The Cambridge South East Transport Order

Transport And Works Act 1992

Transport And Works (Applications And Objections Procedure) (England And Wales) Rules 2006

Appendix 11.4 Arboricultural Impact Assessment

Document Reference	CSET-10-47
Revision Number	00
Applicant	Cambridgeshire County Council
Date	January 2025

Appendix 11.4 Arboricultural Impact Assessment

Introduction

Terms of reference

11.4.1 Atkins, a member of SNC-Lavalin Group, was commissioned by Greater Cambridge Partnership (GCP) to undertake a tree survey in accordance with the British Standard BS 5837:2012 *'Trees in Relation to Design, Demolition and Construction – Recommendations'* to support the design and planning submission of the Cambridge South East Transport Phase 2 (CSET2) project, herein referred to as the Proposed Development.

11.4.2 GCP is the local delivery body for a City Deal with central Government to bring powers and investment to the region, including improvements to critical infrastructure. GCP comprises four partners:

- Cambridge City Council
- Cambridgeshire County Council
- South Cambridgeshire District Council
- University of Cambridge

11.4.3 Through the City Deal, funding has been secured to develop a series of transport infrastructure improvements to address the problems of congestion. The Proposed Development has been identified as part of these transport improvements.

11.4.4 GCP are the applicant for a Transport and Works Act Order (TWAO) which will provide the required consent for the Proposed Development. The Transport and Works Act 1992 (as amended) provides the necessary powers for the relevant Secretary of State to make an order allowing for the construction and operation of a guided transport system. In doing so, the Secretary of State and applicant must follow the rules and procedures set out in The Transport and Works (Applications and Objections Procedure) (England and Wales) Rules 2006 (as amended) (the 'Rules').

11.4.5 The Rules state that the TWAO application must be accompanied by an Environmental Statement (ES), unless the Secretary of State has provided a direction that an ES is not required. No such direction has been issued and an ES is therefore required to be included in the application documents. This report sits as an Annex to the ES and is required as specified by the Secretary of State in the Scoping Opinion.

11.4.6 Rule 13B of the Transport and Works Act 1992 (as amended) requires the Secretary of State to consider the information contained within the ES and form a reasoned conclusion about the likely significant effects of the Proposed Development on the environment prior to determining the TWAO application.

11.4.7 The purpose of this report is to provide the information required by the Secretary of State to form such a reasoned conclusion and determine the TWAO application. It forms an Annex to the Landscape chapter of the ES.

11.4.8 This report is an Arboricultural Impact Assessment (AIA), focusing on the trees within the extents of the Proposed Development. It reports on the impacts on the recorded trees from the proposals and is supplemented by the production of Tree Protection Plans (TPPs), which are included within Annex D of this report.

Site location

11.4.9 The Site comprises all of the land within the red line boundary which coincides with the proposed Transport and Works Act Order Limits. This includes both the permanent land take required for the physical infrastructure, landscaping, and mitigation, as well as temporary land take required for construction that will be handed back to land-owners once construction is complete.

11.4.10 See Figure A11.4.1 for Site extents.

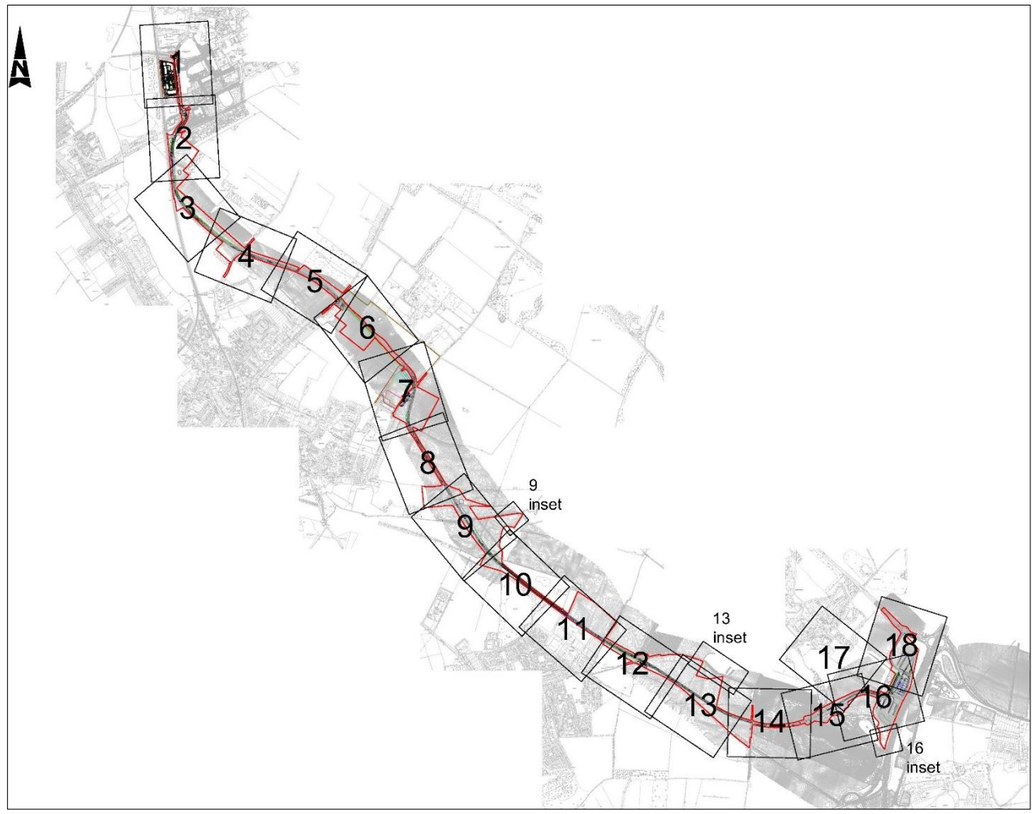


Figure A11.4.1 Site extents

11.4.11 The Site is located in the south east of Cambridge city, starting at the Cambridge Biomedical Campus, where it ties in to the existing Francis Crick Avenue, curving south-westwards towards the Cambridge – Liverpool Street railway line, owned and operated by Network Rail. As the busway approaches the railway it curves south, running parallel with the railway, before turning south eastwards around the north eastern fringes of Great Shelford, crossing Granham's Road and Hinton Way.

11.4.12 The busway continues in a south-easterly direction around Stapleford before curving southwards as it crosses Haverhill Road and continuing on to Sawston. As the busway approaches Sawston it crosses the River Granta and curves slightly eastwards to pass around and adjacent to the north eastern outskirts of the village before crossing the Babraham / Sawston Road.

11.4.13 Continuing in a south-easterly direction, the busway crosses High Street before curving eastwards, and slightly to the north, crossing the River Granta and on towards the new A11 Travel Hub. The travel hub comprises the southern-most extent of the physical infrastructure of the Proposed Development and is located on a plot of land adjacent to the A11 and A1307 road junction at Babraham.

The Proposed Development

11.4.14 The Proposed Development comprises the construction and operation of a sensory guided busway, travel hub, and multipurpose track (for maintenance and active travel) to the south east of Cambridge within a rural corridor between the A1307 to the east, the A1301 to the west, the A11 to the south and the Cambridge Biomedical Campus to the north.

11.4.15 There are three proposed bus stops along the route at Sawston, Stapleford, and Great Shelford, ultimately finishing at the A11 Travel Hub. The Proposed Development includes both the physical infrastructure of the new busway, and the bus services which will continue beyond the busway into Cambridge city centre and onwards to surrounding villages.

11.4.16 Further detail on the Proposed Development, including a typical cross section of the offline busway are provided within Volume 2, Chapter 2. There are also new bridge structures to cross the River Granta at Stapleford and Babraham, and for the Hobson's Conduit. There are also four culverts proposed along the Proposed Development. Information on these are provided within other documents submitted as part of the TWAO.

11.4.17 The Proposed Development is shown on the TPPs (Annex D) and these have been used to confirm the impact of the current proposals on the tree stock within the site extents.

Scope of works

11.4.18 Atkins' Associate Arboriculturist and Landscape Manager Tom Dale BSc (Hons), Cert Arb L6 (ABC), M.Arbor.A.

11.4.19 Atkins have adopted the ECUS Ltd tree data submitted as an Arboricultural Impact Assessment and accompanied by Tree Protection Plans within document reference Annex M.5 CSET-097.

11.4.20 The scope of works includes:

- A review of the trees that have been surveyed previously by ECUS Ltd
- Further survey of trees that could be impacted by the Proposed Development;
- The preparation of an AIA;
- The preparation of TPP drawings which display in graphic form the trees surveyed and the current impact of the works.

11.4.21 This report has been prepared by an Arboriculturist with over 18 years' experience, and who is a Professional Member of the Arboricultural Association with a Level 6 qualification in Arboriculture.

Methodology

General

11.4.22 This tree survey has been undertaken in accordance with BS5837:2012 Trees in Relation to Design, Demolition and Construction – Recommendations. The standard gives recommendations and guidance on the relationship between trees and the design, demolition and construction process, setting out the principles and procedures to be applied to achieve a harmonious and sustainable relationship between trees and structures.

11.4.23 BS5837:2012 does not set explicit parameters for measuring the sensitivity of an arboricultural resource; nor does it assess the magnitude of impact of a proposed development on trees (other than by providing a record of the number or area of trees that would need to be removed to facilitate the development as presented at time of submission). Rather, the British Standard provides parameters which enable the Arboriculturist to assess the quality of all the trees and other arboricultural features that may be affected by the development that is proposed.

11.4.24 Whilst the BS categories are open to varied interpretation, the guidelines in the cascade chart of BS 5837:2012 (see insert A.1 in Annex A of this report) provide details on how to determine tree qualities and can be used to inform the design process to retain those trees of higher quality where possible.

Planning policy and deinition of veteran trees

11.4.25 The definition of veteran trees for the purposes of this assessment follows the core standing advice and planning policy.

11.4.26 The 'Standing Advice' on ancient woodland, ancient trees and veteran trees provides guiding principles for the classification of ancient and veteran trees. These principles are also covered within the Forestry Commission and Natural England (NE) guidance.

11.4.27 The standing advice clearly defines veteran trees as:

"All ancient trees are veteran trees, but not all veteran trees are ancient. A veteran tree may not be very old, but it has decay features, such as branch death and hollowing. These features contribute to its biodiversity, cultural and heritage value".

11.4.28 The is a degree of ambiguity in its definition but it does provide clear guiding principles, namely that veteran trees have:

- Decay features, such as branch death and hollowing; and
- These features contribute to its biodiversity, cultural and heritage value.

11.4.29 The definition of ancient trees supplements this by focusing the definition of veteran trees arguably (but not definitively) on:

- Great age;
- Size;
- Condition;
- Biodiversity value as a result of significant wood decay and the habitat created from the ageing process; and
- Cultural and heritage value.

11.4.30 Very few trees of any species become ancient.

11.4.31 As such this assessment has proceeded on the basis that the classification of veteran trees should take account of the specific features of trees (size and condition) alongside their biodiversity, cultural and heritage value.

11.4.32 The relevant planning policy is detailed within the National Planning Policy Framework (NPPF) 2018 (and subsequently updated so the latest published version is July 2021). The NPPF provides a joint definition of an ancient or veteran tree:

Ancient or veteran tree: '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'.

11.4.33 This definition extends that within the standing advice to include additional criteria:

- Exceptional biodiversity, cultural or heritage value;
- Old relative to other trees of the same species.

11.4.34 Therefore, in line with this policy veteran trees have been classified in accordance with:

- Size.
- Condition (decay features, such as branch death and hollowing, plus associated species).
- Exceptional biodiversity value as a result of significant wood decay and the habit created from the ageing process.
- Exceptional cultural and heritage value.
- Old relative to other trees of the same species.

11.4.35 Further guidance to assist in classifying trees as old for their species based on stem size criteria was obtained from Figure 1.3 'Chart of girth in relation to age and developmental classification of trees' from the Ancient and other veteran trees: further guidance on management (Lonsdale, 2013). This lists tree species against ascending girth measurements to help define whether a tree is locally notable; veteran/notable; ancient or late ancient.

11.4.36 This chart is not definitive and further criteria as detailed previously is also used in the classification of the trees as veteran or locally notable.

11.4.37 Locally notable trees for the purposes of this assessment include those that can be defined as mature and standing out locally because of large size in comparison to other trees in locality or given the presence of veteran habitat features, but do not meet the criteria to be deemed a veteran tree in line with the approach adopted.

11.4.38 The Woodland Trust's Ancient Tree Inventory was also accessed (March 2023) to identify if any trees with the Site extents have been registered on the Trust's inventory as veterans or ancient specimens. This is a material consideration as part of this assessment. However, it does not imply the Arboriculturist agrees with their classification, as the approach may have differed to that applied by the Arboriculturist and author of this report.

11.4.39 The NPPF was updated in July 2018 to provide greater protection for veteran trees (and subsequently updated so the latest published version is 2021). The pertinent section is paragraph 180 c), which states: 'Development resulting in 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'.

11.4.40 Further planning policy in relation to trees and their impacts is covered within Local Planning Policy set by South Cambridgeshire District Council (SCDC) and this is covered within other ES submitted documentation.

Statutory protection

11.4.41 Trees may be protected through a Tree Preservation Order (TPO) or through being located within a Conservation Area. The law on TPOs is in Part VIII of the Town and Country Planning Act 1990 as amended and in the Town and Country Planning (Tree Preservation) (England) Regulations 2012.

11.4.42 A TPO is made by a local authority in respect of a tree(s) as the tree is considered to bring amenity value to the surrounding area. A TPO makes it an offence to cut down, uproot, lop, top, wilfully damage or wilfully destroy a protected tree without authorisation.

11.4.43 The online mapping resource provided by SCDC was accessed (March 2023) to confirm the presence of any TPOs or Conservation Areas within the Site extents.

Spatial scope

11.4.44 The survey works focused on trees within the Site boundary. It is to be noted that this boundary has changed since the ECUS Ltd tree survey, meaning some recorded trees are shown outside of the Site redline boundary.

11.4.45 This AIA is targeted at the impacts on the trees. It does not cover the subsequent impacts such tree removal would have on ecological or landscape receptors which are outlined in specialist documentation provided by these professional disciplines.

11.4.46 The TPPs (see Annex D) illustrate the trees that have been surveyed.

Survey

11.4.47 The approach to the survey involved a ground-level walked assessment by a qualified and experienced Arboriculturist, where access permitted.

11.4.48 The locations of individual trees and the start and end points of groups were adopted from the ECUS Ltd survey or, where possible, plotted using proprietary GIS data capture software on Trimble hand-held mobile mappers. These locations were verified using available aerial imagery and topographical survey data showing tree locations.

11.4.49 The extents of groups not surveyed as part of ground level walked assessments were plotted using available aerial imagery. The ECUS Ltd surveyed trees were incorporated into the TPPs and were checked using available aerial imagery and where access permitted via a ground-level walked assessment.

11.4.50 The adopted ECUS Ltd tree data was recorded as Section A, Section B & Section C with the section letter preceding the tree reference. The arboricultural features were numbered sequentially from 001: individual trees recorded were prefixed with a 'T' (e.g. T001), groups of trees with a 'G', woodlands with a 'W' and hedgerows with a 'H'.

11.4.51 The newly recorded trees by Atkins were not preceded by a section (A, B, C) letter.

11.4.52 No numbered tree tags were used for the survey, but where already fixed to trees these were noted within the survey schedule.

Data gathering

11.4.53 Data was collected following the guidance of BS5837:2012, as outlined in Annex A of this report. The purpose of the tree categorisation method applied by the Arboriculturist was to identity the quality and value (in a non-fiscal sense) of the existing tree stock, allowing informed decisions to be made concerning which trees should be removed or retained if development is to occur.

11.4.54 For a tree to qualify under any given category, it should fall within the scope of that category's definition as defined in Annex A of this report (categories U, A, B, C) and, for trees in categories A to C, it should qualify under one or more of the three subcategories (1, 2, 3). Subcategories 1, 2 and 3 are intended to reflect arboricultural and landscape qualities, and cultural values, respectively.

11.4.55 Trees were recorded as individual specimens or as groups, woodlands, or hedgerows. Where trees were not recorded as an individual specimen, the tree survey data within the schedule is based on what is a reasonable average measurement of the trees/shrubs within the group extents or it's taken from one of the largest specimens within the group.

11.4.56 This level of survey meets the requirements of BS5837:2012, which states that 'trees growing as groups or woodland should be identified and assessed as such'. The standard defines the term group as 'trees that form cohesive arboricultural features either aerodynamically (e.g., trees that provide companion shelter), visually (e.g. avenues or screens) or culturally including for biodiversity (e.g. parkland or wood pasture)'.

11.4.57 Crown spreads of the surveyed trees were given as an average measurement where the tree's crowns were balanced or where recorded as a group, woodland or hedgerow. If there was a notable difference in crown spread to a cardinal point, these were recorded. The average measurement was taken from the cardinal point relevant to the direction of the Proposed Development.

11.4.58 This level of survey is deemed sufficient by the Arboriculturist to establish the extent of the crown spread in the direction of the Proposed Development. All crown spread measurements should be taken from the tree survey schedules (see Annex B). The method of measuring diameters is defined in Annex A of this report and has been applied where access permitted.

Limitations to survey

11.4.59 Where access permitted, trees were identified and inspected from ground level only and were not climbed. No invasive examination techniques (such as increment boring, or internal decay detection) were carried out and as such no assessment of the internal condition of the wood of these trees can be given.

11.4.60 The adopted tree data provided by ECUS Ltd has been reviewed via desktop and, where access permitted, on Site as part of a ground level assessment. This review was not an exhaustive check of all the recorded trees by ECUS Ltd.

11.4.61 Where trees have not been surveyed as part of ground-level walked assessments this is due to the trees being within areas not readily accessible or due Site access limitations. The tree data in these areas, where within or adjacent to the Site, have been estimated using available imagery and supplementary information taken from points of safety. These trees were largely recorded as groups, in line with the BS5837 guidance on what constitutes a 'group' of trees (see section 2.6 above). Therefore, an outline of the groups was plotted using available aerial imagery to capture the combined crown extents of the groups, meaning the use of exact measurements was not required.

11.4.62 The tree survey undertaken is not intended to be a tree risk management survey targeting safety-related issues. However, where specific hazards have been identified these have been recorded and management recommendations provided. These are detailed within the tree survey schedules (see Annex B).

11.4.63 Validity, accuracy, and findings of the tree locations will relate directly to the accuracy of the adopted ECUS Ltd tree survey data, the supplied topographical survey data, available aerial imagery and the GIS data capture software used by Atkins. As such the accuracy of the tree locations is potentially open to discrepancies and their locations should be checked via measured survey prior to construction.

11.4.64 Where tree groups have been illustrated as an outline this covers the extents of the tree group. It does not always illustrate individual trees within the groups. Where individual trees were identified they were plotted separately.

11.4.65 The report does not comment on possible effects of trees on neighbouring properties, including in relation to subsidence or heave, or with regard to possible hazards presented by trees surveyed.

11.4.66 Trees are living organisms subject to changes outside human control. Trees and their environment alter with the seasons and it is as well to inspect trees whilst in full leaf and when out of leaf. Following harsh or unexpected weather conditions, or heavy storms it is also prudent to inspect trees. Changes to ground water conditions will affect the root growth of a tree. Such changes are not always the result of human influence and other factors may be involved.

Existing site conditions

Existing land use

11.4.67 At the northern end of the Proposed Development, the Site is within the Cambridge Biomedical Campus so is within an urban environment dominated by large institutional buildings, some of which are still under construction.

11.4.68 South of the Cambridge Biomedical Campus, the Proposed Development passes through a rural corridor demarcated by the A1307 to the north east, the A11 to the south east, and the A1301 to the south west. The south western part is more developed than the rest of this corridor with the three villages of Great Shelford, Stapleford, and Sawston clustered along the A1301. The Network Rail owned West Anglia Mainline runs along the western part of this corridor and runs parallel and adjacent to the Site between Cambridge and Great Shelford where the railway crosses the A1301 and continues south towards London.

11.4.69 The eastern part of the corridor is much more rural, comprising an open rolling agricultural landscape that is slightly hillier and includes White Hill, Clarke's Hill, Fox Hill, and Magog Down. The small historic village of Babraham is located in the south western corner of the corridor and just north of the village is the Babraham Research Campus, a biotechnology business park.

11.4.70 Meandering through the corridor is the River Granta, classified as a Main River by the Environment Agency. At the southern end of the corridor, around Babraham, the river passes through blocks of woodland that align with the river corridor. As the River Granta approaches Stapleford, it passes through a more open landscape and is a less prominent feature within the landscape.

11.4.71 The other significant surface water course within the development corridor is Hobsons Conduit which originates in the Nine Wells Local Nature Reserve (LNR) and passes under the West Anglia Mainline before joining Hobson's Brook and heading towards the River Cam in Cambridge city centre. The name Nine Wells refers to the multiple chalk springs within the LNR which are the source of Hobson's Conduit.

Existing trees

11.4.72 The existing trees are a mixture of species and age classifications. The quality of the trees is varied with the approximate percentage of the total recorded trees being classified as Category A as 5%; as Category B as 44%; as Category C as 50% and as Category U as 1%.

11.4.73 The survey has recorded individual trees and those included as part of groups or woodland areas. On review of the MAGIC mapping facility[1] (March 2023) provided by Defra, none of the surveyed trees are within areas registered as Ancient and Semi-Natural Woodland.

11.4.74 The MAGIC mapping also identifies areas of Deciduous Woodland recorded as part of the Priority Habitat Inventory.

11.4.75 Nine Wells LNR, see Figure A11.4.2.



Figure A11.4.2 Nine Wells (green hatched)

[1] https://magic.defra.gov.uk/magicmap.aspx

11.4.76 Woodland to the west of Hinton Way see Figure A11.4.3.



Figure A11.4.3 deciduous woodland (green hatched) to the west of Hinton Way

11.4.77 Deciduous woodland to the north-east of Sawston, adjacent to refuse tip, see Figure A11.4.4.



Figure A11.4.4 deciduous woodland (green hatched) to the north-west of West Way in Sawston, adjacent to refuse tip

11.4.78 Deciduous woodland either side of the High Street, see Figure A11.4.5.

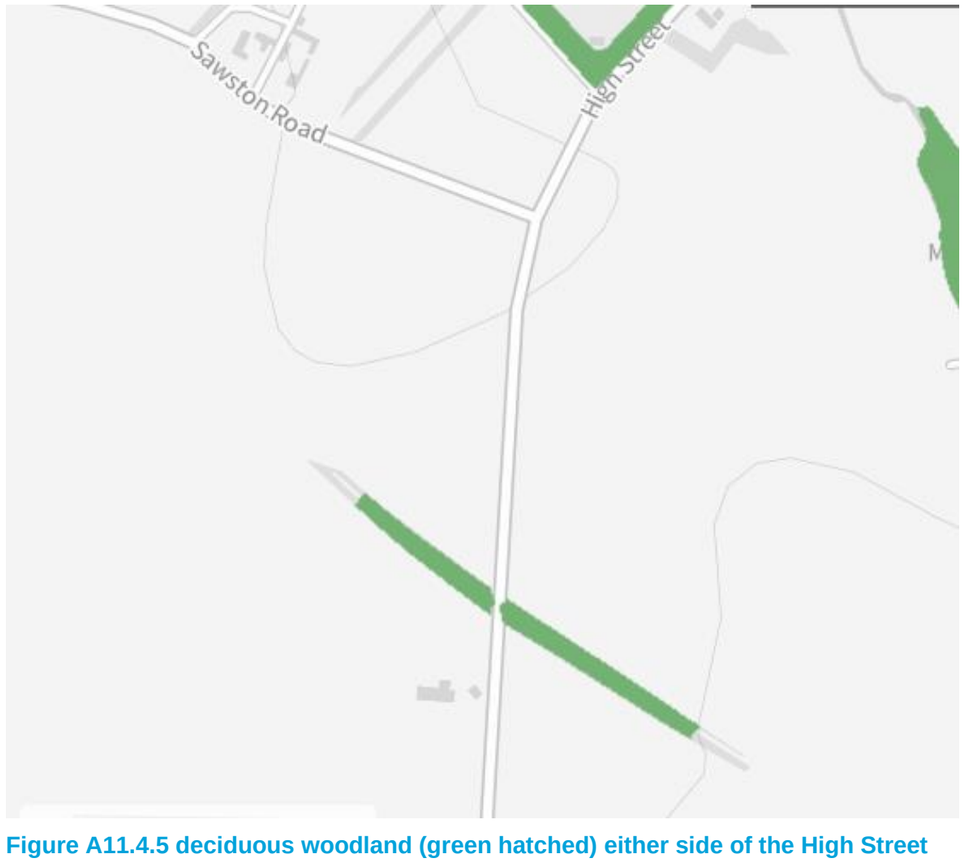


Figure A11.4.5 deciduous woodland (green hatched) either side of the High Street

11.4.79 Two Acre Plantation; Mill Hole and a deciduous corner group adjacent to the A11 and A1307, see Figure A11.4.6.

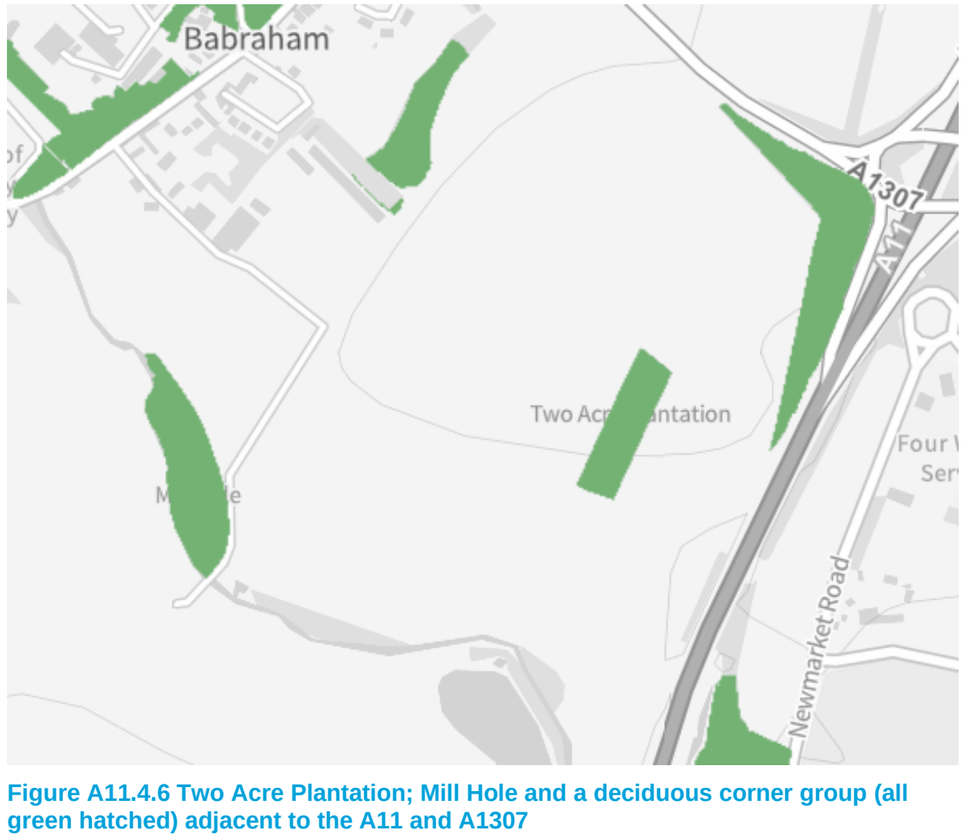


Figure A11.4.6 Two Acre Plantation; Mill Hole and a deciduous corner group (all green hatched) adjacent to the A11 and A1307

11.4.80 All of these deciduous woodland areas are to be retained and protected as part of the Proposed Development during construction.

11.4.81 The survey schedule provided in Annex B provide all the information on the recorded trees and includes preliminary management recommendations. These recommendations being in relation to tree risk management operations, including if the Proposed Development were to proceed and where this would bring people or property in closer proximity to the trees.

11.4.82 The route alignment will cross hedgerow classified as Important Hedgerows in two places (hedgerow 7 along Hinton Way reference BH114, hedgerow 21 to the immediate north of Sawston). At these locations, the hedgerow will be removed and carefully transplanted prior to construction to a permanent new location as close to its original position as possible.

Veteran trees

11.4.83 The only tree classified as veteran by ECUS Ltd is reference BT056 (Crack willow). This tree is now located outside of the redline Site boundary and will not be impacted upon by the Proposed Development.

11.4.84 No veteran trees have been recorded by Atkins' as part of their survey.

11.4.85 No veteran trees have been registered on the Ancient Tree Inventory[2] within the Site extents.

Statutory protection

11.4.86 The online mapping facility provided by SCDC has been reviewed to confirm the presence of any TPOs or Conservation Areas that maybe impacted upon by the Proposed Development and those directly adjacent.

11.4.87 The relevant inserts are included below taken from the SCDC mapping facility. The blue dots and polygons are the TPO where illustrated. A pink outline illustrates Conservation Area extents.

11.4.88 TPO 0012 (2002) – recorded as BG063 as part of tree survey, see Figure A11.4.7 for TPO extents and an insert of the available aerial google imagery for this location (which is located to the north of the River Granta).



Figure A11.4.7 TPO 0012 (2002) extents and extract of google aerial

11.4.89 TPO 0009 (2002) – tree number T23, tree type ash. Recorded as T019 as part of tree survey, see Figure A11.4.8 for TPO location and insert of the available aerial google imagery (April 2021 image) for this location (which is located to the south of Haverhill Road).



Figure A11.4.8 TPO 0009 (2002) T23 and extract of google streetview

11.4.90 TPO 0034 (2002) – tree number T20, tree type horse chestnut; tree number T21, tree type Norway maple; tree number T22, tree type lime; tree number T24, tree type ash. These trees are the four dots commencing from Hinton Way (tree T20 is directly on Hinton Way). These trees are covered within group recording reference BG094 as part of tree survey. TPO 0034 (2002) tree number G9, tree type various is located to the northwest of the tree dot T24 and adjacent to the Proposed Development, these trees are covered within group recording reference BG095 as part of tree survey. See Figure A11.4.9 for TPO locations.

[2] https://ati.woodlandtrust.org.uk/tree-search/?v=2257170&ml=map&z=12&nwLat=52.177930187838605&nwLng=-0.04683935216043711&seLat=52.06747592230629&seLng=0.46093500086690664



Figure A11.4.9 TPO 0034 (2002) T20, T21, T22, T24 & G9

11.4.91 TPO 0035 (2002) – tree number T17, tree type oak. This tree is reference T001 as part of tree survey and is on the boundary of the Proposed Development. TPO 0035 (2002) tree number W2, tree type various is located along the west side of Granham's Road and adjacent to the Proposed Development. These trees are covered within group recording reference BG115 and individual recording BT116 as part of tree survey.

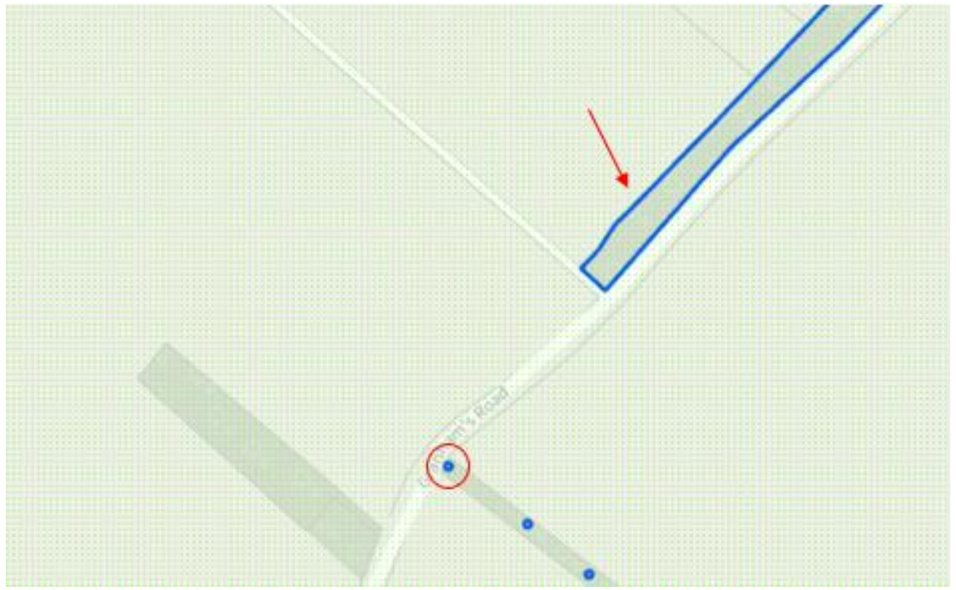


Figure A11.4.20 TPO 0035 (2002) T17 (red circle) & TPO 0029 (2002) W2 (red arrow)

11.4.92 Trees in a conservation area that are not protected by a TPO are protected under the provisions in section 211 of the Town and Country Planning Act 1990. There is a requirement to notify the local planning authority six weeks before carrying out certain work on such trees, unless an exception applies. None of the recorded trees are within a Conservation Area.

11.4.93 Trees should be checked for protected species before works are undertaken. While it is outside of the scope of this tree survey to comment on the confirmed or likely presence of protected animal species, it is against the law to disturb bats or their roosts under the Conservation of Habitat and Species Regulations (2010). Likewise, nesting birds are protected by the Wildlife and Countryside Act (1981) (as amended).

Arboricultural impacts

General

11.4.94 This report determines the impact of the Proposed Development on the recorded tree stock. It provides details on the recorded trees including their condition and in some cases suitability for retention.

11.4.95 The report is supplemented by the TPPs (Annex D) that illustrate the Proposed Development and the recorded trees and trees that would require removal to facilitate the works.

11.4.96 The TPPs are drawing numbers 5212868-ATK-ELS-WHL-DR-LL-000001 - 000019

11.4.97 The drawings cover the outline of the Proposed Development. This means a 'worst-case scenario' is currently having to be presented in terms of tree removals as, during further progression of the design, bespoke engineering options could be explored to retain trees where possible and in consultation with the Arboriculturist. However, in view of the scale of the proposed earthworks, the ability to retain trees safely will be a significant challenge, and one which may not be possible in a lot of cases.

11.4.98 Confirmation on tree removals will be undertaken prior to construction and detailed within a final Arboricultural Method Statement (AMS), that shall also confirm protection measures for the retained trees. Section 5 contains an Outline AMS. The appointed Principal Contractor for the Scheme, as defined under the Construction (Design and Management) Regulations 2015 (CDM 2015) will develop this Outline AMS into a final version during the Detailed Design and Construction stages of the Scheme as part of the Construction Environmental Management Plan (CEMP).

11.4.99 The tree survey schedules within Annex B of this AIA cover all the trees recorded as part of this assessment in line with the BS5837:2012 guidance. A column has been included to indicate the impact of the works.

11.4.100 Entries in the impact column include removal and highlighted as red; part remove and highlighted as orange; and retain and highlighted as green. Where the trees fall outside the Site boundary, the default entry is retained. A further column is included where protection measures are included, these primarily being Tree Protection Fencing at this time, with possible further measures to be identified within the final AMS.

Root protection areas

11.4.101 The root protection area (RPA), as defined in the BS5837:2012, is 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. This area should be protected from disturbance "in order to avoid unacceptable damage to the tree as a result of severance or asphyxiation of the root system."

11.4.102 The recommended minimum area (m²) to avoid potentially harmful disturbance has been calculated and entered into the tree schedules (see Annex B) for all trees. The RPA for each individual tree has been illustrated on the TPPs as a circle centred on the tree's stem, while the RPAs of the tree groups and woodlands have been illustrated as an offset from the canopy extents, unless trees have specifically been recorded within the groups.

11.4.103 The calculation of the RPA does not consider existing site conditions that could affect the morphology of the tree roots, and 'modifications to the shape of the RPA' (para 4.6.2; BS5837:2012) can be undertaken through arboricultural assessment. However, as part of this assessment no modifications have been undertaken. Where existing ditches or highway infrastructure are located the spread of the tree roots is likely to be highly modified.

Arboricultural impacts and mitigation

11.4.104 The impacts of the Proposed Development have been assessed, and Table A11.4.1 reflects the tree totals for the surveyed trees that require removal to facilitate the works. This includes numbers of trees to be removed and also areas to be removed where tree groups were recorded as an outline. These reflect the impact column of the survey schedule.

Table A11.4.1 Arboricultural impact table

Arboricultural features	BS Category reference			
	Category A	Category B	Category C	Category U
Individual Tree (T) (no.)	1	5	18	2
Groups (G) (m^2)	0	604m2	5200 m2	0
Individually referenced trees within groups (no.)	0	0	0	0
Woodlands (W) (m^2)	0	321m2	0	0
Hedgerows (H) (m)	0	506m	135m	0

11.4.105 These trees, groups, woodlands and hedgerows are currently located within the footprint of the Proposed Development. Where trees are partly within the footprint of the works the Arboriculturists have used the percentage of RPA encroachment to determine whether a tree(s) could be retained, also based on existing site conditions that could have inhibited root development.

11.4.106 Where over approximately 20% of their RPAs are severed by the works the trees have been identified for removal. The 20% figure being referenced within BS5837:2012 for what is deemed potentially acceptable in terms of RPA infringement. But this is also dependant on existing site conditions, which have also been considered by the Arboriculturist.

11.4.107 The Proposed Development has been positioned to enable the retention of higher quality trees and to try and avoid areas of deciduous woodland and those protected by TPOs.

11.4.108 The loss of trees is unavoidable and largely limited to field boundaries with the loss of trees being primarily moderate to low quality specimens as defined by their BS Categories. The impacts of the tree loss on ecological or landscape receptors are outlined in specialist documentation provided by these professional disciplines submitted as part of the ES.

11.4.109 A landscape strategy has been adopted which implements various mitigation measures to minimise or compensate for predicted adverse effects to landscape, visual, and ecological receptors. The landscape strategy and design is set out in the draft Landscape and Ecological Management Plan (CSET-10-05-00).

11.4.110 The landscape design seeks to soften the appearance of the hard infrastructure and integrate the Proposed Development into the surrounding landscape. The landscape design also provides replacement and compensatory habitats required to mitigate habitat loss during construction and improve habitat connectivity through the landscape.

11.4.111 The Landscape and Ecological Masterplan (CSET-10-05-00) shows the locations of the proposed planting areas.

Arboricultural imapcts – TPO trees

11.4.112 TPO trees have been identified within the Site and adjacent to the boundary.

11.4.113 No removal of TPO trees has been identified. In some cases, their RPAs extend into the Proposed Development area. Therefore, specific working measures adjacent to the trees would need to be confirmed in order to ensure the protection of the trees during construction. Any specific working measure would need to be confirmed within a final AMS.

Table A11.4.2 Arboricultural impact table – TPO trees

TPO reference	Type of tree(s)	Tree survey reference	Location	Works required as part of the scheme
TPO 0012 (2002)	Various	BG063	North of River Granta, South east of Stapleford	Outside of Site boundary, no impact.
TPO 0009 (2002) – T23	Ash	T019	South of Haverhill Road	Growing on edge of Proposed Development. Tree to be retained. Mitigation measures and any impact to be defined as part of Final AMS.

TPO reference	Type of tree(s)	Tree survey reference	Location	Works required as part of the scheme
TPO 0034 (2002) – T20, T21, T22, T24 & G9	T20- horse chestnut T21- Norway maple T22- lime T24-ash G9- various	BG094 BG095	West of Hinton Way	Growing on edge of Proposed Development. Trees to be retained. Mitigation measures and any impact to be defined as part of Final AMS.
TPO 0035 (2002) – T17	T17-oak	T001	West of Granham's Road	Growing on edge of Proposed Development. Tree to be retained. Mitigation measures and any impact to be defined as part of Final AMS.
TPO 0029 (2002) – W2	W2 – Various	BG115 & BT116	West of Granham's Road	Growing on edge of Proposed Development. Trees to be retained. Mitigation measures and any impact to be defined as part of Final AMS.

Arboricultural impacts – veteran trees and Ancient Woodland

11.4.114 No veteran trees shall be impacted upon by the Proposed Development.

11.4.115 No Ancient Woodland shall be directly impacted upon by the Proposed Development.

Preliminary management recommendations

11.4.116 The tree survey schedules (see Annex B) show management recommendations for those trees which at the time of the survey were identified as requiring management intervention. These works being in response to hazards recorded during the tree survey.

11.4.117 The works are recommendations and tree owners and managers are advised to seek further guidance should a tree on their land require management outside of the Proposed Development.

Outline arboricultural method statement

General

11.4.118 The purpose of this Outline Arboricultural Method Statement (Outline AMS) section is to describe the tree protection measures likely to be required during the implementation of the Proposed Development in line with guidance from the British Standard BS5837:2012 'Trees in Relation to Design, Demolition and Construction – Recommendations'.

11.4.119 The appointed Principal Contractor will develop this Outline AMS into a final version during the detailed design and construction stages of the Proposed Development.

11.4.120 This section describes the tree protection measures likely to be required during the detailed design and construction stages. It sets out the following information:

- Requirements and information for pre-commencement briefings
- The roles and responsibilities associated with the delivery of the protection measures, control and communication
- Mitigation measures to be recorded and implemented
- Review and monitoring mechanisms.

11.4.121 The appointed Principal Contractor is to review the trees impacted by the Proposed Development as part of the construction stage of the Proposed Development and will update the final AMS to support the EMP .

11.4.122 The production of the final AMS is to be undertaken by an experienced Arboriculturist with a minimum of a level 4 qualification in arboriculture and who is a professional member of the Arboricultural Association and appointed by the Principal Contractor, to ensure appropriate mitigation measures are implemented during the construction works and confirm protection measures and trees for retention.

Pre-commencement operations and site briefings

11.4.123 In line with the Outline CEMP, the appointed Principal Contractor is to appoint an Environmental Clerk of Works (ECoW) and a suitably qualified arboricultural specialist to support the detail design and construction stages of the Proposed Development. The Arboriculturist is to produce the final AMS and consult with the relevant stakeholders during its production, notably the Local Authority Tree Officer.

11.4.124 The appointed Principal Contractor is to review the trees impacted upon by the Proposed Development as part of the detailed design stages for the development of the final AMS to support the CEMP. The impact column in the survey schedules in Annex B and the red hatched areas and red crosses as illustrated on the TPPs are to be updated accordingly, where required.

11.4.125 Where trees previously identified for retention are required to be removed as part of detailed design stages, then this information shall form part of the consultation process with the relevant stakeholders. The appointed Principal Contractor would need to ensure that such changes do not give rise to any materially new or materially different environmental effects in comparison with those reported in this AIA.

Work package plans and task briefing sheets

11.4.126 The requirements for tree protection measures shall be included within Work Package Plans (WPPs) and Task Briefing Sheets (TBSs) produced by the appointed Principal Contractor as part of the planning of construction activities. All pre-commencement briefings shall make sure all members of staff working or visiting the area of site being worked upon are aware of the individual responsibilities regarding trees and the tree protection measures required to be in place to continue construction.

11.4.127 In the approval of WPPs and TBSs the reviewer shall make sure any protection of trees has been considered within the area and seek confirmation with either the supervising Arboriculturist or ECoW if further clarification is required.

11.4.128 The pre-commencement site briefings shall be attended by the construction manager or suitable delegate. They shall raise awareness with the relevant parties of the trees within the working extents and confirm the requirements for tree related information to be included within induction material and daily briefings to members of staff working or visiting that area of the Proposed Development.

11.4.129 The briefings shall also confirm the following:

- The location of tree protective barriers
- Tree works to facilitate that phase of the Proposed Development
- Site specific mitigation measures
- Where/when arboricultural supervision will be required.

Contact details

11.4.130 The final AMS that will be produced by the appointed Principal Contractor shall confirm key roles and site contacts. The contacts list should include an Arboriculturist to support the construction phase of the Proposed Development.

Site Supervision

11.4.131 The supervisory role shall be performed by a suitably qualified Arboriculturist. The frequency of these visits should align with key milestones identified in Table A11.4.3 below and shall be undertaken as required during the progression of the Scheme to enable an auditable succession of monitoring events for a review of the protection measures implemented for the trees.

Table A11.4.3 Programme of site supervision

Programme	Arboriculturist or delegate	Supervision
Pre-commencement site meeting	Arboriculturist	a) Confirm location and specification of tree protective barriers b) Confirm tree works to be undertaken c) Confirm requirements for tree protection information to be included in induction details for the site d) Confirm requirements for reporting any tree related incidents e) Confirm ongoing arboricultural monitoring and contact details.
Setting out of protective barriers	Arboriculturist	a) Review location and specification of tree protective barriers b) Confirm any additional tree protection measure requirements c) Submit site monitoring pro forma to the Highways England Project Manager.
During operation as minimum every 8 weeks.	Arboriculturist	a) Review location and specification of tree protective barriers b) Assess condition of retained trees, specifically for any construction related damage c) Confirm any additional tree protection measure requirements d) Submit site monitoring pro forma to the Highways England Project Manager.
Post-construction	Arboriculturist	a) Inspect all retained trees to make sure they have not been damaged during the construction operations b) To instruct any remedial works that may be required should a tree defect be identified as a result of the construction operations.

11.4.132 On completion of each site visit a report or site note should be completed by the arboricultural specialist.

11.4.133 Where emergency matters arise regarding trees, e.g. unexpected access required within construction exclusion zones or damage to retained trees, then an Arboriculturist is to co-ordinate a visit to the site in person or delegate their powers to a suitably qualified person.

11.4.134 Any variations or incidents related to trees shall be reported in writing to the Applicant, or the Project Management Consultant appointed by the Applicant. Details of the variation(s) or incident(s) shall incorporate photographic evidence and site note(s) as appropriate. Suitable remedial measures, including potentially the provision of new planting where deemed appropriate.

Tree Protection Plans (TPPs)

11.4.135 The tree protection plans (TPPs) (Annex D) include the locations of protection fencing likely to be required during the construction stage. Confirmation on the positioning would need to be confirmed by the appointed Principal Contractor as part of the final AMS.

11.4.136 The protected areas once installed shall not be moved or altered without approval by the Arboriculturist and, where necessary following consultation with the local planning authority.

Constrcution Exculsion Zone (CEZ)

11.4.137 The CEZs can be defined as all the soft surfaces within the RPAs of retained trees outside of the works areas and the areas behind the tree protection fencing or site hoarding.

11.4.138 Site operations not permitted in the CEZs without consultation with an Arboriculturist include storage of plant, equipment or materials, vehicular or plant access, washing down of vehicles or machinery, handling, discharge or spillage of any substances, including cement washings, and actions likely to cause localised waterlogging. No mechanical digging, scraping or excavation shall be permitted in the CEZs, nor earthworks or changes in the finished ground levels other than those agreed by an Arboriculturist.

Hand excavations within RPAs

11.4.139 and following a review of the works in the location to make certain there are no other design solutions to avoid the RPA of retained trees.

11.4.140 Where hand excavations are specified, then this would broadly adhere to the following:

- The area to receive excavations is to be clearly marked out on site and agreed with the Arboriculturist.
- Hand tools are to be used, with all spoil to be positioned outside of the RPA of the tree.
- Small plant maybe permitted in consultation with the Arboriculturist, or the use of a vacuum excavator positioned outside of the RPA of the trees to be retained.
- The use of an air-spade rig to loosen the sub-base material can be instructed by supervising Arboriculturist if required to loosen clay based material or similar.
- Once excavated if tree roots are located these are to be moved if sufficiently pliable or pruned only as a last resort on the advice of the Arboriculturist.
- Tree roots to be retained where feasible through packing around with sharp sand.

No-dig construciton

11.4.141 Where no-dig construction is specified this is due to works having to be undertaken within the RPAs of trees, and to limit their impact on the underlying tree roots. The exact locations for this approach would need to be confirmed within the AMS and prior to construction.

11.4.142 A no-dig construction approach uses a product such as Cellweb TRP® as supplied by Geosynthetics Limited (http://www.geosyn.co.uk). This cellular confinement system will laterally confine the sub-base material into three-dimensional interconnected honeycomb cells, reducing compaction and maintaining the soil bulk density at levels suitable for tree root growth. It also prevents direct tree root severance by building on top of existing ground levels. The product can be laid in multiple sections to account for level changes.

11.4.143 Where no-dig construction is specified, then this would broadly adhere to the following:

- The area to receive the no-dig approach is to be clearly marked out on site and agreed with the Arboriculturist.
- The existing turf layer within the works area is to be treated with a glyphosate-based herbicide as per the manufacturer's guidelines or removed using a turf cutter. This is to prevent any scraping of the turf layer and potential damage to underlying tree roots.
- Where no turf layer is present then any hard surfacing would need to be broken up and removed using hand-tools.
- The Cellweb product is then to be laid as per the manufacturer's guidelines, and the cells are to be filled with clean angular stone of sufficient type to maintain porosity; the surface course is to be a permeable tarmac.

11.4.144 Contractors should refer to The Arboricultural Association's Guidance Note 12: The Use of Cellular Confinement Systems near Trees, published in September 2020.

Root pruning

11.4.145 Where tree roots have to, as a last resort, be severed, the pruning points would need to be agreed with the supervision Arboriculturist and pruning undertaken using a sharp pair of secateurs or a hand saw, or if pliable moved out of the construction profile and re-covered within topsoil.

In situ concrete

11.4.146 It should be noted that due to the highly alkaline and toxic leachate produced during the curing of wet concrete, concrete should not be poured within trees' RPAs unless an impermeable liner has been installed to contain the concrete (for example, where new fence posts or kerbs are to be installed).

Tree protective barriers

11.4.147 The locations of any protective fencing would need to be agreed prior to construction. The fencing should be erected before the commencement of works and kept in place throughout the duration of the works.

11.4.148 The protective barriers could comprise 2m tall welded mesh panels on rubber or concrete feet. The panels are to be joined together using a minimum of two anti-tamper couplers, installed so they can only be removed from inside the fence. The distance between the fence couplers is to be at least 1m and is to be uniform throughout the fence; the panels are to be supported by inner side stabiliser struts attached to a base plate secured on a block tray, see Figure A11.4.10.

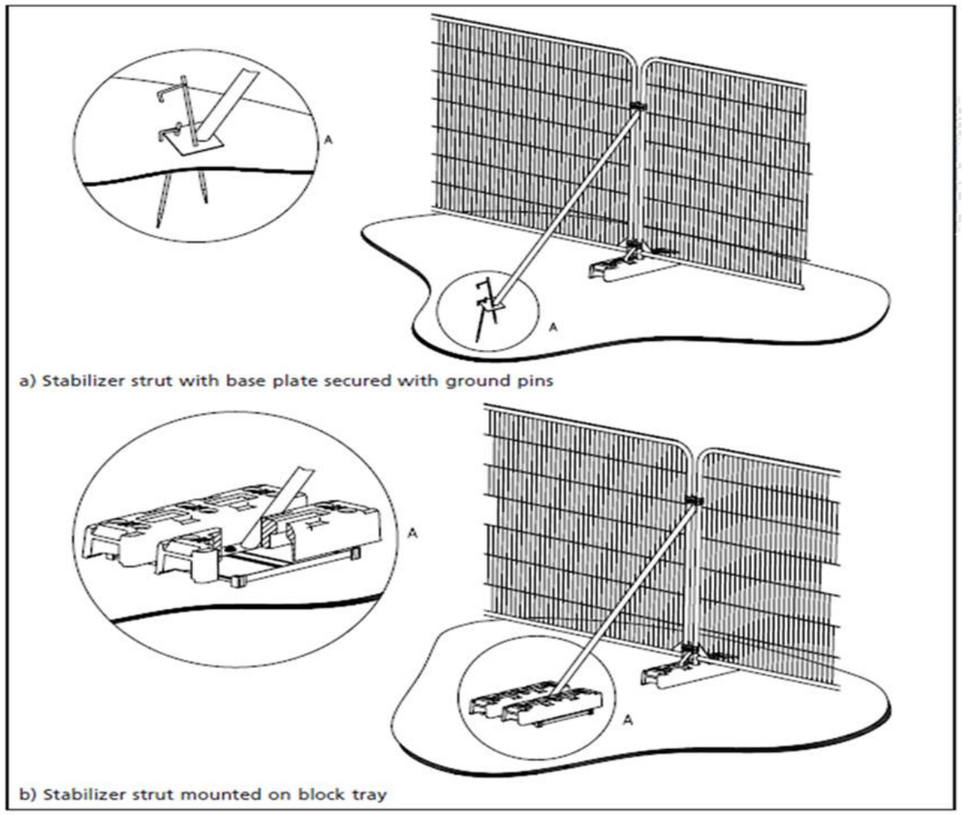


Figure A11.4.10 Tree protection fencing

Ground protection matting

11.4.149 The locations for ground protection matting have not been illustrated on the TPPs, as it is not currently known where these would be required. Their locations would need to be agreed prior to the commencement of construction in coordination with a contractor.

11.4.150 Where ground protection matting is specified to protect tree roots and to minimise ground compaction within RPAs, then an example of a proprietary matting product is Ground-Guards (http://www.ground-guards.co.uk/solutions/tree-root-protection/). A double layer of Ground-Guards panels with a 150mm layer of wood chips sandwiched in-between will create a suitably cushioned base to facilitate access within RPAs where absolutely necessary.

Compound areas

11.4.151 Compound areas

11.4.152 The locations of site accommodation, temporary buildings and areas used for storage of materials are to be located outside of the CEZ' of retained trees as defined within the TPPs.

Tree works

11.4.153 All tree works are to be undertaken in line with current recommendations in accordance with BS3998:2010 Tree Work – Recommendations and comply with the current Arboriculture and Forestry Advisory Group (AFAG) or applicable Forestry Industry Safety Accord (FISA) advice published by the Health and Safety Executive (HSE) or FISA.

11.4.154 Tree works are to be planned to ensure protection of people, property and wildlife. Mitigation commitments in regard to protected species, including bats and nesting birds are included in the REAC. If the works are to be undertaken during the bird nesting season, then advice is to be sought from the ECoW prior to undertaking tree works.

11.4.155 The trees to be removed or worked upon for facilitation, such as pruning, shall be clearly marked by the supervising Arboriculturist prior to any tree works commencing on site. These works are to be agreed with the supervising Arboriculturist. and ECoW where required. The method of removal shall be informed by the site and ecological constraints.

11.4.156 The tree works contractor shall provide access routes and loading bay locations for approval by the main contractor. These shall take into account the retention of trees and following existing access tracks or hard surfaces to try and reduce tree removals. The tree works contractor will have to submit a risk assessment and method statement for review by the Appointed Principal Contractor or Arboriculturist prior to commencing works on Site.

Tree works schedule

11.4.157 All current trees and areas of trees for removal are illustrated on the TPPs and detailed within the survey schedule. These are to be reviewed as part of the detailed design phase of the Proposed Development and updated to support the EMP that will be produced by the appointed Principal Contractor.

11.4.158 The method of removal shall be informed by the site constraints.

11.4.159 The requirements for facilitation pruning operations are to be confirmed prior to construction and covered within the pre-commencement site meetings for each phase of the works.

11.4.160 The ability to retain further trees shall be kept under review as part of construction planning.

A. KEY & BRITISH STANDARD 5837:2012 SURVEY TABLE

A.1 Survey key

A.1.1 Tree No: Sequential reference number given to the tree or group of trees as shown on the tree survey drawings. Inclusion of A, B or C on ECUS Ltd data depending on the section of the tre survey.

A.1.2 Species: This is the common name given to the tree. The botanical name is sometimes given by ECUS Ltd data.

A.1.3 Height (Ht.): tree height from the base of the tree to its full stem height, measured in metres (m). Measurements are taken to the nearest half metre.

A.1.4 Stem diameter (mm): measured in accordance with Figure A2 below. Measurements are rounded to the nearest 10mm in some cases.

A.1.5 Branch spread (m): measurement of crown spread to the four cardinal points; if the crown is balanced a single measurement is given. Crown spread plotted on the tree survey drawings. Measurements are taken to the nearest half metre.

A.1.6 1st significant branch and direction of growth (m): measurement of the height of the first significant branch above ground level, given in metres and direction of growth e. g. 2. 4-N

A.1.7 Canopy height (m): height of the canopy above ground level. Measurements are taken to the nearest half metre.

A.1.8 Life stage: The following abbreviations are used:

Y = Young trees <1/5 life expectancy.

SM = Semi-Mature trees 1/5 – 2/5 life expectancy.

EM = Early Mature trees 2/5 – 3/5 life expectancy.

M = Mature trees 3/5 – 4/5 life expectancy

OM= Over-Mature trees >4/5 life expectancy

VET = veteran tree

A.1.9 Vitality: Good, fair, poor or dead

A.1.10 Good – a tree with little or no obvious physiological defects; leaf density and colour are typical for the species, bud, flower and fruit production are good and there are no signs of dieback at any point throughout the crown.

A.1.11 Fair – a tree with moderate physiological defects; leaf density is less than typical for the species, leaf cover is chlorotic, bud, flower or fruit production are deficient, there are signs of minor dieback within the crown, there is a moderate degree of deadwood within the crown.

A.1.12 Poor – a tree with major or multiple physiological defects; evidence of extensive crown thinning, bud, flower or fruit production is poor or missing, there are signs of advanced dieback throughout the crown, there is extensive or major deadwood throughout the crown.

A.1.13 Dead – a tree that has died due to either old age, drought, disease, pest infestation, physical damage to the main stem or rooting system, or a combination of these factors.

A.1.14 General observations, particularly of structural and/or physiological condition: e. g. observations of any decay and physical defect.

A.1.15 Preliminary management recommendations: any identified preliminary management to rectify defects recorded in general observations. These may include the need for further detailed inspection, or works to address immediate hazard to life or property.

A.1.16 Estimated remaining contribution, in years: (variations provided by ECUS Ltd data)

<10

10+

20+

40+

A.1.17 Category grading: As per BS 5837:2012 chart in accordance with Figure A3 below.

A – Illustrated as light green (RGB code 000-255-000)

B – Illustrated as mid blue (RGB code 000-000-255)

C – Illustrated as grey (RGB code 091-091-091)

U – Illustrated as dark red (RGB code 127-000-000)

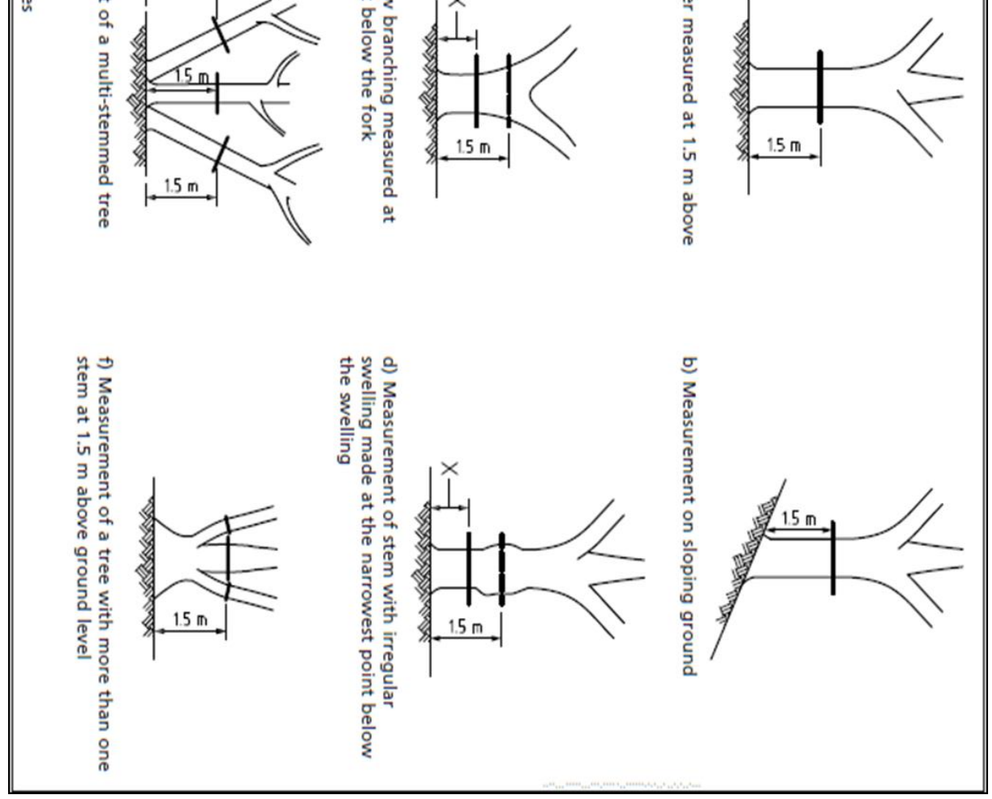
A.1.18 Root Protection Area (m): plotted around each of the category A, B and C trees on relevant drawings, illustrating the minimum area around a tree deemed to contain sufficient roots and rooting volume to maintain the tree's viability. The protection of the roots and soil structure is treated as of paramount importance.

A.1.19 Impact – Retain (green hatch), Part remove (orange hatch) or Remove (red hatch)

A.1.20 Mitigation – Identifying if Tree Protection Fencing is included on TPP. Not exhaustive

A.2 Measuring table

A.2.1 Measurement of tree stems dependant on tree form.



A.3 BS 5837:2012 cascade chart

A.3.1 Cascade chart for tree quality assessment from BS 5837:2012

Table 1 **Cascade chart for tree quality assessment**

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 *NOTE Category U trees can have existing or potential conservation value which it might be desirable to preserve; see **4.5.7**.*			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

B. TREE SURVEY SCHEDULE

Tree ID	Species	Height (m)	Stem Diameter (mm)	Branch spread N (m)	Branch spread E (m)	Branch spread S (m)	Branch spread W (m)	First significant branch height (m)	Canopy height (m)	Life stage	Vitality	General observations	Preliminary management recommendations	Estimated Remaining Contribution (Years)	Category Grading	RPA Radius (m)	Impact - Remove / Part Remove / Retain	Mitigation
Section A																		
AT001	Black Hybrid Poplar (Populus x canadensis)	15	400	1.5	1.5	1.5	1.5	N/A	0	Early Mature	Poor	Typical field boundary low quality poplar.	-	10+ Years	C2	4.8	Retain	
AT002	Black Hybrid Poplar (Populus x canadensis)	15	410	1.5	1.5	1.5	1.5	N/A	0	Early Mature	Fair	Typical field boundary poplar.	-	20+ Years	C2	4.9	Retain	
AT003	Common Beech (Fagus sylvatica)	9	340	3	3	3	3	N/A	0	Semi Mature	Fair	Line of beech behind poplars on NE. Shared canopy, crown measurements indicative.	-	40+ Years	B2	4.1	Retain	
AT004	Common Beech (Fagus sylvatica)	9	260	3	3	3	3	N/A	0	Semi Mature	Fair	Line of beech behind poplars on NE. Shared canopy, crown measurements indicative.	-	40+ Years	B2	3.1	Retain	
AT005	Common Beech (Fagus sylvatica)	6	150	3	3	3	3	N/A	0	Semi Mature	Fair	Line of beech behind poplars on NE. Shared canopy, crown measurements indicative.	-	40+ Years	B2	1.8	Retain	
AT006	Common Beech (Fagus sylvatica)	5	340	2.5	2.5	2.5	2.5	N/A	0	Semi Mature	Fair	Line of beech behind poplars on NE. Shared canopy, crown measurements indicative.	-	40+ Years	B2	4.1	Retain	
AT007	Black Hybrid Poplar (Populus x canadensis)	13	280	1.5	1.5	1.5	1.5	N/A	0	Early Mature	Fair	Typical field boundary poplar.	-	<10 years	C2	3.4	Retain	
AG008	GROUP of 8 Common Beech (Fagus sylvatica)	6.5	Ave. 220	1.5	1.5	1.5	1.5	N/A	0	Semi Mature	Fair	Beech line on NE of poplar line. Better quality screen than poplar. Measurement average of group.	-	40+ Years	B2	3.0	Retain	
AT009	Black Hybrid Poplar (Populus x canadensis)	13	280	1.5	1.5	1.5	1.5	N/A	0	Early Mature	Fair	Typical field boundary poplar.	-	<10 years	C2	3.4	Retain	
AT010	Black Hybrid Poplar (Populus x canadensis)	13	280	1.5	1.5	1.5	1.5	N/A	0	Early Mature	Fair	Typical field boundary poplar. Snapped out.	Outside proposed bus route area. Low target. Retain	<10 years	U	3.0	Remove	

Tree ID	Species	Height (m)	Stem Diameter (mm)	Branch spread N (m)	Branch spread E (m)	Branch spread S (m)	Branch spread W (m)	First significant branch height (m)	Canopy height (m)	Life stage	Vitality	General observations	Preliminary management recommendations	Estimated Remaining Contribution (Years)	Category Grading	RPA Radius (m)	Impact - Remove / Part Remove / Retain	Mitigation
AT011	Black Hybrid Poplar (Populus x canadensis)	13	280	1.5	1.5	1.5	1.5	N/A	0	Early Mature	Fair	Typical field boundary poplar.	-	<10 years	C2	3.4	Retain	
AT012	Black Hybrid Poplar (Populus x canadensis)	13	320	1.5	1.5	1.5	1.5	N/A	0	Early Mature	Fair	Typical field boundary poplar.	-	<10 years	C2	3.8	Retain	
AT013	Black Hybrid Poplar (Populus x canadensis)	13	320	1.5	1.5	1.5	1.5	N/A	0	Early Mature	Fair	Typical field boundary poplar.	-	<10 years	C2	3.8	Retain	
AG014	GROUP of 35 Common Beech (Fagus sylvatica)	6.5	Ave. 320	2	2	2	2	N/A	0	Semi Mature	Good	Moderate quality line of beech on NE of poplar line. Measurements indicative of individuals in group.	-	40+ Years	B2	3.8	Retain	
AT015	Common Ash (Fraxinus excelsior)	5	160	2	2	2	2	N/A	3	Semi Mature	Fair	Standard tree in hedgerow. ADB AHC not assessed.	-	10+ Years	C2	1.9	Retain	
AT016	Common Ash (Fraxinus excelsior)	4.5	120	2	2	2	2	N/A	3	Semi Mature	Fair	Standard tree in hedgerow. ADB AHC not assessed.	-	10+ Years	C2	1.4	Retain	
AT017	Common Ash (Fraxinus excelsior)	4.5	160	2	2	2	2	N/A	3	Semi Mature	Fair	Standard tree in hedgerow. ADB AHC not assessed.	-	10+ Years	C2	1.9	Retain	
AT018	Common Ash (Fraxinus excelsior)	5	100	2	2	2	2	N/A	3	Semi Mature	Fair	Standard tree in hedgerow. ADB AHC not assessed.	-	10+ Years	C2	1.2	Retain	
AT019	Common Ash (Fraxinus excelsior)	4	100	2	2	2	2	N/A	3	Semi Mature	Fair	Standard tree in hedgerow. ADB AHC not assessed.	-	10+ Years	C2	1.2	Retain	
AT020	Pedunculate Oak (Quercus robur)	12	690	6	6	6	6	N/A	4	Early Mature	Good	Large oak in hedge line with compacted track on NE.	-	40+ Years	B2	8.3	Retain	
AT021	Pedunculate Oak (Quercus robur)	11	610	6	6	6	6	N/A	4	Early Mature	Good	Large oak in hedge line with compacted track on NE,	-	40+ Years	B2	7.3	Retain	
AH022	HEDGEROW of Common Hawthorn (Crataegus monogyna)	2	75	-	-	-	-	N/A	0	Semi Mature	Fair	Predominantly hawthorn with other native mix. Failed at 2m height. Occasional mature hawthorn.	-	20+ Years	B2	1.0	Retain	

Tree ID	Species	Height (m)	Stem Diameter (mm)	Branch spread N (m)	Branch spread E (m)	Branch spread S (m)	Branch spread W (m)	First significant branch height (m)	Canopy height (m)	Life stage	Vitality	General observations	Preliminary management recommendations	Estimated Remaining Contribution (Years)	Category Grading	RPA Radius (m)	Impact - Remove / Part Remove / Retain	Mitigation
AW023	WOODLAND of Sycamore (Acer pseudoplatanus), Hawthorn (Crataegus monogyna) and Elder (Sambucus nigra)	13	Ave. 480	-	-	-	-	N/A	0	Mature	Fair	Dense mature woodland with predominantly sycamore and occasional oak in the high canopy. Understorey of elder and hawthorn with occasional cherry. Large amount of dead elm on edges.	-	40+ Years	A2	5.7	Retain	Tree protection fencing
AT024	Common Ash (Fraxinus excelsior)	6	160	2.5	2.5	2.5	2.5	N/A	3	Semi Mature	Fair	Standard ash in hedgerow.	Remove to facilitate route.	10+ Years	C2	1.9	Remove	
AT025	Pedunculate Oak (Quercus robur)	15	1310	7	7	7	7	N/A	4	Mature	Fair	Very large mature oak in hedge. Evidence of shed limbs throughout the crown with well occluded wounds. Prominent tree with bat potential.	-	40+ Years	A1, 2	15.0	Remove	
AT026	Common Ash (Fraxinus excelsior)	6	160	2.5	2.5	2.5	2.5	N/A	3	Semi Mature	Fair	Standard ash in hedgerow.	-	10+ Years	C2	1.9	Remove	
AT027	Field Maple (Acer campestre)	8	260	3	3	3	3	N/A	3	Semi Mature	Fair	Standard maple in hedgerow. Slight flail damage.	-	20+ Years	B2	3.1	Retain	Tree protection fencing
AT028	Pedunculate Oak (Quercus robur)	12	840	5	7	3	2.5	N/A	4	Mature	Fair	Very large mature oak in hedge. Large torn out limb on south side recently cleared. Pre veteran.	-	40+ Years	A1, 2	10.1	Retain	Tree protection fencing
AT029	Pedunculate Oak (Quercus robur)	14	1000	7.5	7	6	3.5	N/A	4	Mature	Fair	Very large mature oak in hedge. Evidence of shed limbs throughout the crown with well occluded wounds. Prominent tree with bat potential.	-	40+ Years	A1, 2	12.0	Retain	Tree protection fencing
AT030	Common Ash (Fraxinus excelsior)	6	160	2.5	2.5	2.5	2.5	N/A	3	Semi Mature	Fair	Standard ash in hedgerow.	-	10+ Years	C2	1.9	Retain	Tree protection fencing
AH031	HEDGEROW of Common Hawthorn (Crataegus monogyna)	2	75	-	-	-	-	N/A	0	Early Mature	Fair	Hawthorn hedge maintained at 2 m.	Remove section of hedge to facilitate route.	40+ Years	B2	1.0	Part remove	Tree protection fencing
AG032	GROUP of Mixed Native Species	8	Ave. 190	-	-	-	-	N/A	0	Semi Mature	Fair	Roadside planting of ash, cherry, beech, hazel etc. Typical of roadside with no stakes or tubes removed limiting long term potential. Screen between site an A11.	-	40+ Years	B2	2.3	Retain	Tree protection fencing

Tree ID	Species	Height (m)	Stem Diameter (mm)	Branch spread N (m)	Branch spread E (m)	Branch spread S (m)	Branch spread W (m)	First significant branch height (m)	Canopy height (m)	Life stage	Vitality	General observations	Preliminary management recommendations	Estimated Remaining Contribution (Years)	Category Grading	RPA Radius (m)	Impact - Remove / Part Remove / Retain	Mitigation
AW033	WOODLAND of Mixed Native Species	12	Ave. 320	-	-	-	-	N/A	0	Mature	Fair	Mature woodland between field edge and A11. Predominantly hawthorn with willow forming high canopy. Large amount of standing dead.	-	20+ Years	B2	3.8	Retain	Tree protection fencing
AW034	WOODLAND of Sycamore (Acer pseudoplatanus)	14	Ave. 350	-	-	-	-	N/A	2	Early Mature	Fair	Open area of woodland with predominantly early mature sycamore. DBH 300 to 400 common.	-	40+ Years	B2	4.2	Retain	Tree protection fencing
AW035	WOODLAND of Pedunculate Oak (Quercus robur) and Common Ash (Fraxinus excelsior)	10	Ave. 160	-	-	-	-	N/A	0	Semi Mature	Fair	Predominantly oak and ash planted approximately 20 years ago to screen road junction. dead elms that have failed along field edge. People living in the woods here.	-	40+ Years	B2	1.9	Part remove	Tree protection fencing
AH036	HEDGEROW of Common Hawthorn (Crataegus monogyna)	2.5	75	-	-	-	-	N/A	0	Early Mature	Fair	Wide managed hedge. 3m wide and 2.5 m tall.	-	40+ Years	B2	1.0	Part remove	Tree protection fencing
AH037	HEDGEROW of Common Hawthorn (Crataegus monogyna)	2	75	-	-	-	-	N/A	0	Early Mature	Fair	2m tall managed hedge.	-	40+ Years	B2	1.0	Retain	
AG038	GROUP of Mixed Native Species	10	Ave. 200	-	-	-	-	N/A	0	Semi Mature	Fair	Roadside planting of ash, cherry, beech, hazel etc. Typical of roadside with no stakes or tubes removed limiting long term potential. Screen between site an A11.	-	40+ Years	B2	2.0	Retain	
AG039	GROUP of Mixed Native Species	6	Ave. 100	-	-	-	-	N/A	0.5	Semi Mature	Poor	Sparse roadside planting of ash, cherry, beech, hazel etc. around suds basin.	-	10+ Years	C2	1.2	Retain	
AG040	GROUP of Mixed Native Species	10	Ave. 200	-	-	-	-	N/A	0	Semi Mature	Fair	Roadside planting of ash, cherry, beech, hazel etc. Typical of roadside with no stakes or tubes removed limiting long term potential. Screen between site an A11.	-	40+ Years	B2	2.0	Retain	
AT041	Crack Willow (Salix fragilis)	18	710, 750	6.5	8	6.5	6.5	N/A	1	Mature	Poor	Large twin stem willow. Stems separated at tight union at base.	-	<10 years	C2	12.4	Retain	
AT042	Crack Willow (Salix fragilis)	12	330	3.5	3.5	3.5	3.5	N/A	3	Semi Mature	Poor	Willow on stream bank.	-	20+ Years	C2	4.0	Retain	

Tree ID	Species	Height (m)	Stem Diameter (mm)	Branch spread N (m)	Branch spread E (m)	Branch spread S (m)	Branch spread W (m)	First significant branch height (m)	Canopy height (m)	Life stage	Vitality	General observations	Preliminary management recommendations	Estimated Remaining Contribution (Years)	Category Grading	RPA Radius (m)	Impact - Remove / Part Remove / Retain	Mitigation
AT043	Crack Willow (Salix fragilis)	12	210	3	3	3	3	N/A	3	Semi Mature	Poor	Willow on stream bank.	-	20+ Years	C2	2.5	Retain	
AT044	Crack Willow (Salix fragilis)	18	380, 380, 380, 380, 380	6.5	6.5	6.5	6.5	N/A	1	Mature	Poor	Large multi stem willow.	-	20+ Years	C2	10.2	Retain	
AT045	Crack Willow (Salix fragilis)	18	700, 600	6.5	6.5	6.5	6.5	N/A	1	Mature	Poor	Large multi stem willow.	-	20+ Years	C2	11.1	Retain	
AT046	Crack Willow (Salix fragilis)	18	380, 380, 380, 380	6.5	6.5	6.5	6.5	N/A	1	Mature	Poor	Large multi stem willow.	-	20+ Years	C2	9.1	Retain	
AG047	GROUP of Common Ash (Fraxinus excelsior)	8	Ave. 150	-	-	-	-	N/A	2.5	Semi Mature	Fair	Ash planted on opposite side of stream with occasional cherry alder and beech.	-	10+ Years	C2	1.8	Retain	
AT048	Crack Willow (Salix fragilis)	18	1120	6.5	6.5	6.5	6.5	N/A	1	Mature	Poor	Large willow. ivy clad stem. DBH measured over ivy at 1200.	-	20+ Years	C2	13.4	Retain	
AT049	Crack Willow (Salix fragilis)	18	580, 600, 580, 540	6.5	6.5	6.5	6.5	N/A	1	Mature	Poor	Large multi stem willow.	-	20+ Years	C2	13.8	Retain	
AG050	GROUP of Crack Willow (Salix fragilis)	15	Ave. 400	-	-	-	-	N/A	0	Mature	Fair	Mature willow with elder understorey. large number of fallen and Phoenix trees.	-	40+ Years	B2	5.0	Retain	
AG051	GROUP of Common Ash (Fraxinus excelsior) and Sycamore (Acer pseudoplatanus)	15	Ave. 350	-	-	-	-	N/A	0	Mature	Fair	Early mature to mature ash and sycamore between field boundary and stream.	-	40+ Years	B2	4.2	Retain	
AT052	Common Alder (Alnus glutinosa)	10	310	2.5	2.5	2.5	2.5	N/A	2	Early Mature	Fair	Alder beside stream.	-	40+ Years	B2	3.7	Retain	
AT053	Common Alder (Alnus glutinosa)	10	390	4.5	4.5	4.5	4.5	N/A	2	Early Mature	Fair	Alder beside stream.	-	40+ Years	B2	4.7	Retain	
AT054	Crack Willow (Salix fragilis)	12	360	3.5	3.5	3.5	3.5	N/A	3	Early Mature	Fair	Willow on stream bank.	-	20+ Years	C2	4.3	Retain	
AT055	Crack Willow (Salix fragilis)	12	380	3.5	3.5	3.5	3.5	N/A	3	Early Mature	Fair	Willow on stream bank.	-	20+ Years	C2	4.6	Retain	
AT056	Crack Willow (Salix fragilis)	12	440	4	4	4	4	N/A	3	Early Mature	Fair	Willow on stream bank.	-	20+ Years	C2	5.3	Retain	

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AT057	Sycamore (Acer pseudoplatanus)	12	960	5	5	5	5	N/A	3	Over Mature	Poor	Multi-stemmed tree, south stem has died. Decay on main stem. Recommend retrenchment or Pollard to monolith for ecology value.	-	<10 years	C2	11.5	Retain	
AT058	Crack Willow (Salix fragilis)	12	370	3	3	3	3	N/A	3	Early Mature	Fair	Willow on stream bank.	-	20+ Years	C2	4.4	Retain	
AT059	Common Alder (Alnus glutinosa)	12	390	3	3	3	3	N/A	3	Early Mature	Fair	Alder on stream bank.	-	20+ Years	C2	4.7	Retain	
AT060	Crack Willow (Salix fragilis)	5	75	3.5	3.5	3.5	3.5	N/A	0	Over Mature	Poor	Collapsing willow on stream bank.	-	10+ Years	C2	0.9	Retain	
AT061	Crack Willow (Salix fragilis)	12	370	3	3	3	3	N/A	3	Early Mature	Fair	Willow on south of stream bank. Previously pollarded	-	20+ Years	C2	4.4	Retain	
AT062	Crack Willow (Salix fragilis)	12	370	3	3	3	3	N/A	3	Early Mature	Fair	Willow on south of stream bank.	-	20+ Years	C2	4.4	Retain	
AT063	Sycamore (Acer pseudoplatanus)	12	680	4	4	4	4	N/A	3	Early Mature	Fair	Sycamore on south of stream bank.	-	40+ Years	B2	8.2	Retain	
AT064	Sycamore (Acer pseudoplatanus)	12	960	5	5	5	5	N/A	3	Over Mature	Poor	Ivy clad moribund tree with regrowth at base. Underside of root plate decayed.	-	<10 years	C2	11.5	Retain	Tree protection fencing
AT065	Crack Willow (Salix fragilis)	13	380	4	4	4	4	N/A	3	Early Mature	Fair	Willow on stream bank.	-	20+ Years	C2	4.6	Retain	Tree protection fencing
AT066	Crack Willow (Salix fragilis)	13	1600	7	7	7	7	N/A	3	Mature	Fair	Very large mature on stream bank. Potentially pollarded historically. Circumference 5.6m. Sycamore growing from stem.	-	20+ Years	A1, 2	15.0	Retain	Tree protection fencing
AG067	GROUP of Common Alder (Alnus glutinosa)	4	75	-	-	-	-	N/A	2	Young	Fair	Young planting of common alder and willow.	Remove section of group to facilitate route.	40+ Years	C2	1.0	Retain	Tree protection fencing
AT068	Common Alder (Alnus glutinosa)	8	200	2	2	2	2	N/A	0	Semi Mature	Fair	Alder on stream bank.	-	40+ Years	C2	2.4	Retain	Tree protection fencing
AT069	Crack Willow (Salix fragilis)	10	380	3.5	3.5	3.5	3.5	N/A	4	Mature	Fair	Willow on stream bank.	-	40+ Years	C2	4.6	Retain	Tree protection fencing
AT070	Crack Willow (Salix fragilis)	10	360	8	3	0	2.5	N/A	0	Mature	Fair	Willow on stream bank. Blown over to north with exposed root plate.	-	40+ Years	C2	4.3	Retain	Tree protection fencing

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AT071	Common Alder (Alnus glutinosa)	8	200	2	2	2	2	N/A	0	Semi Mature	Fair	Alder on south of stream.	-	40+ Years	C2	2.4	Retain	Tree protection fencing
AT072	Field Maple (Acer campestre)	8	350	5	3	1	3	N/A	0	Mature	Fair	Ivy clad tree on south of stream leaning over water.	-	20+ Years	C2	4.2	Retain	Tree protection fencing
AT073	Field Maple (Acer campestre)	8	350	3.5	3	1	3	N/A	0	Mature	Fair	Ivy clad tree on south of stream leaning over water.	-	20+ Years	C2	4.2	Retain	Tree protection fencing
AT074	Common Ash (Fraxinus excelsior)	12	300	3.5	2.5	2	2.5	N/A	4	Early Mature	Fair	Ash on south side of stream.	Remove to facilitate route.	10+ Years	C2	3.6	Retain	Tree protection fencing
AT075	Crack Willow (Salix fragilis)	12	1000	8	6	1	1	N/A	0	Mature	Poor	Heavy lean NE with heave of root plate.	Remove to facilitate route.	10+ Years	C2	12.0	Remove	
AT076	Common Ash (Fraxinus excelsior)	12	300	4	3	1	2	N/A	3	Early Mature	Fair	Group of trees around pond with shared canopy.	Remove to facilitate route.	10+ Years	C2	3.6	Remove	
AT077	Common Ash (Fraxinus excelsior)	6	180	3	1	1.5	2	N/A	3	Early Mature	Fair	Group of trees around pond with shared canopy.	Remove to facilitate route.	10+ Years	C2	2.2	Remove	
AT078	Sycamore (Acer pseudoplatanus)	11	320	3	1	1.5	2	N/A	3	Early Mature	Fair	Group of trees around pond with shared canopy. Potentially raised root plate in soft ground.	Remove to facilitate route.	20+ Years	C2	3.8	Remove	
AT079	Sycamore (Acer pseudoplatanus)	11	320	3	3	3	3	N/A	3	Early Mature	Fair	Group of trees around pond with shared canopy.	-	20+ Years	C2	3.8	Remove	
AT080	Common Ash (Fraxinus excelsior)	12	400, 180	3	3	4	4	N/A	3	Early Mature	Fair	Group of trees around pond with shared canopy.	-	10+ Years	C2	5.3	Remove	
AT081	Crack Willow (Salix fragilis)	14	1170	9	9	9	9	N/A	3	Early Mature	Fair	Large willow beside pond. Historic occluded pruning wounds.	-	20+ Years	C2	14.0	Retain	Tree protection fencing
AT082	Sycamore (Acer pseudoplatanus)	13	460	3.5	3.5	3.5	3.5	N/A	4	Mature	Fair	Group of sycamore forming shared canopy. Measurements indicative.	-	20+ Years	C2	5.5	Retain	Tree protection fencing
AT083	Sycamore (Acer pseudoplatanus)	13	320, 330	3.5	3.5	3.5	3.5	N/A	4	Mature	Fair	Group of sycamore forming shared canopy. Measurements indicative. Tight union and included bark.	-	20+ Years	C2	5.5	Retain	Tree protection fencing
AT084	Sycamore (Acer pseudoplatanus)	13	400	3.5	3.5	3.5	3.5	N/A	4	Mature	Fair	Group of sycamore forming shared canopy. Measurements indicative.	-	20+ Years	C2	4.8	Remove	

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AT085	Sycamore (Acer pseudoplatanus)	13	160	3.5	3.5	3.5	3.5	N/A	4	Mature	Fair	Group of sycamore forming shared canopy. Measurements indicative.	-	20+ Years	C2	1.9	Retain	Tree protection fencing
AT086	Sycamore (Acer pseudoplatanus)	13	190	3.5	3.5	3.5	3.5	N/A	4	Mature	Fair	Group of sycamore forming shared canopy. Measurements indicative.	-	20+ Years	C2	2.3	Retain	Tree protection fencing
AT087	Field Maple (Acer campestre)	5	160	2	2	2	2	N/A	4	Mature	Fair	Maple in group of sycamore forming shared canopy. Measurements indicative.	-	20+ Years	C2	1.9	Retain	Tree protection fencing
AT088	Sycamore (Acer pseudoplatanus)	7	380	3.5	3.5	3.5	3.5	N/A	4	Mature	Poor	Sycamore repeatedly topped below power lines.	-	20+ Years	C2	4.6	Retain	Tree protection fencing
AT089	Common Alder (Alnus glutinosa)	7	380	3.5	3.5	3.5	3.5	N/A	4	Mature	Poor	Alder on south of stream. repeatedly topped below power lines.	-	20+ Years	C2	4.6	Retain	Tree protection fencing
AT090	Crack Willow (Salix fragilis)	18	970	5.5	5.5	5.5	5.5	N/A	3	Early Mature	Fair	Large willow beside stream. Historic occluded pruning wounds. Pruned back from power lines.	-	20+ Years	C2	11.6	Retain	
AT091	Crack Willow (Salix fragilis)	16	750	5.5	5.5	5.5	5.5	N/A	3	Early Mature	Fair	Large willow beside stream.	-	20+ Years	C2	9.0	Retain	
AT092	Field Maple (Acer campestre)	14	340	2.5	2.5	2.5	2.5	N/A	4	Mature	Fair	Group of maple forming shared canopy on south side of stream. measurements indicative.	-	20+ Years	C2	4.1	Retain	Tree protection fencing
AT093	Field Maple (Acer campestre)	14	340	2.5	2.5	2.5	2.5	N/A	4	Mature	Fair	Group of maple forming shared canopy on south side of stream. measurements indicative.	-	20+ Years	C2	4.1	Retain	Tree protection fencing
AT094	Field Maple (Acer campestre)	14	340	2.5	2.5	2.5	2.5	N/A	4	Mature	Fair	Group of maple forming shared canopy on south side of stream. measurements indicative.	-	20+ Years	C2	4.1	Retain	Tree protection fencing
AG095	GROUP of Field Maple (Acer campestre)	5	Ave. 180	-	-	-	-	N/A	0	Early Mature	Poor	Dense low cover field maple group. Topped where below power lines.	Remove group to facilitate route.	20+ Years	C2	0.0	Remove	Tree protection fencing
AT096	Common Ash (Fraxinus excelsior)	12	380	3.5	3.5	3.5	3.5	N/A	1.5	Mature	Poor	Ash on south of stream with bat potential.	-	20+ Years	C2	4.6	Retain	
AT097	Field Maple (Acer campestre)	10	320	2.5	2.5	2.5	2.5	N/A	4	Mature	Fair	Maple on south side of stream.	-	20+ Years	C2	3.8	Retain	

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AT098	Common Ash (Fraxinus excelsior)	7	280	2.5	2.5	2.5	2.5	N/A	1.5	Mature	Poor	Small ash in field.	-	20+ Years	C2	3.4	Retain	Tree protection fencing
AT099	Field Maple (Acer campestre)	5	90, 90, 90, 90, 90, 90, 90, 90, 90, 90	2.5	2.5	2.5	2.5	N/A	0	Early Mature	Fair	Multi stem field maple at end of hedge.	-	20+ Years	C2	3.4	Retain	
AH100	HEDGEROW of Mixed Native Species	4.5	75	-	-	-	-	N/A	0	Early Mature	Fair	Field maple and hawthorn hedgerow.	-	40+ Years	B2	1.0	Retain	
AT101	Pedunculate Oak (Quercus robur)	14#	900#	5	5	5	5	N/A	4	Mature	Fair	Large oak in hedge line.	-	40+ Years	B2	10.8	Retain	
AH102	HEDGEROW of Common Hawthorn (Crataegus monogyna)	2	75	-	-	-	-	N/A	0	Early Mature	Fair	Hedge along highway maintained at 2m with flail. Very sparse in places.	Remove section of hedge to facilitate route.	20+ Years	C2	1.0	Part remove	Tree protection fencing
AT103	Common Ash (Fraxinus excelsior)	6.5	220	2	2	2	2	N/A	4	Semi Mature	Fair	Ash beside road Kept clear over highway.	-	10+ Years	C2	2.6	Retain	
AT104	Common Ash (Fraxinus excelsior)	6.5	220	2	2	2	2	N/A	4	Semi Mature	Fair	Ash beside road Kept clear over highway.	-	10+ Years	C2	2.6	Retain	
AT105	Common Ash (Fraxinus excelsior)	6.5	220	2	2	2	2	N/A	4	Semi Mature	Fair	Ash beside road Kept clear over highway.	-	10+ Years	C2	2.6	Retain	
AT106	Common Ash (Fraxinus excelsior)	6.5	220	2	2	2	2	N/A	4	Semi Mature	Fair	Ash beside road Kept clear over highway.	-	10+ Years	C2	2.6	Retain	
AT107	Common Ash (Fraxinus excelsior)	6.5	220	2	2	2	2	N/A	4	Semi Mature	Fair	Ash beside road Kept clear over highway.	-	10+ Years	C2	2.6	Retain	
AH108	HEDGEROW of Common Hawthorn (Crataegus monogyna)	2	75	-	-	-	-	N/A	0	Early Mature	Fair	Hedge along highway maintained at 2m with flail. Very sparse in places.	-	20+ Years	C2	0.0	Retain	
AG109	GROUP of Common Lime (Tilia x vulgaris)	14	Ave. 480	-	-	-	-	N/A	2	Mature	Fair	Line of lime north of highway lining historic house approach to Babraham Research Centre.	-	20+ Years	A2, 3	5.7	Retain	
AG110	GROUP of Common Lime (Tilia x vulgaris)	14	Ave. 480	-	-	-	-	N/A	2	Mature	Fair	Line of lime north of highway lining historic house approach to Babraham Research Centre.	-	20+ Years	A2, 3	5.7	Retain	

Tree ID	Species	Height (m)	Stem Diameter (mm)	Branch spread N (m)	Branch spread E (m)	Branch spread S (m)	Branch spread W (m)	First significant branch height (m)	Canopy height (m)	Life stage	Vitality	General observations	Preliminary management recommendations	Estimated Remaining Contribution (Years)	Category Grading	RPA Radius (m)	Impact - Remove / Part Remove / Retain	Mitigation
AT111	Sycamore (Acer pseudoplatanus)	10	650	3.5	4	5	3.5	N/A	4	Mature	Fair	Densely ivy clad tree, several large wounds with main leader snapped out. Pre veteran with high habitat potential.	-	20+ Years	B2	7.8	Retain	Tree protection fencing
AH112	HEDGEROW of Common Hawthorn (Crataegus monogyna)	2	75	-	-	-	-	N/A	0	Early Mature	Fair	Hedge along field boundary maintained at 2m with flail.	-	20+ Years	B2	1.0	Retain	Tree protection fencing
AH113	HEDGEROW of Common Hawthorn (Crataegus monogyna)	2	75	-	-	-	-	N/A	0	Early Mature	Fair	Hedge along field boundary maintained at 2m with flail.	-	20+ Years	B2	1.0	Retain	Tree protection fencing
AH114	HEDGEROW of Common Hawthorn (Crataegus monogyna)	2	75	-	-	-	-	N/A	0	Early Mature	Fair	Hedge along highway maintained at 2m with flail.	-	20+ Years	B2	1.0	Retain	
Section B																		
BH001	HEDGEROW of Common Hawthorn (Crataegus monogyna) and Blackthorn (Prunus spinosa)	2	75	-	-	-	-	N/A	0	Young	Fair	Replanted hedge with less than 20% mature hedge.	-	40+ Years	B2	1.0	Retain	Tree protection fencing
BT002	Common Ash (Fraxinus excelsior)	5	210	1.5	1.5	1.5	1.5	N/A	2	Semi Mature	Poor	Standard ash in hedgerow. Light flail damage to stem.	-	10+ Years	C2	2.5	Retain	Tree protection fencing
BH003	HEDGEROW of Common Hawthorn (Crataegus monogyna) and Blackthorn (Prunus spinosa)	2	75	-	-	-	-	N/A	0	Early Mature	Poor	Mature sporadic hedgerow with no replanting.	-	20+ Years	C2	1.0	Retain	
BH004	HEDGEROW of Common Hawthorn (Crataegus monogyna)	2	75	-	-	-	-	N/A	0	Early Mature	Fair	Early mature reasonable quality section of hedge.	-	20+ Years	B2	1.0	Retain	
BT005	Pedunculate Oak (Quercus robur)	5	75	0.5	0.5	0.5	0.5	N/A	0	Young	Poor	New planting of typical new development quality.	-	10+ Years	C2	0.9	Retain	Tree protection fencing
BT006	Common Walnut (Juglans regia)	5.5	260	2	2	2	2	N/A	0	Semi Mature	Fair	DBH taken below fork at 1.5 m. Flail damage on north limiting quality.	-	20+ Years	C2	3.1	Retain	Tree protection fencing

Tree ID	Species	Height (m)	Stem Diameter (mm)	Branch spread N (m)	Branch spread E (m)	Branch spread S (m)	Branch spread W (m)	First significant branch height (m)	Canopy height (m)	Life stage	Vitality	General observations	Preliminary management recommendations	Estimated Remaining Contribution (Years)	Category Grading	RPA Radius (m)	Impact - Remove / Part Remove / Retain	Mitigation
BH007	HEDGEROW of Common Hawthorn (Crataegus monogyna) and Blackthorn (Prunus spinosa)	1.5	75	-	-	-	-	N/A	0	Young	Fair	Sparse hedge with large amount of replanting. Young oak planting to south.	-	40+ Years	C2	1.0	Retain	Tree protection fencing
BT008	Common Hawthorn (Crataegus monogyna)	5	220	1.5	2.5	1.5	2.5	N/A	0	Early Mature	Fair	DBH taken near base. Mature hawthorn, flailed repeatedly.	-	20+ Years	C2	2.6	Retain	
BH009	HEDGEROW of Common Hawthorn (Crataegus monogyna) and Blackthorn (Prunus spinosa)	2	75	-	-	-	-	N/A	0	Semi Mature	Fair	Remains of hawthorn hedge on edge of new development. Recommend restoring along edge of entire development.	-	20+ Years	C2	1.0	Retain	Tree protection fencing
BH010	HEDGEROW of Common Hawthorn (Crataegus monogyna) and Blackthorn (Prunus spinosa)	3	75	-	-	-	-	N/A	0	Semi Mature	Fair	Hedge of blackthorn and hawthorn, thick with brambles. Low quality however provides an established visual screen and corridor.	-	40+ Years	B2	1.0	Retain	Tree protection fencing
BT011	Common Ash (Fraxinus excelsior)	7	140, 100, 90	0.5	2.5	2.5	2.5	N/A	0	Semi Mature	Poor	Ash along fence line. damage at base of stem.	Remove to facilitate route.	10+ Years	C2	2.3	Remove	
BT012	Field Maple (Acer campestre)	7.5	420	3.5	3.5	3.5	3.5	N/A	0	Mature	Fair	DBH taken near base below crown break. Cut back from footpath.	Remove to facilitate route.	20+ Years	C2	5.0	Remove	
BT013	Common Hawthorn (Crataegus monogyna)	6	380	3	2	1	2	N/A	0	Mature	Fair	DBH taken near base below crown break. Cut back from footpath.	Remove to facilitate route.	20+ Years	C2	4.6	Remove	
BT014	Sycamore (Acer pseudoplatanus)	7.5	290	2.5	2.5	2.5	3.5	N/A	2	Early Mature	Fair	Early mature sycamore beside fence line.	Remove to facilitate route.	40+ Years	C2	3.5	Remove	
BT015	Common Ash (Fraxinus excelsior)	8	240	2.5	2.5	2.5	2.5	N/A	0	Mature	Fair	Cut back from footpath. Growing over fence.	Remove to facilitate route.	10+ Years	C2	2.9	Retain	Tree protection fencing
BT016	Field Maple (Acer campestre)	7	340	1	2.5	1	3.5	N/A	2	Early Mature	Fair	DBH taken near base below crown break. Cut back from footpath.	-	20+ Years	C2	4.1	Retain	Tree protection fencing
BT017	Common Ash (Fraxinus excelsior)	7.5	240	2.5	2.5	2.5	2.5	N/A	2	Early Mature	Fair	Cut back from footpath.	-	10+ Years	C2	2.9	Retain	Tree protection fencing

Tree ID	Species	Height (m)	Stem Diameter (mm)	Branch spread N (m)	Branch spread E (m)	Branch spread S (m)	Branch spread W (m)	First significant branch height (m)	Canopy height (m)	Life stage	Vitality	General observations	Preliminary management recommendations	Estimated Remaining Contribution (Years)	Category Grading	RPA Radius (m)	Impact - Remove / Part Remove / Retain	Mitigation
BG018	GROUP of Mixed Native Species	8	Ave. 150	-	-	-	-	N/A	0	Semi Mature	Good	Mixed line of ash, oak and field maple with hawthorn planted between field boundary and security fencing. Flailed to 3m. Established visual screen to industrial estate.	-	40+ Years	B2	1.8	Retain	Tree protection fencing
BG019	GROUP of Leyland Cypress (Cupressocyparis leylandii X)	12	Ave. 420	-	-	-	-	N/A	0	Mature	Fair	Dense cypress screen topped at 12m. Lifted above parking spaces to 4m. Occasional birch within line.	-	40+ Years	B2	5.0	Retain	
BT020	Common Walnut (Juglans regia)	14	720	6	6	6	6	N/A	5	Mature	Good	Large mature walnut at drive entrance. Significant pruning wound on south. Surfaced track immediately to west of stem.	Remove to facilitate route.	40+ Years	B2	8.6	Remove	
BT021	Common Walnut (Juglans regia)	8	430	4	4	4	4	N/A	5	Mature	Good	Large mature walnut along drive. Significant pruning wound on south leader. Surfaced track immediately to west of stem.	Remove to facilitate route.	40+ Years	B2	5.2	Remove	
BT022	Common Walnut (Juglans regia)	10	520	5.5	5.5	5.5	5.5	N/A	5	Mature	Good	Large mature walnut along drive. Surfaced track immediately to west of stem.	-	40+ Years	B2	6.2	Retain	
BT023	Common Walnut (Juglans regia)	11	580	5.5	5.5	5.5	5.5	N/A	5	Mature	Good	Large mature walnut along drive. Surfaced track immediately to west of stem. Slight lean east.	-	40+ Years	B2	7.0	Retain	
BT024	Common Walnut (Juglans regia)	12	720, 730	6	6	6	6	N/A	5	Mature	Good	Large twin stem mature walnut along drive. Surfaced track immediately to west of stem. Possible canker in east stem.	-	20+ Years	B2	12.3	Retain	Tree protection fencing
BT025	Common Walnut (Juglans regia)	11	580	5.5	5.5	5.5	5.5	N/A	5	Mature	Good	Large mature walnut along drive. Surfaced track immediately to west of stem.	-	40+ Years	B2	7.0	Retain	
BH026	HEDGEROW of Common Beech (Fagus sylvatica)	3	80	-	-	-	-	N/A	0	Young	Fair	Beech hedge along driveway.	Remove section of hedge to facilitate route.	40+ Years	B2	1.0	Part remove	Tree protection fencing
BG027	Omitted - not evident on aerials			-	-	-	-	N/A	N/A									

Tree ID	Species	Height (m)	Stem Diameter (mm)	Branch spread N (m)	Branch spread E (m)	Branch spread S (m)	Branch spread W (m)	First significant branch height (m)	Canopy height (m)	Life stage	Vitality	General observations	Preliminary management recommendations	Estimated Remaining Contribution (Years)	Category Grading	RPA Radius (m)	Impact - Remove / Part Remove / Retain	Mitigation
BT028	Goat Willow (Salix caprea)	7	240, 260, 200, 240	4	4	4	4	N/A	5	Early Mature	Fair	Multi stem with tight unions in verge, lifting flagstones.	-	20+ Years	C2	5.7	Retain	
BT029	Wild Cherry (Prunus avium)	6	200, 180	2.5	2	2.5	2.5	N/A	3	Early Mature	Fair	Twin stemmed tree with tight union.	-	20+ Years	C2	3.2	Retain	
BT030	Wild Cherry (Prunus avium)	6	200, 180	2.5	2	2.5	2.5	N/A	3	Early Mature	Fair	Twin stemmed tree with tight union.	-	20+ Years	C2	3.2	Retain	
BT031	Wild Cherry (Prunus avium)	5	220	2	2	2	2	N/A	2.5	Early Mature	Fair	Triple stemmed at 1.5m with tight unions.	-	20+ Years	C2	2.6	Retain	
BT032	Wild Cherry (Prunus avium)	6.5	380	2.5	2.5	2.5	2.5	N/A	2.5	Early Mature	Fair	Tight unions from approximately 2m.	-	20+ Years	C2	4.6	Retain	
BT033	Wild Cherry (Prunus avium)	8.5	580	5.5	5.5	5.5	5.5	N/A	N/A	Mature	Good	Good form and a good example of the species.	-	20+ Years	B2	7.0	Retain	
BW034	WOODLAND of Common Hawthorn (Crataegus monogyna), Goat Willow (Salix caprea) and Silver Birch (Betula pendula)	12	200	-	-	-	-	N/A	0	Semi Mature	Good	Wet woodland with upper canopy of birch and goat willow and understorey of elder and hawthorn.	-	40+ Years	A2, 3	2.4	Retain	Tree protection fencing
BG035	GROUP of Elder (Sambucus nigra), Alder (Alnus glutinosa) and Goat Willow (Salix caprea)	6	Ave. 280	-	-	-	-	N/A	0	Early Mature	Good	Linear group of predominantly alder and goat willow with dense understorey of hawthorn, elder and bramble along ditch.	Remove section of group to facilitate route.	40+ Years	B2	3.0	Part remove	Tree protection fencing
BH036	HEDGEROW of Common Hawthorn (Crataegus monogyna)	2	75	-	-	-	-	N/A	0	Early Mature	Fair	Hawthorn hedge on north side of ditch with multi-stemmed alder in hedge.	-	20+ Years	C2	1.0	Retain	Tree protection fencing
BT037	Common Alder (Alnus glutinosa)	12	300, 260, 280, 310	4.5	4.5	4.5	4.5	N/A	3	Mature	Fair	Multi-stemmed at base on north side of ditch.	-	20+ Years	C2	6.9	Retain	Tree protection fencing
BT038	Common Alder (Alnus glutinosa)	7	150	1.5	1.5	1.5	1.5	N/A	2	Semi Mature	Fair	Multi-stemmed at base on north side of ditch.	-	20+ Years	C2	1.8	Retain	Tree protection fencing
BT039	Common Alder (Alnus glutinosa)	10	400	3.5	3.5	3.5	3.5	N/A	2	Early Mature	Good	Multi-stemmed at base on north side of ditch.	-	20+ Years	C2	4.8	Retain	Tree protection fencing
BT040	Common Alder (Alnus glutinosa)	9	380	4	4	4	4	N/A	2	Early Mature	Good	Multi-stemmed at base on north side of ditch.	-	20+ Years	C2	4.6	Retain	Tree protection fencing

Tree ID	Species	Height (m)	Stem Diameter (mm)	Branch spread N (m)	Branch spread E (m)	Branch spread S (m)	Branch spread W (m)	First significant branch height (m)	Canopy height (m)	Life stage	Vitality	General observations	Preliminary management recommendations	Estimated Remaining Contribution (Years)	Category Grading	RPA Radius (m)	Impact - Remove / Part Remove / Retain	Mitigation
BT041	Common Alder (Alnus glutinosa)	9	380.280.260	4	4	4	4	N/A	2	Early Mature	Good	Multi-stemmed at base on north side of ditch.	-	20+ Years	C2	6.5	Retain	Tree protection fencing
BT042	Common Hawthorn (Crataegus monogyna)	4	80	3	3	3	3	N/A	2	Early Mature	Good	Multi-stemmed at base on north side of ditch.	-	20+ Years	C2	3.0	Retain	Tree protection fencing
BG043	GROUP of 2 Common Alder (Alnus glutinosa)	10	300	3	3	3	3	N/A	2	Early Mature	Good	2 trees forming one crown. Measurement indicative of individuals.	-	20+ Years	C2	3.6	Retain	Tree protection fencing
BG044	GROUP of Common Alder (Alnus glutinosa), Field Maple (Acer campestre) and Crack Willow (Salix fragilis)	14	Ave. 450	-	-	-	-	N/A	0	Early Mature	Good	Three trees forming a single canopy group beside ditch. Over mature willow in group has snapped out to north.	-	40+ Years	B2	5.4	Retain	Tree protection fencing
BT045	Weeping Willow (Salix babylonica)	3	80	1.5	1.5	1.5	1.5	N/A	1	Semi Mature	Good	2 trees forming one crown. Measurementd indicative of individuals.	Remove to facilitate route.	40+ Years	C2	1.0	Remove	
BT046	Field Maple (Acer campestre)	9	180, 170, 160, 190, 180	3	3	3	3	N/A	0	Early Mature	Fair	Ivy clad, multi-stemmed tree typical of hedgerow species.	Remove to facilitate route.	20+ Years	C2	4.7	Remove	
BT047	Crack Willow (Salix fragilis)	17	650	7	5	7	5	N/A	2	Over Mature	Poor	Ivy clad tree with regenerative growth in west stem.	Remove to facilitate route.	20+ Years	C2	7.8	Remove	
BT048	Common Ash (Fraxinus excelsior)	10	450	5.5	5.5	5.5	5.5	N/A	2	Early Mature	Poor	Moribund tree.	Remove to facilitate route.	<10 years	U	0.0	Remove	
BT049	Common Ash (Fraxinus excelsior)	10	200	2	2	2	2	N/A	0	Semi Mature	Fair	Ivy clad tree with limited future potential.	-	20+ Years	C2	2.4	Retain	Tree protection fencing
BT050	Field Maple (Acer campestre)	9	180, 170, 160, 190, 180	5.5	5	5	5	N/A	0	Early Mature	Fair	Ivy clad on some stems. Multistemmed at base. Typical of hedgerow species	-	20+ Years	C2	4.7	Retain	Tree protection fencing
BT051	Common Hawthorn (Crataegus monogyna)	3	80	2	2	2	2	N/A	0	Semi Mature	Fair	Hawthorn on stream bank.	-	40+ Years	C2	2.1	Retain	
BT052	Weeping Willow (Salix babylonica)	4	400	7	7	7	7	N/A	1	Early Mature	Poor	Main stem snapped out to north.	-	20+ Years	C2	4.8	Retain	

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BT053	Common Hawthorn (Crataegus monogyna)	3	80	2	2	2	2	N/A	0	Semi Mature	Fair	Hawthorn on stream bank.	-	40+ Years	C2	2.1	Retain	
BT054	Common Hawthorn (Crataegus monogyna)	4	75	1	2.5	1	1	N/A	0	Semi Mature	Fair	Situated on bank and suppressed by large ash to west.	-	20+ Years	C2	0.9	Retain	
BT055	Common Ash (Fraxinus excelsior)	14	250, 260, 300, 200, 260, 280	7	7	7	3.5	N/A	0.5	Mature	Fair	2 mains stem with exposed rooting down the bank. Flailed on south stem.	-	10+ Years	B2	7.6	Retain	
BT056	Crack Willow (Salix fragilis)	20	1650	12	7.5	11	7	N/A	2	Veteran	Fair	1650 DBH significant tree. situated on southern bank. habitat potential for bats and owls. Major deadwood in crown . Snapped out stem to north that has formed and umbilical branch to a young tree on the opposite bank.	-	20+ Years	A1	15.0	Retain	
BT057	Crack Willow (Salix fragilis)	8	190, 170	2.5	2.5	2.5	2.5	N/A	0	Semi Mature	Good	Tree growing from umbilical branch of veteran tree DT056.	-	40+ Years	A1	3.1	Retain	
BT058	Common Ash (Fraxinus excelsior)	12	320, 260, 180	4	4	4	4	N/A	0	Early Mature	Fair	2 multi stem forming shared canopy. Crown measurements indicative.	-	10+ Years	C2	5.4	Retain	
BT059	Common Ash (Fraxinus excelsior)	12	320, 200	4	4	4	4	N/A	0	Early Mature	Fair	2 multi stem forming shared canopy. Crown measurements indicative.	-	10+ Years	C2	4.5	Retain	
BT060	Crack Willow (Salix fragilis)	9	600#	5	5	4.5	5	N/A	0	Over Mature	Poor	Ivy clad collapsing willow by stream.	-	10+ Years	C2	7.2	Retain	
BT061	Crack Willow (Salix fragilis)	7	110	4	4	4	4	N/A	0	Early Mature	Fair	Willow in ditch.	-	20+ Years	C2	3.0	Retain	
BG062	GROUP of Blackthorn (Prunus spinosa)	6	Ave. 90	-	-	-	-	N/A	0	Early Mature	Fair	Line of blackthorn on stream edge.	-	20+ Years	C2	1.2	Retain	
BG063	GROUP of Common Ash (Fraxinus excelsior)	20	Ave. 400	-	-	-	-	N/A	0	Mature	Fair	Predominantly ash high canopy over willow and hawthorn beside stream ditch.	-	40+ Years	A2	4.8	Retain	
BG064	GROUP of Willow (Salix sp.)	6	Ave. 180	-	-	-	-	N/A	0	Semi Mature	Fair	Dense group of approximately 25 crack and other willow stems in ditch.	-	20+ Years	C2	2.0	Retain	Tree protection fencing

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BT065	Crack Willow (Salix fragilis)	8	300, 300, 300, 300, 250	3.5	4.5	3.5	3.5	N/A	2	Early Mature	Fair	Crack willow in ditch cut back from field edge.	-	20+ Years	C2	7.8	Retain	Tree protection fencing
BG066	GROUP of Common Hawthorn (Crataegus monogyna) and Crack Willow (Salix fragilis)	4.5	Ave. 120	-	-	-	-	N/A	0	Semi Mature	Fair	Hawthorn and willow in ditch.	-	20+ Years	C2	1.5	Retain	Tree protection fencing
BT067	Common Hawthorn (Crataegus monogyna)	3	75	1	1	1	1	N/A	0	Semi Mature	Fair	Dense hawthorn situated on ditch bank.	Remove to facilitate route.	20+ Years	C2	0.9	Remove	
BG068	GROUP of Crack Willow (Salix fragilis)	6	Ave. 90	-	-	-	-	N/A	0	Semi Mature	Fair	Willow line in ditch.	-	20+ Years	C2	1.2	Retain	Tree protection fencing
BG069	GROUP of Crack Willow (Salix fragilis)	6	Ave. 150	-	-	-	-	N/A	0	Early Mature	Fair	Dense willow in ditch. Noted a very large active badger sett in this area.	-	20+ Years	C2	1.8	Retain	Tree protection fencing
BG070	GROUP of Crack Willow (Salix fragilis)	6	Ave. 90	-	-	-	-	N/A	0	Semi Mature	Fair	Willow in ditch.	-	20+ Years	C2	1.2	Retain	Tree protection fencing
BH071	HEDGEROW of Common Hawthorn (Crataegus monogyna)	2	75	-	-	-	-	N/A	0	Mature	Fair	Established hawthorn hedge between fields. managed with flail. Some gaps but overall fair quality.	-	40+ Years	B2	1.0	Retain	
BH072	HEDGEROW of Common Hawthorn (Crataegus monogyna)	2	75	-	-	-	-	N/A	0	Mature	Fair	Established hawthorn hedge between fields. managed with flail. Some gaps but overall fair quality.	Remove section of hedge to facilitate route.	40+ Years	B2	1.0	Part remove	Tree protection fencing
BH073	HEDGEROW of Blackthorn (Prunus spinosa) and Common Hawthorn (Crataegus monogyna)	2.5	75	-	-	-	-	N/A	0	Mature	Good	Dense hedge of blackthorn and hawthorn. Well maintained beside highway.	Remove section of hedge to facilitate route.	40+ Years	B2	1.0	Part remove	Tree protection fencing
BT074	Common Ash (Fraxinus excelsior)	8.5	230	3	3	3	3	N/A	5	Early Mature	Fair	3 ash standards in hedge forming shared canopy. Crown spreads indicative. ADB AHC 1.	Remove to facilitate route.	10+ Years	C2	2.8	Retain	
BT075	Common Ash (Fraxinus excelsior)	9	240	3	3	3	3	N/A	5	Early Mature	Fair	3 ash standards in hedge forming shared canopy. Crown spreads indicative. ADB AHC 1.	Remove to facilitate route.	10+ Years	C2	2.9	Retain	

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BT076	Common Ash (Fraxinus excelsior)	8	220	3	3	3	3	N/A	5	Early Mature	Fair	3 ash standards in hedge forming shared canopy. Crown spreads indicative. ADB AHC 1.	Remove to facilitate route.	10+ Years	C2	2.6	Retain	
BH077	HEDGEROW of Blackthorn (Prunus spinosa), Common Hawthorn (Crataegus monogyna) and Elder (Sambucus nigra)	2.5	Ave. 150	-	-	-	-	N/A	0	Mature	Good	Dense wide hedge with blackthorn, hawthorn and elder. Maintained at 2.5m tall and 2m wide. Mature individuals amongst hedge.	-	40+ Years	B2	1.8	Retain	
BH078	HEDGEROW of Common Hawthorn (Crataegus monogyna)	2	75	-	-	-	-	N/A	0	Mature	Fair	Almost exclusively hawthorn hedge maintained at 2m becoming sparse at NW end.	-	20+ Years	C2	1.0	Retain	
BH079	HEDGEROW of Common Hawthorn (Crataegus monogyna)	2	75	-	-	-	-	N/A	0	Mature	Fair	Almost exclusively hawthorn hedge maintained at 2m.	-	20+ Years	C2	1.0	Retain	
BH080	HEDGEROW of Common Hawthorn (Crataegus monogyna)	2	75	-	-	-	-	N/A	0	Mature	Fair	Almost exclusively hawthorn hedge maintained at 2m.	-	20+ Years	C2	1.0	Retain	Tree protection fencing
BT081	Common Ash (Fraxinus excelsior)	8	230, 250, 210	3.5	3.5	3.5	3.5	N/A	0	Early Mature	Good	Situated in hedge. Triple stemmed at 0.5 m with tight unions and a well balanced crown.	-	<10 years	C2	4.8	Retain	Tree protection fencing
BT082	Common Ash (Fraxinus excelsior)	8	230, 250, 210	3.5	3.5	3.5	3.5	N/A	0	Early Mature	Good	Situated in hedge. Triple stemmed at 0.5 m with tight unions and a well-balanced crown. Lower stem flailed to west and east.	-	<10 years	C2	4.8	Retain	Tree protection fencing
BT083	Common Ash (Fraxinus excelsior)	8	270, 270, 320, 340, 160, 160	4	4	4	4	N/A	0	Early Mature	Good	Situated in hedge. Multistemmed at 0.5 m with tight unions and a well balanced crown. Lower stem flailed to west and east.	-	<10 years	C2	7.7	Retain	Tree protection fencing

Tree ID	Species	Height (m)	Stem Diameter (mm)	Branch spread N (m)	Branch spread E (m)	Branch spread S (m)	Branch spread W (m)	First significant branch height (m)	Canopy height (m)	Life stage	Vitality	General observations	Preliminary management recommendations	Estimated Remaining Contribution (Years)	Category Grading	RPA Radius (m)	Impact - Remove / Part Remove / Retain	Mitigation
BT084	Common Walnut (Juglans regia)	10	500#	6	6	6	6	N/A	4	Mature	Good	linear group at 5m spacings. Trees have good form with historic pruning wounds on stem and minor deadwood. Collectively provide higher value. Dense ivy on stem prevented further detailed inspection.	-	40+ Years	A1, 2	6.0	Retain	Tree protection fencing
BT085	Common Walnut (Juglans regia)	10	500#	6	6	6	6	N/A	4	Mature	Good	linear group at 5m spacings. Trees have good form with historic pruning wounds on stem and minor deadwood. Collectively provide higher value. Dense ivy on stem prevented further detailed inspection.	-	40+ Years	A1, 2	6.0	Retain	Tree protection fencing
BT086	Common Walnut (Juglans regia)	10	500#	6	6	6	6	N/A	4	Mature	Good	linear group at 5m spacings. Trees have good form with historic pruning wounds on stem and minor deadwood. Collectively provide higher value. Dense ivy on stem prevented further detailed inspection.	-	40+ Years	A1, 2	6.0	Retain	Tree protection fencing
BT087	Common Walnut (Juglans regia)	10	500#	6	6	6	6	N/A	4	Mature	Good	linear group at 5m spacings. Trees have good form with historic pruning wounds on stem and minor deadwood. Collectively provide higher value. Dense ivy on stem prevented further detailed inspection.	-	40+ Years	A1, 2	6.0	Retain	Tree protection fencing
BT088	Common Walnut (Juglans regia)	10	500#	6	6	6	6	N/A	4	Mature	Good	linear group at 5m spacings. Trees have good form with historic pruning wounds on stem and minor deadwood. Collectively provide higher value. Dense ivy on stem prevented further detailed inspection.	-	40+ Years	A1, 2	6.0	Retain	Tree protection fencing
BT089	Common Walnut (Juglans regia)	10	500#	6	6	6	6	N/A	4	Mature	Good	linear group at 5m spacings. Trees have good form with historic pruning wounds on stem and minor deadwood. Collectively provide higher value. Dense ivy on stem prevented further detailed inspection.	-	40+ Years	A1, 2	6.0	Retain	Tree protection fencing

Tree ID	Species	Height (m)	Stem Diameter (mm)	Branch spread N (m)	Branch spread E (m)	Branch spread S (m)	Branch spread W (m)	First significant branch height (m)	Canopy height (m)	Life stage	Vitality	General observations	Preliminary management recommendations	Estimated Remaining Contribution (Years)	Category Grading	RPA Radius (m)	Impact - Remove / Part Remove / Retain	Mitigation
BG090	HEDGEROW GROUP of Common Hawthorn (Crataegus monogyna) and Common Ash (Fraxinus excelsior)	7	75	-	-	-	-	N/A	0	Early Mature	Fair	Semi to early mature dense hedgerow with taller ash and hawthorn situated inside. Provides visual screening.	-	20+ Years	B2	1.0	Retain	
BH091	HEDGEROW of Common Hawthorn (Crataegus monogyna)	2	75	-	-	-	-	N/A	0	Early Mature	Fair	Field boundary hedgerow, sparse in places.	-	20+ Years	C2	1.0	Retain	
BH092	HEDGEROW of Mixed Native Species	2	75	-	-	-	-	N/A	0	Early Mature	Good	Managed dense hedgerow along highway.	Remove section of hedge to facilitate route.	20+ Years	B2	1.0	Part remove	Tree protection fencing
BH093	HEDGEROW of Mixed Native Species	2	75	-	-	-	-	N/A	0	Early Mature	Good	Managed dense hedgerow along highway.	Remove section of hedge to facilitate route.	20+ Years	B2	1.0	Part remove	Tree protection fencing
BG094	GROUP of Common Lime (Tilia x vulgaris), Wild Cherry (Prunus avium) and Common Hawthorn (Crataegus monogyna)	13	Ave. 250	-	-	-	-	N/A	0	Early Mature	Good	Linear group with mixed species upper canopy cover and dense flailed blackthorn and hawthorn below. Group includes Horse Chestnut, Norway Maple, Sycamore and Field Maple.	-	40+ Years	A1, 2	3.0	Retain	Tree protection fencing
BG095	GROUP of Common Beech (Fagus sylvatica), Common Hawthorn (Crataegus monogyna) and English Yew (Taxus baccata)	24	Ave. 500	-	-	-	-	N/A	0	Mature	Good	Linear group of planted beech woodland adjacent to the field. Dense hawthorn below on field boundary with line of yew behind beech. Landscaped garden beyond the tree line.	-	40+ Years	A2	6.0	Retain	Tree protection fencing
BT096	Common Ash (Fraxinus excelsior)	12	450	4	4	4	4	N/A	2	Mature	Poor	Low quality ivy clad tree.	-	<10 years	C2	5.4	Retain	
BT097	Common Ash (Fraxinus excelsior)	15	600	6	6	6	6	N/A	4	Mature	Fair	ADB AHC level 2. Densely ivy clad with prolific epicormic growth in crown.	-	<10 years	C2	7.2	Retain	Tree protection fencing
BG098	GROUP of Mixed Native Species	5	Ave. 150	-	-	-	-	N/A	0	Over Mature	Poor	Very dense mixed group of hawthorn and elder . Extremely dense ivy taken hold in hedge covering all the trees and exclusively ivy on failed stems in places.	Remove section of group to facilitate route.	40+ Years	C2	1.8	Part remove	Tree protection fencing

Tree ID	Species	Height (m)	Stem Diameter (mm)	Branch spread N (m)	Branch spread E (m)	Branch spread S (m)	Branch spread W (m)	First significant branch height (m)	Canopy height (m)	Life stage	Vitality	General observations	Preliminary management recommendations	Estimated Remaining Contribution (Years)	Category Grading	RPA Radius (m)	Impact - Remove / Part Remove / Retain	Mitigation
BG099	GROUP of Mixed Native Species	1.5	75	-	-	-	-	N/A	0	Mature	Fair	Typical mature hedgerow. 2m wide with little ivy.	-	40+ Years	B2	1.0	Retain	
BG100	GROUP of Field Elm (Ulmus minor)	8	Ave. 200	-	-	-	-	N/A	0	Dead	Dead	Dead elm group with prolific ivy.	-	Dead	C2	0.9	Retain	
BG101	GROUP of Field Elm (Ulmus minor)	6.5	Ave. 150	-	-	-	-	N/A	0	Semi Mature	Fair	Dense group of semi mature elm in reasonable health.	-	10+ Years	C2	2.1	Retain	
BG102	GROUP of Field Elm (Ulmus minor)	14	Ave. 400	-	-	-	-	N/A	5	Mature	Fair	Mature elm in field edge. DBH 400 common with occasional at 550. Ivy clad throughout.	-	10+ Years	B2	1.8	Retain	
BG103	GROUP of Field Maple (Acer campestre) and elder (Sambucus nigra)	7	200	-	-	-	-	N/A	0	Semi Mature	Fair	Sparse field maple and elder group.	-	20+ Years	B2	4.8	Retain	
BT104	Pedunculate Oak (Quercus robur)	15	700	6	9	8	5.5	N/A	5	Mature	Fair	Mature ivy clad oak in hedge line.	-	40+ Years	B2	8.4	Retain	
BT105	Common Ash (Fraxinus excelsior)	12	550	3	3	3	3	N/A	4	Early Mature	Fair	Group of ash trees in hedge line.	-	10+ Years	C2	6.6	Retain	
BT106	Common Ash (Fraxinus excelsior)	11	500	3	3	2.5	3	N/A	4	Early Mature	Fair	Group of ash trees in hedge line.	-	10+ Years	C2	6.0	Retain	
BT107	Field Maple (Acer campestre)	6	200, 240	3	3	2.5	3	N/A	4	Semi Mature	Fair	Field maple in group.	-	20+ Years	C2	3.7	Retain	
BT108	Common Ash (Fraxinus excelsior)	9	500	3	2.5	2	3	N/A	4	Early Mature	Fair	Group of ash trees in hedge line.	-	10+ Years	C2	6.0	Retain	
BT109	Common Ash (Fraxinus excelsior)	9	500	3	2.5	2	3	N/A	4	Early Mature	Fair	Group of ash trees in hedge line.	-	10+ Years	C2	6.0	Retain	
BT110	Common Ash (Fraxinus excelsior)	14	600	4.5	2.5	2	3	N/A	4	Early Mature	Fair	Group of ash trees in hedge line.	-	10+ Years	C2	7.2	Retain	
BT111	Common Ash (Fraxinus excelsior)	14	600	4.5	2.5	2	3	N/A	4	Early Mature	Fair	Group of ash trees in hedge line.	-	10+ Years	C2	7.2	Retain	
BH112	HEDGEROW of Mixed Native Species	2	75	-	-	-	-	N/A	0	Mature	Fair	Mixed hedge maintained at 2 x 2 m.	-	20+ Years	B2	1.0	Retain	

Tree ID	Species	Height (m)	Stem Diameter (mm)	Branch spread N (m)	Branch spread E (m)	Branch spread S (m)	Branch spread W (m)	First significant branch height (m)	Canopy height (m)	Life stage	Vitality	General observations	Preliminary management recommendations	Estimated Remaining Contribution (Years)	Category Grading	RPA Radius (m)	Impact - Remove / Part Remove / Retain	Mitigation
BH113	HEDGEROW of Mixed Native Species	2	75	-	-	-	-	N/A	0	Mature	Fair	Mixed hedge maintained at 2 x 2 m.	Remove section of hedge to facilitate route.	20+ Years	B2	1.0	Part remove	Tree protection fencing
BH114	HEDGEROW of Mixed Native Species	2	75	-	-	-	-	N/A	0	Mature	Fair	Mixed hedge maintained at 2 x 2 m.	Remove section of hedge to facilitate route.	20+ Years	B2	1.0	Part remove	Tree protection fencing
BG115	GROUP of Elm (Ulmus sp.) and Common Ash (Fraxinus excelsior)	14	Ave. 350	-	-	-	-	N/A	5	Mature	Fair	Mature elm and ash woodland along highway.	-	20+ Years	B2	4,2	Retain	
BT116	Elm (Ulmus sp.)	22	650	8.5	8.5	8.5	8.5	N/A	4	Mature	Good	Very large mature elm in good health on edge of mixed group.	-	20+ Years	A1	7.8	Retain	
Section C																		
CG001	GROUP of Mixed Species (mixed species)	3	75	-	-	-	-	N/A	0	Mature	Good	Mature mixed species 3x2m. a few gaps along the length but overall good condition.	-	40+ Years	B2	1.0	Retain	Tree protection fencing
CT002	Rowan (Sorbus aucuparia)	4	90	1.5	1.5	1	1	N/A	2	Semi Mature	Fair	Rowan on cycle lane with slight lean NE.	-	40+ Years	C2	1.1	Retain	
CT003	Cherry (Prunus sp. (Cherries))	3.5	90	1	1	1	1	N/A	1	Young	Fair	Cherry beside cycle path.	-	40+ Years	C2	1.1	Retain	
CT004	Cherry (Prunus sp. (Cherries))	4.5	140	1.5	1.5	1.5	1.5	N/A	1.5	Young	Fair	Cherry beside cycle path.	-	40+ Years	C2	1.7	Retain	
CT005	Cherry (Prunus sp. (Cherries))	4.5	90	1.5	1.5	1.5	1.5	N/A	2	Young	Fair	Cherry beside cycle path. Bark damage on stem.	-	10+ Years	C2	1.1	Retain	
CT006	Prunus (Prunus sp.)	5	160	2.5	2.5	2.5	2.5	N/A	2	Semi Mature	Fair	Prunus beside cycle track. Large wound at base.	-	20+ Years	C2	1.9	Retain	
CT007	Birch (Betula sp.)	2	100	1.5	1.5	1.5	1.5	N/A	0	Dead	Dead	River birch. Stem cut at 1m.	Outside proposed bus route area . Low target. Retain	Dead	U	0.0	Retain	
CT008	Prunus (Prunus sp.)	5	120	2.5	2.5	2.5	2.5	N/A	2	Semi Mature	Fair	Prunus beside cycle track. Wound at base.	-	20+ Years	C2	1.4	Retain	Tree protection fencing
CT009	English Yew (Taxus baccata)	4	120	2	0.5	2	2	N/A	0	Semi Mature	Fair	Yew beside cycleway. Cut back from cycle track.	-	40+ Years	C2	1.4	Retain	Tree protection fencing
CT010	Cherry (Prunus sp. (Cherries))	5	150	2	2	2	2	N/A	2	Semi Mature	Fair	Cherry on cycle lane.	-	40+ Years	B2	1.8	Retain	Tree protection fencing
CT011	Rowan (Sorbus aucuparia)	5	120	2	2	2	2	N/A	2	Semi Mature	Fair	Rowan on cycle lane with stem damage at 1m on east.	Remove to facilitate route.	20+ Years	C2	1.4	Remove	

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CT012	English Yew (Taxus baccata)	4	120	2	0.5	2	2	N/A	0	Semi Mature	Fair	Yew beside cycleway. Cut back from cycle track.	Remove to facilitate route.	40+ Years	C2	1.4	Retain	Tree protection fencing
CT013	Goat Willow (Salix caprea)	6.5	130, 90, 120, 130, 100	3	3	3	3	N/A	2.5	Semi Mature	Fair	Goat willow with tight unions, pruning wounds throughout. Dense crown.	Remove to facilitate route.	20+ Years	C2	3.1	Retain	Tree protection fencing
CT014	Common Hawthorn (Crataegus monogyna)	5.5	130	2	2	2	2	N/A	0	Semi Mature	Fair	Hawthorn beside ditch.	-	20+ Years	C2	1.6	Retain	Tree protection fencing
CG015	GROUP of Common Hawthorn (Crataegus monogyna)	4	90	-	-	-	-	N/A	0	Semi Mature	Fair	line of hawthorn on edge of ditch.	Remove group to facilitate route.	20+ Years	C2	1.1	Remove	
CT016	Common Hawthorn (Crataegus monogyna)	5.5	130	2	2	2	2	N/A	0	Semi Mature	Fair	Hawthorn beside ditch.	-	20+ Years	C2	1.6	Retain	Tree protection fencing
CG017	GROUP of Common Hawthorn (Crataegus monogyna)	4	90	-	-	-	-	N/A	0	Semi Mature	Fair	line of hawthorn on edge of ditch.	-	20+ Years	C2	1.5	Retain	Tree protection fencing
CW018	WOODLAND of Common Beech (Fagus sylvatica)	15	650#	-	-	-	-	N/A	3	Mature	Good	Beech dominated woodland with birch, willow and hawthorn in understorey. Nine Wells LNR.	-	40+ Years	A2, 3	7.8	Retain	Tree protection fencing
CW019	WOODLAND of Mixed Species (mixed species)	8	100	-	-	-	-	N/A	0	Semi Mature	Fair	Densely planted woodland group behind existing tree line. Very dense with no evidence of management since planting. Species include hawthorn, willow, yew, oak and cherry.	-	40+ Years	B2	1.2	Retain	
CH020	HEDGEROW of Mixed Species (mixed species)	8	180#	-	-	-	-	N/A	0	Mature	Fair	Mature unmanaged hedge. evidence of historical pruning. Species include ash, field maple and hawthorn with willow.	Remove section of hedge to facilitate route.	20+ Years	B2	2.0	Part remove	
CG021	GROUP of Mixed Species (mixed species)	1	75	-	-	-	-	N/A	0	Young	Fair	Roadside planting on embankment.	Remove section of group to facilitate route.	40+ Years	C2	1.0	Part remove	
CG022	GROUP of Common Hawthorn (Crataegus monogyna)	3	75	-	-	-	-	N/A	0	Early Mature	Fair	Dense hawthorn along railway fence.	-	20+ Years	C2	1.0	Retain	

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CT023	Pedunculate Oak (Quercus robur)	8	110	1.5	1.5	1.5	1.5	N/A	2.5	Young	Fair	New planting along ditch and path.	-	40+ Years	C2	1.3	Retain	
CT024	Common Lime (Tilia x vulgaris)	8	100	1.5	1.5	1.5	1.5	N/A	2.5	Young	Fair	New planting along ditch and path.	-	40+ Years	C2	1.2	Retain	
CT025	Common Lime (Tilia x vulgaris)	8	100	1.5	1.5	1.5	1.5	N/A	2.5	Young	Fair	New planting along ditch and path.	-	40+ Years	C2	1.2	Retain	
CT026	Pedunculate Oak (Quercus robur)	8	110	1.5	1.5	1.5	1.5	N/A	2.5	Young	Fair	New planting along ditch and path.	-	40+ Years	C2	1.3	Retain	
CT027	Hornbeam (Carpinus betulus)	7	80	1.5	1.5	1.5	1.5	N/A	2.5	Young	Fair	New planting along ditch and path.	-	40+ Years	C2	1.0	Retain	
CT028	Field Maple (Acer campestre)	6	80	1	1	1	1	N/A	2.5	Young	Fair	New planting along ditch and path. Streetwise.	-	40+ Years	C2	1.0	Retain	
CT029	Field Maple (Acer campestre)	6	80	1	1	1	1	N/A	2.5	Young	Fair	New planting along ditch and path. Streetwise.	-	40+ Years	C2	1.0	Retain	
CT030	Hornbeam (Carpinus betulus)	7	80	1.5	1.5	1.5	1.5	N/A	2.5	Young	Fair	New planting along ditch and path.	-	40+ Years	C2	1.0	Retain	
CT031	Field Maple (Acer campestre)	6	80	1	1	1	1	N/A	2.5	Young	Fair	New planting along ditch and path. Streetwise.	-	40+ Years	C2	1.0	Retain	
CT032	Field Maple (Acer campestre)	6	80	1	1	1	1	N/A	2.5	Young	Fair	New planting along ditch and path. Streetwise.	-	40+ Years	C2	1.0	Retain	
CT033	Hornbeam (Carpinus betulus)	7	80	1.5	1.5	1.5	1.5	N/A	2.5	Young	Fair	New planting along ditch and path.	-	40+ Years	C2	1.0	Retain	
CT034	Pedunculate Oak (Quercus robur)	8	110	1.5	1.5	1.5	1.5	N/A	2.5	Young	Fair	New planting along ditch and path.	-	40+ Years	C2	1.3	Retain	
CT035	Hornbeam (Carpinus betulus)	7	80	1.5	1.5	1.5	1.5	N/A	2.5	Young	Fair	New planting along ditch and path.	-	40+ Years	C2	1.0	Retain	
CT036	Cherry (Prunus sp. (Cherries))	8	85	1.5	1.5	1.5	1.5	N/A	2.5	Young	Fair	New planting along ditch and path.	-	40+ Years	C2	1.0	Retain	
CT037	Turkish Hazel (Corylus colurna)	8	90	1.5	1.5	1.5	1.5	N/A	2.5	Young	Fair	New planting along ditch and path.	-	40+ Years	C2	1.1	Retain	

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CT038	Turkish Hazel (Corylus colurna)	8	90	1.5	1.5	1.5	1.5	N/A	2.5	Young	Fair	New planting along ditch and path.	-	40+ Years	C2	1.1	Retain	
CT039	Common Lime (Tilia x vulgaris)	7	90	1.5	1.5	1.5	1.5	N/A	2.5	Young	Fair	New planting along ditch and path.	-	40+ Years	C2	1.1	Retain	
CT040	Common Alder (Alnus glutinosa)	7	90	1.5	1.5	1.5	1.5	N/A	2.5	Young	Fair	New planting along ditch and path.	-	40+ Years	C2	1.1	Retain	
CT041	Common Alder (Alnus glutinosa)	7	90	1.5	1.5	1.5	1.5	N/A	2.5	Young	Fair	New planting along ditch and path.	-	40+ Years	C2	1.1	Retain	
CT042	Common Alder (Alnus glutinosa)	7	90	1.5	1.5	1.5	1.5	N/A	2.5	Young	Fair	New planting along ditch and path.	-	40+ Years	C2	1.1	Retain	
CT043	Turkish Hazel (Corylus colurna)	8	90	1.5	1.5	1.5	1.5	N/A	2.5	Young	Fair	New planting along ditch and path.	-	40+ Years	C2	1.1	Retain	
CT044	Pedunculate Oak (Quercus robur)	8	110	1.5	1.5	1.5	1.5	N/A	2.5	Young	Fair	New planting along ditch and path.	-	40+ Years	C2	1.3	Retain	
CG045	GROUP of Mixed Species (mixed species)	4	90	-	-	-	-	N/A	0	Young	Fair	Dense planting of goat willow, hazel and hawthorn behind fence. Hard surface immediately below fence.	Remove group to facilitate route.	40+ Years	C2	1.0	Part remove	
CG046	GROUP of Mixed Species (mixed species)	4	90	-	-	-	-	N/A	0	Young	Fair	Dense planting of goat willow, hazel and hawthorn behind fence. Hard surface immediately below fence.	Remove group to facilitate route.	40+ Years	C2	1.0	Part remove	
CG047	GROUP of Mixed Species (mixed species)	4	90	-	-	-	-	N/A	0	Young	Fair	Dense planting of goat willow, hazel and hawthorn behind fence. Hard surface immediately below fence.	Remove group to facilitate route.	40+ Years	C2	1.0	Part remove	
CG048	GROUP of Mixed Species (mixed species)	1	75	-	-	-	-	N/A	0	Young	Fair	Roadside planting on embankment.	-	40+ Years	C2	1.0	Retain	
CG049	GROUP of Mixed Species (mixed species)	4	90	-	-	-	-	N/A	0	Young	Fair	Dense planting of goat willow, hazel and hawthorn around suds	-	40+ Years	C2	1.0	Retain	
CG050	GROUP of Mixed Species (mixed species)	4	90	-	-	-	-	N/A	0	Young	Fair	Dense planting of goat willow, hazel and hawthorn around suds.	-	40+ Years	C2	1.0	Retain	

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CT051	London Plane (Platanus x hispanica)	7	140	2	2	2	2	N/A	3	Dead	Dead	Moribund tree at end of Avenue.	Remove within next 6 months	<10 years	U	0.0	Remove	
CT052	London Plane (Platanus x hispanica)	7	150	2	2	2	2	N/A	4	Semi Mature	Good	Avenue of plane trees.	Remove to facilitate route.	40+ Years	B2	1.8	Remove	
CT053	London Plane (Platanus x hispanica)	7	160	2	2	2	2	N/A	4	Semi Mature	Good	Avenue of plane trees.	Remove to facilitate route.	40+ Years	B2	1.9	Remove	
CT054	London Plane (Platanus x hispanica)	7	150	2	2	2	2	N/A	4	Semi Mature	Good	Avenue of plane trees.	Remove to facilitate route.	40+ Years	B2	1.8	Remove	
CT055	London Plane (Platanus x hispanica)	7	150	2.0	2	2	2	N/A	4	Semi Mature	Good	Avenue of plane trees.	Remove to facilitate route.	40+ Years	B2	1.8	Remove	
CT056	London Plane (Platanus x hispanica)	7	150	2.0	2	2	2	N/A	4	Semi Mature	Good	Avenue of plane trees.	Remove to facilitate route.	40+ Years	B2	1.8	Remove	
CT057	London Plane (Platanus x hispanica)	7	150	2.0	2	2	2	N/A	4	Semi Mature	Good	Avenue of plane trees.	Remove to facilitate route.	40+ Years	B2	1.8	Remove	
CT058	London Plane (Platanus x hispanica)	7	150	2.0	2	2	2	N/A	4	Semi Mature	Good	Avenue of plane trees.	Remove to facilitate route.	40+ Years	B2	1.8	Remove	
CT059	London Plane (Platanus x hispanica)	7	170	2.0	2	2	2	N/A	4	Semi Mature	Good	Avenue of plane trees.	Remove to facilitate route.	40+ Years	B2	2.0	Remove	
CT060	London Plane (Platanus x hispanica)	7	180	2.0	2	2	2	N/A	4	Semi Mature	Good	Avenue of plane trees.	Remove to facilitate route.	40+ Years	B2	2.2	Remove	
CT061	London Plane (Platanus x hispanica)	7	170	2.0	2	2	2	N/A	4	Semi Mature	Good	Avenue of plane trees.	Remove to facilitate route.	40+ Years	B2	2.0	Remove	
CT062	London Plane (Platanus x hispanica)	7	190	2.0	2	2	2	N/A	4	Semi Mature	Good	Avenue of plane trees.	Remove to facilitate route.	40+ Years	B2	2.3	Remove	
CT063	London Plane (Platanus x hispanica)	7	170	2.0	2	2	2	N/A	4	Semi Mature	Good	Avenue of plane trees.	Remove to facilitate route.	40+ Years	B2	2.0	Remove	
CT064	London Plane (Platanus x hispanica)	7	170	2.0	2	2	2	N/A	4	Semi Mature	Good	Avenue of plane trees.	Remove to facilitate route.	40+ Years	B2	2.0	Remove	
CT065	London Plane (Platanus x hispanica)	7	170	2.0	2	2	2	N/A	4	Semi Mature	Good	Avenue of plane trees.	Remove to facilitate route.	40+ Years	B2	2.0	Remove	

Tree ID	Species	Height (m)	Stem Diameter (mm)	Branch spread N (m)	Branch spread E (m)	Branch spread S (m)	Branch spread W (m)	First significant branch height (m)	Canopy height (m)	Life stage	Vitality	General observations	Preliminary management recommendations	Estimated Remaining Contribution (Years)	Category Grading	RPA Radius (m)	Impact - Remove / Part Remove / Retain	Mitigation
CT066	London Plane (Platanus x hispanica)	7	160	2.0	2	2	2	N/A	4	Semi Mature	Good	Avenue of plane trees.	Remove to facilitate route.	40+ Years	B2	1.9	Remove	
CT067	London Plane (Platanus x hispanica)	7	150	2.0	2	2	2	N/A	4	Semi Mature	Good	Avenue of plane trees.	Remove to facilitate route.	40+ Years	B2	1.8	Remove	
CT068	London Plane (Platanus x hispanica)	7	160	2.0	2	2	2	N/A	4	Semi Mature	Good	Avenue of plane trees.	Remove to facilitate route.	40+ Years	B2	1.9	Remove	
CT069	London Plane (Platanus x hispanica)	7	180	2.0	2	2	2	N/A	4	Semi Mature	Good	Avenue of plane trees.	Remove to facilitate route.	40+ Years	B2	2.2	Remove	
CT070	London Plane (Platanus x hispanica)	7	150	2.0	2	2	2	N/A	4	Semi Mature	Good	Avenue of plane trees.	Remove to facilitate route.	40+ Years	B2	1.8	Remove	
CT071	London Plane (Platanus x hispanica)	7	160	2.0	2	2	2	N/A	4	Semi Mature	Good	Avenue of plane trees.	Remove to facilitate route.	40+ Years	B2	1.9	Remove	
CT072	London Plane (Platanus x hispanica)	7	170	2.0	2	2	2	N/A	4	Semi Mature	Good	Avenue of plane trees.	Remove to facilitate route.	40+ Years	B2	2.0	Remove	
CT073	London Plane (Platanus x hispanica)	7	160	2.0	2	2	2	N/A	4	Semi Mature	Good	Avenue of plane trees.	Remove to facilitate route.	40+ Years	B2	1.9	Remove	
CT074	London Plane (Platanus x hispanica)	7	160	2.0	2	2	2	N/A	4	Semi Mature	Good	Avenue of plane trees.	Remove to facilitate route.	40+ Years	B2	1.9	Remove	
CT075	London Plane (Platanus x hispanica)	7	170	2.0	2	2	2	N/A	4	Semi Mature	Good	Avenue of plane trees.	Remove to facilitate route.	40+ Years	B2	2.0	Remove	
CT076	London Plane (Platanus x hispanica)	7	210	2.5	2.5	2.5	2.5	N/A	4	Semi Mature	Good	Avenue of plane trees.	Remove to facilitate route.	40+ Years	B2	2.5	Remove	
CT077	London Plane (Platanus x hispanica)	7	170	2.0	2	2	2	N/A	4	Semi Mature	Good	Avenue of plane trees.	Remove to facilitate route.	40+ Years	B2	2.0	Remove	
CT078	London Plane (Platanus x hispanica)	7	180	2.0	2	2	2	N/A	4	Semi Mature	Good	Avenue of plane trees.	-	40+ Years	B2	2.2	Retain	Tree protection fencing
CT079	London Plane (Platanus x hispanica)	7	190	2.0	2	2	2	N/A	4	Semi Mature	Good	Avenue of plane trees.	-	40+ Years	B2	2.3	Retain	Tree protection fencing
CT080	London Plane (Platanus x hispanica)	7	220	2.0	2	2	2	N/A	4	Semi Mature	Good	Avenue of plane trees.	-	40+ Years	B2	2.6	Retain	

Tree ID	Species	Height (m)	Stem Diameter (mm)	Branch spread N (m)	Branch spread E (m)	Branch spread S (m)	Branch spread W (m)	First significant branch height (m)	Canopy height (m)	Life stage	Vitality	General observations	Preliminary management recommendations	Estimated Remaining Contribution (Years)	Category Grading	RPA Radius (m)	Impact - Remove / Part Remove / Retain	Mitigation
CT081	London Plane (Platanus x hispanica)	7	210	2.0	2	2	2	N/A	4	Semi Mature	Good	Avenue of plane trees.	-	40+ Years	B2	2.5	Retain	Tree protection fencing
CT082	Pedunculate Oak (Quercus robur)	9	210	2.5	2.5	2.5	2.5	N/A	4	Semi Mature	Good	Oak trees, part of landscaping. Stem bleeds.	-	10+ Years	C2	2.5	Retain	
CT083	Pedunculate Oak (Quercus robur)	9	210	2.5	2.5	2.5	2.5	N/A	4	Semi Mature	Good	Oak trees, part of landscaping. Stem bleeds.	-	10+ Years	C2	2.5	Retain	
CT084	Pedunculate Oak (Quercus robur)	9	210	2.5	2.5	2.5	2.5	N/A	4	Semi Mature	Good	Oak trees, part of landscaping. Stem bleeds.	-	10+ Years	C2	2.5	Retain	
CT085	London Plane (Platanus x hispanica)	9	240	2.5	2.5	2.5	2.5	N/A	4	Semi Mature	Poor	Plane with extensive dieback.	Remove within next 6 months	<10 years	U	0.0	Retain	
CT086	Cherry (Prunus sp. (Cherries))	8	150	2.5	2.5	2.5	2.5	N/A	3	Semi Mature	Fair	Recent landscape planting.	-	20+ Years	B2	1.8	Retain	
CT087	Common Beech (Fagus sylvatica)	7	130	2.5	2.5	2.5	2.5	N/A	3	Semi Mature	Fair	Recent landscape planting.	-	20+ Years	B2	1.6	Retain	Tree protection fencing
CT088	Common Beech (Fagus sylvatica)	7	130	2.5	2.5	2.5	2.5	N/A	3	Semi Mature	Fair	Recent landscape planting.	-	20+ Years	B2	1.6	Retain	
CT089	Cherry (Prunus sp. (Cherries))	8	160	2.5	2.5	2.5	2.5	N/A	3	Semi Mature	Fair	Recent landscape planting. Stem damage.	-	20+ Years	B2	1.9	Retain	
CT090	Norway Maple (Acer platanoides)	9	240	2.5	2.5	2.5	2.5	N/A	4	Semi Mature	Poor	Moribund maple in new landscape planting.	Remove within next 6 months	<10 years	U	0.0	Retain	
CT091	London Plane (Platanus x hispanica)	7	170	2.0	2	2	2	N/A	4	Semi Mature	Good	Avenue of plane trees.	Remove to facilitate route.	40+ Years	B2	2.0	Retain	Tree protection fencing
CT092	Common Beech (Fagus sylvatica)	6.5	140	2.5	2.5	2.5	2.5	N/A	3	Semi Mature	Fair	Recent landscape planting.	Remove to facilitate route.	20+ Years	B2	1.7	Retain	
CT093	Common Beech (Fagus sylvatica)	5.5	90	1.5	1.5	1.5	1.5	N/A	3	Semi Mature	Fair	Recent landscape planting.	-	20+ Years	B2	1.1	Retain	
CT094	Common Lime (Tilia x vulgaris)	6.5	120	2.0	2	2	2	N/A	3	Semi Mature	Fair	Recent landscape planting.	-	20+ Years	B2	1.4	Retain	
CT095	Common Lime (Tilia x vulgaris)	6.5	120	2.0	2	2	2	N/A	3	Semi Mature	Poor	Recent landscape planting. Extensive stem damage.	Remove within next 6 months	<10 years	U	0.0	Retain	

Tree ID	Species	Height (m)	Stem Diameter (mm)	Branch spread N (m)	Branch spread E (m)	Branch spread S (m)	Branch spread W (m)	First significant branch height (m)	Canopy height (m)	Life stage	Vitality	General observations	Preliminary management recommendations	Estimated Remaining Contribution (Years)	Category Grading	RPA Radius (m)	Impact - Remove / Part Remove / Retain	Mitigation
CT096	Common Lime (Tilia x vulgaris)	6.5	120	2.0	2	2	2	N/A	3	Semi Mature	Fair	Recent landscape planting.	-	20+ Years	B2	1.4	Retain	
CT097	Common Lime (Tilia x vulgaris)	6.5	120	2.0	2	2	2	N/A	3	Semi Mature	Fair	Recent landscape planting.	-	20+ Years	B2	1.4	Retain	
CT098	Common Lime (Tilia x vulgaris)	6.5	120	2.0	2	2	2	N/A	3	Semi Mature	Fair	Recent landscape planting.	-	20+ Years	B2	1.4	Retain	
CT099	Common Lime (Tilia x vulgaris)	6.5	120	2.0	2	2	2	N/A	3	Semi Mature	Fair	Recent landscape planting.	-	20+ Years	B2	1.4	Retain	
CT100	London Plane (Platanus x hispanica)	7	160	2.0	2	2	2	N/A	4	Semi Mature	Good	Avenue of plane trees.	Remove to facilitate route.	40+ Years	B2	1.9	Retain	Tree protection fencing
CT101	London Plane (Platanus x hispanica)	7	160	2.0	2	2	2	N/A	4	Semi Mature	Good	Avenue of plane trees.	Remove to facilitate route.	40+ Years	B2	1.9	Retain	Tree protection fencing
CT102	London Plane (Platanus x hispanica)	7	160	2.0	2	2	2	N/A	4	Semi Mature	Good	Avenue of plane trees.	Remove to facilitate route.	40+ Years	B2	1.9	Retain	Tree protection fencing
CT103	London Plane (Platanus x hispanica)	7	160	2.0	2	2	2	N/A	4	Semi Mature	Good	Avenue of plane trees.	Remove to facilitate route.	40+ Years	B2	1.9	Retain	Tree protection fencing
CT104	London Plane (Platanus x hispanica)	7	150	2.0	2	2	2	N/A	4	Semi Mature	Good	Avenue of plane trees.	Remove to facilitate route.	40+ Years	B2	1.8	Retain	Tree protection fencing
CT105	London Plane (Platanus x hispanica)	7	150	2.0	2	2	2	N/A	4	Semi Mature	Good	Avenue of plane trees. Work at base of this tree.	Remove to facilitate route.	10+ Years	B2	1.8	Retain	Tree protection fencing
CT106	London Plane (Platanus x hispanica)	7	160	2.0	2	2	2	N/A	4	Semi Mature	Good	Avenue of plane trees.	Remove to facilitate route.	40+ Years	B2	1.9	Retain	Tree protection fencing
CT107	London Plane (Platanus x hispanica)	7	160	2.0	2	2	2	N/A	4	Semi Mature	Good	Avenue of plane trees.	Remove to facilitate route.	40+ Years	B2	1.9	Retain	Tree protection fencing
CT108	London Plane (Platanus x hispanica)	7	150	2.0	2	2	2	N/A	4	Semi Mature	Good	Avenue of plane trees.	Remove to facilitate route.	40+ Years	B2	1.8	Retain	Tree protection fencing
CT109	London Plane (Platanus x hispanica)	7	140	2.0	2	2	2	N/A	4	Semi Mature	Good	Avenue of plane trees. Zip tie tight on stem.	Remove to facilitate route.	40+ Years	B2	1.7	Retain	Tree protection fencing
CT110	London Plane (Platanus x hispanica)	7	150	2.0	2	2	2	N/A	4	Semi Mature	Good	Avenue of plane trees.	Remove to facilitate route.	40+ Years	B2	1.8	Retain	Tree protection fencing

Tree ID	Species	Height (m)	Stem Diameter (mm)	Branch spread N (m)	Branch spread E (m)	Branch spread S (m)	Branch spread W (m)	First significant branch height (m)	Canopy height (m)	Life stage	Vitality	General observations	Preliminary management recommendations	Estimated Remaining Contribution (Years)	Category Grading	RPA Radius (m)	Impact - Remove / Part Remove / Retain	Mitigation
CT111	London Plane (Platanus x hispanica)	7	150	2.0	2	2	2	N/A	4	Semi Mature	Good	Avenue of plane trees.	Remove to facilitate route.	40+ Years	B2	1.8	Retain	Tree protection fencing
CT112	London Plane (Platanus x hispanica)	7	130	2.0	2	2	2	N/A	4	Semi Mature	Good	Avenue of plane trees.	Remove to facilitate route.	40+ Years	B2	1.6	Retain	Tree protection fencing
CT113	London Plane (Platanus x hispanica)	7	150	2.0	2	2	2	N/A	4	Semi Mature	Good	Avenue of plane trees.	Remove to facilitate route.	40+ Years	B2	1.8	Retain	Tree protection fencing
CT114	London Plane (Platanus x hispanica)	7	150	2.0	2	2	2	N/A	4	Semi Mature	Good	Avenue of plane trees.	Remove to facilitate route.	40+ Years	B2	1.8	Retain	Tree protection fencing
CT115	London Plane (Platanus x hispanica)	7	130	2.0	2	2	2	N/A	4	Semi Mature	Good	Avenue of plane trees.	Remove to facilitate route.	40+ Years	B2	1.6	Retain	Tree protection fencing
CT116	London Plane (Platanus x hispanica)	7	130	2.0	2	2	2	N/A	4	Semi Mature	Good	Avenue of plane trees.	Remove to facilitate route.	40+ Years	B2	1.6	Retain	Tree protection fencing
CT117	London Plane (Platanus x hispanica)	7	150	2.0	2	2	2	N/A	4	Semi Mature	Good	Avenue of plane trees.	Remove to facilitate route.	40+ Years	B2	1.8	Retain	Tree protection fencing
CT118	London Plane (Platanus x hispanica)	7	140	2.0	2	2	2	N/A	4	Semi Mature	Good	Avenue of plane trees.	Remove to facilitate route.	40+ Years	B2	1.7	Retain	Tree protection fencing
CT119	London Plane (Platanus x hispanica)	7	130	2.0	2	2	2	N/A	4	Semi Mature	Good	Avenue of plane trees.	Remove to facilitate route.	40+ Years	B2	1.6	Retain	Tree protection fencing
CT120	London Plane (Platanus x hispanica)	7	150	2.0	2	2	2	N/A	4	Semi Mature	Good	Avenue of plane trees.	Remove to facilitate route.	40+ Years	B2	1.8	Retain	Tree protection fencing
CT121	London Plane (Platanus x hispanica)	7	150	2.0	2	2	2	N/A	4	Semi Mature	Good	Avenue of plane trees.	Remove to facilitate route.	40+ Years	B2	1.8	Remove	
CT122	London Plane (Platanus x hispanica)	7	130	2.0	2	2	2	N/A	4	Semi Mature	Good	Avenue of plane trees.	Remove to facilitate route.	40+ Years	B2	1.6	Remove	
CT123	London Plane (Platanus x hispanica)	7	100	2.0	2	2	2	N/A	4	Semi Mature	Good	Avenue of plane trees.	Remove to facilitate route.	40+ Years	B2	1.2	Remove	
New references (topographical survey data, aerial data and desk survey)																		

Tree ID	Species	Height (m)	Stem Diameter (mm)	Branch spread N (m)	Branch spread E (m)	Branch spread S (m)	Branch spread W (m)	First significant branch height (m)	Canopy height (m)	Life stage	Vitality	General observations	Preliminary management recommendations	Estimated Remaining Contribution (Years)	Category Grading	RPA Radius (m)	Impact - Remove / Part Remove / Retain	Mitigation
T001	Turkey Oak	18	1100	9.0	10	8	8	3-N	2	M	Good	Locally notable given large stem size. Dense ivy encroachment on main stem. Crown lifted and reduced to north. Frayed wounds at old storm damage.	No works presently required	40+	A2	13.2	Retain	
T002	Common Ash	18	500;500	0.0	8	12	8	N/A	5	M	Fair	Crown suppression to north. Dense ivy encroachment on main stem. Lean to south. Co-dominant stems from approx 500mm. Union obscured by ivy. Slight crown thinning.	No works presently required	20+	B2	8.5	Retain	
G003	A Group	18	600	8.0	8	8	8	N/A	1	SM-M	Fair to good	Mixed group dominated by ash. Mutual crown suppression.	No works presently required	20+	B2	7.2	Retain	
W004	Woodland	16	400	5.0	5	5	5	N/A	0	SM to M	Good	Ash, elder, goat willow, sycamore, oak. Planted and self sown woodland group. Dense ivy on stems. Existing deep drainage ditch on east extents.	No works presently required	20+	B2	4.8	Retain	
T005	Common Ash	12	100;100;100;100;100	6.0	6	6	6	N/A	0	EM	Fair	Multi stem tree suggesting past felling and regeneration. Growing east side of wet drainage ditch.	No works presently required	10+	C2	2.7	Retain	
T006	Common Ash	18	1100	8.0	8	6	6	4-S	4	M	Good	Co-dominant stems from approx 4m. Union appears sound. Dense ivy encroachment on main stem and into crown. Crown previously reduced in upper canopy. Decay pockets at old branch wounds.	No works presently required	20+	B2	13.2	Retain	
T007	Common Ash	8	150;200	3.5	3.5	3.5	3.5	N/A	0	SM	Good	Growing on east bank of wet drainage ditch. Dense ivy encroachment on main stem and into crown.	No works presently required	10+	C2	3.0	Retain	
H008	A Hedgerow	3	150	3.0	3	3	3	N/A	0	SM	Good	Hawthorn, elder. Sporadic hedgerow. Single and multi stems.	No works presently required	10+	C2	1.8	Retain	Tree protection fencing
T009	Common Ash	17	1000	8.0	7	8	8	7-E	4	M	Fair	Growing on edge of wooded area. Co-dominant stems from approx 4m. Union obscured. Dense ivy encroachment on main stem and into crown.	No works presently required	20+	B2	12.0	Retain	

Tree ID	Species	Height (m)	Stem Diameter (mm)	Branch spread N (m)	Branch spread E (m)	Branch spread S (m)	Branch spread W (m)	First significant branch height (m)	Canopy height (m)	Life stage	Vitality	General observations	Preliminary management recommendations	Estimated Remaining Contribution (Years)	Category Grading	RPA Radius (m)	Impact - Remove / Part Remove / Retain	Mitigation
T010	Hawthorn	3	90	2.5	2.5	2.5	2.5	N/A	0	Y	Fair	Growing on river bank. Balanced crown. Dense scrub to west.	No works presently required	10+	C2	1.1	Retain	
G011	Omitted.															0.0		
G012	Common Ash	20	1400	8.0	8	8	8	N/A	4	M	Fair to good	Prominent group given stem sizes. Occasional dead wood in crowns. Hung up in places. Inonotus hispidus in middle crowns of some trees. Broad crowns. Ivy encroachment on some stems. Potential ash dieback on younger trees. Epicormic flushes and thinning. Approx 6m verge between trees and road. Agricultural land to east. Evidence of storm damage. Frayed wounds.	Tree risk management surveys to inform any necessary management	20+	B3	16.8	Retain	
G013	A Group	18	500	7.0	7	7	7	N/A	0	SM to M	Fair	Wooded group. Ash, sycamore. Growing on sloped banks. Single and multi stems. Dense ivy encroachment on some stems.	No works presently required	20+	B2	6.0	Retain	Tree protection fencing
H014	A Hedgerow	4	150	2.0	2	2	2	N/A	0	SM	Fair	Hawthorn, elm, elder. Field boundary hedgerow. Tops unmanaged.	No works presently required		C2	1.8	Retain	
T015	Common Oak	16	600	5.0	4	7	6	1-S	0.5	M	Fair	Extensive dieback and dead wood in north crown. Road to east. Agricultural land to west. Large diameter dead wood in middle crown. Dense ivy encroachment on main stem and into crown.	Reduce deadwood	20+	B3	7.2	Retain	Tree protection fencing
G016	Common Ash	8	250	3.5	3.5	3.5	3.5	N/A	0	Y to SM	Fair	Sporadic trees growing within intermittent hedgerow. Single and multi stems.	No works presently required	10+	C2	3.0	Remove	
G017	Mixed group	12	400	3.0	3.0	3.0	3.0	N/A	0	Y to SM	Fair to good	Third party garden trees, include scots pine. Crowns topped in places. No access to bases. Measurements estimated and an average. Group extents plotted using aerial imagery.	No works presently required	20+	B2	4.8	Retain	

Tree ID	Species	Height (m)	Stem Diameter (mm)	Branch spread N (m)	Branch spread E (m)	Branch spread S (m)	Branch spread W (m)	First significant branch height (m)	Canopy height (m)	Life stage	Vitality	General observations	Preliminary management recommendations	Estimated Remaining Contribution (Years)	Category Grading	RPA Radius (m)	Impact - Remove / Part Remove / Retain	Mitigation
G018	Mixed group	12	400	3.0	3.0	3.0	3.0	N/A	0	Y to SM	Fair to good	Third party garden trees, including Walnut and Leyland cypress. No access to bases. Measurements estimated and an average. Group extents plotted using aerial imagery.	No works presently required	20+	B2	4.8	Retain	Tree protection fencing
T019	Common ash	14	500	5.0	5	5	5	N/A	N/A	EM	Fair to good	Densely covered in ivy. Measurements estimated.	No works presently required	20+	B2	6.0	Retain	
G020	Cherry, ash, silver birch	3 to 4	150-200	3.0	3.0	3.0	3.0	N/A	N/A	Y to SM	Fair to good	Sporadic individual trees. Growing within field boundary. Topographical survey and aerial imagery used to define tree locations and measurements.	No works presently required	10+	C2	1.8	Retain	
G020-A	Part of group	3 to 4	150-200	3.0	3	3	3	N/A	N/A	Y to SM	Fair to good	Part of group.	No works presently required	10+	C2	1.8	Retain	
G020-B	Part of group	3 to 4	150-200	3.0	3.0	3.0	3.0	N/A	N/A	Y to SM	Fair to good	Part of group	No works presently required	10+	C2	1.8	Retain	
H021	Hedgerow	2	100	1.0	1	1	1	N/A	N/A	SM	Fair to good	Managed field boundary hedgerow. Hawthorn present.	No works presently required	10+	C2	1.2	Part remove	Tree protection fencing
G022	Mixed group	8	250	3.0	3	3	3	N/A	N/A	SM	Fair to good	Informal group. Deciduous tree stock dominates. Appears largely self sown. Measurements estimated and based on aerial imagery.	No works presently required	10+	C2	3.0	Retain	
G023	Mixed group	5	250	3.0	3	3	3	N/A	N/A	SM	Fair to good	Informal group. Sporadic. Deciduous tree stock dominates. Appears largely self sown. Measurements estimated and based on aerial imagery or topographical data if available. Bases not accessed.	No works presently required	10+	C2	3.0	Retain	Tree protection fencing
H024	A Hedgerow	3	100	2.0	2	2	2	N/A	N/A	SM	Fair to good	Hawthorn dominated hedgerow.	No works presently required	10+	C2	1.2	Retain	Tree protection fencing
T025	Ash	7.5	240	2.5	2.5	2.5	2.5	N/A	2	SM to EM	Fair to good	Cut back from footpath. Data taken from BT017. No access to survey given land access issues.	No works presently required	10+	C2	2.9	Retain	
T026	Ash	7.5	240	2.5	2.5	2.5	2.5	N/A	2	Early Mature	Fair	Cut back from footpath. Data taken from BT017. No access to survey given land access issues.	No works presently required	10+	C2	2.9	Retain	

Tree ID	Species	Height (m)	Stem Diameter (mm)	Branch spread N (m)	Branch spread E (m)	Branch spread S (m)	Branch spread W (m)	First significant branch height (m)	Canopy height (m)	Life stage	Vitality	General observations	Preliminary management recommendations	Estimated Remaining Contribution (Years)	Category Grading	RPA Radius (m)	Impact - Remove / Part Remove / Retain	Mitigation
T027	Ash	7.5	240	2.5	2.5	2.5	2.5	N/A	2	SM to EM	Fair to good	Cut back from footpath. Data taken from BT017. No access to survey given land access issues.	No works presently required	10+	C2	2.9	Retain	
T028	Ash	7.5	240	2.5	2.5	2.5	2.5	N/A	2	Early Mature	Fair	Cut back from footpath. Data taken from BT017. No access to survey given land access issues.	No works presently required	10+	C2	2.9	Retain	
T029	Ash	7.5	240	2.5	2.5	2.5	2.5	N/A	2	SM to EM	Fair to good	Cut back from footpath. Data taken from BT017. No access to survey given land access issues.	No works presently required	10+	C2	2.9	Retain	
H030	HEDGEROW of Common Hawthorn (Crataegus monogyna) and Blackthorn (Prunus spinosa)	2	75	1.0	1	1	1	N/A	0	Young	Fair	Replanted hedge with less than 20% mature hedge. Data taken from BH001. No access to survey.	No works presently required	10+	C2	0.9	Retain	Tree protection fencing

C. GLOSSARY OF TERMS

Term	Description
Access Facilitation Pruning	One-off tree pruning operation, the nature and effects of which are without significant adverse impact on tree physiology or amenity value, which is directly necessary to provide access for operations on site.
Adaptive Growth	The process whereby wood formation is influenced both in quantity and in quality by the action of gravitational force and mechanical stresses on the cambial zone
Amenity Value	The environmental and landscape benefits of trees as opposed to their commercial value for timber
Ancient Woodland	Sites which have been wooded since at least 1600, as defined by English Nature and recognised as being of high nature conservation value, whether managed or not. They may be semi-natural or replanted.
Arboricultural Method Statement	Methodology for the implementation of any aspect of development that is within the root protection area, or has the potential to result in loss of or damage to a tree to be retained.
Arboriculture	The study and care of trees and other woody vegetation
Arboriculturist	A person who has, through relevant education, training and experience, gained expertise in the field of trees in relation to construction.
Cavity	An open wound, characterised by the presence of decay and resulting in a hollow
Co-dominant stems	Where a tree's main stem splits into two leaders, can also be called twin-stemmed.
Competent person	A person who has training and experience relevant to the matter being addressed and an understanding of the requirements of the particular task being approached.
Construction	Site-based operations with the potential to affect existing trees.
Construction Exclusion Zone	The area based on the root protection area to which access is prohibited for the duration of a project.
Coppice	A traditional method of woodland management in which young tree stems are repeatedly cut down to near ground level. In subsequent growth years, many new shoots will emerge, and, after a number of years the coppiced tree, or stool, is ready to be harvested, and the cycle begins again
Crown clearance	This is the removal of all dead, dying and diseased branches; in addition branches that are cleared away from a specific hazard e. g. live railway line.
Crown lifting	The removal of lower branches to provide a desired amount of clearance above ground level. This can be achieved either by the complete removal of a branch or only parts of which extend below the desired height
Crown reduction	The overall reduction of both the height and spread of the crown.
Decay	Process of degradation of woody tissues by fungi and bacteria through decomposition of cellulose and lignin.
Deadwood	Deadwood is often present within the crown or on the stems of trees. In some instances it may be an indication of ill health; however, it may also indicate natural growth processes. If a target is present beneath the tree, and falling deadwood may cause injury or damage it should be removed; if no target is present the deadwood may be retained intact for conservation purposes (insects, fungi, birds etc.).
Epicormic growth	A secondary growth from dormant adventitious buds on the stem or main branches.
Failure	In connection with tree hazards, a partial or total fracture within woody tissue or loss of cohesion between roots and soil.

Term	Description
Hazard beam	A branch that has over-extended in which strong internal stresses may occur without the compensatory formation of extra wood (longitudinal splitting may occur in some cases).
Hung-up limb	Dead or fallen branch from within the crown or from another tree's crown that has failed and been caught up by, and resting on, branches of a tree
Included Bark Junction	Pattern of development at branch junctions where bark is turned inward rather than pushed out. Potential weakness due to a lack of a woody union.
Ivy Growth	Ivy growth may ascend into the tree's crown, increasing wind resistance, concealing potential defects and reducing the tree's photosynthetic capacity. Ivy growth is often acceptable in woodland areas as a conservation benefit.
Monolith	A large bulk of standing dead wood. Usually the trunk of the tree or the trunk with the base of the branch frame work. These should be retained for wildlife habitat when the risk is appropriate for the location.
Pollarding	This involves the removal of whole branches to leave only the main trunk. In species such as willows and poplars such significant pruning is acceptable with new branches developing from the pollard heads. Secondary pruning of the new wood can help form a new canopy to the tree several years after the initial pollard
Reaction Wood	Specialised secondary xylem, which develops in response to a lean or similar mechanical stress, attempting to restore the stem to the vertical.
Root Protection Area (RPA)	The layout design tool indicating the minimum area around a tree deemed to contain sufficient roots and rooting volume to maintain the tree's viability, and where the protection of the roots and soil structure is treated as a priority.
Service	Any above or below ground structure or apparatus required for utility provision.
Stem	The principal above-ground structural component(s) of a tree that supports its branches.
Structure	A manufactured object, such as a building, carriageway, path, wall, service run, and built or excavated earthwork.
Structural Defect	Internal or external points of weakness, which reduce the stability of the tree
Sub-dominant stem	A branch within the crown that is not the dominant leader
Suppressed	Trees which are dominated by surrounding vegetation and whose crown development is restricted from above.
TPO	A Tree Preservation Order is an order made by a Local Planning Authority which in general makes it an offence to cut down, lop, top, uproot, wilfully damage or wilfully destroy a tree without first getting permission. Tree Preservation Orders are usually made to protect trees that make a significant contribution to the amenity of an area. They may particularly be made when it is felt that a tree may be under threat.
Tree Constraints Plan	Abbreviated to TCP. Plans showing specific tree constraints including Root Protection Areas and Crown spread.
Tree Protection Plan	Abbreviated to TPP. Scaled drawing, informed by descriptive text where necessary, based upon the finalised proposals, showing trees for retention and illustrating the tree and landscape protection measures.
Visual Tree Assessment	A non-invasive method of examining the health and structural condition of trees. Developed by Claus Mattheck and David Breloer 1994
Wound	Any injury, which induces a compartmentalisation response
Wound Wood	Wood with atypical anatomical features, formed in the vicinity of a wound and a term to describe the occluding tissues around a wound as opposed to the ambiguous term "callus. "

D. TREE PROTECTION PLANS

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Project Title: CSET PHASE 2

Drawing Title:

Cambridge South East Transport 2
Tree Protection Plan
Key Plan

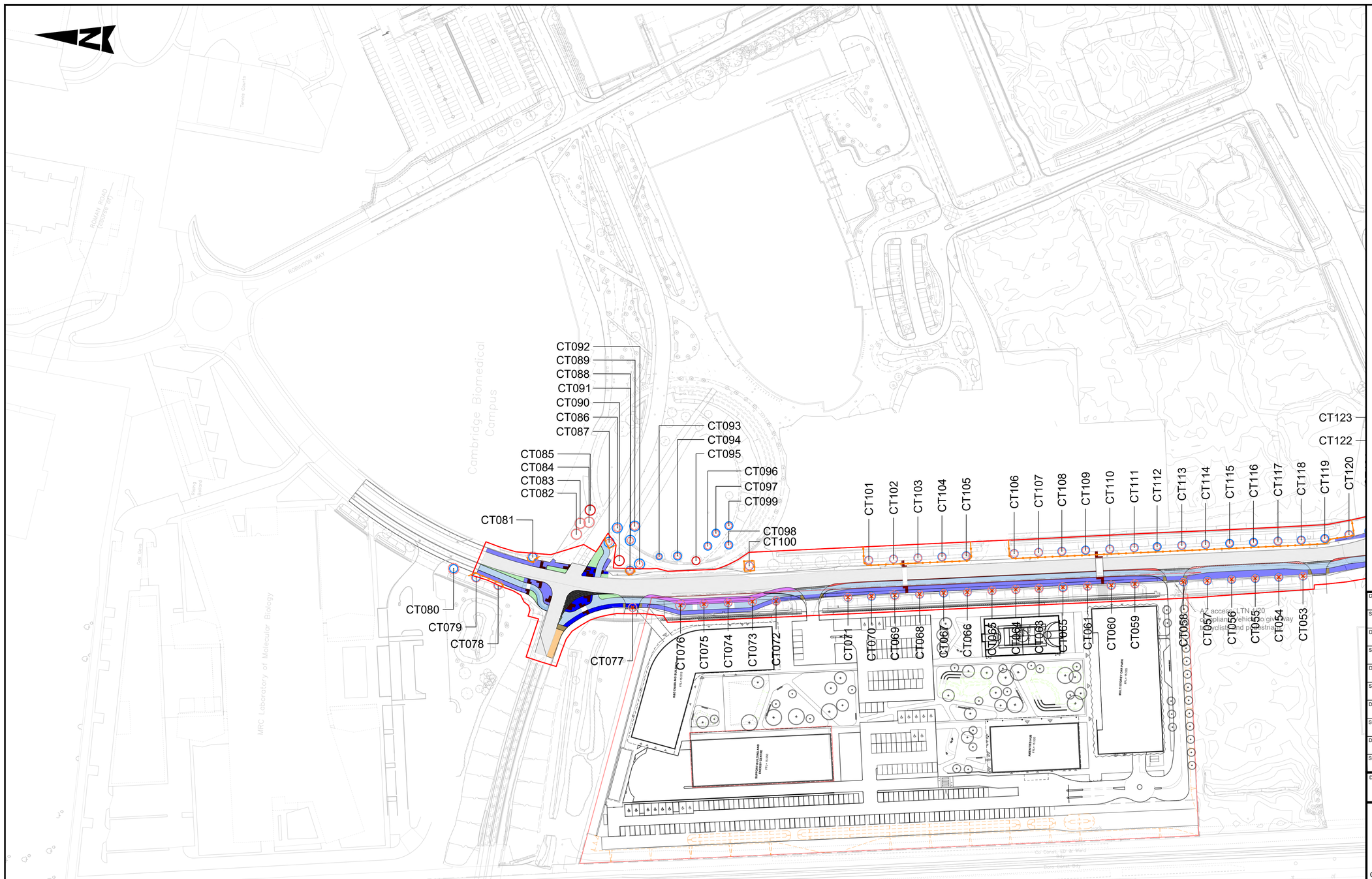
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Drawing Title: Cambridge South East Transport 2
Tree Protection Plan 1

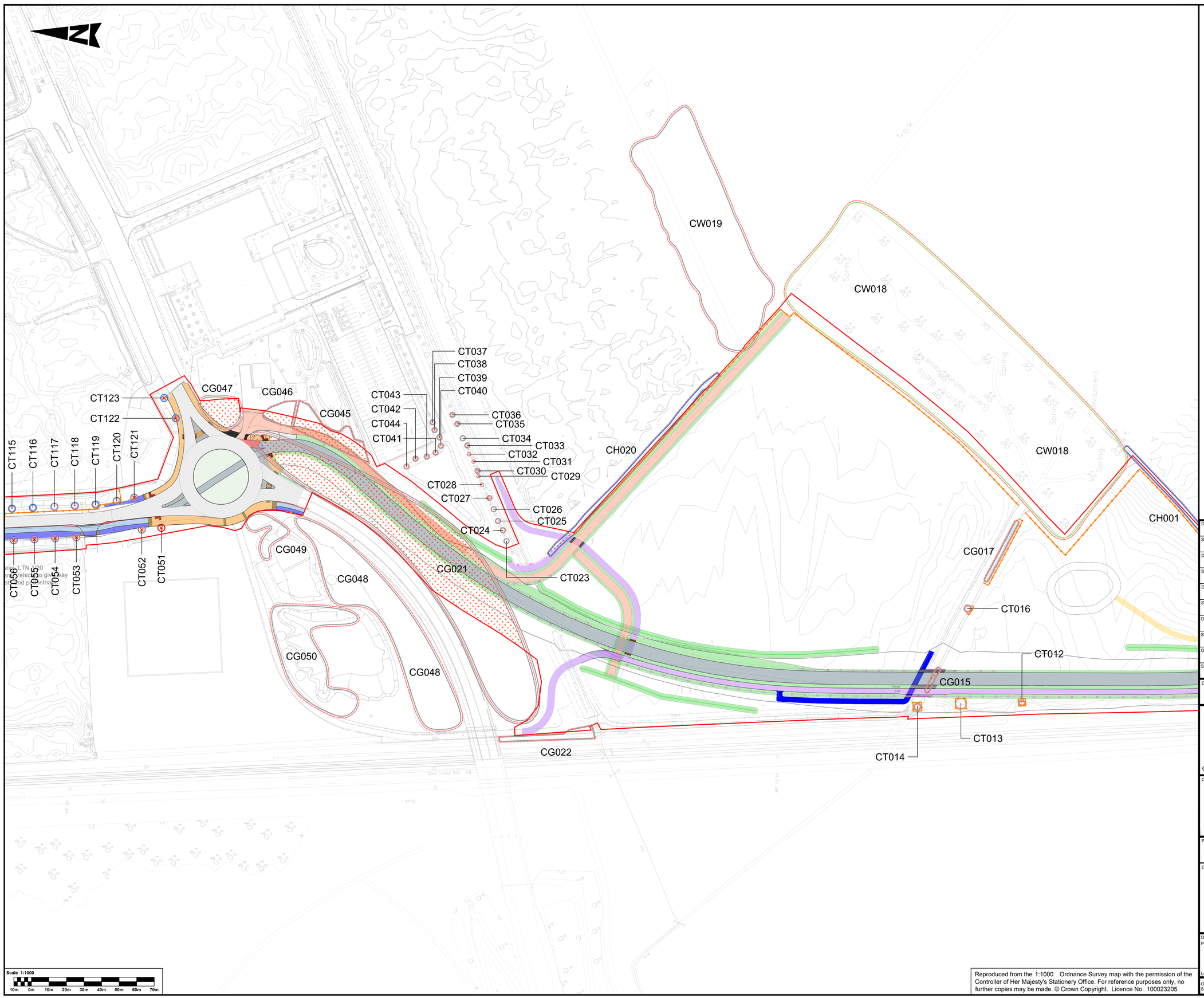
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CT003

CT002

MP 53.5

MP 53.25

Track

Spring

Monument

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Tree Protection Plan 3

Drawing Number
Project: 5212868 - Originator: ATK - Volume: ELS -
Location: WHL - Type: DR - Role: LL - Number: 000004

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Tree Protection Plan 4

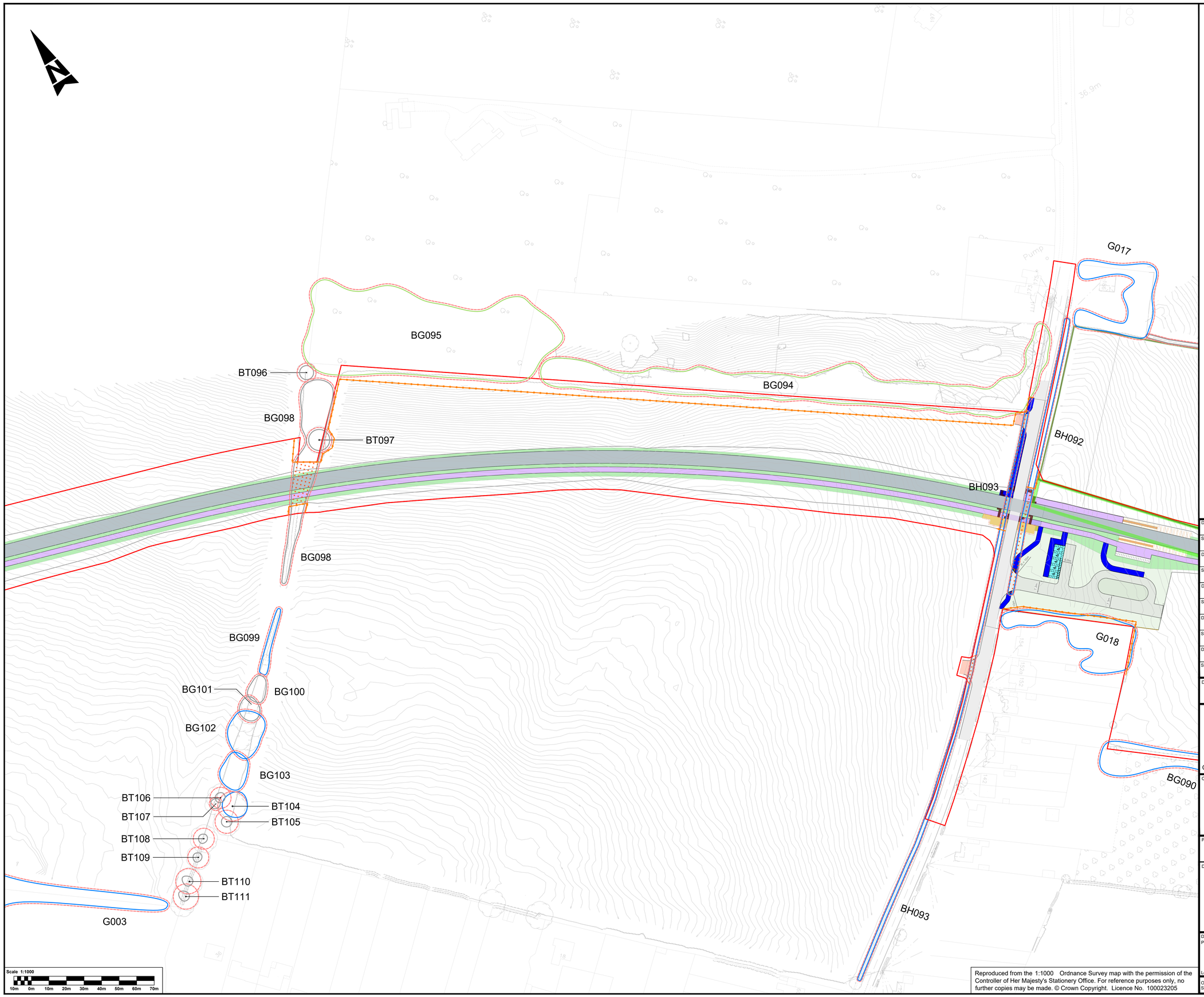
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Tree Protection Plan 5

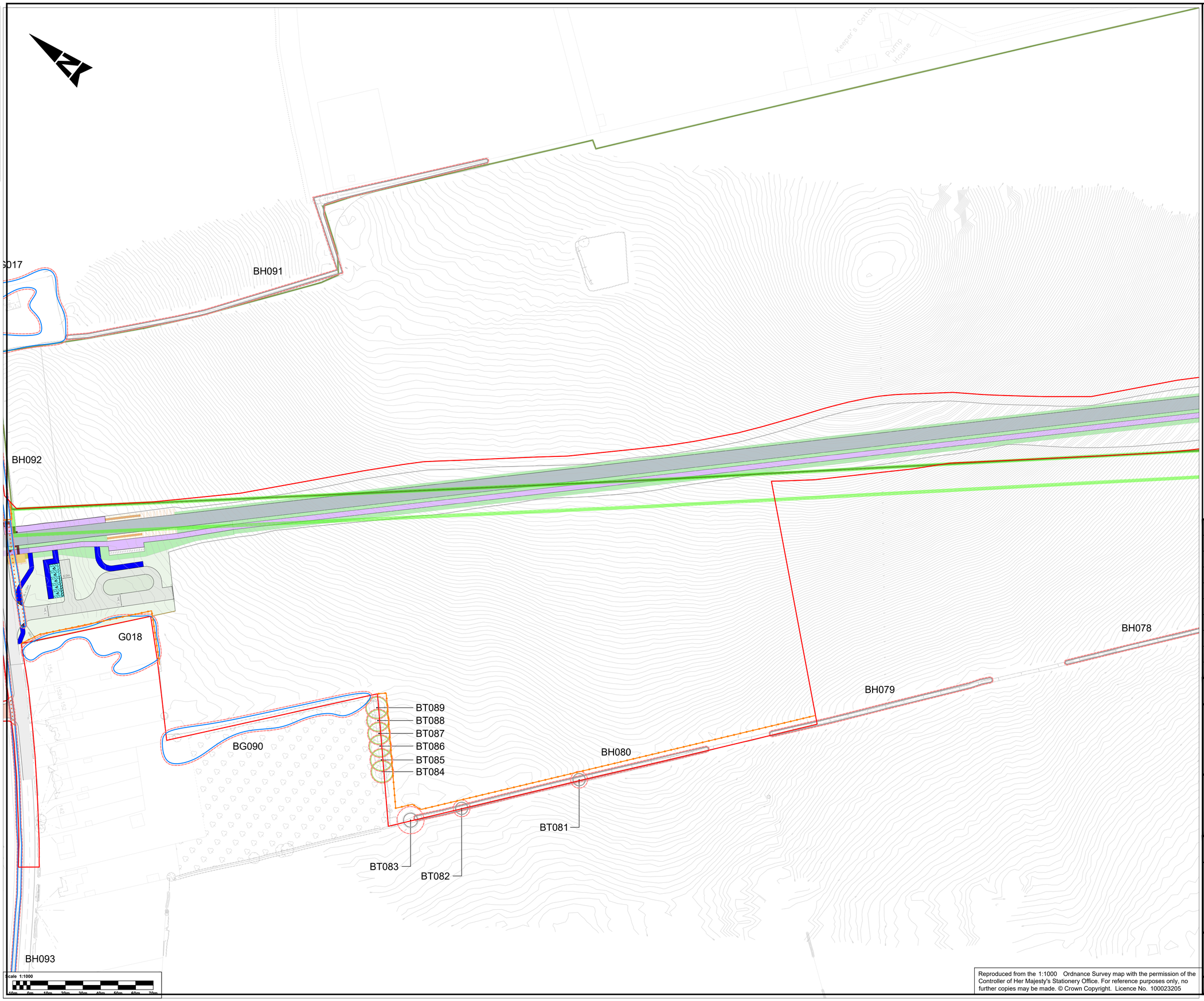
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Tree Protection Plan 6

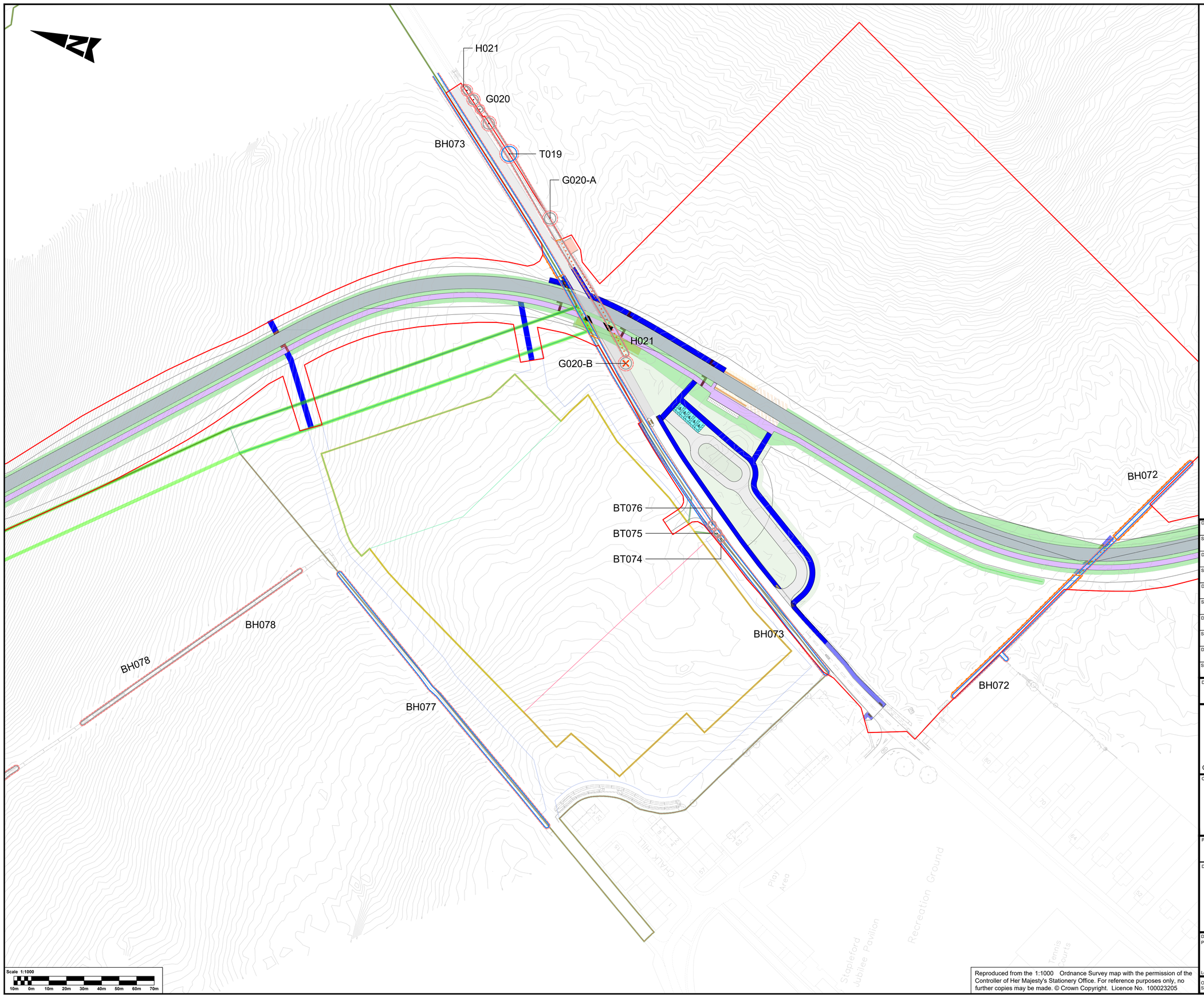
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Tree Protection Plan 7

Drawing Number								
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BG063

Scale 1:1000

10m 0m 10m 20m 30m 40m 50m 60m 70m

KEY

- CATEGORY A TREE
- CATEGORY B TREE
- CATEGORY C TREE
- CATEGORY U TREE
- TREE GROUP OR HEDGE (COLOUR TO BS CAT.)
- ROOT PROTECTION AREA (RPA) OF RETAINED TREES
- T/G/W/H001 TREE / GROUP / WOODLAND / HEDGE REFERENCE NUMBER
- TREES TO BE REMOVED AS PART OF THE WORKS
- TREE GROUPS / HEDGES TO BE REMOVED AS PART OF WORKS
- PROTECTIVE FENCING (INDICATVE ONLY)

Description						
Status	Revision	Drawn	Checked	Reviewed	Authorised	Issue Date
Description						
Status	Revision	Drawn	Checked	Reviewed	Authorised	Issue Date
Description						
Status	Revision	Drawn	Checked	Reviewed	Authorised	Issue Date
Description						
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Description						
Status	Revision	Drawn	Checked	Reviewed	Authorised	Issue Date
A1	C01	NA	BC	TD	JH	27/03/23

Drawing Suitability: APPROVED - PUBLISHED

Status: A1

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Client: GREATER CAMBRIDGE PARTNERSHIP

Project Title: CSET PHASE 2

Drawing Title: Cambridge South East Transport 2
Tree Protection Plan 8

Drawing Number

Project	Originator	Volume				
5212868	- ATK	- ELS	-			
Location		Type	Role	Number		
WHL		- DR	- LL	- 000009		

Original Size:	Scale:	Project Ref. No:	Sheet:	Rev:
A1	1:1,000	5212868	9 of 19	C01

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DO NOT SCALE

Millimetres 0 10 100

BG044
G023
BG070
BG069
BG068
BG066
BG064
BG063
G022
BG062
BW034
BG043
BH036
BT038
BT039
BT040
BT041
BT042
BT045
BT046
BT067
BT048
BT047
BT049
BT050
BT052
BT051
BT053
BT054
BT055
BT057
BT056
BT058
BT059
BT065
T010
BT061
BT060
T009
Dismantled Railway

Scale 1:1000
10m 0m 10m 20m 30m 40m 50m 60m 70m

KEY

- CATEGORY A TREE
- CATEGORY B TREE
- CATEGORY C TREE
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Description						
Status	Revision	Drawn	Checked	Reviewed	Authorised	Issue Date
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Status	Revision	Drawn	Checked	Reviewed	Authorised	Issue Date
Description						
Status	Revision	Drawn	Checked	Reviewed	Authorised	Issue Date
Description						
Status	Revision	Drawn	Checked	Reviewed	Authorised	Issue Date
Description						
Status	Revision	Drawn	Checked	Reviewed	Authorised	Issue Date
Description						
Status	Revision	Drawn	Checked	Reviewed	Authorised	Issue Date
A1	C01	NA	BC	TD	JH	27/03/23

Drawing Suitability: APPROVED - PUBLISHED
Status: A1

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Client: GREATER CAMBRIDGE PARTNERSHIP

Project Title: CSET PHASE 2

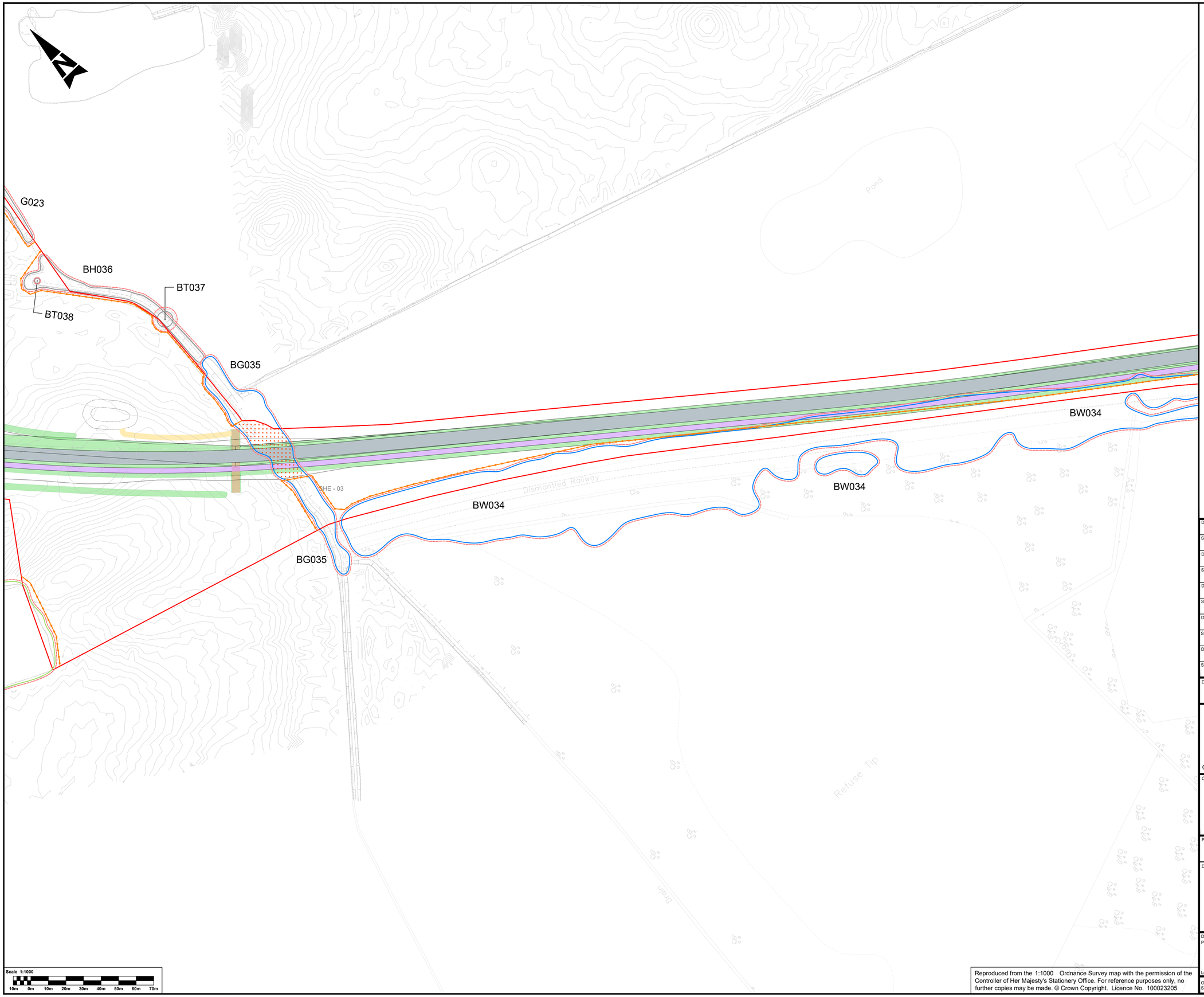
Drawing Title: Cambridge South East Transport 2
Tree Protection Plan 9

Drawing Number
Project: 5212868 - Originator: ATK - Volume: ELS -
Location: WHL - Type: DR - Role: LL - Number: 000010

Original Size:	Scale:	Project Ref. No:	Sheet:	Rev:
A1	1:1,000	5212868	10 of 19	C01

DO NOT SCALE

Millimetres 0 10 100



KEY

- CATEGORY A TREE
- CATEGORY B TREE
- CATEGORY C TREE
- CATEGORY U TREE
- TREE GROUP OR HEDGE (COLOUR TO BS CAT.)
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- T/G/W/H001 — TREE / GROUP / WOODLAND / HEDGE REFERENCE NUMBER
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- PROTECTIVE FENCING (INDICATVE ONLY)

Scale 1:1000

10m 0m 10m 20m 30m 40m 50m 60m 70m

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Description	Status	Revision	Drawn	Checked	Reviewed	Authorised	Issue Date
	A1	C01	NA	BC	TD	JH	27/03/23

Drawing Suitability: APPROVED - PUBLISHED — Status: A1

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Project Title: CSET PHASE 2

Drawing Title: Cambridge South East Transport 2
Tree Protection Plan 10

Drawing Number

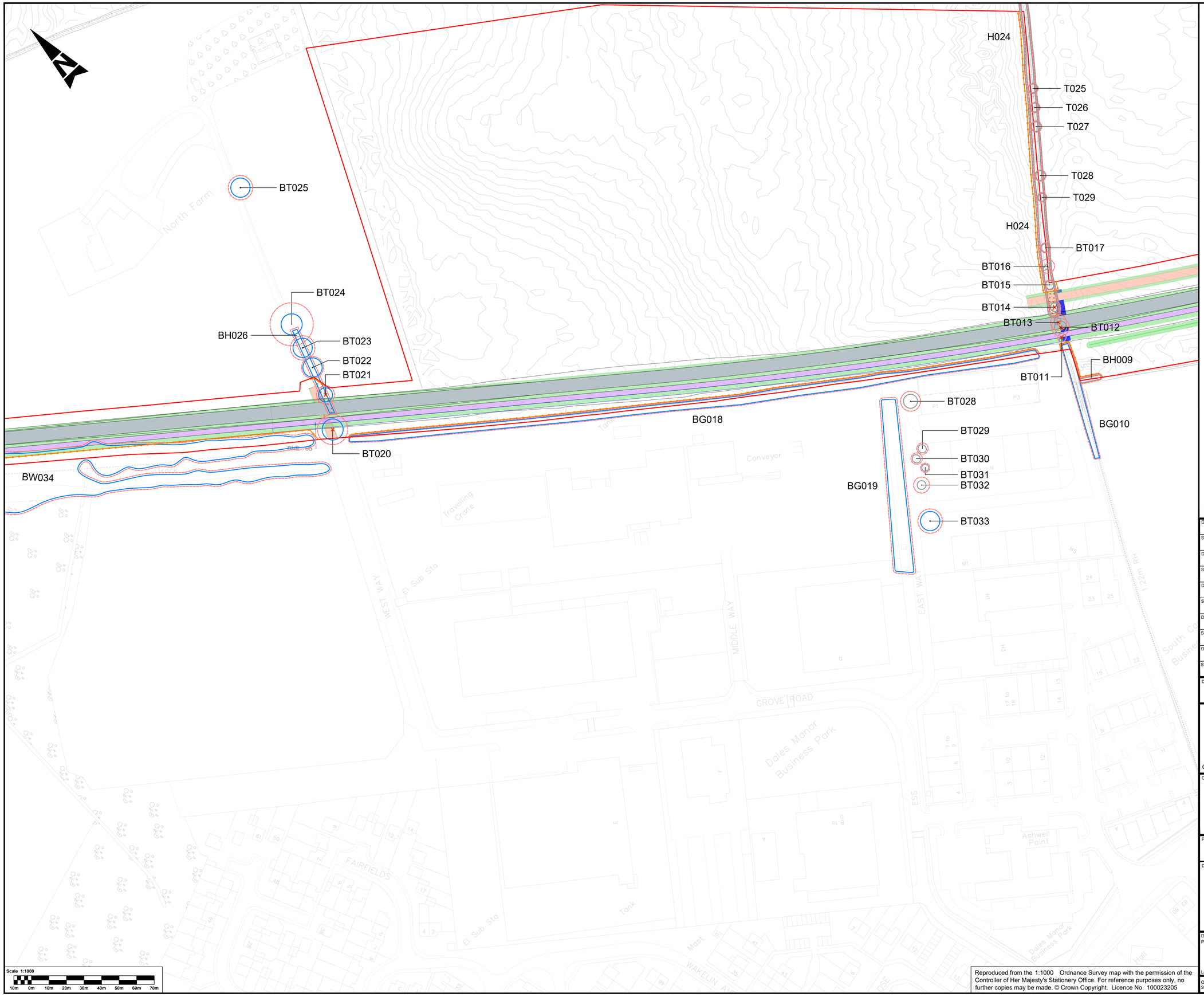
Project	Originator	Volume	Location	Type	Role	Number
5212868	ATK	ELS	WHL	DR	LL	000011

Original Size:	Scale:	Project Ref. No:	Sheet:	Rev:
A1	1:1,000	5212868	11 of 19	C01

CLASSIFICATION - Base Line (Low Risk)

DO NOT SCALE

Millimetres 100 10 0



KEY

- CATEGORY A TREE
- CATEGORY B TREE
- CATEGORY C TREE
- CATEGORY U TREE
- TREE GROUP OR HEDGE (COLOUR TO BS CAT.)
- ROOT PROTECTION AREA (RPA) OF RETAINED TREES
- T/G/W/H001 TREE / GROUP / WOODLAND / HEDGE REFERENCE NUMBER
- TREES TO BE REMOVED AS PART OF THE WORKS
- TREE GROUPS / HEDGES TO BE REMOVED AS PART OF WORKS
- PROTECTIVE FENCING (INDICATVE ONLY)

Scale 1:1000

10m 0m 10m 20m 30m 40m 50m 60m 70m

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Description	Status	Revision	Drawn	Checked	Reviewed	Authorised	Issue Date
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Drawing Suitability: APPROVED - PUBLISHED

Status: A1

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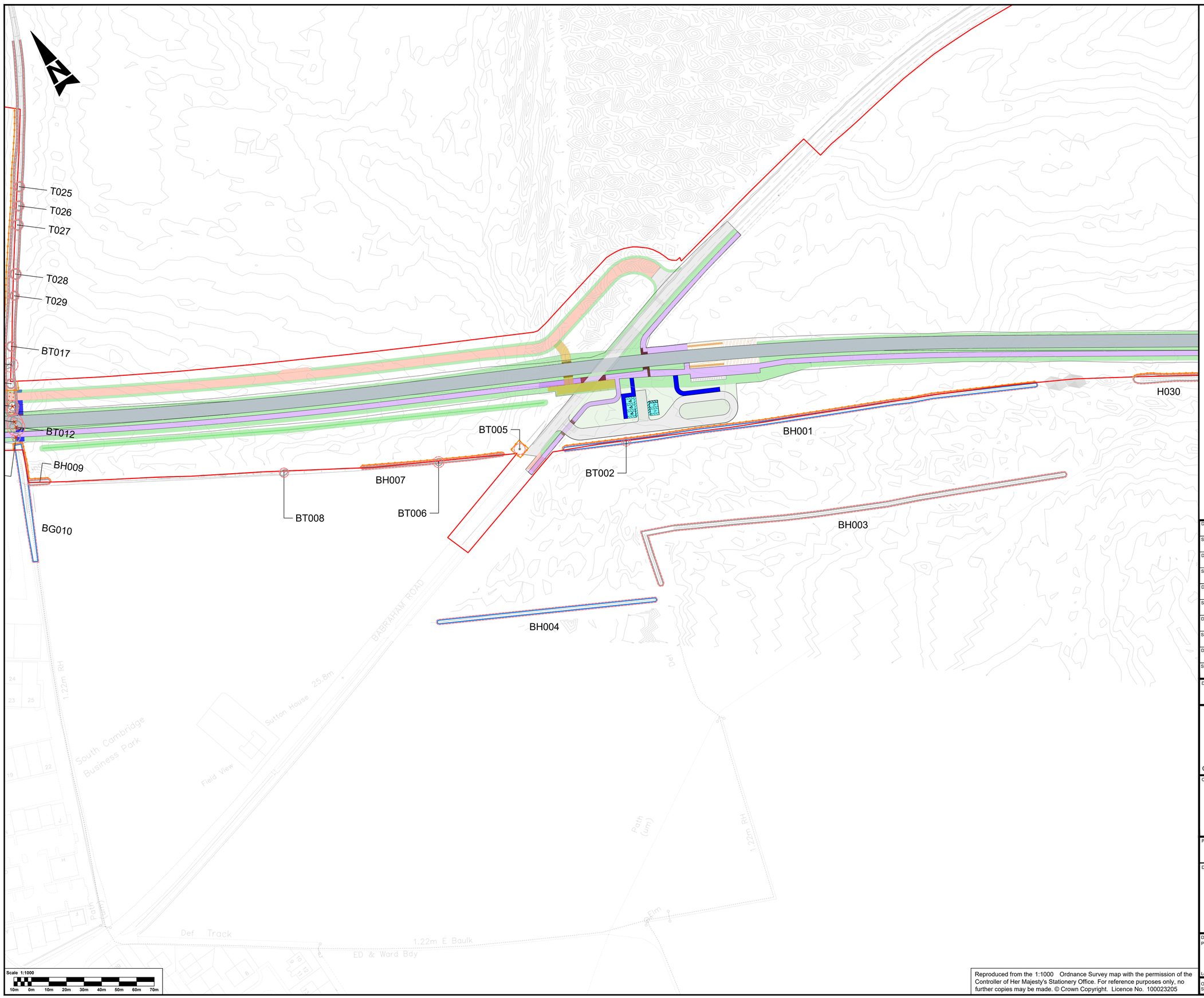
Project Title: CSET PHASE 2

Drawing Title: Cambridge South East Transport 2
Tree Protection Plan 11

Drawing Number

Project	Originator	Volume			
5212868	- ATK	- ELS	-		
Location		Type	Role	Number	
WHL		- DR	- LL	- 000012	

Original Size: A1 | Scale: 1:1,000 | Project Ref. No.: 5212868 | Sheet: 12 of 19 | Rev: C01



KEY

- CATEGORY A TREE
- CATEGORY B TREE
- CATEGORY C TREE
- CATEGORY U TREE
- TREE GROUP OR HEDGE (COLOUR TO BS CAT.)
- ROOT PROTECTION AREA (RPA) OF RETAINED TREES
- T/G/W/H001 — TREE / GROUP / WOODLAND / HEDGE REFERENCE NUMBER
- TREES TO BE REMOVED AS PART OF THE WORKS
- TREE GROUPS / HEDGES TO BE REMOVED AS PART OF WORKS
- PROTECTIVE FENCING (INDICATVE ONLY)

Description						
Status	Revision	Drawn	Checked	Reviewed	Authorised	Issue Date
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Status	Revision	Drawn	Checked	Reviewed	Authorised	Issue Date
Description						
Status	Revision	Drawn	Checked	Reviewed	Authorised	Issue Date
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Status	Revision	Drawn	Checked	Reviewed	Authorised	Issue Date
Description						
Status	Revision	Drawn	Checked	Reviewed	Authorised	Issue Date
A1	C01	NA	BC	TD	JH	27/03/23

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Project Title: CSET PHASE 2

Drawing Title: Cambridge South East Transport 2
Tree Protection Plan 12

Drawing Number

Project	Originator	Volume		
5212868	- ATK	- ELS	-	

Location	Type	Role	Number
WHL	- DR	- LL	- 000013

Original Size:	Scale:	Project Ref. No.	Sheet:	Rev:
A1	1:1,000	5212868	13 of 19	C01

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DO NOT SCALE

Millimetres 0 10 100

AH112
AH113
AT111
AT103
AT104
H030
H030
H030
H030
H030
H030
G013

Scale 1:1000
10m 0m 10m 20m 30m 40m 50m 60m 70m

AG110
AG109
AH114
AH112

KEY

- CATEGORY A TREE
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- CATEGORY C TREE
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- TREE GROUP OR HEDGE (COLOUR TO BS CAT.)
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- TREE GROUPS / HEDGES TO BE REMOVED AS PART OF WORKS
- PROTECTIVE FENCING (INDICATVE ONLY)

Description						
Status	Revision	Drawn	Checked	Reviewed	Authorised	Issue Date
Description						
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Status	Revision	Drawn	Checked	Reviewed	Authorised	Issue Date
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Description						
Status	Revision	Drawn	Checked	Reviewed	Authorised	Issue Date
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Project Title: CSET PHASE 2

Drawing Title: Cambridge South East Transport 2
Tree Protection Plan 13

Drawing Number
Project: 5212868 - Originator: ATK - Volume: ELS -
Location: WHL - Type: DR - Role: LL - Number: 000014

Original Size: A1 | Scale: 1:1,000 | Project Ref. No: 5212868 | Sheet: 14 of 19 | Rev: C01

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DO NOT SCALE

Millimetres 0 10 100

AH102
AT103
AT104
G105
AT106
AT107
G016
T015
AH102
G013
H014
G012
G013
G013
G013
G013
H014

Scale 1:1000
10m 0m 10m 20m 30m 40m 50m 60m 70m

KEY

- CATEGORY A TREE
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Description						
Status	Revision	Drawn	Checked	Reviewed	Authorised	Issue Date
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Status	Revision	Drawn	Checked	Reviewed	Authorised	Issue Date
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Status	Revision	Drawn	Checked	Reviewed	Authorised	Issue Date
Description						
Status	Revision	Drawn	Checked	Reviewed	Authorised	Issue Date
A1	C01	NA	BC	TD	JH	27/03/23

Drawing Suitability: APPROVED - PUBLISHED
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Project Title: CSET PHASE 2

Drawing Title: Cambridge South East Transport 2
Tree Protection Plan 14

Drawing Number
Project: 5212868 - Originator: ATK - Volume: ELS -
Location: WHL - Type: DR - Role: LL - Number: 000015

Original Size: A1 | Scale: 1:1,000 | Project Ref. No: 5212868 | Sheet: 15 of 19 | Rev: C01

DO NOT SCALE

Millimetres 0 10 100

AT009
AT011
AG008
AT010
AT012
AG014
AT013

AH100
AT090
AT091
AT087
AT082
AT083
AT085
AT086
AT097
AT101
AT078
AT077
AT076
AT096
AT099
AT098
AT081
AT084
AT079
AT094
AT093
AT092
AT089
AT088
AT070
AT069
AT068
AT066
AT080
AG095
AT075
AT074
AT072
AT073
AT071
AT065
AT063
AT064
AT060
AT061
AT058
AT059
AT062
AT056
AT057
AT055
AT054
AT053
AT052
AG050
AG047
H014

KEY

- CATEGORY A TREE
- CATEGORY B TREE
- CATEGORY C TREE
- CATEGORY U TREE
- TREE GROUP OR HEDGE (COLOUR TO BS CAT.)
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Scale 1:1000
10m 0m 10m 20m 30m 40m 50m 60m 70m

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Description

Status	Revision	Drawn	Checked	Reviewed	Authorised	Issue Date
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Project Title: CSET PHASE 2

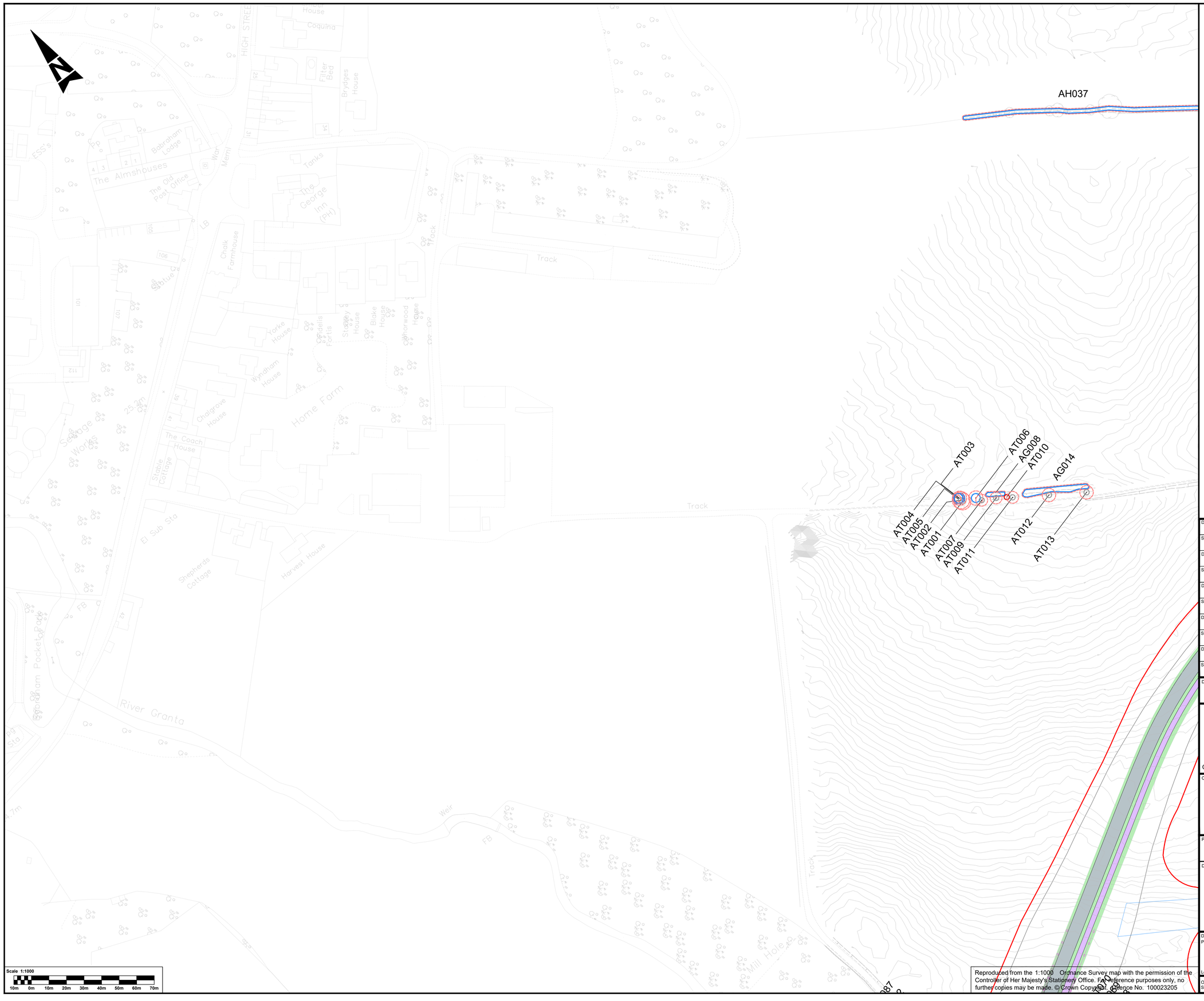
Drawing Title: Cambridge South East Transport 2
Tree Protection Plan 15

Drawing Number
Project: 5212868 - Originator: ATK - Volume: ELS -
Location: WHL - Type: DR - Role: LL - Number: 000016

Original Size: A1 | Scale: 1:1,000 | Project Ref. No.: 5212868 | Sheet: 16 of 19 | Rev: C01

DO NOT SCALE

Millimetres 0 10 100



KEY

- CATEGORY A TREE
- CATEGORY B TREE
- CATEGORY C TREE
- CATEGORY U TREE
- TREE GROUP OR HEDGE (COLOUR TO BS CAT.)
- ROOT PROTECTION AREA (RPA) OF RETAINED TREES
- T/G/W/H001 — TREE / GROUP / WOODLAND / HEDGE REFERENCE NUMBER
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- PROTECTIVE FENCING (INDICATVE ONLY)

Scale 1:1000

10m 0m 10m 20m 30m 40m 50m 60m 70m

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Status	Revision	Drawn	Checked	Reviewed	Authorised	Issue Date
Description						
Status	Revision	Drawn	Checked	Reviewed	Authorised	Issue Date
Description						
Status	Revision	Drawn	Checked	Reviewed	Authorised	Issue Date
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Description						
Status	Revision	Drawn	Checked	Reviewed	Authorised	Issue Date
A1	C01	NA	BC	TD	JH	27/03/23

Drawing Suitability: APPROVED - PUBLISHED

Status: A1

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Project Title: CSET PHASE 2

Drawing Title: Cambridge South East Transport 2
Tree Protection Plan 16

Drawing Number

Project	Originator	Volume			
5212868	ATK	ELS			
WHL			DR	LL	000017
Location			Type	Role	Number

Original Size:	Scale:	Project Ref. No:	Sheet:	Rev:
A1	1:1,000	5212868	17 of 19	C01

DO NOT SCALE

Millimetres 0 10 100

AT004 AT005 AT002 AT001 AT003 AT006 AG008 AT010 AT007 AT009 AT011 AG014 AT012 AT013

AH037

AH022 AT016 AT015 AT017 AT020 AT021 AT018 AT019

AW023

AT070 AT069 AT068 AT066

AH100 AT055 AT054 AT053 AT052

AT026 AT027 AT024 AT025 AH031 AT028 AT030 AT029

AG032

AG038

AG039

AG050 AG047 AG050 AG051

AT049 AT048 AG040 AG047 AT046 AT045 AT044 AT043 AT042 AT041

Scale 1:1000
10m 0m 10m 20m 30m 40m 50m 60m 70m

KEY

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Description						
Status	Revision	Drawn	Checked	Reviewed	Authorised	Issue Date
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Description						
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Description						
Status	Revision	Drawn	Checked	Reviewed	Authorised	Issue Date
A1	C01	NA	BC	TD	JH	27/03/23

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Project Title: CSET PHASE 2

Drawing Title: Cambridge South East Transport 2
Tree Protection Plan 17

Drawing Number

Project	Originator	Volume		
5212868	- ATK	- ELS	-	
Location		Type	Role	Number
WHL		- DR	- LL	- 000018

Original Size: A1 | Scale: 1:1,000 | Project Ref. No. 5212868 | Sheet: 18 of 19 | Rev: C01

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DO NOT SCALE

Millimetres 0 10 100

AT006
AG008
AT010

AH036

AH037

AH037

AW023

AH036

AW035

AW033

AW034

AG032

AG032

Scale 1:1000
10m 0m 10m 20m 30m 40m 50m 60m 70m

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KEY

- CATEGORY A TREE
- CATEGORY B TREE
- CATEGORY C TREE
- CATEGORY U TREE
- TREE GROUP OR HEDGE (COLOUR TO BS CAT.)
- ROOT PROTECTION AREA (RPA) OF RETAINED TREES
- T/G/W/H001 TREE / GROUP / WOODLAND / HEDGE REFERENCE NUMBER
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Description						
Status	Revision	Drawn	Checked	Reviewed	Authorised	Issue Date
A1	C01	NA	BC	TD	JH	27/03/23

Drawing Suitability: APPROVED - PUBLISHED — Status: A1

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Project Title: CSET PHASE 2

Drawing Title: Cambridge South East Transport 2
Tree Protection Plan 18

Drawing Number
Project: 5212868 – Originator: ATK – Volume: ELS –
Location: WHL – Type: DR – Role: LL – Number: 000019

Original Size:	Scale:	Project Ref. No:	Sheet:	Rev:
A1	1:1,000	5212868	19 of 19	C01