



St Asaph Solar Farm

Tree Survey Report and Arboricultural Impact Assessment

Anesco Ltd.

Prepared by:

SLR Consulting Limited

Suite 5, Brindley Court, Gresley Road, Shire Business Park, Worcester, WR4 9FD

SLR Project No.: 406.065274.00001

11 April 2025

Revision: 03

Revision Record

| Revision | Date | Prepared By | Checked By | Authorised By |
|----------|---------------|-------------|------------|---------------|
| 01 | 5 March 2025 | MMS | RB | RB |
| 02 | 2 April 2025 | MMS | RB | RB |
| 03 | 11 April 2025 | AG | MMS | MMS |
| | | | | |
| | | | | |

Basis of Report

This document has been prepared by SLR Consulting Limited (SLR) with reasonable skill, care and diligence, and taking account of the timescales and resources devoted to it by agreement with Anesco Ltd. (the Client) as part or all of the services it has been appointed by the Client to carry out. It is subject to the terms and conditions of that appointment.

SLR shall not be liable for the use of or reliance on any information, advice, recommendations and opinions in this document for any purpose by any person other than the Client. Reliance may be granted to a third party only in the event that SLR and the third party have executed a reliance agreement or collateral warranty.

Information reported herein may be based on the interpretation of public domain data collected by SLR, and/or information supplied by the Client and/or its other advisors and associates. These data have been accepted in good faith as being accurate and valid.

The copyright and intellectual property in all drawings, reports, specifications, bills of quantities, calculations and other information set out in this report remain vested in SLR unless the terms of appointment state otherwise.

This document may contain information of a specialised and/or highly technical nature and the Client is advised to seek clarification on any elements which may be unclear to it.

Information, advice, recommendations and opinions in this document should only be relied upon in the context of the whole document and any documents referenced explicitly herein and should then only be used within the context of the appointment.



Executive Summary

On behalf of Anesco Ltd, SLR Consulting Limited has carried out a Tree Survey in accordance with BS 5837:2012 'Trees in Relation to Design, Demolition and Construction-Recommendations' (BS 5837:2012) on the 18th May 2023 with a follow up survey carried out from the 11th - 13th February 2025.

The survey records all trees within and adjacent to the site, recording a number of parameters including species, crown spread and Root Protection Area (RPA).

The RPA of any given tree is the area of ground around that tree which should not be disturbed by excavation, compaction, changes in level or other construction/demolition operations. The extent of the RPA is calculated in accordance with BS 5837:2012 and is an important metric for understanding the impact a proposal will have on tree removal and retention and how to protect those trees retained.

The survey recorded:

- One hundred and sixteen individual trees (fifty-two category A, thirty-nine category B, seventeen category C and eight category U trees).
- Twenty-three tree groups (nine category A, nine category B and five category C).
- Twenty-six category C hedgerows.

The proposed development's impact upon trees can be summarised as follows:

Sections of hedgerow to be removed:

H26, H33, H44, H60, H66, H101, H104, H137 (all category C).

Trees requiring 'No Dig' construction within their RPAs only:

T68 (category A), T69 (category B), T70 (category B).

Trees requiring 'No Dig' construction within their RPAs and to be protected with Tree Protection Fencing:

T24 (category U), T30 (category A), T31 (category U), T32 (category B), T149 (category C), T84 (category A), T85 (category A), T86 (category B), T164 (category B).

Trees to be protected with Tree Protection Fencing:

T34 (category A), T35 (category B), T36 (category B), T37 (category A), T40 (category A), T61 (category B), T100 (category A), T140 (category C).

Incursion into the RPAs of the following trees/groups by the security fencing:

T41 (category B), T48 (category A), T50 (category A), T56 (category B), G59 (category A), T97 (category U), T123 (category A), T143 (category A), T146 (category U), T147 (category A).

Trees requiring 'No Dig' construction within their RPAs, are to be protected with Tree Protection Fencing and have incursions into their RPAs by the security fence:

T98 (category A).

Trees to be crown reduced and/or lifted to facilitate the required clearances over the proposed track:

T149 (category C)



All remaining trees/groups and hedgerows are to be retained.

It is recommended that all effort should be made to retain trees of high and moderate value. Trees of low value and those unsuitable for retention should not be seen as a constraint to the development, however where practicable and appropriate, the retention of lower value trees may be beneficial, particularly where they have the potential to offer future amenity, ecological, or landscape value.

No trees within the site are protected by Tree Preservation Orders or are located within a Conservation Area.

There is an area within the site that is listed as 'Plantation on Ancient Woodland Site'. This has been referred to within the tree survey schedule (Appendix A) and on the Tree Constraints Plans as G12. There is also an area adjacent to the site referred to as G67 that is listed as 'Restored Ancient Woodland Site'.

In accordance with standing advice from Forestry Commission England and Natural England, a minimum 15-metre buffer has been implemented from the edge of both areas of ancient woodland. This buffer is intended to protect the ecological integrity of the woodland and its associated root protection areas and should be treated as a constraint to development.



Table of Contents

| | |
|---|-----------|
| Basis of Report | i |
| Executive Summary | ii |
| Acronyms and Abbreviations | vi |
| 1.0 Introduction | 7 |
| 1.1 Purpose of the report..... | 7 |
| 1.2 The Scheme..... | 7 |
| 1.3 Methodology and Scope..... | 7 |
| 1.3.1 Categorisation of Arboricultural Features | 7 |
| 1.3.2 Root Protection Areas (RPA)..... | 8 |
| 1.4 Limitations and Assumptions | 8 |
| 2.0 General Arboricultural Principles | 9 |
| 2.1 General Principles | 9 |
| 2.2 Below Ground Constraints..... | 9 |
| 2.3 Soils | 10 |
| 2.4 Above Ground Constraints | 10 |
| 2.5 Trees and Risk in the Context of Development..... | 10 |
| 2.6 Trees and Wildlife..... | 11 |
| 3.0 Tree Survey | 11 |
| 3.1 Desk Study..... | 11 |
| 3.1.1 Tree Preservation Orders | 11 |
| 3.1.2 Conservation Areas | 11 |
| 3.1.3 Ancient Woodland | 11 |
| 3.1.4 Ancient and Veteran Trees | 12 |
| 3.2 Field Survey | 12 |
| 3.2.1 General Site Observations | 12 |
| 3.2.2 Tree Survey Results..... | 12 |
| 4.0 Arboricultural Impact Assessment | 14 |
| 5.0 Tree Related Constraints and Opportunities | 17 |
| 5.1 Town and Country Planning Act | 17 |
| 5.2 Felling Licence | 17 |
| 5.3 Tree Protection..... | 18 |
| 5.4 Works within a Root Protection Area | 18 |
| 5.5 Tree Works..... | 19 |
| 5.6 The Future Impact of Trees | 19 |
| 5.7 Tree Planting..... | 19 |



| | | |
|------------|--|-----------|
| 6.0 | Conclusions | 20 |
| 7.0 | Preliminary Arboricultural Method Statement | 21 |
| 7.1 | Overview | 21 |
| 7.2 | Protective Fencing | 21 |
| 7.6 | Installation of fencing within RPAs | 23 |
| 7.7 | Installation of photovoltaic arrays within RPAs | 24 |
| 8.0 | References | 25 |
| 9.0 | Closure | 25 |

Tables

| | |
|---|------|
| Table 1-1: Colour Coding of BS 5837:2012 Categories | 8 |
| Table 3-1: Arboricultural Features by BS 5837:2012 Category | 12 |
| Table 4-1: Summary of Tree Removal and Mitigation | 14 |
| Table A-1: Tree Survey Schedule | A-1 |
| Table A-2: Tree Survey Schedule Key | A-13 |
| Table A-3: Cascade Chart of Tree Quality Assessment (Taken from BS 5837:2012) | A-15 |

Figures in Text

| | |
|---|----|
| Figure 7-1: Example of Protective Fencing Signs | 22 |
|---|----|

Appendices

| | |
|-------------------|--|
| Appendix A | Tree Survey Schedule |
| Appendix B | Tree Constraints Plans |
| Appendix C | Tree Protection Fencing Illustrations |
| Appendix D | Glossary of Arboricultural Terms |
| Appendix E | Tree Protection Plans |



Acronyms and Abbreviations

| | |
|-----|----------------------------------|
| AIA | Arboricultural Impact Assessment |
| AMS | Arboricultural Method Statement |
| CEZ | Construction Exclusion Zone |
| DBH | Diameter at Breast Height |
| RPA | Root Protection Area |
| TCP | Tree Constraints Plan |
| TPO | Tree Preservation Order |
| TPF | Tree Protection Fencing |
| TPP | Tree Protection Plan |



1.0 Introduction

1.1 Purpose of the report

On behalf of Anesco Ltd, SLR Consulting Limited has undertaken a Tree Survey at their site located south-west of the village of St Asaph in North Wales. The Tree Survey Report has been produced with reference to 'BS 5837:2012 – Trees in relation to design, demolition and construction – Recommendations' (BSI, 2012).

1.2 The Scheme

The proposed development comprises the installation of a ground-mounted photovoltaic solar farm. The scheme includes the construction of solar arrays, inverter/transformer stations, internal access tracks, security fencing, CCTV, and other associated infrastructure and ancillary works.

Connection to the local electricity network will be achieved via an underground cable route linking the site to the St Asaph substation. The cable is proposed to run beneath the public highway, following a route along Cefn Road, Glascoed Road, and Cwttir Road. It is anticipated that all cabling works will be undertaken within the highway boundary

1.3 Methodology and Scope

The tree survey was conducted in line with the methodology detailed within BS 5837:2012 and included all trees within the proposed development boundary and adjacent off-site trees where there is potential for development within the site to cause direct impact. The data recorded is shown in Appendix A (Tree Survey Schedule) and methodology used is summarised in Tables A-1 (Tree Survey Schedule Key) and A-2 (Cascade Chart of Tree Quality Assessment (Taken from BS 5837:2012)).

The tree survey data has been used to produce Tree Constraints Plans (TCP) (Appendix B). This depicts the Root Protection Area (RPA) and canopy constraints posed by the arboricultural features within the survey area.

Trees are recorded as the following arboricultural features: individual trees, tree groups, woodlands or hedgerows. In accordance with paragraph 4.4.2.3 of BS 5837:2012, trees that *“form cohesive arboricultural features either aerodynamically (e.g. trees that provide companion shelter), visually (e.g. avenues or screens) or culturally, including for biodiversity (e.g. parkland or wood pasture) have been recorded as groups.*

The locations of all arboricultural features illustrated on the TCP have been based on a topographical survey supplied by 3D Land Surveys Limited (drawing reference St Asaph_Topo_01_3D. Drawing number – 21-101 (dated 16/01/25).

1.3.1 Categorisation of Arboricultural Features

In accordance with BS 5837:2012, all arboricultural features have been categorised as A, B, C or U, categories A to C are also categorised for their quality within the three subcategories of 1 (Arboricultural), 2 (Landscape) and/or 3 (Cultural). A description of each category can be found in Table A-2 (Cascade Chart of Tree Quality Assessment) of Appendix A.

The trees illustrated by the TCP are presented in line with 'Table 2: Identification of tree categories' of BS 5837:2012, reproduced below.



Table 1-1: Colour Coding of BS 5837:2012 Categories

| Category | Colour | RGB Code |
|----------|-------------|-------------|
| U | Dark red | 127,0,0 |
| A | Light green | 0,255,0 |
| B | Mid blue | 0,0,255 |
| C | Grey | 091,091,091 |

1.3.2 Root Protection Areas (RPA)

The RPA provides a notional circular buffer around a tree, based on the stem diameter measured at 1.5m above ground level in accordance with Annex C of BS 5837:2012.

BS 5837:2012 defines the RPA as representing “*the minimum area around a tree deemed to contain sufficient roots and rooting volume to maintain the tree’s viability, and where the protection of the roots and soil structure is treated as a priority.*”

However, this is not necessarily representative of the full extent of a tree’s root system e.g., the roots may extend beyond the RPA boundary on one side and remain inside it on the opposite, dependent on ground conditions and/or other pre-existing site conditions. The root network extent is dependent on many factors including species, age, soil conditions, topography and exposure etc. The assessment has not taken consideration of these above and shows RPAs as an indicative circular form as per BS 5837:2012.

The RPA illustrated for tree groups and woodland have been calculated based on the maximum stem diameter taken for tree groups, and the maximum stem diameter for trees along the edge of woodland.

In accordance with paragraph 5.2.1 of BS 5837:2012, the TCP illustrates the RPA of category A, B and C trees only. It should be noted that although category U trees are defined as “*Those in such a condition that they cannot realistically be retained as living trees in the context of the current land use for longer than 10 years*” they may provide conservation, heritage or landscape value, and be desirable to retain where issues concerning their safety can be appropriately managed.

The RPA for trees identified as Veteran have been calculated in accordance with current standing advice ([Ancient woodland, ancient trees and veteran trees: advice for making planning decisions - GOV.UK](#)) which states: “*the buffer zone should be at least 15 times larger than the diameter of the tree. The buffer zone should be 5 metres from the edge of the tree’s canopy if that area is larger than 15 times the tree’s diameter.*”

In accordance with the above standing advice, a 15m buffer has been applied to all ancient woodland.

1.4 Limitations and Assumptions

Limitations to the tree survey include the following key points:

- No soil survey data is included in this report.
- No data for individual trees within surveyed groups was recorded. An exception to this is when a tree was deemed notable within a group.
- Where access was restricted, tree measurement data has been estimated. This has been indicated within the Tree Survey Schedule (Section 4.3) with the use of an ‘#’ next to the tree number.



- The health and condition of trees can change rapidly and all trees, even healthy ones, are at risk from unpredictable climatic and man-made events. This report is based on the observed health and structural condition of the trees at the time of survey by suitably qualified inspectors. The health, condition and safety of trees should be checked on a basis commensurate with the level of risk and preferably on an annual basis, as recommended in Common Sense Risk Management of Trees (National Tree Safety Group, 2024). The tree survey conducted for this report is not a tree health and safety survey and should not be used as such.
- A search for symptoms of disease, parasites, or fungi that may be affecting trees was undertaken as part of the survey and noted where identified. However, symptoms are not always apparent, therefore it is possible that trees affected by disease / parasites / fungi are present within the survey area but could not be identified by surveyor.
- Where the main trunks of trees have limited access due to dense vegetation, epicormic growth or are ivy (*Hedera helix*) clad, a full inspection of the tree(s) was not possible. As such, the category grading for these trees should be considered provisional. Further inspection may be necessary following the removal of the obstruction.
- The identification of veteran trees is limited to the definition within NPPF Annex 2 only. Trees meeting the definition of 'veteran' as defined within the Biodiversity Gain Requirements (Irreplaceable Habitat) Regulations 2024 are not recorded.

2.0 General Arboricultural Principles

2.1 General Principles

Trees are dynamic living organisms which provide essential benefits to society and the wider environment. Any proposed development with the potential to impact on trees must take into consideration the value of trees on site, the impact of any proposed activity, and any potential future conflicts on the site. Suitable measures to safeguard retained trees or mitigate the loss of trees (to be removed) will need to be fully considered and may be subject to a condition of planning consent.

Tree branches and roots frequently grow across site boundaries and off-site trees can pose a constraint and should be carefully considered when assessing the developable space within a site.

2.2 Below Ground Constraints

Tree roots and the soil environment in which they grow need to be protected if the tree is to be retained. Trees grow in association with fungi and other soil organisms which are of key importance to tree health. Roots are essential for anchorage, the uptake of water and nutrients, and the storage of energy (carbohydrates) for the future growth and function of the tree.

Roots can be damaged by physical severance or wounding (e.g., following excavation of the soil) which can lead to the development of decay and a decline in vitality and/or instability. Raising the soil level can compact the soil and create soil unsuitable for root growth. Toxic materials discharged into the soil (such as cement-based aggregates, fuel and chemicals) can lead to root death and dysfunction. Soils can be compacted to levels inhospitable to tree growth with even a single pass of machinery, regular pedestrian traffic or the storage of plant and materials. Relieving compaction can be problematic and may require costly remedial works. Changes in drainage/water levels can also have significant long-term impacts for tree health.



The effects of these incursions may take many years to manifest, with a resulting decline in amenity value and potentially the death or failure of the tree. It should be noted that older trees are particularly sensitive to damage and changes in conditions.

The RPA is a notional area considered to be the minimum zone that must be protected to avoid any adverse impacts on retained trees. This area is deemed to be particularly important for tree stability, growth, function and health. However, roots may extend far greater distances, with the distribution of the root system relating directly to the availability of suitable conditions for growth (namely oxygen, water and nutrients). It is accepted that tree roots grow predominantly near the surface, with 80-90% being located in the upper 60cm of soil, however, roots may develop at deeper levels where conditions allow.

The RPA of the existing tree stock is an important material consideration when assessing site constraints and planning development activities. The default position should be that all development, including any associated services will occur outside the RPAs of retained trees. Where this is unavoidable, it may be appropriate to use special measures to install structures, services or surfacing within RPAs which allow the protection of roots and soil structure which are essential for tree growth and keep any incursion to a minimum. Further steps to improve or increase the useable rooting area available to the tree may also be required.

2.3 Soils

On shrinkable clay soil, tree growth can lead to the differential movement of structures as moisture is removed from the soil during the growing season. Soils must be carefully assessed. Where trees which predate existing structures are to be removed, this can result in heave as the soils are re-wet.

The advice of a suitably qualified engineer should be obtained to inform any potential issue of heave. Specific advice in relation to this issue is beyond the scope of this report.

2.4 Above Ground Constraints

Tree stems and branches can restrict available space on a development site. Damage or wounding (including excessive pruning) can significantly reduce the amenity contribution of the tree and may lead to the development of dysfunction and decay, with significant long-term implications for tree health. The future impact of existing trees should be carefully considered, including individual species characteristics (such as potential future size, fruit fall, shade etc.) and how the tree will interact with any proposed development and future land use. Annual tree growth can lead to direct damage if stems/branches (or roots) come into physical contact with structures and this should also be taken into consideration.

2.5 Trees and Risk in the Context of Development

Tree owners/managers have a legal duty to prevent foreseeable harm. It is generally accepted that this duty can be fulfilled by undertaking proactive inspections of significant trees to identify obvious defects and by taking appropriate remedial action or gaining further advice as appropriate.

Further guidance is available from the National Tree Safety Group (<https://ntsgroup.org.uk/>)

The tree survey carried out as the basis of this report is primarily for planning purposes, focusing on the quality and benefits of the trees and is not specifically designed to assess the safety of the trees identified. However, when obvious issues have been identified recommendations have been included in the Tree Survey Schedule (Table 3-2, Section 3.5).

The Construction (Design and Management) Regulations (2015) states that developers and contractors have responsibilities for health and safety as a result of their actions. Should trees be left in an unstable or hazardous condition the Health and Safety Executive (HSE) could



seek to prosecute those responsible along with the potential for further civil claims for damages.

2.6 Trees and Wildlife

Full consideration must be given to the presence of species protected under the Wildlife and Countryside Act (1981 - as amended), the Countryside Rights of Way Act (2000) and the Conservation of Habitats and Species Regulations (2017), in particular the presence of bats and nesting birds. It is recommended that wherever possible, significant tree/hedge works take place outside of the typical bird nesting season, typically March to August, but this may vary regionally and advice from a suitably qualified ecologist should be sought. The advice of a suitably qualified ecologist is also recommended in relation to any potential impacts on protected species.

3.0 Tree Survey

The site was visited and surveyed by a qualified SLR arboriculturist on the 18th May 2023 with a follow up survey carried out from the 11th - 13th February 2025.

3.1 Desk Study

3.1.1 Tree Preservation Orders

A Tree Preservation Order (TPO) check was conducted using the interactive map found on the Denbighshire County Council website (<https://maps.denbighshire.gov.uk>) on the 19th February 2025 to identify the presence of any TPOs within the survey area.

This check confirmed that there are no trees within the site that are covered by a Tree Preservation Order.

3.1.2 Conservation Areas

A Conservation Area check was conducted using the interactive map found on the Denbighshire County Council website (<https://maps.denbighshire.gov.uk>) on the 19th February 2025 to identify the presence of any Conservation Areas within the survey area.

This check confirmed that the site is not located within a Conservation Area.

3.1.3 Ancient Woodland

The Ancient Woodland Inventory was checked on the 19th February 2025 for the presence of ancient woodland within or adjacent to the study area. This inventory is located on the Welsh Government website – Data Maps Wales.

(https://datamap.gov.wales/layers/inspire-nrw:NRW_Ancient_Woodland_Inventory_2021).

This dataset comprises the boundaries of Ancient Woodland sites in Wales. Each site is categorised as either Ancient Semi Natural Woodland (ASNW), Restored Ancient Woodland Site (RAWS), Plantation on Ancient Woodland Site (PAWS) or Ancient Woodland Site of Unknown Category (AWSU).

There is an area within the site that is listed as 'Plantation on Ancient Woodland Site'. This has been referred to within the Tree Survey Schedule (Appendix A) and on the Tree Constraints Plans as G12. There is also an area adjacent to the site referred to as G67 that is listed as 'Restored Ancient Woodland Site'.



3.1.4 Ancient and Veteran Trees

The Ancient Tree Inventory (<https://ati.woodlandtrust.org.uk>) was checked on 19th February 2025 for the presence of verified veteran/ancient trees within the survey area. National Planning Policy Framework (Ministry of Housing, Communities & Local Government, 2024) refers to veteran trees as “*irreplaceable habitat*” which due to their “*age, size and condition, is of exceptional biodiversity, cultural or heritage value*”.

No trees within the site boundary appeared within this inventory. SLR’s qualified arboriculturists did not identify any trees, during survey, which they considered ancient or veteran (as defined within NPPF Annex 2, Dec 2024).

3.2 Field Survey

3.2.1 General Site Observations

The site is comprised of a mixture of arable and grazed meadow fields. They are bounded by individual hedgerows, trees, or tree groups/woodland. A number of these wooded areas are designated as Ancient Woodland. The predominant species within the site are oak and ash. Many of the ash trees on the site are infected with ash die-back disease (*Hymenoscyphus fraxineus*) and as such will have a limited life expectancy. Hedgerow species are mainly hawthorn (*Crataegus monogyna*) and blackthorn (*Prunus spinosa*).

3.2.2 Tree Survey Results

The full findings of the tree survey are presented in the Appendix A (Tree Survey Schedule) and Appendix B (Tree Constraints Plans).

Table 3-1: Arboricultural Features by BS 5837:2012 Category.

| Category | Trees | Tree Groups | Hedgerows | Totals |
|---------------|------------|-------------|-----------|------------|
| A | 52 | 9 | 0 | 61 |
| B | 39 | 9 | 0 | 48 |
| C | 17 | 5 | 26 | 48 |
| U | 8 | 0 | 0 | 8 |
| Totals | 116 | 23 | 26 | 165 |

The following general principles should be applied when considering development within the site:

- Category ‘A’ trees are of high quality and value and should be retained.
- Category ‘B’ trees are of moderate quality and value and should be considered for retention where possible, although care should be taken to avoid misplaced retention. Any scheme should consider the retention and protection of trees, but also the tree’s future growth.
- Category ‘C’ trees are of low quality and value and should not place a constraint on the proposals.
- From an arboricultural point of view, the Category ‘U’ trees cannot realistically be considered for retention as a living tree in the context of the current land use due to their low life expectancy of less than 10 years in their current poor condition.





4.0 Arboricultural Impact Assessment

The Arboricultural Impact Assessment (AIA) sets out the direct and indirect impacts of the proposed development on the trees on or immediately adjacent to the site and provides suitable mitigation measures to allow for the successful retention of all the retained trees or to compensate for trees to be removed, where appropriate.

The table below provides a summary of the trees to be removed and any surgery, or other mitigation works required in order to keep retained trees in a safe and healthy manner and are illustrated on the Tree Protection Plans (Appendix E).

Table 4-1: Summary of Tree Removal and Mitigation.

| Tree/Group/Hedge to be removed | Tree/Group/Hedge requiring mitigation measures to be retained | | |
|------------------------------------|---|---|----------|
| Tree/ Group/ Hedge Number | Species | Comments | Category |
| T24 | Ash (<i>Fraxinus excelsior</i>) | Incursion into RPA by proposed access track. Track within the RPA to be constructed using 'no dig construction method' (see Section 7.5). Protect with Tree Protection Fencing (see Section 7.2). | U |
| H26 | Hawthorn (<i>Crataegus monogyna</i>) | Remove small section of hedge to allow for the widening of the access track. | C2 |
| T30 | Common Oak (<i>Quercus robur</i>) | Incursion into RPA by proposed access track. Track within the RPA to be constructed using 'no dig construction method' (see Section 7.5). Protect with Tree Protection Fencing (see Section 7.2). | A3 |
| T31 | Ash (<i>Fraxinus excelsior</i>) | Incursion into RPA by proposed access track. Track within the RPA to be constructed using 'no dig construction method' (see Section 7.5). Protect with Tree Protection Fencing (see Section 7.2). | U |
| T32 | Common Oak (<i>Quercus robur</i>) | Incursion into RPA by proposed access track. Track within the RPA to be constructed using 'no dig construction method' (see Section 7.5). Protect with Tree Protection Fencing (see Section 7.2). | B1 |
| H33 | Hawthorn (<i>Crataegus monogyna</i>) | Remove a section of hedge to allow for the construction of proposed security fence. | C2 |
| T34 | Common Oak (<i>Quercus robur</i>) | Protect with Tree Protection Fencing (see Section 7.2). | A3 |
| T35 | Common Oak (<i>Quercus robur</i>) | Protect with Tree Protection Fencing (see Section 7.2). | B1 |
| T36 | Common Oak (<i>Quercus robur</i>) | Protect with Tree Protection Fencing (see Section 7.2). | B3 |



| Tree/ Group/ Hedge Number | Species | Comments | Category |
|------------------------------------|---|--|----------|
| T37 | Oak (<i>Quercus</i> sp.) | Protect with Tree Protection Fencing (see Section 7.2). | A2 |
| T40 | Oak (<i>Quercus</i> sp.) | Protect with Tree Protection Fencing (see Section 7.2). | A3 |
| T41 | Oak (<i>Quercus</i> sp.) | Incursion into RPA by proposed security fence (see Section 7.6 for details of installation). | B1 |
| H44 | Hawthorn (<i>Crataegus monogyna</i>) | Remove a section of hedge to allow for the construction of proposed security fence. | C2 |
| T48 | Common Oak (<i>Quercus robur</i>) | Incursion into RPA by proposed security fence (see Section 7.6 for details of installation). | A2 |
| T50 | Oak (<i>Quercus</i> sp.) | Incursion into RPA by proposed security fence (see Section 7.6 for details of installation). | A2 |
| T56 | Oak (<i>Quercus</i> sp.) | Minor incursion into RPA by proposed security fence (see Section 7.6 for details of installation). | B1 |
| G59 | Oak (<i>Quercus</i> sp.) Willow (<i>Salix</i> sp.) Holly (<i>Ilex aquifolium</i>) Hawthorn (<i>Crataegus monogyna</i>) | Minor incursion into RPA by proposed security fence (see Section 7.6 for details of installation). | A2 |
| H60 | Hawthorn (<i>Crataegus monogyna</i>) Ash (<i>Fraxinus excelsior</i>) | Remove section of hedge to allow for the construction of proposed security fence. | C2 |
| T61 | Oak (<i>Quercus</i> sp.) | Protect with Tree Protection Fencing (see Section 7.2). | B1 |
| H66 | Hawthorn (<i>Crataegus monogyna</i>) Hazel (<i>Corylus avellana</i>) Elder (<i>Sambucus nigra</i>) | Remove a section of the hedge to allow for the construction of the proposed access track. | C2 |
| T68 | Oak (<i>Quercus</i> sp.) | Incursion into RPA by proposed access track. Track within the RPA to be constructed using 'no dig construction method' (see Section 7.5). | A2 |
| T69 | Oak (<i>Quercus</i> sp.) | Incursion into RPA by proposed access track. Track within the RPA to be constructed using 'no dig construction method' (see Section 7.5). | B1 |
| T70 | Oak (<i>Quercus</i> sp.) | Incursion into RPA by proposed access track. Track within the RPA to be constructed using 'no dig construction method' (see Section 7.5). | B1 |
| T84 | Oak (<i>Quercus</i> sp.) | Incursion into RPA by proposed access track. Track within the RPA to be constructed using 'no dig construction method' (see Section 7.5). Protect with Tree Protection Fencing (see Section 7.2). | A1 |
| T85 | Oak (<i>Quercus</i> sp.) | Incursion into RPA by proposed access track. Track within the RPA to be constructed using 'no dig construction method' (see Section 7.5). Protect with Tree Protection Fencing (see Section 7.2). | A1 |



| Tree/ Group/ Hedge Number | Species | Comments | Category |
|------------------------------------|--|--|----------|
| T86 | Oak (<i>Quercus</i> sp.) | Incursion into RPA by proposed access track. Track within the RPA to be constructed using 'no dig construction method' (see Section 7.5). Protect with Tree Protection Fencing (see Section 7.2). | B2 |
| T97 | Oak (<i>Quercus</i> sp.) | Minor incursion into RPA by proposed security fence (see Section 7.6 for details of installation). | U |
| T98 | Oak (<i>Quercus</i> sp.) | Incursion into RPA by proposed access track. Track within the RPA to be constructed using 'no dig construction method' (see Section 7.5). Incursion into RPA by proposed security fence (see Section 7.6 for details of installation). Protect with Tree Protection Fencing (see Section 7.2). | A1 |
| T100 | Oak (<i>Quercus</i> sp.) | Protect with Tree Protection Fencing (see Section 7.2). | A1 |
| H101 | Hawthorn (<i>Crataegus monogyna</i>) Blackthorn (<i>Prunus spinosa</i>) Hazel (<i>Corylus avellana</i>) Elder (<i>Sambucus nigra</i>) | Remove section of hedge to allow for the construction of proposed access track. | C2 |
| H104 | Hawthorn (<i>Crataegus monogyna</i>) Blackthorn (<i>Prunus spinosa</i>) | Remove section of hedge to allow for the construction of proposed access track. | C2 |
| T123 | Oak (<i>Quercus</i> sp.) | Minor incursion into RPA by proposed security fence (see Section 7.6 for details of installation). | A1 |
| H137 | Hawthorn (<i>Crataegus monogyna</i>) | Remove small section of hedge to allow for the construction of proposed security fence. | C2 |
| T140 | Oak (<i>Quercus</i> sp.) | Protect with Tree Protection Fencing (see Section 7.2). | C1 |
| T143 | Oak (<i>Quercus</i> sp.) | Minor incursion into RPA by proposed security fence (see Section 7.6 for details of installation). | A1 |
| T146 | Ash (<i>Fraxinus excelsior</i>) | Incursion into RPA by proposed security fence (see Section 7.6 for details of installation). | U |
| T147 | Oak (<i>Quercus</i> sp.) | Incursion into RPA by proposed security fence (see Section 7.6 for details of installation). | A1 |
| T149 | Ash (<i>Fraxinus excelsior</i>) | Incursion into RPA by proposed access track. Track within the RPA to be constructed using 'no dig construction method' (see Section 7.5). Protect with Tree Protection Fencing (see Section 7.2). Crown lift western edge of canopy to ensure 3.5m clearance over the access track. | C1 |



| Tree/ Group/ Hedge Number | Species | Comments | Category |
|------------------------------------|---------------------------|--|----------|
| T164 | Oak (<i>Quercus</i> sp.) | Incursion into RPA by proposed access track. Track within the RPA to be constructed using 'no dig construction method' (see Section 7.5). Protect with Tree Protection Fencing (see Section 7.2). | B1 |

5.0 Tree Related Constraints and Opportunities

The Tree Constraints Plans, (Appendix B) illustrate the area of spatial constraints associated with the trees within the survey area. As identified within the drawing legend, the green shaded area shows the extent of tree canopies, and the dashed red line is indicative of the RPA (which is the nominal area of tree roots which are considered essential to tree health and function). It is acknowledged that roots may extend beyond this boundary but are not considered a significant constraint within BS 5837:2012. The category of the tree (as defined by Table 1 of BS 5837:2012) is indicated by the colour of canopy outline and tree reference number.

The default position for any development is that all construction activities should be located outside of the RPA and crown spread of all retained trees.

5.1 Town and Country Planning Act

In planning terms lower quality trees can generally be removed to facilitate development where their loss can be mitigated with replacement tree planting or where no replacement planting is necessary. This is likely to apply to C category and U category trees where there are no other constraints in place (e.g., ecological or heritage). Whereas higher quality trees (A and B category) should be retained and protected wherever possible; however, in some cases it may also be feasible to remove trees of this quality where there is no reasonable alternative and where the benefit of the development outweighs the impact of the loss of the tree(s).

Prior to the removal of the trees or groups listed in this report, or any tree surgery works being undertaken, it is essential that the trees are assessed again for legal protected status. These include TPOs and Conservation Areas (CA), Sites of Special Scientific Interest, locally or nationally designated sites, designed landscapes and ancient woodland.

Works (either above or below ground) to trees protected by TPO or CA is an offence under the Town and Country Planning Act 1990 (as amended), and in the Town and Country Planning (Tree Preservation) (England) Regulations 2012 and Section 192 of the Planning Act 2008.

5.2 Felling Licence

The felling of trees is regulated in England by the Forestry Act 1967 (the Act). Forestry England (FE) is the government regulator that enforces the provisions of the Act.

The felling of growing trees in England is restricted under section 9 of the Act. It requires that felling is either authorised by a felling licence issued by the FE or the felling activity is exempt from the need for a licence.

There are many exceptions to the need for a licence, based on the type of the tree, the location of the tree, the size of the tree, the nature and scope of the felling activity and the person responsible for the felling. These are primarily set out in section 9 of the Act as well as the Forestry (Exceptions from Restriction of Felling) Regulations 1979.



The most relevant exemption is;

‘Section 9-Requirement of licence for felling (1) A felling licence granted by the appropriate forestry authority shall be required for the felling of growing trees, except in a case whereby or under the following provisions of this Part of this Act this subsection is expressed not to apply...

(d) is immediately required for the purpose of carrying out development authorised by planning permission granted or deemed to be granted under the Town and Country Planning Act 1990 or the enactments replaced by that Act, or under the Town and Country Planning (Scotland) Act 1997.

Advice from a suitably qualified arboriculturist should be sought before any felling takes place on site.

The granting of permission to remove trees covered by a TPO by the Local Planning Authority does not remove the need to obtain a felling licence from the Forestry Commission if more than 5m³ of timber are to be felled in a calendar quarter and none of the exemptions apply.

5.3 Tree Protection

Trees to be retained in close proximity to areas of development activity, including areas for new surfacing, services, work site compounds and storage areas will need to be protected by preventing access within their RPAs or canopy spreads. This can be achieved with the use of robust, immovable temporary tree protection fencing to the requirements of section 6.2.2 of BS 5837:2012 (see Appendix B) or as agreed with the local planning authority tree officer. This will form an effective Construction Exclusion Zone (CEZ). Where access is unavoidable, alternative protection arrangements such as ground protection in accordance with the requirements of 6.2.3 of BS 5837:2012 capable of supporting any traffic entering or using the site without distorting or causing compaction of underlying soil shall be used under arboricultural supervision. Access facilitation pruning (to ensure a reasonable clearance for operations is provided) may be required. The advice of an arboriculturist should be sought to inform this assessment.

5.4 Works within a Root Protection Area

While it is often feasible to install new hard surfacing on existing soft ground within a tree RPA this requires the use of raised surfaces supported by carefully located piling or the use of proprietary load bearing surfaces (such as CellWeb, ArborRaft or equivalent) installed on top of the existing unsurfaced ground level using ‘no dig’ techniques. Guidance Note 12 – ‘The use of cellular confinement systems near trees’ published by the Arboricultural Association provides a guide to good practice. New areas of hard surfacing or building footprints should not occupy more than 20% of the RPA of a retained tree, as set out in Section 7.4.2.3 of BS 5837:2012.

New services or the diversion or removal of existing services must be carefully considered. In general, all new services should be routed outside of the RPA of retained trees. Where this is unavoidable alternative methodologies such as the use of directional drilling or equivalent trenchless techniques can facilitate service installation beneath tree root systems (likely to be at least 1m+ dependent on ground conditions and tree species affected).

Shallow service runs may be installed using hand excavation where all significant tree roots can be retained and services be threaded beneath. Existing services can be winched out from a manhole/chamber located outside of an RPA and redundant pipework can be decommissioned using pipe bursting techniques to avoid excavation which could damage roots.



These operations typically require a detailed Arboricultural Method Statement to set out in detail how they can be successfully achieved.

5.5 Tree Works

All tree work is to follow the principles of BS 3998: 2010 Tree Work – Recommendations and must be carried out by suitably qualified and insured contractors. The Arboricultural Association provides a list of contractors who meet these requirements which can be found at www.trees.org.uk.

Significant pruning works are best undertaken when trees are dormant or outside periods of high functional activity to reduce the overall impact on energy available to the tree for growth and processes. In general, the optimum period for works is between November to February and July to August (subject to the presence of protected species) when the tree is less active and better placed to respond to wounding and a reduction in leaf area.

5.6 The Future Impact of Trees

The future impact of trees within or near to the survey area must be considered in relation to any development proposals. Trees and groups to be retained must be afforded suitable space to ensure they remain viable in the long term. Trees which are currently not fully grown will increase in size and this must be considered in conjunction with the proposed development and future use of the survey area.

Deciduous trees will drop leaves each autumn and this is likely to result in a maintenance requirement to manage leaves on hard surfaced footways and to clear gutters where tree canopies extend over or immediately adjacent to roofs. Leaf fall can be easily cleared as required from hard surfacing. Non-slip surfacing can reduce the frequency that this is required. Measures such as Gutter Guards or equivalent can be used to reduce the potential for leaves to block guttering and these should be employed where trees overhang or grow in close proximity to structures.

5.7 Tree Planting

During the detailed design stage, consideration should be given to the suitable provision of space for new tree planting to off-set any necessary tree loss.

Soil structure in areas for new planting will need to be maintained and may require protection during operation of the proposed development to ensure reasonable conditions for future tree growth.

New planting should consider the existing species mix present within the survey area in relation to both arboricultural and ecological considerations. New planting also offers an opportunity to increase the species and age class diversity for a given area which can boost the resilience of the local tree stock in relation to pests, disease and climate change as well as providing a greater range of amenity and other benefits.

New trees should be planted in accordance with the minimum distances from new structures, services and surfacing set out in Table A.1 of BS 5837:2012. Tree stock selection, planting methods and planned maintenance regimes should follow guidance as set out in BS 8545:2014 Trees: from nursery to independence in the landscape.



6.0 Conclusions

The BS 5837:2012 compliant tree survey was conducted on 18th May 2023 with a follow up survey carried out from the 11th - 13th February 2025. The survey recorded:

- One hundred and sixteen individual trees (fifty-two category A, thirty-nine category B, seventeen category C and eight category U trees).
- Twenty-three tree groups (nine category A, nine category B and five category C).
- Twenty-six category C hedgerows.

The proposed development's impact upon trees can be summarised as follows:

Sections of hedgerow to be removed:

H26, H33, H44, H60, H66, H101, H104, H137 (all category C).

Trees requiring 'No Dig' construction within their RPAs only:

T68 (category A), T69 (category B), T70 (category B).

Trees requiring 'No Dig' construction within their RPAs and to be protected with Tree Protection Fencing:

T24 (category U), T30 (category A), T31 (category U), T32 (category B), T149 (category C), T84 (category A), T85 (category A), T86 (category B), T164 (category B).

Trees to be protected with Tree Protection Fencing:

T34 (category A), T35 (category B), T36 (category B), T37 (category A), T40 (category A), T61 (category B), T100 (category A), T140 (category C).

Incursion into the RPAs of the following trees/groups by the security fencing:

T41 (category B), T48 (category A), T50 (category A), T56 (category B), G59 (category A), T97 (category U), T123 (category A), T143 (category A), T146 (category U), T147 (category A).

Trees requiring 'No Dig' construction within their RPAs, are to be protected with Tree Protection Fencing and have incursions into their RPAs by the security fence:

T98 (category A).

Trees to be crown reduced and/or lifted to facilitate the required clearances over the proposed track:

T149 (category C)

All remaining trees/groups and hedgerows are to be retained.

No trees within the site are protected by Tree Preservation Orders or are located within a Conservation Area.

There is an area within the site that is listed as 'Plantation on Ancient Woodland Site'. This has been referred to within the tree survey schedule (Appendix A) and on the Tree Constraints Plans as G12. There is also an area adjacent to the site referred to as G67 that is listed as 'Restored Ancient Woodland Site'.

In accordance with standing advice from Forestry Commission England and Natural England, a minimum 15-metre buffer has been implemented from the edge of both areas of ancient

woodland. This buffer is intended to protect the ecological integrity of the woodland and its associated root protection areas and should be treated as a constraint to development.

7.0 Preliminary Arboricultural Method Statement

7.1 Overview

This Preliminary Arboricultural Method Statement (AMS) provides generic best practice measures to be adopted in order to protect retained trees during the development process. It has been prepared in order to inform the planning and the construction/ development process. Should a bespoke AMS be required, this shall be produced by a suitably qualified arboriculturist in liaison with the contractor undertaking the works.

7.2 Protective Fencing

The purpose of this fencing is to provide protection to the RPAs of retained trees and tree groups. The type of fencing used shall be appropriate to the level of adjacent construction activity and shall be agreed with the Local Authority tree officer.

The default specification for Tree Protection Fencing (extract from BS 5837:2012) is illustrated in Appendix C.

It is recommended that the proposed security fencing shall be installed prior to any other works being undertaken. This fencing can then act as the Tree Protection Fencing.

There are a number of trees and hedgerows outside the security fencing whose RPAs extend into the working area of the scheme. These areas have not been protected with Tree Protection Fencing as it is deemed unnecessary due to the past management of the fields by heavy farm machinery. These trees will therefore have adapted to these conditions and construction vehicles should not pose any significant difference.

Weather-proof notices shall be attached to any protective fencing located adjacent to retained trees displaying the words "Construction Exclusion Zone" and listing restrictions which apply. All personnel must be made aware of these restrictions.

Figure 7-1: Example of Protective Fencing Signs



7.3 Construction Exclusion Zones

The Construction Exclusion Zone (CEZ) is the area identified by a suitably qualified arboriculturist as the area to be protected during development, from site clearance and construction work through the use of barriers and/or ground protection to ensure the successful long-term retention of a tree. Fencing or ground protection shall not be taken down or relocated at any time without prior agreement and/or site supervision as recommended by the arboriculturist.

All areas protected by Tree Protection Fencing shall be treated as CEZs, and the following restrictions shall apply:

- No construction activity must occur within these areas.
- No works on trees unless agreed by a suitably qualified arboriculturist.
- No alterations of ground levels or conditions.
- No chemicals or cement washings.
- No excavation.
- No temporary structures.*
- No storage of soil, rubble or other materials.
- No vehicles or machinery to be used or parked without appropriate ground protection measures as per BS5837:2012. This will require the use of a proprietary system of reinforced concrete slabs/steel road plates on a compressible layer, or side butting scaffold boards/ 18mm plywood sheets on a compressible layer. The type of ground protection used shall be appropriate for the likely loading applied.
- No fixtures (lighting, signs etc.) to be attached to trees.
- No fires within 10 metres of the canopies of any tree or hedgerow.

- *Site huts, provided they are of the “Jack Leg” type, can be sited to act as ground protection for the duration of the construction.

7.4 Temporary Ground Protection

New temporary ground protection should be capable of supporting any traffic entering or using the site without being distorted or causing compaction of underlying soil. The ground protection might comprise one of the following:

- For pedestrian movements only, a single thickness of scaffold boards placed either on top of a driven scaffold frame, so as to form a suspended walkway, or on top of a compression-resistant layer (e.g., 100 mm depth of woodchip), laid onto a geotextile membrane.
- For pedestrian-operated plant up to a gross weight of 2t, proprietary, inter-linked ground protection boards placed on top of a compression-resistant layer (e.g., 150 mm depth of woodchip), laid onto a geotextile membrane.
- For wheeled or tracked construction traffic exceeding 2t gross weight, an alternative system (e.g., proprietary systems or pre-cast reinforced concrete slabs) to an engineering specification designed in conjunction with arboricultural advice, to accommodate the likely loading to which it will be subjected.

7.5 New Permanent Surfacing Within RPAs

Any new surfacing within the RPAs shall occur above ground level without soil stripping. New surfaces shall be constructed on a cellular confinement system to prevent localised compaction of the rooting medium post development. Porous geotextile membranes shall be used both above and below the cellular confinement system to prevent mixing of materials with the binding layer or the soil. The new surface needs to be permeable to air and water (resin bound gravel or similar is recommended). This is to allow roots to respire without there being a build-up of carbon dioxide, and to ensure the roots continue to receive the moisture and oxygen they require to function. Traditional kerbing requires excavation to install and will therefore not be suitable within the root protection areas of retained trees. As an alternative, haunched kerbing, treated timber edging, aluminium L-shaped edging, galvanised metal edging or no fixed edging shall be used. Construction of the new surface will require access into the CEZ defined by the temporary ground protection. The ground protection shall not be removed until new surface is installed. The root protection areas should not be left exposed during construction.

7.6 Installation of Fencing Within RPAs

Within the RPAs of retained trees, all fence posts holes are to be dug by hand. The size of the post holes are to be kept to a minimum size in order to avoid affecting the long-term health and vitality of the trees.

Machinery is not to be used for installation of fencing and areas within the RPA of trees requiring works are to be accessed by pedestrians only.

Roots, whilst exposed, should immediately be wrapped or covered to prevent desiccation and to protect them from rapid temperature changes. Any wrapping should be removed prior to backfilling, which should take place as soon as possible.

Roots smaller than 25 mm diameter may be pruned back, making a clean cut with a suitable sharp tool (e.g. bypass secateurs or handsaw), except where they occur in clumps. Roots occurring in clumps or of 25 mm diameter and over should be severed only following consultation with an arboriculturist, as such roots might be essential to the tree's health and stability.

7.7 Installation of Photovoltaic Arrays Within RPAs

The installation of the photovoltaic arrays should follow the principles of section 7.6 above. Any foundations within the RPAs of retained trees are to be dug by hand and should be kept to a minimum size to avoid any excess damage to tree roots. Mechanical excavations shall not be used within the RPAs.

7.8 Cable Route Installation Within the Highway

The photovoltaic solar farm will connect to the St Asaph substation via an underground cable route following Cefn Road, Glascoed Road, and Cwttir Road. It is assumed that the cable will be installed within the public highway, and as such, all works will be undertaken in accordance with the *NJUG Guidelines for the Planning, Installation and Maintenance of Utility Apparatus in Proximity to Trees* (2007).

7.9 General Canopy Protection

Since the canopies of retained trees may be in close proximity to areas of plant operation, the following restrictions will apply:

- All plant will be sited outside the defined RPAs of retained trees / groups, and the appointed contractor will ensure all relevant personnel shall be made aware of the location of branches and the need to avoid causing damage to them.
- Prior to the implementation of lifting operations, a representative from the equipment supply company shall visit the site and ensure all operations can be completed without causing damage to retained trees. A lifting plan will be prepared and submitted for approval prior to all lifting operations. The lifting plan will make provision for the potential for damage of retained trees.
- All lifting operations will be completed under the close direction of a qualified banksman, who will be briefed by the appointed contractor as to the need to avoid damage the stems and branches of retained trees.
- Should additional tree removal or pruning be required the Local Authority Tree Officer shall be contacted and the scope of works agreed in writing.

7.10 Hazardous Materials

The delivery, storage, mixing and discharge of hazardous materials shall be carried out so that there is no run-off and spillage near the RPAs of retained trees. No substances that are potentially injurious to plant tissue (including diesel, bitumen, concrete, mortar, salts, builders' sand, herbicides and other phyto-toxic materials) shall be stored, discharged, prepared or used, where direct contact, infiltration or run-off might reasonably be considered liable to harmfully affect existing root growth, other parts of retained trees or beneficial soil organisms.

Hazardous chemicals are to be stored in suitable containers as specified by the Control of Substances Hazardous to Health (COSHH) Regulations (2002) (Ref 4). It is now standard practice to have emergency spillage kits available to minimise the impacts of any accidental spillages to the local environment. All cement mixing, vehicle washing or any other activity where toxic chemicals are used shall have the provision to contain any accidental spillage. This can be achieved by creating a bunded area using concrete slabs, timber framework or sandbags. Heavy duty plastic sheeting should be used to line the area as necessary to prevent leaking. Alternatively, all activities should take place on suitable spill trays or on an existing impermeable surface with runoff controls and at least 10m from the edge of the RPA of retained trees.

8.0 References

British Standards Institution (BSI). 2010. *BS 3998:2010. Trees Work – Recommendations*. London: British Standards Institution. 3rd ed. [hard copy] London: British Standards Institution.

British Standards Institution (BSI). 2012. *BS 5837:2012. Trees in relation to design, demolition and construction – Recommendations*. 4th ed. [ebook] London: British Standards Institution.

DLUHC, 2024 *National Planning Policy Framework*. London: HMSO.

Lonsdale, D., 1999. *Principles of tree hazard assessment and management*. London: TSO.

Mattheck, C. and Breloer, H., 1994. *The body language of trees*. London: Stationery Office.

National Tree Safety Group. 2024. *Common sense risk management of trees*. <https://ntsgroup.org.uk/wp-content/uploads/2024/10/NTSG-full-guidance.pdf>, (2024)

9.0 Closure

This report has been prepared by SLR Consulting Limited with all reasonable skill, care and diligence, and taking account of the manpower and resources devoted to it by agreement with the client.

This report should be used for information purposes only and should not be construed as a comprehensive characterisation of all site conditions.

This report is for the exclusive use of Anesco Ltd. and their exclusive agents; no warranties or guarantees are expressed or should be inferred by any third parties. Any such party relies upon the report at their risk.

SLR disclaims any responsibility to the client and others in respect of any matters outside the agreed scope of the work.

If you have any queries regarding the above works, please do not hesitate to contact the undersigned.

Regards,

SLR Consulting Limited



**Michael Sanderson, HND Hort,
Tech Cert (ArborA)**
Senior Arboricultural Consultant



Appendix A Tree Survey Schedule

St Asaph Solar Farm

Tree Survey Report & Arboricultural Impact Assessment

Anesco Ltd.

SLR Project No.: 406.065274.00001

April 2025



Table A-1: Tree Survey Schedule

| Tree of high quality and value | | | | Tree of moderate quality and value | | | | Tree of low quality and value | | | | Tree unsuitable for retention | | |
|--------------------------------|--|------------|----------------|------------------------------------|---|----|----|-------------------------------|--|----------------------|------------|---|---------------------------|----------|
| ID | Species | Height (m) | Trunk dia. (m) | RPA Radius (m) | Branch Spread (m) | | | | Crown Clearance | | Life Stage | General observations, including structural and physical conditions and any preliminary management recommendations. | Estimated remaining years | Category |
| | | | | | N | E | S | W | Height of 1 st branch (m) and direction | Height of canopy (m) | | | | |
| T1 | Sessile Oak (<i>Quercus petraea</i>) | 16 | 850 | 10.2 | 4 | 6 | 8 | 6# | 3 - W | 3 - 6 | M | Ivy clad stem. Ivy clad. Deadwood. Part decayed pegs. Partially suppressed by adjacent tree. | 40+ | A2 |
| T2 | Sessile Oak (<i>Quercus petraea</i>) | 16 | 1100 | 13.2 | 7 | 8 | 6 | 7# | 3 - N | 2 - 6 | M | Ivy clad stem. Deadwood. Part suppressed by adjacent tree. | 40+ | A2 |
| T3 | Common Oak (<i>Quercus robur</i>) | 20 | 1150 | 13.8 | 5 | 5 | 9 | 9 | 8 - N | 6 - 8 | OM | Sparse canopy. Numerous lower limbs dead or removed leaving stubs. Cavities. Stag heading. | 40+ | B3 |
| T4 | Common Oak (<i>Quercus robur</i>) | 17 | 800 | 9.6 | 5 | 3 | 4 | 7 | 6 - S | 2 - 5 | M | Deadwood. Low branches removed leaving long stubs. | 40+ | B1 |
| T5 | Common Oak (<i>Quercus robur</i>) | 22 | 1200 | 14.4 | 8 | 7 | 5 | 11 | 5 - W | 3 - 6 | M | Deadwood. Mutual suppression. Low branches removed leaving stubs. Fencing support fixed to trunk. Associated with stream. | 40+ | A2 |
| T6 | Common Oak (<i>Quercus robur</i>) | 22 | 1100 | 13.2 | 3 | 8 | 10 | 12 | 3 - W | 3 - 10 | M | Deadwood. Low branches removed leaving stubs. Cavities. Fence support attached to trunk. Associated with stream. | 40+ | A2 |
| T7 | Common Oak (<i>Quercus robur</i>) | 17 | 1150 | 13.8 | 7 | 6 | 9 | 9 | 4 - W | 2 - 6 | M | Deadwood. Low branches removed leaving stubs. Branch fractures. Associated with stream. | 40+ | A1 |
| G8 | Hazel (<i>Corylus avellana</i>) Hawthorn (<i>Crataegus monogyna</i>) Ash (<i>Fraxinus excelsior</i>) Elder (<i>Sambucus nigra</i>) Common Oak (<i>Quercus robur</i>) | 6 - 14 | 400 max. | 4.8 | As shown on Tree Constraints Plan. Average canopy spread approximately 3.5m. | | | | N/A | 0 - 4 | Y-EM | Deadwood. Mutual suppression. Associated with stream. Cut back from field. Ash die back. | 40+ | B2 |
| T9 | Common Oak (<i>Quercus robur</i>) | 16 | 1050 | 12.6 | 8 | 10 | 10 | 8 | 1.5 - NW | 1 - 7 | M | Deadwood. Dead ivy up trunk. Numerous branch fractures. | 40+ | A3 |



| ID | Species | Height (m) | Trunk dia. (m) | RPA Radius (m) | Branch Spread (m) | | | | Crown Clearance | | Life Stage | General observations, including structural and physical conditions and any preliminary management recommendations. | Estimated remaining years | Category |
|------------|---|------------|----------------|----------------|---|----|---|----|--|----------------------|------------|--|---------------------------|----------|
| | | | | | N | E | S | W | Height of 1 st branch (m) and direction | Height of canopy (m) | | | | |
| | | | | | | | | | | | | Associated with stream. Cavities. | | |
| G10 | Common Oak (<i>Quercus robur</i>) | 12 - 20 | 1150 max. | 13.8 | As shown on Tree Constraints Plan. Average canopy spread approximately 7m. | | | | N/A | 4 - 10 | EM-M | Deadwood. Mutual suppression. Little understory. Brush, grubbed out stumps and spoil located within group. Low branches removed leaving stubs. Cavities. | 40+ | A3 |
| G11 | Common Oak (<i>Quercus robur</i>) Hawthorn (<i>Crataegus monogyna</i>) Ash (<i>Fraxinus excelsior</i>) | 2 - 6 | 300 max. | 3.6 | As shown on Tree Constraints Plan. Average canopy spread approximately 3m. | | | | N/A | 0 - 2 | Y-SM | Deadwood. Associated with stream. Mutual suppression. Ash die back. Some ivy clad. | 20-40 | C2 |
| G12 | European Larch (<i>Larix decidua</i>) Ash (<i>Fraxinus excelsior</i>) Common Oak (<i>Quercus robur</i>) Hazel (<i>Corylus avellana</i>) Holly (<i>Ilex aquifolium</i>) Elder (<i>Sambucus nigra</i>) Silver Birch (<i>Betula pendula</i>) | 4 - 20 | 350 max. | 4.2 | As shown on Tree Constraints Plan. Average canopy spread approximately 4m. | | | | N/A | 0 - 5 | Y-EM | Deadwood. Single age group. Mutual suppression. Etiolated. Bramble understorey. Dead individuals. Several log piles. Noted on the Ancient Woodland Inventory - ID number – 47063 and 45224. 'Plantation on Ancient Woodland Site'. | 40+ | A3 |
| G13 | Ash (<i>Fraxinus excelsior</i>) | 15 | 300 max. | 3.6 | As shown on Tree Constraints Plan. Average canopy spread approximately 3.5m. | | | | N/A | N/A | EM | Signs of ash die-back disease. | 10+ | C2 |
| T14 | Oak (<i>Quercus</i> sp.) | 14 | 500 | 6 | 6 | 7# | 9 | 9# | 3 - S | 3 - 4 | M | No obvious significant defects. | 40+ | A1 |
| G15 | Common Oak (<i>Quercus robur</i>) Ash (<i>Fraxinus excelsior</i>) | 5 - 17 | 600 max. | 7.2 | As shown on Tree Constraints Plan. Average canopy spread approximately 4.5m. | | | | N/A | 0 - 6 | SM-M | Deadwood. Associated with ditch. Mutual suppression. Some dead specimens. | 40+ | B2 |
| T16 | Oak (<i>Quercus</i> sp.) | 15 | 600 | 7.2 | 7 | 6# | 9 | 7# | 4 - S | 3 - 4 | M | Ivy clad stem. | 40+ | A1 |
| G17 | Ash (<i>Fraxinus excelsior</i>) Elm (<i>Ulmus</i> sp.) Oak (<i>Quercus</i> sp.) | 12 | 400 max. | 4.8 | As shown on Tree Constraints Plan. Average canopy spread approximately 6m. | | | | N/A | N/A | SM-EM | Ash die-back disease present. Mutual suppression. | 20+ | B2 |
| T18 | Oak (<i>Quercus</i> sp.) | 15 | 600 | 7.2 | 6 | 6 | 6 | 6 | 4 - W | 2 - 4 | M | No obvious significant defects. | 40+ | A1 |



| ID | Species | Height (m) | Trunk dia. (m) | RPA Radius (m) | Branch Spread (m) | | | | Crown Clearance | | Life Stage | General observations, including structural and physical conditions and any preliminary management recommendations. | Estimated remaining years | Category |
|------------|---|------------|----------------|----------------|---|-----|-----|----|--|----------------------|------------|--|---------------------------|----------|
| | | | | | N | E | S | W | Height of 1 st branch (m) and direction | Height of canopy (m) | | | | |
| G19 | Oak (<i>Quercus</i> sp.) Ash (<i>Fraxinus excelsior</i>) | 13 | 300 max. | 3.6 | As shown on Tree Constraints Plan. Average canopy spread approximately 5m. | | | | N/A | N/A | SM-EM | Crown lifted. | 40+ | B2 |
| G20 | Oak (<i>Quercus</i> sp.) | 13 | 300 max. | 3.6 | As shown on Tree Constraints Plan. Average canopy spread approximately 5m. | | | | N/A | N/A | SM-EM | Line of trees. | 40+ | B2 |
| T21 | Oak (<i>Quercus</i> sp.) | 10 | 550 | 6.6 | 4 | 3.5 | 3.5 | 3 | 2 - E | 2 - 3 | EM | No obvious significant defects. | 40+ | A1 |
| H22 | Hawthorn (<i>Crataegus monogyna</i>) | 1.5 | 75 av. | 0.9 | As shown on Tree Constraints Plan. | | | | N/A | N/A | SM | Associated with ditch. Regularly managed. | 40+ | C2 |
| H23 | Hawthorn (<i>Crataegus monogyna</i>) | 1.5 | 75 av. | 0.9 | As shown on Tree Constraints Plan. | | | | N/A | N/A | SM | Associated with ditch. Regularly managed. | 40+ | C2 |
| T24 | Ash (<i>Fraxinus excelsior</i>) | 6 | 550 | 6.6 | 3 | 2.5 | 3 | 3 | 3 - E | 4 | M | Deadwood. Signs of ash die-back disease. Collapsed trunk at 6m. | <10 | U |
| T25 | Oak (<i>Quercus</i> sp.) | 9 | 400 | 4.8 | 4.5 | 4 | 4 | 4 | 3 - N | 4 - 4 | SM | No obvious significant defects. | 40+ | B1 |
| H26 | Hawthorn (<i>Crataegus monogyna</i>) | 1.5 | 75 av. | 0.9 | As shown on Tree Constraints Plan. | | | | N/A | N/A | SM | Heavily managed/flailed. Signs of layering. | 40+ | C2 |
| H27 | Hawthorn (<i>Crataegus monogyna</i>) Holly (<i>Ilex aquifolium</i>) Common Oak (<i>Quercus robur</i>) | 1.5 | 75 av. | 0.9 | As shown on Tree Constraints Plan. | | | | N/A | N/A | SM | No obvious visible defects. Regularly managed. | 40+ | C2 |
| T28 | Oak (<i>Quercus</i> sp.) | 8 | 850 | 10.2 | 5# | 6# | 8# | 8# | 2 - N | 2.5 | M | Crown lifted over field. | 40+ | A1 |
| T29 | Oak (<i>Quercus</i> sp.) | 5 | 900 | 10.8 | 0 | 0 | 0 | 0 | 0 - All | 0 - 0 | M | Collapsed trunk at 5m. Standing monolith. | <10 | U |
| T30 | Common Oak (<i>Quercus robur</i>) | 18 | 1200 | 14.4 | 4 | 8 | 9# | 5# | 4 - NW | 2.5 - 7 | M | Cavities. Deadwood. Old fencing embedded in trunk. Decay at base. Part suppressed by adjacent tree. | 40+ | A3 |
| T31 | Ash (<i>Fraxinus excelsior</i>) | 16 | 850 | 10.2 | 5 | 0 | 0 | 0 | 12 - N | 8 - 10 | M | Collapsed tree at 12m. One limb remaining. <i>Inonotus hispidus</i> up length of trunk. More or less standing monolith. | <10 | U |
| T32 | Common Oak (<i>Quercus robur</i>) | 18 | 1250 | 15 | 6 | 5 | 5 | 5 | 10 - N | 8 - 12 | M | Crown lifted to 12m leaving large stubs. Hollow at base. | 40+ | B1 |
| H33 | Hawthorn (<i>Crataegus monogyna</i>) | 1.5 | 100 av. | 1.2 | As shown on Tree Constraints Plan. | | | | N/A | N/A | SM | Regularly managed. | 40+ | C2 |



| ID | Species | Height (m) | Trunk dia. (m) | RPA Radius (m) | Branch Spread (m) | | | | Crown Clearance | | Life Stage | General observations, including structural and physical conditions and any preliminary management recommendations. | Estimated remaining years | Category |
|-----|---|------------|----------------|----------------|---|----|-----|-----|--|----------------------|------------|---|---------------------------|----------|
| | | | | | N | E | S | W | Height of 1 st branch (m) and direction | Height of canopy (m) | | | | |
| T34 | Common Oak (<i>Quercus robur</i>) | 16 | 1350 | 16.2 | 7 | 8 | 6 | 5 | 3 - N | 4 - 8 | M | Large low branches removed leaving stubs. Deadwood. Tear out wounds. Deadwood lying on the ground. | 40+ | A3 |
| T35 | Common Oak (<i>Quercus robur</i>) | 16 | 1300 | 15.6 | 3 | 5 | 5 | 7 | 2.5 - S | 3 - 8 | M | Lower limbs removed leaving large stubs. Tear out wounds. Dead wood. | 40+ | B1 |
| T36 | Common Oak (<i>Quercus robur</i>) | 14 | 1000 | 12 | 5 | 2 | 4 | 5 | 5 - N | 2 - 10 | M | Part suppressed by adjacent tree. Low limbs removed. Massive crack down trunk. Failure likely although limb has been cut back. | 20-40 | B3 |
| T37 | Oak (<i>Quercus</i> sp.) | 18 | 800 | 9.6 | 8 | 7 | 7 | 7 | 3 - W | 3 - 10 | M | Ivy clad. Low branches removed leaving large stubs. Partial branch fracture leaving hanger. Deadwood. | 40+ | A2 |
| T38 | Oak (<i>Quercus</i> sp.) | 16 | 1000 | 12 | 8 | 8 | 9 | 8 | 5 - E | 2 - 10 | M | Low branches removed leaving large stubs. Deadwood. | 40+ | A1 |
| T39 | Common Oak (<i>Quercus robur</i>) | 17 | 950 | 11.4 | 6# | 7 | 6 | 7 | 6 - N | 3 - 12 | M | Low branches removed leaving large stubs. Deadwood. Dead ivy up trunk. | 40+ | B1 |
| T40 | Oak (<i>Quercus</i> sp.) | 20 | 1350 | 16.2 | 10# | 11 | 9 | 10 | 2 - E | 2.5 - 10 | M | Ivy clad. Low branches removed leaving large stubs. Deadwood. Fence support attached to tree. | 40+ | A3 |
| T41 | Oak (<i>Quercus</i> sp.) | 20 | 900 | 10.8 | 7# | 8 | 8 | 7 | 2.5 - W | 2 - 10 | M | Ivy clad. Deadwood. Lower limbs removed leaving large stubs. | 40+ | B1 |
| T42 | Ash (<i>Fraxinus excelsior</i>) | 14 | 650 | 7.8 | 4 | 4 | 3.5 | 3.5 | 4 - W | 3 - 8 | M | Leaders lost. Ivy clad. Ash die back. Large cavity in trunk partially obscured by Ivy. | 10-20 | C2 |
| T43 | Oak (<i>Quercus</i> sp.) | 18 | 700 | 8.4 | 8# | 5 | 7 | 10 | 8 - N | 5 - 10 | M | Ivy clad. Low limb removed leaving large stub. Part suppressed. | 40+ | B1 |
| H44 | Hawthorn (<i>Crataegus monogyna</i>) | 2 | 50 av. | 0.6 | As shown on Tree Constraints Plan. | | | | N/A | N/A | SM | Remnant hedge. | 10-20 | C2 |
| G45 | Ash (<i>Fraxinus excelsior</i>). Hawthorn (<i>Crataegus monogyna</i>) Elder (<i>Sambucus nigra</i>) | 3 - 10 | 200 max. | 2.4 | As shown on Tree Constraints Plan. Average canopy spread approximately 3m. | | | | N/A | 0 - 4 | Y-SM | Mutual suppression. Ivy clad. | 20-40 | C2 |



| ID | Species | Height (m) | Trunk dia. (m) | RPA Radius (m) | Branch Spread (m) | | | | Crown Clearance | | Life Stage | General observations, including structural and physical conditions and any preliminary management recommendations. | Estimated remaining years | Category |
|-----|---|------------|----------------|----------------|---|-----|----|----|--|----------------------|------------|--|---------------------------|----------|
| | | | | | N | E | S | W | Height of 1 st branch (m) and direction | Height of canopy (m) | | | | |
| H46 | Hawthorn (<i>Crataegus monogyna</i>) | 1 | 50 av. | 0.6 | As shown on Tree Constraints Plan. | | | | N/A | N/A | SM | Regularly managed. | 40+ | C2 |
| T47 | Sycamore (<i>Acer pseudoplatanus</i>) | 10 | 300 | 3.6 | 4 | 4 | 4 | 4 | 2.5 - E | 2 - 4 | SM | Escaped hedgerow tree. Lower section cut as hedge. | 40+ | C1 |
| T48 | Common Oak (<i>Quercus robur</i>) | 20 | 1100 | 13.2 | 8 | 11 | 12 | 9 | 4 - SW | 2 - 10 | M | Ivy clad. Deadwood. Low branches removed leaving large stubs. | 40+ | A2 |
| H49 | Hawthorn (<i>Crataegus monogyna</i>) Elder (<i>Sambucus nigra</i>) | 1.2 | 50 av. | 0.6 | As shown on Tree Constraints Plan. | | | | N/A | N/A | SM | Regularly managed. | 40+ | C2 |
| T50 | Oak (<i>Quercus</i> sp.) | 16 | 900 | 10.8 | 8 | 6 | 10 | 6 | 4 - S | 3 - 6 | M | Ivy clad. Lower branches removed leaving large stubs. Branch fractures. | 40+ | A2 |
| T51 | Oak (<i>Quercus</i> sp.) | 10 | 300 | 3.6 | 5 | 3 | 4 | 4 | 2 - N | 2 - 6 | SM | Low branches removed leaving stubs. Ivy clad. | 40+ | C1 |
| T52 | Common Oak (<i>Quercus robur</i>) | 10 | 300 | 3.6 | 3 | 3 | 4 | 3 | 2.5 - S | 2 - 3 | Y | Ivy clad. Within stock proof fencing. | 40+ | C1 |
| T53 | Oak (<i>Quercus</i> sp.) | 14 | 600 | 7.2 | 5 | 3.5 | 6 | 6# | 6 - N | 3 - 5 | EM | Ivy clad. Low branches removed leaving stubs. Branch fractures. Deadwood. | 40+ | B1 |
| T54 | Unknown | 12 | 300, 600 | 8.05 | 5# | 0 | 5 | 5 | 3 - W | 4 - 6 | EM | Main trunk reduced to 6m as standing monolith. Ivy clad. | 20-40 | C1 |
| H55 | Hawthorn (<i>Crataegus monogyna</i>) Ash (<i>Fraxinus excelsior</i>). Holly (<i>Ilex aquifolium</i>) | 2 | 100 av. | 1.2 | As shown on Tree Constraints Plan. | | | | N/A | N/A | SM | Regularly managed. Associated with dry ditch. | 40+ | C2 |
| T56 | Oak (<i>Quercus</i> sp.) | 14 | 650 | 7.8 | 4# | 5 | 3 | 6 | 4 - E | 2 - 6 | M | Low branches removed leaving stubs. Cavities. Deadwood. | 40+ | B1 |
| T57 | Oak (<i>Quercus</i> sp.) | 15 | 800 | 9.6 | 6# | 4 | 4 | 7 | 3 - N | 2 - 8 | M | Low branches removed on south side leaving large stubs. | 40+ | B1 |
| T58 | Oak (<i>Quercus</i> sp.) | 16 | 850 | 10.2 | 7 | 6# | 7 | 7 | 3 - W | 3 - 7 | M | Low branches removed leaving large stubs. Tear out wounds. Deadwood. | 40+ | B1 |
| G59 | Oak (<i>Quercus</i> sp.) Willow (<i>Salix</i> sp.) Holly (<i>Ilex aquifolium</i>) Hawthorn (<i>Crataegus monogyna</i>) | 5 - 20 | 900 max. | 10.8 | As shown on Tree Constraints Plan. Average canopy spread approximately 8m. | | | | N/A | 0 - 10 | SM- M | Water pool. Open wood. Grass understorey. Mutual suppression. | 40+ | A2 |
| H60 | Hawthorn (<i>Crataegus monogyna</i>) Ash (<i>Fraxinus excelsior</i>) | 2 | 100 av. | 1.2 | As shown on Tree Constraints Plan. | | | | N/A | N/A | SM | Associated with ditch. Regularly managed. | 40+ | C2 |



| ID | Species | Height (m) | Trunk dia. (m) | RPA Radius (m) | Branch Spread (m) | | | | Crown Clearance | | Life Stage | General observations, including structural and physical conditions and any preliminary management recommendations. | Estimated remaining years | Category |
|-----|--|------------|----------------|----------------|---|-----|-----|----|--|----------------------|------------|---|---------------------------|----------|
| | | | | | N | E | S | W | Height of 1 st branch (m) and direction | Height of canopy (m) | | | | |
| T61 | Oak (<i>Quercus</i> sp.) | 16 | 650 | 7.8 | 5 | 4# | 3 | 3 | 4 - E | 4 - 10 | M | Low branches removed leaving stubs. Cavity in trunk. Ivy clad. Associated with ditch. | 40+ | B1 |
| T62 | Oak (<i>Quercus</i> sp.) | 17 | 550 | 6.6 | 6 | 5 | 7 | 5 | 10 - N | 8 - 10 | M | Ivy clad. Lower branches removed leaving large stubs. Associated with ditch. Deadwood. | 40+ | B1 |
| T63 | Oak (<i>Quercus</i> sp.) | 10 | 500 | 6 | 3 | 2 | 3.5 | 2 | 3 - S | 2.5 - 3 | M | Ivy clad. All side branches removed. Associated with ditch. | 40+ | C1 |
| T64 | Oak (<i>Quercus</i> sp.) | 14 | 550 | 6.6 | 2 | 4# | 5 | 3 | 6 - W | 2 - 8 | EM | Ivy clad. Tear out wounds. Low branches removed leaving stubs. Associated with ditch. | 40+ | B2 |
| T65 | Oak (<i>Quercus</i> sp.) | 13 | 250, 300 | 4.69 | 5 | 5# | 4 | 3 | 3 - E | 6 - 8 | EM | Low branches removed leaving stubs. Associated with ditch. | 40+ | C1 |
| H66 | Hawthorn (<i>Crataegus monogyna</i>) Hazel (<i>Corylus avellana</i>) Elder (<i>Sambucus nigra</i>) | 2 | 50 av. | 0.6 | As shown on Tree Constraints Plan. | | | | N/A | N/A | SM | Associated with ditch. Regularly managed. | 40+ | C2 |
| G67 | Oak (<i>Quercus</i> sp.) Pine (<i>Pinus</i> sp.) | 17 | 600 max. | 7.2 | As shown on Tree Constraints Plan. Average canopy spread approximately 6.5m. | | | | N/A | N/A | SM-M | Mutual suppression. Noted on the Ancient Woodland Inventory - ID number – 36901. 'Restored Ancient Woodland Site'. | 40+ | A2 |
| T68 | Oak (<i>Quercus</i> sp.) | 18 | 750 | 9 | 5 | 7# | 7 | 5# | 6 - S | 4 - 8 | M | Low branches removed leaving large stubs. Deadwood. | 40+ | A2 |
| T69 | Oak (<i>Quercus</i> sp.) | 12 | 550 | 6.6 | 4 | 6# | 4 | 5 | 3 - W | 2 - 4 | EM | Low branches removed. Deadwood. Tear out wounds. | 40+ | B1 |
| T70 | Oak (<i>Quercus</i> sp.) | 16 | 650 | 7.8 | 7 | 7# | 6 | 5 | 3 - S | 2 - 6 | M | Low branches removed leaving large stubs. Deadwood. Ivy. | 40+ | B1 |
| H71 | Hawthorn (<i>Crataegus monogyna</i>) | 2 | 50 av. | 0.6 | As shown on Tree Constraints Plan. | | | | N/A | N/A | SM | Associated with ditch. Regularly managed. | 40+ | C2 |
| G72 | Oak (<i>Quercus</i> sp.) Ash (<i>Fraxinus excelsior</i>) | 14 - 14 | 650 max. | 7.8 | As shown on Tree Constraints Plan. Average canopy spread approximately 5m. | | | | N/A | 2 - 6 | SM-M | Deadwood. Cavities. Minor mutual suppression. One ash and three oaks. | 40+ | A2 |
| T73 | Oak (<i>Quercus</i> sp.) | 10 | 300 | 3.6 | 4 | 4.5 | 4 | 4 | 2 - E | 2 - 3 | Y | Protected with stock proof fencing. Ivy clad. | 40+ | C1 |



| ID | Species | Height (m) | Trunk dia. (m) | RPA Radius (m) | Branch Spread (m) | | | | Crown Clearance | | Life Stage | General observations, including structural and physical conditions and any preliminary management recommendations. | Estimated remaining years | Category |
|-----|--|------------|----------------|----------------|---|-----|----|----|--|----------------------|------------|--|---------------------------|----------|
| | | | | | N | E | S | W | Height of 1 st branch (m) and direction | Height of canopy (m) | | | | |
| H74 | Hawthorn (<i>Crataegus monogyna</i>) | 1.5 | 50 av. | 0.6 | As shown on Tree Constraints Plan. | | | | N/A | N/A | SM | Regularly managed. | 40+ | C2 |
| H75 | Hawthorn (<i>Crataegus monogyna</i>) | 1.5 | 50 av. | 0.6 | As shown on Tree Constraints Plan. | | | | N/A | N/A | SM | Regularly managed. | 40+ | C2 |
| T76 | Oak (<i>Quercus</i> sp.) | 11 | 1000 | 12 | 6 | 5.5 | 6 | 5 | 4 - W | 4 - 4 | M | Cut back from overhead cables. | 40+ | B1 |
| G77 | Oak (<i>Quercus</i> sp.) | 16 - 18 | 900 max. | 10.8 | As shown on Tree Constraints Plan. Average canopy spread approximately 7m. | | | | N/A | 4 - 6 | M | Field boundary trees. Ivy clad. Deadwood. Branch fractures. | 40+ | A2 |
| G78 | Oak (<i>Quercus</i> sp.) | 16 - 19 | 1000 max. | 12 | As shown on Tree Constraints Plan. Average canopy spread approximately 8m. | | | | N/A | 3 - 6 | M | Associated with ditch. Mutual suppression. Deadwood. Some ivy clad. | 40+ | A2 |
| T79 | Oak (<i>Quercus</i> sp.) | 14 | 950 | 11.4 | 3 | 7 | 7# | 6 | 2 - E | 3 - 6 | M | Branches removed leaving large stubs. Deadwood. Tear out wounds. Lost bark. | 40+ | B1 |
| T80 | Oak (<i>Quercus</i> sp.) | 18 | 850 | 10.2 | 4 | 10 | 8# | 3 | 3 - S | 3 - 10 | M | Ivy clad. Low branches on north side removed leaving stubs. Suppressed by adjacent tree. | 40+ | B1 |
| T81 | Oak (<i>Quercus</i> sp.) | 20 | 1200 | 14.4 | 11 | 12 | 9# | 7 | 6 - S | 2 - 10 | M | Low branches removed on northern side leaving large stubs. Tear out wound. | 40+ | B1 |
| T82 | Oak (<i>Quercus</i> sp.) | 18 | 750 | 9 | 6 | 8 | 8# | 4 | 4 - S | 3 - 10 | M | Low branches removed on northern side leaving stubs. | 40+ | B1 |
| T83 | Oak (<i>Quercus</i> sp.) | 19 | 800 | 9.6 | 6 | 7 | 7# | 6 | 3 - S | 6 - 12 | M | Branches removed on northern side of leaving stubs. Deadwood | 40+ | B1 |
| T84 | Oak (<i>Quercus</i> sp.) | 10 | 800 | 9.6 | 6 | 7 | 6# | 5 | 3 - SE | 4 - 6 | M | Crown lifted leaving stubs. Ivy. | 40+ | A1 |
| T85 | Oak (<i>Quercus</i> sp.) | 11 | 900 | 10.8 | 7 | 8 | 8# | 8 | 3 - S | 3 - 6 | M | Crown lifted on west side leaving stubs Ivy. | 40+ | A1 |
| T86 | Oak (<i>Quercus</i> sp.) | 11 | 900 | 10.8 | 4 | 5 | 5# | 5 | 2 - E | 3 - 6 | M | Ivy. Stag heading. Cut hard back. | 40+ | B2 |
| H87 | Hawthorn (<i>Crataegus monogyna</i>) | 1.5 | 50 av. | 0.6 | As shown on Tree Constraints Plan. | | | | N/A | N/A | SM | Regularly managed. | 40+ | C2 |
| T88 | Oak (<i>Quercus</i> sp.) | 10 | 900 | 10.8 | 8 | 8# | 4 | 5 | 3 - S | 3 - 5 | M | Ivy. Crown lifted on west side. | 40+ | A1 |
| T89 | Oak (<i>Quercus</i> sp.) | 13 | 1000 | 12 | 9 | 9# | 9 | 12 | 2 - E | 3 - 5 | M | Ivy. Crown lifted on west side. | 40+ | A1 |



| ID | Species | Height (m) | Trunk dia. (m) | RPA Radius (m) | Branch Spread (m) | | | | Crown Clearance | | Life Stage | General observations, including structural and physical conditions and any preliminary management recommendations. | Estimated remaining years | Category |
|------|--|------------|----------------|----------------|---|-----|----|---|--|----------------------|------------|--|---------------------------|----------|
| | | | | | N | E | S | W | Height of 1 st branch (m) and direction | Height of canopy (m) | | | | |
| T90 | Oak (<i>Quercus</i> sp.) | 11 | 850 | 10.2 | 10 | 11# | 5 | 7 | 3 - W | 3 - 5 | M | Deadwood. | 40+ | A1 |
| T91 | Oak (<i>Quercus</i> sp.) | 14 | 800 | 9.6 | 4 | 5# | 6 | 5 | 4 - E | 4 - 6 | M | Poor vigour. Stag heading. Major deadwood. | 40+ | B2 |
| T92 | Oak (<i>Quercus</i> sp.) | 8 | 600 | 7.2 | 5 | 6# | 6 | 5 | 3 - E | 2 - 5 | M | Cut back on west side. | 40+ | A1 |
| T93 | Oak (<i>Quercus</i> sp.) | 8 | 450 | 5.4 | 4 | 4# | 6 | 5 | 2.5 - N | 2 - 4 | EM | No obvious significant defects. | 40+ | B1 |
| T94 | Ash (<i>Fraxinus excelsior</i>) | 10 | 280 | 3.36 | 3 | 4 | 4 | 3 | 4 - E | 4 | EM | Signs of ash die-back disease. | 10-20 | C1 |
| T95 | Oak (<i>Quercus</i> sp.) | 10 | 580 | 6.96 | 4 | 6 | 6 | 6 | 3 - W | 3 - 4 | M | Crown lifted. Deadwood. | 40+ | A1 |
| T96 | Oak (<i>Quercus</i> sp.) | 9 | 500 | 6 | 6 | 5 | 3 | 3 | 3 - W | 3 - 5 | M | Large cavity at base. Branch fractures. Ivy clad. | 40+ | B2 |
| T97 | Oak (<i>Quercus</i> sp.) | 8 | 700 | 8.4 | 4 | 6 | 4 | 3 | 2 - E | 2 - 3 | EM | Dead. | <10 | U |
| T98 | Oak (<i>Quercus</i> sp.) | 14 | 950 | 11.4 | 7 | 8 | 8 | 7 | 2.5 - E | 2 - 4 | M | Crown lifted on north side. Ivy clad. Deadwood. | 40+ | A1 |
| T99 | Ash (<i>Fraxinus excelsior</i>) | 13 | 250 | 3 | 4 | 4 | 3 | 3 | 2 - W | 2 - 4 | SM | Possible ash die back. | 10-20 | C1 |
| T100 | Oak (<i>Quercus</i> sp.) | 14 | 1100 | 13.2 | 11 | 10 | 11 | 8 | 3 - W | 2 - 8 | M | Ivy. Crown lifted on east side. Deadwood. | 40+ | A1 |
| H101 | Hawthorn (<i>Crataegus monogyna</i>) Blackthorn (<i>Prunus spinosa</i>) Hazel (<i>Corylus avellana</i>) Elder (<i>Sambucus nigra</i>) | 2.5 | 100 av. | 1.2 | As shown on Tree Constraints Plan. | | | | N/A | N/A | SM | Regularly maintained hedge. | 40+ | C2 |
| T102 | Oak (<i>Quercus</i> sp.) | 14 | 1000 | 12 | 10 | 9 | 10 | 9 | 2.5 - W | 3 - 6 | M | Cavity at base. Crown lifted on east side. Tear out wounds. | 40+ | A1 |
| H103 | Hawthorn (<i>Crataegus monogyna</i>) Willow (<i>Salix</i> sp.) | 1.5 | 75 av. | 0.9 | As shown on Tree Constraints Plan. | | | | N/A | N/A | SM | Regularly managed. Associated with ditch. | 40+ | C2 |
| H104 | Hawthorn (<i>Crataegus monogyna</i>) Blackthorn (<i>Prunus spinosa</i>) | 2.5 | 100 av. | 1.2 | As shown on Tree Constraints Plan. | | | | N/A | N/A | SM | Occasional gaps. | 40+ | C2 |
| T105 | Oak (<i>Quercus</i> sp.) | 8 | 780 | 9.36 | 5 | 5# | 7 | 3 | 2 - S | 4 - 6 | M | Dead limbs. Stag heading. | 40+ | B1 |
| G106 | Oak (<i>Quercus</i> sp.) | 10 | 300 max. | 3.6 | As shown on Tree Constraints Plan. Average canopy spread approximately 4m. | | | | N/A | N/A | SM | Poor vigour. | 20+ | B2 |



| ID | Species | Height (m) | Trunk dia. (m) | RPA Radius (m) | Branch Spread (m) | | | | Crown Clearance | | Life Stage | General observations, including structural and physical conditions and any preliminary management recommendations. | Estimated remaining years | Category |
|------|---|------------|----------------|----------------|---|----|----|----|--|----------------------|------------|--|---------------------------|----------|
| | | | | | N | E | S | W | Height of 1 st branch (m) and direction | Height of canopy (m) | | | | |
| H107 | Hawthorn (<i>Crataegus monogyna</i>) | 1.5 | 50 av. | 0.6 | As shown on Tree Constraints Plan. | | | | N/A | N/A | SM | Regularly managed. | 40+ | C2 |
| T108 | Oak (<i>Quercus</i> sp.) | 10 | 600 | 7.2 | 5 | 6# | 3 | 3 | 2 - N | 2 - 4 | EM | Stag heading. In decline. Ivy clad. | 20-40 | B1 |
| T109 | Oak (<i>Quercus</i> sp.) | 7 | 250 | 3 | 4 | 4# | 5 | 4 | 3 - S | 3 - 3 | SM | No obvious significant defects. | 40+ | B1 |
| T110 | Oak (<i>Quercus</i> sp.) | 15 | 700 | 8.4 | 6 | 7# | 8 | 8 | 3 - S | 3 - 4 | M | No obvious significant defects. | 40+ | A1 |
| G111 | Oak (<i>Quercus</i> sp.) | 14-16 | 350 | 4.2 | As shown on Tree Constraints Plan. Average canopy spread approximately 3m. | | | | N/A | 3 - 6 | SM | Four escaped hedgerow trees. Minor deadwood. One with lost leader. Mutual suppression. | 40+ | B2 |
| T112 | Oak (<i>Quercus</i> sp.) | 8 | 450 | 5.4 | 4 | 4# | 5 | 3 | 3 - S | 3 - 3 | EM | Ivy. | 40+ | B1 |
| T113 | Oak (<i>Quercus</i> sp.) | 14 | 350 | 4.2 | 5 | 5# | 3 | 3 | 3 - N | 2 - 5 | SM | Ivy clad. Partially suppressed. | 40+ | C1 |
| T114 | Oak (<i>Quercus</i> sp.) | 9 | 300 | 3.6 | 7 | 8# | 4 | 5 | 3 - E | 3 - 5 | M | Branch fracture. Partially suppressed. | 40+ | A1 |
| T115 | Oak (<i>Quercus</i> sp.) | 11 | 650 | 7.8 | 9 | 9# | 8 | 8 | 3 - W | 3 - 6 | M | Tear out wound. One main limb cut hard back. | 40+ | A2 |
| T116 | Oak (<i>Quercus</i> sp.) | 9 | 1000 | 12 | 5 | 7# | 5 | 9 | 6 - E | 3 - 6 | M | Crown lifted. Tear out wounds. | 40+ | A1 |
| T117 | Oak (<i>Quercus</i> sp.) | 8 | 1000 | 12 | 7 | 9# | 10 | 10 | 4 - S | 4 - 6 | M | Cut back on west side. Deadwood. | 40+ | A1 |
| T118 | Oak (<i>Quercus</i> sp.) | 11 | 900 | 10.8 | 6 | 8# | 6 | 6 | 4 - S | 2 - 6 | M | Ivy. Deadwood. | 40+ | A1 |
| T119 | Oak (<i>Quercus</i> sp.) | 14 | 900 | 10.8 | 7 | 11 | 7# | 9 | 7 - E | 7 - 8 | M | Crown lifted. Deadwood. | 40+ | A1 |
| T120 | Oak (<i>Quercus</i> sp.) | 12 | 900 | 10.8 | 7 | 6 | 8# | 8 | 5 - W | 4 - 6 | M | Crown lifted. Tear out wounds. | 40+ | A1 |
| H121 | Hawthorn (<i>Crataegus monogyna</i>) | 1.5 | 50 av. | 0.6 | As shown on Tree Constraints Plan. | | | | N/A | N/A | SM | Regularly managed. Associated with ditch. | 40+ | C2 |
| H122 | Hawthorn (<i>Crataegus monogyna</i>) Hazel (<i>Corylus avellana</i>) | 1.5 | 50 av. | 0.6 | As shown on Tree Constraints Plan. | | | | N/A | N/A | SM | Regularly managed. | 40+ | C2 |
| T123 | Oak (<i>Quercus</i> sp.) | 15 | 900 | 10.8 | 6 | 7# | 8 | 5 | 3 - E | 3 - 5 | M | Crown lifted. Stag heading. | 40+ | A1 |
| T124 | Oak (<i>Quercus</i> sp.) | 12 | 800 | 9.6 | 7 | 8 | 7 | 8 | 6 - S | 4 - 6 | M | Crown lifted. Cavities. | 40+ | A1 |
| T125 | Oak (<i>Quercus</i> sp.) | 12 | 800 | 9.6 | 7 | 8 | 7# | 9 | 4 - W | 4 - 6 | M | Ivy. Hanger. | 40+ | A1 |



| ID | Species | Height (m) | Trunk dia. (m) | RPA Radius (m) | Branch Spread (m) | | | | Crown Clearance | | Life Stage | General observations, including structural and physical conditions and any preliminary management recommendations. | Estimated remaining years | Category |
|------|--|------------|----------------|----------------|---|-----|----|-----|--|----------------------|------------|--|---------------------------|----------|
| | | | | | N | E | S | W | Height of 1 st branch (m) and direction | Height of canopy (m) | | | | |
| | | | | | | | | | | | | Stag heading. Deadwood. | | |
| T126 | Oak (<i>Quercus</i> sp.) | 10 | 700 | 8.4 | 5 | 7 | 7# | 8 | 4 - W | 3 - 4 | M | Crown lifted. Cavities. Tear out wounds. | 40+ | A1 |
| H127 | Hawthorn (<i>Crataegus monogyna</i>) | 1.5 | 50 av. | 0.6 | As shown on Tree Constraints Plan. | | | | N/A | N/A | SM | Regularly managed. Occasional gaps. | 40+ | C2 |
| G128 | Oak (<i>Quercus</i> sp.) | 10 | 300 max. | 3.6 | As shown on Tree Constraints Plan. Average canopy spread approximately 4m. | | | | N/A | N/A | SM | Associated with ditch. Mutual suppression. | 40+ | B2 |
| T129 | Oak (<i>Quercus</i> sp.) | 12 | 1000 | 12 | 7 | 8 | 8# | 7 | 6 - E | 6 - 6 | M | Crown lifted. | 40+ | A1 |
| T130 | Oak (<i>Quercus</i> sp.) | 8 | 250 | 3 | 4 | 3 | 4# | 5 | 4 - S | 4 - 4 | SM | Minor deadwood. | 40+ | B1 |
| T131 | Oak (<i>Quercus</i> sp.) | 11 | 550 | 6.6 | 5 | 7 | 6# | 5 | 6 - E | 6 - 6 | M | Beginning to stag head. | 40+ | A1 |
| T132 | Oak (<i>Quercus</i> sp.) | 9 | 300 | 3.6 | 4 | 3 | 4# | 3 | 2 - E | 2 - 3 | SM | Crown lifted leaving stubs. | 40+ | B1 |
| T133 | Ash (<i>Fraxinus excelsior</i>) | 14 | 250 | 3 | 5 | 4 | 5 | 6 | 4 - W | 4 - 7 | SM | Deadwood. Ivy. | 10-20 | C1 |
| T134 | Oak (<i>Quercus</i> sp.) | 15 | 1000 | 12 | 7 | 8# | 8 | 6 | 5 - W | 5 - 5 | M | Crown lifted. Deadwood. | 40+ | A1 |
| T135 | Oak (<i>Quercus</i> sp.) | 8 | 350 | 4.2 | 4 | 3 | 4 | 4 | 1.5 - S | 2 - 2 | SM | Partially suppressed by adjacent tree. | 40+ | C1 |
| T136 | Ash (<i>Fraxinus excelsior</i>) | 6 | 200 | 2.4 | 2.5 | 2.5 | 2 | 2.5 | 6 - E | N/A | SM | Etiolated. Signs of ash die-back disease. | 10-20 | C1 |
| H137 | Hawthorn (<i>Crataegus monogyna</i>) | 1.5 | 50 av. | 0.6 | As shown on Tree Constraints Plan. | | | | N/A | N/A | SM | Regularly managed. With some gaps. | 40+ | C2 |
| G138 | Oak (<i>Quercus</i> sp.) | 12 | 600 max. | 7.2 | As shown on Tree Constraints Plan. Average canopy spread approximately 4.5m. | | | | N/A | N/A | EM | Crown lifted. | 40+ | A2 |
| G139 | Aspen (<i>Populus</i> sp.) Ash (<i>Fraxinus excelsior</i>) Hawthorn (<i>Crataegus monogyna</i>) | 12 | 280 max. | 3.36 | As shown on Tree Constraints Plan. Average canopy spread approximately 3m. | | | | N/A | N/A | SM-EM | Ash die-back disease present Bracket fungi on ash trees, possibly <i>Inonotus hispidus</i> . | 20+ | C2 |
| T140 | Oak (<i>Quercus</i> sp.) | 11 | 750 | 9 | 7 | 8 | 8 | 6 | 4 - W | 4 - 6 | M | In decline. Deadwood. Tear out wounds. | 10-20 | C1 |
| T141 | Oak (<i>Quercus</i> sp.) | 9 | 600 | 7.2 | 6 | 6 | 6 | 5 | 4 - W | 4 - 4 | EM | Ivy. Flailed on east side. | 40+ | A1 |



| ID | Species | Height (m) | Trunk dia. (m) | RPA Radius (m) | Branch Spread (m) | | | | Crown Clearance | | Life Stage | General observations, including structural and physical conditions and any preliminary management recommendations. | Estimated remaining years | Category |
|------|---|------------|----------------|----------------|---|---|---|---|--|----------------------|------------|--|---------------------------|----------|
| | | | | | N | E | S | W | Height of 1 st branch (m) and direction | Height of canopy (m) | | | | |
| T142 | Ash (<i>Fraxinus excelsior</i>) | 8 | 250 | 3 | 2.5 | 3 | 3 | 3 | 6 - N | 6 - 6 | SM | Almost dead. Signs of ash die-back disease. | <10 | U |
| T143 | Oak (<i>Quercus</i> sp.) | 10 | 650 | 7.8 | 6 | 6 | 5 | 6 | 4 - W | 3 - 5 | M | Crown lifted on east side. Deadwood. | 40+ | A1 |
| T144 | Ash (<i>Fraxinus excelsior</i>) | 10 | 380 | 4.56 | 3 | 2 | 3 | 3 | 4 - W | 4 - 4 | EM | Almost dead. Signs of ash die-back disease. | <10 | U |
| T145 | Oak (<i>Quercus</i> sp.) | 9 | 550 | 6.6 | 6 | 6 | 5 | 5 | 2.5 - S | 3 - 3 | EM | Low branch removed leaving stub. | 40+ | A1 |
| T146 | Ash (<i>Fraxinus excelsior</i>) | 10 | 800 | 9.6 | 6 | 6 | 2 | 2 | 4 - N | 4 - 4 | M | Signs of ash die-back disease. In serious decline. Lost leader. Dead branches on ground. | <10 | U |
| T147 | Oak (<i>Quercus</i> sp.) | 12 | 800 | 9.6 | 7 | 5 | 6 | 7 | 6 - W | 4 - 6 | M | Crown lifted. Partially occluded tear out wound. | 40+ | A1 |
| T148 | Oak (<i>Quercus</i> sp.) | 11 | 800 | 9.6 | 5 | 5 | 5 | 4 | 3 - N | 3 - 3 | M | Stag heading. Deadwood. | 40+ | A1 |
| T149 | Ash (<i>Fraxinus excelsior</i>) | 10 | 500 | 6 | 9# | 2 | 3 | 8 | 1 - E | 2 - 8 | EM | Signs of ash die-back disease. Deadwood. Fence support attached to trunk. | 10-20 | C1 |
| T150 | Oak (<i>Quercus</i> sp.) | 8 | 350 | 4.2 | 5 | 6 | 4 | 3 | 2 - W | 2 - 2 | EM | Cut back on southern side. | 40+ | B1 |
| G151 | Ash (<i>Fraxinus excelsior</i>) Oak (<i>Quercus</i> sp.) Hawthorn (<i>Crataegus monogyna</i>) Elm (<i>Ulmus</i> sp.) | 10 | 500 max. | 6 | As shown on Tree Constraints Plan. Average canopy spread approximately 4m. | | | | N/A | N/A | SM-EM | Ash die-back disease present. | 20+ | C2 |
| T152 | Oak (<i>Quercus</i> sp.) | 14 | 750 | 9 | 5 | 7 | 7 | 6 | 3 - W | 3 - 5 | M | Deadwood. Associated with ditch. | 40+ | A1 |
| H153 | Hawthorn (<i>Crataegus monogyna</i>) | 2.5 | 100 av. | 1.2 | As shown on Tree Constraints Plan. | | | | N/A | N/A | SM | Associated with ditch. Signs of layering. Regularly managed. Occasional gaps. | 40+ | C2 |
| T154 | Oak (<i>Quercus</i> sp.) | 14 | 650 | 7.8 | 6 | 5 | 6 | 5 | 4 - W | 4 - 5 | M | Stag heading. Deadwood. | 20-40 | B1 |
| H155 | Hawthorn (<i>Crataegus monogyna</i>) Hazel (<i>Corylus avellana</i>) | 2 | 100 av. | 1.2 | As shown on Tree Constraints Plan. | | | | N/A | N/A | SM | Associated with ditch. Regularly managed. | 40+ | C2 |
| G156 | Willow (<i>Salix</i> sp.) Oak (<i>Quercus</i> sp.) Ash (<i>Fraxinus excelsior</i>) | 10 | 400 max. | 4.8 | As shown on Tree Constraints Plan. Average canopy spread approximately 4m. | | | | N/A | N/A | SM-EM | Pond edge trees. Ash die-back disease present. | 40+ | A2 |
| T157 | Oak (<i>Quercus</i> sp.) | 9 | 300 | 3.6 | 2 | 2 | 2 | 2 | 1.5 - S | 4 - 4 | SM | No obvious significant defects. | 40+ | C1 |



| ID | Species | Height (m) | Trunk dia. (m) | RPA Radius (m) | Branch Spread (m) | | | | Crown Clearance | | Life Stage | General observations, including structural and physical conditions and any preliminary management recommendations. | Estimated remaining years | Category |
|------|---|------------|----------------|----------------|---|---|----|---|--|----------------------|------------|--|---------------------------|----------|
| | | | | | N | E | S | W | Height of 1 st branch (m) and direction | Height of canopy (m) | | | | |
| T158 | Ash (<i>Fraxinus excelsior</i>) | 9 | 300 | 3.6 | 2 | 2 | 2 | 2 | 2.5 - SW | 4 - 4 | SM | Signs of ash die-back disease. | <10 | U |
| T159 | Oak (<i>Quercus</i> sp.) | 15 | 750 | 9 | 9 | 8 | 11 | 8 | 2 - E | 3 - 5 | M | Deadwood. Branch fractures. Tear out wounds. | 40+ | A1 |
| G160 | Ash (<i>Fraxinus excelsior</i>) Oak (<i>Quercus</i> sp.) | 12 | 500 max. | 6 | As shown on Tree Constraints Plan. Average canopy spread approximately 4.5m. | | | | N/A | N/A | EM-M | Occasional branches removed on east side. Ash die-back disease present. | 40+ | B2 |
| T161 | Oak (<i>Quercus</i> sp.) | 9 | 500 | 6 | 4 | 5 | 5 | 4 | 3 - SW | 3 - 3 | EM | Branches cut back on east side. | 40+ | B1 |
| T162 | Willow (<i>Salix</i> sp.) | 5 | 500 | 6 | 4 | 6 | 4 | 4 | 1 - W | 1 - 1 | M | Associated with pond. Dead low branches. | 20+ | B1 |
| H163 | Hawthorn (<i>Crataegus monogyna</i>) Hazel (<i>Corylus avellana</i>) | 1.5 | 150 | 1.8 | As shown on Tree Constraints Plan. | | | | N/A | N/A | SM | Regularly managed. | 40+ | C2 |
| T164 | Oak (<i>Quercus</i> sp.) | 16 | 750 | 9 | 7 | 5 | 7 | 5 | 5 - S | 8 | M | Severe crown lifting. Stag heading. | 40+ | B1 |
| T165 | Oak (<i>Quercus</i> sp.) | 8 | 750 | 9 | 5 | 6 | 5 | 8 | 2 - E | 3 | M | Crown lifted over track. | 40+ | A1 |



Table A-2: Tree Survey Schedule Key

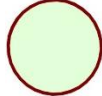

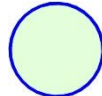

| Parameters Assessed | Details |
|----------------------|---|
| Tree ID | 'T' denotes Tree, 'G' denotes Tree Group, 'W' denotes Woodland, 'H' denotes Hedgerow. The original tree survey numbering is shown in brackets. |
| Species | Botanical and common name. |
| Height | Measured using a clinometer. Measured to the nearest metre. |
| Stem Diameter | Measured at 1.5 m above ground level. For multi-stem trees each stem diameter is recorded. For trees with 2-5 stems the overall diameter is calculated by squaring each stem diameter, adding these figures together and square rooting the result. For trees with more than 5 stems the mean stem diameter is squared and multiplied by the number of stems. The result is then square rooted to give the overall diameter. The results of the calculations for multi-stemmed trees are shown in bold and in brackets on the schedule. Where the tree is inaccessible due to vegetation or obstacles then the stem diameter has been estimated. For groups and woodlands, the stem diameter shown is the maximum recorded. |
| RPA Radius | The Root Protection Area (RPA) is calculated using the stem diameter. The RPA is an area equivalent to a circle with a radius 12 times the stem diameter for a single stem tree. BS 5837:2012 limits the maximum RPA to 707 square metres (m ²), i.e. equivalent to a circle with a radius of 15m or a square with approximately 26m sides. The RPA of veteran/ancient trees is calculated using the standing advice Ancient woodland, ancient trees and veteran trees: advice for making planning decisions - GOV.UK . this states that the RPA for ancient or veteran trees should be an area equivalent to a circle with a radius at least 15 times the stem diameter or 5m beyond the tree canopy, whichever is the greater. All ancient woodland requires an RPA of at least 15m. |
| Branch Spread | Measured at the four cardinal points to derive an accurate representation of the crown and is recorded on the tree survey plan. Where the tree is inaccessible due to vegetation or obstacles then the branch spreads have been estimated. Measured to the nearest metre using a laser measurer. Direction measured using a compass. |
| Life Stage | Young: Newly planted tree 0-10 years. Semi-Mature: Tree in the first third of its normal life expectancy for the species (significant potential for future growth in size). Early Mature: Tree in the second third of its normal life expectancy for the species (some potential for future growth in size) Mature: Tree in the final third of its normal life expectancy for the species (having typically reached its approximate ultimate size). Over Mature: Tree beyond the normal life expectancy for the species. Veteran: Tree, which is of interest biologically, aesthetically or culturally because of its condition, size or age. |
| General Observations | Particularly of structural and / or physiological condition (e.g. the presence of any decay and physical defect) and / or preliminary management recommendations. External features assessed based upon – The Body Language of Trees, Research for Amenity Trees No 4. (Mattheck and Breloer, 1994). |



| Parameters Assessed | Details |
|---------------------|---|
| Category Grading | <p>Recorded on the tree survey plans and schedule. See Section 4.3 for Cascade Chart for Tree Quality Assessment. British Standard (BS) 5837 (2012), “Trees in relation to design, demolition and construction – Recommendations”.</p> <p>Occasionally trees are given more than one category grading, where trees would otherwise be categorised as U, but have identifiable conservation, heritage or landscape value, even though only for the short term, they may be upgraded, although they might be suitable for retention only where issues concerning their safety can be appropriately managed.</p> <p>A – Trees of high quality with an estimated remaining life expectancy of at least 40 years. (Shown as green on the tree survey plans).</p> <p>B – Trees of moderate quality with an estimated remaining life expectancy of at least 20 years. (Shown as blue on the tree survey plans).</p> <p>C – Trees of low quality with an estimated remaining life expectancy of at least 10 years or young trees with a stem diameter below 150 mm. (Shown as grey on the tree survey plans).</p> <p>U – Those in such a condition that they cannot realistically be retained as living trees in the context of the current land use for longer than 10 years. (Shown as red on the tree survey plans).</p> <p>1 – Mainly arboriculture qualities.</p> <p>2 – Mainly landscape qualities.</p> <p>3 – Mainly cultural values, including conservation</p> |
| Notes | <p>Trees can be grouped if they form cohesive arboricultural features either aerodynamically (e.g. trees that provide companion shelter), visually (e.g. avenues or screens) or culturally, including for biodiversity (e.g. parkland or woodland pasture).</p> <p>The category grading for a group of trees does not necessarily imply that the individual trees within that group are the same grading. The group is viewed as a whole and individual trees within it may have a lower grading.</p> |
| # | Estimated dimensions |
| * | Indicates estimated position of tree (not indicated on topographical survey). |



Table A-3: Cascade Chart of Tree Quality Assessment (Taken from BS 5837:2012)

| Category and definition | Criteria (including subcategories where appropriate) | | | Identification on plan # |
|---|--|---|---|---|
| Trees unsuitable for retention (see Note) | | | | |
| <p>Category U Those in such a condition that they cannot realistically be retained as living trees in the context of the current land use for longer than 10 years</p> | <ul style="list-style-type: none"> Trees that have a serious, irremediable, structural defect, such that their early loss is expected due to collapse, including those that will become unviable after removal of other category U trees (e.g. where, for whatever reason, the loss of companion shelter cannot be mitigated by pruning) Trees that are dead or are showing signs of significant, immediate, and irreversible overall decline Trees infected with pathogens of significance to the health and/or safety of other trees nearby, or very low quality trees suppressing adjacent trees of better quality <p><i>NOTE Category U trees can have existing or potential conservation value which it might be desirable to preserve; see 4.5.7.</i></p> | | |  |
| | 1 Mainly arboricultural qualities | 2 Mainly landscape qualities | 3 Mainly cultural values, including conservation | |
| Trees to be considered for retention | | | | |
| <p>Category A Trees of high quality with an estimated remaining life expectancy of at least 40 years</p> | Trees that are particularly good examples of their species, especially if rare or unusual; or those that are essential components of groups or formal or semi-formal arboricultural features (e.g. the dominant and/or principal trees within an avenue) | Trees, groups or woodlands of particular visual importance as arboricultural and/or landscape features | Trees, groups or woodlands of significant conservation, historical, commemorative or other value (e.g. veteran trees or wood-pasture) |  |
| <p>Category B Trees of moderate quality with an estimated remaining life expectancy of at least 20 years</p> | Trees that might be included in category A, but are downgraded because of impaired condition (e.g. presence of significant though remediable defects, including unsympathetic past management and storm damage), such that they are unlikely to be suitable for retention for beyond 40 years; or trees lacking the special quality necessary to merit the category A designation | Trees present in numbers, usually growing as groups or woodlands, such that they attract a higher collective rating than they might as individuals; or trees occurring as collectives but situated so as to make little visual contribution to the wider locality | Trees with material conservation or other cultural value |  |
| <p>Category C Trees of low quality with an estimated remaining life expectancy of at least 10 years, or young trees with a stem diameter below 150 mm</p> | Unremarkable trees of very limited merit or such impaired condition that they do not qualify in higher categories | Trees present in groups or woodlands, but without this conferring on them significantly greater collective landscape value; and/or trees offering low or only temporary/transient landscape benefits | Trees with no material conservation or other cultural value |  |





Appendix B Tree Constraints Plans

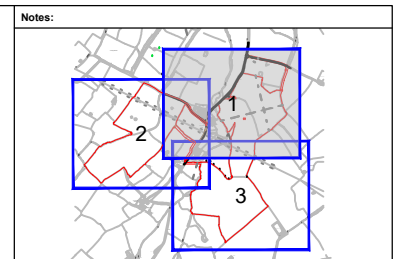
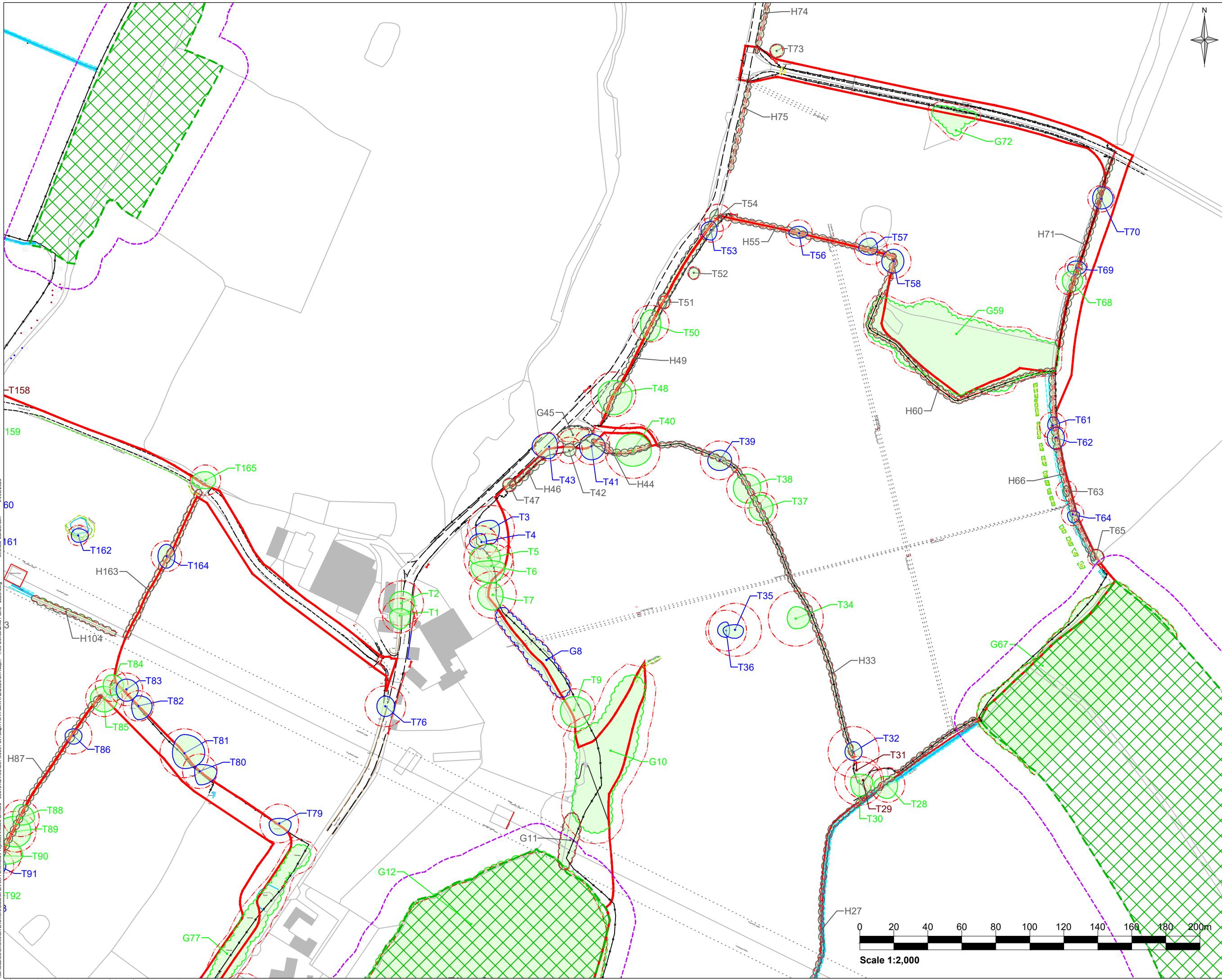
St Asaph Solar Farm

Tree Survey Report & Arboricultural Impact Assessment

Anesco Ltd.

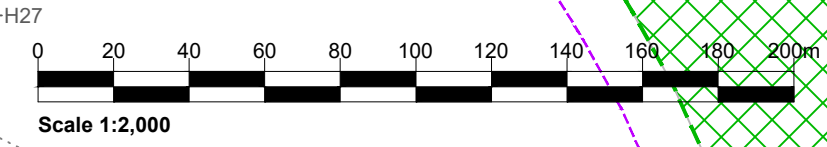
SLR Project No.: 406.065274.00001

April 2025

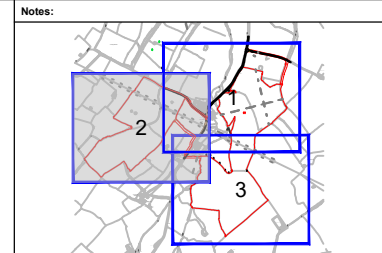
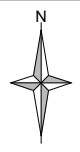


- Notes:**
- Application Boundary
 - Tree of high quality and value (Category A)
 - Tree of moderate quality and value (Category B)
 - Tree of low quality and value (Category C)
 - Tree unsuitable for retention (Category U)
 - Tree (T)
 - Tree Group (G), Woodland (W) or Hedgerow (H)
 - Root Protection Area (RPA)
 - Ancient Woodland
 - Ancient Woodland 15m buffer zone

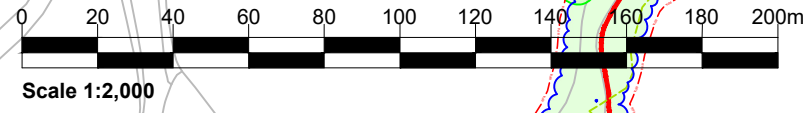
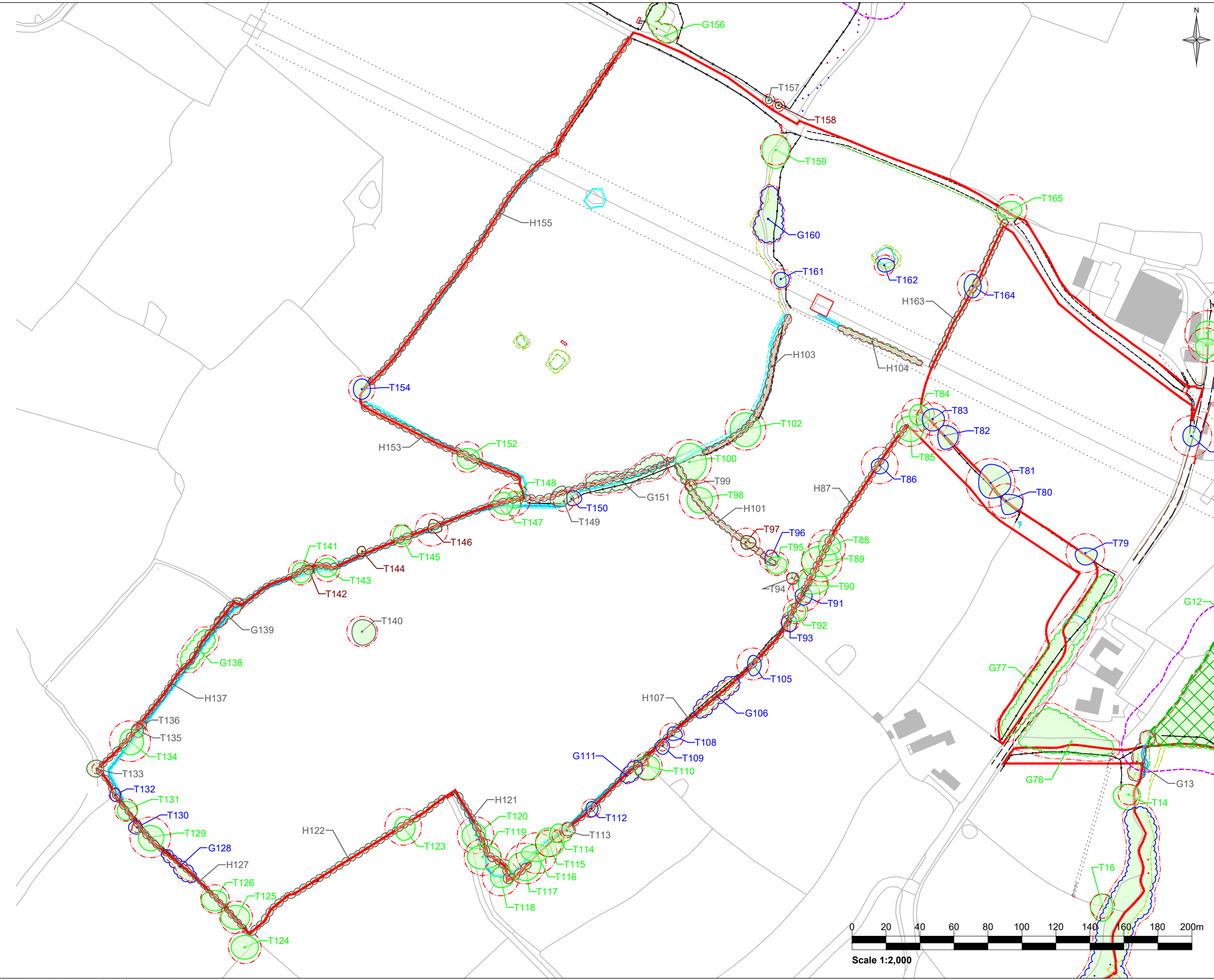
04/03/2025
 Michael Sanderson
 050754246407.0001 St Asaph AIA/Tree Constraints Plans - 2025.rwg
 03
 161
 60
 159
 T158
 T162
 T164
 H163
 H104
 H87
 T84
 T83
 T82
 T85
 T86
 T81
 T80
 T88
 T89
 T90
 T91
 T92
 G77
 G12
 G11
 H27
 H74
 H75
 T73
 T54
 H55
 T52
 T53
 T56
 T57
 T58
 H71
 T70
 T69
 T68
 G59
 H60
 T61
 T62
 H66
 T63
 T64
 T65
 T39
 T38
 T37
 T36
 T35
 T34
 H33
 T32
 T31
 T29
 T28
 T30
 T47
 H46
 T43
 T41
 H44
 T42
 T40
 T48
 T49
 H49
 G45
 T3
 T4
 T5
 T6
 T7
 T9
 G8
 T99
 G10
 T76
 T79



| Rev | Amendments | Date | By | Chk | Auth |
|--|----------------|----------------|------------------|-------------------------------------|------------|
| | | | | | |
| www.slrconsulting.com | | | | | |
| Drawing Status & Suitability Code | | | | | |
| Client Anesco Ltd. | | | | | |
| Project St Asaph | | | | | |
| Drawing Title Tree Constraints Plan (Sheet 1 of 3) | | | | | |
| Scale 1:2,000 | | @ A3 | | SLR Project No. 406.065274.00001 | |
| Designed MMS | Drawn MMS | Checked RB | Authorised RB | | |
| Date Feb 25 | Date Feb 25 | Date Feb 25 | Date Feb 25 | | |
| Drawing Number 406.065274.00001-ARB-D-001 | | | | | Rev. 01 |

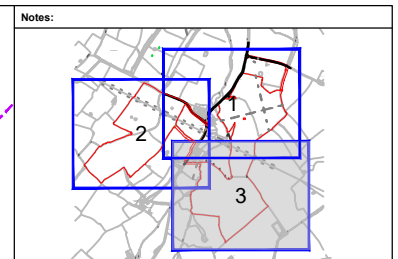
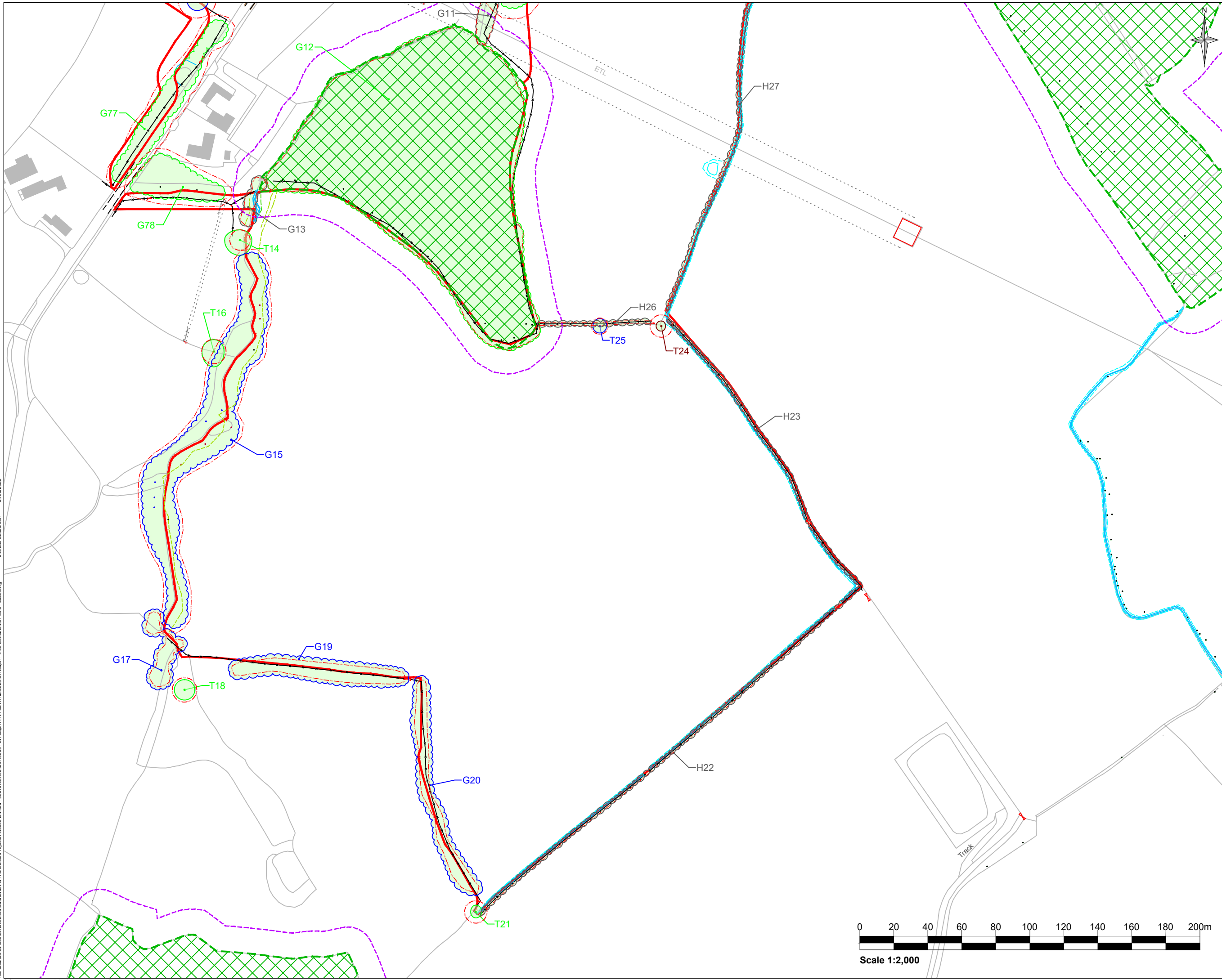


- Legend:**
- Application Boundary
 - T1 Tree of high quality and value (Category A)
 - T1 Tree of moderate quality and value (Category B)
 - T1 Tree of low quality and value (Category C)
 - T1 Tree unsuitable for retention (Category U)
 - T Tree (T)
 - G Tree Group (G), Woodland (W) or Hedgerow (H)
 - Root Protection Area (RPA)
 - X Ancient Woodland
 - Ancient Woodland 15m buffer zone



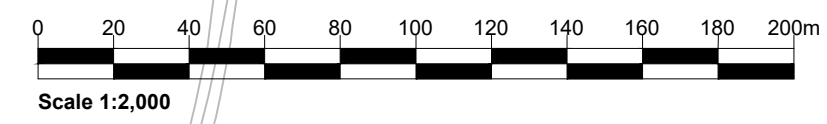
| Rev | Amendments | Date | By | Chk | Auth |
|--|----------------|-------------------------------------|------------------|-----|------------|
| SLR | | | | | |
| www.slrconsulting.com | | | | | |
| Drawing Status & Suitability Code | | | | | |
| Client Anesco Ltd. | | | | | |
| Project St Asaph | | | | | |
| Drawing Title Tree Constraints Plan (Sheet 2 of 3) | | | | | |
| Scale 1:2,000 | @ A3 | SLR Project No. 406.065274.00001 | | | |
| Designed MMS | Drawn MMS | Checked RB | Authorised RB | | |
| Date Feb 25 | Date Feb 25 | Date Feb 25 | Date Feb 25 | | |
| Drawing Number 406.065274.00001-ARB-D-002 | | | | | Rev. 01 |

I:\local\offices\UK\GIS\Belfast\Data\HEAD\AM\Sheffield\Projects\Anesco\Limited - 050759424_064007_00001_Sf Asaph_A1A1T\Tech\ARB\02\25\St Asaph - Tree Constraints Plans - 2025.dwg
 Michael Sanderson 04/03/2025



- Legend:
- Application Boundary
 - T1 Tree of high quality and value (Category A)
 - T1 Tree of moderate quality and value (Category B)
 - T1 Tree of low quality and value (Category C)
 - T1 Tree unsuitable for retention (Category U)
 - Tree (T)
 - Tree Group (G), Woodland (W) or Hedgerow (H)
 - Root Protection Area (RPA)
 - Ancient Woodland
 - Ancient Woodland 15m buffer zone

| Rev | Amendments | Date | By | Chk | Auth |
|--|----------------|-------------------------------------|------------------|-----|------------|
| | | | | | |
| www.slrconsulting.com | | | | | |
| Drawing Status & Suitability Code | | | | | |
| Client Anesco Ltd. | | | | | |
| Project St Asaph | | | | | |
| Drawing Title Tree Constraints Plan (Sheet 3 of 3) | | | | | |
| Scale 1:2,000 @ A3 | | SLR Project No. 406.065274.00001 | | | |
| Designed MMS | Drawn MMS | Checked RB | Authorised RB | | |
| Date Feb 25 | Date Feb 25 | Date Feb 25 | Date Feb 25 | | |
| Drawing Number 406.065274.00001-ARB-D-003 | | | | | Rev. 01 |



04/03/2025 Michael Sanderson
 \\s:\local\offices\uk\GIS\Belfast\HEAD\ASPH\00001\St Asaph\ARB\2025\St Asaph - Tree Constraints Plans - 2025.dwg
 \\s:\local\offices\uk\GIS\Belfast\HEAD\ASPH\00001\St Asaph\ARB\2025\St Asaph - Tree Constraints Plans - 2025.dwg



Appendix C Tree Protection Fencing Illustrations

St Asaph Solar Farm

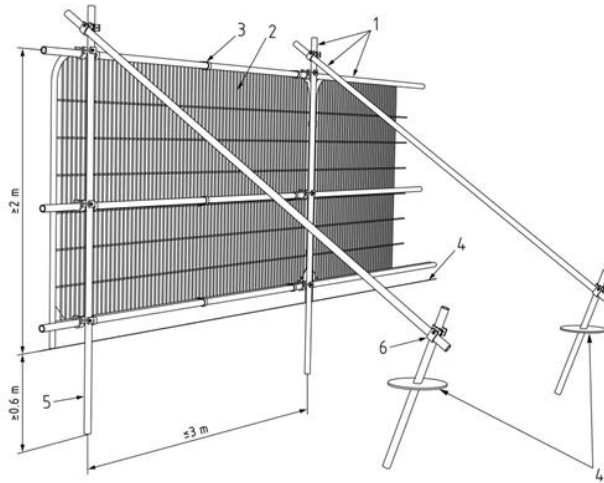
Tree Survey Report & Arboricultural Impact Assessment

Anesco Ltd.

SLR Project No.: 406.065274.00001

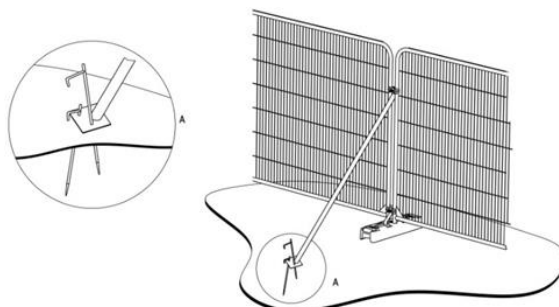
April 2025

Extracts taken from B.S. 5837: (2012), “Trees in relation to design, demolition and construction – Recommendation”.

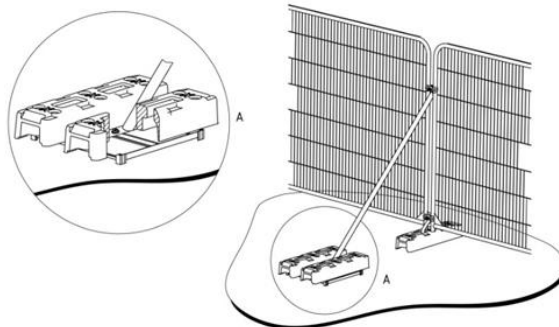


- Key**
- 1 Standard scaffold poles
 - 2 Heavy gauge 2 m tall galvanized tube and welded mesh infill panels
 - 3 Panels secured to uprights and cross-members with wire ties
 - 4 Ground level
 - 5 Uprights driven into the ground until secure (minimum depth 0.6 m)
 - 6 Standard scaffold clamps

Default specification for protective barrier



a) Stabilizer strut with base plate secured with ground pins



b) Stabilizer strut mounted on block tray

Examples of above ground stabilising systems





Appendix D Glossary of Arboricultural Terms

St Asaph Solar Farm

Tree Survey Report & Arboricultural Impact Assessment

Anesco Ltd.

SLR Project No.: 406.065274.00001

April 2025



Glossary of Arboricultural Terms

AIA: Arboricultural Impact Assessment.

AMS: Arboricultural Method Statement.

Ancient tree: An ancient tree is exceptionally valuable attributed with great age/size/cultural heritage/biodiversity value as a result of significant wood decay and the habitat created from the ageing process. All ancient trees are veteran trees with very few trees of any species reaching the ancient life-stage.

Bark: A term usually applied to all the tissues of a woody plant lying outside the vascular cambium.

Buttress zone: The region at the base of a tree where the major lateral roots join the stem, with buttress-like formations on the upper side of their junction.

Canker: A lesion formed by the death of bark and cambium often due to fungal or bacterial infection.

Condition: An indication of the physiological vitality the tree. Where the term 'condition' is used in a report, it should not be taken as an indication of the stability of the tree.

Conservation Area: A designated area that requires notice (currently six weeks) to be given to the local planning authority prior to the commencement of any tree works.

Construction Exclusion Zone: Area based on the Root Protection Area (in square metres) to be protected during development, by the use of barriers and/or ground protection.

Crown/Canopy: The main foliage bearing section of the tree.

Crown lifting: A term used to describe the removal of limbs and small branches to a specified height above ground level.

Deadwood: Branch or stem wood bearing no live tissues. Retention of deadwood provides valuable habitat for a wide range of species and seldom represents a threat to the health of the tree. Removal of deadwood can result in the ingress of decay to otherwise sound tissues and climbing operations to access deadwood can cause significant damage to a tree. Removal of deadwood is generally recommended only where it represents an unacceptable level of hazard.

Dieback: The death of parts of a woody plant, starting at shoot-tips or root-tips.

Diameter at Breast Height (DBH): Stem diameter measured at a height of 1.5 metres (UK) or the nearest measurable point. Where measurement at a height of 1.5 metres is not possible, another height may be specified.

Habit: The overall growth characteristics, shape of the tree and branch structure.

Hazard beam: An upwardly curved part of a tree in which strong internal stresses may occur without being reduced by adaptive growth; prone to longitudinal splitting.

Minor deadwood: Dead wood of a diameter less than 25mm and or unlikely to cause significant harm or damage upon impact with a target beneath the tree.

Notable: Notable trees are usually mature trees which may stand out in the local environment because they are large in comparison with other trees around them

Pollarding: is the removal of the tree canopy, back to the stem or primary branches. Pollarding may involve the removal of the entire canopy in one operation or may be phased over several years. The period of safe retention of trees having been pollarded varies with species and individuals. It is usually necessary to re-pollard on a regular basis, annually in the case of some species.



Primary branch: A major branch, generally having a basal diameter greater than 0.25 x stem diameter.

Pruning: The removal or cutting back of twigs or branches, sometimes applied to twigs or small branches only, but often used to describe most activities involving the cutting of trees or shrubs.

Root Protection Area (RPA): An area of ground surrounding a tree that contains sufficient rooting volume to ensure the tree's survival, calculated with reference to BS 5837:2012.

Snag/stub: In woody plants, a portion of a cut or broken stem, branch or root which extends beyond any growing-point or dormant bud; a snag usually tends to die back to the nearest growing point.

Stem/s: The main supporting structure/s, from ground level up to the first major division into branches.

Topping: In arboriculture it is the removal of the crown of a tree, or of a major proportion of it.

Tree Preservation Order (TPO): Is an order made by the local authority and placed upon individual trees, groups of trees or areas of trees. The local authority must usually grant permission prior to any works undertaken to affected trees.

Veteran tree: A loosely defined term for an old specimen that is of interest biologically, culturally or aesthetically because of its age, size or condition and which has usually lived longer than the typical upper age range for the species concerned.





Appendix E Tree Protection Plans

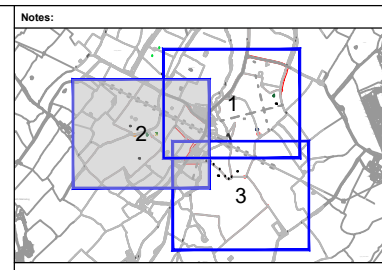
St Asaph Solar Farm

Tree Survey Report & Arboricultural Impact Assessment

Anesco Ltd.

SLR Project No.: 406.065274.00001

April 2025



- Legend:**
- Application Boundary
 - T1 Tree of high quality and value (Category A)
 - T1 Tree of moderate quality and value (Category B)
 - T1 Tree of low quality and value (Category C)
 - T1 Tree unsuitable for retention (Category U)
 - Tree (T)
 - Tree Group (G), Woodland (W) or Hedgerow (H)
 - Root Protection Area (RPA)
 - Ancient Woodland
 - Ancient Woodland 15m buffer zone
 - Tree Protection Fencing (TPF)
 - Tree to be removed
 - No dig construction method
 - DNO access route
 - Security fencing
 - Photovoltaic array

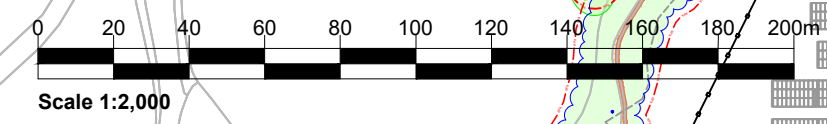
| Rev | Amendments | Date | By | Chk | Auth |
|-----|-----------------------------|----------|-----|-----|------|
| 02 | Amended site layout | 01/04/25 | MMS | RB | RB |
| 03 | Amended trees to be removed | 10/04/25 | AG | MMS | MMS |



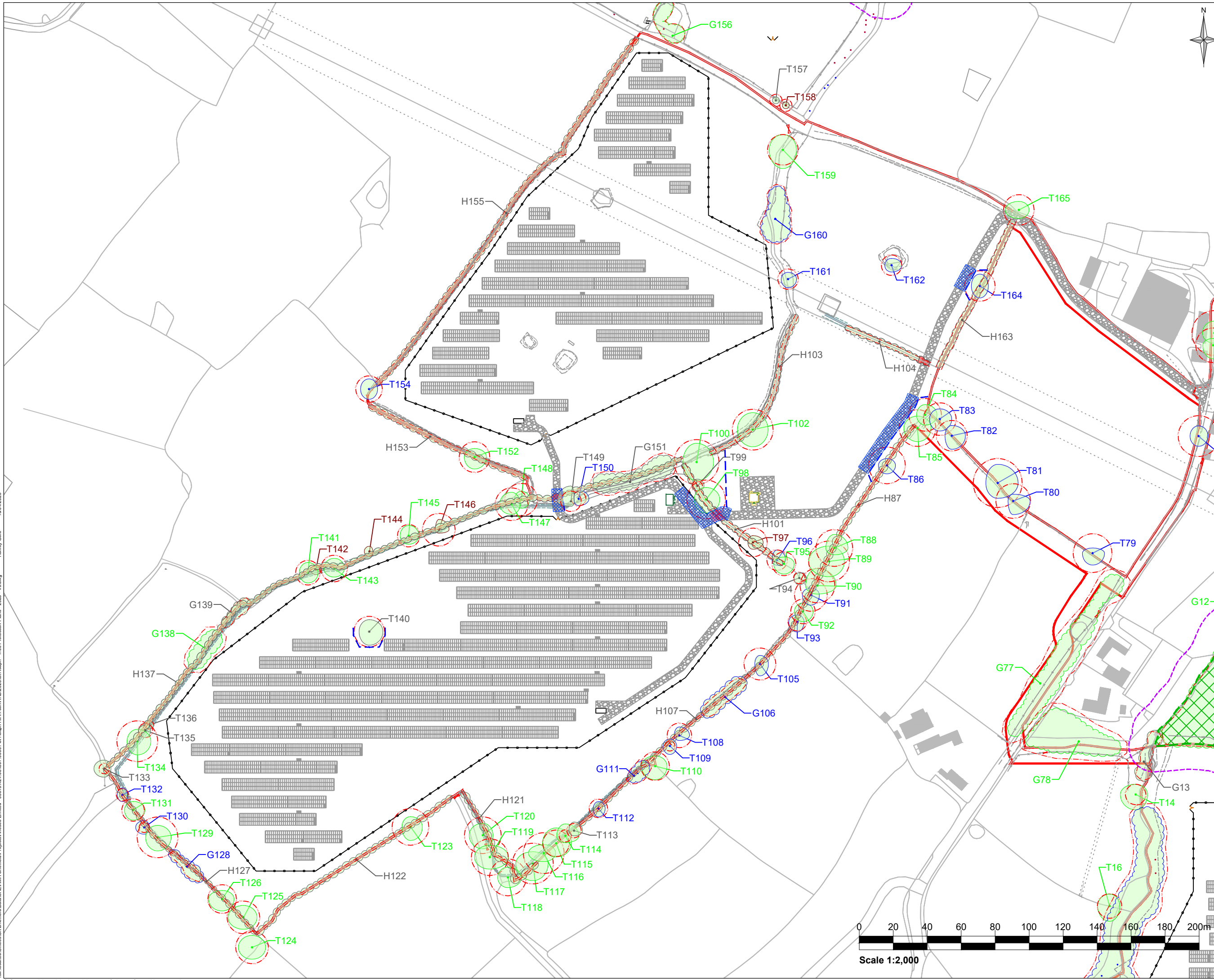
Client: Anesco Ltd.
 Project: St Asaph Solar Farm

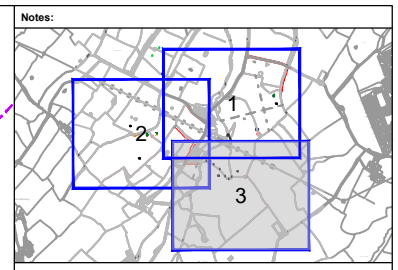
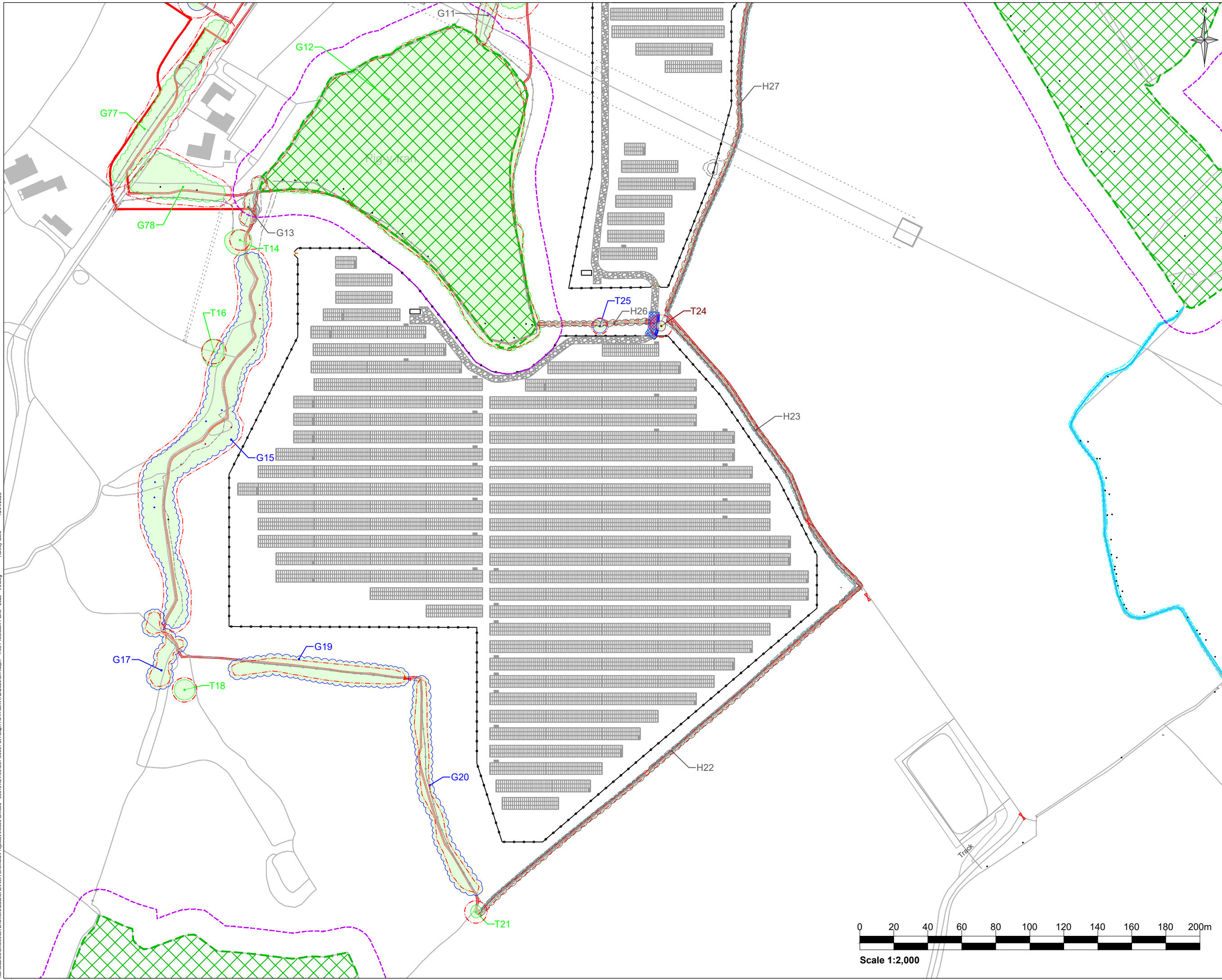
Drawing Title: Tree Protection Plan (Sheet 2 of 3)

| Scale | 1:2,000 | Sheet | @ A3 | SLR Project No. | 406.065274.00001 |
|------------|----------|------------|----------|-----------------|------------------|
| Designed | MMS | Drawn | MMS | Checked | RB |
| Date | March 25 | Date | March 25 | Date | March 25 |
| Authorised | RB | Authorised | RB | Rev. | 03 |



Scale 1:2,000





Notes:

Legend:

- Application Boundary
- Tree of high quality and value (Category A)
- Tree of moderate quality and value (Category B)
- Tree of low quality and value (Category C)
- Tree unsuitable for retention (Category U)
- Tree (T)
- Tree Group (G), Woodland (W) or Hedgerow (H)
- Root Protection Area (RPA)
- Ancient Woodland
- Ancient Woodland 15m buffer zone
- Tree Protection Fencing (TPF)
- Tree to be removed
- No dig construction method
- DNO access route
- Security fencing
- Photovoltaic array

| | | | | | |
|-----|-----------------------------|----------|-----|-----|------|
| 02 | Amended site layout | 01/04/25 | MMS | RB | RB |
| 03 | Amended trees to be removed | 10/04/25 | AG | MMS | MMS |
| Rev | Amendments | Date | By | Chk | Auth |



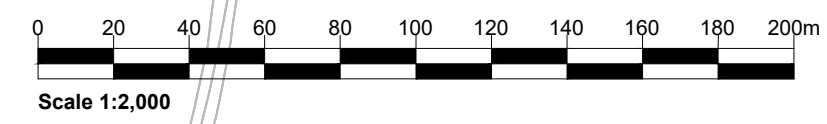
Drawing Status & Suitability Code

Client
Anesco Ltd.

Project
St Asaph Solar Farm

Drawing Title
Tree Protection Plan
(Sheet 3 of 3)

| | | |
|--|------------------|-------------------------------------|
| Scale 1:2,000 | @ A3 | SLR Project No. 406.065274.00001 |
| Designed MMS | Drawn MMS | Checked RB |
| Date March 25 | Date March 25 | Date March 25 |
| Drawing Number 406.065274.00001-ARB-D-006 | Rev. 03 | |



10/04/2025 Ashley Gore
 \\s:\local\offices\uk\GIS\Belfast\Data\HEMAMA_Sherfield\Projects\Anesco Limited - 050759424_064007_00001_Sr Asaph_A1A1T\Tech\ARB\0225\SI\Asaph - Tree Protection Plans - 2025 - V3.dwg

