



**Tree Survey, Arboricultural Impact Assessment
Preliminary Arboricultural Method Statement & Tree Protection Plan
In Accordance with BS 5837:2012**

Proj. No 8694	Akenham Hall, Henley Road, Ipswich, Suffolk, IP6 0HL		
Client:		Peter Wells Architects	
Date of Report:	07/04/2021	Revision:	Original

Tree Survey, Arboricultural Impact Assessment, Preliminary Arboricultural Method Statement & Tree Protection Plan – In Accordance with BS 5837:2012

Summary

The purpose of this report is to provide a preliminary consideration of the arboricultural implications created by the proposed development. In accordance with the feasibility and planning sections of BS5837:2012 “*Trees in relation to design, demolition and construction – Recommendations*”, trees deemed to be within the influencing distance of the projected construction have been evaluated for quality, longevity, and initial maintenance requirements. Where trees do not have to be removed for health and safety reasons, a detailed and objective assessment has been made of the consequences of the intended layout.

In this circumstance it is intended to demolish a single storey brick ancillary structure and replace it with a wooden cart-lodge. As a result, ten individual trees and three groups of trees were inspected. The arboricultural related implications of the proposal are as follows:

- 1 It is not necessary to fell any trees to achieve the proposed layout.
- 2 One tree requires minor surgery to permit construction space or access.
- 3 One tree and one group of two trees have been identified for removal irrespective of any development proposals. The removal of these items is due to poor structural or physiological condition and a matter of health and safety rather than a requirement to facilitate the proposed design.
- 4 Construction of foundations or structural supports marginally encroach within the calculated RPA of one tree to be retained. Given the minor extent of the intrusion at this location it is considered appropriate to undertake linear root pruning as part of the access facilitation pruning (AFP) works. This operation will obviate the need for arboriculturally imperative specialised foundation construction methods in this situation.
- 5 No new hard surfaces are shown to encroach within the Root Protection Areas of trees that are to be retained.
- 6 This report recommends that specialist advice is obtained by expert practitioners in other disciplines. Such input should always be sought prior to the submission of this report in support of a planning application in order to demonstrate that the techniques and methods hereby proposed are achievable. In this particular circumstance it is necessary to contact the following:
 - Structural Engineer (foundation design and impact on neighbouring structures, item 4.4.1)
- 7 All trees and landscape features that are to remain as part of the development should suffer no structural damage provided that the findings with this report are complied with in full. This includes ensuring that protective fencing is erected as detailed at items 4.6 and 5.1 of this report.



Contact Details

Client – Peter Wells Architects			
Address Office Farm Letheringham Woodbridge Suffolk IP13 7RA	Contact Ms Becky Spall	Tel: E-mail:	01728 745356 becky@peterwellsarchitects.co.uk

Local Planning Authority – Babergh Mid Suffolk District Council			
Address Endeavour House 8 Russell Road Ipswich Suffolk IP1 2BX	Trees Officer Mr David Pizzey	Tel: E-mail:	01449 724555 david.pizzey@baberghmidsuffolk.gov.uk

Arboricultural Consultant – Hayden’s Arboricultural Consultants Limited			
Address 5 Moseley’s Farm Business Centre Fornham All Saints Bury St Edmunds Suffolk IP28 6JY	Report Author: Mr Alex Garnham	Tel: E-mail:	01284 765391 info@treesurveys.co.uk



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1.0 Introduction

1.1 Terms of Reference

1.1.1 Hayden's Arboricultural Consultants Limited has been commissioned by Peter Wells Architects to prepare a Tree Survey, Arboricultural Impact Assessment, Preliminary Arboricultural Method Statement and Preliminary Tree Protection Plan for the existing trees at Akenham Hall, Henley Road, Ipswich, Suffolk, IP6 0HL.

1.1.2 The site survey was carried out on 10/03/2021. The relevant qualitative tree data was recorded in order to assess the condition of the existing trees, their constraints upon the prospective development and the necessary protection and construction specifications required to allow their retention as a sustainable and integral part of the completed development.

1.1.3 Information is given on condition, age, size and indicative positioning of all the trees, both on and affecting the site. This is in accordance with the British Standard 5837:2012 *Trees in relation to design, demolition and construction - Recommendations*.

1.2 Scope of Works

1.2.1 The survey of the trees and any other factors are of a preliminary nature. The trees were inspected on the basis of the Visual Tree Assessment (VTA) method as developed by Mattheck and Breloer (1994). The trees were inspected from ground level with no climbing inspections undertaken. It is not always possible to access every tree and as such some measurements may have to be estimated. Trees with estimated measurements are highlighted in the schedule of trees. No samples have been removed from the site for analysis. The survey does not cover the arrangements that may be required in connection with the removal of existing underground services.

1.2.2 Whilst this is an arboricultural report, comments relating to non arboricultural matters are given, such as built structures and soil data. Any opinion thus expressed should be viewed as provisional and confirmation from an appropriately qualified professional sought. Such points are clearly identified within the body of the report.

1.2.3 An intrinsic part of tree inspection in relation to development is the assessment of risk associated with trees in close proximity to persons and property. Most human activities involve a degree of risk with such risks being commonly accepted, if the associated benefits are perceived to be commensurate. In general, the risk relating to trees tends to increase with the age of the trees concerned, as do the benefits. It will be deemed to be accepted by the client that the formulation of the recommendations for all tree management will be guided by the cost-benefit analysis (in terms of amenity), of the tree work.

1.3 Documentation

1.3.1 The following documentation was provided prior to the commencement of the production of this report;

- Email of instruction from Ms Spall dated 24.02.2021.
- Definition of site boundary, description of requirements/deadlines
- Proposed site layout (Peter Wells drawing no. PW1141_PL04)



2.0 The Site

2.1 Overview

2.1.1. The site is a parcel of land at Akenham Hall, Henley Road, Ipswich IP6 0HL. The site comprises a grass meridian between the vehicle accesses to Akenham Hall and Chives Montessori Nursery to the north and Akenham Fishery to the south. The site is currently occupied by one small, dilapidated brick ancillary structures. The site is accessed off Henley Road to the west and features a gentle gradient from north to south down to a deep drainage ditch on the southern boundary.

2.2 Soils

2.2.1 The soils type commonly associated with this site are generally freely draining and slightly acid but base-rich soils. They are of high fertility and typically support base-rich pastures and deciduous woodland type habitats. This soil type constitutes approximately 3.1% the total English land mass.

2.2.2 The data given was obtained from a desk top study which provides indications of likely soil types. By definition, this information is not comprehensive and therefore any decisions taken with regards the management, usage or construction on site should be based on a detailed soil analysis.

2.2.3 Further to item 2.2.2, this report provides no information on soil shrinkability. It may be necessary for practitioners in other disciplines (e.g. engineers considering foundation design) to obtain this data as required.

2.3 Statutory Tree Protection

2.3.1 Tree Preservation Order(s)

The local planning authority Babergh Mid Suffolk District Council have deemed it appropriate to provide statutory protection to trees on and/or neighbouring this site through the serving of a Tree Preservation Order (TPO), Ref no TPO MS48. The effect of this on the owners, managers or any persons wishing to undertake work on preserved trees is to require them to obtain written permission from Babergh Mid Suffolk District Council prior to actioning any surgery or felling etc. The purpose of this process is to try to ensure that the works are appropriate, proportionate, and in keeping with the long-term aims of the TPO (as expressed in the original TPO statement) but, given that trees are living organisms, and the locality within which they are set is liable to change, it is often the case that local planning authority decisions relating to TPO applications require regular review to reflect the current situation rather than the historical perspective of the original date of protection.

There are certain circumstances where written permission from the local planning authority may not be necessary before undertaking works. These include;

- Making a tree safe if it is an imminent threat to people or property.
- Removing dead wood, or a dead tree.

Owners, managers or any persons wishing to undertake work as an exemption to the written permission process **are required** to provide the local planning authority with 5 days' notice prior to attending to a tree which they deem as being dead or dangerous, unless such works are required in an emergency.



It is the tree owner's responsibility to provide proof that the tree was indeed dead or dangerous should this exception be challenged; hence, it is advisable always to request an inspection by the Local Planning Authority prior to carrying out such operations. Furthermore, and even in the event of an emergency situation, there is still a duty to notify the local planning authority that work has been completed including supplying an explanation of the necessity. Failure to comply with the requirements of TPO legislation can lead to a maximum fine of up to £20,000 per tree in the Magistrates Court. Fines in the Crown Court are unlimited.

NB: If **detailed planning permission** is granted and as part of the relevant approval, works (felling or surgery) to trees protected by a TPO are agreed as acceptable by the local planning authority, no **additional** written permission to proceed will be required provided that (i) the planning permission remains live, (ii) the works are in strict accordance with the specification of the extant planning permission, and (iii) the works are being completed solely to implement the detailed planning permission.

This information was sourced using the Local Planning Authority's Online Mapping System (as instructed by them) and to our best knowledge was current and accurate at the time the information was accessed. We would advise it prudent that before any tree work commences, this is checked directly with the Local Planning Authority to confirm that their online mapping system is definitive.

3.0 Tree Survey

- 3.1 As part of this survey a total of ten individual trees and three groups of trees have been identified. These have been numbered T001 – T010 and G001 – G003 respectively.
- 3.2 An accurate topographical survey was not available at the time of inspection. Therefore, the position of each tree shown on the attached drawing no. 8694-D-AIA has been fixed by use of a hand-held GPS surveying unit. Given this, the position of the trees must be considered indicative, although drawing no. 8694-D-AIA provides a fair representation of the relationship of the trees as distributed across the site.
- 3.3 In order to provide a systematic, consistent and transparent evaluation of the trees included within this survey, they have been assessed and categorised in accordance with the method detailed in item 4.3 of *BS 5837:2012 "Trees in Relation to Design, Demolition and Construction - Recommendations"*. For further information, please see the attached Explanatory Notes.
- 3.4 The detailed assessment of each tree and its work requirements with priorities are listed in the attached Schedule of Trees.
- 3.5 Several items would benefit from tree surgery or additional investigation, be it for health and safety, cultural, aesthetic, or structural reasons as detailed in the attached Schedule of Trees. Including the trees recommended for felling, the items requiring the **most urgent** intervention are as follows:

As soon as possible:

T003	As a minimum - strip lvy and undertake decay detection testing of the base and buttress roots. Consider felling and replacement.
T007	Fell to ground level.



Within six months:

G003	Fell to ground level.
T001	Remove all Ivy. Reinspect next autumn.

- 3.6 In accordance with item 4.2.4 (c) of BS 5837:2012, the items inspected and detailed within this report have been selected for inclusion due to the likely influence of any proposed development on the trees, rather than strictly adhering to the curtilage of the site. However, it must be understood that there may be trees beyond the site and not included in this survey which may exert an influence on the development. Where works for cultural, health and safety, quality of life, or development purposes have been recommended on trees outside the ownership of the site, these can only progress with the agreement of the owner, except where it involves portions of the trees overhanging the boundary.

4.0 Arboricultural Impact Assessment

4.1 The Proposal

- 4.1.1 The proposal is to demolish a single storey brick ancillary structure and replace it with a wooden cart-lodge within the curtilage of the site.

4.2 Access

- 4.2.1 Site access is encumbered by the theoretical Root Protection Area (RPA) of all retained trees except for T010. In this case the RPA is safeguarded by existing hard surfaces and therefore, and from a purely Arboricultural perspective, it will not be necessary to install a proprietary temporary load bearing road to protect tree roots.

4.3 Demolition

- 4.3.1 Demolition of existing structures or the removal of hard surfaces does not impact on the RPA of any retained trees. Therefore, other than the provision of protective fencing, no additional specialist protection measures are required.

4.4 Construction

- 4.4.1 Construction of foundations or structural supports marginally encroach within the calculated RPA of one tree to be retained – T009. Given the minor extent of the intrusion at this location it is considered appropriate to undertake linear root pruning as part of the access facilitation pruning (AFP) works. This operation will obviate the need for arboriculturally imperative specialised foundation construction methods in this situation. However, dependent on the soil type, species and topography, trees may have an influence on the soil beyond their calculated RPA. Given the proximity of the proposed construction to the trees to be retained, it is recommended that a Structural Engineer is consulted to assess the implications of the tree retention on the required foundation design.

- 4.4.2 No new hard surfaces are shown to encroach within the Root Protection Areas of trees that are to be retained.

- 4.4.3 Excavation and soil re-modelling is not shown to encroach within the RPA of any retained trees. Therefore, no adverse Arboricultural implications are expected.



4.5 Implications of Sloping Ground

- 4.5.1 The arboricultural implications of the proposed structures are based on an assumption that because there are no significant existing slopes on site, level changes will not occur within the RPA of trees that are shown to be retained.

4.6 Requirement for Tree Barrier Fencing

- 4.6.1 Prior to the commencement of demolition and immediately after the completion of the necessary tree surgery and felling work, protective fencing will be erected on site. This must be fit for purpose (including any ground protection if necessary) in full accordance with the requirements of BS 5837:2012 and positioned as shown on the attached Preliminary Arboricultural Impact Assessment & Tree Protection drawing. Full details of fencing will be supplied by Hayden's Arboricultural Consultants in the detailed Arboricultural Method Statement & Tree Protection Plan.

4.7 Compound

- 4.7.1 The site provides adequate internal space to locate a construction compound outside the RPA of any trees and landscape features that are to be retained.

4.8 Phasing

- 4.8.1 The proposal involves the integration of a number of complex aspects that affect tree protection (e.g. – but not exclusively – access, movement of materials and the installation of services). For this reason, the project must be carefully phased to ensure the highest level of protection for retained trees at all times. As part of the detailed Arboricultural Method Statement & Tree Protection Plan, Hayden's Arboricultural Consultants will produce an in-depth phasing recommendation to cover the major operations on site as they affect retained trees.

4.9 Monitoring

- 4.9.1 In accordance with item 6.3 of BS 5837:2012, the site and associated development should be monitored regularly by a competent Arboriculturalist to ensure that the arboricultural aspects of the planning permission are complied with. As part of the detailed Arboricultural Method Statement & Tree Protection Plan, Hayden's Arboricultural Consultants will produce an extensive auditable monitoring schedule to assess the progress of key site events/activities.

4.10 Cultural Implications for Retained Trees

- 4.10.1 It is necessary to undertake access facilitation pruning (AFP) which comprises above ground works to T009 as outlined in the Schedule of Works to Allow Development. These works are necessary to permit construction access and provide appropriate working space etc. Given the amount of pruning necessary and the locations of the works, the AFP is not considered likely to have a significantly adverse effect on the trees and landscape features concerned. As part of the detailed Arboricultural Method Statement & Tree Protection Plan, Hayden's Arboricultural Consultants will produce an in depth AFP specification.



4.11 Landscape Implications

4.11.1 It is not necessary to fell any trees in order to achieve the proposed layout.

4.12 Post Development Implications

4.12.1 No adverse arboricultural implications are considered reasonably foreseeable for the trees that remain provided that the recommendations of this report are complied with in full.

4.12.2 Due to the dynamic nature of trees and their interaction with the environment, their health and structural integrity is liable to change over time. Because of this it is recommended that all trees on or adjacent to the site be inspected on an annual basis.

4.12.3 As stated in BS 5837:2012, regular maintenance of newly planted trees is of particular importance for at least three years during the critical post-planting period and might, where required by site conditions, planning requirements or legal agreement, be necessary for five years or more. Therefore, the designer of the new landscaping should, in conjunction with the landscape design proposals, prepare a detailed maintenance schedule covering this period, and appropriate arrangements made for its implementation.

5.0 Design Advice, Preliminary Arboricultural Method Statement & Tree Protection Plan

5.1 Securing of Tree Structure and Root Protection Areas (RPA)

5.1.1 The trees to be retained will be protected by the use of stout barrier fencing erected in the positions indicated on the attached Preliminary Arboricultural Impact Assessment & Tree Protection drawing no. 8694-D-AIA. This fencing will be in accordance with the requirements of BS 5837:2012 including any necessary ground protection.

5.1.2 All fencing provided for the safeguarding of trees will be erected prior to any demolition or development commencing on the site, therefore ensuring the maximum protection. This fencing, which must have all weather notices attached stating "Construction Exclusion Zone – No Access" will be regarded as sacrosanct and, once erected, will not be removed or altered without the prior consent of the Local Planning Authority.

5.1.3 Where footpaths, access drives, or parking bays are constructed within the RPA of retained trees, careful attention will be paid to the type of surface treatment used in these areas, details of which are given in item 5.8, below. If possible, these should be installed as a final phase of the project, thereby protecting the RPA throughout the major construction phase of the proposed development.

5.1.4 Where fencing is impractical, consideration must be given to other forms of effective above ground tree structure protection. An example of this would be a combination of Barksavers to secure the stems and a temporary load bearing surface to shield the ground.



5.2 Location of Site Office, Compound and Parking

5.2.1 The position of the office, compound and parking will be agreed in writing with the Local Planning Authority prior to commencement of any permitted development works. Any proposed re-location of these items through the various phases of development will be agreed prior to re-siting with the Local Planning Authority.

5.3 On Site Storage of Spoil and Building Materials

5.3.1 Prior to and during all construction works on site, no spoil or construction materials will be stored within the RPA of any tree on, or adjacent to the site, even if the proposed development is to be within the RPA. This is to reduce to a minimum the compaction of the roots of the trees. Details of the RPA for each tree where no spoil or building materials will be stored are indicated on the attached Preliminary Arboricultural Impact Assessment & Tree Protection drawing no. 8694-D-AIA. Any encroachment within this protected area will only be with the prior agreement of the Local Planning Authority.

5.3.2 Any facilities for the storage of oils, fuels or chemicals shall be sited on impervious bases and surrounded by impervious bund walls. The volume of the bund compound shall be at least equivalent to the capacity of the tank plus 10%. If there is a multiple tankage, the compound shall be at least equivalent to the capacity of the largest tank, or the combined capacity of interconnected tanks, plus 10%. All filling points, vents, gauges and sight glasses shall be located within the bund. The drainage system of the bund shall be sealed with no discharge to any watercourse, land or underground strata. Associated pipe-work shall be located above ground and protected from accidental damage. All filling points and tank overflow pipe outlets shall be detailed to discharge downwards into the bund.

5.3.3 All material storage facilities and work areas must consider the effects of sloping ground on the movement of potentially harmful liquid spillages towards or into protected areas.

5.4 Programme of Works

5.4.1 All tree surgery works, once approved by the Local Planning Authority, will be carried out prior to any other site works. Once completed, the proposed protective fencing will be erected along the lines indicated above. All of this will be carried out prior to commencement of any development works on the site. Outline details of the proposed programme are given in the Design and Construction and Tree Care flow chart attached (Appendix G-1).

5.5 Tree Surgery

5.5.1 All tree work will be agreed with the Local Planning Authority and will be carried out in line with BS 3998:2010 (Recommendations for Tree Works). An appropriately qualified, experienced and insured arboricultural contractor will carry out the work. Any alterations to the proposed schedule of works will be agreed with the Local Planning Authority prior to commencement of works.

5.6 Levels

5.6.1 Other than for any specific exception which may be referred to at item 4.0, no alterations to soil levels within the RPA of retained trees are envisaged. However, if it is necessary for these to occur, appropriate measures must be taken to prevent or minimise any detrimental effects on the affected root systems as detailed in 5.6.2 and 5.6.3 below.



5.6.2 If it is necessary to excavate so close to trees that roots greater than 50mm diameter are likely to be encountered, particular care will be taken to avoid damage. Excavation in these areas will be undertaken by hand or using an air spade, avoiding any damage to the bark. The roots will be surrounded with sharp sand prior to the replacing of any soil or other material in the vicinity.

5.6.3 If it is necessary to raise levels, it is essential that adequate supplies of water and oxygen pass through the soil to the trees' roots. Therefore, where necessary, a granular material will be used which will not inhibit gaseous diffusion. Possible options are no-fines gravel, cobbles or, Type 2 road-stone. All hard surfaces will be of suitable specification to allow such gaseous diffusion, e.g. brick pavers.

5.7 Services

5.7.1 At the time of writing this report, no details on proposed services were available. However, the following principles should be adhered to when planning for their installation.

5.7.2 It is proposed that all underground service runs will be placed outside the RPA of the trees on or adjacent to the site. Where it is not possible to do this, the proposed length infringing the RPA will be hand dug 'broken trenches' (NJUG 4 paragraph 4) to ensure the maximum protection of the trees' roots. The trenches may also be excavated using an air spade, or trenchless technology can be employed if this methodology is considered appropriate by the relevant service company (thus allowing services to pass below and through the roots without the need for traditional excavation). If it is necessary to cut any small roots as part of any of these processes, they should be severed in such a way as to ensure that the final wound is as small as possible and free from ragged, torn ends.

5.7.3 All routes for overhead services will aim to avoid the trees. Where this is not possible, any tree work will be agreed prior to commencement with the Local Planning Authority.

5.7.4 All service providers (Statutory Authorities) will be consulted prior to commencement of works with the aim of minimising the number of service runs on the site.

5.7.5 All service runs/trenches where they encroach within the RPA of retained trees will be agreed with the Local Planning Authority prior to commencement of works.

5.8 Hard Surface Types & Construction within the Root Protection Area

5.8.1 Where it is necessary to construct footpaths, driveways, non-adoptable roads, and other hard surfaces within the RPA as calculated in accordance with BS 5837:2012 (item 4.6.1), it is proposed that the design will comply with the 'no-dig' principles of the Arboricultural Advisory Information Services (AAIS) Practice Note 12 "*Through the Trees to Development*" - the only difference being that instead of a geo-grid, a geo-textile base is provided, and the no-fines road stone is incorporated in and retained by a geo-web cellular confinement system. Given the individual requirements of each site, it is essential that a specialist engineer is consulted to specify the construction detail. Where it is necessary to remove any existing hard surface, or lower the ground level within the RPA, this may expose roots. This operation must be undertaken using hand tools or an air spade. Any roots found should be treated with the greatest care and surrounded by sharp sand to provide a level base. Please note that 'no-dig' surfaces are not always considered acceptable for adoption.



- 5.8.2 Where it is shown that the construction of a boundary wall or dwelling encroaches within the RPA of a retained tree, the foundations of the wall or dwelling will be designed in such a manner so as to minimise the detrimental effect of the construction on the tree's roots. In these situations, any excavations within the RPA of an affected tree will only be undertaken following exploration of the existing root system with an air spade (or by hand digging if soil conditions preclude) and the necessary root pruning undertaken to allow excavation without unnecessary pulling and tearing of the roots to be retained. This will ensure minimal damage to tree roots where pad and beam or cantilever foundations are considered appropriate. Should a piling rig be required to create piles, any access facilitation pruning or felling necessary to allow access must be undertaken before the commencement of works and only with prior consent of the Local Planning Authority.
- 5.8.3 If boundary fencing is to be erected within the RPA of retained trees, it is proposed that the fence posts will be secured by the use of "Met-Posts" or similar design in order to keep the disturbance and damage of the roots of the trees to a minimum.

5.9 Reporting and Monitoring Procedures

- 5.9.1 In accordance with item 6.3 of BS 5837:2012, the site and associated development should be monitored regularly by a competent arboriculturalist to ensure that the arboricultural aspects of the planning permission (e.g. the installation and maintenance of protective measures and the supervision of specialist working techniques) are implemented. Furthermore, regular contact between the Site Manager and the Arboriculturalist allows them to effectively deal with and advise on any tree related problems that may occur during the development process. This system should be auditable. Should any issues arise during the arboricultural monitoring of the development the Arboriculturalist will contact the Local Planning Authority and appropriate action taken only with the prior permission of Peter Wells Architects and the Local Planning Authority.

6.0 Recommendations

- 6.1 It is recommended that the measures outlined in this report are implemented in full to provide retained trees with the highest level of protection during the process of demolition and construction.
- 6.2 Tree surgery should be completed as detailed in the Schedule of Trees. Where this has been identified for reasons other than to permit development, this work should be completed within the advised timescales irrespective of any development proposals.
- 6.3 The tree surgery works proposed as part of this Survey are recommended to mitigate any identified problems that may be caused by trees in close proximity to the proposed development. To this end, should these recommendations be overruled, this Survey stands as the opinion of Hayden's Arboricultural Consultants Limited, and therefore any damage or injury caused by trees recommended by this practice for felling or tree surgery works, to which the proposed schedule of works has been altered or the tree has been requested to be retained by the Local Planning Authority, cannot be the responsibility of this practice.



7.0 Limitations & Qualifications

Tree inspection reports are subject to the following limitations and qualifications.

General exclusions

Unless specifically mentioned, the report will only be concerned with above ground inspections. No below ground inspections will be carried out without the prior confirmation from the client that such works should be undertaken.

The validity, accuracy and findings of this report will be directly related to the accuracy of the information made available prior to and during the inspection process. No checking of independent third-party data will be undertaken. Hayden's Arboricultural Consultants Limited will not be responsible for the recommendations within this report where essential data are not made available or are inaccurate.

This report will remain valid for one year from the date of inspection subject to the recommendations specified within being adhered to. It must also be appreciated that recommendations proposed within this report may be superseded by extreme weather, or any other unreasonably foreseeable events.

However, if any additional alterations to the property or soil levels are carried out and/or further tree works undertaken other than specified within the report, it will become invalid and a new tree inspection strongly recommended.

It will be appreciated, and deemed to be accepted by the client and their insurers, that the formulation of the recommendations for the management of trees will be guided by the following: -

1. The need to avoid reasonably foreseeable damage.
2. The arboricultural considerations - tree safety, good arboricultural practice (tree work) and aesthetics.

The client and their insurers are deemed to have accepted the limitation placed on the recommendations by the sources quoted in the attached report. Where sources are limited by time constraints or the client, this may lead to an incomplete quantification of the risk.

Signed:



April 2021.....

For and on Behalf of Hayden's Arboricultural Consultants Limited



8.0 References

British Standards Institute. (2010). *Recommendations for Tree Work BS 3998:2010* BSI, London.

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NJUG 4 Guidelines for the planning, installation and maintenance of utility apparatus in proximity to trees. Issued 16 November 2007.

Forestry Commission (2007). *Tree Felling – Getting Permission*. Country Services Division, Forestry Commission, Edinburgh.

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Strouts, R.G. & Winter, T.G. (1994). *Research for Amenity Trees No.2: Diagnosis of Ill-Health in Trees*. Department of the Environment, HMSO, London.



9.0 Appendices

Appendix	A	Species List & Tree Problems
Appendix	B	Schedule of Trees
Appendix	C	Schedule of Works - Irrespective of Development
Appendix	D	Preliminary Schedule of Works to Allow Development
Appendix	E	Explanatory Notes
Appendix	F	Tree Preservation Order Enquiry/Response
Appendix	G	Advisory Information & Sample Specifications
		1. BS 5837:2012 Figure 1 - Flow Chart – Design and Construction & Tree Care
		2. European Protected Species and Woodland Operations Checklist (v.4)
		3. BS 5837:2012 Figure 2 - Default specification for protective barrier
		4. BS 5837:2012 Figure 3 - Examples of above-ground stabilising systems
Appendix	H	Drawing No 8694-D-AIA




Appendix A - Species List & Tree Problems

Species List:


Ash	<i>Fraxinus excelsior</i>
English Oak	<i>Quercus robur</i>
European Lime	<i>Tilia x europaea</i>
Field Maple	<i>Acer campestre</i>
Horse Chestnut	<i>Aesculus hippocastanum</i>


Tree Problems:

This gives a brief description of the problems identified in the attached Tree Survey.


Name: Deadwood	
Symptoms/damage type and cause:	This relates to dead branches in the crown of the tree. In the majority of cases, this is caused by the natural ageing process of the tree or shading due to its close proximity to neighbouring trees. However, in some situations, it may be related to fungal, bacterial or viral infection.
Consequence:	Depending upon the location and mass of dead wood removal of the affected tissue may be necessary to prevent harm to persons or property as the wood will become unstable as it decays and in some circumstances is likely to fall from the tree with little or no warning.
Control:	Detailed monitoring should be undertaken on those trees showing signs of excessive deadwood production to identify the underlying cause.
Species affected:	Most tree species.
Images:	




Name: Epicormic growth	
Symptoms/damage type and cause:	This is the production of numerous shoots on the main stem and branches of the tree. They are produced by the bursting into life of otherwise dormant buds. It is commonly associated with elevated levels of stress on the tree.
Consequence:	Whilst epicormic growth is usually symptomatic of an issue elsewhere within the tree, heavy proliferation can cause the trees resources to become depleted or may mask significant structural weaknesses within the framework of the tree.
Control:	Pruning off epicormic growth may be necessary to improve the visual amenity of the tree or prevent the development of a hazard or obstruction. No direct means of prevention are available other than therapeutic measures to alleviate stresses on the tree.
Species affected:	Most tree species, including European Lime, Willow species, Sweet Chestnut, and Silver Maple.
Images:	

Name: <i>Hedera helix</i> (Ivy)	
Symptoms/damage type and cause:	Ivy may grow to varying degrees on all areas of a tree from the base to the upper crown. It is possible that in doing so it will out-compete the host tree for available light thereby suppressing the host.
Consequence:	This is generally only harmful to the tree on already unhealthy specimens which may be constricted by large ivy stems around the trunk or may have their top growth suppressed by a mass of flowering shoots in the crown. Ivy can also mask potentially dangerous faults on a tree.
Control:	Ivy should only be removed if absolutely necessary because it provides abundant cover to wildlife and then by severing twice close to the ground and removing a length of stem thereby causing the gradual dying away of the aerial parts of the plant providing extended benefit to wildlife whilst relieving the pressure on the tree.
Species affected:	Most trees can be affected.
Images:	



Name: <i>Inonotus hispidus</i> (Ash Heart Rot)	
Symptoms/damage type and cause:	This is common and widespread, found most frequently on Ash as a serious cause of stem rot associated with wounds but also occurs on other broad-leaved trees (see species affected). The fruiting body is hoof or bracket shaped, rusty-red but later black, markedly shaggy (hence the alternate name 'shaggy polypore'), with red-yellow ragged pore surface underneath. The fruit bodies develop on the trunk or major branches and can enter the tree through wounds on the trunk and branches. The rot is indefinite but affected wood is softer and lighter than sound tissue. The wood turns a yellow-brown and spongy surrounded by a brown zone, which has a gummy appearance.
Consequence:	The strength of the wood is greatly reduced often leading to branch or stem failure.
Control:	Removal of affected tissues may be feasible to make the tree safe where there is risk of harm to persons or property from falling branches or stems. Tree removal may be required in some cases.
Species affected:	<i>Fraxinus</i> spp, <i>Platanus</i> spp, <i>Juglans</i> spp, <i>Ulmus</i> spp, <i>Malus</i> spp, <i>Acer pseudoplatanus</i>
Images:	

Name: <i>Pseudomonas syringae</i> pv. <i>Aesculi</i> (Bacterial Bleeding Canker of Horse Chestnut)	
Symptoms/damage type and cause:	Trees with early symptoms show scattered drops of rusty-red, yellow-brown or almost black lesions from which gummy liquid oozes from small or large patches of dying bark on the stems or branches. As the disease progresses, and particularly if a tree has multiple bleeding cankers, the areas of dead phloem and cambium underneath the bleeding areas may coalesce and extend until they encircle the entire trunk or branch. Cankering lesions can cause the trunk to be girdled in some cases and result in death.
Consequence:	In advanced cases crown symptoms become visible, typically consisting of yellowing of foliage, premature leaf drop and eventually, crown death.
Control:	There is currently no proven means of control, pruning away affected tissues may slow the spread of the infection. Some trees can survive for many years with the disease and may show signs of recovery, monitoring is recommended in these cases. Tools should be sterilized to reduce the risk if spread between trees.
Species affected:	Mainly affects <i>Aesculus hippocastanum</i> and <i>Asculus x carnea</i> although can affect other trees species.
Images:	



Appendix B

Schedule of Trees

SCHEDULE OF TREES (AIA) Akenham Hall, Henley Road, Ipswich, Suffolk

Surveyed By: Alex Garnham Date: 10/03/2021

Managed By: Alex Garnham

TreeNo	Species	DBH	Height		Visual	Crown Spread	Problems / Comments	BS Cat	Work Required (TS)	Priority (TS)	Work Required (AIA)	Priority (AIA)			
			Min Dist	Crown Base									Lowest Branch	Age	Water Demand
			RPA (m ²)	Aspect									Aspect	SULE	Ground Cover
G001	Lime Spp	640	19		High	N5, E5, S5, W5	Two early mature Lime located north of a stream and south of a vehicle track. Dense Epicormic growths base, preventing full assessment. The trees are tall with a narrow crown. Both trees have been pollarded approx. 15 metres and have regrown to 19 metres. Good physiological condition and contributes to the tree belt on the southern aspect.	B2	No work required.	4					
		7.68	4.5		EM	Moderate									
Yes		185.3			20+ years	Bare earth									
G002	Lime Spp, Horse Chestnut	750	19		High	N6.5, E6.5, S6.5, W6.5	Group of two early mature Lime and one mature Horse Chestnut adjacent to the access to Akenham Hall Fishery on the north aspect, Henley Road on the east and a stream and culvert on the south. The two limes have dense Epicormic growth at the base, preventing full assessment. They have been topped at 15 metres and have regrown to 19 metres. The Horse Chestnut is densely shrouded in lvy, preventing full assessment. It was formerly twin stemmed, however the northern stem has been historically removed and has formed a cup shaped depression through gradual decay. The remaining stem appears healthy, with some reaction growth following the loss of the partner stem. The crown has been subject to a significant all over reduction and is regrowing.	B2	No work required.	4					
		9	4.5		EM	Moderate									
Yes		254.5			20+ years	Bare earth									
G003	English Oak	290	20		Low	N2.5, E2.5, S2.5, W4	Two tall and slender Oak trees located in a grass meridian between two vehicle access tracks. The northern specimen has been pollarded at approx. 8 metres and has a decaying pollard head. Only one limb is regrowing from it. The southern tree has a high asymmetric crown, much of which is dead. Unclear what has caused the decline in these two trees but it appears terminal.	U	Fell to ground level.	2					
		3.48	12		SM	High									
Yes		38			<10 years	Bare earth									

TreeNo	Species	DBH	Height		Visual	Crown Spread	Problems / Comments	BS Cat	Work Required (TS)	Priority (TS)	Work Required (AIA)	Priority (AIA)
		Min Dist	Crown Base	Lowest Branch	Age	Water Demand						
		RPA (m ²)	Aspect	Aspect	SULE	Ground Cover						
T001	Horse Chestnut	890	20.5		High	N8, E7, S8, W9	Mature Horse Chestnut located north of a stream and south of a vehicle track. Good structural form and high visual amenity. Stem is densely shrouded in Ivy, preventing full assessment. There is a lack of vigour in the shoot tips, particularly at the apex, suggesting the tree is physiologically stressed. One possible cause is Bacterial Bleeding Canker however the Ivy prevents inspection for this. There is evidence of historic pruning of lower limbs on all aspects, perhaps as a crown balancing exercise. A tree of high quality with a slightly impaired condition.	B2	Remove all Ivy. Reinspect next autumn.	3		
		10.68	6		M	Moderate						
Yes		358.3			20+ years	Bare earth						
T002	Lime Sp	620	14		High	N5, E3.5, S4, W5	Early mature Lime located north of a stream and south of a vehicle track. Stem is lightly covered in Ivy, preventing full assessment. The tree is tall with a narrow crown. The stem bifurcates at approx. 4 metres into two equally sized stems. It is difficult to see through the Ivy but the tree appears to have been historically topped. Good physiological condition and contributes to the tree belt on the southern aspect.	B2	No work required.	4		
		7.44	4.5		EM	Moderate						
Yes		173.9			20+ years	Bare earth						

TreeNo	Species	DBH	Height		Visual	Crown Spread	Problems / Comments	BS Cat	Work Required (TS)	Priority (TS)	Work Required (AIA)	Priority (AIA)
		Min Dist	Crown Base	Lowest Branch	Age	Water Demand						
		RPA (m²)	Aspect	Aspect	SULE	Ground Cover						
T003	Horse Chestnut	910	22.5		High	N7, E4, S9, W7	Mature Horse Chestnut located north of a stream and south of a vehicle track. Stem is densely shrouded in Ivy, preventing full assessment. The tree was formerly comprised of four stems, one on the south side at 2.5 metres, and three from a union at 4 metres. One of the three stems sharing a union at 4 metres has suffered catastrophic failure and left a deep socket wound. The two remaining stems are now unbalanced, as is the crown. The stem on the south side features an abrupt bend towards the south, forming a right angle of growth which is structurally unsustainable and liable to result in another catastrophic stem failure. There is a fungal fruiting body at the base between buttress roots on the northern side. When tapping the lower stem and buttress roots, decay was audible. Although a prominent tree in the tree belt on the southern boundary, there are major defects that substantially reduce the safe useful life expectancy. As a minimum, the Ivy should be stripped to allow decay testing of the base. Consideration should be given to felling and replacement.	U	As a minimum - strip Ivy and undertake decay detection testing of the base and buttress roots. Consider felling and replacement.	1		
		10.92	5.5		M	Moderate						
Yes		374.6			<10 years	Bare earth						
T004	Horse Chestnut	1300	18		High	N7.5, E8, S9, W6	Mature Horse Chestnut located in an earth strip between the access to the Chives Nursery to the north, Henley Road to the east and the access to Akenham Hall Fishery to the south. The stem is huge, and splits into three large stems from approx. 3.5 metres. Each stem has a bark included union and no natural braces, making these stems vulnerable to tearing out. Wisely, the tree has been subject to a substantial overall crown reduction by topping at 15 metres (regrown to 19 metres), and lateral reduction of the more extended limbs. The tree is regrowing vigorously.	B2	No work required.	4		
		15	5.5		OM	Moderate						
Yes		706.9			20+ years	Bare earth						

TreeNo	Species	DBH	Height		Visual	Crown Spread	Problems / Comments	BS Cat	Work Required (TS)	Priority (TS)	Work Required (AIA)	Priority (AIA)	
			Min Dist	Crown Base									Lowest Branch
			On site	RPA (m ²)	Aspect	Aspect							SULE
T005	Lime Sp	550	19		Moderate	N5, E4.5, S4, W4.5	Early mature Lime located between vehicle access tracks. Dense Epicormic growth recently removed. No signs of fungal activity at the base. The tree is tall with a narrow crown. Pollarded approx. 16 metres and have regrown to 19 metres. Good physiological condition and contributes to the overall tree coverage.	B2	No work required.	4			
		6.6	5		EM	Moderate							
Yes		136.8			20+ years	Bare earth							
T006	English Oak	640	22		High	N10, E7.5, S7, W8.5	Semi mature Oak located in grass meridian between two vehicle access tracks. Ivy coverage on the stem prevents full assessment. Appears well formed and in good physiological condition. Good future potential as a specimen tree. Crown slightly suppressed on the west by an adjacent Ash.	A1	No work required.	4			
		7.68	4		SM	High							
Yes		185.3			40+ years	Bare earth							
T007	Ash	470	21.5		Moderate	N6.5, E4, S5.5, W7.5	Semi mature Ash located in grass meridian between two vehicle access tracks. The stem leans slightly north, with a bulge of earth on the southern aspect and a slight depression of earth on the northern aspect. This indicates possible root plate movement and potentially future root plate failure. There is no soil cracking however. Given that the major buttress roots are all on the south side, it could also be root growth causing the soil bulge. The crown displays low vigour, evidenced by poor shoot extension growth and dieback. There is an extended limb on the west side featuring end weight, which leaves it vulnerable to snapping in a storm. The limb below this has a large open wound on the east side, and appears likely to snap. This limb should be removed. Despite being a tall and relatively prominent tree adjacent to the car park, the physiological condition is poor and the stem leans towards the children's nursery car park. It is worth noting that two nearby Ash have been felled due to Inonotus hispidus fungi. It is recommended this tree is felled in favour of the adjacent Oak and to remove risk to site users.	U	Fell to ground level.	1			
		5.64	6		EM	Moderate							
Yes		99.9			<10 years	Bare earth							

TreeNo	Species	DBH	Height		Visual	Crown Spread	Problems / Comments	BS Cat	Work Required (TS)	Priority (TS)	Work Required (AIA)	Priority (AIA)
		Min Dist	Crown Base	Lowest Branch	Age	Water Demand						
		RPA (m ²)	Aspect	Aspect	SULE	Ground Cover						
T008	English Oak	230	12.5		Moderate	N5, E5, S5, W5	Well formed young to semi mature oak in grass meridian between two vehicle access tracks. Excellent future potential but wider landscape value masked by taller surrounding mature trees.	B1	No work required.	4		
		2.76	3.5		SM	High						
Yes		23.9			40+ years	Bare earth						
T009	Field Maple	400	12.5		Moderate	N6, E6, S6, W6	Semi mature Field Maple located in grass meridian between two vehicle access tracks. The stem bifurcates into two equally sized stems with a strong cup shaped union. Good physiological condition. Wider landscape value limited by surrounding mature tree cover. A tree of moderate quality.	B1	No work required.	4	Crown lift to give 2m clearance over new structure. Undertake root pruning along foundation line as shown on drawing 8694-D-AIA.	0
		4.8	3.5		SM	Moderate						
Yes		72.4			20+ years	Bare earth						
T010	Lime Sp	130	8		Low	N4.5, E1.5, S3, W4	Young and fairly poorly formed Lime.	C1	No work required.	4		
		1.56	3		Y	Moderate						
Yes		7.6			20+ years	Bare earth						

Appendix C

Schedule of Works - Irrespective of Development

SCHEDULE OF WORK IRRESPECTIVE OF DEVELOPMENT

Akenham Hall, Henley Road, Ipswich, Suffolk

Surveyed By: Alex Garnham

Surveyed: 10/03/2021

Managed By: Alex Garnham

Tree No.	Species	Work required	Priority
T003	Horse Chestnut	As a minimum - strip Ivy and undertake decay detection testing of the base and buttress roots. Consider felling and replacement.	1
T007	Ash	Fell to ground level.	1
G003	English Oak	Fell to ground level.	2
T001	Horse Chestnut	Remove all Ivy. Reinspect next autumn.	3

Appendix D

Preliminary Schedule of Works to Allow Development

SCHEDULE OF WORKS (AIA)

Akenham Hall, Henley Road, Ipswich, Suffolk

Surveyed By: Alex Garnham

Surveyed: 10/03/2021

Managed By: Alex Garnham

Tree No.	Species	Work required	Priority
T009	Field Maple	Crown lift to give 2m clearance over new structure. Undertake root pruning along foundation line as shown on drawing 8694-D-AIA.	0

Appendix E

Explanatory Notes

Explanatory Notes



Categories

Below is an explanation of the categories used in the attached Tree Survey.

No Identifies the tree on the drawing.

Species Common names are given to aid understanding for the wider audience.

BS 5837 Main Category Using this assessment (BS 5837:2012, Table 1), trees can be divided into one of the following simplified categories, and are differentiated by cross-hatching and by colour on the attached drawing:

Category A - Those of high quality with an estimated remaining life expectancy of at least 40 years;

Category B - Those of moderate quality with an estimated remaining life expectancy of at least 20 years;

Category C - Those of low quality with an estimated remaining life expectancy of at least 10 years, or young trees with a stem diameter below 150 mm;

Category U - Those trees in such condition that they cannot realistically be retained as living trees in the context of the current land use for longer than 10 years.

BS 5837 Sub Category Table 1 of BS 5837:2012 also requires a sub category to be applied to the A, B, C, and U assessments. This allows for a further understanding of the determining classification as follows:

Sub Category 1 - Mainly arboricultural qualities;

Sub Category 2 - Mainly landscape qualities;

Sub Category 3 - Mainly cultural values, including conservation .

Please note that a specimen or landscape feature may fulfil the requirements of more than one Sub Category.

DBH (mm) Diameter of main stem in millimetres at 1.5 metres from ground level. Where the tree is a multi-stem, the diameter is calculated in accordance with item 4.6.1 of BS 5837:2012.

Age Recorded as one of seven categories:

Y Young. Recently planted or establishing tree that could be transplanted without specialist equipment, i.e. less than 150 mm DBH.

S/M Semi-mature. An established tree, but one which has not reached its prospective ultimate height.

E/M Early-mature. A tree that is reaching its ultimate potential height, whose growth rate is slowing down but if healthy, will still increase in stem diameter and crown spread.

M Mature. A mature specimen with limited potential for any significant increase in size, even if healthy.

O/M Over-mature. A senescent or moribund specimen with a limited safe useful life expectancy. Possibly also containing sufficient structural defects with attendant safety and/or duty of care implications.



D Dead.

Height	Recorded in metres, measured from the base of the tree.
Crown Base	Recorded in metres, the distance from ground and aspect of the lowest branch material.
Lowest Branch	Recorded in metres, the distance from ground and aspect of the emergence point of the lowest significant branch.
Life Expectancy	Relates to the prospective life expectancy of the tree and is given as 4 categories: 1 = 40 years+; 2 = 20 years+; 3 = 10 years+; 4 = less than 10 years.
Crown Spread	Indicates the radius of the crown from the base of the tree in each of the northern, eastern, southern and western aspects.
Minimum Distance	This is a distance equal to 12 times the diameter of the tree measured at 1.5 metres above ground level for single stemmed trees and 12 times the average diameter of the tree measured at 1.5 metres above ground level tree for multi stemmed specimens. (BS 5837:2012, section 4.6).
RPA	This is the Root Protection Area, measured in square metres and defined in BS5837:2012 as “a layout design tool indicating the minimum area around a tree deemed to contain sufficient roots and rooting volume to maintain the tree’s viability, and where the protection of the roots and soil structure is treated as a priority”. The RPA is shown on the drawing.. Ideally this is an area around the tree that must be kept clear of construction, level changes of construction operations. Some methods of construction can be carried out within the RPA of a retained tree but only if approved by the Local Planning Authority’s tree officer.
Water Demand	This gives the water demand of the species of tree when mature, as given in the NHBC Standards Chapter 4.2 “Building Near Trees”.
Visual Amenity	Concerns the planning and landscape contribution to the development site made by the tree, hedge or tree group, in terms of its amenity value and prominence on the skyline along with functional criteria such as the screening value, shelter provision and wildlife significance. The usual definitions are as follows: Low An inconsequential landscape feature. Moderate Of some note within the immediate vicinity, but not significant in the wider context. High Item of high visual importance.
Problems/ Comments	May include general comments about growth characteristic, how it is affected by other trees and any previous surgery work; also, specific problems such as deadwood, pests, diseases, broken limbs, etc.
Work Required (TS)	Identifies the necessary tree work to mitigate anticipated problems and deal with existing problems identified in the “Problems/comments” category.



Work Required (AIA)

Identifies the tree work specifically necessary to allow a proposed development to proceed.

Priority

This gives a priority rating to each tree allowing the client to prioritise necessary tree works identified within the Tree Survey.

- 1 Urgent – works required immediately;
- 2 Works required within 6 months;
- 3 Works required within 1 year;
- 4 Re-inspect in 12 months,
- 0 Remedial works as part of implementation of planning consent.



BS 5837:2012 Terms and Definitions

Access Facilitation Pruning	One-off tree pruning operation, the nature and effects of which are without significant adverse impact on tree physiology or amenity value, which is directly necessary to provide access for operations on site.
Arboricultural Method Statement	Methodology for the implementation of any aspect of development that is within the root protection area, or has the potential to result in loss of or damage to a tree to be retained.
Arboriculturist	Person who has, through relevant education, training and experience, gained expertise in the field of trees in relation to construction.
Competent Person	Person who has training and experience relevant to the matter being addressed and an understanding of the requirements of the particular task being approached. <i>NOTE - a competent person is expected to be able to advise on the best means by which the recommendations of this British Standard may be implemented.</i>
Construction	Site-based operations with the potential to affect existing trees.
Construction Exclusion Zone	Area based on the root protection area from which access is prohibited for the duration of a project.
Root Protection Area (RPA)	Layout design tool indicating the minimum area around a tree deemed to contain sufficient roots and rooting volume to maintain the tree's viability, and where the protection of the roots and soil structure is treated as a priority.
Service	Any above or below ground structure or apparatus required for utility provision. NOTE - examples include drainage, gas supplies, ground source heat pumps, CCTV and satellite communications.
Stem	Principal above ground structural component(s) of a tree that supports its branches.
Structure	Manufactured object, such as a building, carriageway, path, wall, service run, and built or excavated earthwork.
Tree Protection Plan	Scale drawing, informed by descriptive text where necessary, based upon the finalized proposals, showing trees for retention and illustrating the tree and landscape protection measures.
Veteran Tree	Tree that, by recognized 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. NOTE - these characteristics might typically include a large girth, signs of crown retrenchment and hollowing of the stem.



Appendix F

Tree Preservation Order Enquiry/Response

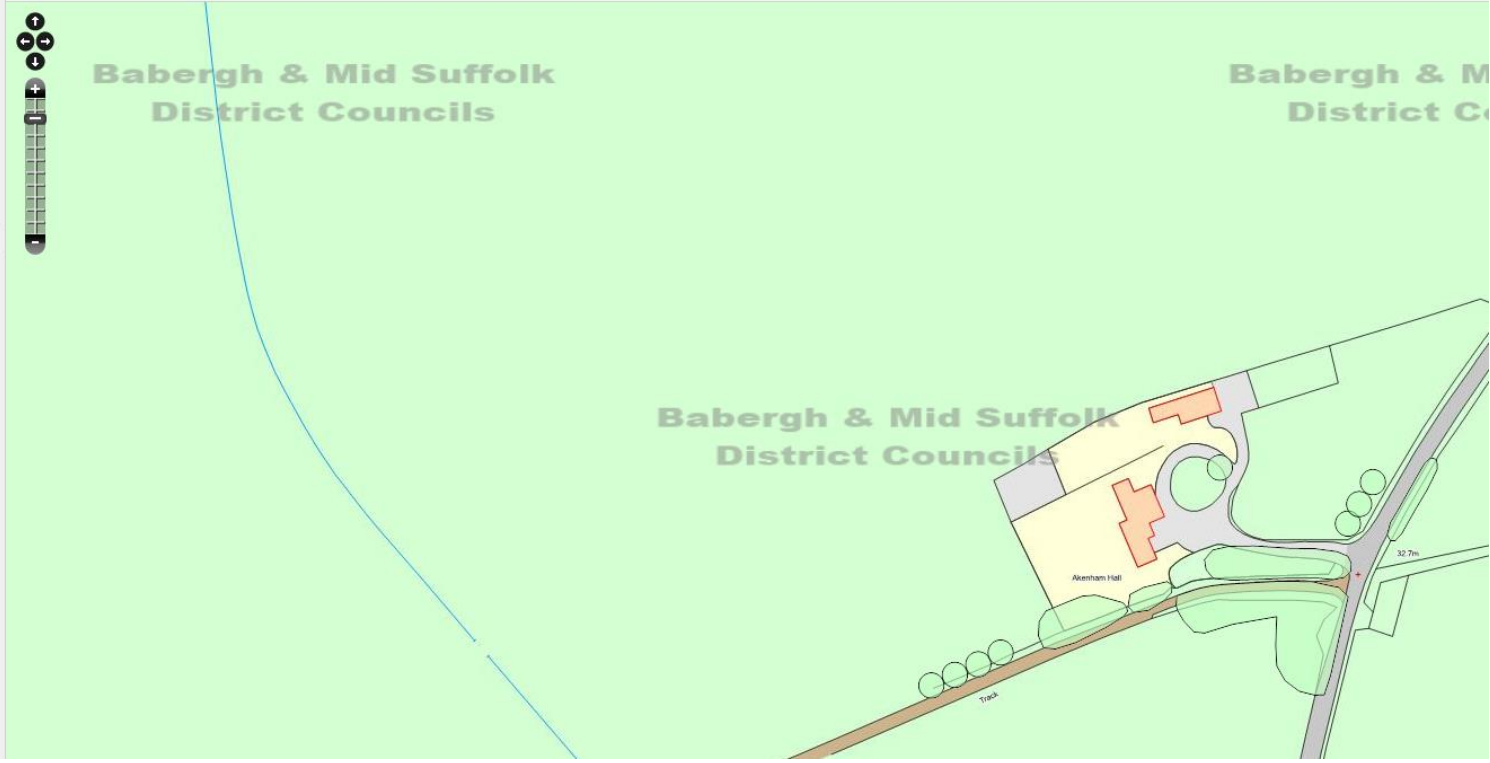
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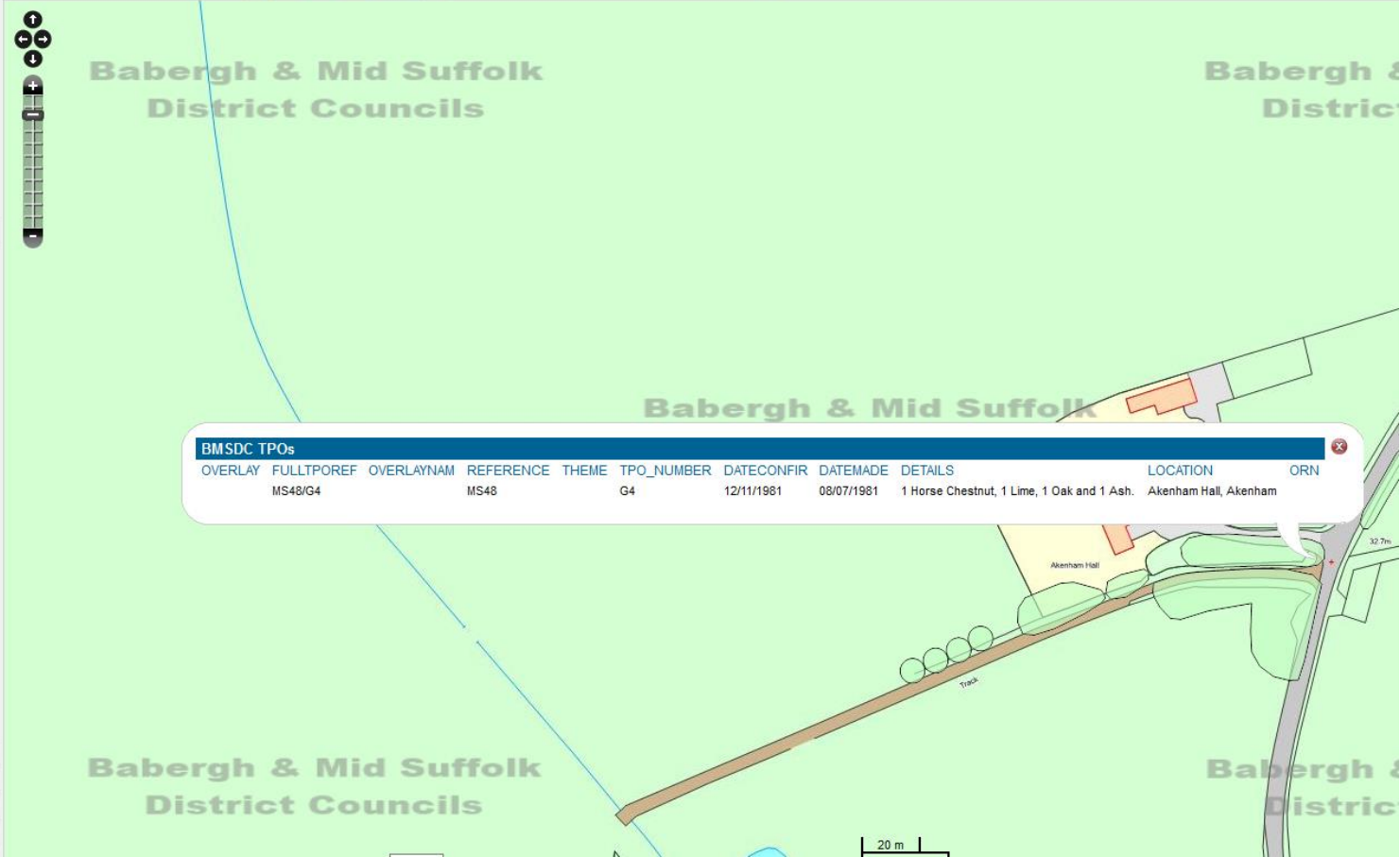
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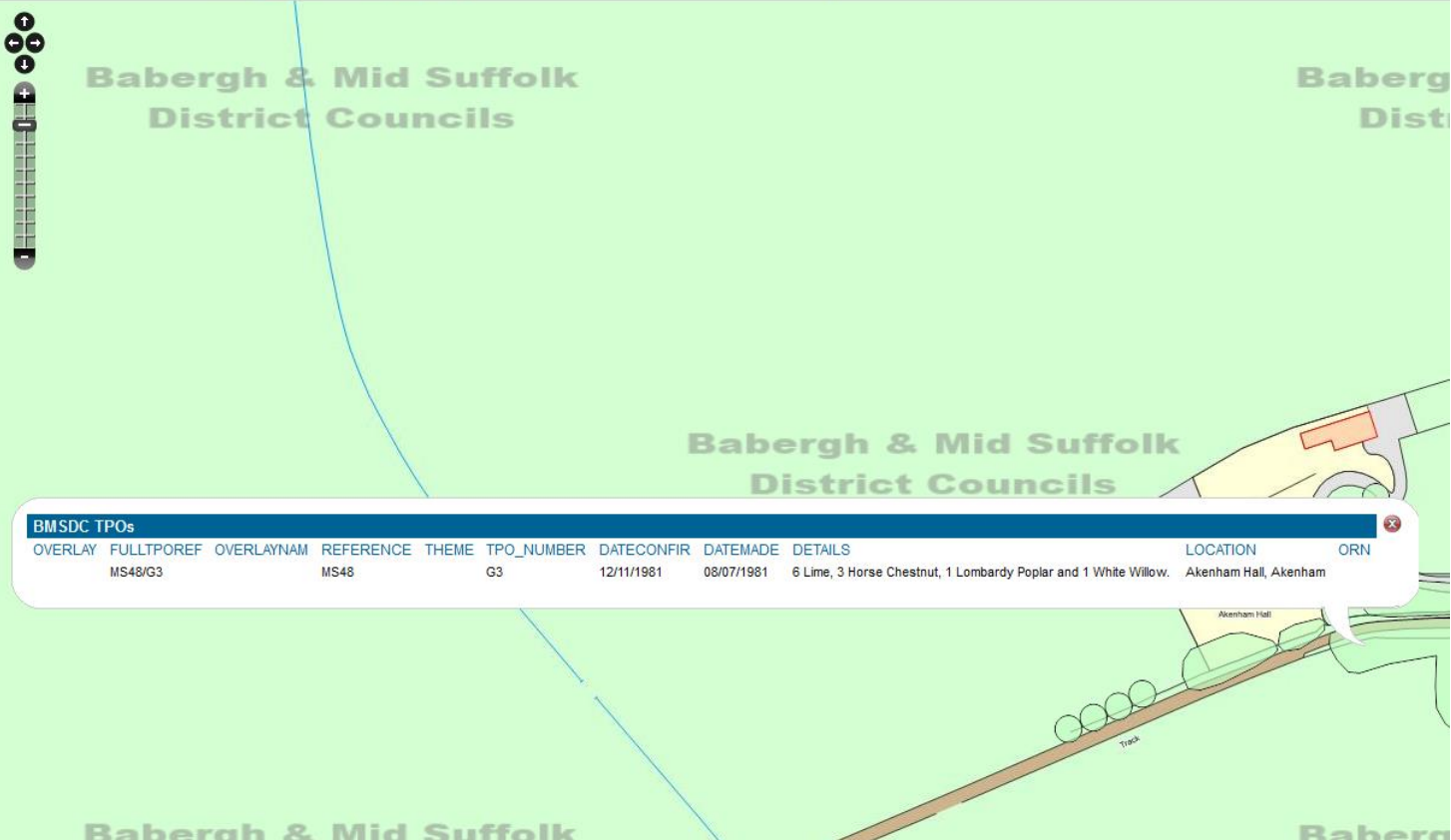
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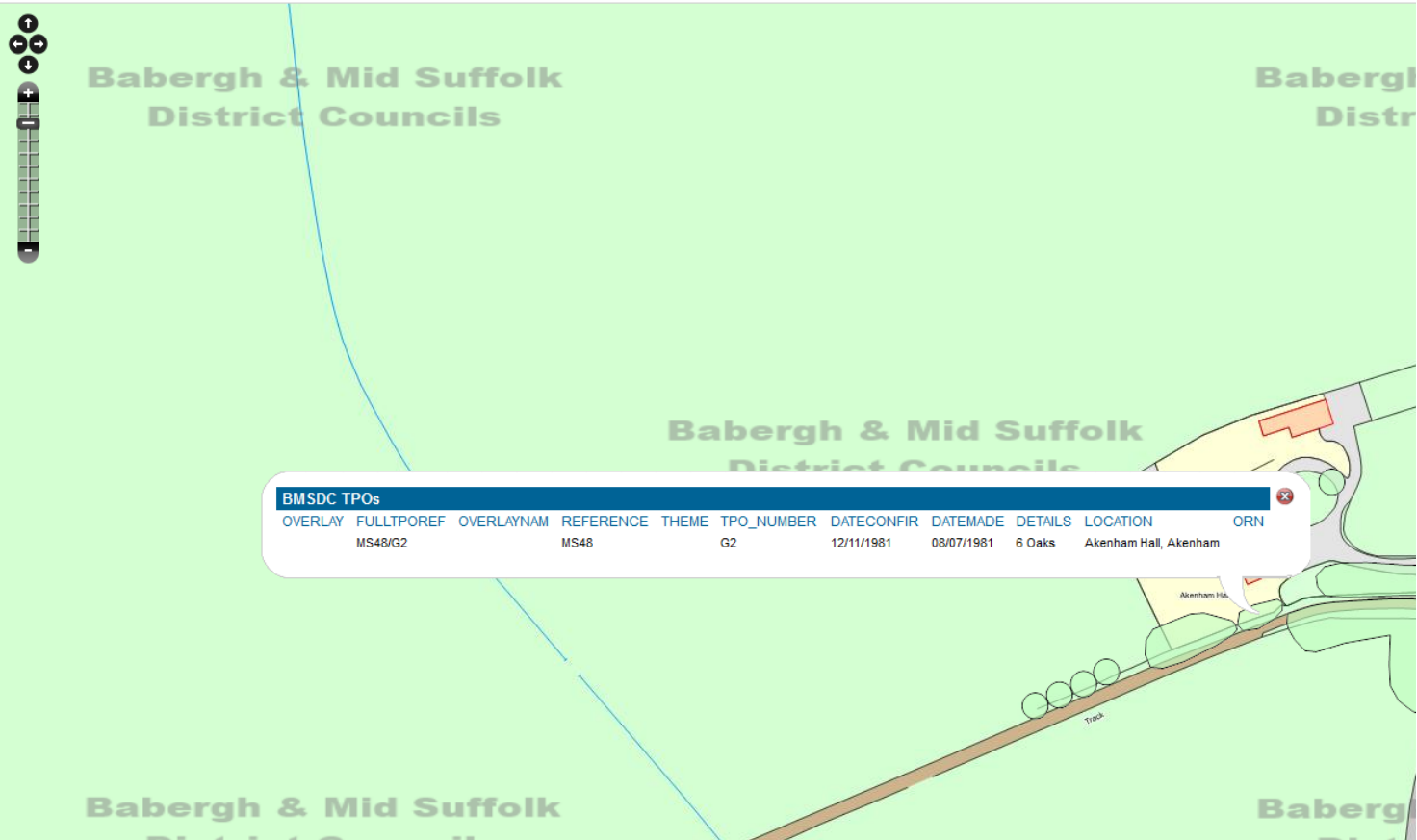
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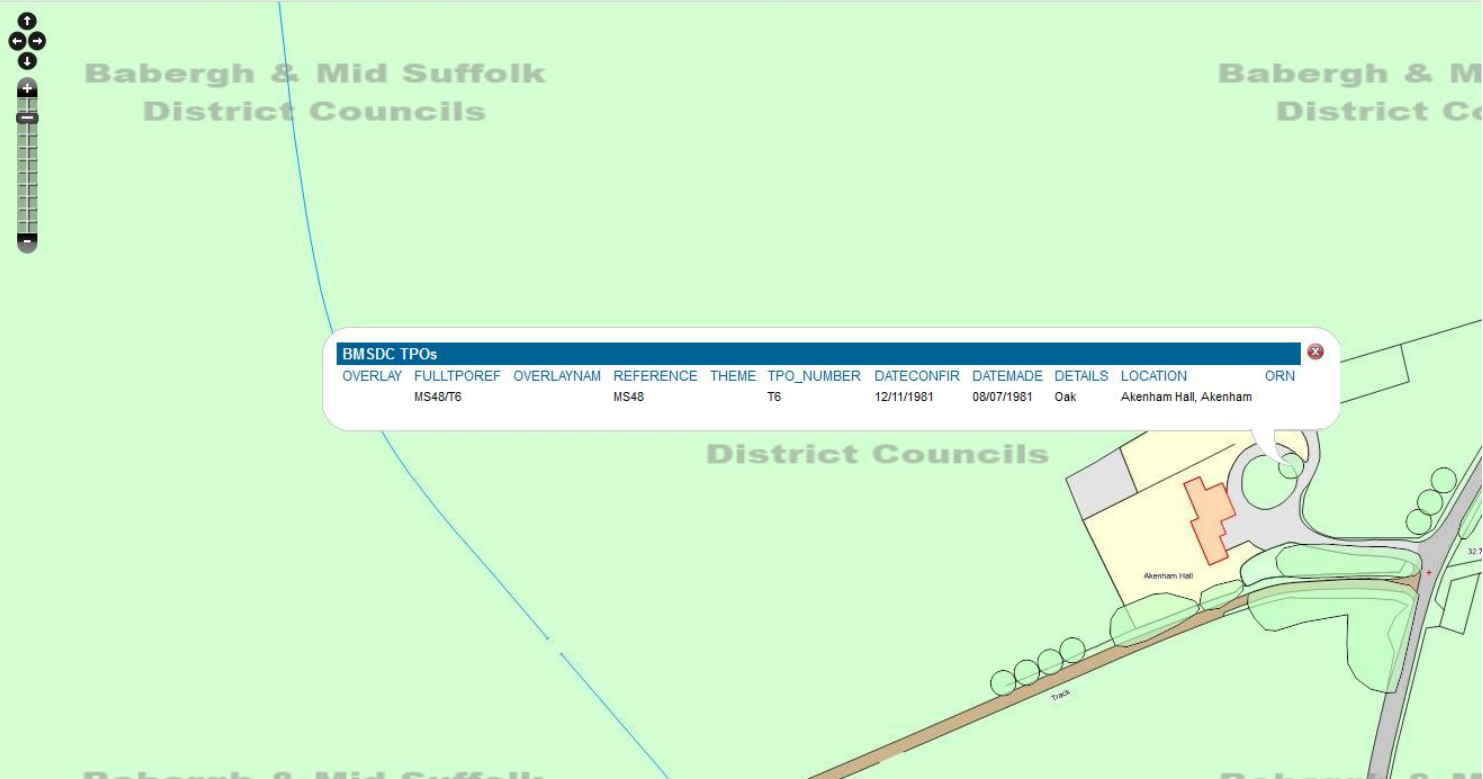
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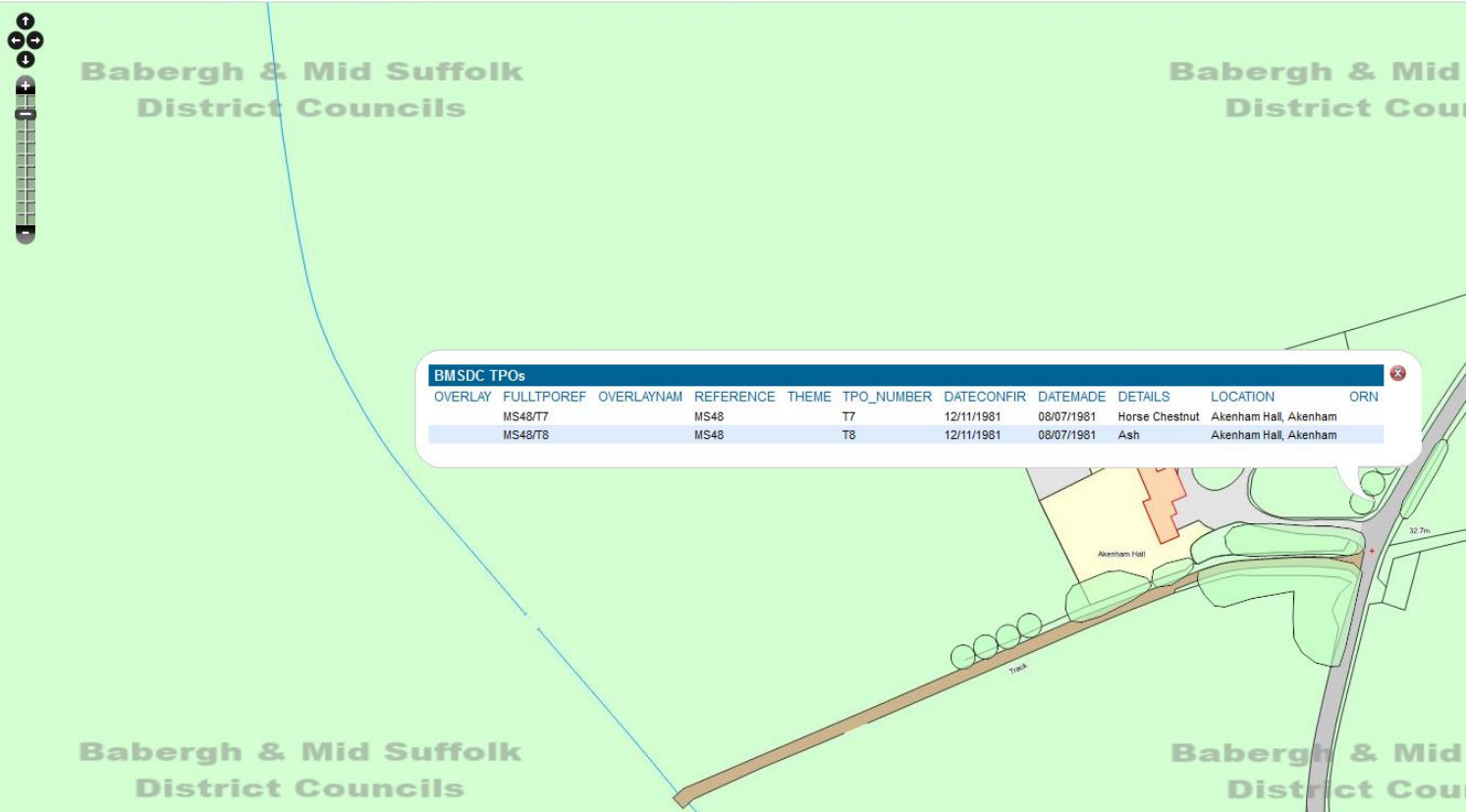
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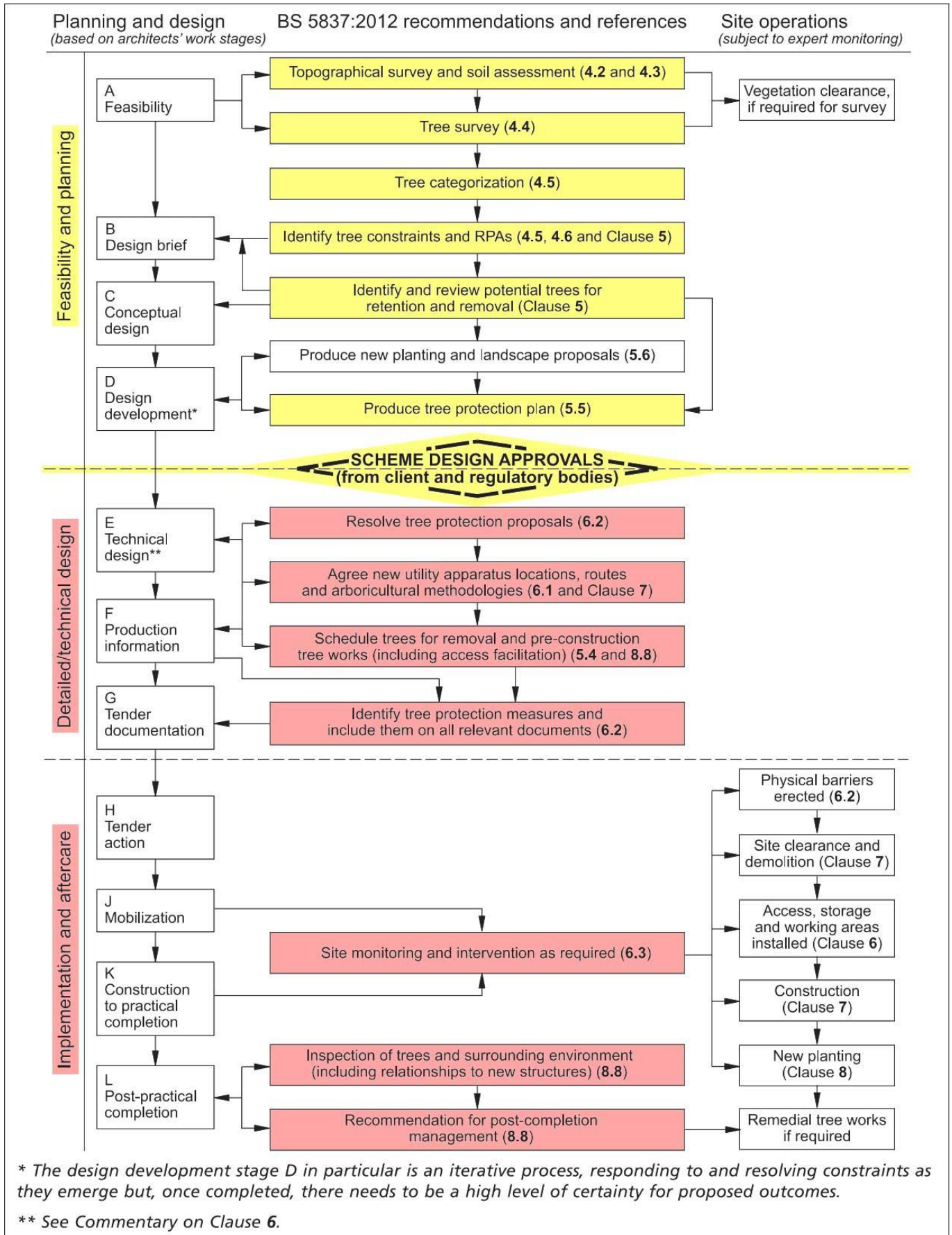
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Appendix G

Advisory Information & Sample Specifications

1. BS 5837:2012 Figure 1 - Flow Chart – Design and Construction & Tree Care

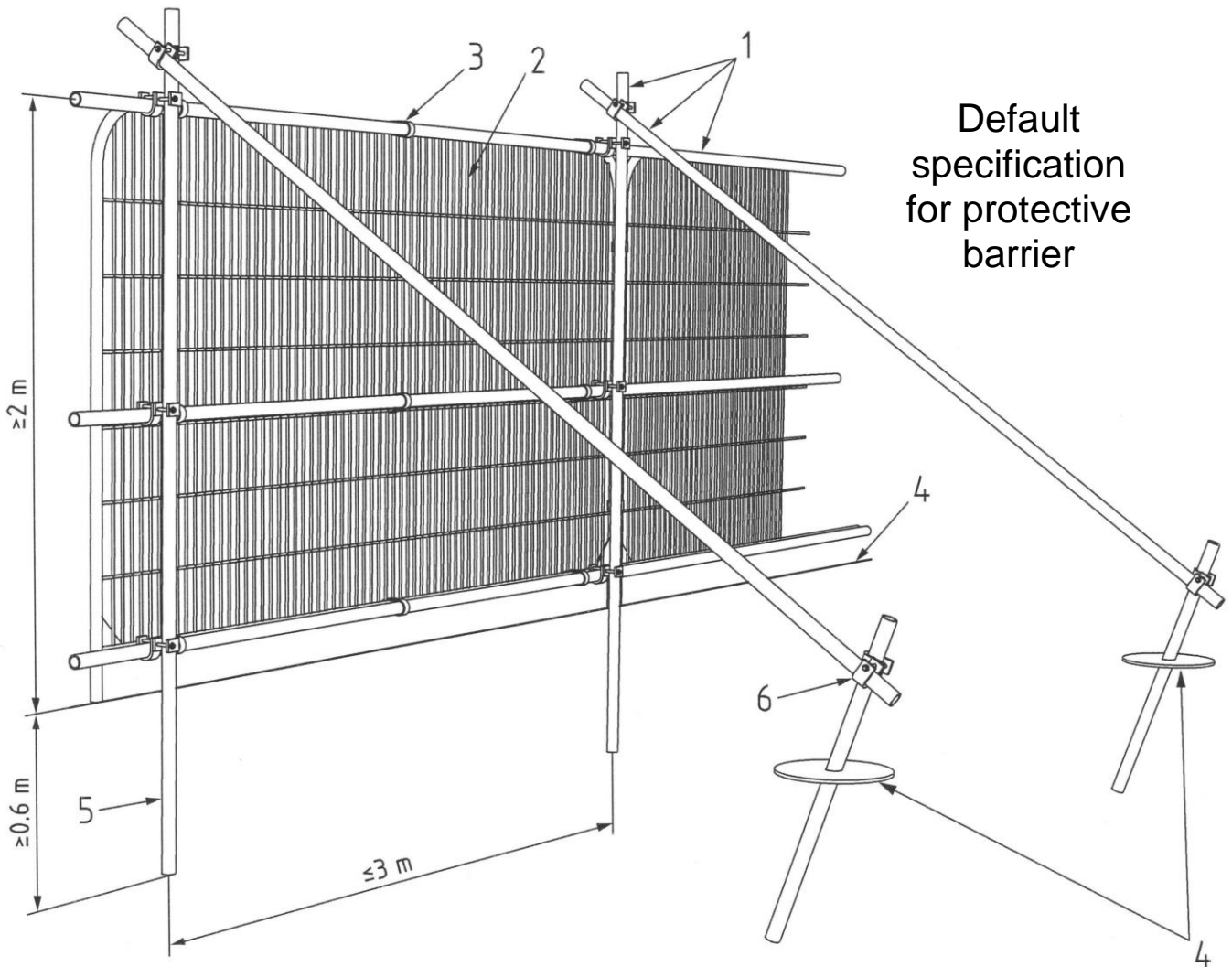


2.

European Protected Species and woodland operations. (V4)
Complete all sections of the Checklist

Checklist		Details												
1	<p>Are you within, or close to, the known mapped range of any of the protected species OTHER THAN BATS which are potentially everywhere? Tick any that apply. See distribution maps in the Good Practice Guidance for each species -</p> <ul style="list-style-type: none"> <input type="checkbox"/> Dormice <input type="checkbox"/> Otters <input type="checkbox"/> Great crested newts <input type="checkbox"/> Sand lizards <input type="checkbox"/> Smooth snakes 	<p>Name of Wood:</p> <hr/> <p>Grid Reference:</p> <table border="1" style="width: 100%; height: 20px; border-collapse: collapse;"> <tr> <td style="width: 25%;"></td> <td style="width: 25%;"></td> <td style="width: 25%;"></td> <td style="width: 25%;"></td> </tr> </table> <p>Area: (ha)</p> <table border="1" style="width: 100%; height: 20px; border-collapse: collapse;"> <tr> <td style="width: 25%;"></td> <td style="width: 25%;"></td> <td style="width: 25%;"></td> <td style="width: 25%;"></td> </tr> </table> <p>Date of Assessment:</p> <table border="1" style="width: 100%; height: 20px; border-collapse: collapse;"> <tr> <td style="width: 25%;"></td> <td style="width: 25%;"></td> <td style="width: 25%;"></td> <td style="width: 25%;"></td> </tr> </table> <p>Name of Assessor:</p> <hr/>												
2	<p>Does your wood contain any of the following habitats? Tick any that apply.</p> <ul style="list-style-type: none"> <input type="checkbox"/> Old trees with holes and crevices which might be used bats <input type="checkbox"/> Species rich scrub/coppice, early growth stage plantations and forest interfaces <input type="checkbox"/> Rivers on which otters might be found <input type="checkbox"/> Ponds which might be occupied by great crested newts <input type="checkbox"/> Open areas on heathy soils 	<p>YES</p> <p>NO</p>												
3	<p>Have any of the protected species been recorded in this wood or on adjoining sites? Tick any that apply. Indicate which sources of information you have checked:</p> <ul style="list-style-type: none"> <input type="checkbox"/> National Biodiversity Network (www.nbn.org.uk) <input type="checkbox"/> Local Biological Records Centre <input type="checkbox"/> Local Wildlife Trust <input type="checkbox"/> Other <p>Specify Other:</p>	<p>YES</p> <p>NO</p>												
4	<p>Have your inspections or any expert surveys found any of the following signs or evidence? Tick any that apply.</p> <ul style="list-style-type: none"> <input type="checkbox"/> Signs (e.g. otter spraint, nuts gnawed by dormice, leaves folded by newts) <input type="checkbox"/> Sightings (or echo-location) <input type="checkbox"/> Potential breeding or roosting sites (e.g. veteran trees, old trees with crevices, riverside hollow trees, ponds, timber stacks, large fallen deadwood) <input type="checkbox"/> Confirmed breeding or roosting sites (i.e. evidence of sites actually being used) <p>Details:</p>	<p>YES</p> <p>NO</p>												
CHECK POINT	<p>If you have answered NO to ALL of the above then only bats need to be considered in your operations.</p> <p>If you have answered YES to any of the above then the species concerned must be considered as well as bats.</p>													
5	<p>Do the operations comply with Good Practice for bats and any other species found (or likely to be found in your wood) or can the operations be modified to do so? <i>Details: Use reverse of form to expand as required.</i></p>	<p>YES</p> <p>NO</p>												
6	<p><u>Whether or not a licence is required...</u> Has the information been communicated to operators (including the location of breeding sites and sensitive areas)? Tick any that apply.</p> <ul style="list-style-type: none"> <input type="checkbox"/> Included in documentation (e.g. contract, letter of instruction, site assessment or other management plan) <input type="checkbox"/> Shown to operators and/or their supervisor <input type="checkbox"/> Marked with paint or hazard tape <input type="checkbox"/> Shown on the site plan <p>Other means:</p>	<p>YES</p> <p>NO</p>												
7	<p>Have arrangements for supervision been made to ensure Good Practice guidance is complied with during the operations? <i>Details:</i></p>	<p>YES</p> <p>NO</p>												
		Notes												
		<p>A licence is not required but continue to sections 6 and 7 below</p> <p>You will need to obtain a licence BEFORE carrying out the work (see EPS Licence Application Forms and Notes)</p>												
		<p>You may commit an offence if you do not tell your operators about the protected species in your wood.</p>												
		<p>You may commit an offence if you do not take steps to ensure that your operators comply with the Good Practice guidance.</p>												

3. BS 5837:2012 Figure 2: Default specification for protective barrier

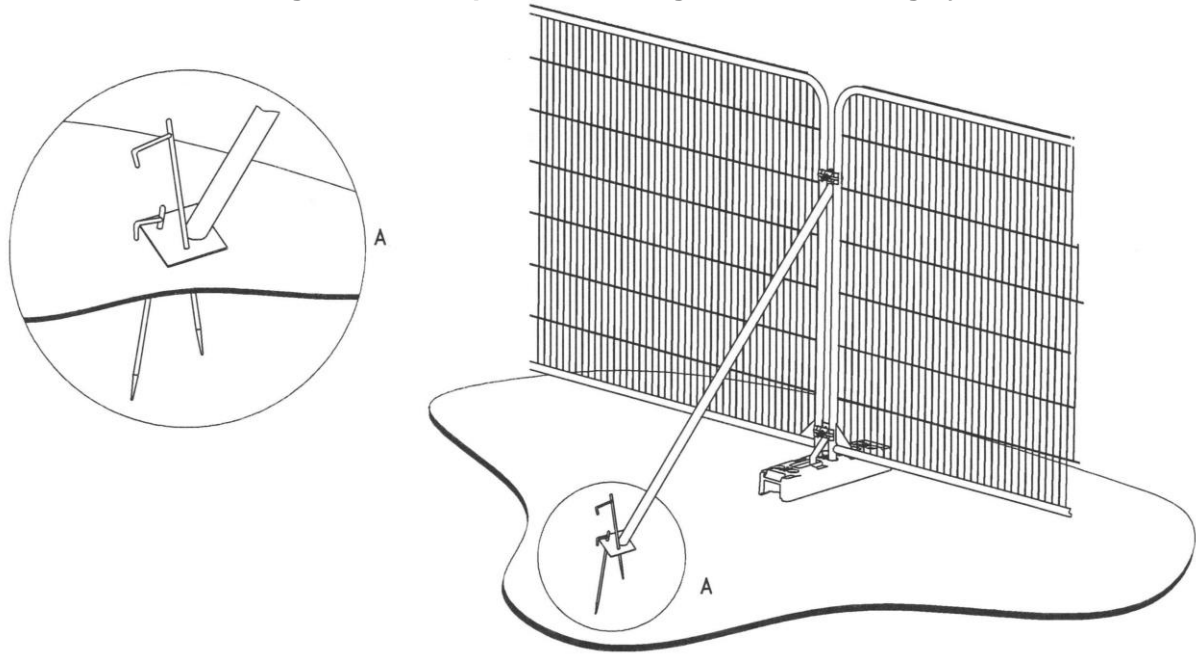


Default
specification
for protective
barrier

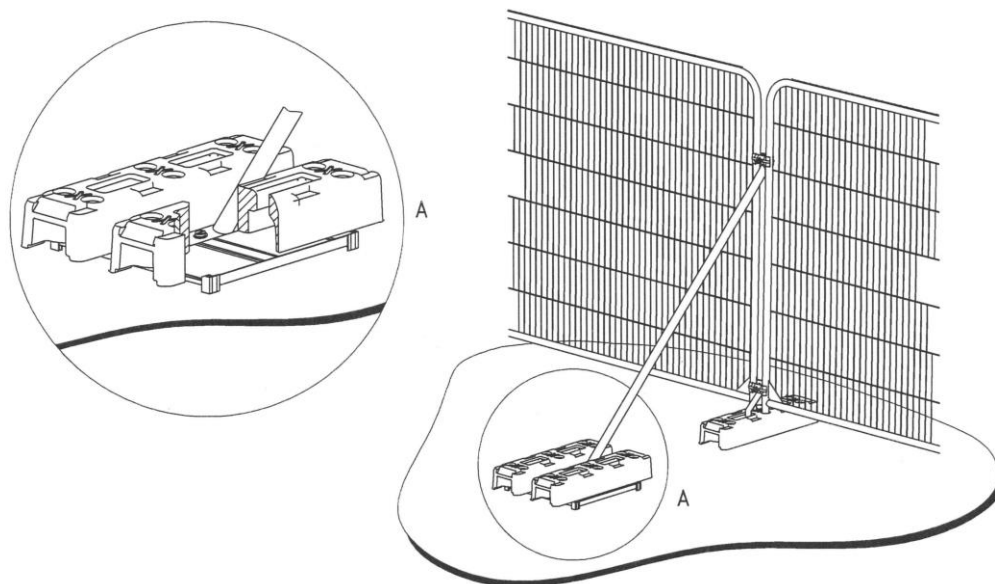
Key

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

4. BS 5837:2012 Figure 3: Examples of above-ground stabilizing systems



a) Stabilizer strut with base plate secured with ground pins



b) Stabilizer strut mounted on block tray

Appendix H

Hayden's Drawing

- Arboricultural Impact Assessments ●
- Arboricultural Method Statements ●
- Tree Constraints Plans ●
- Arboricultural Feasibility Studies ●
- Shade Analysis ●
- Picus Tomography ●
- Arboricultural Consultancy for Local Planning Authority ●
- Quantified Tree Risk Assessment ●
- Health & Safety Audits for Tree Stocks ●
- Tree Stock Survey and Management ●
- Mortgage and Insurance Reports ●
- Subsidence Reports ●
- Woodland Management Plans ●
- Project Management ●
- Ecological Surveys ●



Telephone
01284 765391
Email
info@treesurveys.co.uk
Website
www.treesurveys.co.uk

5 Moseley's Farm
Business Centre
Fornham All Saints
Bury St Edmunds
Suffolk
IP28 6JY