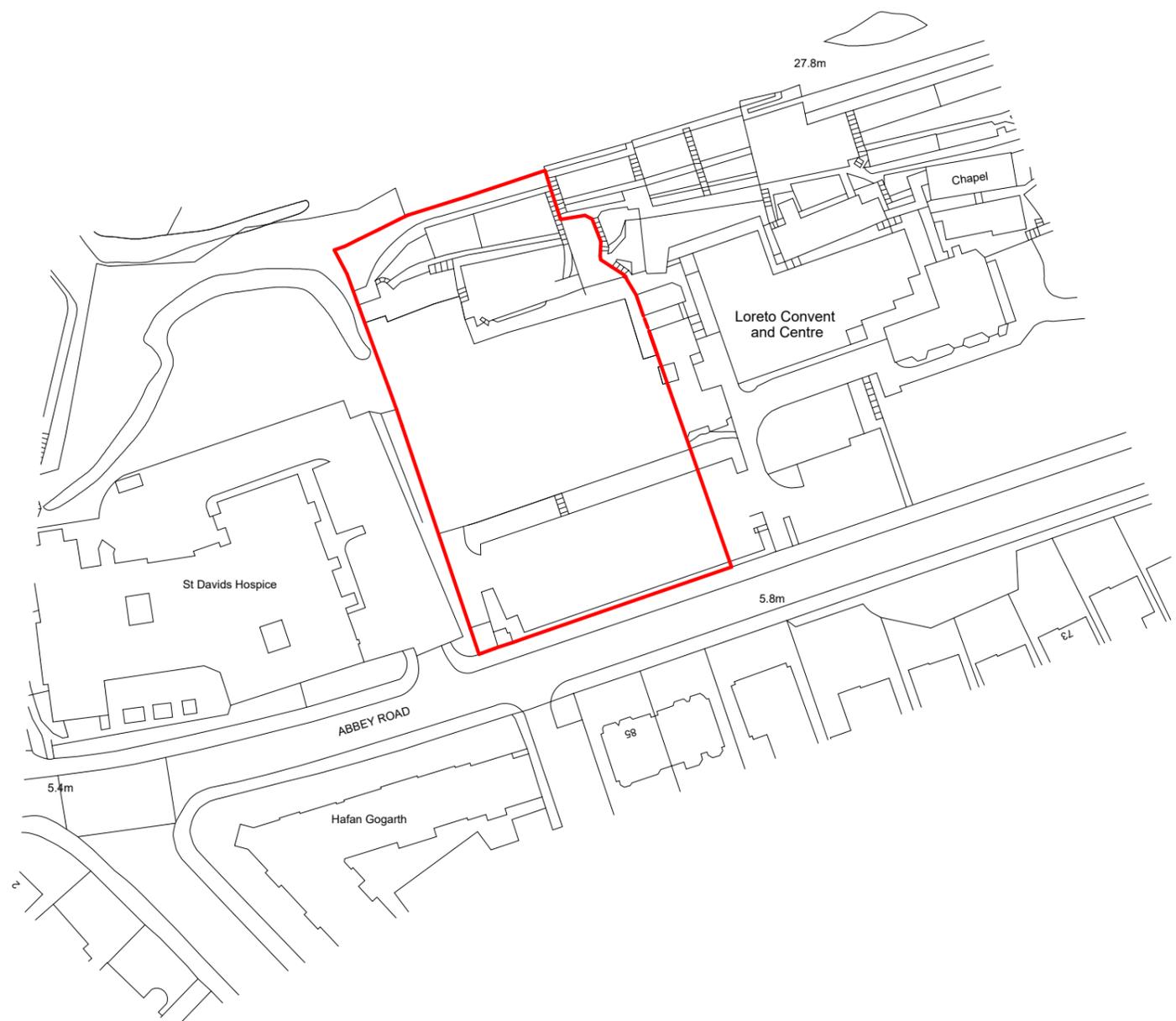


APPENDIX A: Site Location

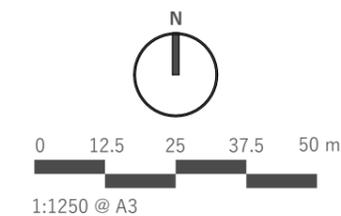


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email: rml@rmlconsult.com web: www.rmlconsult.com
Tel: +44(0)1824 704366
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PROJECT:
**LORETO CONVENT,
 LLANDUDNO**
 CLIENT:
**WALES & WEST
 HOUSING**

DRAWING TITLE:
LOCATION PLAN

PURPOSE OF ISSUE: PRELIMINARY
 STATUS: S3

DRAWING No: LCL-SAL-A1-XX-DR-A-0001
 PROJECT No: P1174

SCALE: 1 : 1250@A3
 REVISION: P01

APPENDIX B: Scheme Proposal – Indicative



1 Llys Clwyd, Cwrt Y Dderwen, Ffordd Celyn, Ruthin, Denbighshire LL15 1NJ
email: rml@rmlconsult.com web: www.rmlconsult.com
Tel: +44(0)1824 704366
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APPENDIX C: Relevant Protected Species Legislation

The following has been produced as a guide, to outline possible offences that could occur during the scheme. For a definitive list of all species of flora and fauna, and a full interpretation you should refer to relevant Acts listed below.

Conservation of Habitats and Species Regulations 2017 (as amended) by the Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019

Schedule 2 applies to all European Protected Species (EPS) which includes all bat species, otters, great crested newts, dormice, otters, sand lizards, smooth snake and natterjack toad amongst others. The protection afforded is overlapping but separate from the Wildlife and Countryside Act 1981 (as amended).

It is an offence:

- to deliberately capture, injure or kill
- to deliberately disturb
- to damage or destroy a breeding site or resting place of an EPS; this applies whether species are present or not.

The Wildlife and Countryside Act 1981 (as amended)

Applies to all wild birds where it is an offence:

- to kill, injure or take any wild bird (subject to certain exceptions)
- to take, damage or destroy a nest whilst it is in use or being built
- to take or destroy the egg of any wild bird

Schedule 1

It is also an offence to disturb any wild bird listed on Schedule 1 of the Wildlife & Countryside Act 1981 (as amended)

- while it is nest building
- at a nest containing eggs or young
- disturbs the dependant young of any such bird.

Schedule 5

For animals fully protected under Schedule 5 which includes all bats, great crested newts, otters, water voles, sand lizards, smooth snake and natterjack toad, it is an offence:

- to intentionally kill or injure or take
- to intentionally damage or destroy or obstruct access to any structure or place which a species uses for shelter or protection, at any time even if the animal is not there
- to intentionally disturb whilst it is occupying a place which it uses for shelter or protection
- to obstruct access to any structure or place which an animal uses for shelter or protection

Adder, grass snake, common lizard and slow worm are only protected from being killed or injured and the white-clawed crayfish is only protected from being taken.



1 Llys Clwyd, Cwrt Y Dderwen, Ffordd Celyn, Ruthin, Denbighshire LL15 1NJ
 email: rml@rmlconsult.com web: www.rmlconsult.com
 Tel: +44(0)1824 704366
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Schedule 9

Invasive non-native species are listed under Schedule 9. It is an offence:

- to plant or otherwise cause to grow in the wild any species listed on Schedule 9.

In addition, The Invasive Alien Species (Enforcement & Permitting Order took effect on the 1st December 2019. It introduces enforcement provisions, offences and penalties needed to comply with the requirements of EU Regulation (1143/2014) on the prevention and management of the introduction and spread of invasive alien species. The provisions apply to 66 species known as 'species of Union concern'. Under the Order, NRW and the police may impose criminal sanctions in Wales relating to an offence under the Order. As the regulator, NRW may also impose civil sanctions.

Licences may be issued under the Order allowing activities which are prohibited under the EU Regulation to be carried out. These activities can only be carried out in compliance with the conditions of a licence. Natural Resources Wales are the licensing body in Wales.



1 Llys Clwyd, Cwrt Y Dderwen, Ffordd Celyn, Ruthin, Denbighshire LL15 1NJ
email: rml@rmlconsult.com web: www.rmlconsult.com
Tel: +44(0)1824 704366
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APPENDIX D: Target Notes

Target Note	Comment
1	Area of Montbretia in the upper terrace of the gardens.
2	Area of defunct raised beds which has the potential to support reptiles e.g., slow worm.
3	Problematic plant butterfly bush
4	Missing mortar on the eastern edge of the roof of the garages.
5	Loose and missing tiles on single story roof.
6	Gaps under ridge tiles of the school hall.
7	Tradition loft space with a hole in the roof, allowing access for pigeons
8	Possible nesting material in boiler room 1.
9	Area of hardstanding forming the car park at the front of the site.



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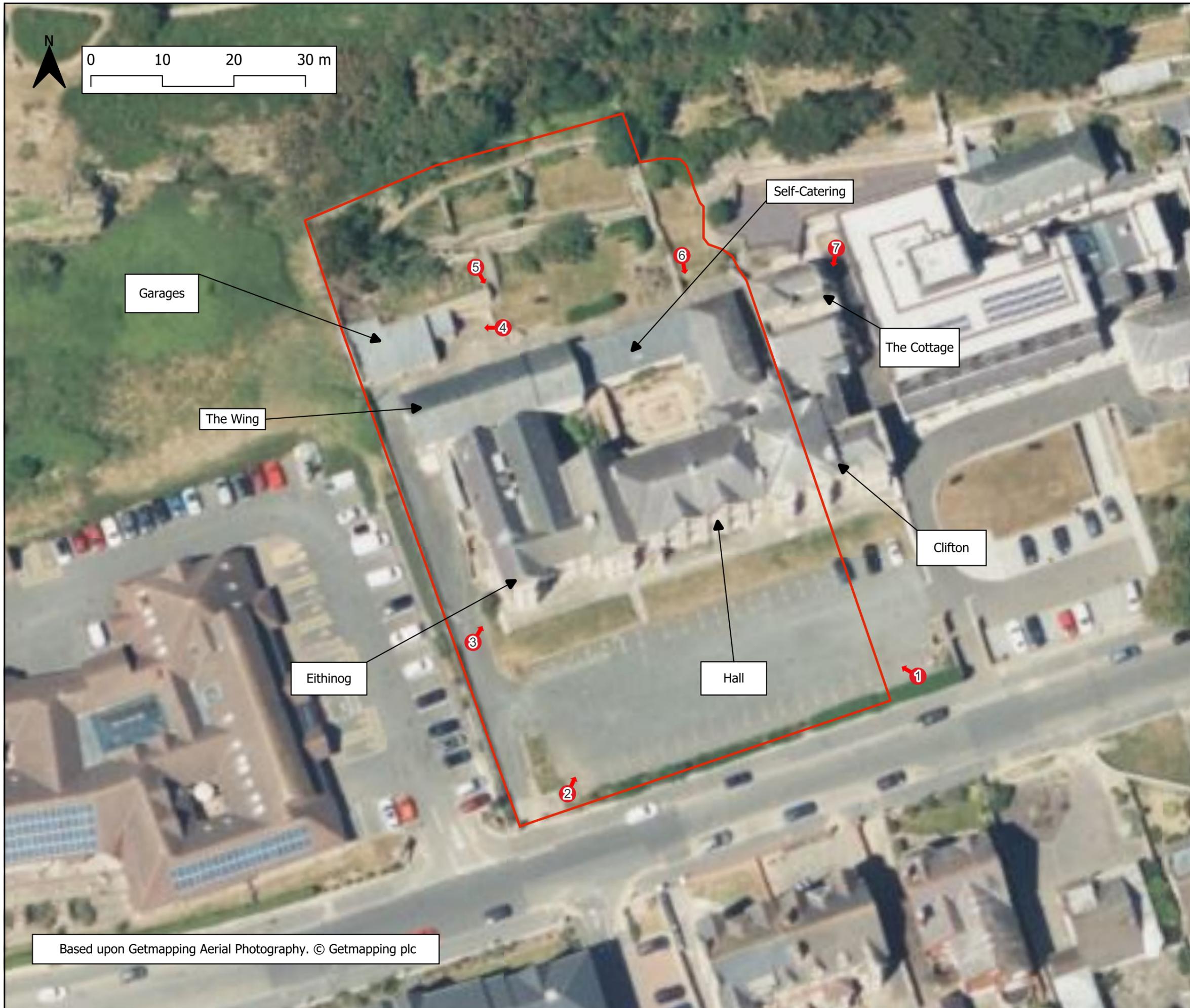


APPENDIX E Surveyor and Static Detector Locations



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WALES & WEST HOUSING

Enw project / Project name:

LORETO CONVENT

Teitl lluniad / Drawing title:

Bat Surveyor Locations #2

Eglurhad / Key:

— Red Line Boundary

📍 07/06/2023 surveyors locations

Graddfa / Scale (A3): 1:500 @ A3

Dyddiad / Date: July 2023

Rhif lluniad / Drawing number: 3260 / 03

Darparwyd gan / Prepared by:



Based upon Getmapping Aerial Photography. © Getmapping plc

Cleient / Client:

WALES & WEST HOUSING

Enw project / Project name:

LORETO CONVENT

Teitl lluniad / Drawing title:

Bat Surveyor Locations #2

Eglurhad / Key:

— Red Line Boundary

📍 05/07/2023-surveyors locations

Graddfa / Scale (A3): 1:500 @ A3

Dyddiad / Date: July 2023

Darparuwyd gan: KM

Gwirwyd gan: DH

Rhif lluniad / Drawing number: 3260 / 03

Copyright / Revision: 01

Darparuwyd gan / Prepared by:



1 Llys Cwyl, Cwm Y Dderwen, Ffordd Celys, Rullin, Derbyshire, LL15 1N3
Rif Ffôn/Tel: +44 (0)1824 794366, Ffôn/Fax: +44 (0)1824 795450
e-bodeb: email: rml@rmlconsult.com, Gwefay/Website: www.rmlconsult.com



Garages

The Wing

Eithinog

Hall

Clifton

The Cottage

Self-Catering

2

3

5

4

6

7

1

Based upon Getmapping Aerial Photography. © Getmapping plc



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WALES & WEST HOUSING

Enw project / Project name:

LORETO CONVENT

Teitl lluniad / Drawing title:

Static Detector Locations

Eglurhad / Key:

— Red Line Boundary

● 3260-static locations

Static detectors were deployed in two loft spaces in The Wing building.

A Static detector was deployed in the basement of Clifton building

A Static detector was deployed in the basement of Eithinogbuilding

Based upon Getmapping Aerial Photography. © Getmapping plc

Graddfa / Scale (A3): Dyddiad / Date: Darparuwyd gan: KM

1:500 @ A3 July 2023 Drawn by: DH

Rhif lluniad / Drawing number: 3260 / 04 Checked by: DH

Darparuwyd gan / Prepared by: Revisiwn: 01



1 Llys Clwyd, Cwm Y Dderwen, Ffordd Cefys, Rulins, Derbyshire, LL15 1N3
Rif Ffôn/Tel: +44 (0)1824 704366, Ffôn/Facs: +44 (0)1824 705450
e-bost/e-mail: rml@rmlconsult.com, Gwefay/Website: www.rmlconsult.com

APPENDIX F: Designated Sites



1 Llys Clwyd, Cwrt Y Dderwen, Ffordd Celyn, Ruthin, Denbighshire LL15 1NJ
email: rml@rmlconsult.com web: www.rmlconsult.com
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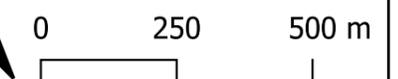
LORETO CONVENT

Teitl lluniad / Drawing title:

Designated sites

Eglurhad / Key:

-  SAC - Y Fenai a Bae Conwy/ Menai Strait and Conwy Bay
-  SAC - Great Orme's Head/ Pen y Gogarth SAC
-  SPA - Liverpool Bay / Bae Lerpwl (Wales)
-  SSSI - Pen Y Gogarth / Great Ormes Head
-  NNR - Maes - Y- Facrell, Pen Y Gogart
-  LNR - Great Orme's Head
- Site Boundary



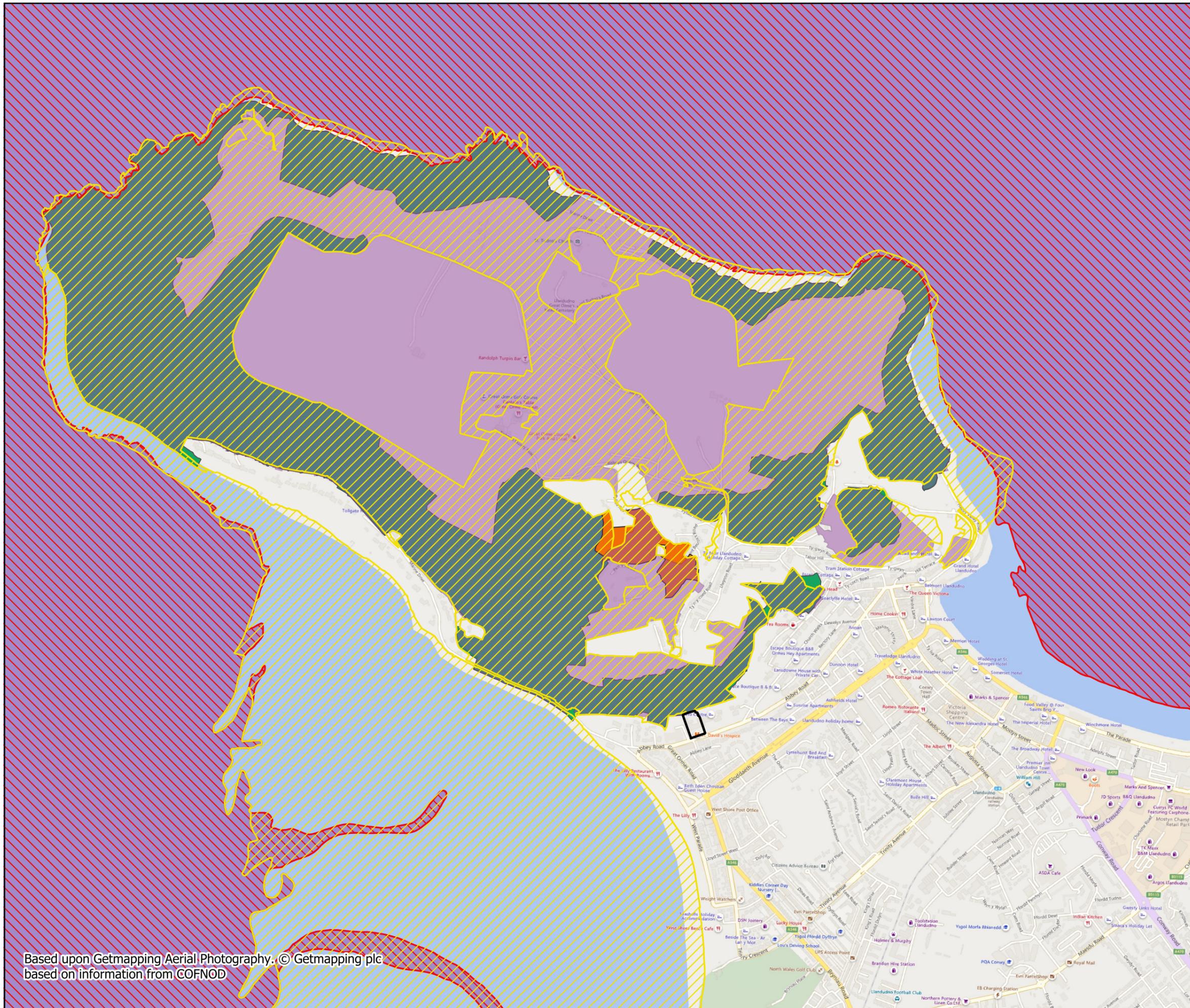
PRELIMINARY

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Rhif lluniad / Drawing number: 3260 / 02	Chwiliwyd gan: DH	Chwiliwyd gan: 01

Darparwyd gan / Prepared by:



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APPENDIX G: Phase 1 Plan



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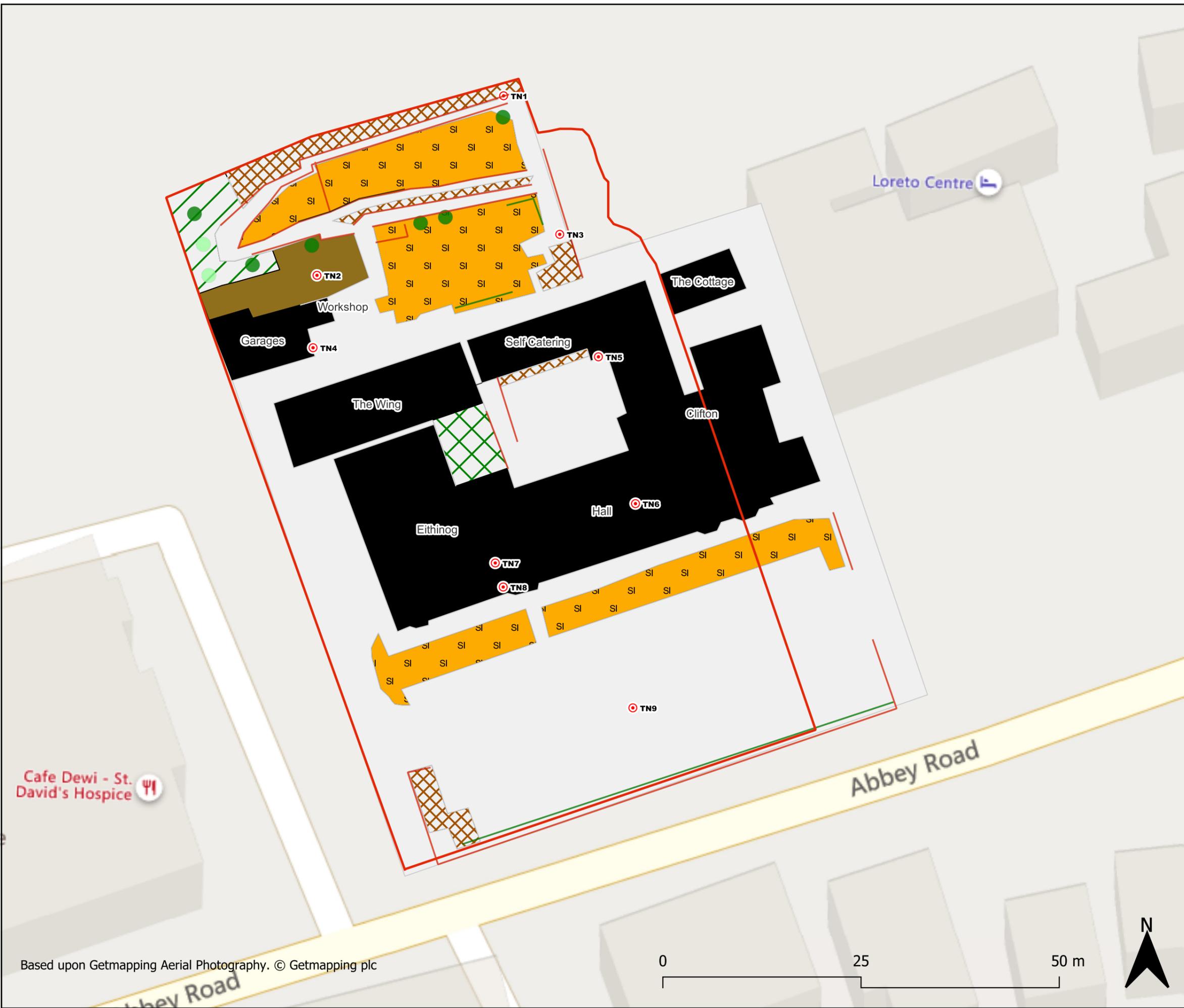
LORETO CONVENT

Teitl lluniad / Drawing title:

Phase 1 Plan

Eglurhad / Key:

-  A1.1.2 - Broadleaved woodland - plantation
-  A2.1 - Scrub - dense /continuous
-  B2.2 - Neutral grassland - semi-improved
-  J1.4 - Introduced shrub
-  J3.6 - Buildings
-  J5 - Hardstanding
-  Parkland, scattered trees, broad-leaved
-  Parkland, scattered trees, coniferous
-  J2.1.2 - Intact hedge: species-poor
-  J2.4 - Fence
-  J2.5 - Wall
-  Target Note



PRELIMINARY

Graddfa / Scale (A3): 1:450 @ A3	Dyddiad / Date: Mar 2023	Darlunwyd gan: Drews by: KM
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		Copyright: Revisiwn: 01

Darparwyd gan / Prepared by:



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APPENDIX H: Photographs

Photograph Reference for Phase 1 Survey



Photograph 1: front aspect of the main building, Eithnog, showing the semi-improved grassland bank.



Photograph 2: front aspect of the main building, school hall on the left of the photo and Clifton on the right. Also showing the semi-improved grassland bank.



Photograph 3: Rear view of the different sections of the buildings. The white building is the school hall.



Photograph 4: Possible nesting material within boiler room under Eithinog building.



Photograph 5: Boiler room under Clifton building.



Photograph 6: An example of one of the lofts with wooden trusses and rafters with bitumen felt lined slate tiles.



Photograph 7: An example of the lime white wash backing to slate roof tiles.



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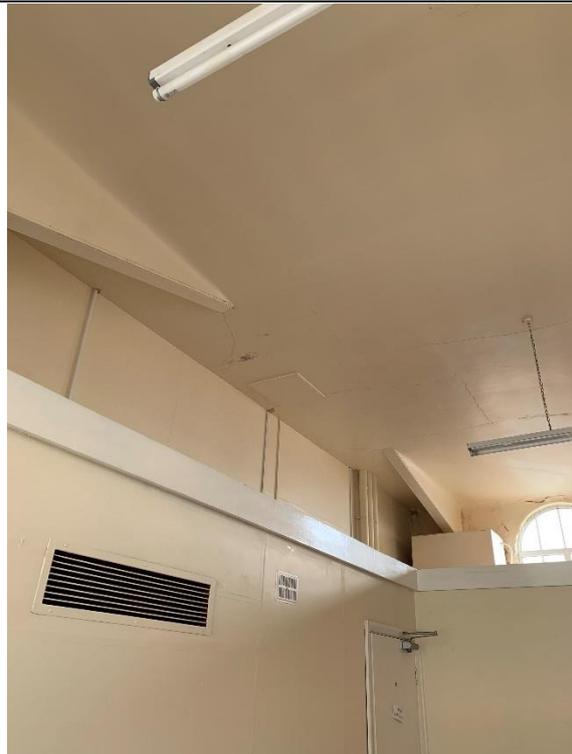
Photograph 8: An example of one of the rooms within the main buildings.



Photograph 9: An example of one of the internal corridors in the main building.



Photograph 10: Room above the school hall.



Photograph 11: Room above the school hall showing the loft access which was too high to reach.



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<p>Photograph 12: Pigeons in large loft space, with wooden trusses and rafters. Target Note 7.</p>	<p>Photograph 13: Lime white wash on one half of the roof and bitumen felt on the other half.</p>
	
<p>Photograph 14: Main school hall, currently full of furniture.</p>	<p>Photograph 15: Area of dense scrub in the inner court yard.</p>
	
<p>Photograph 16: Raised bed containing introduced shrub in the inner court yard.</p>	<p>Photograph 17: Area in the terraced gardens with raised beds which could provide suitable habitat for reptiles.</p>



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Photograph 18: Montbretia in the top terrace of the gardens.



Photograph 19: An example of the limestone walls within the gardens, suitable as a reptile habitat.



Photograph 20: The two garages and workshop.



Photograph 21: The species poor hedge at the front of the site along the Abbey Road boundary.



Photograph 22: Static in loft space of The Wing building.



Photograph 23: Static detector in the basement of Clifton.



Photograph 24: Static detector in the basement of Eithinog.



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APPENDIX H: Example bat, bird and hedgehog specifications



1 Llys Clwyd, Cwrt Y Dderwen, Ffordd Celyn, Ruthin, Denbighshire LL15 1NJ

email: rml@rmlconsult.com web: www.rmlconsult.com

Tel: +44(0)1824 704366

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Bat Boxes Links to suppliers¹⁶ and images	
<p>2FE Schwegler Wall-Mounted Bat Shelter</p> <p>https://www.arkwildlife.co.uk/2FE_Wall_Mounted_Bat_Shelter/</p>	
<p>1FQ Schwegler Bat Roost</p> <p>https://garden.jardinitis.com/schwegler-bat-roost-1fq</p>	
<p>1FE Schwegler Bat Access Panel</p> <p>https://www.nhbs.com/4?slug=integrated-batboxes</p>	
<p>Habibat Bat Box - Plain (For Rendering)</p> <p>https://www.nhbs.com/4?slug=integrated-batboxes</p>	

¹⁶ Other suppliers are available



Bird Boxes Links to suppliers¹⁷ and images	
<p>Schwegler 1SP Sparrow Terrace Nest Box</p> <p>https://garden.jardinitis.com/schwegler-1sp-sparrow-terrace-nest-box</p>	
<p>Woodstone Sparrow Nest Box</p> <p>https://www.nhbs.com/vivara-pro-woodstone-house-sparrow-nest-box</p>	
<p>Vivara Pro Woodstone Swift Nest Box</p> <p>Installed to the north west and/or north east elevations at least five metres above the ground, ensuring that there is unobstructed access for birds entering and leaving.</p> <p>https://www.swift-conservation.org/Nestboxes%26Attraction.htm</p> <p>https://www.nhbs.com</p>	
<p>Pro UK Rendered Integrated Swift Box</p> <p>Installed to the north west and/or north east elevations at least five metres above the ground, ensuring that there is unobstructed access for birds entering and leaving.</p> <p>https://www.swift-conservation.org/Nestboxes%26Attraction.htm</p> <p>https://www.nhbs.com</p>	

¹⁷ Other suppliers are available



APPENDIX I: Montbretia Factsheet



1 Llys Clwyd, Cwrt Y Dderwen, Ffordd Celyn, Ruthin, Denbighshire LL15 1NJ
email: rml@rmlconsult.com web: www.rmlconsult.com
Tel: +44(0)1824 704366
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Montbretia

Species Description

Scientific name: *Crocoshia x crocosmiiflora*

Hybrid of: *Crocoshia aurea* x *Crocoshia pottsii*

AKA: Coppertips, Falling Stars, Montbresia (Welsh)

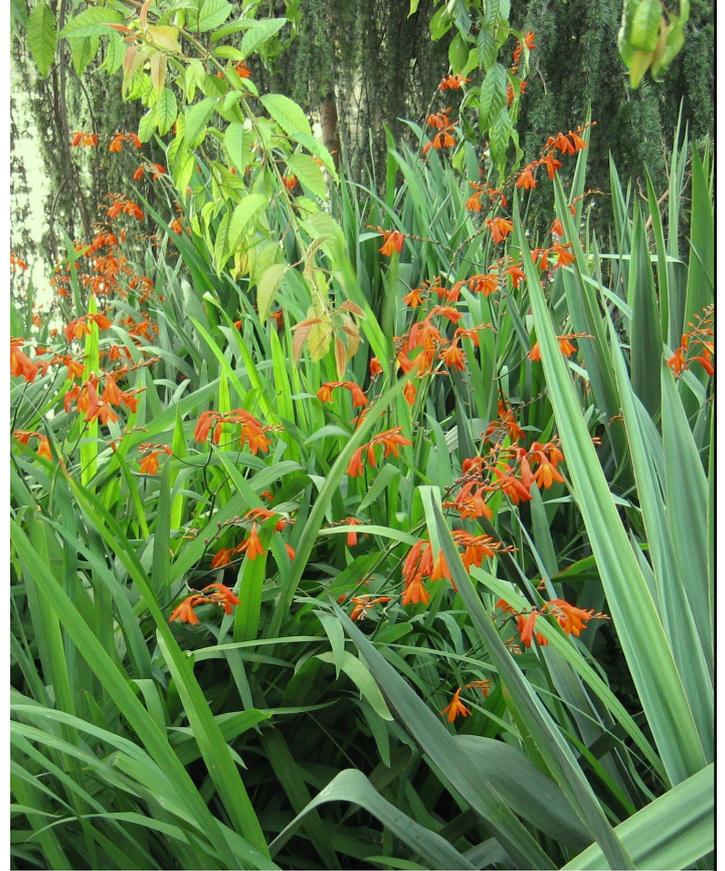
Native to: Hybrid, parent species from South Africa

Habitat: Hedgerows, road verges, banks of lakes and rivers, beside woods and waste land, widely grown in gardens

Crocoshia species are easily recognised when in flower by the distinct shape and colour of their flower heads. All are non-native in the UK. The hybrid montbretia, with relatively short stems and orange flowers, is the main species to have escaped into the wild; however, a number of other ornamental *Crocoshia* species are grown in gardens and other landscaped areas. When not in flower, *Crocoshia* species are more difficult to identify. Look for rusty brown dead leaves and remains of previous years flowering heads.

Montbretia was originally created in France from parent plants of South African origin. Introduced to the UK in 1880 as a garden plant. It escaped by 1911 both naturally and through the disposal of garden waste, and spread rapidly across the UK in the latter part of the 20th century. Can completely dominate habitat where it grows, sometimes excluding native plant species. Spreads mainly by rhizomes, rarely by seed.

Montbretia is listed under Schedule 9 to the Wildlife and Countryside Act 1981 with respect to England and Wales. As such, it is an offence to plant or otherwise allow this species to grow in the wild.



Key ID Features



Flowers orange and tubular in nodding clusters

Long stamens



Grows to 60cm tall, usually found in clusters on road verges and in hedge-

Leaves less than 3cm wide, upright, flat, spear shaped and bright green

Flowers borne on long spikes

Corm: a bulblike organ that provides the plant with energy



Identification throughout the year

Montbretia is easily distinguished from other species when it is in flower between July and September. Identification outside of this period is more difficult. A key feature is the dense stands that it forms, which can spread to cover large areas. In addition, its smooth, upright, green leaves are relatively characteristic (although these can be confused with iris species). Green leaves are usually present from spring to autumn; dead brown leaves, dead flowering stems and seed heads are present throughout winter. Identification can also be checked year round by digging up the plant's corm.



Seed head

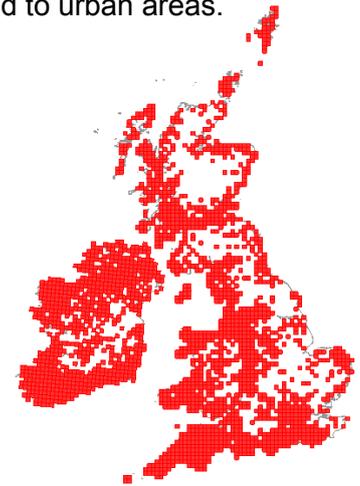


Dense stands present over winter

Distribution

Widespread, most common in western areas of England, Scotland, Wales and Ireland. Usually close to gardens. Not confined to urban areas.

Source: NBN Gateway. Check website for current distribution



Similar Species

Iris species
Native
(various species - example shown is stinking iris)



Iris flowers are distinctly different from montbretia

When not in flower iris (pictured) can be confused with montbretia



Similar shaped upright leaves with brown die back

Seed heads of iris differ from those of montbretia



Crocosmia species
Non-native
(various species - example shown is 'Lucifer' variety)



Other *Crocosmia* species are rarely found outside of the landscaped environment and rarely behave in an invasive manner. *Crocosmia* species in the wild that are invasive are most likely to be montbretia.

Flowers often different colour (this variety is a vivid red and taller than montbretia).



References and further reading:

Blamey, M, Fitter, R and Fitter, A (2003) "The Wild Flowers of Britain and Ireland. The Complete Guide to the British and Irish Flora." A & C Black
 Preston, C D, Pearman, D A and Dines, T A (editors) (2002) "New Atlas of the British and Irish Flora". Oxford University Press
 Stace, C (1999) "Field Flora of the British Isles". Cambridge University Press