David Clarke Chartered Landscape Architect and Consultant Arboriculturist Limited

David Clarke BSc (Hons) PD Arb (RFS) M Arbor A CMLI

ARBORICULTUAL REPORT:

ARBORICULTURAL IMPACT ASSESSMENT and ARBORICULTURAL METHOD STATEMENT

In relation to a Planning Application

at:

The White Hart, St Albans Road, South Mimms, Hertfordshire, EN6 3PJ

Compiled by:
David Clarke
BSc (Hons) Land Man, PD ARB (RFS), CMLI, M Arbor A

February 2024

Offices in Hertfordshire and Warwickshire
Head Office:
Willowbrook House
Church Lane
Fillongley
CV7 8EW

Telephone: (07775) 650 835 or (01676) 541 833

e:mail: info@dccla.co.uk

Contents

1.0 Instruction

1.1 I have been instructed by my client – Griggs (South Mimms) Limited - to provide an appraisal of the likely impact to, and implications for trees on, or adjacent to, `The White Hart, St Albans Road, South Mimms, Hertfordshire, EN6 3PJ' in relation to a planning application on the site.

1.2 This application is for the *"Conversion and extension of the former public house into six apartments, conversion of outbuilding into a two-bedroom apartment and construction of a detached infill dwelling, along with associated landscaping, bin store and parking"*.

2.0 Introduction

2.1 Qualifications and Experience

2.1.1 I am David Clarke, I have a Bachelor of Science Honours Degree in Landscape Management from Reading University and I am a Chartered Landscape Architect and Chartered Member of the Chartered Landscape Institute (1998). I hold the Professional Diploma in Arboriculture (RFS) (2012) and I am a Professional Member of the Arboricultural Association. I have 31 years' experience of working in both the private and public sector in relation to arboricultural and landscape issues.

2.2 Scope of this Report

2.2.1 This Arboricultural Impact Assessment and Arboricultural Method Statement form the Arboricultural Report for the Planning Application. They should be read in conjunction with:

- Tree Protection Plan (TPP/TWHSARSMH/010 A) and
- Arboricultural Survey (Appendix A).

The Arboricultural Report is aimed at identifying and addressing those matters concerning trees in relation to the proposed planning application. It will clarify these issues:

- The principles and procedures to be applied to achieve a harmonious and sustainable relationship between retained trees and structures.
- The species, size, position and condition of those trees within the area of the proposed development where trees may potentially have some significance to the proposed development. The full survey schedule is set out in Appendix A.

- The impact of the proposed development upon these trees (and vice versa) including those trees to be removed due to the proposed development.

- Any measures that are required to protect retained trees during the proposed works.

2.2.2 The trees have been assessed (see Arboricultural Survey – Appendix A) as set out in BS BS5837: 2012 `Trees in relation to design, demolition and construction. Recommendations.' An Arboricultural Survey was undertaken by myself in September 2023 in relation to the current Planning Application.

2.2.3 Tree numbers within the text (T1-T2, G1-G2) relate to numbers designated as part of the Arboricultural Survey unless otherwise stated. The trees are plotted on Tree Protection Plan (TPP/TWHSARSMH/010 A) which accompanies the planning application.

2.2.4 BS 5837: 2012 `Trees in relation to design, demolition and construction. Recommendations' provides recommendations for the assessment of trees on development sites and suggests four categories into which trees should be placed for assessment purposes. These categories have been used as part of the assessment of trees within this report.

2.3 Relevant Background Information

2.3.1 It is understood from the online mapping service provided by Hertsmere Borough Council that none of the trees on the site are protected by a Tree Preservation Order (TPO) but that the site is located within the South Mimms Conservation Area. A tree in a conservation area (if not already covered by a TPO) requires written notice to be given to the Local Planning Authority of any proposed work. This must describe what works are proposed at least six weeks before the work starts. This is called a 'section 211 notice' and it gives the LPA an opportunity to consider protecting the tree with a TPO. This relates to trees over 75 mm in diameter, measured 1.5 metres above the ground (or 10 centimetres if thinning to help the growth of other trees). This requirement will not be necessary for tree works approved under a current Planning Approval.

2.3.2 Offsite trees to the eastern boundary are protected under TPO 59/2007 `St Giles Church, Blanche Lane, South Mimms, Herts'. Relevant trees are covered by an Area Order (A1).

2.3.3 It is recommended that this information on protected trees be confirmed by anyone proposing to undertake any (future) works to trees – both inside and outside the application site. This should be undertaken in writing with the Local Planning Authority (LPA) before proceeding with any tree works unless works within this report are agreed as part of a Planning Approval.

2.4 Documents and Information Provided

2.4.1 All plans within this report are based upon drawings supplied by Griggs (South Mimms) Limited, Hertfordshire.

2.4 This document has been prepared in accordance with guidance set out in British Standard BS 5837: 2012 `Trees in relation to design, demolition and construction. Recommendations' (BS 5837:2012).

3.0 Report Limitations

3.1 The report is for the sole use of the client and its reproduction or use by anyone else is prohibited unless written consent is given by the author.

3.2 The report observations are to be considered as correct at the time of inspection only. Trees are a growing, living organism, and are readily affected by many environmental factors. As such their condition and circumstances can change in a very short period of time. Therefore this report should be construed as valid for an absolute maximum of 12 months from the date of the Arboricultural Survey provided all factors remain unchanged.

3.3 This is an arboricultural report and as such no reliance should be given to comments relating to buildings, engineering, soils or other unrelated matters. The inspection of trees was undertaken from ground level and they were not climbed. No samples of wood, roots, soils or fungus were taken for analysis. Observations of the trees were confined to what was visible from within the site and surrounding public places. A full hazard risk assessment of the trees was not undertaken.

3.4 The presence of TPOs, a Conservation Area, or other designations, may affect the use of the site and the management of trees on the site. These designations can be served on the application, or adjacent, sites at any time. The landowner, or his representatives, should therefore satisfy themselves as to the presence (or absence) of these designations prior to:

- Undertaking any works to trees on, or adjacent to, the site. Where necessary written permission from the Local Authority will be required prior to undertaking tree works.
- Undertaking any of the works specified in this Arboricultural Report before planning permission is granted.

4.0 Brief Description of the Application Site and the Proposed Development

4.1 The site is a former Public House located at the junction of St Albans Road and Blanche Lane, South Mimms. There is a large carpark to the eastern part of the site which is accessed from St Albans Road. The main part of the site is relatively level but it grades up to its eastern boundaries. There are limited trees within the site and the majority of the site is occupied by buildings or laid to hardstanding.

Photograph A – Looking towards the existing Public House buildings.

4.2 This application is for the *"Conversion and extension of the former public house into six apartments, conversion of outbuilding into a two-bedroom apartment and construction of a detached infill dwelling, along with associated landscaping, bin store and parking"*.

Photograph B – Showing Willow (T1) within the car park area.

5.0 General principles for protection of trees during development

5.1 It is equally important to ensure the protection of trees both above and below ground. Guidance is provided in BS 5837: 2012 as to the protection of trees, before, during and after development.

5.2 The Arboricultural Impact Assessment will set out the potential impact of the proposals on trees and vice-versa. There is a need to protect trees and provide an Arboricultural Method Statement where proposals will impinge, or impact on the Root Protection Areas (RPAs) of retained trees. Root Protection Areas (RPAs) are 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. These are set out as Construction Exclusion Zones and have been calculated as part of the Arboricultural Survey.

5.3 The RPA for each tree is initially plotted as a circle centered on the base of the stem. Where pre-existing site conditions or other factors indicate that rooting has occurred asymmetrically, a polygon of equivalent area will be produced. These factors include the morphology and disposition of the roots, when known to be influenced by past or existing site conditions - such as the presence of roads and structures - and site topography. Modifications to the shape of the RPA within this report reflect a soundly based arboricultural assessment of likely root distribution. The RPA may change its shape but not reduce its area whilst still providing adequate protection for the root system.

5.4 Proposals may impinge on RPAs but these should be minimal and construction techniques such as specialized foundation designs should be considered to reduce the impact of development. The proposals will relate specifically to the site conditions and each individual tree and its category within the BS 5837 grading system.

Photograph C – Looking east towards G1.

David Clarke Chartered Landscape Architect and Consultant Arboriculturist Limited
David Clarke BSc (Hons) PD Arb (RFS) M Arbor A CMLI

ARBORICULTURAL IMPACT ASSESSMENT

In relation to a Planning Application

at:

The White Hart, St Albans Road, South Mimms, Hertfordshire, EN6 3PJ

Compiled by:
David Clarke
BSc (Hons) Land Man, PD ARB (RFS), CMLI, M Arbor A

February 2024

Offices in Hertfordshire and Warwickshire
Head Office:
Willowbrook House
Church Lane
Fillongley
CV7 8EW

Telephone: (07775) 650 835 or (01676) 541 833

e:mail: info@dccla.co.uk

6.0 Arboricultural Impact Assessment (AIA)

6.1 As stated above British Standard recommendations (BS5837: 2012) provides a formula for calculating the Root Protection Area (RPA) recommended to protect existing trees that are to be retained. The shape of the root protection area and its exact location will depend upon arboricultural considerations, but the area will normally be represented on a plan as a circle. The purpose of the RPA is to prevent physical damage to tree roots and to prevent damage to the soil structure in which they live by soil compaction, changes in soil levels or prevention of gas exchange to living roots.

6.2 These RPAs are shown on Tree Protection Plan (TPP/TWHSARSMH/010 A) which also forms part of the Arboricultural Method Statement. Where incursion within the RPA of a retained tree is necessary as part of the construction process then a methodology will be in place to prevent, or reduce to an insignificant level, damage to trees.

6.3 Below I have discussed the significance of the trees and the constraints that they are likely to pose to the proposed development (and vice-versa). Together with the Arboricultural Survey the AIA sets out any tree works required in order to facilitate the development as well as identifying works to trees (including removal) that should be undertaken as part of the management of trees on the site.

6.4 Summary of Tree Impact Assessment

6.5 There are 2 no. individual trees and 2 no. groups of trees which form the basis for this report and which could potentially be affected by the proposal.

6.6 Trees recommended for removal for Arboricultural Reasons

Of the trees within this report some within G1 are recommended for removal irrespective of the planning application. These trees have a limited life expectancy and poor form and condition. They appear not to have been managed for some time. This may be due to their position isolated from the main Public House operation. Alternatively, the condition of these trees could be monitored, and the trees could be managed to their decline in situ. This would need to be undertaken within the safe use of the area by pedestrians and vehicles.

6.7 Schedule of trees recommended for removal for Arboricultural Reasons

Tree No.	Species (Common Name)	BS Category	Reason for recommended removal
G1	1 no. Hawthorn and 2 no. Prunus spp	U	Limited life expectancy

6.8 Trees removed due to the application

Of the trees within this report none will need to be removed, or are proposed to be removed to implement the development. Additionally, tree planting could be undertaken as part of the site development to improve the quantity, quality and species variety of trees within the area.

6.9 Schedule of trees removed due to the application

Tree No.	Species (Common Name)	BS Category	Reason for removal

None

6.10 Trees potentially affected by the application

Site access and the conversion and extension of the existing buildings and the construction of an infill dwelling will take place outside the RPAs and canopy spreads of retained trees. However, construction activity, landscaping and the removal and replacement of hardstanding will take place within, or adjacent to, the RPAs and/or canopy spreads of retained trees. Pre-development tree works will be carried out (if required) prior to the implementation of the proposed development.

6.11 These potential impacts are set out and evaluated below and measures to prevent, or reduce, the effects of the proposals on these trees are set out in the Arboricultural Method Statement. The impact on retained trees from this development will not be significant as long as the proposals set out in this report are followed.

6.12 Schedule of trees potentially affected by the application

Tree No.	Species (Common Name)	BS Category	Reason for potential impact
T1	Willow	C1	• Construction activity (vehicle, machinery and pedestrian movements) within RPA and canopy spread during Development Phase. Within area of existing hardstanding (car park). • Removal and replacement of existing hardstanding within RPA. • Pre-development tree works.
G2	Several trees including Holly, Hawthorn and Cherry	C2	• Pre-development tree works.

6.13 Assessment of potential impacts on retained trees

6.14 Assessment of Distribution of Roots of Trees

As set out above the RPAs have been calculated as part of the Arboricultural Survey. The shape of the RPA and its exact location will depend upon arboricultural considerations, but the area will normally be represented on a plan as a circle. Pre-existing site conditions or other factors may indicate that rooting has occurred asymmetrically.

6.15 With regard to some of the retained trees within this report there are potential restrictions on the root activity of Willow (T1) due to the presence of existing surfacing and Yew (T2) and G1-G2 due to level changes around these trees. The exact construction of all the elements within and adjacent to the site are unknown but some fundamental principles will apply:

6.16 The capping of the soils by the hardstanding will reduce the availability of resources (such as water) to potential root activity and reduce gaseous exchange between the soils and the atmosphere. Factors such as soil compaction during the construction of these elements and their physical presence would also significantly reduce or prevent rooting activity in these areas. The surface have areas of degradation – such as cracking or an open structure – that may have allowed water percolation or gaseous exchange to occur.

6.17 Level changes around the trees will contain or limit root activity of these trees. Some of these are on banks (T2 and G1) and some are beyond boundary (retaining) walls (G2). The exact effect on roots could not be determined on site. For the purposes of this report:

- asymmetrical RPAs are shown where roots are contained by retaining walls;
- circular RPAs are shown where there are no visible restrictions on root activity or the full impact on roots could not be determined.

This approach reflects the `worse-case' scenario in relation to the potential impact on trees.

Photograph D – Showing G2 which are located beyond a retaining wall to the site boundary.

6.18 The exact distribution of roots could only be confirmed by undertaking further site investigations such as trial trenches. In relation to the site development and the potential impact on trees it is considered that these are not required at this stage

6.19 Site Access

During the site development access will be via the existing access point from St Albans Road. This is outside the RPAs of retained trees. Therefore, no Ground Protection Measures are required as part of this element of the development tin relation to the protection of these trees.

6.20 Demolition

No buildings or structures will be demolished within the RPAs and canopy spreads of retained trees

6.21 Removal of Hard Landscape Elements within RPAs – Willow (T1)

The hardstanding of the existing car park will be removed and either replaced (as parking and a bark path) or formed into the landscaped area of the site. Where hardstanding is replaced to the same construction depth – as proposed – then this will not have an impact on this tree. Where hardstanding is formed into a landscaped area this will have some benefit to the tree by improving its rooting area. However, these works must be undertaken in a planned and controlled way as set out in the Arboricultural Method Statement.

6.22 **Installation of Hard Landscape Elements within RPAs**

No new areas of hardstanding are proposed within the RPAs of retained trees.

6.23 Construction within RPAs

The construction of the infill dwellings will take place outside the RPAs of retained trees. Therefore, the use of standard (trench) foundations is considered to be acceptable in this instance. However, these works must be undertaken in a controlled and planned way to prevent direct and indirect damage to these trees. This will include the use of Tree Protection Fencing. Specifications for these are set out in the Arboricultural Method Statement.

6.24 Construction Activity

Uncontrolled construction activity could lead to direct or indirect damage to trees - both above and below ground. Therefore, Tree Protection Fencing is proposed within the Arboricultural Method Statement to restrict and control and define construction activity and protect retained trees during the works. A specification for this is set out in the Arboricultural Method Statement.

6.25 Activity associated with the site development may take place within, or adjacent to, the RPAs of trees. This may involve vehicle, machinery or pedestrian movements within the existing car park area. It is proposed that specific Ground Protection Measures are introduced to support these movements and prevent any indirect impacts on trees to be retained. This will include the retention of existing hardstanding where possible with additional materials added as required. These measures are set out within the Arboricultural Method Statement.

6.26 Canopy Spreads and Presence of Trees

Tree works to G2 are proposed as part of the conversion or construction of the dwellings. This will prune the canopies by 1.5-2.0 m back to the site boundary. Also, where required the canopy of Willow (T1) will be crown lifted to 3.0-3.5 m above the existing/proposed car park area. This will allow for use of this area without damaging the branches or twigs of this tree or damaging vehicles. It is noted that these works would be recommended as part of the current/former use of the car park area.

6.27 These works are considered to be minor and insignificant within the current form and condition of the trees. All proposed pruning works would follow guidance set out in the relevant British Standard (BS 3998:2010 - `Tree work - Recommendations') and will be carried out by a qualified tree surgeon/arboricultural contractor to ensure that the health, amenity and viability of the trees is maintained. All Arboricultural works should also comply with relevant bio-security measures – such as those set out in the Arboricultural Associations position statement `Biosecurity in Arboriculture and Urban Forestry'. Initial tree works are specified in the Arboricultural Method Statement.

6.28 Shading

The retained trees within this report are located to the site boundaries and/or a significant distance from the proposed development. There will be no meaningful shading of the proposed dwellings or garden areas which would lead to future pressure to prune or fell retained trees due to the implementation of the project.

6.29 Levels

No ground level changes are currently proposed or should take place within the RPAs of retained trees except any discussed and assessed within this report.

6.30 Herbicides and Pesticides

The use of herbicides and pesticides is not proposed within the RPAs of retained trees as part of this application. Should this change then chemicals will be specified which will not have an impact on retained trees.

6.31 Utility Routes

The exact location of services is not known at this stage. It is assumed that any existing service runs to the site will be used and can be located outside the RPAs of trees to be retained. It is essential that early design coordination and discussions are undertaken to ensure that the proposed utility layout does not have a negative impact on trees to be retained. If required specialised techniques – such as those set out in *'NJUG Guidelines for the Planning, Installation and Maintenance of Utility Apparatus in Proximity to Trees' 2007* National Joint Utilities Group (NJUG) Volume No. 4: No. 1 – will be used. The situation regarding utility routes will need to be confirmed as part of conditions for a Planning Approval.

6.32 Temporary Site Buildings and Storage of Materials and Plant

Poor placement of temporary site buildings (including latrines), contractors parking, materials and plant can lead to direct damage to retained trees or indirect damage such as through the compaction of soils. The layout and operation of the site has therefore been considered and planned at this early stage to reduce or prevent any potential and significant damage to retained trees. This includes the erection of Tree Protective Fencing as set out above and in the Arboricultural Method Statement.

6.33 Erection of Boundary Treatments

New or refurbished boundary treatments (fences) may be located within the RPAs of trees to define and secure the site boundaries. These are considered to be minor and insignificant to the long-term retention of these trees. However, they must be undertaken in a controlled and planned way to ensure that these trees are not damaged by the works. Therefore, a specification for the installation of these is set out in the Arboricultural Method Statement.

6.34 End Use of the Proposal

The proposals will have a residential use at the end of the project.

7.0 Recommendations

7.1 All tree works – removal and pruning – should be undertaken prior to the start of the site development so as to avoid any conflict between trees and contractors during the implementation of the project.

7.2 Existing trees can be easily damaged directly through root severance and, inadvertently, through soil compaction which disrupts the soil structure causing asphyxiation of roots and subsequent root dysfunction. Spillage of toxic materials can also cause root death. Protection for trees selected for retention is essential to ensure they are not affected by the development.

7.3 Specifications for the protection of trees are proposed in the Arboricultural Method Statement. These include the use of Tree Protection Fencing and Ground Protection Measures and should be implemented to prevent, or limit, any significant damage to the roots of trees. Protective fencing should be erected as shown on the Tree Protection Plans.

7.4 The phasing of the operations should follow that set out in the Arboricultural Method Statement to ensure that the protection of trees is prioritised.

7.5 The location and siting of all utilities should be outside of the RPAs of retained trees as enforced on site. If incursions within RPAs are unavoidable then specialised installation techniques will need to be agreed with an Arboriculturist before proceeding.

7.6 An Arboriculturist should be the main contact with the Local Authority Tree Officer and notify them of the proposed schedule prior to work commencing on site.

David Clarke Chartered Landscape Architect and Consultant Arboriculturist Limited

David Clarke BSc (Hons) PD Arb (RFS) M Arbor A CMLI

ARBORICULTURAL METHOD STATEMENT

In relation to a Planning Application

at:

The White Hart, St Albans Road, South Mimms, Hertfordshire, EN6 3PJ

Compiled by:
David Clarke
BSc (Hons) Land Man, PD ARB (RFS) CMLI, M Arbor A

February 2024

Offices in Hertfordshire and Warwickshire
Head Office:
Willowbrook House
Church Lane
Fillongley
CV7 8EW

Telephone: (07775) 650 835 or (01676) 541 833

e:mail: info@dccla.co.uk

8.0 General

8.1 This document sets out the methodologies for proposed works that affect trees on, and adjacent to, the site. These follow the granting of Planning Permission by the Local Planning Authority. Compliance with this (and subsequent) method statement(s) will be a requirement of all relevant contracts associated with the development proposals. Copies of this document will be available for inspection on site. The developer will inform the local planning authority if the arboricultural consultant is replaced. This method statement should be read in conjunction with Tree Protection Plan (TPP/TWHSARSMH/010 A).

9.0 Phasing of the Works

9.1 The works are proposed to be undertaken in the following phases:

- Pre-Development Works
  Remove trees and other vegetation not being retained as part of the site development. If required undertake pre-development tree works to crown lift Willow (T1) to 3.0-3.5 m above the existing/proposed car parking area.

- Confirm temporary site structures, contractors parking and storage areas can be accommodated outside the Construction Exclusion Zones prior to start of the site development. Ensure these are located so that they do not have to be relocated during the development – or that any change is minimal - thereby avoiding unnecessary vehicle movements on site.

- Confirm operation of the development site with relevant contractors and thereby ensure that proposed tree protection measures are suitable and `fit for purpose'. If required modify proposed measures whilst still ensuring the protection of trees.

- Initiate early design coordination and discussions to ensure that the proposed utility layout does not have a negative impact on trees to be retained. These should be undertaken well in advance of construction work commencing on site. To confirm and agree layout and specification for utility runs with project Arboriculturist.

- Development Phase
  Installation of Tree Protection Fencing (TPF) prior to the start of the development. Confirm retention of Ground Protection Measures (existing hardstanding) for the relevant part of the Development Phase. Install additional Ground Protection Measures as required.

- Place temporary site structures - such as site huts and latrines – contractors parking and storage areas outside the Construction Exclusion Zones.

- Commence Development Phase.

- Undertake regular monitoring of the Tree Protection Measures to ensure they remain fit for the purpose of preventing unnecessary damage to trees. Should any unforeseen damage occur then this should be reported to the Local Planning Authority. Remedial tree surgery should be undertaken at the earliest opportunity as approved by a competent and qualified Arboriculturist.

- Completion of Development Phase and removal of any temporary site structures.

- Removal of Tree Protection Fencing and any temporary Ground Protection Measures.

- Landscaping of the site and the installation of replacement surfacing and the erection of boundary treatments.

- It is advisable to carry out a further tree survey to identify any remedial trees surgery that may be required following the completion of the development. This will include any changes in the condition of the trees that may have occurred from the original survey.

9.2 It is noted that some phases of the work may overlap. For instance, some landscaping of the site may occur whilst Tree Protection Measures are still in place.

10.0 Construction Site Access

10.1 The access for construction site vehicles and contractors will follow the Designated Access Route which is the existing access point to the site. This is outside the RPAs of retained trees. Therefore, no Ground Protection Measures are required to protect trees for this element of the site development.

11.0 Pre-Development Tree Works

11.1 It is proposed to undertake the following works to trees within the site. These works will only be undertaken if required.

11.2 (i) Crown Lifting – Willow (T1)

This tree will be crown lifted to 3.0-3.5 m above ground level to accommodate the proposed use of the existing/proposed car parking. The works will ensure an adequate and harmonious separation between the tree canopies and vehicles using the proposed surfacing.

11.3 Crown lifting will not result in the removal of more than 15% of the live crown height and the remaining live crown will make up at least two-thirds of the height of the trees. It will involve the removal of secondary branches or branch shortening rather than removal of branches back to the stem. The amount of material to be removed and the diameter(s) of the pruning cut(s) will be the minimum required for the purpose.

11.4 (ii) Selective Pruning – G2

Where required trees within G2 will be pruned by 1.5-2.0 m back to the site boundary. The amount of material to be removed and the diameter(s) of the pruning cut(s) will be the minimum required for the purpose.

11.5 All proposed pruning works would follow guidance set out in the relevant British Standard (BS 3998:2010 - `Tree work - Recommendations') and will be carried out by a qualified tree surgeon/arboricultural contractor to ensure that the health, amenity and viability of the trees is maintained. All Arboricultural works should also comply with relevant bio-security measures – such as those set out in the Arboricultural Associations position statement `Biosecurity in Arboriculture and Urban Forestry'.

12.0 Tree Protective Fencing

12.1 Root Protection Areas (RPAs) are the minimum areas (in m^2) which should be left undisturbed around each retained tree as Construction Exclusion Zones. These areas have been calculated as part of the Arboricultural Survey. The protective distances where possible will be enforced by the use of robust protective fencing as outlined in BS

5837: 2012. The fencing will be fit for the purpose of excluding construction activity and appropriate to the degree and proximity of work taking place around the trees. The position of the fencing is shown on Tree Protection Plan (TPP/TWHSARSMH/010 A).

12.2 In this instance it is proposed to use the following methods:

- The timber hoarding may be used to secure the site boundaries. It will be fixed to timber posts set at 2.0-3.0 m centres (See Photograph E below). If applicable post holes for the timber hoarding will be hand dug using hand held tools and avoiding severance of significant roots of adjacent trees.

- 2.0 m high metal mesh panels. Examples would include Heras fencing (See Photograph F below). The panels will be joined together using a minimum of two anti-tamper couplers to prevent access except for maintenance operations. The distance between the fence couplers will be at least 1.0 m and they will be uniform throughout the fence. Where space does not allow for a full panel to be erected then panels may overlap each other to fill a gap. Dust' netting will be fixed to the fencing to prevent airborne material generated during the site development from coating the leaves of trunks of trees.

12.3 The exact composition of the soil is unknown. Clay soil, for instance, compacts very easily when wet, so it is essential that fenced areas remain undisturbed before and during construction to prevent root asphyxiation.

12.4 Laminated site warning signs will be attached to the fencing. These signs will state:

***'*CONSTRUCTION EXCLUSION ZONE – NO ACCESS**

No storage of materials or use of machinery should take place within this area. These fences should remain intact unless under instruction from the site foreman following consultation with an Arborist.'

Photograph E – Example of Timber Hoarding Tree Protective Fencing.

Photograph F – Example of Heras Tree Protective Fencing

12.5 Tree Protection Fencing will be erected to protect retained trees before any machinery or pedestrians enter the site in connection with the Development Phase - see Tree Protection Plan. Fencing will not be removed or relocated – except to allow for grounds maintenance operations - until the main part of the development is complete. It will then be removed to allow for the landscaping of the site, refurbishment of existing surfacing and the erection of boundary treatments.

13.0 Ground Protection Measures

13.1 Vehicle, machinery and pedestrian movements will occur within the RPA of Willow (T1). These will occur on the existing car park surface which will be retained as part of the Ground Protection Measures. The current surface is used by a variety of vehicles serving the existing Public House. It will be assessed to confirm that it can support the weight loadings it will be subject to during the site development without deforming and damaging any underlying roots. If required additional Ground Protection Measures – see below - will be introduced and maintained during the duration of the site development.

13.2 The structure of any protection measures will be designed to avoid localised compaction, by evenly distributing the carried weight over the Ground Protection Materials. They will cater for the `worse-case' scenario.

13.3 (i) Vehicle or Machinery Movements

For pedestrian-operated plant and machinery up to a gross weight of 2 t, proprietary, inter-linked ground protection boards placed on top of a compression-resistant layer (150 mm depth of woodchip), laid onto a geotextile membrane will be used.

(ii) For wheeled or tracked construction traffic exceeding 2 t gross weight a system will be proposed to an engineering specification designed in conjunction with arboricultural advice. This system could include a proprietary system such as heavy duty metal or plastic trackway which will accommodate the likely loading to which it will be subjected. The structure of this temporary surface will be designed to avoid localised compaction, by evenly distributing the carried weight over the track width and wheelbase of any vehicles or plant that are proposed to use the area. In this instance the final design of the system used would be confirmed as part of a Planning Condition for a Planning Approval.

13.4 The Ground Protection Measures will be in place prior to any vehicles entering the site in connection with the relevant part of the Demolition Phase. They will be retained for the Construction Phase with additional materials being added as required. The position of Ground Protection Measures is shown on the Tree Protection Plans. These measures will only be removed once the relevant part of the Construction Phase is complete.

14.0 Removal and Installation of Hardstanding

14.1 Removal and Installation of Surfacing

The existing car parking area around Willow (T1) may be removed and replaced with a similar surface, a bark path or formed into the landscaped areas of the site. The methodology used here is in case roots are present beneath the surface.

14.2 Hand held tools or appropriate equipment will be used (under supervision) to remove (or scrape) the existing hard standing materials. Excavation will be undertaken to existing construction depths and no deeper.

14.3 As soon as the existing hard standing is removed measures must be put in place immediately to protect the underlying soil structure and protect roots from direct and indirect damage (such a desiccation). This will mean that the replacement surface or topsoil should be laid immediately the existing top surface and sub-base are removed. Where possible the existing sub-base will be reused. The proposed surfaces will be constructed within or above the construction depth of the existing surface. Topsoils will conform to BS 3882 (2015) - a good quality medium to light loam, free of perennial weeds. Stone content 20% dry weight.

14.4 Roots which are exposed, but are to be retained, will be wrapped in dry, clean hessian sacking to prevent desiccation and to protect from rapid temperature changes. Prior to backfilling, any Hessian wrapping will be removed and the area de-compacted by `forking over' the surface using hand held tools of suitable machinery. Retained roots will be surrounded with sharp sand or other loose granular fill, before soil or the replacement surface is placed over the roots. Building sand is not acceptable due to its high salt content which is toxic to roots. This material will be free of contaminants and other foreign objects potentially injurious to tree roots.

15.0 Site Organisation and Storage of Materials and Plant

15.1 During the proposed construction works attention will be paid to the protection and well being of retained trees. The site will be organised in such a manner so as to minimise the effects of the construction work on trees. This will include defining and containing the development footprint with Tree Protection Fencing.

15.2 All materials and plant to be used during, or generated by, the Development Phase will be stored outside the enforced tree protection areas. The operation of the site will be undertaken within the constraints imposed by the protection of trees. Where necessary materials will be brought to site in loads which are applicable to that phase of the works. This would help to minimise the development footprint within the site.

15.3 All toxic substances such as oils, bitumen's and residues from concrete mixing will be retained by effective catchment areas. No toxic material will be discharged within 10 m of a tree stem. No fires will be lit within 10 m of a tree stem.

15.4 All access onto and from the site will be via the Designated Access Route. All contractors parking, temporary latrines and any other temporary structures will be outside the Construction Exclusion Zones.

16.0 Tree Protection and Utilities

16.1 The exact location of services is not known at this stage. However, it is assumed that any existing service runs to the site will be used. However, if required specialised techniques – such as those set out in *'NJUG Guidelines for the Planning, Installation and Maintenance of Utility Apparatus in Proximity to Trees' 2007* National Joint Utilities Group (NJUG) Volume No. 4: No. 1 – will be used. The situation regarding utility routes will need to be confirmed as part of conditions for a Planning Approval.

17.0 Landscape Proposals Including Erection of Boundary Treatments

17.1 Any landscaping will avoid soil re-grading and unnecessary disturbance within the RPAs of retained trees. Any ground works, such as planting of trees or shrubs or the spreading of top soil, within the RPAs of retained trees will be undertaken using hand held tools.

17.2 Boundary Treatments

New or replacement fencing may be erected as part of the proposed development to form defined or secure site boundaries. They will be placed to stop short of, or avoid, the trunks of trees to be retained.

17.3 Care will be taken when digging new holes and these will be undertaken by hand within these RPAs. Where roots larger than 25 mm are encountered the post hole (where possible) will be moved to ensure the roots are not affected. Where it is not possible to move the post hole roots larger than 25 mm will only be severed following consultation with an Arboriculturist, as they may be essential to the tree's health and stability. Roots smaller than 25 mm may be pruned back to create a clean cut, preferably to a side branch, using a proprietary cutting tool such as bypass secateurs or handsaws.

17.4 Roots which are exposed, but are to be retained, will be wrapped in dry, clean hessian sacking to prevent desiccation and to protect from rapid temperature changes. Prior to backfilling, any Hessian wrapping will be removed and retained roots should be surrounded with sharp sand or other loose granular fill, before soil or other material is placed over the roots. This material should be free of contaminants and other foreign objects potentially injurious to tree roots.

17.5 At this point it is recommended that these treatments are erected at the end of the Construction Phase when the majority of construction works have occurred. Tree Protection Fencing will be removed whilst this element of the work is carried out.

18.0 Conclusion

18.1 This application is for the *"Conversion and extension of the former public house into six apartments, conversion of outbuilding into a two-bedroom apartment and construction of a detached infill dwelling, along with associated landscaping, bin store and parking"*.

18.2 Of the trees within this report 3 no. within G1 are recommended for removal irrespective of the planning application. These trees have a limited life expectancy and poor form and condition. They appear not to have been managed for some time. This may be due to their position isolated from the main Public House operation. Alternatively, the condition of these trees could be monitored, and the trees could be managed to their decline in situ. This would need to be undertaken within the safe use of the area by pedestrians and vehicles.

18.3 Of the trees within this report none will need to be removed, or are proposed to be removed to implement the development.

18.4 There will be incursions within, or adjacent to, the RPAs and canopy spreads of trees as part of the development of the site. These include for construction activity and the removal and installation of hardstanding. Pre-development tree works will be carried out (if required) prior to the implementation of the proposed development. Overall, the incursions within the RPAs have been assessed within the Arboricultural Impact Assessment to either have a minimal and insignificant impact on retained trees or can be reduced to an insignificant level through the use of relevant construction techniques. These are set out within the Arboricultural Method Statement. These will ensure that the development will be completed without having any undue impact on retained trees.

18.5 Retained trees will be protected during the site development. This report sets out how retained trees are an important part of the development of the site and how protection and retention of trees will be achieved. The effect on trees from the proposals will be minimal given the proposed site layout and conditions and providing that the Arboricultural Method Statement is implemented.

18.6 The development is therefore acceptable in arboricultural terms and should receive planning consent.

Photograph G – Looking towards Yew (T2) which is located to the east of the main site.

Appendix A
Arboricultural Survey
The White Hart, St Albans Road, South Mimms, Hertfordshire, EN6 3PJ

1.0 Introduction

1.1 I visited the application site in September 2023 to inspect relevant trees in relation to the current Planning Application on the site. These trees are within the area of the proposed development and may potentially have some significance to the proposed development. The survey includes the species, size, position and condition of these trees. A full list and description of Survey Terms is given below. The position of these trees has been noted on the accompanying Tree Protection Plans.

1.2 This survey has been prepared following guidance set out in BS 5837: 2012 `Trees in relation to design, demolition and construction. Recommendations'. It seeks to offer guidance in relation to planning application discussions or designs for the site. As suggested by BS5837: 2012 all trees with a stem diameter of less than 75 mm at 1.5 m above ground level were not surveyed.

2.0 Description of Survey Terms

2.1 **Tree Reference Number** is the number allocated as part of this Arboricultural Survey. This may be different from other surveys undertaken on the site.

2.2 **Height** of the tree is measured in metres to the centre of the crown or the highest point of the tree. There is a tolerance of plus or minus 1.0 m.

2.3 **Crown Spread** is taken at compass points N, E, S and W from the centre of the tree stem. This is to the nearest 0.5 m. Where tree canopies spread off-site then estimations (est) have been made. With regard to groups the average canopy spread is given. Where individuals within the group are significantly different from this these are shown on the plan and the maximum spread stated within the report.

2.4 **Stem Diameters** are taken at 1.5 m above ground level unless otherwise stated. Where measurements of trunk diameter are not possible then estimations (est) have been made. This may be due to ivy on the trunk or where trees are not on the application site. The annotation ms refers to multi-stemmed trees.

2.5 **Root Protection Areas** (RPAs) are calculated from stem diameter measurements as set out in BS5837: 2012 `Trees in relation to design, demolition and construction. Recommendations'. RPAs are the areas (in m^2) around each retained tree which contain sufficient rooting volume to ensure the survival of the tree. The area will normally be represented on a plan as a circle or polygon. If shown as a circle the **Radius of Root Protection Area Zone** is included.

2.6 **Age Class** - A young tree (Y) is within its first 1/3rd of life expectancy. A middle aged tree (MA) is within its second 1/3rd of life expectancy and a mature tree (M) is within its final third of life expectancy. An Over Mature tree (OM) is beyond its average life expectancy and a Veteran (V) is usually beyond the typical age range for the species but of biological, cultural or aesthetic value.

2.7 **Physiological and Structural Condition** - Trees in a Good Physiological or Structural Condition have no visible problems or significant defects. Those in a Fair Condition have remedial symptoms or defects or where these symptoms or defects are not remedial but will not affect the **Estimate Remaining Useful Contribution** and those in a Poor Condition have defects which are not remedial and removal of the tree should be considered.

2.8 **Comments** give a description of the tree including its general form, description of any physical defects, disease or decay and other appropriate details based on the health, vitality and overall structural integrity. It also includes the environment in which the tree is growing. **Recommendations** for the management of the tree or group will be given where required. Any proposals for removal of trees will need to be agreed with the tree owner.

2.9 A tree of good form has a shape that is typical of the species or has amenity in its own right. A tree with moderate form has been affected by its environment and is not typical of the species and has limited amenity value on its own right though it may have a collective amenity with adjacent trees. A tree with poor form has low quality and may also have structural defects which will affect its long term retention. **Canopy height above ground level** is given where this is applicable.

2.10 **Estimated Remaining Useful Contribution** is the estimated number of years that the tree will continue to make a safe and useful contribution to its surroundings, taking into account its current age, physiological and structural condition and its current location or environment. This assumes that there will be no changes within its immediate environment.

2.11 **Category Grading** - trees have been categorised in accordance with the cascade chart set out within BS5837: 2012 `Trees in relation to design, demolition and construction. Recommendations'.

2.12 The trees inspected as part of this report were inspected from the ground only and were not climbed. No samples of wood, roots, soils or fungus were taken for analysis. Observations of the trees were confined to what was visible from within the site and surrounding public places. A full hazard risk assessment of the trees was not undertaken.

Photograph H – Looking along the eastern site boundary with G2.

Tree Schedule

Tree Ref No.	Species Common Name (Scientific Name)	Height (m)	Stem Diameter (mm) ***Root Protection Area (m^2)***	Radius of Root Protection Area zone (m)	Branch Spread (m)	Age Class	Physiological/ structural Condition	Comments ● Preliminary Management Recommendations within Current Environment	Estimated Remaining Useful Contribution (years)	Category Grading
T1	Weeping Willow (Salix babylonica)	8	460 **95.7**	5.5	N – 5.0 E – 4.5 S – 4.0 W – 6.0	MA	Fair-Good/Fair-Good	Growing a small landscape area within the existing car park area. Previously pruned. Canopy to 1.5 m above ground level at lowest point above ground level. • Monitor condition of tree and manage accordingly.	10+	C1
T2	Yew (Taxus baccata)	10	600 est **162.9**	7.2	N – 6.0 E – 6.0 S – 6.0 W – 6.0 all est	MA	Fair/Fair	Offsite tree – full inspection of tree not possible. Growing on bank. • Monitor condition of tree and manage accordingly.	10+	C1

Tree Ref No.	Species Common Name (Latin Name)	Height (m) range	Stem Diameter (mm) **Root Protection Area (m^2)** *Radius of Root Protection Area zone (m)*	Branch Spread - min (max) **(m)**	Age Class (general)	Physiological/ Structural Condition (general)	Comments (general) ● Preliminary Management Recommendations	Estimated Remaining Useful Contribution (years)	Category Grading
G1	Several trees including Ash (Fraxinus excelsior), Lime (Tilia x europaea), Hawthorn (Crataegus spp), Prunus spp and Cherry (Prunus spp)	4-14	100 est – 750 est **4.5 – 254.5** *1.2 – 9.0*	N – 2.0 (8.0) E – 2.0 (7.0) S – 2.0 (7.0) W – 2.0 (7.0) all est	Y-M	Fair-Good/Fair-Good	Trees growing to eastern site boundary – both inside and outside the site. Some trees are raised above the main site level – full inspection of these trees is not possible. Ownership of some trees is uncertain. Ivy into crowns of some trees. Previously pruned. Some dieback and dead wood within the crowns. Some tree along the site boundary with St Albans Road have a limited life expectancy and poor form and condition. Canopies to below 1.5 m above ground level at lowest point over site. • Remove 1 no. Hawthorn and 2 no. Prunus and replace with suitable species. Alternatively, the condition of these trees could be monitored, and the trees could be managed to their decline in situ. This would need to be undertaken within the safe use of the area by pedestrians and vehicles.	Less than 10/10+/20+	U/C2/B2

G2	Several trees including Holly (Ilex spp), Cherry (Prunus spp) and Hawthorn (Crataegus spp)	4-6	200 est **18.1** *2.4*	N – 1.0 (3.5) E – 1.0 (3.5) S – 1.0 (3.5) W – 1.0 (3.5) all est	Y-MA	Fair/Fair	Offsite trees growing to site boundary – full inspection of trees not possible. Shrubs such as Elder are included in this group. Some trees are covered in ivy. • Monitor condition of trees and manage accordingly.	10+	C2