



BS5837 – Arboricultural Report

Zinzan Street, Reading, RG1 7UH

Prepared for

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References

- British Standards Institution (2012). *BS 5837:2012 Trees in relation to design, demolition and construction*.
- British Standards Institution (2010). *BS 3998:2010 – Tree Work: Recommendations*.

1.0 Instruction

This BS5837 report has been instructed by Philip Chopping

I have been asked to produce a BS 5837:2012 Arboricultural Assessment to support a planning application for a proposed change of use from former meeting hall to residential at Zinzan Street Reading.

The site visit was carried out on Tuesday 2nd September 2026.

All trees with a stem diameter over 75mm (measured at 1.5m above ground level) within influencing distance have been mapped, and measurements of height (estimated) and DBH (Diameter at Breast Height – 1.5m above ground) have been taken along with crown spread. OTTIS Pear Technology has been used to calculate Root Protection Areas (RPA).

The trees were surveyed visually, externally and from ground level only. No samples or internal decay detection readings were taken for further analysis. Non-invasive inspection equipment was used (probe and mallet) to assess the trees structural integrity of the base and stem. A tape measure has been used to take other relevant measurements.

Topographical surveys were not available for the purposes of this report. Therefore, exact tree positions may vary slightly; the report is intended for planning and tree management guidance, not for detailed engineering design. All Trees have been mapped using geo referenced site block plans in conjunction with OTTIS Pear Technology.

No conversations took place between arboriculturist and client while the survey was undertaken.

2.0 Limitations

The contents are intended for the sole use of the client and the property owner. No liability is accepted for their use by any other parties to advance an argument or claim (including legal or financial) without prior consent.

No liability is accepted for defects hidden from view by soil, vegetation or other obstacles to access.

Formal assessment of topography, drainage, service conduits, & soil conditions will not be made and are beyond the scope of this report.

Specific laboratory investigations of soil properties (plasticity index, moisture content, soil suction pressure) will not be made and are beyond the scope of this report.

This report has been prepared for the purposes of BS5837:2012 (Trees in relation to design, demolition and construction) and is not intended to provide a comprehensive

assessment of tree safety. Any references to defects, structural conditions, or potential safety concerns are preliminary observations only and should not be considered exhaustive.

This report is based on information provided by the client, architect, planning consultant, or other third parties. We accept no liability for inaccuracies arising from incorrect, incomplete, or amended design information.

The presence, extent, and distribution of tree roots and underground obstructions cannot be fully determined without intrusive investigation. All Root Protection Areas (RPAs) shown are theoretical zones based on BS 5837 guidance and do not guarantee the absence or presence of roots beyond or within those areas.

Interpretation of BS 5837 reports, Tree Constraints Plans (TCP), Tree Protection Plans (TPP), and Arboricultural Method Statements (AMS) rests with the Local Planning Authority and its appointed officers. We accept no liability for decisions made outside our control.

BS 5837 outputs including TCPs, TPPs, and AMS documents are prepared in accordance with the proposed development layout at the time of instruction. Any subsequent amendments to layout, levels, access, drainage, or construction methodology may invalidate all or part of the report and require revision.

Responsibility for compliance with tree protection measures on site rests with the appointed contractor unless otherwise agreed in writing. DRTC cannot be held responsible for damage caused by site operations, negligence, or deviation from the approved Tree Protection Plan.

DRTC cannot guarantee enforcement of tree protection measures once installed. The responsibility for maintaining protective measures and compliance lies with the site contractor and client.

The management of tree health and safety remains the responsibility of the landowner or those in control of the land. It is recommended that a separate and detailed Tree Condition Survey be commissioned and undertaken by a suitably qualified and experienced arboricultural consultant to assess structural integrity and risk, and to enable the discharge of the landowner's 'Duty of Care' under the Occupiers' Liability Act 1984.

Reports consider risk mitigation measures, as opposed to risk elimination. Thus, if the tree is retained, a level of risk will remain.

Plants are biological organisms & change with time. Assessment remains valid for 12 months from the date of inspection, or until a major storm (Wind Force 6 +) and or significant snow fall is experienced.

It is understood that any risks associated with these limitations are accepted by the clients.

3.0 Arboricultural Impact Assessment

3.1 Tree Constraints

A review of available statutory tree constraints information has been undertaken.

The proposed site at Zinzan Street Reading is within a conservation area. A screenshot of the conservation area map is provided in the appendices.

Trees Within a Conservation Area

For trees located within a Conservation Area, the landowner must provide the Local Planning Authority with six weeks' written notice (Section 211 notice) of any intention to carry out works on trees with a stem diameter greater than 75mm when measured at 1.5 metres above ground level. This notice period allows the authority to assess the tree's amenity value and, if necessary, to make a Tree Preservation Order. As with TPO trees, it is an offence to carry out works without the required notice or consent. All proposed works should therefore be planned and, where there is any uncertainty, professional arboricultural advice should be sought before proceeding.

3.2 The Site



From East to West



From Southeast to Northwest

The site comprises an existing meeting hall located at the western end of a service road accessed from Zinzan Street, Reading. The service road provides access to the surrounding residential and commercial properties and associated parking areas.

The southern side of the service road is bounded by an approximately 1.45m high brick wall, beyond which are the rear gardens of residential properties. Several self-seeded Sycamore trees are established immediately adjacent to the northern side of the boundary wall, within the narrow verge between the wall and the service road. The trees are growing within a restricted environment, with the highway immediately to the north and the boundary wall to the south. The lower branches of the verge trees currently

extend over the access road, with the canopy commencing at approximately 2m above ground level.

To the north of the service road are the rear elevations of a mixture of residential and commercial properties, together with associated parking and areas of hardstanding.

A courtyard area is located immediately to the east of the existing meeting hall, within the curtilage of the existing property. This area provides adequate space to accommodate a construction compound.

The canopy of a third-party tree located to the Southeast beyond the site boundary currently extends over the existing meeting hall by approximately 1m, with the overhanging canopy commencing at approximately 6m above ground level.

The site and its immediate surroundings are predominantly urban in character, with vegetation largely confined to private rear gardens, and individual self-seeded trees associated with the service road. The existing development and surrounding hardstanding substantially define the character and available space within the site.

3.3 Trees

A tree category table is available in the appendices.

10 trees were surveyed in total.

BS5837 Category	Number of Trees
U Trees unsuitable for retention	0
A Trees of high quality	0
B Trees of moderate quality	4
C Trees of low quality	6
Trees and shrubs recommended for removal for development purposes	0

3.4 Data tables

U Trees unsuitable for retention
A Trees of high quality
B Trees of moderate quality
C Trees of low quality

A tree category table is available in the appendices.

3.4 Data Tables

Ref.	Species	Full Structure	Measurements	Survey Notes	Retention Category	RPA	Measurements2	Recommendations
T001	Sycamore (<i>Acer pseudoplatanus</i>)	Tree	Height (m): 7 Stem Diam(mm): 280 Spread (m): 4.5N, 5E, 3S, 3W Crown Clearance (m): 4.5 Lowest Branch (m): 2(E) Rem. Contrib.: 10+ Years	Third Party tree Main stem and structural limbs are ivy covered. Tree located on Southern aspect of wall, 4m away from current construction. Ground level on Southern aspect of wall is approximately 0.5 m higher than on Northern aspect of wall. Base and root flare have been covered with rubble and debris. Northern stem has a historic failure at approximately 5m Canopy overhang's current structure by approximately 1 m on Northwestern aspect by approximately 1 m at 6 m high, 3 to 4 m clearance from current roof. Canopy showing reasonable vitality.	C1	Radius: 3.4m. Area: 36 sq m.	Physiological Condition: Good Structural Condition: Good Public Amenity Value: Low	Retain Selectively prune secondary and tertiary lateral growth back to viable growth points to provide a minimum 1.5m clearance from the proposed structure, with pruning undertaken at approximately 6m above ground level where required to achieve the specified clearance. The required 1.5m clearance should be regarded as an ongoing maintenance requirement.
T002	Sycamore (<i>Acer pseudoplatanus</i>)	Tree	Height (m): 10 Stem Diam(mm): 260 Spread (m): 3N, 3E, 3S, 3W Crown Clearance (m): 3	Third party tree Stem and structural limbs ivy covered.	B1	Radius: 3.1m. Area: 30 sq m.	Physiological Condition: Good Structural Condition: Good	Retain

			Lowest Branch (m): 3(SE) Life Stage: Mature Rem. Contrib.: 10+ Years	Tree showing typical form structure and vitality for age and species.			Public Amenity Value: Low	
T003	Holly (<i>Ilex sp.</i>)	Tree	Height (m): 6 Stem Diam(mm): 180 Spread (m): 3N, 3E, 1.5S, 3W Crown Clearance (m): 2 Lowest Branch (m): 2.5(W) Life Stage: Early Mature Rem. Contrib.: 10+ Years	Third party tree Tree showing typical form structure and vitality for age and species.	B1	Radius: 2.2m. Area: 15 sq m.	Physiological Condition: Good Structural Condition: Good Public Amenity Value: Low	Retain
T004	Sycamore (<i>Acer pseudoplatanus</i>)	Tree	Height (m): 10 Stem Diam(mm): 250 Spread (m): 5W, 7N, 1E, 3S Crown Clearance (m): 2.5 Lowest Branch (m): 4(E) Life Stage: Early Mature Rem. Contrib.: 10+ Years	Self-seeded sycamore. Tree located on Northern aspect of the wall, which is leaning in southerly direction, due to tree roots undermining foundations. Tree has limited growing environment. Asymmetrical canopy overextending to the North and west	C	Radius: 3.0m. Area: 28 sq m.	Physiological Condition: Structural Condition: Public Amenity Value:	Retain Crown lift on Northern aspect to provide 5.5m minimum clearance above carriageway. Selective removal/shortening of lower secondary and tertiary branches only, back to viable growth points. Retain primary scaffold branches wherever practicable. Pruning cuts to be minimised and made in accordance with BS3998:2010.
T005	Sycamore (<i>Acer pseudoplatanus</i>)	Tree 2 stems	Height (m): 10 2 stems (mm): 240, 220 Spread (m): 3W, 7N, 2E, 3S Crown Clearance (m): 2.5 Lowest Branch (m):	Self-seeded sycamore. Two stems ivy covered which extends into the structural limbs. Tree located on Northern aspect of the wall, which is	C1	Radius: 3.9m. Area: 48 sq m.	Physiological Condition: Good Structural Condition: Fair Public Amenity Value: Low	Retain Crown lift on Northern aspect to provide 5.5m minimum clearance above carriageway. Selective

			3(N) Life Stage: Early Mature Rem. Contrib.: 10+ Years	leaning in southerly direction, due to tree roots undermining foundations. Tree has limited growing environment. Asymmetrical canopy overextending to the North.				removal/shortening of lower secondary and tertiary branches only, back to viable growth points. Retain primary scaffold branches wherever practicable. Pruning cuts to be minimised and made in accordance with BS3998:2010.
T006	Sycamore (<i>Acer pseudoplatanus</i>)	Tree	Height (m): 10 Stem Diam(mm): 340 Spread (m): 4W, 8N, 3E, 3S Crown Clearance (m): 2.5 Lowest Branch (m): 4(E) Life Stage: Mature Rem. Contrib.: 10+ Years	Self-seeded sycamore. Stem ivy covered which extends into the structural limbs. Tree located on Northern aspect of the wall, which is leaning in southerly direction, due to tree roots undermining foundations. Tree has limited growing environment. Asymmetrical canopy overextending to the North	C1	Radius: 4.1m. Area: 53 sq m.	Physiological Condition: Good Structural Condition: Fair Public Amenity Value: Low	Retain Crown lift on Northern aspect to provide 5.5m minimum clearance above carriageway. Selective removal/shortening of lower secondary and tertiary branches only, back to viable growth points. Retain primary scaffold branches wherever practicable. Pruning cuts to be minimised and made in accordance with BS3998:2010.
T007	Sycamore (<i>Acer pseudoplatanus</i>)	Tree	Height (m): 10 Stem Diam(mm): 380 Spread (m): 3W, 8N, 6E, 4S Crown Clearance (m): 2.5 Lowest Branch (m): 3(N) Life Stage: Mature Rem. Contrib.: 10+ Years	Self-seeded sycamore. Stem ivy covered which extends into the structural limbs. Tree located on Northern aspect of the wall, which is leaning in southerly direction, due to tree roots undermining foundations. Tree has limited growing	C1	Radius: 4.6m. Area: 66 sq m.	Physiological Condition: Good Structural Condition: Fair Public Amenity Value: Low	Retain Crown lift on Northern and Eastern aspect to provide 5.5m minimum clearance above carriageway. Selective removal/shortening of lower secondary and tertiary branches only, back to viable growth

				environment. Asymmetrical canopy overextending to the North				points. Retain primary scaffold branches wherever practicable. Pruning cuts to be minimised and made in accordance with BS3998:2010.
T008	Sycamore (<i>Acer pseudoplatanus</i>)	Tree 2 stems	Height (m): 8 2 stems (mm): 330, 180 Spread (m): 2W, 5N, 5E, 4S Crown Clearance (m): 2.5 Lowest Branch (m): 4(E) Life Stage: Early Mature Rem. Contrib.: 10+ Years	Third party tree Self-seeded sycamore. Tree located on Northern aspect of the wall, which is leaning in southerly direction, due to tree roots undermining foundations. Tree has limited growing environment. Asymmetrical canopy overextending to the North and East	C1	Radius: 4.5m. Area: 64 sq m.	Physiological Condition: Structural Condition: Public Amenity Value:	Retain Crown lift on Northern and Eastern aspect to provide 5.5m minimum clearance above carriageway. Selective removal/shortening of lower secondary and tertiary branches only, back to viable growth points. Retain primary scaffold branches wherever practicable. Pruning cuts to be minimised and made in accordance with BS3998:2010.
T009	Silver birch (<i>Betula pendula</i>)	Tree	Height (m): 7 Stem Diam(mm): 240 Spread (m): 2N, 2E, 2S, 2W Crown Clearance (m): 1.5 Lowest Branch (m): 1(SW) Life Stage: Mature Rem. Contrib.: 10+ Years	Third party tree Trees showing typical form structure and vitality for age and species.	B1	Radius: 2.9m. Area: 26 sq m.	Physiological Condition: Good Structural Condition: Good Public Amenity Value: Moderate	Retain
T010	Sycamore (<i>Acer pseudoplatanus</i>)	Tree	Height (m): 8 Stem Diam(mm): 200 Spread (m): 3N, 3E, 3S, 3W	Third party tree	B1	Radius: 2.4m. Area: 18 sq m.	Physiological Condition: Good Structural Condition: Good	Retain

			Crown Clearance (m): 2 Lowest Branch (m): 2(E) Life Stage: Early Mature Rem. Contrib.: 10+ Years	Tree shine, typical form structure and vitality for age and species.			Public Amenity Value: Low	
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3.5 Definitions of terms

Tree Identification Individual trees are identified with the prefix ‘T’. Groups of trees forming cohesive features, whether aerodynamic (shelter), visual (screening) or cultural (parkland), are identified with the prefix ‘G’. Hedgerows and woodlands are referenced as ‘H’ and ‘W’ respectively.	Age Classification Trees are categorised by age class as follows: • Young (Y): First quarter of life expectancy • Semi-mature (SM): Second quarter • Early Mature (EM): Third quarter • Mature (M): Fourth quarter • Over Mature (OM): Exceeding typical life expectancy • Veteran (V): Exhibiting recognised veteran characteristics
Species Species are recorded by both their common and Latin names within the schedule contained in Appendix C. Within the main body of the report, species are referred to by their common names.	Physiological and Structural Condition The physiological and structural condition of each tree, group, hedgerow and woodland is assessed from ground level. Structural condition is described as Good, Fair or Poor, and physiological condition as Good, Fair, Poor, Moribund or Dead. Where relevant, observations are made regarding form, taper, forking habit, storm damage, decay, fungal fruiting bodies, pests and other defects. Where access is restricted, condition assessments are based on visible external indicators.
Height Tree heights are estimated on site and recorded in metres. All measurements are approximate.	Estimated Remaining Contribution (ERC) The Estimated Remaining Contribution (ERC) is expressed in years and reflects species characteristics alongside the observed physiological and structural condition. Trees with longer anticipated contributions are generally of greater significance in informing development layout and retention decisions.
Stem Diameter Stem diameter for single-stemmed trees is measured at 1.5 metres above ground level and recorded in millimetres. For multi-stemmed trees, each principal stem is measured separately. Where stems fork or exhibit swelling, measurements are taken at the narrowest point below the irregularity. Where access to the trunk is restricted, stem diameter is estimated they are identified within the survey schedule.	Category Grading Each tree has been assigned a category grading in accordance with BS5837:2012, reflecting its overall arboricultural value. Further details of the categorisation methodology are provided in the appendices of this report.
Crown Spread Radial crown spread is measured in metres to the nearest 0.5 metre (rounded up) and recorded for the four cardinal points where access permits. Where access is restricted, measurements are estimated and identified in the survey schedule. The canopy spreads shown on the accompanying plans reflect site measurements.	Preliminary Management Recommendations Any management recommendations provided are advisory and do not constitute a detailed specification for works. Where tree works are recommended, they should be undertaken by a suitably qualified arboricultural contractor in accordance with recognised best practice, including BS3998:2010 – Tree Work: Recommendations. In some cases, further investigation may be recommended to determine the extent or significance of observed defects, or to confirm the assigned category grading. Where management works are advised, an indicative timeframe for implementation is provided.
First Significant Branch and Canopy Height The height and direction of the first significant branch are recorded, together with the average canopy height above ground level.	

Tree constraints and protection plans are available in the appendices.

Note: No topographical survey drawing was made available for the purposes of this assessment. Accordingly, the accompanying tree work and protection recommendations have been prepared using the supplied block plan, with tree positions, canopy spreads and associated Root Protection Areas (RPAs) plotted as accurately as reasonably practicable based on-site observations and the information available at the time of survey. All recommendations relating to tree protection, RPAs and construction constraints are therefore based upon this plan information and should be read in that context.

3.6 Discussion

Proposed Development

The proposal involves the demolition of the existing building and construction of a replacement building on the same footprint. The proposed development will utilise the existing foundations, with no enlargement or extension of the existing foundation footprint proposed. No additional excavation is anticipated in association with the construction of the replacement building.

The relationship between the proposed development and the retained trees has been assessed with reference to BS5837:2012 *Trees in relation to design, demolition and construction – Recommendations*. The calculated Root Protection Areas (RPAs) of the retained trees have been plotted on the accompanying Tree Constraints Plan and considered in relation to the proposed development.

Retained Trees and RPAs

The calculated RPAs of the retained trees do not overlap the footprint of either the existing building or the proposed replacement building. RPA of **T001** extends close to the building footprint; however, the proposed development will utilise the existing foundation arrangement and will not result in any additional excavation or encroachment into the calculated RPAs. The replacement building will therefore occupy an area that is already developed and structurally established. The retention and reuse of the existing foundations will avoid the potential disturbance to tree roots that could otherwise arise from their removal and replacement. No additional excavation, changes in ground level or widening of the existing foundation footprint are proposed.

Portions of the calculated RPAs (**T001, T003-T008**) extend beneath the existing highway and areas of established hardstanding which are proposed for use in connection with the site compound. These areas are already subject to existing hard surfacing and are not proposed to be excavated, broken out or otherwise disturbed as part of the development. Their use for controlled site access and compound activities is therefore not anticipated to result in significant additional disturbance to the underlying rooting environment, provided that the existing hardstanding remains intact.

Demolition

The demolition of the existing building represents the principal phase of the works with potential to affect the retained trees. Although the building itself does not encroach into the calculated RPAs, demolition activities have the potential to cause indirect damage through soil compaction, physical damage to roots, disturbance of existing ground conditions or uncontrolled access by plant and machinery.

Demolition should therefore be undertaken in a controlled manner, working from within the existing building footprint and progressing inwards and away from the retained trees wherever practicable. Plant and machinery should be confined to the existing building footprint, highway and established hardstanding areas. Demolition debris should not be deposited or stockpiled outside of the existing footprint where practicable.

Site Compound and Construction Access

The proposed site compound will include areas of existing highway and established hardstanding beneath which the calculated RPAs of retained trees extend. As these areas are already hard surfaced and no excavation or removal of the existing surface is proposed, their use is considered acceptable in principle from an arboricultural perspective.

Proposed Tree Works

All works will be undertaken in strict accordance with the approved Arboricultural Method Statement.

T001 – Clearance from Proposed Structure

T001 will require selective pruning to provide adequate clearance from the proposed structure to achieve a minimum clearance of approximately 1.5m from the proposed structure.

The specified 1.5m clearance should be regarded as an ongoing maintenance requirement, with periodic inspection and selective pruning undertaken as necessary to maintain clearance from the structure as the tree continues to grow.

Subject to the works being undertaken in accordance with the specifications set out in the Method Statement, the proposed pruning to T001 is considered proportionate and is not anticipated to adversely affect the long-term health or amenity value of the tree.

T004–T008 Highway Clearance

Trees **T004–T008** currently have lower crown clearance of approximately 2.5m above the adjacent highway. To provide the required clearance over the highway, selective crown lifting will be necessary. Reading Borough Council recommends a minimum clearance of approximately 5.5m above highways.

Following the initial works, the required highway clearance should be regarded as an ongoing management requirement, with periodic inspection and selective pruning undertaken as necessary to maintain the required clearance as the trees continue to grow.

The proposed crown lifting is considered proportionate to the existing highway clearance requirement and, subject to the works being undertaken in accordance with BS3998:2010 and the Method Statement, is not anticipated to result in a significant adverse impact upon the long-term health or amenity value of T004–T008.

4.0 Tree Protection Plan

Prior to commencement of demolition and construction works, appropriate tree protection measures shall be installed in accordance with the accompanying Tree Protection Plan and maintained throughout the duration of the works.

Protection measures shall include:

- Existing hardstanding within RPAs to remain intact.
- No excavation or breaking out within RPAs.
- Construction plant and vehicles to be restricted to designated access and compound areas.
- No alteration of existing ground levels within RPAs.
- Tree protection measures to remain in place throughout demolition and construction unless their removal is specifically agreed with the Project Arboriculturist.

The stems of T004-T008 will be protected during demolition and construction phases by fencing erected to the specifications set out in the Method Statement.

5.0 Arboricultural Method Statement.

This Arboricultural Method Statement (AMS) has been prepared to set out the measures required to protect retained trees during the proposed demolition of the existing building and construction of the replacement building.

The works shall be undertaken in accordance with the principles and recommendations of BS5837:2012 – Trees in relation to design, demolition and construction – Recommendations, together with BS3998:2010 – Tree work – Recommendations where tree pruning works are required.

The proposed development comprises the demolition of the existing building and construction of a replacement building on the same footprint. The replacement building is to utilise the existing foundations, with no enlargement of the existing foundation footprint and no additional excavation proposed in association with the building.

The calculated Root Protection Areas (RPAs) of the retained trees have been considered in relation to the proposed works. Although some RPAs extend beneath existing highway and

hardstanding areas proposed for use in connection with the site compound, these areas will remain intact and are not to be excavated or broken out.

This AMS should be read in conjunction with the accompanying Tree Protection Plan (TPP), Arboricultural Impact Assessment (AIA) and tree survey.

Sequence of Works

The following sequence shall be followed:

1. Confirm tree protection requirements with the site manager and relevant contractors.
2. Undertake the specified tree pruning works to T001 and T004–T008 prior to demolition.
3. Install all required tree protection measures and identify RPAs and exclusion areas.
4. Hold a pre-commencement site meeting/toolbox talk where required.
5. Undertake demolition of the existing building using controlled methods.
6. Retain the existing foundations in situ.
7. Establish the construction compound and access arrangements on existing hardstanding/highway areas as shown on the TPP.
8. Construct the replacement building using the existing foundations.
9. Maintain tree protection measures throughout the construction period.
10. Remove protective measures only following completion of construction activities.

Tree Works Prior to Construction

The following tree works shall be undertaken prior to commencement of demolition or construction.

T001 – Clearance from Proposed Structure

T001 shall be selectively pruned to provide adequate clearance from the proposed replacement building.

Pruning shall be concentrated at approximately 6m above ground level where required to achieve the specified clearance.

Works shall be undertaken in accordance with BS3998:2010. Secondary and tertiary lateral growth shall be selectively pruned back to suitable viable growth points and shall avoid the removal of significant structural branches to achieve a minimum clearance of approximately 1.5m from the proposed structure.

The works shall be limited to the minimum pruning necessary to establish the required clearance, with the natural form and structural integrity of the tree retained wherever practicable.

The specified 1.5m clearance shall be regarded as an ongoing maintenance requirement. Periodic inspection and selective pruning shall be undertaken as necessary to maintain clearance from the structure as the tree continues to grow.

T004-T008 Highway Crown Lifting

T004-T008 currently have lower crown clearance of approximately 2.5m above the adjacent highway.

The crowns shall be selectively lifted to provide a minimum clearance of approximately 5.5m above the highway, in accordance with the identified highway clearance requirement.

Works shall comprise of the selective removal/shortening of lower secondary and tertiary branches only, back to viable growth points.

Retain primary scaffold branches wherever practicable. Pruning cuts to be minimised and made in accordance with BS3998:2010.

The required highway clearance shall be regarded as an ongoing maintenance requirement, with periodic inspection and selective pruning undertaken as necessary to maintain the required clearance.

Timing and Confirmation of Tree Works

All tree works shall be undertaken by a suitably qualified and competent arboricultural contractor prior to commencement of demolition.

No additional pruning beyond that specified within this AMS shall be undertaken without prior consultation with the Project Arboriculturist and, where necessary, the Local Planning Authority.

Pre-Commencement Site Procedures

Prior to demolition, the Site Manager shall ensure that all personnel involved in the works are made aware of the tree protection requirements.

The Site Manager shall ensure that:

- The location of retained trees and their RPAs is understood.
- The requirements of this AMS and the TPP are communicated to all relevant contractors.
- Tree protection measures are installed before demolition begins.
- Construction access and compound areas are clearly defined.
- No unauthorised excavation or ground disturbance takes place within RPAs.
- No materials or spoil are stored on unprotected ground within RPAs.
- The existing hardstanding identified for use by the site compound remains intact.
-

A copy of the AMS and TPP shall be available on site for reference throughout the works.

Tree Protection Measures

Where tree protection fencing is shown on the TPP, it shall be installed prior to commencement of demolition.

Protective fencing shall be constructed in accordance with BS5837:2012 and shall be positioned to protect the stems of T004-T008.

Fencing shall comprise 2.0m high, robust, weld-mesh panels, such as Heras-type fencing, securely supported on suitable proprietary feet and braced where necessary to prevent movement or collapse.

Where practicable, the fencing shall be erected as a continuous barrier with panels securely joined to prevent unauthorised access.

The fencing shall be sufficiently robust to withstand normal site conditions and shall be positioned so that it cannot be readily moved, dismantled or used as a means of access into the protected area.

The fencing shall remain secure and in place throughout demolition and construction. The protective fencing shall not be moved, dismantled or repositioned without prior agreement with the Project Arboriculturist.

Existing Highway and Hardstanding within RPAs

The calculated RPAs of retained trees extend beneath sections of the existing highway and established hardstanding proposed for use as part of the site compound.

These areas are considered suitable for controlled construction access and compound use because they are already surfaced and the underlying soil is therefore protected from direct trafficking and compaction to a degree by the existing construction.

The following restrictions shall apply:

- The existing hardstanding shall remain intact.
- No breaking out of the existing surface shall take place within the RPAs.
- No excavation shall take place within the RPAs.
- No alteration of existing ground levels shall take place.
- Construction plant shall remain on the designated hardstanding/highway areas wherever practicable.

Should the existing hardstanding require removal or modification within an RPA, works shall cease in the affected area and the Project Arboriculturist shall be consulted before proceeding.

Demolition Phase

The demolition of the existing building shall be undertaken in a controlled manner to avoid damage to the retained trees and their rooting environments.

Demolition shall generally proceed from within the existing building footprint and work inwards/away from the retained trees, wherever practicable.

Plant and machinery shall be confined to the existing building footprint, existing highway and established hardstanding areas identified for access and compound use.

Existing Foundations

The existing foundations shall be retained in situ.

They shall not be excavated, broken out, removed or otherwise disturbed as part of the demolition process.

The retention of the existing foundations is an important arboricultural measure as it avoids unnecessary disturbance of the existing ground and potential damage to roots that may have developed adjacent to or beneath the existing structure.

If the structural design subsequently requires removal, modification, enlargement or additional excavation associated with the existing foundations, works shall not proceed in the affected area until the Project Arboriculturist has reviewed the proposed changes.

Construction Phase

Following completion of demolition, construction of the replacement building shall proceed using the existing foundations.

No excavation outside the existing foundation footprint shall be undertaken.

The construction methodology shall ensure that:

- The existing foundation footprint is maintained.
- No additional excavation takes place within RPAs.
- No changes to ground levels occur within RPAs.
- Construction plant remains on designated access and compound areas.
- Materials are stored within designated areas.
- Tree protection measures remain intact.
- No construction materials or waste are deposited against tree stems.
- Cement washout, concrete mixing and chemical storage are kept away from RPAs and retained trees.

The Site Manager shall regularly inspect the tree protection measures to ensure they remain effective throughout construction.

Storage of Materials and Site Operations

No storage of materials, spoil, waste, fuel, chemicals or other construction-related items shall take place within protected areas or on unprotected ground within RPAs.

Materials shall be stored within the designated site compound.

Concrete, mortar or other cementitious materials shall not be mixed or discharged onto unprotected ground within RPAs.

Vehicle and plant movements shall be restricted to the designated access routes and existing hardstanding.

Site Supervision and Compliance

All contractors will be briefed on tree protection measures prior to commencing works. Tree protection measures must not be removed, altered, or breached without written approval from the LPA.

6.0 Appendices

[illegible]

6.2 Cascade Chart for Tree Quality (Table 1 BS5837:2012 Trees in relation to design, demolition and construction)

Category and definition	Criteria (Including subcategories where appropriate)			Identification on plan
Trees unsuitable for retention (see Note)				
Category U Those in such a condition that they cannot realistically be retained as living trees in the context of the current land use for longer than 10 years	- Trees that have a serious, irremediable, structural defect, such that their early loss is expected due to collapse, including those that will become unviable after removal of other category U trees (e.g. where, for whatever reason, the loss of companion shelter cannot be mitigated by pruning) - Trees that are dead or are showing signs of significant, immediate, and irreversible overall decline - Trees infected with pathogens of significance to the health and/or safety of other trees nearby, or very low quality trees suppressing adjacent trees of better quality <i>NOTE Category U trees can have existing or potential conservation value which it might be desirable to preserve; see 4.5.7.</i>			See Table 2
	1 Mainly arboricultural qualities	2 Mainly landscape qualities	3 Mainly cultural values, including conservation	
Trees to be considered for retention				
Category A Trees of high quality with an estimated remaining life expectancy of at least 40 years	Trees that are particularly good examples of their species, especially if rare or unusual; or those that are essential components of groups or formal or semi-formal arboricultural features (e.g. the dominant and/or principal trees within an avenue)	Trees, groups or woodlands of particular visual importance as arboricultural and/or landscape features	Trees, groups or woodlands of significant conservation, historical, commemorative or other value (e.g. veteran trees or wood-pasture)	See Table 2
Category B Trees of moderate quality with an estimated remaining life expectancy of at least 20 years	Trees that might be included in category A, but are downgraded because of impaired condition (e.g. presence of significant though remediable defects, including unsympathetic past management and storm damage), such that they are unlikely to be suitable for retention for beyond 40 years; or trees lacking the special quality necessary to merit the category A designation	Trees present in numbers, usually growing as groups or woodlands, such that they attract a higher collective rating than they might as individuals; or trees occurring as collectives but situated so as to make little visual contribution to the wider locality	Trees with material conservation or other cultural value	See Table 2
Category C Trees of low quality with an estimated remaining life expectancy of at least 10 years, or young trees with a stem diameter below 150 mm	Unremarkable trees of very limited merit or such impaired condition that they do not qualify in higher categories	Trees present in groups or woodlands, but without this conferring on them significantly greater collective landscape value; and/or trees offering low or only temporary/transient landscape benefits	Trees with no material conservation or other cultural value	See Table 2

6.3 Tree Protection Methods

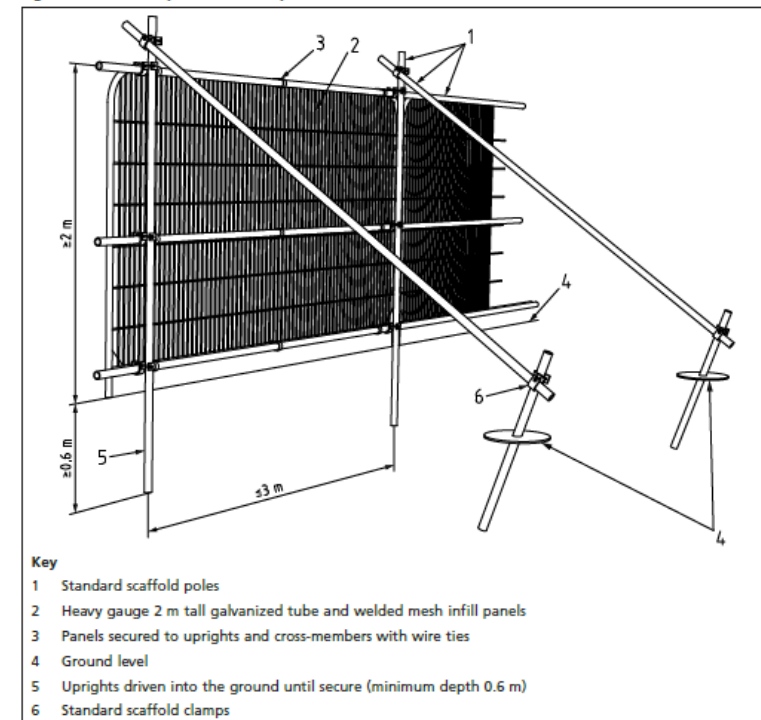
Extracts from *BS5837:2012 Trees in relation to design, demolition and construction*, showing best practice for protecting RPA with matting and fencing.

6.2.3.3 New temporary ground protection should be capable of supporting any traffic entering or using the site without being distorted or causing compaction of underlying soil.

NOTE The ground protection might comprise one of the following:

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

Figure 2 Default specification for protective barrier



6.4 Conservation Area Map – *Final-Russell-Street-Castle-Hill-CAA-March-2020.pdf*

