
19 December 2018

Land South of Holt
Road, Wrexham

Preliminary
Arboricultural Impact
Assessment

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Section 1: Introduction

Background and Scope

- 1.1. This Preliminary Arboricultural Impact Assessment (AIA) has been prepared by Tyler Grange LLP (TG) on behalf of our instructing client Barratt Homes and Bloor Homes North West to inform an outline application for residential development of up to 600 dwellings with associated landscape works, public open space and on-site infrastructure, with all matters reserved except for access at land south of Holt Road, Wrexham (OS Grid Reference SJ 36121 51534), hereinafter referred to as the 'site'.
- 1.2. The site covers an area of approximately 28.52ha and is situated to the north of Bryn Estyn Road at the eastern edge of Wrexham. The site comprises a series of arable fields bounded by defunct hedgerows, but there are also some areas of semi-natural and improved grassland, scattered trees and scrub.
- 1.3. This report provides an assessment of the indicative residential development proposals and has been informed by pre-development BS5837:2012 tree survey work.

Site Description

- 1.4. The site is demarcated by the red line boundary as illustrated below and shown on the **Tree Constraints Plan (Ref. 10581/P02b)** located to the rear of this report.



Figure 1.1: Site Overview (image taken from Google Earth)



- 1.5. The majority of the site consists of arable fields. The fields across the site are bordered by defunct hedgerows (H1 – H19) which are dominated by hawthorn *Crataegus monogyna*, with bramble, ivy *Hedera helix*, hazel *Corylus avellana* and dog rose *Rosa canina* in places.
- 1.6. The site contains mature scattered trees along the field margins and within the arable field to the north-east. Species include oak *Quercus sp.*, ash *Fraxinus excelsior*, sycamore *Acer pseudoplatanus*, elm *Ulmus minor*, holly *Ilex aquifolium*, beech *Fagus sylvatica* and elder *Sambucus nigra*.
- 1.7. The site contains a stand of woodland cover (G8) to the north western area of the site, comprising species such as willows *Salix sp.*, oak, poplars *Populus sp.*, elder and ash. There is also an area of plantation woodland to the north of the site (G9), which includes young hawthorn, silver birch *Betula pendula*, oak, rowan *Sorbus aucuparia*, holly and cherry *Prunus avium*.
- 1.8. Some minor roadside and agricultural management is evident, mostly undertaken in relation to the cutting back of canopies at field edges, although scrub, Ivy and bramble encroachment is present across much of the surveyed tree stock. This has led to a largely naturalised appearance with high levels of deadwood and canopy conflicts between overgrown trees being discernible, typical of the arable context.

Limitations

- 1.9. This report has been guided by the recommendations set out within the British Standard 5837:2012 'Trees in Relation to Design, Demolition and Construction – Recommendations' (hereafter BS5837). The comments made are based on observable factors present at the time of inspection. Although the health and stability of trees in their current context is an integral part of their suitability for retention, it must be understood that this report is not a tree risk assessment and should not be construed as such. While every attempt has been made to provide a realistic and accurate assessment of the trees' condition at the time of inspection, it may have not been appropriate, or possible, to view all parts or all sides of every tree to fulfil the assessment criteria of a risk assessment.
- 1.10. No tree can be considered entirely safe, given the possibility that exceptionally strong winds could damage or uproot even a mechanically 'perfect' specimen. It is therefore usually accepted that hazards are only recognisable from distinct defects or from other failure-prone characteristics of the tree or the site. An assessment of the potential influence of trees upon existing buildings or other structures resulting from the effects of trees upon shrinkable load-bearing soils or the effects of incremental root or branch growth, are specifically excluded from this report.

Un-assessable Risks

- 1.11. Any alteration to the application site or development proposals could change the current circumstances and may invalidate this report and any recommendations made. The Wildlife and Countryside Act (WCA) 1981 (as amended) makes it an offence to disturb nesting birds or recklessly endanger a bat or its roost. Bats are also a European protected species and are additionally protected under the Conservation (Habitats & c) Regulations 1994 and 2010 (as amended). The survey findings, constraints, opportunities and design or mitigation recommendations included within that report must be read alongside this document.
- 1.12. A lack of recommended work does not imply that a tree does not pose an unacceptable level of risk and likewise, it should not be implied that a tree will present an acceptable level of risk following the completion of any recommended work.



Section 2: Arboricultural Planning Context

Arboricultural Planning Policy Context

National Planning Policy

- 2.1. Planning Policy Wales, Edition 10, (PPW10, December 2018) is the land use planning policy for Wales and should be taken into account when preparing development plans. It is supplemented by a series of Technical Advice Notes (TANs).
- 2.2. PPW10 Paragraph 6.4.24 states that *“Trees, woodlands, copses and hedgerows are of great importance for biodiversity. They are important connecting habitats for resilient ecological networks and make a valuable wider contribution to landscape character, sense of place, air quality, recreation and local climate moderation. They also play a vital role in tackling climate change by locking up carbon, and can provide shade and shelter, a sustainable energy source and building materials. The particular role, siting and design requirements of urban trees in providing health and well-being benefits to communities, now and in the future should be promoted as part of plan making and decision taking”*.
- 2.3. PPW10 Paragraph 6.4.25 adds that *“Planning authorities should protect trees, hedgerows, groups of trees and areas of woodland where they have ecological value, contribute to the character or amenity of a particular locality, or perform a beneficial and identified green infrastructure function. Planning authorities should consider the importance of native woodland and valued trees, and should have regard, where appropriate, to local authority tree strategies or SPG. Permanent removal of woodland should only be permitted where it would achieve significant and clearly defined public benefits. Where woodland or trees are removed as part of a proposed scheme, developers will be expected to provide compensatory planting”*.
- 2.4. TAN 5 “Nature Conservation and Planning” (2009) addresses the role of the planning system in nature conservation stating at paragraph 1.6.1 that *“biodiversity conservation and enhancement is an integral part of planning for sustainable development”* noting that *“Development can also present significant opportunities to enhance wildlife habitats and the enjoyment and understanding of the natural heritage”*.
- 2.5. TAN 5 paragraph 3.3.2 states that local development plans should include policies that *“Protect ancient woodlands, veteran trees and other trees of nature conservation value”*, adding at Paragraph 4.6.2 that planning Conditions can *“enhance aspects of the natural heritage and its enjoyment”* by *“Requiring the protection and planting of trees”*.

Local Planning Policy

- 2.6. The site falls within the administrative borough of Wrexham. Wrexham County Borough Council (WCBC) planning policies are set out in the Unitary Development Plan (UDP) which was adopted in February 2005. It will be replaced by the Local Development Plan (LDP 2, 2013 – 2028), which is currently being prepared.
- 2.7. A summary of WCBC's local planning policies relating to arboricultural matters is provided below.



Wrexham Unitary Development Plan, adopted February 2005

- 2.8. Policy PS2 states that:

“Development must not materially detrimentally affect countryside, landscape/townscape character, open space, or the quality of the natural environment.”

- 2.9. Policy EC4 (Hedgerows, Trees and Woodland) states that:

“Development proposals should provide for the conservation and management of hedgerows, trees, orchards, woodland, wildlife and other natural landscape and water features, and include new planting in order to enhance the character of the landscape and townscape. Development which results in the loss or significant damage to valuable trees, important hedgerows or ancient woodland sites will not be permitted”.

Emerging Local Plan Policies: Wrexham Local Development Plan 2 (LDP2) 2013 to 2028 (Deposit Plan March 2018)

- 2.10. Wrexham County Borough Council is preparing the Local Development Plan (LDP) which will replace the current adopted UDP. The LDP will be a long-term land use and development strategy focused on achieving sustainable development and will guide development for housing, employment, retail and other uses, set out policies that will be used to decide planning applications and safeguard areas of land requiring protection or enhancement.

- 2.11. Policy SP13: Design Principles & Masterplanning Framework states that:

“All development will be required to be of a high quality, sustainable design which makes a positive contribution to the creation of locally distinctive places by ensuring compliance with the masterplanning framework and KSS schematics. Proposals must demonstrate how they have taken account of the local characteristics of surrounding areas and how innovative design solutions will enhance the quality of the built and natural environment”.

- 2.12. Policy SP15: Natural Environment states that *“Development will only be supported where it protects conserves and enhances the natural environment including Natural landscape features such as trees, hedges and woodland and the green networks between them which contribute to the quality and diversity of the natural environment and play an important role in mitigating the impact of climate change”.*

- 2.13. Policy SP20: Green Infrastructure states that *“Wrexham’s distinctive natural heritage provides a network of green and blue infrastructure. Protection, conservation and enhancement of natural heritage networks needs to be reconciled with the benefits of development”.*

- 2.14. The policy adds that *“Development will be required to maintain or enhance the extent, quality and connectivity of the County Borough’s multi-functional green infrastructure network, and, where appropriate:*

- i. Create new interconnected areas of green infrastructure between the proposed site and the existing network,*
- ii. Fill gaps in the existing network to improve connectivity,*
- iii. Protect the features most valuable for both nature and people, and*
- iv. In instances where loss of green infrastructure is unavoidable, provide mitigation and compensation for the lost assets”.*

- 2.15. Policy NE3: Trees, Woodlands and Hedgerows states that *“Development will only be permitted where it does not cause unacceptable harm to trees, woodlands and hedgerows of significant public amenity, natural or cultural heritage value or those that provide important ecosystem services including mitigating the effects of climate change”, adding that “Development affecting all existing and new proposed woodlands should:*



- *Support proposals which assist in the respectful and appropriate use and protection of woodlands and boundary edges,*
- *Promote sustainable management to deliver multiple benefits, and*
- *Support the relevant aims and objectives of the Wrexham Tree & Woodland Strategy*
- *2016-2026 and all subsequent amendments.*

2.16. The policy adds that *“Avoiding adverse or detrimental impact on trees, woodlands and hedgerows should be the primary objective of any proposal however, where adverse effects cannot justifiably be avoided and sustainable integration is not possible then adequate mitigation will be required. In such cases development should include proposals for the planting of new trees, woodlands, and hedgerows within the site, ensuring connectivity between proposed and existing green infrastructure”.*

Statutory Designations Relating to Arboriculture

- 2.17. As confirm by WCBC via email on 15th August 2018, the only surveyed trees protected by a Tree Preservation Order (TPO) relate to the stand of Poplar trees associated with tree group G3 (TG reference) on the southern site boundary (TPO WCBC No 272 / 2017, included at **Appendix 4** to the rear of this report). No other trees across the site are covered by a TPO.
- 2.18. As shown on the magic.gov.uk website, none of the surveyed trees are identified as Ancient Woodland (website accessed 13th August 2018).



Section 3: Baseline Information

Tree Survey Methodology

- 3.1 A full tree survey of the site was undertaken on 28th February 2018. The survey was undertaken in accordance with BS5837:2012. For further clarification, please refer to the tree survey explanatory notes in **Appendix 1**.
- 3.2 In accordance with the above recommendations, the tree survey included all trees within / in influence of the site and the site boundaries that were over 75mm diameter at breast height (dbh). Measured topographical survey data was used to inform the locations and surrounding context of the sites individual and groups of trees.
- 3.3 The position of any surveyed trees which were not located on the supplied topographical survey have been approximated using measurements taken during the tree survey and further informed by aerial photography. Such trees and groups are denoted on the Tree Constraints Plan with a '*'.
- 3.4 The trees surveyed were visually inspected from ground level only. No invasive investigations or climbing inspections were necessary to confirm visual or audible signs of defect or debility and no tissue or soil samples were undertaken. Where identified, signs of substantial defects or debility appropriate to the pre-development context have been recorded. Stem measurements were taken using a diameter tape. Where this was not possible or reasonably practical, measurements have been estimated by eye. Tree heights have been measured using a digital clinometer application.
- 3.5 The quality and value of trees have been assessed in accordance with the BS5837 Cascade Chart for Tree Quality Assessment included at **Appendix 3**. Grading subcategories (1, 2 and 3) included within the Cascade Chart for Tree Quality Assessment are intended to reflect arboricultural, landscape and cultural values respectively.

Tree Survey Summary

- 3.6 A total of 42no. individual trees, 14no. groups of trees and 19 hedgerows were identified during the tree survey of the site. The distribution of the surveyed tree cover is illustrated on the Tree Constraints Plan.
- 3.7 Findings for each of the trees surveyed are detailed in the Tree Survey Schedule included at **Appendix 2**. The Tree Survey Schedule provides a tabulated record of the trees surveyed, including; species composition, tree dimensions, life stage, physiological and structural condition, and the arboricultural value of each tree and group of trees.



Section 4: Tree Constraints and Design Implications

Tree Grading Categories

- 4.1. The purpose of categorising surveyed trees based on their arboricultural quality and value was to ensure that the emerging design considered the presence of important trees on the site so informed decisions are made concerning the removal or retention of trees as a result of the proposals.
- 4.2. The quality of the trees is described by reference to BS5837 categories for tree classification. In accordance with the recommended survey assessment criteria found in **Appendix 3**, a synopsis of the surveyed tree stock is provided below.

Category A trees

- 4.3. Category A trees are those with particular high quality and value, and which are in such a condition as to be able to make a substantial contribution from an arboricultural, landscape or cultural perspective. Category A trees are denoted by a Green tree canopy outline on the Tree Constraints Plan. Trees T8 and T23 (Sycamore), and trees T19 and T31 (Oak) were surveyed as being of notably high quality and value largely due to their condition, prominence and maturity.

Category B trees

- 4.4. Category B trees signify those that provide moderate arboricultural quality and value to the site. Such trees are denoted by a Blue tree canopy outline as illustrated on the Tree Constraints Plan.
- 4.5. T2, T4, T6, T16, T24, T28, T32, T34, T36, T37, T38, T39, (Oak), trees T7, T11, T29, T30, (Sycamore), trees T21 and T25 (Poplar) are all individual Category B specimens.
- 4.6. G3, G7, G8 and H2 are surveyed with a Category B classification as cohesive tree groups and are afforded a higher collective rating than the specimens might as individuals. Whilst a degree of field side management is noted in relation to field side tree stock, the urban fringe / arable setting and largely naturalised context has limited the category grading of much of the tree stock.

Category C trees

- 4.7. Category C trees are trees represent trees of low arboricultural quality and value. Category C trees are denoted by a Grey tree canopy outline as illustrated on the Tree Constraints Plan.
- 4.8. Aside from the poor quality Category U specimens all remaining trees represent largely unremarkable examples of the species and provide limited or transient benefits in the existing site context which may be readily replaced.
- 4.9. The Category C grading is also afforded to younger trees which have yet to become established as notable features of landscape or arboricultural merit. The integration of Category C trees into the design has been accommodated for given the development offsets proposed from the site boundaries.



Category U trees

- 4.10. Category U trees (T13 and T35) are denoted by a Red tree canopy outline as illustrated on the Tree Constraints Plan. Such trees are considered unsuitable for retention in the existing context due to exhibiting irremediable structural and / or physiological defects in so far as their early loss is expected.

Root Protection Areas

- 4.11. The Tree Constraints Plan shows the approximate extent of Root Protection Areas (RPAs). The RPAs have been calculated in accordance with the methodology set out in Appendices C and D of BS5837, using the stem diameter dimensions obtained during the site visit.
- 4.12. RPAs are considered to contain sufficient rooting volume to ensure the survival of the tree and should be left undisturbed in order to avoid damage to the roots or rooting environment surrounding the tree. The plotted RPAs have therefore informed the design of the proposals as detailed at Section 5 of this report.

Tree Canopies and Shading

- 4.13. The distribution of tree canopy cover within and in influence of the site is illustrated on the Tree Constraints Plan located at the rear of this report. Canopies have been plotted at cardinal points for individual and groups of trees.
- 4.14. The Tree Survey Schedule included at **Appendix 2** to the rear of this report lists the vertical clearance from site ground level to significant tree branching of individual trees. This measurement informs the impacts of accessibility and development beneath tree canopies.
- 4.15. The principal tree shadow constraints are shown on the Tree Constraints Plan and have been plotted in accordance with BS5837:2012 using the current height of surveyed trees. The indicative shade cast by existing surveyed trees signifies the area within which the amenity interests of shading, available daylight and the proximity of trees for any future site uses may be impacted upon should a tree be retained as part of development.
- 4.16. Where shading is unavoidable, the potential adverse impact of shadowing should also be reviewed on balance with the positive aspects of retaining a degree of canopy shade. BS5837:2012 (para. 5.3.4, a) NOTE 1) states that *"shading can be desirable to reduce glare or excessive solar heating, or to provide comfort during hot weather. The combination of shading, wind speed/turbulence reduction and evapotranspiration effects of trees can be utilised in conjunction with the design of buildings and spaces to provide local microclimatic benefits"*.



Section 5: Preliminary Arboricultural Impact Assessment

- 5.1. This Preliminary Arboricultural Impact Assessment (AIA) has been undertaken to predict the likely development impacts in response to the proposed illustrative masterplan prepared by Randall Thorp. The assessment is informed by a composite overlay of the tree survey findings and the proposed layout.
- 5.2. In accordance with BS5837, potential tree losses to implement the outline layout are illustrated on the **Tree Retention and Removal Plan** (10581/P08a) located to the rear of this report. The potential tree removals are also listed in the table below.

Tree / Group Number and Category	Description of Potential Loss	Mitigation Opportunities Where Possible (to be addressed in detail at Reserved Matters Stage)
H7 (mixed species) Category C	Sectional loss of southern boundary hedgerow amounting to approximately 15m in order to implement southern site access.	Scope for strengthening and enhancement of retained roadside hedgerows to compensate for section of vegetation removal. Internal provision of new trees and planting to provide replacement cover.
H8 (mixed species) Category C	Removal of hedgerow due to current alignment of potential access to land to the south of the site.	Scope for realignment of access link to safeguard sections of H8 with the provision of new southern boundary public open space (POS), wetlands and scattered tree planting to provide compensation where tracts of hedgerow loss are unavoidable.
15m sectional loss of H9 (mixed species) Category B	Proposed vehicular route will traverse H9 requiring short section of loss. The route will also remove the dead elm (T13).	Proposed open spaces to the immediate east of the vegetation losses enabling the planting of scattered trees and new roadside hedgerows as part of the later detailed design proposals. The final alignment of the internal highway would be designed to minimise the extent of H9 removal.
T13 (Elm) Category U		
T17 (Sycamore) Category C	Potential secondary vehicular link to Thornhurst Drive in direct conflict with T17.	Opportunities to strengthen remaining western boundary tree and hedgerow stock with the provision of a new POS and associated tree planting to the immediate east of T17.
6m and 8m sectional losses within H13 (mixed species) Category B	Two potential puncture points within H13 to accommodate indicative alignment of pedestrian connection and internal highway.	New POS and associated planting to be provided to the north of H13 to provide mitigation planting. There will be opportunities to strengthen the remaining tracts of H13 with new hedgerow standards and tree planting at the later detailed design phase.



Tree / Group Number and Category	Description of Potential Loss	Mitigation Opportunities Where Possible (to be addressed in detail at Reserved Matters Stage)
		The final alignment of the internal highway would also be designed to minimise the extent of H13 removal and to ensure the retention of the adjacent T25.
H12 (mixed species) Category C	Proposed pedestrian connection and highways link will conflict with H12 requiring its removal.	A new area of POS with associated tree planting will be provided to the immediate north west of H12, with additional green buffers to the east of the hedgerow associated with a new SUDS area further replacement tree planting is shown indicatively.
T35 (Oak) Category U	Recommended for removal due to poor form and condition.	Scope for retrenchment pruning or similar to retain the specimen as a monolith feature for habitat benefit, with a stand of new woodland planting proposed to the immediate north of T35 offering extensive new canopy area.
16m and two 20m sectional losses within H15 (mixed species) Category C	Sectional hedgerow losses due to indicative alignment of proposed highways and pedestrian connections across the central eastern area of the site.	Retained sections of H15, H16 and H17 will be located within a linear belt of new POS demonstrating opportunities for new green spaces and enabling replacement and additional tree planting to be provided. The final alignment of the internal highway would also be designed to minimise the extent of hedgerow losses and there will be opportunities to strengthen the remaining tracts of H15, H16 and H17 with new hedgerow standards and tree planting at the later detailed design phase. The detailed planting schedule for the internal areas of POS and hedgerow re-stocking can include for the provision of new holly trees to offer a direct replacement of G14.
9m sectional loss of H16 (mixed species) Category C		
10m sectional loss of H17 (mixed species) Category C		
Single holly tree within G14 Category C		

- 5.3. The outline proposals include for approximately 3.28 ha of retained undeveloped land, 0.65 ha of SUDS ponds, 1.35 ha of woodland buffers and the provision of 5.70 ha of other informal open spaces. Planting is currently shown indicatively and would be subject to refinement as part of detailed design proposals, but the indicative layout allows for the provision of new internal tree planting across the proposed development with the potential to provide a net-gain in tree cover.



- 5.4. Proposals include for the establishment of development buffers to the southern and northern boundaries, with the existing network of green infrastructure being utilised to create green corridors throughout the development. This demonstrates opportunities for new green spaces and enables replacement and additional tree planting to be provided. Detailed soft landscaping proposals can allow for the planting of selected heavy standard trees alongside new areas of hedgerow and woodland planting to offer a mix of ages at implementation to provide suitable compensation for the limited sections of vegetation removal.

Design Response in Relation to Root Protection Areas (RPAs)

- 5.5. The **Tree Retention and Removal Plan** contained to the rear of this report identifies where aspects of the proposed development has been designed to accommodate the RPAs of retained trees and hedgerows. This includes the arrangement of open buffers of green space across the development and site boundaries which have been positioned in response to the RPAs of mature tree stock and retained sections of hedgerow.
- 5.6. Any potential RPAs incursions and proposed vegetation losses are predominantly limited to low impact footpaths and proposed internal highway which can be subject to minor adjustments to avoid RPAs where possible as part of the later detailed design phase. Where this is not possible, specialised construction techniques will be proposed to alleviate the disturbance to rooting environments.
- 5.7. The alignment and construction specification of the proposed pedestrian linkages in relation to existing hedgerows for example can adopt the principle of minimising impacts by utilising specialised construction techniques (i.e. no-dig / elevated walkways) to alleviate RPA disturbance as result of construction and longer-term soil compaction. Given the outline nature of the proposed development, the definitive impacts of siting new development within RPAs will be determined during further assessment work at the detailed design stage.

Potential Shading, Crown Conflicts and Tree Pruning Works

- 5.8. The full extent of tree pruning works will be determined as part of the detailed design proposals, however there is the potential for this to include minor crown raising works to provide clear and unobstructed routes up to c.2.5m where proposed footpaths are located in close proximity to trees, and the potential crown reduction of T25 to reduce shading and wind sail given the proximity of proposed residential areas and highways; however, the likely requirement for immediate crown reduction works or long term pruning is limited.
- 5.9. The social proximity associated with retained trees has been recognised in relation to the potential impacts of shading, canopy growth and seasonal nuisance towards newly occupied buildings via the creation of development offsets and open spaces across the retained green infrastructure and the considered arrangement of green buffers in response to high canopy tree stock. The indicative alignment of development parcels and pedestrian connections have also largely avoided conflicts with tree canopies and associated shading at this stage. Options to offset the buildings further from the trees to minimise the potential shading impacts can also be explored as part of the later detailed design phase.

Mitigation Opportunities

- 5.10. Design proposals include the retention / enhancement of ponds, woodland, hedgerow, and the creation of seven SUDS ponds, native tree and woodland planting and creation / enhancement of wildflower meadows on existing arable / grassland. The proposed development layout illustrates a



commitment to provide new site boundary tree and planting, with scattered internal tree cover proposed as part of the development scheme. Linear tracts of POS are shown to reflect the arrangement of existing internal tree stock to create new green corridors and a consideration for the development's overall landscape assimilation.

- 5.11. In the absence of detailed soft-landscaping proposals at this outline stage, the proposed strategy for landscape enhancements suggests that the proposed scheme will offer a highly treed setting across the developed areas, together with new informal arboricultural features being created within large areas of public open space. POS will also consist of informal green spaces, attenuation and play areas, interspersed with new tree planting.
- 5.12. Due to the low number of necessary tree removals envisaged to accommodate the development, the opportunities for replacement and additional tree planting throughout the site is expected to substantially increase the canopy area of the site. New site-wide green infrastructure can serve to not only enhance existing features but also to create new habitats, filter views and break up the overall development.
- 5.13. Hedgerows provide wildlife corridors throughout the site and connect to the wider landscape. Although the majority of hedgerows are in poor condition and short sections of removal are envisaged in order to accommodate new pedestrian and vehicular connections across the site as described above, the retained sections of hedgerow could be restored through planting up gaps with appropriate species and the application of appropriate management (hedge laying). Existing hedgerows are recommended to be incorporated into the sites green infrastructure layout where possible. Some sections of on-site hedgerows have lower canopy gaps caused by shading. To reduce this problem the lower branches and deadwood will be removed to allow more light to the understorey, and any gaps planted up with shade-tolerant species such as holly.
- 5.14. Any new landscape planting should be undertaken between October and March, avoiding days when the ground is frozen. Container-grown trees can be planted at any time of year, if planting is done in late spring or summer they should be watered during dry spells throughout the first growing season. Any deadwood / tree removal or management must be subject to wildlife and planning considerations / constraints. Ideally work should be timed to avoid the bird nesting season wherever possible (1st March to 31st August). If not, each tree will need to be searched for nesting birds prior to clearance. If a nest is found the tree and its immediate surroundings will need to be left undisturbed until nesting is complete.

Construction Mitigation

- 5.15. As noted above, it will be necessary to demonstrate how the above and below ground structures of retained tree cover will be protected during the site preparation and construction phases of development in accordance with BS5837:2012. It is therefore recommended that a full Arboricultural Method Statement (AMS) is prepared as part of a reserved matters application, or to discharge applicable and suitably worded pre-commencement planning Conditions.
- 5.16. An AMS will set out a practical and robust strategy for the protection of retained trees for the site preparation, construction of the proposed access arrangement and the wider development works. The AMS scope would typically be agreed in writing with the LPA but is recommended to include:
 - a schedule and specification of any tree works;
 - specifications for barriers and ground protection;
 - procedures for any specialist construction techniques and any supervised excavations within RPAs;
 - phasing of work;



- an auditable system of site monitoring; and
- a Tree Protection Plan.

Conclusion

- 5.17. A BS5837 tree survey has been undertaken to inform the arboricultural impact of outline development proposals at land south of Holt Road, Wrexham. The site's high value tree cover can be retained as part of the development and has been suitably accommodated within areas of public open space. The development proposals are likely to require the removal of low value sections of hedgerow to accommodate new pedestrian and vehicular connections across the proposed residential parcels on-site.
- 5.18. The worst-case tree loss predictions established as part of this preliminary AIA are considered to be minor in arboricultural terms given the establishment of development parameters that have responded to the site constraints. Where short sections of internal hedgerows may be lost through the creation of new pedestrian paths or highways, existing hedgerows can be enhanced through management and strengthened with new planting to offer appropriate compensation.
- 5.19. At this outline stage, the consideration of the potential tree loss against the provision of well-considered development parameters and proposed enhancement of the existing arboricultural baseline environment via management and re-planting, suggests that beneficial effects could be achieved. The proposed layout will implement development offsets, notably across the site boundaries and mature tree stock, to accord with surveyed root protection areas and canopy shading constraints to ensure that habitable rooms and private gardens will be left free from shade or canopy overhang. Existing trees and hedgerows can also be excluded from proposed private gardens during the later detailed design phases meaning that the retention and management of existing vegetation can be ensured.
- 5.20. The development proposals are therefore considered acceptable in arboricultural terms and demonstrates conformity with local planning policy aspirations pertinent to trees. The definitive effects and the impact of scheme proposals will, however, depend on the detailed design approach and the delivery of a design that addresses site levels, layout, drainage regime, detailed planting proposals and microclimatic effects in more detail. Further works is therefore recommended to include a full Arboricultural Impact Assessment and separate Arboricultural Method Statement to accompany a subsequent reserved matter applications and / or discharge of suitably worded planning conditions.



Appendix 1: Tree Survey Explanatory Notes



Land South of Holt Road, Wrexham
Preliminary Arboricultural Impact Assessment

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Appendix 1: Tree Survey Explanatory Notes

Tree Numbers

'T' prefixes have been used to identify individual trees and commence with 'T1'.

'G' prefixes have been used to identify groups of trees.

Species

Species are listed by their common name, both in the schedule and in the report text.

Height and Stem Diameter

The stem diameter of single stemmed trees is measured at 1.5m above ground level and given in millimetres (mm). The diameter measurement of multi-stemmed trees is taken immediately above the root flare. Tree heights are measured in metres (m).

Crown Spread and Height of Crown Clearance

Radial crown spread is measured in metres and is listed for each of the four cardinal points. The canopy shape for individually surveyed trees depicted on the accompanying plans accurately represents the canopy spread as measured on-site.

The height crown clearance is measured above ground in metres from the attachment point of the first significant branch, or the height to which the lowest (living) branch reaches; whichever is the lower.

Age Class

The age of each tree is defined as follows:

Young - within the first third of life expectancy;

Early-Mature - within the second third of life expectancy;

Semi-Mature - within the last third of life expectancy;

Mature - specimen at full maturity; and

Veteran – tree that, by recognised criteria, shows features of biological, cultural or aesthetic value that are characteristic of, but not exclusive to, individuals surviving beyond the typical age range for the species concerned. For the purpose of this report the term 'ancient tree' and 'veteran tree' are interchangeable.

Physiological and Structural Condition

The physiological or structural condition of each tree is defined as either; good, fair, poor or dead. For each tree, where appropriate, notes on the structural integrity are provided on form, taper, forking habit, storm damage, decay, fungi, pests, etc.

An assessment of a tree's physiological condition is defined as:

Good – fully functioning biological system showing expectant vitality for the species i.e. normal bud growth, leaf size, crown density and wound closure.

Fair – fully functioning biological system showing below average vitality i.e. reduced bud growth, smaller leaf size, lower crown density and reduced wound closure



Poor – a biological system with limited functionality showing clear physiological decline, disease or significantly below average vitality i.e. limited bud growth, small and chlorotic leaves, low crown density and limited wound closure.

An assessment of a tree's structural condition is defined as:

Good – no significant structural defects.

Fair – structural defects which could be alleviated through remedial tree surgery or arboricultural management practices

Poor – structural defects which cannot be alleviated through tree surgery or arboricultural management practices.



Appendix 2: Tree Survey Table



Tree Number	Common Species Name	Height (m)	Trunk Diameter (mm)	Crown Spread (m)				Height of Crown Clearance (m)	Height and direction of lowest branch (m)	Age Class	Physiological Condition	Structural Condition	BS5837 Category	Comments/Preliminary Management Recommendations	RPA Radius (m)	Root Protection Area (m2)
				N	E	S	W									
T1	Ash	15m	900	7.00	3.00	6.50	6.50	3.50	3 (W)	M	Fair	Fair	C12	<i>Inonotus hispidus</i> within crown, failed branch over powerlines to eastern side, within hedgerow, heavy ivy cover	10.8	366
T2	Oak	16m	1250	10.00	7.00	5.50	5.50	2.5 (tips)	-	M	Good	Fair	B1.2	Major deadwood within crown to eastern side, historic wound on stem, steep bank to eastern side	15.0	707
T3	Oak	10m	800	3.50	4.50	2.00	3.50	4.00	-	M	Fair	Fair	C1.2	Heavy ivy cover, steep bank to eastern side	9.6	289
T4	Oak	16m	1000	7.00	7.00	8.00	7.00	3.5 (tips)	2.5 (W)	M	Good	Good	B1.2	Minor deadwood, <25mm diameter, throughout crown, steep bank to eastern side	12.0	452
T5	Oak	5m	700	-	-	-	-	-	-	Dead	Dead	Dead	U	Ivy clad. Possibility to maintain as habitat feature / monolith.	8.4	222
T6	Oak	12m	350	4.50	6.00	4.50	5.00	2 (tips)	3.00	EM	Good	Good	B1.2	North canopy conflicts with T5, basal scrub and hedgerow. No major defects.	4.2	55
T7	Sycamore	9m	600	4.50	4.50	4.00	4.00	2.5 (W)	-	SM	Good	Good	B1.2	Minor deadwood, <25mm diameter, heavy ivy. Site-side flail influence and crown lifted.	7.2	163
T8	Sycamore	15m	830	7.00	7.00	7.00	7.00	2.5 (tips)	-	SM	Good	Good	A1.2	Rounded form, crown lifted. Bifurcated at 2m. Flail cut lower canopy.	10.0	311
T9	Ash	10m	1250	4.00	4.00	7.00	4.00	2.50	-	OM	Good	Fair	C1.2	Historic large failure, Remaining limb growing toward HV powerlines, notable boundary tree within hedgerow. Candidate for retention via retrenchment pruning.	15.0	707
T10	Ash	8m	1000	3.50	5.00	3.50	4.50	0.00	-	OM	Good	Fair	C1.2	Historic central leader failure, notable boundary tree within hedgerow. Candidate for retention as a habitat feature	12.0	452
T11	Sycamore	12m	4 x 250	6.00	6.00	6.00	6.00	1.00	-	SM	Good	Good	B1.2	Multi stem from 0.5m, within hedgerow. Site-side flail influence and crown lifted.	6.0	113
T12	Ash	13m	1250	5.00	5.00	5.00	5.00	3.00	-	OM	Good	Fair	C1.2	Hollowing stem, historic failure, boundary tree within hedgerow, candidate for retention via retrenchment pruning	15.0	707

Tree Number	Common Species Name	Height (m)	Trunk Diameter (mm)	Crown Spread (m)				Height of Crown Clearance (m)	Height and direction of lowest branch (m)	Age Class	Physiological Condition	Structural Condition	BS5837 Category	Comments/Preliminary Management Recommendations	RPA Radius (m)	Root Protection Area (m2)
				N	E	S	W									
T13	Elm									Dead	Dead	Dead	U	Remove	.0	0
T14	Sycamore	9m	360	5.00	5.00	5.00	5.00	3.00	-	EM	Good	Poor	C1.2	Poor pruning by adjacent residents, resulting in poor form	4.3	59
T15	Sycamore	11m	430	4.00	4.00	4.00	4.00	3.00	-	EM	Good	Poor	C1.2	Poor pruning by adjacent residents, resulting in poor form. Site-side flail influence and crown lifted.	5.2	84
T16	Oak	12m	800	9.00	7.00	7.00	9.00	4.00	-	M	Good	Good	B1.2	Stem obscured - heavy ivy. Site-side flail influence and crown lifted.	9.6	289
T17	Sycamore	9m	380	4.00	4.00	4.00	4.00	3.50	-	EM	Good	Good	C1.2	No significant defects noted. Site-side flail influence and crown lifted.	4.6	65
T18	Oak	4m	140	2.00	2.00	2.00	2.00	1.50	-	Y	Good	Good	C1.2	No significant defects noted	1.7	9
T19	Oak	10m	1250	7.00	8.50	7.00	7.00	2.00	-	M	Good	Good	A1.2	Major deadwood within crown, >25mm diameter, hollowing stem	15.0	707
T20	Ash	9m	250	3.00	3.00	3.00	3.00	-	-	Y	Good	Good	C1.2	Offsite, adjacent to farm building	3.0	28
T21	Poplar	15m	550	5.00	5.00	5.00	5.00	0.50	-	EM	Good	Good	B1.2	No significant defects noted	6.6	137
T22	Sycamore	11m	3 x 280 + 150	4.50	4.50	4.50	4.50	3.00	-	M	Good	Fair	C1.2	Heavy ivy with stunted form. Off-site.	6.1	116
T23	Sycamore	20m	1250	9.00	9.00	9.00	9.00	3.00	-	M	Good	Fair	A1.2	Ivy and deadwood across crown. Lifted over site side.	15.0	707
T24	Oak	12m	1250	10.00	7.50	9.00	7.50	4.00	-	M	Good	Good	B1.2	Major deadwood, >25mm diameter, ditch to north side. Site-side flail influence and crown lifted.	15.0	707
T25	Poplar	22m	600	5.00	5.00	5.00	5.00	-	-	M	Good	Good	B1.2	Ditch to southern side	7.2	163
T26	Holly	8m	200	2.00	2.00	2.00	2.00	-	-	EM	Good	Fair	C1.2	Flailed on sides as part of the hedgerow	2.4	18

Tree Number	Common Species Name	Height (m)	Trunk Diameter (mm)	Crown Spread (m)				Height of Crown Clearance (m)	Height and direction of lowest branch (m)	Age Class	Physiological Condition	Structural Condition	BS5837 Category	Comments/Preliminary Management Recommendations	RPA Radius (m)	Root Protection Area (m2)
				N	E	S	W									
T27	Sycamore	18m	1250	9.00	7.00	9.00	9.00	3.5 (tips)	-	M	Good	Fair	C1.2	Hollow stem from base, two leaders joined at 6m via a natural brace. Arable works influence and crown lifted.	15.0	707
T28	Oak	12m	600	6.00	8.00	8.00	6.50	1.5 (tips)	-	M	Good	Good	B1.2	Crossing laterals and deadwood across crown. Arable works influence and crown lifted.	7.2	163
T29	Sycamore	18m	820	8.00	4.00	8.00	8.00	2.5 (tips)	-	SM	Good	Good	B1.2	Epicormic growth around base, pruning for powerline clearance to north east. Arable works influence and crown lifted.	9.8	304
T30	Sycamore	5m	210	2.50	2.50	2.50	2.50	2.00	-	Y	Good	Good	C1.2	No significant defects noted	2.5	20
T31	Oak	19m	850	5.50	5.50	10.00	10.00	3m (tips)	-	SM	Good	Good	A1.2	Minor deadwood, <25mm diameter, within crown	10.2	327
T32	Oak	12m	830	5.00	5.00	8.00	6.50	3 (tips)	-	SM	Good	Good	B1.2	Minor deadwood, <25mm diameter, within crown	10.0	311
T33	Sycamore	13m	570	7.00	3.00	6.50	7.00	2 (tips)	-	SM	Good	Fair	B1.2	Contorted form with moderate ivy, prominent leader to west.	6.8	147
T34	Oak	16m	1250	6.00	6.50	7.50	8.00	3.00	-	M	Good	Good	B1.2	Suppressed by adjacent group	15.0	707
T35	Oak	10m	700	5.50	6.00	7.50	7.50	3 (tips)	-	SM	Good	Poor	U	Significant deadwood. Poor form.	8.4	222
T36	Oak	12m	950	7.50	7.50	9.00	7.50	1 (tips)	-	M	Good	Fair	B1.2	Central decay column with contorted form. Open grown with arable influence, crown lifted.	11.4	408
T37	Oak	14m	800	6.50	6.50	6.50	6.50	2.5 (tips)	-	M	Good	Good	B1.2	Open grown with root wash and rounded form. Hazard beam to SE mid canopy. Canopy deadwood.	9.6	289
T38	Oak	12m	680	6.50	6.50	6.50	7.50	2 (tips)	-	M	Good	Good	B1.2	Open grown with minor canopy deadwood. Arable works influence with ploughing across RPA and crown lifted. Hazard beams and failed limbs	8.2	209
T39	Oak	9m	400	5.00	5.00	6.00	5.00	2.00	-	M	Fair	Fair	B1.2	Arable influence, crown lifted with flail damage.	4.8	72

Tree Number	Common Species Name	Height (m)	Trunk Diameter (mm)	Crown Spread (m)				Height of Crown Clearance (m)	Height and direction of lowest branch (m)	Age Class	Physiological Condition	Structural Condition	BS5837 Category	Comments/Preliminary Management Recommendations	RPA Radius (m)	Root Protection Area (m2)
				N	E	S	W									
T40	Sycamore	8m	2x100,150, 50	4.00	3.50	2.00	2.00	0.00	-	Y	Fair	Fair	C1.2	Multi stemmed form, self-seeded with scrub cladding.	2.5	20
T41	Sycamore	9m	3x200, 150	3.00	3.00	3.00	4.00	0.00	-	EM	Fair	Fair	C1.2	Multi stemmed form, self-seeded with ivy and scrub cladding.	4.5	65
T42	Elm	6m	4x150, 200	3.00	3.00	3.00	1.00	0.00	-	Y	Fair	Fair	C1.2	Multi stemmed form, self-seeded with ivy and scrub cladding. Site-side flail damage.	4.3	59
G1	Elm, Hazel, Holly	9m	150	1.50	1.50	1.50	1.50	-	-	Y to EM	Poor to Good	Poor to Good	C1.2	Some dead and dying. Ivy clad with naturalised form.	1.8	—
G2	Blackthorn	4m	280	2.00	2.00	2.00	2.00	-	-	Y to EM	Fair	Fair	C1.2	Growing alongside and within ditch	3.4	—
G3	Hybrid Poplar, Elder, Holly, Beech	15m	Max - 850	7.50	6.00	8.00	12.00	3m (tips)	-	M	Good	Fair to Poor	B1.2 / C	Heavy ivy with fallen deadwood. Stand of high canopy beech and poplar with self-seeded infill	Mix	—
G4	Sycamore, Ash, Holly, Elm, Hawthorn	12m	450	4.00	4.00	4.00	4.00	2.5 (tips)	-	EM	Good	Fair	C1.2	Sycamore to eastern extent with Ash mixed in to western extent.	5.4	—
G5	Sycamore	10m	180	3.50	4.00	3.50	3.50	2.5 (tips)	-	EM	Good	Fair	C1.2	Dead Elm within group, aligning post and wire fenceline	2.2	—
G6	Holly, Birch	7m	300	4.00	4.00	4.00	4.00	-	-	EM	Good	Fair	C1.2	Failed on sides as part of the hedgerow. Stand of garden trees, off-site.	3.6	—
G7	Poplar	18m	400	5.00	5.50	5.00	6.00	2.5 (tips)	-	EM	Fair to Good	Fair	B12	Major deadwood, >25mm diameter within crown. Three smaller dead stems within the group. Standing deadwood, ivy clad	4.8	—
G8	Poplar, Willow, Oak, Ash	18m	400	5.50	6.00	5.00	5.50	2.5 (tips)	-	EM	Good	Fair	B12	High voltage power cables running through group - above ground, Willow suppressed by Poplar, Failure of secondary branches in Poplar. Standing deadwood, naturalised form.	4.8	—
G9	Holly, Sycamore, Elm, Poplar, Birch, Ash	18m	450	6.00	8.00	8.00	8.00	-	-	Y to EM	Good	Fair	C1.2	Mixed area of vegetation including planted Poplar and natural regeneration	5.4	—
G10	Field Maple, Oak, Ash, Sycamore	5m	200	3.00	3.00	3.00	3.00	-	-	Y	Good	Good	C2	Young planted group in fenced off area.	2.4	—

Tree Number	Common Species Name	Height (m)	Trunk Diameter (mm)	Crown Spread (m)				Height of Crown Clearance (m)	Height and direction of lowest branch (m)	Age Class	Physiological Condition	Structural Condition	BS5837 Category	Comments/Preliminary Management Recommendations	RPA Radius (m)	Root Protection Area (m2)
				N	E	S	W									
G11	Hawthorn, Elm, Willow, Oak, Sycamore, Field Maple, Holly, Elder, Gorse, Birch	4m	300	2.00	2.50	2.00	2.00	0.00	-	Y	Good	Good	C2	Situated on bank, mosaic of young roadside structure planting and self-seeded infill vegetation.	3.6	—
G12	Hawthorn	3m	150	1.00	1.00	1.00	1.00	-	-	Y to EM	Poor	Fair	C2	2x Hawthorn, not located on topographic survey, locations approximated. Self-seeded with naturalised form.	1.8	—
G13	Elder, Ash, Sycamore, Hawthorn	to 10m	250	3.00	3.00	3.00	3.00	-	-	Y to EM	Fair	Fair	C2	Stand of naturalised offsite trees, self-seeded with ivy and deadwood throughout.	3.0	—
G14	Holly	8m	200	2.00	2.00	2.00	2.00	-	-	EM	Good	Fair	C1.2	Flailed on sides as part of the hedgerow	2.4	—
H1	Hawthorn	1m	80	1.00	1.00	1.00	1.00	-	-	EM	Good	Fair	C2	Flailed, ivy and bramble clad.	1.0	—
H2	Hawthorn, Elder	6m	200	3.50	3.50	3.50	3.50	-	-	M	Good	Fair	B2	Outgrown hedgerow tree belt, naturalised form	2.4	—
H3	Ash, Blackthorn, Hawthorn, Elder	3m	200	1.50	1.50	1.50	1.50	-	-	EM to M	Fair to Good	Fair to Good	C2	Sparse in places with gaps. Heavily covered in Ivy	2.4	—
H4	Hawthorn	1m	180	0.50	0.50	0.50	0.50	-	-	Y to M	Good	Fair	C2	More mature stems to western extent. Flailed. Bramble heavy in places making up hedgerow within gaps.	2.2	—
H5	Hawthorn, Hazel, Holly	1m	150	1.00	1.00	1.00	1.00	-	-	Y to SM	Good	Fair	C2	Holly and Hazel towards the southern extent. Flailed. Gaps to restock.	1.8	—
H6	Blackthorn, Hawthorn, Holly	2m	75	0.50	0.50	0.50	0.50	-	-	Y	Good	Fair	C2	No significant defects noted	.9	—
H7	Hawthorn	2m	150	0.50	0.50	0.50	0.50	-	-	EM	Good	Fair	C2	Ivy heavy	1.8	—

Tree Number	Common Species Name	Height (m)	Trunk Diameter (mm)	Crown Spread (m)				Height of Crown Clearance (m)	Height and direction of lowest branch (m)	Age Class	Physiological Condition	Structural Condition	BS5837 Category	Comments/Preliminary Management Recommendations	RPA Radius (m)	Root Protection Area (m2)
				N	E	S	W									
H8	Hawthorn, Holly	5m	100	0.50	0.50	0.50	0.50	-	-	EM	Good	Fair	C2	Flailed	1.2	—
H9	Holly, Elm, Hawthorn	5m	150	3.00	3.00	3.00	3.00	-	-	SM	Good	Fair	C2	Flailed. Standing deadwood.	1.8	—
H10	Hawthorn, Elder, Holly, Elm, Oak	1 - 4m	200	1.00	1.00	1.00	1.00	-	-	EM to M	Good	Fair	C2	Flailed. Heavy ivy and gappy to south.	2.4	—
H11	Holly, Hawthorn, Hazel, Blackthorn, Elder	4m	120	2.00	2.00	2.00	2.00	-	-	EM	Good	Fair	C2	Ditch to north side. Two stools of Hazel to east side. Sparse in places, HV power cables running across hedge.	1.4	—
H12	Hawthorn, Holly	3m	250	2.00	2.00	2.00	2.00	-	-	EM to SM	Good	Fair	C2	Flailed, gaps to restock.	3.0	—
H13	Hawthorn, Holly	2m	200	1.00	1.00	1.00	1.00	-	-	SM	Good	Fair	C2	Flailed	2.4	—
H14	Hawthorn, Holly, Field Maple, Goat Willow, Hazel	1 - 3m	400	3.00	3.00	3.00	3.00	-	-	EM to SM	Good	Fair	C2	Flailed, gaps to restock. Ivy cladding.	4.8	—
H15	Hawthorn, Blackthorn, Holly	1 - 2m	250	1.00	1.00	1.00	1.00	-	-	EM to SM	Good	Fair	C2	Flailed, gaps to restock. Ivy cladding.	3.0	—
H16	Holly, Hawthorn	1 - 2m	250	3.00	3.00	3.00	3.00	-	-	SM	Good	Fair	C2	Flailed	3.0	—
H17	Hawthorn	2m	200	1.00	1.00	1.00	1.00	-	-	SM	Good	Fair	C2	Flailed, scrub clad	2.4	—
H18	Hawthorn, Ash, Holly	1m	200	1.00	1.00	1.00	1.00	-	-	EM	Good	Fair	C2	Flailed with taller holly to north	2.4	—
H19	Hawthorn, Ash, Holly	1m	200	1.00	1.00	1.00	1.00	-	-	EM	Good	Fair	C2	Flailed with bramble cladding and ivy to base forming low fieldside enclosure.	2.4	—

Appendix 3: BS 5837:2012 Cascade Chart for Tree Quality Assessment



Appendix 3: BS 5837:2012 Cascade Chart for Tree Quality Assessment

TREES FOR REMOVAL				
Category and Definition		Criteria		Identification on Plan
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		- 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 (i.e. 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. (NOTE: Category U trees can have existing or potential conservation value which it might be desirable to preserve)		DARK RED
TREES TO BE CONSIDERED FOR RETENTION				
Category and Definition	Criteria - Subcategories			Identification on Plan
	1. Mainly Arboricultural Values	2. Mainly Landscape Values	3. Mainly Cultural Values, including Conservation	
Category A Trees of high quality with an estimated remaining life expectancy of at least 40 years	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)	LIGHT GREEN
Category B Trees of moderate quality with an estimated remaining life expectancy of at least 20 years	Trees that might be included in category A, but are downgraded because of impaired condition (e.g. presence of significant though remedial 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 benefits.	MID BLUE
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 150mm	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 temporary/transient landscape benefit.	Trees with no material conservation or other cultural value.	GREY



Appendix 4: TPO WCBC No 272 / 2017



Land South of Holt Road, Wrexham
Preliminary Arboricultural Impact Assessment

10581_R03b_19th December 2018_JJ_JW

TOWN AND COUNTRY PLANNING (TREES) REGULATIONS 1999

Town and Country Planning Act 1990

The Wrexham County Borough Council, Community of Holt, Tree Preservation Order WCBC No 272 / 2017 – (Erlas House, Bryn Estyn Road, Wrexham, LL13 9TY)

The Wrexham County Borough Council, in exercise of the powers conferred on them by sections 198, 201 and 203 of the Town and Country Planning Act 1990 hereby make the following Order

Citation

1. This Order may be cited as the Wrexham County Borough Council, Community of Holt, Tree Preservation Order WCBC No 272/2017.

Interpretation

2. In this Order “the authority” means the Wrexham County Borough Council and unless the context otherwise requires, any reference in this Order to a numbered section is a reference to the section so numbered in the Town and Country Planning Act 1990.

Application of section 201

3. The authority hereby direct that section 201 (provisional tree preservation orders) shall apply to this Order and, accordingly, this Order shall take effect provisionally on the 26th July 2017.

Prohibited acts in relation to trees

4. Without prejudice to subsections (6) and (7) of section 198 (power to make tree preservation orders) or subsection (1) of section 200 (tree preservation orders: Forestry Commissioners), and subject to article 5, no person shall—

- (a) cut down, top, lop, uproot, wilfully damage or wilfully destroy; or
- (b) cause or permit the cutting down, topping, lopping, uprooting, wilful damage or wilful destruction of,

any tree specified in Schedule 1 to this Order or comprised in a group of trees or in a woodland so specified, except with the consent of the authority and, where such consent is given subject to conditions, in accordance with those conditions.

Exemptions

5.—(1) Nothing in article 4 shall prevent—

- (a) the cutting down, topping, lopping or uprooting of a tree by or at the request of a statutory undertaker, where the land on which the tree is situated is operational land of the statutory undertaker and the work is necessary—

- (i) in the interests of the safe operation of the undertaking;
 - (ii) in connection with the inspection, repair or renewal of any sewers, mains, pipes, cables or other apparatus of the statutory undertaker; or
 - (iii) to enable the statutory undertaker to carry out development permitted by or under the Town and Country Planning (General Permitted Development) Order 1995;
- (aa) the cutting down, topping, lopping or uprooting of a tree where that work is required to enable the implementation of an order made or confirmed under paragraph 8(1) or paragraph 15(1) of Schedule 1 to the Highways Act 1980 (procedures for making or confirming certain orders and schemes);
 - (ab) the cutting down, topping, lopping or uprooting of a tree where that work is urgently necessary for national security purposes;
 - (b) the cutting down, topping, lopping or uprooting of a tree cultivated for the production of fruit in the course of a business or trade where such work is in the interests of that business or trade;
 - (c) the pruning, in accordance with good horticultural practice, of any tree cultivated for the production of fruit;
 - (d) the cutting down, topping, lopping or uprooting of a tree where that work is required to enable a person to implement a planning permission (other than an outline planning permission or, without prejudice to paragraph (a)(iii), a permission granted by or under the Town and Country Planning (General Permitted Development) Order 1995) granted on an application under Part III of the Act, or deemed to have been granted (whether for the purposes of that Part or otherwise);
 - (e) the cutting down, topping, lopping or uprooting of a tree by or at the request of the Environment Agency to enable the Agency to carry out development permitted by or under the Town and Country Planning (General Permitted Development Order) 1995;
 - (f) the cutting down, topping, lopping or uprooting of a tree by or at the request of a drainage body where that tree interferes, or is likely to interfere, with the exercise of any of the functions of that body in relation to the maintenance, improvement or construction of watercourses or of drainage works, and for this purpose "drainage body" and "drainage" have the same meanings as in the Land Drainage Act 1991; or
 - (g) without prejudice to section 198(6)(b), the felling or lopping of a tree or the cutting back of its roots by or at the request of, or in

accordance with a notice served by, a licence holder under paragraph 9 of Schedule 4 to the Electricity Act 1989.

(2) In paragraph (1), “statutory undertaker” means any of the following—

- a person authorised by any enactment to carry on any railway, light railway, tramway, road transport, water transport, canal, inland navigation, dock, harbour, pier or lighthouse undertaking, or any undertaking for the supply of hydraulic power,
- a relevant airport operator (within the meaning of Part V of the Airports Act 1986),
- the holder of a licence under section 6 of the Electricity Act 1989,
- a public gas transporter,
- the holder of a licence under section 7 of the Telecommunications Act 1984 to whom the telecommunications code (within the meaning of that Act) is applied,
- a water or sewerage undertaker,
- the Civil Aviation Authority or a body acting on behalf of that Authority,
- the Post Office.

Applications for consent under the Order

6. An application for consent to the cutting down, topping, lopping or uprooting of any tree in respect of which this Order is for the time being in force shall be made in writing to the authority and shall—

- (a) identify the tree or trees to which it relates (if necessary, by reference to a plan);
- (b) specify the work for which consent is sought; and
- (c) contain a statement of the applicant’s reasons for making the application.

Application of provisions of the Town and Country Planning Act 1990

7.—(1) The provisions of the Town and Country Planning Act 1990 relating to registers, applications, permissions and appeals mentioned in column (1) of Part I of Schedule 2 to this Order shall have effect, in relation to consents under this Order and applications for such consent, subject to the adaptations and modifications mentioned in column (2).

(2) The provisions referred to in paragraph (1), as so adapted and modified, are set out in Part II of that Schedule.

Directions as to replanting

8.—(1) Where consent is granted under this Order for the felling in the course of forestry operations of any part of a woodland area, the authority may give to the owner of the land on which that part is situated (“the relevant land”) a direction in writing specifying the manner in which and the time within which he shall replant the relevant land.

(2) Where a direction is given under paragraph (1) and trees on the relevant land are felled (pursuant to the consent), the owner of that land shall replant it in accordance with the direction.

(3) A direction under paragraph (1) may include requirements as to—

- (a) species;
- (b) number of trees per hectare;
- (c) the preparation of the relevant land prior to the replanting; and
- (d) the erection of fencing necessary for the protection of the newly planted trees.

Compensation

9.—(1) If, on a claim under this article, a person establishes that loss or damage has been caused or incurred in consequence of—

- (a) the refusal of any consent required under this Order; or
- (b) the grant of any such consent subject to conditions,

he shall, subject to paragraphs (3) and (4), be entitled to compensation from the authority.

(2) No claim, other than a claim made under paragraph (3), may be made under this article—

- (a) if more than 12 months has elapsed since the date of the authority’s decision or, where such a decision is the subject of an appeal to the Secretary of State, the date of the final determination of the appeal; or
- (b) if the amount in respect of which the claim would otherwise have been made is less than £500.

(3) Where the authority refuse consent under this Order for the felling in the course of forestry operations of any part of a woodland area, they shall not be required to pay compensation to any person other than the owner of the land;

and such compensation shall be limited to an amount equal to any depreciation in the value of the trees which is attributable to deterioration in the quality of the timber in consequence of the refusal.

- (4) In any other case, no compensation shall be payable to a person—
- (a) for loss of development value or other diminution in the value of the land;
 - (b) for loss or damage which, having regard to the statement of reasons submitted in accordance with article 6(c) and any documents or other evidence submitted in support of any such statement, was not reasonably foreseeable when consent was refused or was granted subject to conditions;
 - (c) for loss or damage reasonably foreseeable by that person and attributable to his failure to take reasonable steps to avert the loss or damage or to mitigate its extent; or
 - (d) for costs incurred in appealing to the Secretary of State against the refusal of any consent required under this Order or the grant of any such consent subject to conditions.

(5) Subsections (3) to (5) of section 11 (terms of compensation on refusal of licence) of the Forestry Act 1967 shall apply to the assessment of compensation under paragraph (3) as it applies to the assessment of compensation where a felling licence is refused under section 10 (application for felling licence and decision of Commissioners thereon) of that Act as if for any reference to a felling licence there were substituted a reference to a consent required under this Order and for the reference to the Commissioners there were substituted a reference to the authority.

(6) In this article—

“development value” means an increase in value attributable to the prospect of development; and, in relation to any land, the development of it shall include the clearing of it; and

“owner” has the meaning given to it by section 34 of the Forestry Act 1967.

[Application to trees to be planted pursuant to a condition

[10.] In relation to the tree[s] identified in the first column of Schedule 1 by the letter “C”, being [a tree] [trees] to be planted pursuant to a condition (being a condition imposed under paragraph (a) of section 197 (planning permission to include appropriate provision for preservation and planting of trees)), this Order takes effect as from the time when [that tree is planted] [those trees are planted].]

Dated the 26th day of July 2017

The Common Seal of the Wrexham County Borough Council
was hereunto affixed in the presence of -

Shayn Daniel]

Signed on behalf of the Wrexham County Borough Council
Service Manager

(Legal, Democratic and Registration Services)

Authorised by the Council to sign in that behalf



CONFIRMATION OF ORDER

This Order was confirmed by the Wrexham County Borough Council without modification on the 15th day of December 2017.

OR

This Order was ~~confirmed~~ by the Wrexham County Borough Council to the modifications indicated by day of

.....
Authorised by the Council to sign in that behalf



DECISION NOT TO CONFIRM ORDER

302/17(a)

A decision not to confirm this Order was taken by Wrexham County Borough Council on the day of

.....
Authorised by the Council to sign in that behalf

VARIATION OF ORDER

This Order was varied by the Wrexham County Borough Council on the day of under the reference number

.....
Authorised by the Council to sign in that behalf

REVOCATION OF ORDER

This Order was revoked by the Wrexham County Borough Council on the day of under the reference number

.....
Authorised by the Council to sign in that behalf

SCHEDULE 1
SPECIFICATION OF TREES

Trees specified individually
(encircled in black on the map)

Reference on map	Description	Situation (Grid Ref)
T1	Oak	SJ359511
T2	Goat willow	"
T3	Sycamore	"
T4	Willow	"
T5	Oak	"
T6	Oak	"
T7	Oak	"
T8	Oak	"
T9	Mulberry	"
T10	Beech	SJ361511
T11	Holm Oak	SJ361512
T12	Cedar	"
T13	Cedar	"
T14	Cedar	"
T15	Pine	"
T16	Willow	"
T17	Willow	"
T18	Cherry	"
T19	Oak	"
T20	Sweet Chestnut	"
T21	Spruce	SJ362512
T22	Yew	"
T23	Yew	"
T24	Norway Maple	"
T25	Yew	"
T26	Yew	"
T27	Yew	"
T28	Sweet Chestnut	"
T29	Sycamore	"
T30	Lime	"
T31	Beech	"
T32	Beech	"
T33	Sycamore	"
T34	Sweet Chestnut	"
T35	Sweet Chestnut	"
T36	Beech	"
T37	Beech	"
T38	Beech	"
T39	Beech	"
T40	Beech	"

T41	Beech	"
T42	Beech	"
T43	Yew	"
T44	Sycamore	"
T45	Beech	"
T46	Sycamore	"
T47	Beech	SJ363512
T48	Beech	"
T49	Beech	"
T50	Lime	SJ361512
T51	Beech	"
T52	Oak	"
T53	Beech	"
T54	Beech	"
T55	Oak	"
T56	Sweet Chestnut	"
T57	Sweet Chestnut	"
T58	Beech	"
T59	Beech	"
T60	Sycamore	"
T61	Sycamore	"

Trees specified by reference to an area

(within a dotted black line on the map)

Reference on map	Description	Situation
None		

Groups of trees

(within a broken black line on the map)

Reference on map	Description (including number of trees in the group)	Situation
G1	41 No Western Red Cedar	SJ35975115
G2	5 No Yew	SJ36245121
G3	13 No Sycamore	SJ36295125
G4	6 No Poplar	SJ36245127
G5	3 No Yews, 10 No Holly	SJ36075117

Woodlands

(within a continuous black line on the map)

Reference on map	Description	Situation
W1	Sycamore, Oak, Yew, Holly, Horse chestnut, Willow, Ash, Beech, Birch, Atlas cedar, Douglas fir, Lime.	SJ361510
W2	9.0m wide linear strip of Beech, Elm, Holly, Sycamore, Ash, Hawthorn	SJ360512

SCHEDULE 2

PART I

PROVISIONS OF THE TOWN AND COUNTRY PLANNING ACT 1990 APPLIED WITH ADAPTATIONS OR MODIFICATIONS

Provision of the Town and Country Planning Act 1990	Adaptation or Modification
Section 69 (registers)	(a) In subsection (1)— (i) omit— “, in such manner as may be prescribed by a development order,”, “such” in the second place where it appears, and “as may be so prescribed”; and (ii) substitute “matters relevant to tree preservation orders made by the authority” for “applications for planning permission”. (b) In subsection (2)— (i) after “contain” insert “, as regards each such order”; and (ii) for paragraphs (a) and (b) substitute— (a) details of every application under the order and of the authority’s decision (if any) in relation to each such application, and (b) a statement as to the subject-matter of every appeal under the order and of the date and nature of the Secretary of State’s determination of it.”. (c) Omit subsections (3) and (4) (as required by section 198(4)).
Section 70	(a) In subsection (1)—

(determination of applications: general considerations)	(i) substitute— “Subject to subsections (1A) and (1B), where” for “Where”; “the authority” for “a local planning authority”; “consent under a tree preservation order” for “planning permission” where those words first appear; and “consent under the order” for “planning permission” in both of the other places where those words appear; (ii) after “think fit”, insert— “(including conditions limiting the duration of the consent or requiring the replacement of trees)”; and (iii) omit “subject to sections 91 and 92,”. (b) After subsection (1) insert— “(1A) Where an application relates to an area of woodland, the authority shall grant consent so far as accords with the practice of good forestry, unless they are satisfied that the granting of consent would fail to secure the maintenance of the special character of the woodland or the woodland character of the area. (1B) Where the authority grant consent for the felling of trees in a woodland area they shall not impose conditions requiring replacement where such felling is carried out in the course of forestry operations (but may give directions for securing replanting).”. (c) Omit subsections (2) and (3).
Section 75 (effect of planning permission)	(a) In subsection (1) substitute— (i) “Any” for the words from “Without” to “any”; (ii) “consent under a tree preservation order” for

	“planning permission to develop land”; (iii) “the consent” for “the permission”; and (iv) “the land to which the order relates” for “the land”. (b) Omit subsections (2) and (3).
Section 78 (right to appeal against planning decisions and failure to take such decisions)	(a) In subsection (1) substitute— (i) “the authority” for “a local planning authority”; (ii) “consent under a tree preservation order” for “planning permission” in the first place where those words appear; (iii) “consent under such an order” for “planning permission” in the second place where those words appear; (iv) for paragraph (c) substitute— “(c) give a direction under a tree preservation order, or refuse an application for any consent, agreement or approval of that authority required by such a direction; or (d) fail to determine any such application as is referred to in paragraphs (a) to (c) within the period of 8 weeks beginning with the date on which the application was received by the authority,”. (b) Omit subsection (2). (c) In subsection (3) for “served within such time and in such manner as may be prescribed by a development order.” substitute— “in writing addressed to the Secretary of State, specifying the grounds on which the appeal is made; and such notice shall be served— (a) in respect of a matter mentioned in any of paragraphs (a) to (c) of subsection (1),

	within the period of 28 days from the receipt of notification of the authority's decision or direction or within such longer period as the Secretary of State may allow; (b) in respect of such a failure as is mentioned in paragraph (d) of that subsection, at any time after the expiration of the period mentioned in that paragraph, but if the authority have informed the applicant that the application has been refused, or granted subject to conditions, before an appeal has been made, an appeal may only be made against that refusal or grant.”. (d) For subsection (4), substitute— “(4) The appellant shall serve on the authority a copy of the notice mentioned in subsection (3).”. (e) For subsection (5), substitute— “(5) For the purposes of the application of section 79(1), in relation to an appeal made under subsection (1)(d), it shall be assumed that the authority decided to refuse the application in question.”.
Section 79 (determination of appeals)	(a) In subsections (1) and (2), substitute “the authority” for “the local planning authority”. (b) Omit subsection (3). (c) In subsection (4), substitute— (i) “section 70(1), (1A) and (1B)” for “sections 70, 72(1) and (5), 73 and 73A and Part I of Schedule 5”; (ii) “consent under a tree preservation order” for “planning permission”; and (iii) “the authority” for “the local planning authority and a development order may apply, with or without modifications, to such an appeal any requirements imposed by a development order by virtue of sections 65 or 71.”.

	(d) Omit subsections (6) and (6A). (e) In subsection (7), omit the words after "section 78".
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PART II
PROVISIONS OF THE TOWN AND COUNTRY PLANNING ACT 1990,
AS ADAPTED AND MODIFIED BY PART I

The following provisions of the Town and Country Planning Act 1990, as adapted and modified by Part I of this Schedule, apply in relation to consents, and applications for consent, under this Order.

Section 69

(1) Every local planning authority shall keep a register containing information with respect to matters relevant to tree preservation orders made by the authority.

(2) The register shall contain, as regards each such order—

- (a) details of every application under the order and of the authority's decision (if any) in relation to each such application, and
- (b) a statement as to the subject-matter of every appeal under the order and of the date and nature of the Secretary of State's determination of it.

.....

(5) Every register kept under this section shall be available for inspection by the public at all reasonable hours.

Section 70

(1) Subject to subsections (1A) and (1B), where an application is made to the authority for consent under a tree preservation order—

- (a) they may grant consent under the order, either unconditionally or subject to such conditions as they think fit (including conditions limiting the duration of the consent or requiring the replacement of trees); or
- (b) they may refuse consent under the order.

(1A) Where an application relates to an area of woodland, the authority shall grant consent so far as accords with the practice of good forestry, unless they are satisfied that the granting of consent would fail to secure the maintenance of the special character of the woodland or the woodland character of the area.

(1B) Where the authority grant consent for the felling of trees in a woodland area they shall not impose conditions requiring replacement where such felling is carried out in the course of forestry operations (but may give directions for securing replanting).

Section 75

Any grant of consent under a tree preservation order shall (except in so far as the consent otherwise provides) enure for the benefit of the land to which the order relates and of all persons for the time being interested in it.

Section 78

(1) Where the authority—

- (a) refuse an application for consent under a tree preservation order or grant it subject to conditions;
- (b) refuse an application for any consent, agreement or approval of that authority required by a condition imposed on a grant of consent under such an order or grant it subject to conditions;
- (c) give a direction under a tree preservation order, or refuse an application for any consent, agreement or approval of that authority required by such a direction; or
- (d) fail to determine any such application as is referred to in paragraphs (a) to (c) within the period of 8 weeks beginning with the date on which the application was received by the authority,

the applicant may by notice appeal to the Secretary of State.

.....

(3) Any appeal under this section shall be made by notice in writing addressed to the Secretary of State, specifying the grounds on which the appeal is made; and such notice shall be served—

- (a) in respect of a matter mentioned in any of paragraphs (a) to (c) of subsection (1), within the period of 28 days from the receipt of notification of the authority's decision or direction or within such longer period as the Secretary of State may allow;
- (b) in respect of such a failure as is mentioned in paragraph (d) of that subsection, at any time after the expiration of the period mentioned in that paragraph, but if the authority have informed the applicant that the application has been refused, or granted subject to conditions, before an appeal has been made, an appeal may only be made against that refusal or grant.

(4) The appellant shall serve on the authority a copy of the notice mentioned in subsection (3).

(5) For the purposes of the application of section 79(1), in relation to an appeal made under subsection (1)(d), it shall be assumed that the authority decided to refuse the application in question.

Section 79

(1) On an appeal under section 78 the Secretary of State may—

- (a) allow or dismiss the appeal, or
- (b) reverse or vary any part of the decision of the authority (whether the appeal relates to that part of it or not),

and may deal with the application as if it had been made to him in the first instance.

(2) Before determining an appeal under section 78 the Secretary of State shall, if either the appellant or the authority so wish, give each of them an opportunity of appearing before and being heard by a person appointed by the Secretary of State for the purpose.

.....

(4) Subject to subsection (2), the provisions of section 70(1), (1A) and (1B) shall apply, with any necessary modifications, in relation to an appeal to the Secretary of State under section 78 as they apply in relation to an application for consent under a tree preservation order which falls to be determined by the authority.

(5) The decision of the Secretary of State on such an appeal shall be final.

.....

(7) Schedule 6 applies to appeals under section 78.



Map referred to in the WREXHAM COUNTY BOROUGH COUNCIL Community of Holt Tree Preservation Order WCBC No. 272, 2017 Erias House Gardens Bryn Estyn Road, Wrexham LL13 9TY	Dr Helen Paterson Chief Executive
	Lawrence Isled Head of Environment and Planning
	Scale 1: 1250. Sheet No. SJ 3851 Reproduced from Ordnance Survey mapping with the permission of Her Majesty's Stationary Office © Crown copyright. Licence no. LA09021L
	The Common Seal of Wrexham County Borough Council was hereunto fixed in the presence of: <i>[Signature]</i> Head of Corporate and Customer Services <i>[Signature]</i> Date

Plans

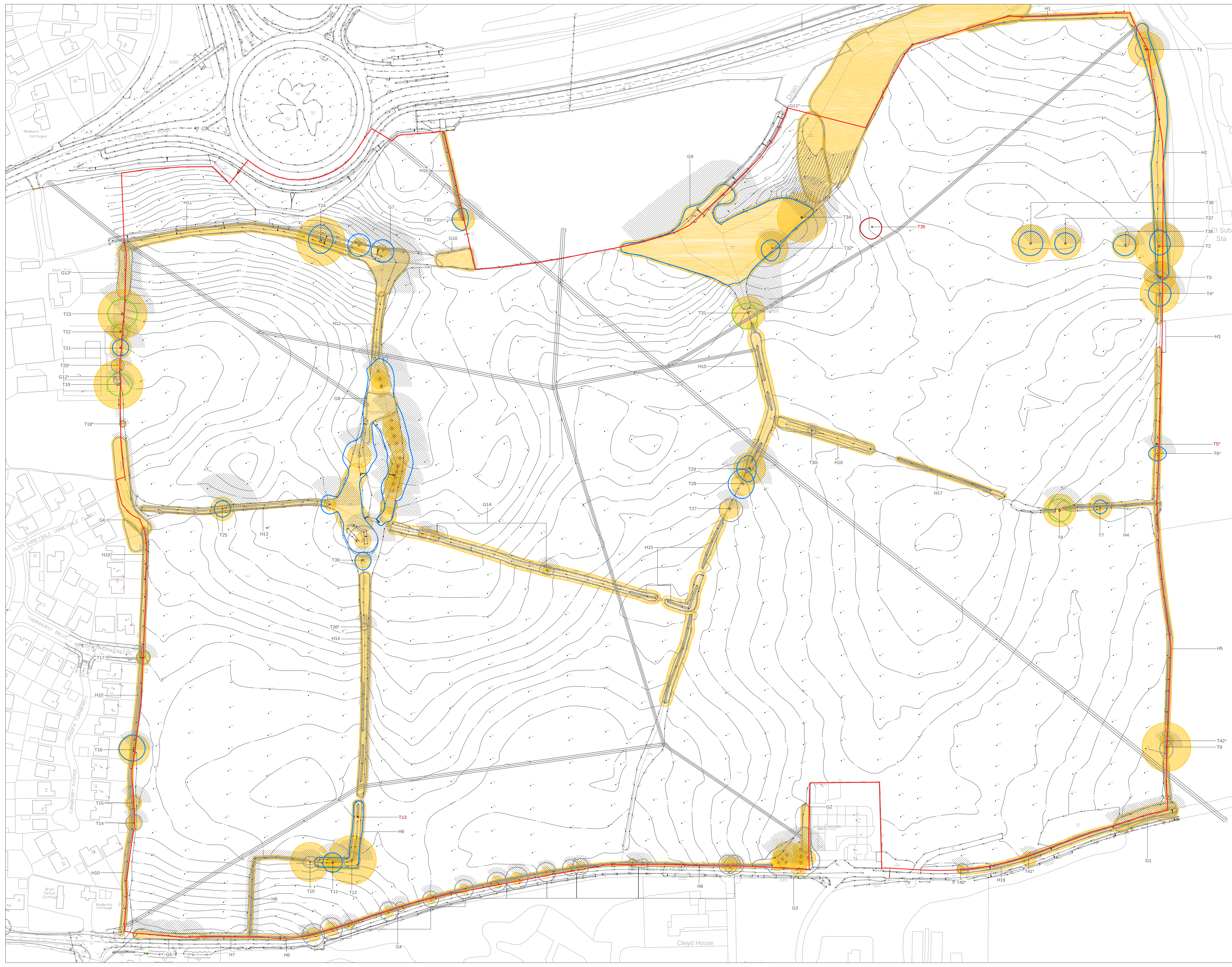
Tree Constraints Plan (10581/P02b)

Tree Retention and Removal Plan (10581/P08a)



Land South of Holt Road, Wrexham
Preliminary Arboricultural Impact Assessment

10581_R03b_19th December 2018_JJ_JW



Key:

- Site Boundary
- Category A - Trees of High Quality and Value
- Category B - Trees of Moderate Quality and Value
- Category C - Trees of Low Quality and Value
- Category U - Trees Recommended for Removal
- Approximate Extent of BS5837 Calculated Root Protection Areas (RPAs)
- BS 5837 Calculated Tree Shadow Constraints

*Denotes trees and groups not identified on topographical.
Locations approximated using measurements taken on site.

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Project Name
Land South of Holt Road, Wrexham

Drawing Title
Tree Constraints Plan

Tyler Grange

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T: 0207 620 2710 W: www.tylergrange.co.uk

Scale 1:1000 @ A1	Date August 2018
Drawn by LB	Checked by JJ
Drawing No. 10581/P02b	



Key:

- Site Boundary
- Retained Category A Trees (High Quality and Value)
- Retained Category B Trees (Moderate Quality and Value)
- Retained Category C Trees (Low Quality and Value)
- Proposed Tree Removal (Indicative)
- Approximate Extent of BS5837 Calculated Root Protection Areas (RPAs)
- BS 5837 Calculated Tree Shadow Constraints

*Denotes trees and groups not identified on topographical. Locations approximated using measurements taken on site.

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0m 10m 20m 30m 40m 50m

Project Name
Land South of Holt Road, Wrexham

Drawing Title
Tree Retention and Removal Plan

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Scale 1:1000 @ A1	Date December 2018
Drawn by LB	Checked by JJ
Drawing No. 10581/P08a	