

Land off Kirton's Farm Road

BS 5837: 2012 Arboricultural Impact Assessment

30280066-AUK-XX-ZZ-TR-ZZ-0087-P001-Arboricultural Impact Assessment

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1 Introduction

1.1 Background

- 1.1.1 Arcadis Consulting (UK) Limited (Arcadis) has been commissioned by M&G Real Estate (M&G) acting on behalf of Prudential Assurance Company Ltd ("the Client") to undertake an Arboricultural Impact Assessment in line with British Standard BS 5837: 2012 Trees in relation to design, demolition and construction – Recommendations (British Standards Institution, 2012), henceforth referred to as BS 5837: 2012 in support of a Town and Country Planning Act (TCPA) application for the removal of soils and subsequent restoration of a site for future agricultural use (the Proposed Development), for a parcel of land off Kirton's Farm Road, near Reading, Berkshire.
- 1.1.2 The site is currently vacant with scrub and vegetation growth present. A quantity of natural soils generated as a result of forming a development platform for an adjacent historical development in the area were located to part of the site under agreement with Englefield Estate Trust Corporation Limited (the 'Freeholders') and have been present at the Site for over 20 years.
- 1.1.3 The Site is approximately centred at Grid Reference 469754 (Easting), 169714 (Northing). with the nearest post code being RG2 6AT. The Site is approximately 2.4 ha in area and is comprised of grassland, mixed scrub, individual trees, woodland and hedgerows.
- 1.1.4 An aerial screen shot illustrating the site survey boundary (red outline) and survey buffer boundary (blue outline) is presented in Image 1.



Image 1: Site Survey Boundary (red line), Survey Buffer Boundary (blue line). Imagery © 2026 Infoterra Ltd & Bluesky

1.2 Proposed Development

- 1.2.1 The Proposed Development involves the removal of the previously imported soils (approximately 18,000 m³) currently stored on part of the Site, including required enabling works, followed by the restoration and reprofiling of the land to its original level (using only indigenous material, placed elsewhere on the site only) and condition for future agricultural use, as originally intended

1.3 Limitations

- 1.3.1 This report has been compiled from number of sources which Arcadis believes to be trustworthy. However, Arcadis is unable to guarantee the accuracy of information provided by others. The report is based on information available at the time of writing. Additional information may become available in the future which may have a bearing on the conclusions of this report and for which Arcadis cannot be held responsible. Reference should be made to the Study Limitations presented in Appendix A Study Limitations.
- 1.3.2 Arcadis' liability, pursuant to the terms of the appointment of Arcadis by M&G, is strictly limited to the work undertaken and the matters contained and specifically referred to in this report.

1.4 Reliance

- 1.4.1 This report is only valid when used in its entirety. Any information or advice included in the report should not be relied upon until considered in the context of the whole report and previous work. Reference should be made to the Study Limitations presented in Appendix A Study Limitations.

2 Methodology

2.1 Tree Survey Methodology

- 2.1.1 An Arboricultural Survey was undertaken by Kofi Bernson BSc (Hons) TechArborA (Consultant Ecology and Arboriculture) on 29 May 2026 in accordance with BS 5837:2012.
- 2.1.2 Observations were conducted from ground level, utilising the “Visual Tree Assessment” (VTA) system as outlined in The Body Language of Trees, A Handbook for Failure Analysis Research for Amenity Trees No.4 (Mattheck and Breloer, 1994) with the aid of binoculars. Photographs of all accessible trees were taken and are provided in Appendix E Photographs.

2.2 Study Area

- 2.2.1 The study area included the Site itself (that within the redline boundary) and any trees considered to be within influencing distance of the Site within an area up to 15 metres outside (blue line boundary) as displayed in Figure 1.

2.3 Individual trees

- 2.3.1 For the purposes of BS 5837: 2012, only trees with a stem diameter greater than 75mm, (measured at 1.5m above ground level), were included within the survey.
- 2.3.2 For reference, individual trees are identified with the letter T and an associated unique number within the tree schedule and Figure 1 Tree Constraints Plan (TCP).
- 2.3.3 The stem diameter of the trees was recorded at 1.5m above ground level or following Annex C of BS5837:2012, using a rounded-down diameter tape and recorded in millimetres.
- 2.3.4 The height of trees was recorded in metres using a clinometer and LiDAR data.
- 2.3.5 The maximum crown spread of each tree was measured from the centre of the trunk to the tips of the live lateral branches taken at four compass points (N-E-S-W) using a ground tape where safe and practical to do so. Crown spread measurements were recorded in metres.
- 2.3.6 Tree age was estimated from visual indicators (such as tree size and appearance of bark) which was taken as a provisional guide. Age estimates often need to be modified based on further information such as historical records and local knowledge.
- 2.3.7 If direct access to the tree was not possible, estimations from appropriate vantage points were taken, and any limitations or estimations are presented within the survey limitations section and noted in the associated schedules.

2.4 Groups of trees

- 2.4.1 Features have been recorded as a group where they have been considered to form a cohesive arboricultural feature either aerodynamically (e.g. trees that provide companion shelter), visually (e.g. avenues or screens) or culturally, including for biodiversity (e.g. wood pasture).
- 2.4.2 Groups of trees were identified with the letter G and number on the associated schedules and plans.
- 2.4.3 Crown spread was assessed by measuring the largest crown spread on each compass point (N-E-S-W). Groups have been plotted using aerial imagery. The stem diameter of tree groups has been calculated as an average stem diameter of trees within a group. Heights are displayed as the maximum height of the tallest tree within the group or displayed as a range of heights where two or more distinct height layers have been identified. (i.e. understorey trees/large woody shrubs).

2.5 Hedgerows

- 2.5.1 Hedgerows were identified with the letter H and number on the associated schedules and plans. A 30m section of hedgerow was surveyed for each hedgerow, recording the number of species, average stem diameter, lateral spread and the maximum height. Any individual trees present within the hedgerow were recorded as individual trees.

2.6 Categorisation

- 2.6.1 Trees surveyed have been categorised according to their quality and value in compliance with Table 1 Cascade chart for tree quality assessment of BS 5837: 2012. A glossary of survey terms can be found in Appendix B Explanation of Terms and the full cascade chart for tree categorisation is displayed in Table B2 of Appendix C Schedule of Trees.

2.7 Root Protection Area

- 2.7.1 The Root Protection Area (RPA) of a tree is described in section 3.7 of BS 5837: 2012 as 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. It should be recognised that the calculated RPA may not entirely encompass all of the tree's rooting material.
- 2.7.2 RPAs were calculated in accordance with Section 4.6.1 in BS: 5837:2012 using the measurement of the stem diameter at 1.5m above ground level or at ground level if the tree is multi-stemmed. The shape and size of an RPA have been amended in accordance with Section 4.6.3 of BS: 5837:2012. Where assessed as appropriate. Where they have been amended, original calculated RPAs are represented as a pink dashed line in Figure 1 Tree Constraints Plan.
- 2.7.3 Tree RPAs are recorded in the Schedule of Trees (Appendix C Schedule of Trees) and shown as a pink shaded area on the Tree Constraints Plan and should form the initial Construction Exclusion Zone (CEZ) to protect the trees within and adjoining the Site.
- 2.7.4 Where RPAs have been calculated for tree groups, hedgerows or woodlands, they have been represented as an offset (in metres) from the plotted canopy line of the feature in question when detailed in Appendix C Schedule of Trees.
- 2.7.5 No soil assessment or above/below ground investigations into the true extent of a trees rooting area were undertaken as they are beyond the scope of this report.

2.8 Survey Limitations

- 2.8.1 This report has been prepared in accordance with BS5837:2012 and is intended to inform the design and planning process in relation to arboricultural constraints. The Visual Tree Assessment (VTA) methodology was used solely to evaluate the physiological and structural condition of trees as relevant to this process. This assessment does not constitute a tree hazard assessment and no evaluation of failure probability, or risk of harm from trees has been undertaken, and as such, this report should not be used to discharge duty of care under The Occupiers Liability Act 1957 (as amended 1984).
- 2.8.2 However, in accordance with industry best practice and our professional duty of care, any trees observed during the survey to present an immediate risk of harm to person or property will be identified and communicated to the client, landowner, and project manager at the earliest opportunity.
- 2.8.3 Tree locations are based on GPS tracking, line of sight with existing features, aerial imagery and OS base mapping.

- 2.8.4 Of the arboricultural features surveyed, one individual tree and five groups were located in areas where access to their main stems was not possible and as such, estimations have been made regarding their dimensions. Inaccessible trees are marked with a hash (#) in Appendix C Schedule of Trees.
- 2.8.5 Only trees with the potential to be affected by development within or adjacent to the site as determined by the survey boundary displayed in Image 1 have been included within this report. Any additional trees in the vicinity of the proposed scheme have been deemed to not be affected by the proposals and have not been included.
- 2.8.6 Trees are living organisms and as such their health and condition are naturally subject to change over time. Unforeseen future circumstances such as neglect, wilful damage or severe/extreme weather conditions may affect the future health and condition of the trees included in this report.

2.9 Arboricultural Impact Assessment

- 2.9.1 An AIA is a study undertaken by an arboriculturist, to identify, and evaluate the extent of direct and indirect impacts on existing trees that may arise as a result of the implementation of proposed development. The AIA may also include identification of mitigation measures which have been included within this report.
- 2.9.2 The Arboricultural Impact Assessment (AIA) was undertaken by Will Green BSc (Hons), TechArborA (Senior Consultant – Arboriculture and Ecology) in August 2026 as a desk-based study based on the collected field data and design details provided on behalf of the Client. Table 2-1 provides the data sources used.

Table 2-1: Data Sources

Document Reference and Author	Date	Document Title
30280066-AUK-XX-ZZ-DR-ZZ-0080-P001- Proposed site plan - Arcadis	04/08/2026	Proposed site plan
30280066-AUK-XX-ZZ-M2-ZZ-0044-P001- Vehicle and GA model - Arcadis	04/08/2026	Vehicle and GA model
30280066-AUK--XX-ZZ-DR-ZZ-0043-P001- General Arrangement - Arcadis	04/08/2026	General Arrangement
30280066-AUK-XX-ZZ-DR-ZZ-0082-P001- Proposed ground elevation - Arcadis	04/08/2026	Proposed ground elevation

2.10 Tree Constraints Check

- 2.10.1 The following constraints checks were undertaken for the site on 05 June 2026, the results of which are provided in Section 3.5 of this report.
- A tree constraints check was performed using West Berkshire Council and Wokingham Borough Council online services;
 - The Multi-Agency Geographical Information for the Countryside (MAGIC) website was used to search for statutory designated sites of nature conservation value and areas of ancient woodlands listed on the Ancient Woodland Inventory (DEFRA 2026); and
 - A check for catalogued Ancient and Veteran trees using the Woodland Trust Ancient Tree Inventory (Woodland Trust 2026).

3 Tree Survey Results

3.1.1 Full details of the survey data are presented within Appendix C Schedule of Trees and within Figure 1 Tree Constraints Plan.

3.2 Tree Assessment and Categorisation

3.2.1 A total of 26 arboricultural features were recorded within the study area, these were recorded as 10 individual trees (T), 15 groups of trees (G) and one hedgerow.

3.2.2 Each arboricultural feature was assigned to one of four categories, as listed in Table 3-1 below.

Table 3-1: Tree Categories Recorded

Tree Category	No. of Individual Trees	No. of Groups of Trees	No. of Hedgerows
Category A (trees of high quality)	1	-	-
Category B (trees of moderate quality)	5	12	-
Category C (trees of low quality)	3	2	1
Category U (trees of poor quality unsuitable for retention)	1	1	-
Totals	10	15	1

3.3 Tree Species Diversity

3.3.1 A total of five different individual tree species were recorded during the survey and are represented in Appendix C Schedule of Trees and also provided in Table 3-2 below.

3.3.2 A number of mixed species arboricultural features were also recorded, the composition of which are presented in the accompanying survey schedule provided in Appendix C Schedule of Trees.

Table 3-2: Tree Species Recorded

Tree Species	Individual Trees	Tree Groups	Hedgerows
Alder (<i>Alnus glutinosa</i>)	1	-	-
Ash (<i>Fraxinus excelsior</i>)	6	1	-
Field Maple (<i>Acer campestre</i>)	1	-	-
Hazel (<i>Corylus avellana</i>)	1	-	-
Goat Willow (<i>Salix caprea</i>)		1	
Unknown (standing dead)	1	-	-
Mixed species – See Appendix C Schedule of Trees for detail	-	13	1
Totals	10	15	1

3.4 Age Diversity

3.4.1 All arboricultural features surveyed within the study area were assessed to be within the Semi-mature to Ancient age classifications set by BS 5837: 2012. as illustrated in Table 3-3.

Table 3-3: Age Diversity

Age Class	Trees	Groups	Hedgerows
Young	-	-	-
Semi-mature	1	3	-
Early mature	-	-	-
Mature	8	12	1
Ancient	1	-	-
Totals	10	15	1

3.5 Tree Constraints Check

3.5.1 The Site is situated within two local planning authority boundaries. West Berkshire Council in the west of the site and Wokingham Borough Council in the east of the Site. A review of both council's Tree Preservation Orders databases has found that no trees within the survey boundary are subject to Tree Preservation Orders or Conservation Area restrictions.

3.5.2 It was confirmed that there are no designated ancient woodlands using online data sources listed in Section 2.10

3.5.3 A total of six notable trees are recorded on The Ancient Tree Inventory (Woodland Trust, 2026). The Woodland Trust defines notable trees as typically mature specimens that stand out locally because they are larger than surrounding trees. Details regarding the notable trees are detailed in Table 3-4 and Image 2 below.

Table 3-4: Ancient Tree Inventory Site Record

Species	Tree ID	Tree Number	Form	Living Status	Veteran Status
Ash (<i>Fraxinus excelsior</i>)	T3	164621	Coppice	Alive	Notable
Hazel (<i>Corylus avellana</i>)	T2	164622	Coppice	Alive	Notable
Alder (<i>Alnus glutinosa</i>)	T1	164623	Coppice	Alive	Notable
Ash (<i>Fraxinus excelsior</i>)	T4	165327	Coppice	Alive	Notable
Field Maple (<i>Acer campestre</i>)	T5	165471	Coppice	Alive	Notable
Ash (<i>Fraxinus excelsior</i>)	T6	165472	Coppice	Alive	Notable



Image 2 Ancient Tree Inventory © Woodland Trust 2026

3.6 Ancient Trees

- 3.6.1 The National Planning Policy Framework (NPPF 2026) defines ancient or veteran trees as: A tree which, because of its age, size and condition, is of exceptional biodiversity, cultural or heritage value. All ancient trees are veteran trees. Not all veteran trees are old enough to be ancient but are old relative to other trees of the same species. Very few trees of any species reach the ancient life-stage.
- 3.6.2 A single tree (T1, Alder (*Alnus glutinosa*)) has been assessed as an ancient tree in line with the Woodland Trust ancient and veteran trees assessment guide (Woodland Trust, 2026).
- 3.6.3 All trees within this report have been assessed based on their size, estimated age and characteristics. Details of trees identified as either veteran or ancient are displayed in Table 3-5 below.
- 3.6.4 Natural England and the Forestry Commission have prepared guidance, known as standing advice, on how to manage development in proximity to ancient woodland, veteran and ancient trees. This guidance states that buffer zones should be used to protect these trees and specifically advises that “For ancient or veteran trees (including those on the woodland boundary), the buffer zone should be at least 15 times larger than the diameter of the tree. The buffer zone should be 5 metres from the edge of the tree’s canopy if that area is larger than 15 times the tree’s diameter. This will create a minimum root protection area.” (<https://www.gov.uk/guidance/ancient-woodland-ancient-trees-and-veteran-trees-advice-for-making-planning-decisions>).

Table 3-5: Veteran trees recorded

Feature ID	Species	Stem Diameter (mm)	Core development categories	Estimated age range (years)	Primary Features	Secondary Features	Classification	Photograph
T1	Alder (<i>Alnus glutinosa</i>)	1500	Good - Fair	150 - 200	- Retrenchment	- Habitat Spaces - Epiphytic Plants - Dead wood present in crown (>150mm dia)	Ancient	

4 Arboricultural Impact Assessment (AIA)

4.1 Potential Arboricultural Impacts

- 4.1.1 Development can have an adverse impact on trees and other woody vegetation within a site. This can include:
- immediate tree removal to facilitate the footprint of a new development;
 - potential future tree loss through the early decline of trees due to soil compaction;
 - root disturbance and damage within a tree's rooting area; and
 - canopy removal or damage due to plant movement.
- 4.1.2 The AIA is used to appraise any direct and indirect effects of the proposed design and where necessary recommend mitigation.
- 4.1.3 This should include the effects of any tree loss required to implement the proposed development and any potentially damaging activities proposed in the vicinity of retained trees relating to the proposed development.
- 4.1.4 The potential arboricultural impacts have been assessed using the design detail listed in Table 2-1. Tree removals, potential tree pruning have been presented in Figure 2 Tree Removal and Retention Plan and RPA incursions have been presented in Figure 3 Tree Protection Plan.
- 4.1.5 RPA incursions are marked in yellow hatching, facilitation pruning are shown in green hatching, tree removals are shown in red hatching, and the recommended fencing requirements are shown in black lines.

4.2 Tree Removal

- 4.2.1 A total of one individual tree and three groups of trees are located within, or immediately adjacent to development works and will require full or partial removed to facilitate the proposed works. These tree removals are listed in Table 4-1 below and displayed in in Figure 2 Tree Removal and Retention Plan.

Table 4-1: Trees Requiring Removal

Feature no.	Species	Partial or Full Removal	Reason for Removal	Grade
T9	Ash (<i>Fraxinus excelsior</i>)	Full (12.6 m ²)	Tree is situated within the footprint of proposed access road bell mouth.	C1
G3	Ash (<i>Fraxinus excelsior</i>)	Full (89.0 m ²)	Group of trees situated within the footprint of proposed works required for the removal of the previously imported soils.	U
G9	Mixed species: Hazel (<i>Corylus avellana</i>), Ash (<i>Fraxinus excelsior</i>), Grey Willow (<i>Salix cinerea</i>), Hawthorn (<i>Crataegus monogyna</i>)	Partial (45.0 m ²)	Group of trees are partially situated within the footprint of proposed access road bell mouth.	B2

Feature no.	Species	Partial or Full Removal	Reason for Removal	Grade
G10	Mixed species: Goat Willow (<i>Salix caprea</i>), Ash (<i>Fraxinus excelsior</i>)	Partial (429.0 m ²)	Group of trees are partially situated within the footprint of proposed works required for the removal of the previously imported soils.	C2

4.3 Facilitation Pruning

4.3.1 It is estimated that up to four individual tree and nine groups of trees are likely to require facilitation pruning in order to facilitate the proposed works. Details of recommended pruning operations are provided in and displayed in Figure 2 Tree Removal and Retention Plan.

Table 4-2: Facilitation Pruning Requirements

Item no.	Species	Pruning Requirements	Grade
T2	Hazel (<i>Corylus avellana</i>)	Crown lift southern laterals and clear low edge vegetation which extend over the site to a suitable height to facilitate access for construction, assumed to be approx. 4m.	B1
T3	Ash (<i>Fraxinus excelsior</i>)	Crown lift southern laterals which extend over the site to a suitable height to facilitate access for construction, assumed to be approx. 4m.	B1
T5	Field Maple (<i>Acer campestre</i>)	Crown lift southern laterals which extend over the site to a suitable height to facilitate access for construction, assumed to be approx. 4m.	B1
T6	Ash (<i>Fraxinus excelsior</i>)	Crown lift southern laterals which extend over the site to a suitable height to facilitate access for construction, assumed to be approx. 4m.	C1
G1	Mixed species: Hazel (<i>Corylus avellana</i>), Hawthorn (<i>Crataegus monogyna</i>)	Crown lift southern laterals which extend over the site to a suitable height to facilitate access for construction, assumed to be approx. 4m.	B2
G2	Mixed species: Ash (<i>Fraxinus excelsior</i>), Hazel (<i>Corylus avellana</i>)	Crown lift southern laterals which extend over the site to a suitable height to facilitate access for construction, assumed to be approx. 4m.	C2
G4	Goat Willow (<i>Salix caprea</i>)	Crown lift northern laterals which extend over the site to a suitable height to facilitate access for construction, assumed to be approx. 4m.	B2
G5	Mixed species: Alder (<i>Alnus glutinosa</i>), Goat Willow (<i>Salix caprea</i>)	Crown lift northern laterals which extend over the site to a suitable height to facilitate access for construction, assumed to be approx. 4m.	B2

Item no.	Species	Pruning Requirements	Grade
G6	Mixed species: Alder (<i>Alnus glutinosa</i>), Goat Willow (<i>Salix caprea</i>)	Crown lift northern laterals which extend over the site to a suitable height to facilitate access for construction, assumed to be approx. 4m.	B2
G8	Mixed species: Hawthorn (<i>Crataegus monogyna</i>), Grey Willow (<i>Salix cinerea</i>), Pedunculate Oak (<i>Quercus robur</i>)	Crown lift western laterals which extend over the site to a suitable height to facilitate access for construction, assumed to be approx. 4m.	B2
G9	Mixed species: Hazel (<i>Corylus avellana</i>), Ash (<i>Fraxinus excelsior</i>), Grey Willow (<i>Salix cinerea</i>), Hawthorn (<i>Crataegus monogyna</i>)	Crown lift western laterals which extend over the site to a suitable height to facilitate access for construction, assumed to be approx. 4m. Crown lift eastern laterals by 2m to a height of 5.5m within footprint of site access visibility splay	C2
G11	Mixed species: Blackthorn (<i>Prunus spinosa</i>), Hazel (<i>Corylus avellana</i>)	Crown lift southern laterals which extend over the site to a suitable height to facilitate access for construction, assumed to be approx. 4m.	B2
G12	Mixed species: Ash (<i>Fraxinus excelsior</i>), Hazel (<i>Corylus avellana</i>)	Crown lift eastern laterals by 2m to a height of 5.5m within footprint of site access visibility splay.	B2

4.4 Potential Incursions within Root Protection Areas

- 4.4.1 A total of four individual trees and seven groups of trees to be fully or partially retained within the study area will be subject to potential RPA incursions as presented in Table 4-3 and as displayed in Figure 3 Tree Protection Plan.
- 4.4.2 The proposed removal of previously imported soils and soil regrading on site will require excavation of the upper layers of soil down to previous historic soil level prior to reprofiling the site with indigenous material.
- 4.4.3 The proposed works will require the manoeuvring of plant and machinery and excavation of soil within the RPAs of trees to be retained. Potential impacts to tree Root Protection Areas within influencing distance of these works have been assessed and are presented in Table 4-3 below.

Table 4-3: Potential Root Protection Area Incursions

Tree ID	Species	Incursion type and likely significance	RPA m ²	RPA incursion m ²	RPA incursion %	Potential Significance	Grade
T1	Alder (<i>Alnus glutinosa</i>)	Works required for the removal of the previously imported soils works within RPA. Manoeuvring of plant and personnel within extents of RPA and Ancient and Veteran tree buffer zone. Sensitive excavation methods and scrape of upper soil layers to the original soil level (Depth to be confirmed by contractor and ACoW on site)	706.9	164.5	23.3	Works have the potential to impact tree condition – Site Supervision required	A1
T2	Hazel (<i>Corylus avellana</i>)	Works required for the removal of the previously imported soils within RPA.	72.4	2.4	3.3	Works are unlikely to significantly impact tree.	B1
T3	Ash (<i>Fraxinus excelsior</i>)	Manoeuvring of plant and personnel within extents of RPAs. Sensitive excavation methods and scrape of upper soil layers to the original soil level (Depth to be confirmed by contractor and ACoW on site)	162.9	28.4	17.4	Works have the potential to impact trees condition – Site Supervision required	B1
T6	Ash (<i>Fraxinus excelsior</i>)		18.1	1.1	6.1	Works are unlikely to significantly impact tree.	C1
G1	Mixed species: Hazel (<i>Corylus avellana</i>), Hawthorn (<i>Crataegus monogyna</i>)	Works required for the removal of the previously imported soils within the RPA of retained group of trees.	Group of trees unable to accurately calculate. Moderate incursion into edge tree RPA's			Works have the potential to impact trees condition – Site Supervision required	B2

Tree ID	Species	Incursion type and likely significance	RPA m ²	RPA incursion m ²	RPA incursion %	Potential Significance	Grade
G2	Mixed species: Ash (<i>Fraxinus excelsior</i>), Hazel (<i>Corylus avellana</i>)	Works required for the removal of the previously imported soils within the RPA of retained group of trees.	Group of trees unable to accurately calculate. Moderate incursion into edge tree RPA's			Works have the potential to impact trees condition – Site Supervision required	C2
G4	Goat Willow (<i>Salix caprea</i>)	Works required for the removal of the previously imported soils within the RPA of retained group of trees.	Group of trees unable to accurately calculate. Moderate incursion into edge tree RPA's			Works have the potential to impact trees condition – Site Supervision required	B2
G5	Mixed species: Alder (<i>Alnus glutinosa</i>), Goat Willow (<i>Salix caprea</i>)	Works required for the removal of the previously imported soils within the RPA of retained group of trees.	Group of trees unable to accurately calculate. Moderate incursion into edge tree RPA's			Works have the potential to impact trees condition – Site Supervision required	B2
G6	Mixed species: Alder (<i>Alnus glutinosa</i>), Goat Willow (<i>Salix caprea</i>)	Works required for the removal of the previously imported soils within the RPA of retained group of trees.	Group of trees unable to accurately calculate. Moderate incursion into edge tree RPA's			Works have the potential to impact trees condition – Site Supervision required	B2
G8	Mixed species: Hawthorn (<i>Crataegus monogyna</i>), Grey Willow (<i>Salix cinerea</i>), Pedunculate Oak (<i>Quercus robur</i>)	Works required for the removal of the previously imported soils within the RPA of retained group of trees.	Group of trees unable to accurately calculate. Moderate incursion into edge tree RPA's			Works have the potential to impact trees condition – Site Supervision required	B2
G9	Mixed species: Hazel (<i>Corylus avellana</i>), Ash (<i>Fraxinus excelsior</i>), Grey Willow (<i>Salix cinerea</i>),	Works required for the removal of the previously imported soils within the RPA of retained group of trees.	Group of trees unable to accurately calculate. Moderate incursion into edge tree RPA's			Works have the potential to impact trees condition – Site Supervision required	B2

Tree ID	Species	Incursion type and likely significance	RPA m ²	RPA incursion m ²	RPA incursion %	Potential Significance	Grade
	Hawthorn (<i>Crataegus monogyna</i>)						
G11	Mixed species: Blackthorn (<i>Prunus spinosa</i>), Hazel (<i>Corylus avellana</i>)	Works required for the removal of the previously imported soils within the RPA of retained group of trees.	Group of trees unable to accurately calculate. Moderate incursion into edge tree RPA's			Works have the potential to impact trees condition – Site Supervision required	B2

4.5 General Construction Impacts

- 4.5.1 Construction access, site works, and storage areas have the potential to directly or indirectly impact the stem, canopy or RPAs of the trees scheduled for retention which are located around the proposed works as displayed in Figure 3 Tree Protection Plan. To ensure that these features are successfully retained during the proposed works, temporary protective fencing will be required to demarcate a Construction Exclusion Zone (CEZ) around all retained trees as displayed on the Tree Impacts and Protection Plan.
- 4.5.2 The CEZ acts to protect both tree roots and branches and should be suitably protected with appropriate temporary fencing for the duration of the works. Exact specifications for this will be developed by the appointed contractor and will be suitable for the proposed works..

4.6 Evaluation of the impact of proposed tree losses

- 4.6.1 The proposed tree removals are considered to represent a low impact to the overall visual public amenity and arboricultural value of the site. The trees to be removed are of low-quality C and U features.
- 4.6.2 The removal of these trees is unavoidable due to their location within the footprint of the proposed works. In order to offset the impact to visual public amenity associated with these trees, commensurate tree re-provisioning is recommended in Section 5 of this report.

5 Mitigation

5.1 Planning Policy

- 5.1.1 Where trees are statutorily protected, such as a TPO or within a Conservation Area, it is usually a requirement under the Town and Country Planning (Tree Preservation) (England) Regulations (2012) to contact the Local Planning Authority (LPA) and follow the appropriate procedures before undertaking any works that might affect the protected trees. For such trees all non-routine tree works including works to enable development must have Conservation Area Consent or Full Planning Consent from the LPA before the tree works take place. The application to the LPA to remove or undertake works on such trees requires a decision which can often take at least 2 months. This report when submitted as part of a planning application would constitute such an application.

5.2 General Construction Mitigation

- 5.2.1 Site operations involving plant with booms, jibs and counterweights should be planned in advance to prevent contact with retained trees. All operations involving such plant in close proximity to trees should be conducted under the supervision of a banksman to ensure that adequate clearance from the retained trees is maintained.
- 5.2.2 All pruning and contracting works should be carried out by a competent qualified contractor in accordance with BS 3998:2010, Tree Work Recommendations.
- 5.2.3 Adequate allowance for the planning and implementation of site compounds and storage areas and the routing of services for the proposed scheme must be made to avoid encroachment with the RPA of, or prevent direct contact with, all retained trees on site.

5.3 Tree Removal

- 5.3.1 Tree removals on site should be limited to those displayed in Table 4-1 of this report as marked by red hatching in Figure 2 Tree Removal and Retention Plan. All remaining individual trees and tree groups listed for removal in Table 4-1 of this report should be removed prior to the commencement of works on site.
- 5.3.2 It will be necessary to conduct pre works ecology checks for nesting birds and roosting bats prior to the felling of any trees. An ecological consultant should be consulted to ensure correct procedures are followed
- 5.3.3 All tree works must be carried out by a suitably qualified arboricultural contractor and conducted in accordance with BS 3998: 2010: Tree Work – Recommendations.
- 5.3.4 Any additional tree works requirements outside of those listed in this report should follow procedures detailed in the site-specific Arboricultural Method Statement, provided in Section 5.9 of this report.

5.4 Facilitation Pruning

- 5.4.1 It is likely that pruning works will be required to all trees and groups listed in Section 4.3 of this report. Any requirement for facilitation pruning should be reviewed by the Project Arboriculturist prior to the commencement of works on site
- 5.4.2 All tree works must be carried out by a qualified contractor in accordance with BS 3998: 2010: Tree Work – Recommendations.
- 5.4.3 Further pruning may be necessary on other areas of the site to facilitate construction activity. Any additional pruning should be confirmed under a site specific Arboricultural Method Statement.

5.5 RPA Incursions

- 5.5.1 To minimise further disturbance a precautionary approach to all excavation within the RPAs of retained trees must be undertaken to avoid potential damage / severing of retained roots and/or destabilisation of existing trees.
- 5.5.2 Areas of Precautionary Excavation are defined by the calculated RPAs of trees which extend within the extents of the previously imported soil as displayed in Figure 3 Tree Protection Plan.
- 5.5.3 When operating within Areas of Precautionary Excavation, the following methodologies will be required necessary:
- Excavation operations within Precautionary Areas must be undertaken under direct arboricultural supervision.
 - Excavation and movement of soil should be conducted in such a way as to draw the soil mass away from the edges of the site and towards the designated loading areas which is to be agreed with the Principal Contractor upon appointment.
 - When agreed levels have been reached, precautionary areas must be closed to works and Tree Protection Barriers installed or adjusted to protect the extents of calculated RPAs. Tree Protection Barriers shall then form CEZs which will remain undisturbed throughout the duration of the works on site.

5.6 Japanese Knotweed Management

- 5.6.1 A presence of Japanese Knotweed (*Reynoutria japonica*) was confirmed on site. The removal and treatment of the Japanese knotweed in and around trees will require further discussion and planning between the appointed project arboriculturist, Project Ecologist and Principal Contractor prior to the commencement of works once a contractor is appointed. Details of the proposed methodology for the removal of the Japanese knotweed will be confirmed in the site-specific Arboricultural Method Statement.

5.7 Ground protection

- 5.7.1 Temporary ground protection will be required where pedestrians, machinery and/or vehicles are working within the RPAs of trees to be retained. This should be capable of supporting any traffic entering or using the site without being distorted or causing compaction of underlying soil. For example, 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. Ground protection should remain in-situ throughout the duration of the proposed works and only be removed upon completion.

5.8 Tree Re-provisioning

- 5.8.1 A tree replacement strategy commensurate with the quantity and value of the trees to be removed (up to 2:1 replacement ratio) should be developed which should take into consideration the landscape character, local treescape and biodiversity features of the immediate and adjoining areas.
- 5.8.2 Where areas of trees (groups and hedgerow) have been removed to facilitate development stem numbers should be counted and replaced using the correct ratio for the category they are valued at.
- 5.8.3 All new tree planting should be in accordance with British Standard 8545: Trees: From Nursery to Independence in the Landscape – Recommendations, 2014 and all any formative pruning/tree maintenance works must be carried out by a qualified contractor in accordance with BS3998:2010: Tree Work – Recommendations.

5.9 Arboricultural Method Statement

- 5.9.1 While preliminary tree protection measures have been provided in of this report, when further detail is known as to the construction process at detailed design stage, a bespoke AMS will also be required to protect trees to be retained over the course of the works.

5.10 Arboricultural Method Statement Heads-of-terms

- 5.10.1 Due to the nature of the proposed works, once further detail is known as to the construction process, a site-specific Arboricultural Method Statement (AMS) will be required to protect trees to be retained over the course of the works. This should be specified as a post-planning condition by the LPA.
- 5.10.2 Table 5-1 below details a Heads-of-terms for the anticipated requirements of the site-specific AMS. To ensure successful delivery of tree works and protection of retained trees, this Heads-of-terms should form the basis for the site-specific AMS and will form the basis of the auditable schedule of supervision to be implemented over the course of the proposed works

Table 5-1 Arboricultural Method Statement Heads-of-Terms

Timing / Phasing	Site Operations	Relevant Arboricultural Input
Pre-Commencement	On site pre-commencement site meeting including review of AMS	Site Manager, Project Arboriculturist, Arboricultural Officer (optional)
	Layouts and specifications of tree protection measures to be agreed upon during the pre-commencement meeting and confirmed by the Project Arboriculturist prior to the commencement of works	Site Manager, Project Arboriculturist, Arboricultural Officer (optional)
	Arboricultural Contractor to undertake any necessary tree removals and facilitation pruning works, to be agreed upon with the Project Arboriculturist and Site Manager	Project Arboriculturist, Arboricultural Contractor
Site Set-Up	Installation of Site hoarding and Tree Protection Fencing as agreed during pre-commencement site meeting. To be Checked by the ACoW and confirmed with the Project Arboriculturist	ACoW, Project Arboriculturist
Site Works / Construction Phase	Project Arboriculturist to be consulted on any tree related issues over the course of the proposed works to ensure continued compliance with Arboricultural Method Statement	ACoW, Project Arboriculturist
	Any site-specific operations requiring the attendance of the ACoW should be scheduled in accordingly and will form part of an auditable inspection schedule.	ACoW, Project Arboriculturist

Timing / Phasing	Site Operations	Relevant Arboricultural Input
Works End / Site Reinstatement	Works end briefing and inspection between Project Arboriculturist and Site Manager to assess the health of retained trees and identify any required remedial works required	Site Manager, Project Arboriculturist, Arboricultural Officer (optional)
	Completion of any remedial tree/soil works where trees/RPAs have been impacted, to be confirmed following post development inspection	Project Arboriculturist, Arboricultural Contractor

5.10.3 A breakdown of the roles and responsibilities of figures outlined in this Heads-of-terms is detailed in Table 5-2 below.

Table 5-2: Roles and responsibilities of figures outlined in the Heads-of-terms

Title	Roles and Responsibilities	Involvement	Qualification
Project Arboriculturist	Resource for site contractor and interface between site works and local authority. Responsible assessing any design changes resulting from on-site works and providing Arboricultural Compliance notes to the Local Planning authority.	Pre, during and post construction overseeing of all on-site arboricultural matters, compliance with Arboricultural Method Statement	Level 6 Qualification in Arboriculture or related subject and/or Professional Member of the Arboricultural Association or Member of the Institute of Chartered Foresters
Arboricultural Clerk of Works (ACoW)	On-site arboricultural presence responsible for supervising demolition or construction activity with the potential to impact retained trees.	On-site presence as defined by the Arboricultural Method Statement and Project Arboriculturist	Level 4 Qualification in Arboriculture or related subject and/or Technician Member of the Arboricultural Association or Associate of the Institute of Chartered Foresters
Tree / Arboricultural Officer	Local Planning Authority officer responsible for Preconstruction planning condition discharge, review/approval of evidence of compliance with planning approval and enforcement of conditions or works notices where required.	Pre-during and post construction involvement with site contractor and Project Arboriculturist	As per LPA requirements for role.

Title	Roles and Responsibilities	Involvement	Qualification
Arboricultural Contractor	Subcontractor responsible for the removal, pruning and remediation works associate with on-site trees as appointed by the primary contractor.	Pre-construction facilitation works and mid / post construction mitigation works as required by the Project Arboriculturist	Arboricultural Association Approved Contractor. Appropriately qualified operatives for work equipment usage. Contractor to provide details of workforce qualifications.

6 Statutory Tree Protection and Guidance

6.1 Town and Country Planning (Tree Preservation) (England) Regulations 2012

- 6.1.1 The Town and Country Planning (Tree Preservation) (England) Regulations 2012 make provision for, amongst other things, the form of Tree Preservation Orders (TPOs) and for applications for consent to carry out work on trees subject to an order. The order makes it an offence to cut down, uproot, prune, lop or damage the tree (including the roots) in question without first obtaining the Council's consent. A TPO can apply to a single tree, a group of trees or woodland. Anyone who wishes to fell or carry out work to a tree protected by a TPO must apply to the Council to obtain permission.
- 6.1.2 There are exemptions for statutory undertakers under the Town and Country Planning Regulations which include:
- 1 where the land on which the tree is situated is operational land of the statutory undertaker and the work is necessary; and
 - 1.1. in the interests of the safe operation of the undertaking;
 - 1.2. in connection with the inspection, repair or renewal of any sewers, mains, pipes, cables or other apparatus of the statutory undertaker;
 - 1.3. to enable the statutory undertaker to carry out development permitted by or under the Town and Country Planning (General Permitted Development) Order 1995. This is only where works are within an operational site and does not include works outside of operational sites.
 - 2 where works are granted planning permission no additional specific permission in regard to works to TPOs is required.

6.2 Town and Country Planning Act 1990 (as amended).

- 6.2.1 Conservation Areas are protected under the Town and Country Planning Act 1990 (as amended). Where trees within a Conservation Area are not a TPO permission must also be obtained by the Local Planning Authority (LPA) under a Section 211 notice, which gives the LPA the opportunity to consider protecting a tree. The exception is when a tree is less than 7.5 cm in diameter, measures 1.5 m above ground or 10 cm if thinning to help the growth of other trees.

6.3 The Hedgerow Regulations 1997

- 6.3.1 The Hedgerow Regulations 1997 protect 'Important' hedgerows by controlling their removal through a system of notification. Under the Regulations, it is unlawful to remove or destroy most countryside hedgerows (excluding those forming garden boundaries) without the written permission of the LPA. The legislation details criteria to determine whether a hedgerow qualifies as an 'Important' hedgerow. Schemes with planning consent will not require further approval from the LPA. Where hedgerows meet the criteria of the Regulations to be 'Important hedgerows' a formal request will need to be made to the LPA for its removal.
- 6.3.2 There are some other exceptions including for carrying out work for the purpose of flood defence or land drainage, pursuant to, or under, the Land Drainage Act 1991, the Water Resources Act 1991 or the Environment Act 1995.

6.4 The Management of Hedgerows (England) Regulations 2024

6.4.1 The Management of Hedgerows (England) Regulations 2024 prohibits the cutting and trimming of important hedgerows during the period beginning with 1st March in any year and ending on 31st August in that year, inclusive of those dates, except under the following exemptions:

- The hedgerow overhangs a highway, road or footpath over which there is a public or private right of way and the overhanging hedgerow.
- The hedgerow obstructs the passage of users or is a danger to users or the hedgerow obstructs the view of such users or obstructs the light from a public lamp.
- The hedgerow is dead, diseased, damaged or insecurely rooted. And because of its condition, it or part of it, is likely to cause danger by falling on to a highway, road or footpath.
- To carry out hedge-laying or coppicing during the period 1 March to 30 April. Or to trim a newly laid hedgerow by hand, within 6 months of it being laid.
- The hedgerow is within the curtilage of a dwelling house. Or the hedgerow marks the boundary of the curtilage of a dwelling house (this applies to both sides of the hedgerow).
- In the prevention or treatment of serious causes of harm to plant health or there is a risk to human or animal health or safety.
- You need to prevent or treat a serious pest or weed infestation.
- Work is carried out by any statutory body (for example a utility company) acting under statutory powers.

6.4.2 In these instances, written notification Rural Payments Agency (RPA) to ask for the exemptions is not required. A record must be kept of all works carried out under an exemption.

7 Trees and Planning

7.1 The Planning Process

- 7.1.1 LPAs in the UK have a statutory duty to consider both the protection and planting of trees when considering planning applications. The potential impact of development on all trees (including those not protected by a TPO or other statutory designation) is a material consideration in determining a planning application.
- 7.1.2 BS 5837 provides a framework which sets out how trees should be considered in the planning process and also explicitly applies to development where planning consent is not required.
- 7.1.3 BS 5837 recommends that a tree survey is undertaken to identify the quality and benefits of trees and the spatial constraints associated with them. This information is then used to produce a Tree Constraints Plan (TCP) illustrating the above and below ground constraints associated with trees RPA. The TCP is intended to be used to inform the design process and to identify those trees considered to be a constraint to development due to the quality and value (in a non-fiscal sense).
- 7.1.4 Following the production of the final scheme design, an Arboricultural Impact Assessment (AIA) is produced to identify the likely direct and indirect impacts of the proposed development, along with a Tree Protection Plan (TIPP) to identify trees to be removed and retained and to illustrate the protection of retained trees. An Arboricultural Method Statement (AMS) is also often required as a condition of planning consent to detail how sensitive operations are to be undertaken in close proximity to retained trees.
- 7.1.5 These documents and plans are considered the minimum requirement for arboricultural matters within a planning application and are intended to ensure both a long term sustainable and harmonious relationship between existing trees and the proposed development.

7.2 National Planning Policy Framework 2026

- 7.2.1 The National Planning Policy Framework (NPPF 2026) seeks to ensure that new development is sustainable and underlines the importance of green infrastructure, of which trees form an integral part. This includes recognition of the importance of trees in relation to the management of air, soil and water quality along with other associated ecosystem services and climate change adaption. The NPPF also seeks to achieve the protection and enhancement of landscapes and a net gain in biodiversity. Finally, it specifically identifies veteran and ancient trees and woodland as a highly valuable and irreplaceable habitat.
- 7.2.2 At the heart of the National Planning Policy Framework (NPPF) is a presumption in favour of sustainable development, and specifically states that for decision making, the LPA should be approving development proposals that accord with the development plan without delay.
- 7.2.3 A single Ancient Tree, (T1 - Alder (*Alnus glutinosa*)) was identified during the site survey This is considered an Irreplaceable Habitat under Section 15 of the NPPF 2025 and will therefore require retention and protection from damage/harm during proposed works in order for proposals to comply National Planning Policy.
- 7.2.4 Section 19 (N2) of the NPPF recognises the importance of conserving and enhancing the natural features of visual, historic or conservation value (such as established trees and hedgerows) where possible. N3 of the NPPF recognises the benefits which trees can provide for biodiversity, climate change mitigation and adaptation, and the character and quality of the built environment.

- 7.2.5 It further acknowledges the importance of ancient woodlands and veteran trees for habitats and biodiversity and requires that planning consent should be refused where development schemes require the removal of such features unless there are wholly exceptional reasons, stating that:

“irrespective of a site’s status in nature conservation terms, development proposed which would entail the loss or deterioration of irreplaceable habitats (such as ancient woodland and ancient or veteran trees) should be refused, unless there are wholly exceptional reasons and a suitable compensation strategy exists.” (N6: Areas of particular importance for biodiversity and geodiversity (Paragraph 2))

- 7.2.6 Where the LPA does not have a development plan or the development plan is out of date, the LPA should grant planning consent insofar as the development proposals do not breach the NPPF.

7.3 Local Planning Policy

- 7.3.1 The West Berkshire Local Plan Review 2023-2041 (adopted June 2025) (West Berkshire Council, 2025) and Wokingham Borough Council Local Development Framework Adopted Core Strategy Development Plan January 2010 (Wokingham Borough Council 2010) include the following relevant policies:

7.4 West Berkshire Local Plan Review 2023-2041

SP11: Biodiversity and Geodiversity

Irreplaceable Habitats

Proposals which are likely to result in the loss or deterioration of an irreplaceable habitat (such as ancient woodland, ancient or veteran trees, ancient hedgerows, traditional unimproved meadows/ancient grasslands and lowland fens) will only be permitted for wholly exceptional reasons where:

o. The need and benefits of the development in that location clearly and unambiguously outweigh the loss;

p. It has been adequately demonstrated that the irreplaceable habitat cannot be retained with the proposed scheme; and

q. Appropriate compensation measures are provided on site wherever possible and off-site where this not is feasible. The scale and quality of the compensation measures required will be commensurate to the loss or deterioration of the irreplaceable habitat and will be considered on a site by site basis, including long term management and maintenance.

7.5 West Berkshire Local Plan Review 2023-2041

DM15: Trees, Woodland and Hedgerows

Development which conserves and enhances trees, woodland and hedgerows will be supported.

Development proposals should be accompanied by an appropriate Arboricultural Survey, Arboricultural Impact Assessment and/or an Arboricultural Method Statement. Proposals will be expected to clearly demonstrate that wherever possible existing trees, woodland and hedgerows have been incorporated into the design and layout of a scheme from the outset. Where this cannot be achieved the onus is on the applicant to justify the loss of trees and/or other features as part of the proposals.

Ancient woodland, ancient and veteran trees and ancient hedgerows are irreplaceable habitats. Development resulting in their loss or deterioration will be considered in accordance with policy SP11. The scale and quality of the compensation measures required will be commensurate to the loss or deterioration of the irreplaceable habitat.

Development proposals which could potentially result in the loss of ancient wood pasture; or trees, woodlands and hedgerows located within historic parks and gardens will be considered in accordance with policy DM12, for those within Registered Parks and Gardens, or policy DM11 for those forming part of non-designated heritage assets.

Where loss or damage of non-protected trees, woodland or hedgerows is unavoidable, appropriate replacement or compensation planting including appropriate measures to secure their long term maintenance will be required.

Development proposals will provide appropriate protection for retained trees, woodland and hedgerows in advance of any work on site to prevent damage to root systems and to take account of future sustainable growth.

Where appropriate, suitable opportunities should be identified and incorporated for the restoration and planting of new trees, woodland and hedgerows. New planting should:

- a. Be suitable for the site conditions;*
- b. Use appropriate tree pit sizes and soil volumes;*
- c. Use native species wherever appropriate;*
- d. Be informed by and contribute to local character; and*
- e. Enhance or create new habitat linkages.*

To ensure the sustainable growth of restored or newly planted trees, development will be required to include appropriate measures to secure their long term maintenance.

8 Summary

- 8.1.1 A total of 26 arboricultural features were recorded within the study area, these were recorded as 10 individual trees (T), 15 groups of trees (G) and 1 hedgerow (H).
- 8.1.2 Each arboricultural feature was assigned to one of four categories, as listed below:
- Category A features: one individual tree has identified as Category A (trees of high quality) as part of this survey;
 - Category B features: five individual trees, 12 groups and one hedgerow have been identified as Category B (trees of moderate quality) as part of this survey;
 - Category C features: three individual trees, two groups of trees and one hedgerow have been identified as Category C (trees of low quality) as part of this survey;
 - Category U features: one individual tree has been identified as Category U (trees of poor quality unsuitable for retention) as part of this survey.
- 8.1.3 According to the Wokingham Borough Council Tree Preservation Order map and the West Berkshire Council Tree Preservation Order map that no trees surveyed are subject to Tree Preservation Orders or Conservation Area restrictions.
- 8.1.4 It was confirmed that there are no designated ancient woodlands in the study area.
- 8.1.5 A single Ancient Tree, (T1 - Alder (*Alnus glutinosa*)) was identified during the site survey. This is considered an Irreplaceable Habitat under Section 19 of the NPPF 2026 and will therefore require retention and protection from damage/harm during proposed works in order for proposals to comply National Planning Policy.
- 8.1.6 A total of one individual tree and three groups of trees are located within, or immediately adjacent to development works and will require full or partial removed to facilitate the proposed works.
- 8.1.7 A total of four individual trees and seven groups of trees to be fully or partially retained within the study area will be subject to potential RPA incursions
- 8.1.8 It is estimated that up to four individual tree and eight groups of trees are likely to require facilitation pruning in order to facilitate the proposed works.
- 8.1.9 The proposed tree removals are considered to represent a low impact to the overall visual public amenity and arboricultural value of the site. The trees to be removed are of low-quality C and U features.
- 8.1.10 Any tree works must be carried out by an Arboricultural Association Approved contractor must be in accordance with BS 3998: 2010: Tree Work – Recommendations.
- 8.1.11 A tree replacement strategy commensurate with the quantity and value of the trees to be removed (up to 2:1 replacement ratio) should be developed which should take into consideration the landscape character, local treescape and biodiversity features of the immediate and adjoining areas.
- 8.1.12 While preliminary tree protection measures have been provided in of this report, when further detail is known as to the construction process at detailed design stage, a bespoke AMS will also be required to protect trees to be retained over the course of the works.

9 References

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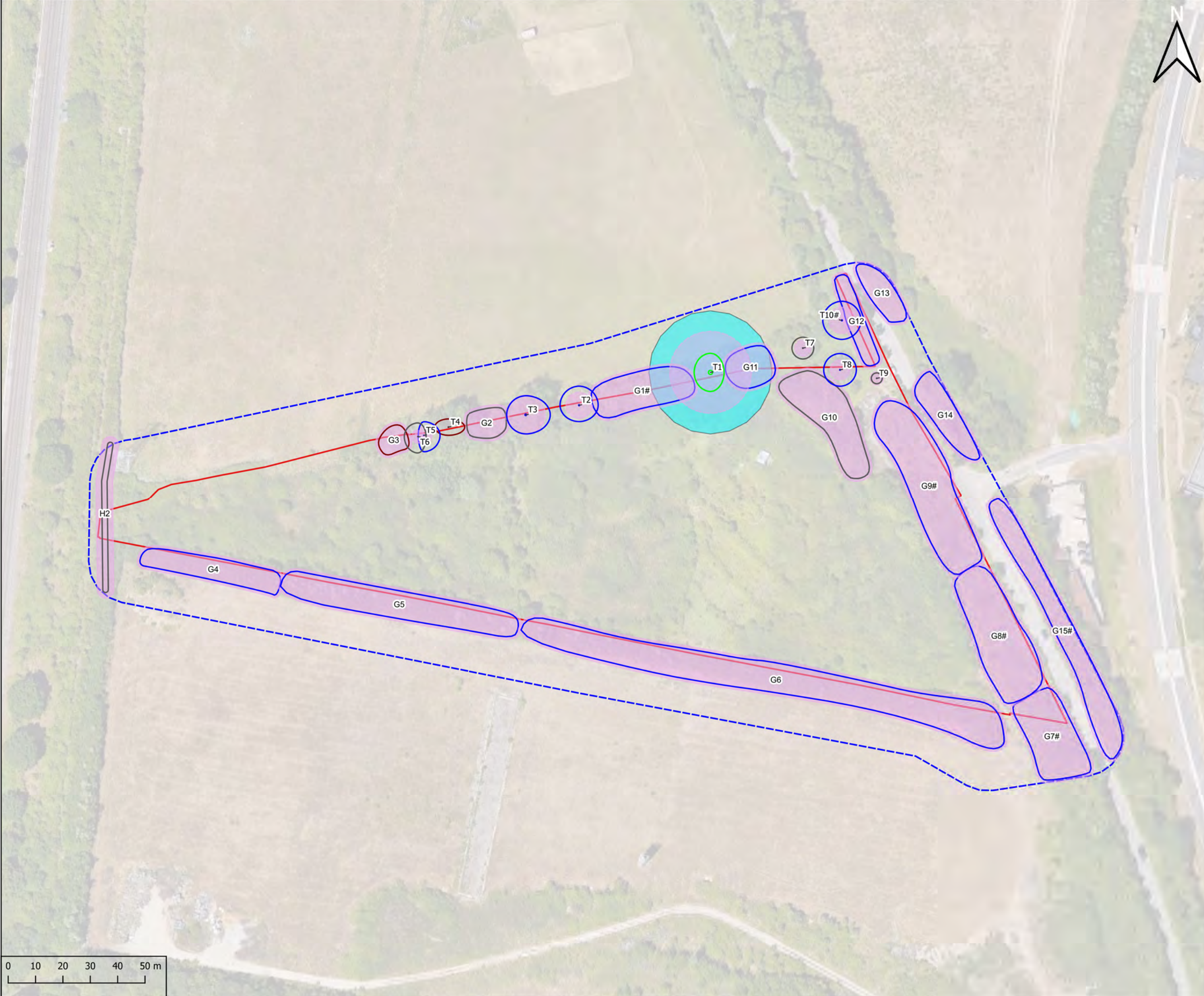
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Figure 1 Tree Constraints Plan



- Legend:
- Site Boundary
 - Survey Boundary
 - Canopy extent of A Category Tree/Group
 - Canopy extent of B Category Tree/Group
 - Canopy extent of C Category Tree/Group
 - Canopy extent of U Category Tree/Group
 - BS 5837:2012 Root Protection Area (RPA)
 - BS 5837:2012 Ancient Tree Buffer



P1	10/08/2026	For information	KB	JP	BM
Rev	Date	Description	Drawn	Check	Approv

Project

Land off Kirton's Farm Road, Reading

ARCADIS

Registered office: Arcadis, 80 Fenchurch Street, London, EC3M 4BY
Coordinating office: Arcadis, 80 Fenchurch Street, London, EC3M 4BY
Tel: 44 (0)20 7812 2000
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TITLE:

**FIGURE 1
TREE CONSTRAINTS PLAN**

Designed:	KB	Date:	10/08/26	Signat:	Karl Benson
Drawn:	KB	Date:	10/08/26	Signat:	Karl Benson
Checked:	WG	Date:	10/08/26	Signat:	
Approved:	JP	Date:	10/08/26	Signat:	
Scale:	1:1,250	Datum:	AOD		
Original Size:	A3	Grid:	OS		
Suitability Code:	00	Project Number:	30336140		

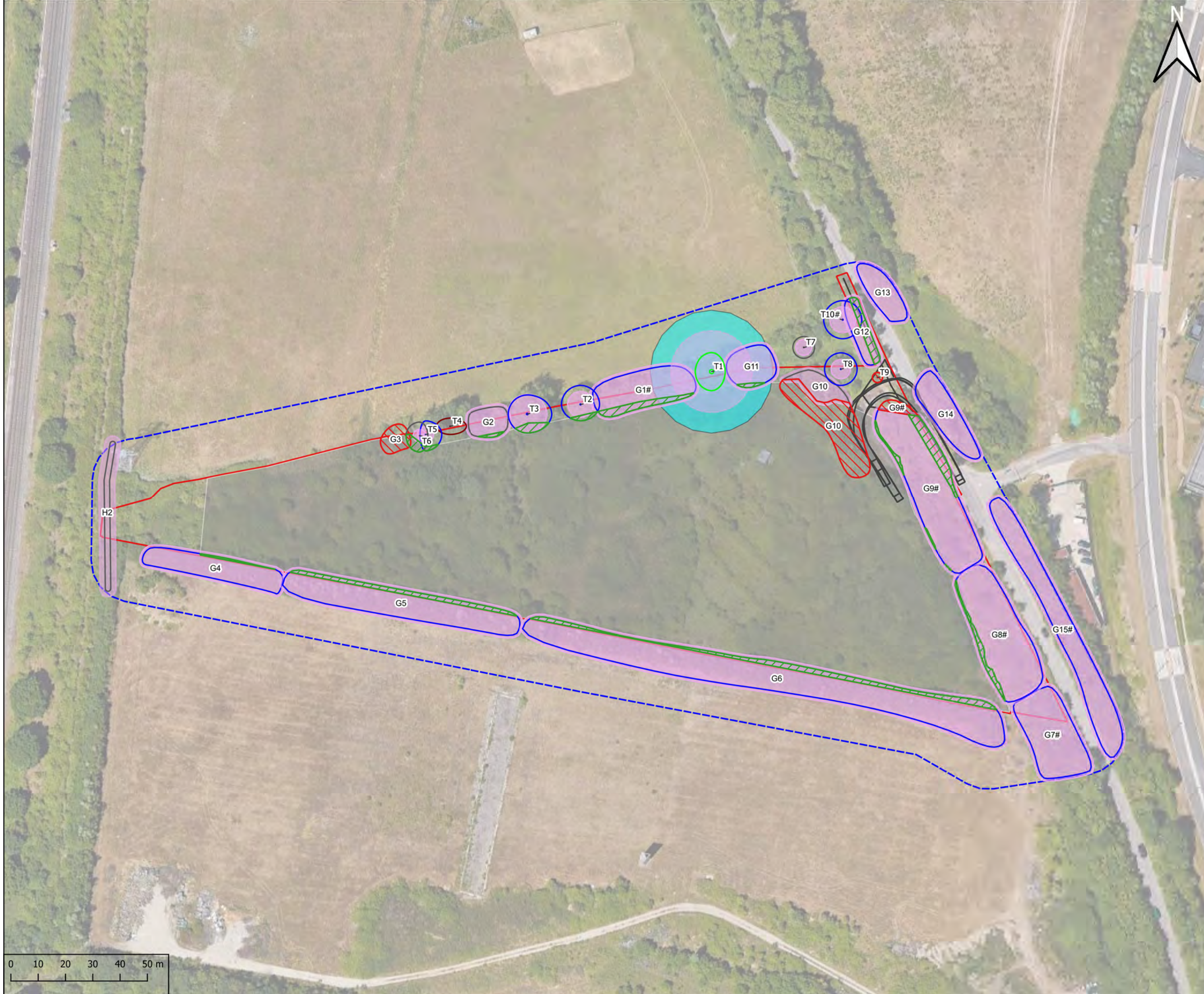
Suitability Description:

FOR INFORMATION

NOT TO BE USED FOR DESIGN OR CONSTRUCTION

Drawing Number: 30280066-AUK-XX-ZZ-DR-ZZ-0067-P001
Revision: P01

Figure 2 Tree Removal and Retention Plan



- Legend:
- Site Boundary
 - Survey Boundary
 - Canopy extent of A Category Tree/Group
 - Canopy extent of B Category Tree/Group
 - Canopy extent of C Category Tree/Group
 - Canopy extent of U Category Tree/Group
 - BS 5837:2012 Root Protection Area (RPA)
 - BS 5837:2012 Ancient Tree Buffer
 - Trees for Removal
 - Facilitation Pruning
 - Previously Imported Soil Relocation Area
 - Proposed Access and Visibility Splay



P1	11/08/2026	For information	KB	JP	BM
Rev	Date	Description	Drawn	Check	Approv

Project

Land off Kirton's Farm Road, Reading

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**FIGURE 2
TREE REMOVAL AND
RETENTION PLAN**

Designed:	KB	Date:	11/08/26	Signat:	Karl Benson
Drawn:	KB	Date:	11/08/26	Signat:	Karl Benson
Checked:	WG	Date:	11/08/26	Signat:	
Approved:	JP	Date:	11/08/26	Signat:	
Scale:	1:1,250	Datum:	AOD		
Original Size:	A3	Grid:	OS		
Suitability Code:	00	Project Number:	30336140		

Suitability Description:

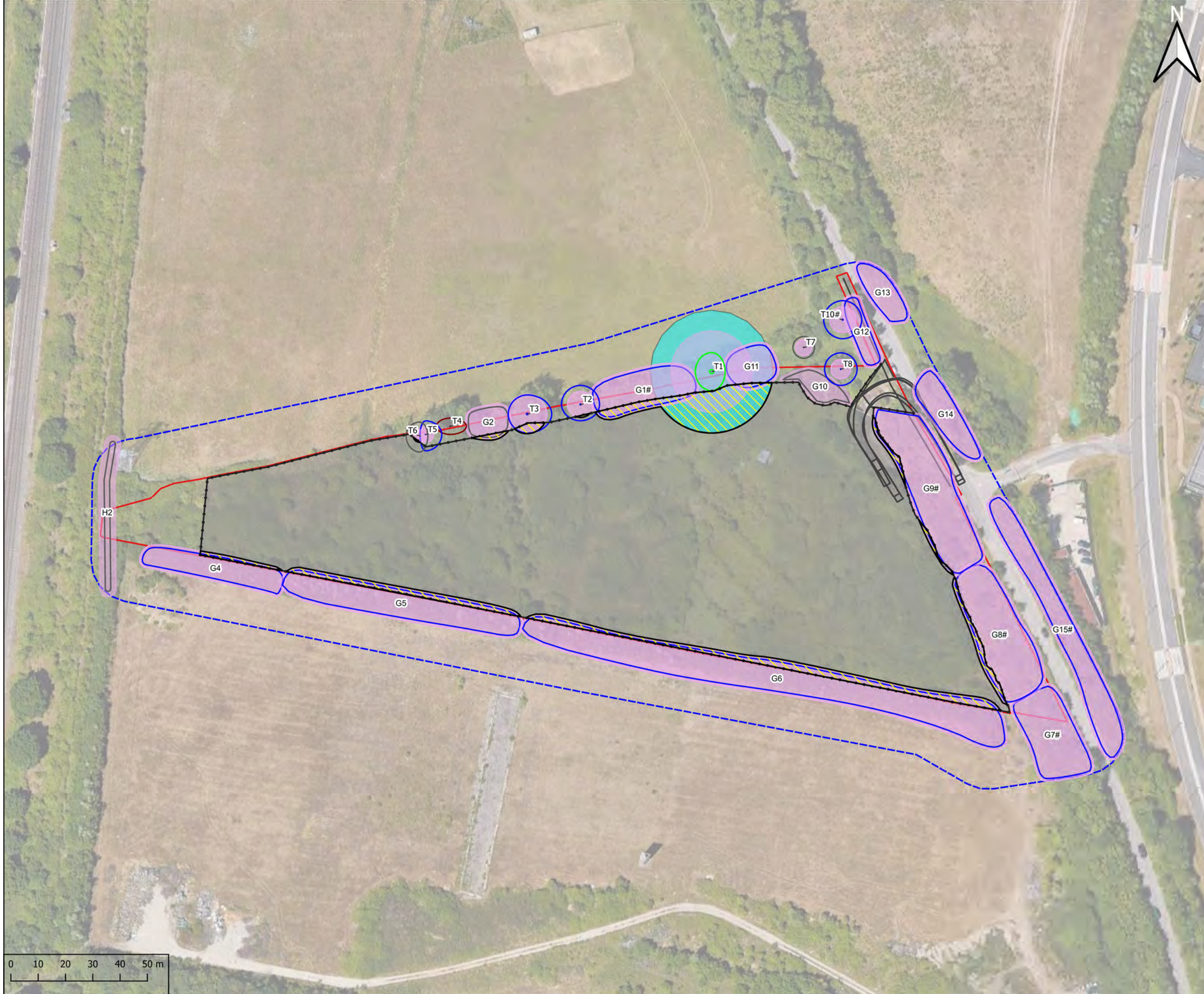
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NOT TO BE USED FOR DESIGN OR CONSTRUCTION

Drawing Number:
30280066-AUK-XX-ZZ-DR-ZZ-0086-P001

Revision:
P01

Figure 3 Tree Protection Plan



Legend:

- Site Boundary
- Survey Boundary
- Canopy extent of A Category Tree/Group
- Canopy extent of B Category Tree/Group
- Canopy extent of C Category Tree/Group
- Canopy extent of U Category Tree/Group
- BS 5837:2012 Root Protection Area (RPA)
- BS 5837:2012 Ancient Tree Buffer
- Supervised / Sensitive Dig Location
- Tree Protection Fencing
- Previously Imported Soil Relocation Area
- Proposed Access and Visibility Splay



P1	11/08/26	For information	WG	JP	BM
Rev	Date	Description	Drawn	Check	Approv

Project

Land off Kirton's Farm Road, Reading

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TITLE:

FIGURE 3

TREE PROTECTION PLAN

Designed:	WG	Date:	11/08/26	Signed:	Karl Benson
Drawn:	WG	Date:	11/08/26	Signed:	Karl Benson
Checked:	JP	Date:	11/08/26	Signed:	
Approved:	BM	Date:	11/08/26	Signed:	
Scale:	1:1,250	Datum:	AOD		
Original Size:	A3	Grid:	OS		
Suitability Code:	00	Project Number:	30336140		

Suitability Description:

FOR INFORMATION

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Drawing Number: 30280066-AUK-XX-ZZ-DR-ZZ-0085-P001

Revision: P01

Appendix A Study Limitations

This appendix should be read before reliance is placed on any of the information, opinions, advice, recommendations or conclusions contained in this report.

1. This report has been prepared by Arcadis (UK) Limited ('Arcadis'), with all reasonable skill, care and diligence within the terms of the Appointment and with the resources and manpower agreed with M&G Real Estate Limited (M&G) acting on behalf of Prudential Assurance Company Ltd (the 'Client'). Arcadis does not accept responsibility for any matters outside the agreed scope.
2. This report has been prepared for the sole benefit of the Client unless agreed otherwise in writing. The contents of this report may not be used or relied upon by any person other than this party without the express written consent and authorisation of Arcadis.
3. Unless stated otherwise, no consultations with authorities or funders or other interested third parties have been carried out. Arcadis is unable to give categorical assurance that the findings will be accepted by these third parties as such bodies may have unpublished, more stringent objectives. Further work may be required by these parties.
4. All work carried out in preparing this report has used, and is based on, Arcadis' professional knowledge and understanding of current relevant legislation. Changes in legislation or regulatory guidance may cause the opinion or advice contained in this report to become inappropriate or incorrect. In giving opinions and advice, pending changes in legislation, of which Arcadis is aware, have been considered. Following delivery of the report, Arcadis has no obligation to advise the Client or any other party of such changes or their repercussions.
5. This report is only valid when used in its entirety. Any information or advice included in the report should not be relied upon until considered in the context of the whole report.
6. Whilst this report and the opinions made are correct to the best of Arcadis' belief, Arcadis cannot guarantee the accuracy or completeness of any information provided by third parties. provided by third parties. Arcadis has taken reasonable steps to ensure that the information sources used for this assessment provided accurate information and has therefore assumed this to be the case.
7. This report has been prepared based on the information reasonably available during the project programme. All information relevant to the scope may not have been received.
8. This report refers, within the limitations stated, to the condition of the Site at the time of the inspection. No warranty is given as to the possibility of changes in the condition of the Site since the time of the investigation.
9. The content of this report represents the professional opinion of experienced environmental consultants. Arcadis does not

provide specialist legal or other professional advice. The advice of other professionals may be required.

10. Where intrusive investigation techniques have been employed, they have been designed to provide a reasonable level of assurance on the conditions. Given the discrete nature of sampling, no investigation technique is capable of identifying all conditions present in all areas. In some cases, the investigation is further limited by Site operations, underground obstructions and above ground structures. Unless otherwise stated, areas beyond the boundary of the Site have not been investigated.
11. If below ground intrusive investigations have been conducted as part of the scope, safe location of exploratory holes has been carried out with reference to the Arcadis ground disturbances procedure. No guarantee can be given that all services have been identified. Additional services, structures or other below ground obstructions, not indicated on the drawing, may be present on Site.
12. Unless otherwise stated the report provides no comment on the nature of building materials, operational integrity of the facility or on any regulatory compliance issues.
13. Unless otherwise stated, an inspection of the Site has not been undertaken and there may be conditions present at the Site which have not been identified within the scope of this assessment.
14. Unless otherwise stated, samples from the Site (soil, groundwater, building fabric or other samples) have not been obtained.
15. Arcadis has relied upon the accuracy of documents, oral information and other material and information provided by the Client and others, and Arcadis assumes no liability for the accuracy of such data, although in the event of apparent conflicts in information, Arcadis would highlight this and seek to resolve.
16. Unless otherwise stated, the scope of works has not included an environmental compliance review, health and safety compliance review, hazardous building materials assessment, interviews or contacting Local Authority, requests for information to the petroleum officer, sampling or analyses of soil, ground water, surface water, air or hazardous building materials or a chain of title review.
17. Unless otherwise stated, this assessment has considered the ongoing use of the Site and has not been prepared for the purposes of redevelopment which may act as a trigger for Site investigation and remediation works not needed for ongoing use

Appendix B Explanation of Terms

Age Class

Young (Y) – Establishing tree that could be transplanted without specialist equipment.

Semi-mature (SM) – Fully established but has not reached its ultimate height and has significant growth potential.

Early-mature (EM) – A tree reaching its ultimate potential height, growth rate is slowing, will still increase in DBH.

Mature (M) – A mature specimen with limited potential for any significant increase in size.

Over Mature (OM) – A senescent or moribund specimen with a limited safe useful life expectancy.

Veteran (V) – A specimen of high value due to either its age, size, or ecological significance. Can be identified by the presence of specific characteristics.

Stem Diameter

The diameter of the stem measured in millimetres (mm) at a height of 1.5m above ground level

Crown Spread

Average measured in metres using a ground tape where possible

Physiological Condition

Good – Healthy tree with no signs of ill health and signs of good extension growth for species

Fair – Trees with signs of disease, minor defects and decreased life expectancy due to physical damage

Poor – Trees with significant disease, significantly reduced life expectancy and/or under major physiological stress

Dead – Dead tree or trees with over 70% crown dieback

Structural Condition

Good – Trees with no significant defects

Fair – Trees with remedial defects which require minor tree surgery works

Poor – Trees with remedial defects which require significant tree surgery works or felling

Dead – Trees which require felling

BS 5837 Retention Category

Each tree, group of trees or hedge is assigned to a retention category. Category A trees of high quality and amenity value. Category B trees of moderate quality and amenity value. Category C trees of low quality or amenity value. Category U trees of very low quality or requiring immediate removal due to health and safety concerns

British Standards BS 5837:2012 recommends that these categories may be further broken down into sub-categories A1 A2 A3 pertaining to Arboricultural, Landscape or Cultural values respectively.

Deadwood

Minor – <70mm diameter

Moderate – >70mm and <150mm diameter

Major – >150mm diameter

Appendix C Schedule of Trees

Client: M&G Real Estate

Project: Land off Kirton's Farm Road, Reading

Survey date: 29 May 2026

Surveyor: Kofi Bernson (BSc)

Tree ID	Species	Height (m)	Stem diameter (mm)	Crown spread (m)				Crown clearance			RPA Radius (m)	RPA (m²) (T) / RPA Offset (m) (G, H, W)	Age class	Physiological condition	Structural condition	Comments	Estimated remaining contribution (years)	Category grading
				N	E	S	W	Canopy CI (m)	Branch CI (m)	Branch Dir								
T1	Alder (<i>Alnus glutinosa</i>)	12	1500	7	5	7	6	2	2	-	15.0	706.9	OM	Good	Good	A historic alder. Extensive Ivy cladding ends inspection. Eight codominant secondary leaders originate from 1m in height. Exposed roots at base of the tree.	40+	A1
T2	Hazel (<i>Corylus avellana</i>)	7	400	7	7	6	7	1	1	-	4.8	72.4	M	Good	Good	A historically coppiced hazel, with extensive new growth. Heavy Ivy cover up the main stems' limits inspection.	40+	B1
T3	Ash (<i>Fraxinus excelsior</i>)	12	600	7	9	7	7	3	3	-	7.2	162.9	M	Good	Good	Three predominant leaders originate from the base. Eastern most leader runs parallel to the ground before diverting up. Minor symptoms consistent with early-stage dieback noted, including thinning upper crown and approximately 5% deadwood in upper crown.	40+	B1

Tree ID	Species	Height (m)	Stem diameter (mm)	Crown spread (m)				Crown clearance			RPA Radius (m)	RPA (m²) (T) / RPA Offset (m) (G, H, W)	Age class	Physiological condition	Structural condition	Comments	Estimated remaining contribution (years)	Category grading
				N	E	S	W	Canopy CI (m)	Branch CI (m)	Branch Dir								
T4	Unknown (Standing dead)	12	170	3	6	3	5	0	0	-	0	0	M	Dead	Poor	Unknown species (likely ash). Specimen has suffered catastrophic failure at the base of the tree. Large fallen primary leaders to the south and west. Ivy has colonised the remaining areas of primary stem. Tree can be removed if required by the contractor. There are no known ecological constraints related to this tree detailed in the Preliminary Ecological Appraisal document 30280066-AUK-XX-ZZ-TR-KK-0052-P001 but the adjacent tree T6 is known to have bat roosting potential which would need to be managed prior to removal.	<10	U
T5	Field Maple (Acer campestre)	7	250	5	6	6	2	3	3	-	3	28.3	M	Good	Good	Situated directly adjacent to a large ash tree. Minor deadwood in the lowest section of the crown.	40+	B1
T6	Ash (Fraxinus excelsior)	12	200	5	3	6	5	2	2	-	2.4	18.1	M	Fair	Fair	Symptoms consistent with dieback present. Thinning noted throughout the crown with associated deadwood. Three predominant leaders originate from the base.	10+	C1
T7	Ash (Fraxinus excelsior)	12	250	4	4	4	4	2	3	-	3	28.3	M	Good	Good	Eight codominant leaders originate from the base.	20+	C1
T8	Ash (Fraxinus excelsior)	7	300	6	6	6	6	4	5	-	3.6	40.7	M	Good	Good	Ash situated within a parcel of scrub.	40+	B1
T9	Ash (Fraxinus excelsior)	12	200	2	2	2	2	1	1	-	2.4	18.1	SM	Good	Good	Young Ash	10+	C1

Tree ID	Species	Height (m)	Stem diameter (mm)	Crown spread (m)				Crown clearance			RPA Radius (m)	RPA (m²) (T) / RPA Offset (m) (G, H, W)	Age class	Physiological condition	Structural condition	Comments	Estimated remaining contribution (years)	Category grading
				N	E	S	W	Canopy CI (m)	Branch CI (m)	Branch Dir								
T10 #	Ash (<i>Fraxinus excelsior</i>)	12	400	7	7	7	7	3	3	-	4.8	72.4	M	Good	Fair	An inaccessible ash tree. Southernmost primary leader originating from the base appears to be dead. Moderate deadwood in the lower sections of the crown.	40+	B1
G1 #	Mixed species: Hazel (<i>Corylus avellana</i>), Hawthorn (<i>Crataegus monogyna</i>)	7	225	7	7	7	7	1	1	-	22.9	1	M	Good	Good	A group of historically coped Hazel and mature Hawthorne. Large area of group inaccessible due to fencing. Heavy ivy and vegetation cover hinders inspection.	20+	B2
G2	Mixed species: Ash (<i>Fraxinus excelsior</i>), Hazel (<i>Corylus avellana</i>)	7	175	4	4	4	4	2	2	-	13.9	1	M	Poor	Fair	Several standing dead. Hazel displaying reduced vitality, as well as Ash which show symptoms consistent with early-stage dieback.	10+	C2
G3	Ash (<i>Fraxinus excelsior</i>)	5	150	2	2	2	2	2	3	-	10.2	1	SM	Poor	Poor	A group of approximately five young ash trees which have produced no leaves and may be dead.	<10	U
G4	Goat Willow (<i>Salix caprea</i>)	9	300	4	4	4	4	2	3	-	40.7	1	M	Good	Good	Willow dominated group with a ditch beneath it.	20+	B2
G5	Mixed species: Alder (<i>Alnus glutinosa</i>), Goat Willow (<i>Salix caprea</i>)	9	200	5	5	5	5	2	3	-	18.1	1	M	Good	Good	A group of Willow and Alder running along a ditch	20+	B2
G6	Mixed species: Alder (<i>Alnus glutinosa</i>), Goat Willow (<i>Salix caprea</i>)	9	200	5	5	5	5	2	3	-	18.1	1	M	Good	Good	A group of Willow and Alder running along a ditch	20+	B2

Tree ID	Species	Height (m)	Stem diameter (mm)	Crown spread (m)				Crown clearance			RPA Radius (m)	RPA (m²) (T) / RPA Offset (m) (G, H, W)	Age class	Physiological condition	Structural condition	Comments	Estimated remaining contribution (years)	Category grading
				N	E	S	W	Canopy CI (m)	Branch CI (m)	Branch Dir								
G7 #	Mixed species: Grey Willow (<i>Salix cinerea</i>), Alder (<i>Alnus glutinosa</i>)	12	250	6	6	6	6	1	2.5	-	28.3	1	M	Good	Good	A parcel of mature Willow and Alder. Dense vegetation around the base of the group prevents comprehensive inspection.	20+	B2
G8 #	Mixed species: Hawthorn (<i>Crataegus monogyna</i>), Grey Willow (<i>Salix cinerea</i>), Pedunculate Oak (<i>Quercus robur</i>)	8	233	3	3	3	3	2	2	-	24.6	1	SM	Good	Good	Inaccessible, dense parcel of Hawthorn, Willow and Oak.	20+	B2
G9 #	Mixed species: Hazel (<i>Corylus avellana</i>), Ash (<i>Fraxinus excelsior</i>), Grey Willow (<i>Salix cinerea</i>), Hawthorn (<i>Crataegus monogyna</i>)	12	126	6	6	6	6	1	1	-	7.2	1	M	Good	Good	Large mature ash trees within group. Mainly inaccessible due to dense vegetation.	20+	B2
G10	Mixed species: Goat Willow (<i>Salix caprea</i>), Ash (<i>Fraxinus excelsior</i>)	8	125	4	4	4	4	2	3	-	7.1	1	M	Good	Good	Group of semimature Willow and ash	10+	C2
G11	Mixed species: Blackthorn (<i>Prunus spinosa</i>), Hazel (<i>Corylus avellana</i>)	6	175	4	4	4	4	1	2	-	13.9	1	M	Good	Good	Small group of blackthorn and historically coppiced hazel.	20+	B2
G12	Mixed species: Ash (<i>Fraxinus excelsior</i>), Hazel (<i>Corylus avellana</i>)	5	125	2	2	2	2	2	2	-	7.1	1	SM	Good	Good	A group of semimature Hazel and Ash. Adjacent to a road.	20+	B2

Tree ID	Species	Height (m)	Stem diameter (mm)	Crown spread (m)				Crown clearance			RPA Radius (m)	RPA (m²) (T) / RPA Offset (m) (G, H, W)	Age class	Physiological condition	Structural condition	Comments	Estimated remaining contribution (years)	Category grading
				N	E	S	W	Canopy Cl (m)	Branch Cl (m)	Branch Dir								
G13	Mixed species: Crack willow (<i>Salix fragilis</i>), Goat Willow (<i>Salix caprea</i>)	13	200	4	4	4	4	3	3	-	18.1	1	M	Good	Good	A group of willow, adjacent to a road	20+	B2
G14	Mixed species: Goat Willow (<i>Salix caprea</i>), Crack willow (<i>Salix fragilis</i>)	12	175	4	4	4	4	3	3	-	13.9	1	M	Good	Good	A group of willow, adjacent to a road	20+	B2
G15 #	Mixed species: Hawthorn (<i>Crataegus monogyna</i>), Crack willow (<i>Salix fragilis</i>), Goat Willow (<i>Salix caprea</i>)	11	183	3	3	3	3	3	3	-	15.2	1	M	Good	Good	Adjacent to road. Inaccessible due to dense vegetation.	20+	B2
H1	Mixed species (Mixed sp)	2	75	1	1	1	1	0	0	-	0.9	2.5	SM	Good	Good	A Dogwood dominated hedge	10+	C2

Trees unsuitable for retention				
Category and Definition	Criteria (including subcategories where appropriate)			Identification on Plan
Category U Those in such a condition that they cannot realistically be retained as a living tree 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 U category trees (i.e. Where for whatever reason the loss of companion shelter cannot be mitigated by pruning) Trees that are dead or are showing signs of significant immediate or irreversible overall decline. Trees infected with pathogens of significance to the health and or safety of other trees nearby by or very low-quality trees suppressing adjacent trees of better quality.			Red
Trees to be considered for retention				
Category and Definition	Mainly arboricultural values	Mainly landscape values	Mainly cultural values	Identification on Plan
Category A Trees of high quality with an estimated remaining life expectancy of at least 40 years	Trees that are a particularly good example of their species, especially if rare or unusual, or essential components of groups or of formal or semi-formal arboricultural features.	Tree groups or woodlands of particular visual importance as arboricultural and/or landscape features.	Tree groups or woodlands of significant conservation historical, commemorative or other value	Green
Category B Trees of moderate quality with an estimated remaining life expectancy of at least 20 years.	Trees that might be included in the high category but are downgraded because of impaired condition.	Trees present in numbers, usually as groups or woodlands such that they attract a higher collective rating than they might as individuals: or trees occurring as collectives but situated so as to make little visual contribution to the wider locality.	Trees with material conservation or other cultural benefits.	Blue
Category C Trees of low quality with an estimated remaining life expectancy of at least 10 years, or young trees with a stem diameter below 150mm.	Unremarkable trees of very limited merit or such impaired condition that they do not qualify in higher categories.	Trees present in groups or woodlands but without this conferring on them significantly greater landscape value and/or trees offering low or only temporary/transient landscape benefits.	Trees with no material conservation or other cultural benefits.	Grey

Appendix D Preliminary Tree Protection Measures

Overview

These Preliminary Tree Protection Measures provide generic best practice measures to be adopted to protect retained trees during the site restoration process. It has been prepared to inform the planning and the site restoration process. Should a bespoke AMS be recommended by the suitably qualified arboriculturist, one should be drawn up in liaison with the contractor undertaking the works.

Protective Fencing

The purpose of this fencing is to provide protection to the RPAs of retained trees/groups and to protect trees and hedgerows prior to their translocation. The type of fencing used shall be appropriate to the level of adjacent site restoration activity and shall be agreed with the Local Authority tree officer. Weather-proof notices shall be attached to any protective fencing located adjacent to retained trees displaying the words "Construction Exclusion Zone" and listing restrictions which apply. All personnel must be made aware of these restrictions.

Fencing Specifications may comprise BS 5837:2012 Specification Heras and Scaffold back propped panelling for high activity areas, Heras Pannel Fencing for areas of moderate activity areas, or chestnut pail fencing or orange weldmesh barrier fencing for areas of low activity

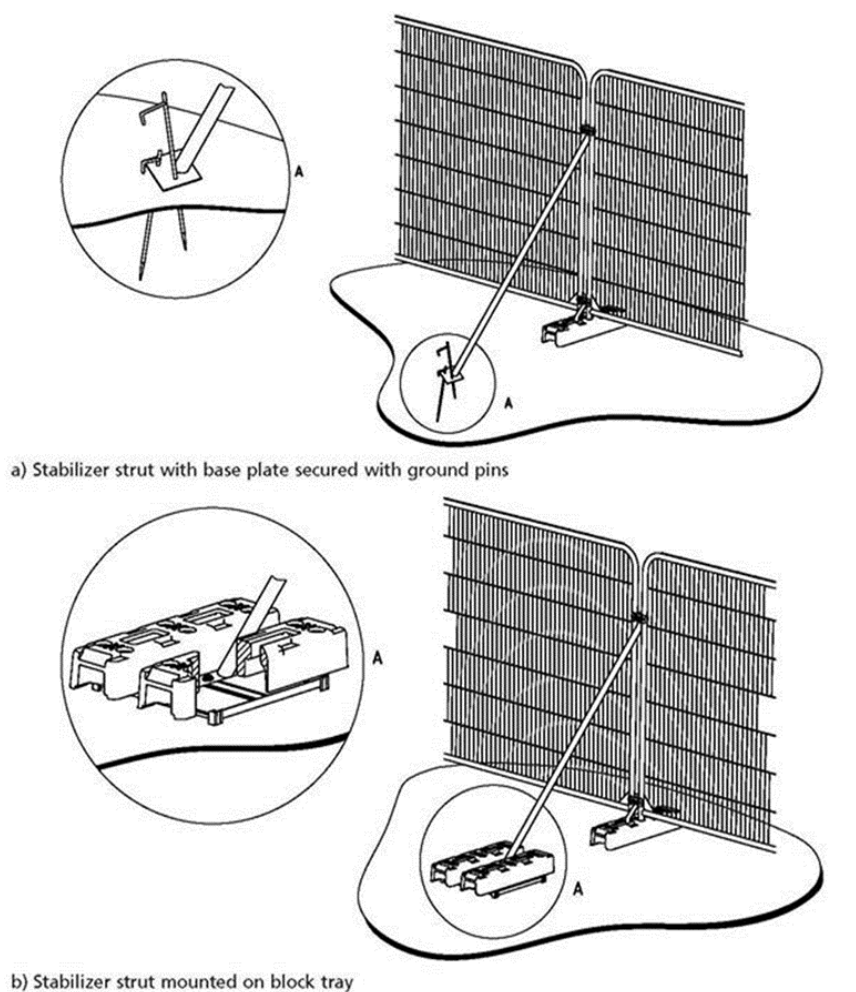


Figure C1 Tree protection fencing specification (extract from BS 5837: 2012)

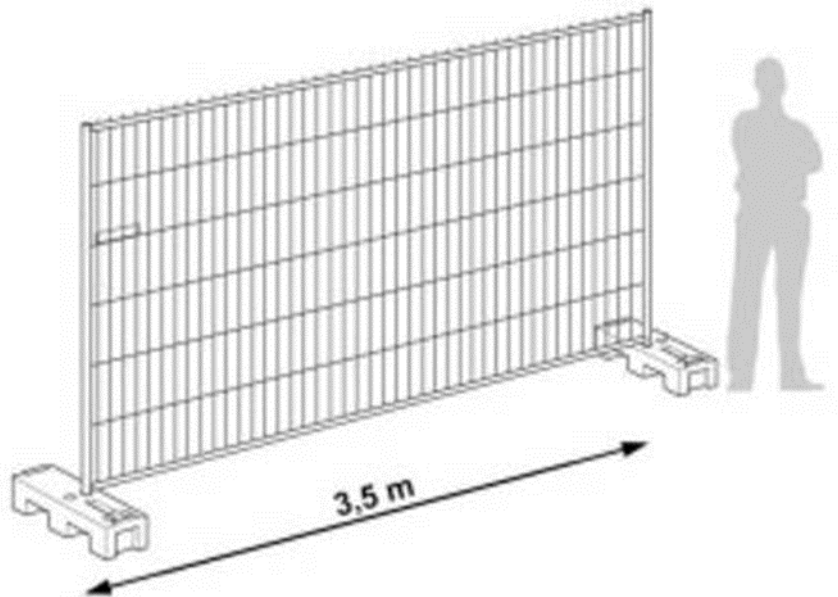


Figure C2 Tree protection fencing specification (Heras Panelling)



Figure C3 Tree protection fencing specification (Orange Weldmesh or Chestnut Pail)

Construction Exclusion Zone (CEZ)

The Construction Exclusion Zone (CEZ) is the area identified by a suitably qualified arboriculturist as the area to be protected during development, from site clearance and construction work through the use of barriers and/or ground protection to ensure the successful long-term retention of a tree. Fencing or ground protection shall not be taken down or relocated at any time without prior agreement and/or site supervision as recommended by the arboriculturist.

All areas excluded by protective tree fencing shall be treated as CEZs, and the following restrictions shall apply:

- No construction activity must occur within these areas.
- No works on trees unless agreed by a suitably qualified arboriculturist.
- No alterations of ground levels or conditions.
- No chemicals or cement washings.
- No excavation.
- No temporary structures*
- No storage of soil, rubble or other materials.
- No vehicles or machinery to be used or parked without appropriate ground protection measures as per BS5837 recommendations. This will require the use of a proprietary system of reinforced concrete slabs/steel road plates on a compressible layer, or side butting scaffold boards/ 18mm plywood sheets on a compressible layer. The type of ground protection used shall be appropriate for the likely loading applied.
- No fixtures (lighting, signs etc.) to be attached to trees.
- No fires within 10 metres of the canopies of any tree or hedgerow.
 - *Site huts, provided they are of the “Jack Leg” type, can be sited to act as ground protection for the duration of the construction.

Temporary Ground Protection

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. The ground protection might comprise one of the following:

- 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;
- 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;
- 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.

New Permanent Surfacing Within RPAs

Any new surfacing within the RPAs shall occur above ground level without soil stripping. New surfaces shall be constructed on a cellular confinement to prevent localised compaction of the rooting medium post development. Porous geotextile membranes shall be used both above and below the cellular confinement system to prevent mixing of materials with the binding layer or the soil. The new surface needs to be permeable to air and water (resin bound gravel or similar is recommended). This is to allow roots to respire without there being a build-up of carbon dioxide, and to ensure the roots continue to receive the moisture and oxygen they require to function. Traditional kerbing requires excavation to install and will therefore not be suitable within the root protection areas of retained trees. As an alternative, haunched kerbing, treated timber edging, aluminium L-shaped edging, galvanised metal edging or no fixed edging shall be used. Construction of the new surface will require access into the construction exclusion zone defined by the temporary ground protection. The ground protection shall not be removed until new surface is installed. The root protection areas should not be left exposed during construction.

General Canopy Protection

Since the canopies of retained trees may be in close proximity to areas of plant operation, the following restrictions will apply:

- All plant will be sited outside the defined RPAs of retained trees / groups, and the appointed contractor will ensure all relevant personnel shall be made aware of the location of branches and the need to avoid causing damage to them.
- Prior to the implementation of lifting operations, a representative from the equipment supply company shall visit the site and ensure all operations can be completed without causing damage to retained trees. A lifting plan will be prepared and submitted for approval prior to all lifting operations. The lifting plan will make provision for the potential for damage of retained trees.
- All lifting operations will be completed under the close direction of a qualified banksman, who will be briefed by the appointed contractor as to the need to avoid damage the stems and branches of retained trees.
- Should additional tree removal or pruning be required the Local Authority Tree Officer shall be contacted and the scope of works agreed in writing.

Hazardous Materials

Any mixing of cement-based materials is to take place outside the RPAs of all trees. Provision shall be made to ensure that the mixing area is contained so that no water runoff enters the RPAs of any trees. All mixers and barrows shall be cleaned within this dedicated mixing area.

All other chemicals hazardous to tree health, including petrol and diesel, are to be stored in suitable containers as specified by the Control of Substances Hazardous to Health (COSHH) Regulations (2002) (Ref 4), and kept away from the RPAs.

Example of Protective Fencing Signs



Appendix E Photographs

Tree No.	Description	Photograph
T1	Category A Alder (<i>Alnus glutinosa</i>)	
T2	Category B Hazel (<i>Corylus avellana</i>)	

Tree No.	Description	Photograph
T3	Category B Ash (<i>Fraxinus excelsior</i>)	
T4	Category U Unknown species (likely <i>Fraxinus excelsior</i>)	

Tree No.	Description	Photograph
T5	Category B Field Maple (<i>Acer campestre</i>)	
T6	Category C Ash (<i>Fraxinus excelsior</i>)	

Tree No.	Description	Photograph
T7	Category C Ash (<i>Fraxinus excelsior</i>)	
T8	Category B Ash (<i>Fraxinus excelsior</i>)	

Tree No.	Description	Photograph
T9	Category C Ash (<i>Fraxinus excelsior</i>)	
T10	Category B Ash (<i>Fraxinus excelsior</i>)	

Tree No.	Description	Photograph
G1	Category C Mixed species: Hazel (<i>Corylus avellana</i>), Hawthorn (<i>Crataegus monogyna</i>)	
G2	Category B Mixed species: Ash (<i>Fraxinus excelsior</i>), Hazel (<i>Corylus avellana</i>)	
G3	Category U Ash (<i>Fraxinus excelsior</i>)	

Tree No.	Description	Photograph
G4	Category B Goat Willow (<i>Salix caprea</i>)	
G5	Category B Mixed species: Alder (<i>Alnus glutinosa</i>), Goat Willow (<i>Salix caprea</i>)	
G6	Category B Mixed species: Alder (<i>Alnus glutinosa</i>), Goat Willow (<i>Salix caprea</i>)	

Tree No.	Description	Photograph
G7	Category B Mixed species: Grey Willow (<i>Salix cinerea</i>), Alder (<i>Alnus glutinosa</i>)	
G8	Category B Mixed species: Hawthorn (<i>Crataegus monogyna</i>), Grey Willow (<i>Salix cinerea</i>), Pedunculate Oak (<i>Quercus robur</i>)	
G9	Category B Mixed species: Hazel (<i>Corylus avellana</i>), Ash (<i>Fraxinus excelsior</i>), Grey Willow (<i>Salix cinerea</i>), Hawthorn (<i>Crataegus monogyna</i>)	

Tree No.	Description	Photograph
G10	Category B Mixed species: Goat Willow (<i>Salix caprea</i>), Ash (<i>Fraxinus excelsior</i>)	
G11	Category C Mixed species: Blackthorn (<i>Prunus spinosa</i>), Hazel (<i>Corylus avellana</i>)	
G12	Category B Mixed species: Ash (<i>Fraxinus excelsior</i>), Hazel (<i>Corylus avellana</i>)	

Tree No.	Description	Photograph
G13	Category B Mixed species: Crack Willow (<i>Salix fragilis</i>), Goat Willow (<i>Salix caprea</i>)	
G14	Category B Mixed species: Goat Willow (<i>Salix caprea</i>), Crack Willow (<i>Salix fragilis</i>)	
G15	Category B Mixed species: Hawthorn (<i>Crataegus monogyna</i>), Crack Willow (<i>Salix fragilis</i>), Goat Willow (<i>Salix caprea</i>)	

Tree No.	Description	Photograph
H1	Category C Mixed species (Mixed sp)	



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