

**Tirwedd Sustainable Garden and Tree
Services LLP
(Partnership NO. OC448808)**

Arboricultural Report

Tree Condition Survey and Inspection

Prepared for Mr. Chris Morgan of Bryn Brych Farm,
Maeslan, Rhos, regarding the condition and safety of
trees within a retained strip on the western boundary
of Heol Cynfeli housing estate, Rhos.

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Date	22/10/2023

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REVISION AND AMENDMENT REGISTER

Issue No.	Date	Comments	Prepared by
1	22/10/2023		Ben Watson

EXECUTIVE SUMMARY

- S1** A visual tree condition inspection of trees along the western boundary of neighbouring properties within Heol Cynfeli and the properties to the west and south has been undertaken and a report has been prepared for Mr. Chris Morgan on his request.
- S2** The inspection and report has been carried out in order for the responsible party, to dispense their duty of care under the Occupiers Liability Act 1957 & 1984 with regards to tree safety.
- S3** The findings of the visual survey and inspection of the trees have been used to assess failure potential, with the assessment of tree or branch size to assess potential level of harm, together with target occupancy to carry out a tree risk assessment. There is currently low potential of harm to people and moderate potential of damage to property from failure. However, the physiological and structural condition of various trees is poor and deteriorating.
- S4** From this assessment a schedule of tree work has been recommended within Appendix 2, Tree Schedule, which includes some felling, crown reductions and removal of ivy.
- S5** All the trees surveyed are known to be protected by TPOs and relevant consent must be sought before undertaking tree work.

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1 INTRODUCTION

1.1 Instruction

1.1.1 Tirwedd Sustainable Garden and Tree Services LLP (Tirwedd hereafter) have been instructed by Chris Morgan, of Bryn Brych Farm, in person, on the 21st of September 2023, to carry out a tree condition survey on trees within a retained strip of land between Heol Cynfeli and private property, to the southwest of Bryn Brych farm. The instruction is to provide advice on the safe condition of the trees in relation to the neighbouring properties.

1.2 Background Information

1.2.1 The survey is being carried out following a previous failure of a tree which reportedly caused damage to number 20 Heol Cynfeli and the occupier's car.

1.2.2 The survey is being carried out for the responsible party to dispense their duty of care under the Occupiers Liability Act 1957 & 1984 with regards to tree safety.

1.2.3 No previous reports have been made available.

1.2.4 Access to site was agreed with the occupiers of number 20 and 22 Heol Cynfeli, and at 109 New Road, Gellinudd, owned by Mrs. Harris, with Mrs. Harris' daughter.

1.2.5 No formal recorded evidence of defects has been made available, although the client had identified the previous failure noted above in 1.2.1, and Danielle Charles of number 22 Heol Cynfeli described an undefined number of branches that had previously fallen into the garden, without causing any damage.

1.3 Site Details

1.3.1 A site visit was carried out by Ben Watson of Tirwedd on 14 /10/2023.

1.3.2 Ben Watson met Danielle Charles onsite at 20 Heol Cynfeli. Danielle gave a brief overview of the previous tree failure which damaged her property, other branches which have fallen into the garden, and general concerns about the trees, including how her daughter is anxious about the prospect of another tree falling into the house. Ben Watson also met Christina, occupant of number 22 Heol Cynfeli who did not give any details of previous failures. Christina did, however, mention that she has concerns about the trees encroaching on the property, that she is concerned squirrels will

access her roof space from the trees and would like to have them pruned back. She is aware that the trees have TPOs on them, and that she could seek advice from Neath Port Talbot's tree officer.

1.3.3 The site is a narrow strip just a few metres wide and around eighty-five metres long.

1.3.4 Figure 1 shows the location of the site and trees surveyed.



Figure 1: Site and tree location with boundary of strip surveyed shown by red line.

1.4 Tree Details

1.4.1 All trees within the strip were surveyed and inspected. Only those identified as requiring work or specific consideration at this time are listed in Appendix 2- Tree Schedule.

1.4.2 There are eight trees listed in the Tree Schedule, all sessile oaks (*Quercus petraea*).

1.4.3 Tree dimensions and data set out in the following section are recorded and listed in Appendix 2- Tree Schedule. This information should be passed to any contractor subsequently engaged to carry out the tree work recommendations.

1.4.4 Tree locations are shown in Appendix 1- The Tree Plan.

2 METHODOLOGIES

2.1 Data Collection

2.1.1 Data collection on site was conducted using a Samsung Mobile Phone and handwritten notes.

2.1.2 Information Collected:

- Tree location
- Species (Common and Scientific)
- Estimated height (metres)

- Crown spread
- Number of stems
- Life Stage
- Physiological condition
- Structural condition
- Comments/ Observations
- Work Recommendations
- Priority of works
- Site Photos

2.2 Tree Assessment

2.2.1 During the inspection, the author of this report surveyed the trees to look for biological signs of reduced vitality and obvious structural defects (from ground level only); such as undersized leaves, discoloured foliage, poor leaf distribution, dead branches and dead bark, decay and cavities, large or numerous cankers, signs of pests and diseases, and fungal fruiting bodies produced by wood decay fungi.

2.2.2 A more detailed visual inspection of features identified to be showing any of the above signs was carried out, from the ground only.

2.2.3 Renowned German academic Claus Mattheck introduced a biomechanically based system of VTA (Visual Tree Assessment), the basis of which is the identification of symptoms produced by a tree in reaction to a weakness, or areas of mechanical stress. These could be bark wounds, cavities, cracks, included bark, weak unions or wood

decay. The visual inspections conducted during this survey followed these relevant principles.

- 2.2.4 The assessment occasionally included the use of simple tools such as a soft sounding mallet and metal probe, to help detect areas of potential decay or wood dysfunction.

2.3 Tree Risk Assessment Methodology

- 2.3.1 The Tree Risk Assessment method applied in this tree condition survey uses established and accepted risk management principles to tree safety management. Firstly, the targets (people and property) onto which trees could fail are assessed, thus enabling tree managers to determine whether they need to assess trees and to what degree of rigour an assessment or inspection of the trees is required.
- 2.3.2 Where necessary, a tree or branch is then considered in terms of both its size (potential impact) and probability of failure. Judgment derived from the assessment of these three components (target, size and probability of failure) are combined to assess risk of harm.
- 2.3.3 The frequency of re-assessment should be informed by the level of risk and the characteristics of the tree population and land-use.
- 2.3.4 The assessment of risk is not the only consideration when managing tree safety. The financial cost of reducing the risk and the potential loss of the many benefits from trees should be considered when making risk management decisions.
- 2.3.5 The method moves the management of tree safety away from labelling trees as either 'safe' or 'unsafe' and requiring definitive statements of tree safety from either tree surveyors or tree managers. Using a traffic light system of colour coding to represent work priority based on the risk from trees, the decision-making process for tree owners and tree managers is simplified. The table below shows the process.

Risk Rating	Level of Risk	Recommended Action
Green- priority Low	Broadly Acceptable	Do nothing.
Yellow	Tolerable	Tolerable risks may not be reduced but may require an increased frequency of re-assessment than green Acceptable risks

Amber	Not Tolerable	Not Tolerable risks will be reduced to an Acceptable level, but with a lower priority than red Not Acceptable risks.
Red- Priority High	Unacceptable	Reduce the risk to an acceptable level as soon as possible.

3 LIMITATIONS

- 3.1 Trees are living organisms, the health, condition, and safety of which can change rapidly. Therefore, no tree is entirely safe, given the possibility that an exceptionally strong wind could damage or uproot even a mechanically 'perfect' specimen. It is therefore usually accepted that hazards are only recognisable from visible symptoms of defects or from other failure-prone characteristics of a tree or of the site.
- 3.2 The findings reflect the trees as found only on the day of inspection. Any changes after the site visit, which affect the size or condition of the trees, the target occupancy or usage of the site, or disruptions above and below ground, including a major weather or tree damage event or excavation works within or adjacent to the site, may alter the relevance of the findings detailed in this report.
- 3.3 No aerial inspections were carried out during this site visit.
- 3.4 No soil samples, wood or foliar samples were taken for laboratory analysis.
- 3.5 No vegetation clearance was undertaken during the site visit.
- 3.6 No invasive inspections were undertaken during the site visit.
- 3.7 No pull tests were undertaken during the site visit.
- 3.8 There was no access to the properties to the south of number 22 Heol Cynfeli. Trees were only views from the street, within the strip, and from number 109 New Road to the west.
- 3.9 A row of conifer in the grounds of number 109 New Road, running alongside the strip surveyed, limited view of the trees from the west.
- 3.10 Due to the nature of the stand and dense ivy there were limited opportunities to take clear photographs of some of the trees of note.

4 LEGISLATION GUIDANCE

4.1 Legal Responsibilities for Tree Safety

- 4.1.1 Under both the civil law and criminal law, an owner of land on which a tree stands has responsibilities for the health and safety of those on or near the land and has potential liabilities arising from the falling of a tree or branch. The civil law gives rise to duties and potential liabilities to pay damages in the event of a breach of those duties. The criminal law gives rise to the risk of prosecution in the event of an infringement of the criminal law.
- 4.1.2 It is important to remember, however, that the duty holder cannot, and is not expected to, guarantee that a tree is safe. They have only to take reasonable care such as could be expected of the reasonable and prudent landowner.
- 4.1.3 It is recommended that those responsible for instructing any works, satisfy themselves to their responsibilities, the ownership and legal protection of trees detailed within this report.

4.2 Tree Preservation Orders and Conservation Areas

- 4.2.1 The Town and Country Planning Act 1990 as amended, requires that, no work shall be carried out which will affect trees which are situated in Conservation Areas. Six weeks' notice of intent has to be given to the local authority before the work is carried out. This provides an opportunity for the local authority to make a Tree Preservation Order (TPO) under this Act, to protect the trees, or permit the works to proceed.
- 4.2.2 TPOs allow for trees to be protected either as individuals, groups, areas, or woodlands. The orders have the effect of preventing the cutting down, topping, lopping, uprooting, wilful damage, or wilful destruction of trees, except in certain circumstances, other than with consent of the local authority.

4.3 Felling Licence

- 4.3.1 Even when no specific legal protection exists, it may be necessary to obtain a felling licence from The Natural Resources Wales where tree removals or coppicing are specified. This applies if the volume of timber exceeds specified amounts within one calendar quarter; as such site clearance, even of small areas, could exceed the felling

licence quota. Natural Resources Wales, under the Forestry Act 1967 as amended, administers felling licences and it is an offense to fell trees without a licence unless exemptions apply.

- 4.3.2 Exemptions include: trees within a garden, churchyard, orchard or designated public open space, or trees that pose a significant hazard.

4.4 Statutory Wildlife Obligations

- 4.4.1 The Wildlife and Countryside Act 1981 as amended by the Countryside and Rights of Way Act 2000, and The Conservation of Habitats and Species Regulations 2017 (as amended) provide statutory protection to birds, bats and other species that inhabit trees. All tree work operations are covered by these provisions and advice from an ecologist must be obtained before undertaking any works that might constitute an offence.

5 FINDINGS

5.1 Site Specific Survey Limitations

The detail, level and areas of inspection were limited by:

5.1.1 Vegetation and low light in the field layer

A thorough inspection of the basal area and buttress roots was limited by the presence of vegetation, including bramble, and low light, in places.

5.1.2 Dense canopy / dense ivy foliage

A thorough inspection of the upper crown of most trees was limited by the presence of dense ivy.

5.1.3 Dense ivy on main stems.

A thorough inspection of some basal, lower and main tree stems extending into the canopy was limited on a number of trees due to the presence numerous and thick stems of ivy.

5.1.3 Autumn inspection:

- No fungal fruiting bodies were found.

- It is possible that fungal fruiting bodies may develop during the late autumn which were not present at the time of the inspection.

5.2 Visual Tree Assessment

5.2.1 The visual tree assessment identified eight trees requiring recommendations as listed in Appendix 2- Tree Schedule and described below:

5.2.2 ~~Tree Number T0159~~ This is short, dead stem near the parking area and side access for number 20 Heol Cynfeli. It has the potential to reach the access to the back garden if it falls to the east and possibly a parked car if the car is close to the edge of the bay.

5.2.3 **Tree Number T0160-** This semi mature oak has an open cavity 30cm deep at base, which indicates a significant proportion of the stem diameter is decayed. There are also signs of mechanical stress in the growth of the sound wood indicated by the shape of the material laid down. There is potential for prevailing westerly wind to blow the tree toward the house.

5.2.4 **Tree Number T0161-** This semi mature oak has a heavy lean towards number 20 Heol Cynfeli and there is little clearance from building. It is also heavily laden with ivy throughout the canopy and down the stem. There is what appears to be a small pocket of decay on the stem which cannot be seen clearly due to the ivy.

5.2.5 **Tree Number T0162-** This semi mature oak has a long and deep section of decay (at least 10cm deep) on the west side of the stem at 1.5 to 2m above ground level. There is little or poor wound wood formation on the edges of the decay.

5.2.6 ~~Tree Number T0163~~ This is a dead stem with potential to fall onto neighbouring property.

5.2.7 **Tree Number T0164-** This semi mature oak has several areas of adaptive growth that indicate potential defects at the base and there is clearly some significant decay at the base visible on the south, southeast and southwest sides. These areas of decay may have coalesced.

5.2.7 **Tree Number T0165-** This mature oak of notable size and significant ecological value is in poor physiological and structural condition. There is die back on the west side of the crown. The bark and cambium of approximately 60% of the stem circumference at 1m above ground level is dead, with decayed sap wood. This indicates potential attack by parasitic fungi.

5.3.7 **Tree Number T0166**- This mature oak, again of notable size and of significant ecological value, is in poor physiological and structural condition, similar to T0165. There is extensive dead bark and cambium, with some decayed sapwood, on the lower stem. This is obscured by thick stems of ivy. There is also dense ivy in the crown. The crown has extensive die back that is well established.

6 ADDITIONAL INFORMATION

- 6.1 The targets that may be impacted by the trees with defects are third party and as such the risk is imposed on others. Targets are largely stationary objects including houses, parked cars, fences, and play equipment.
- 6.2 Human occupancy of the risk zones was low at the time of the site visit but can be variable as the neighbours do spend some condensed time in the gardens on an irregular basis.
- 6.3 The largest oak trees, trees numbered 0165 and 0166, are likely to have some features that may be considered to be veteran characteristics and are of high ecological value..

7 CONCLUSIONS and DISCUSSION

7.1 General

Some tree work is required to reduce the risk posed to third parties and their property to an acceptable level, as set out in Appendix 2- Tree Schedule and discussed in Section 8- Recommendations.

- 7.1.1 The poor condition of trees T0159, T0160, T0161, T0163, T0164 pose the greatest likelihood of damage to property. Damage to property is more likely than harm to people due to low human occupancy of target areas. There is potential for whole tree failure to damage property. The trees are rated as **Amber** by risk assessment. This is partly because the risk is imposed on third parties. The risk is Not Tolerable but lower priority than if assessed as Red.
- 7.1.2 As all the trees are protected by a TPO, the local authority should be consulted before any tree work is undertaken.
- 7.1.3 The extensive ivy on many of the tree stems and within many of the tree's crowns does limit the level of inspection that can currently be made. There is potential that

the ivy is concealing defects, including those that may be caused by grey squirrels damaging bark. The ivy also increases the risk of wind damage in some of the heavily shrouded trees. Although ivy is of high ecological value, the extent of ivy in this strip of trees and their proximity to privately used gardens and houses indicates a need to manage this, to improve the ability to visually assess the condition of the trees in the future, and to minimise the risk of additional windsail causing tree failures.

Although the lost ecological value of the ivy will be significant, this will improve the long term viability of retaining as many oaks as possible, for as long as possible.

8 RECOMMENDATIONS

8.1 Management Prescriptions

8.1.1 ~~Trees 0159 and 0163 The recommendation is to fell these dead trees but to leave high stumps for dead wood ecological value, as recommended in BS3998 Treework Recommendations.~~

8.1.2 Trees 0160, 0162 and 0164 have defects or characteristics which increase the potential for failure. Crown reductions have been recommended in Appendix 2- Tree Schedule. The level of crown reduction recommended is higher than is recommended in BS3998. This is to minimise the risk of failure due to wind loading whilst enabling the retention of the trees for their wildlife and ecological value. Once crown reduced, cyclical cutting of regrowth should be carried out every five years. Pruning cuts should be made to branch collars, side shoots or nodes.

8.1.3 Tree 0161- The recommendation is to remove all the ivy from the entire stem and canopy of this heavily leaning tree and reduce the height of the crown by 1.5m and spread of crown on the east side to give 2m clearance from house. This will reduce the risk of the tree striking the house in heavy wind or failing. It should also help reduce the anxiety of the tenants. All pruning should be done to BS3998 (2010) Treework – Recommendations. Pruning cuts should be made to branch collars, side shoots or nodes.

Once the ivy is removed, the tree should be inspected for any defects. This could be done by the climbing arborist undertaking the tree work if they are suitably qualified.

- 8.1.4 Tree number 0165 should have the height of the crown reduced by 2m and the spread of crown west and east reduced by 2m to reduce wind loading and to accelerate the benefits of the already naturally initiated crown retrenchment. This crown reduction should encourage the growth of epicormic shoots within the crown and improve the potential for the long-term retention of the tree which is of significant ecological value. There is however some ongoing pathogenicity which is killing the cambium on the lower stem which requires further investigation. Once the ivy has been removed, a more detailed look at the extent of the dead cambium should be made together with an inspection of the buttress roots below the diseased areas.
- 8.1.5 Tree 0166 has similar disease and dysfunction of the cambium on the lower stem. The recommendation is to remove all ivy to a height of approximately 6m to enable a fuller inspection of the diseased cambium and to check the effect on the buttress roots below the diseased areas.
- 8.1.6 Although a recommendation for pruning to reduce the easterly spread of trees towards number 22 Helo Cynfeli has not been made in Appendix 2- Tree Schedule, reducing the crown spread to ensure a 2m clearance from the house would minimise the potential for growth to encroach on and impact the building in the near future. This should also appease concerns of the occupier. Whilst not recommended on the basis of assessment of safe condition, it may be beneficial to consider undertaking this work at the same time as the other tree work recommended.
- 8.1.7 Any tree crown reduced should be subject to cyclical re-pruning every five years. The works recommended should enable as many trees to be safely retained as possible over the medium to long term.

8.2 Next Inspection

- 8.2.1 As noted above, tree 0161 should be inspected by the climbing arborist who removes the ivy and reduces the crown, if they are suitably competent, to check for any hidden defects.
- 8.2.2 Trees 0165 and 0166 should be inspected again in 12 months following removal of the ivy. The vegetation around the base of the trees should also be cut back to enable fuller inspection at that time.

8.2.3 It is recommended that all trees are inspected again in 24 months during the late summer. Severed ivy should have died sufficiently to enable an improved inspection from the ground. Inspecting in late summer may increase the potential to see fungal fruiting bodies that were not present during this survey.

APPENDICES:

Appendix 1- Tree Location Plan

Appendix 2- Tree Schedule

Appendix 3 -Photos

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