BRACKNELL DATA CENTRE

TREE SURVEY & ARBORICULTURAL IMPACT ASSESSMENT 20305B-RPS-XX-XX-RP-P-9733





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1 INTRODUCTION

- 1.1.1 This Tree Survey and Arboricultural Impact Assessment (AIA) has been prepared to support the planning application for the development of Land at Cain Road, Bracknell.
- 1.1.2 The Application Site extends to a total of 9.9 Ha and is made up of 2 distinct sections. The Main site (7.5 Ha) (hereafter called the Site) and an area of land (2.4 Ha) to the south on the opposite side of Beehive Road (the 'Former Recreation Site').
- 1.1.3 No development is proposed for the Former Recreation Site other than ecological enhancement, as such the Tree Survey and Assessment focuses on the Main site.
- 1.1.4 A tree survey of the Site was carried out by RPS on the 18th August 2020 and the 8th February 2021 in accordance with the requirements of BS5837:2012. Refer to Tree Constraints Plan 20305B-RPS-00-XX-DR-A9561- 68(Appendix A). A walkover was also undertaken on the Former Recreation Site. The weather conditions were cloudy with spells of rain for the first part of the survey and snowy on the second part.
- 1.1.5 This report has been prepared in accordance with the requirements set out in BS5837:2010 'Trees in relation to design, demolition and construction – Recommendations.'¹
- 1.1.6 The purpose of this report is to:
 - Provide an assessment of the quality of the surveyed trees with reference to the categories and sub-categories listed within Table 1 - BS5837:2012.
 - Assess and quantify the arboricultural impact of the proposed development within the survey area, based on the proposed development layout.
 - Provide additional arboricultural information and advice in relation to the protection of trees throughout the development of the site.
 - Provide a Tree Protection and Removal Plan to detail the proposed protective measures to be taken in respect of the trees during development of the site.
- 1.1.7 The Tree Protection and Removal Plan 20305B-RPS-00-XX-DR-A9569 76 included at Appendix C identify the following:
 - Trees to be retained;
 - Alignment and design of protective fence;
 - Root Protection Area (RPA) of trees;
- 1.1.8 The Tree Protection and Removal Plan shall be made available to all relevant site operatives <u>prior to and throughout the construction process</u>, so they understand the scope and importance of the tree protection measures.
- 1.1.9 To minimise the potential for harm to occur to retained trees all works shall be carried out with regard to the Tree Protection Measures and construction techniques detailed within this report.

¹ British Standards Institute. British Standard (BS5837) Trees in relation to design, demolition and construction - Recommendations. 2012.



1.1.10	In particular the establishment of a Construction Exclusion Zone (CEZ) by erection of Tree Protection Fencing will minimise the potential for harm to occur to retained trees.



2 SITE LOCATION

- 2.1.1 The survey covered an area of land surrounding the existing buildings at Amen Corner, Bracknell, RG12 1HN.The survey site is centred on OS grid reference SU84726904.
- 2.1.2 Bracknell is a town in Berkshire, located between Reading and Wokingham. The survey site contains two existing buildings, with associated parking and landscaping works. The area is located approximately two miles west of Bracknell Train Station and two miles east of Keephatch Park Nature Reserve. The wider environs consist of residential housing, commercial and industrial buildings, retail stores and open fields.
- 2.1.3 The soilscape of the area typically consists of 'slowly permeable, seasonally wet, slightly acid but base-rich loamy and clayey soils'².

² Magic.gov.uk – 24.08.2020



3 SURVEY METHOLDOLOGY

- 3.1.1 This report has been authored by Alice Brown, Junior Arboricultural Consultant of RPS and authorised by David Cox, a professional member of the Arboricultural Association and Chartered Landscape Architect of RPS Group.
- 3.1.2 The report and survey were carried out in accordance with the requirements set out in BS 5837:2012 "Trees in Relation to Design, Demolition and Construction Recommendations".
- 3.1.3 The tree survey involved a visual inspection from the ground of individual specimens and groups of trees to record their amenity value, management recommendation and dimensions. Where observed, the general condition of all the trees has been noted. The survey does not constitute a full arboricultural condition assessment involving the detailed inspection of tree in relation to their structural condition, decay, and any other physical and pathogenic defects. A full post development tree inspection is recommended to establish that the trees retained during construction pose acceptable levels of risk once the development has been completed.
- 3.1.4 Trees were not climbed or inspected below ground level and inaccessible trees will have best estimates made about the location, physical dimension and characteristics.
- 3.1.5 The locations of the trees were based upon topographic survey (30868_T) produced by Greenhatch Group in August 2018.
- 3.1.6 The survey assesses individual trees and groups of trees for quality and benefits within the contents of proposed development. The quality of each tree or group of trees has been recorded by allocating it to one of four categories as described in table 3.1. These categories have been differentiated on the Tree Constraints Plan 20305B-RPS-00-XX-DR-A9561- 68 (Appendix A) by colours.
- 3.1.7 The survey information was recorded on the attached Tree Survey Schedule (Appendix B) in general accordance with the guidance contained within Section 4 of BS 5837:2012 "Trees in Relation to Design, Demolition and Construction Recommendations".
- 3.1.8 The information recorded is detailed in Table 3.1.



Table 3.1 Tree characteristics recorded during survey

Tree Ref No:	hedgerows were also recorded	(best estimates are made about the location, physical										
Species	Species listed by common nan	ne, with scientific names (italic lettering).										
Height (m)	Estimated height of canopy to nearest metre.											
Branch Spread	branch spread, taken as a minimum at the four cardinal points, to derive an accurate representation of the crown											
Stem diameter @ 1.5 m (m)	Estimated diameter of trunk at 1.5 m above ground level in metres unless otherwise indicated, multi-stemmed trees being measured in accordance with Annex C: BS5837											
Existing height above ground level	To inform on ground clearance, crown/stem ratio and shading the estimated height of the first significant branch and direction of growth and canopy above ground level.											
Stem No.	Number of stems (if necessary) of individual tree.										
Life Stage	Expressed as:-	Y (Young) OM (Over-mature) SM (Semi-mature) V (Veteran) EM (Early-mature) D (Dead) M (Mature)										
Physical Condition	Apparent condition expressed as the following categories, based upon a brief visual inspection from the ground only:-	Good Fair Poor Dead										
Comments / Management Recommendations	presence of any decay and phy	arly of structural and/or physiological condition (e.g. the ysical defect), and/or preliminary management all for wildlife habitats (not exhaustive).										
Estimated remaining contribution (years)	Estimated remaining contribution	on, in years (<10, 10+,20+,40+)										
Tree Quality Assessment Value: Category	Criteria grading with regards to Table 1: BS 5837:2012, expressed as:-	A (Trees/Vegetation of high quality and value) B (Vegetation of moderate quality and value) C (Trees/Vegetation of low quality and value) 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)										
	* Category U trees can have e desirable to preserve.	existing or potential conservation value which might be										
Tree Quality Assessment Value: <u>Sub - Category</u>	Criteria grading with regards to Table 1: BS 5837:2012, expressed as:-	1 (Trees with mainly arboricultural value) 2 (Trees with mainly landscape value) 3 (Trees with mainly cultural / conservation value)										



3.2 Limitations

- 3.2.1 The findings of this survey are not valid following adverse or unpredictable weather conditions or for any failure due to 'force majeure' or unpredictable events.
- 3.2.2 The survey does not constitute a full arboricultural condition assessment involving the detailed inspection of trees in relation to their structural condition, decay, and any other physical and pathogenic defects. It is recommended that further arboricultural assessments be undertaken in order to assess the full health and safety of all trees which may possess structural or pathogenic conditions.
- 3.2.3 Trees were not climbed or inspected below ground level and inaccessible trees will have best estimates made about the location, physical dimensions and characteristics.
- 3.2.4 Where the locations of trees were not highlighted in the provided topographical survey 30868_T by Greenhatch Group in August 2018, they were estimated on site and highlighted within the supporting plan/s with a star *.
- 3.2.5 Trees and woody vegetation were not assessed for their potential impact upon future construction issues such as foundation designs (re: NHBC chapter 4.2).³. Whilst this report may assist in assessing likely future impacts, it should not be classed as a comprehensive vegetation survey in relation to impact upon future designs.
- 3.2.6 Trees are dynamic, living organisms and respond rapidly to changes in their environment. The tree conditions cannot be assumed to remain unchanged.

³ NHBC. 'Chapter 4.2- Building Near Trees'. NHBC Standards 2016.



4 APPRAISAL AND RECOMMENDATIONS

4.1 Generally

- 4.1.1 In general, the trees onsite were in good structural and physiological condition being largely consistent with expectations for the age, management and species.
- 4.1.2 There was much species diversity onsite with Rowan, Sycamore, Norway Maple, Scots Pine and Silver Birch being abundant. The trees provide amenity, soften the lines of the built environment and provide wildlife habitats.

4.2 Surveyed Trees

- 4.2.1 The western boundary of the site contained a large number of trees, primarily considered to be of moderate to low retention value (Category B/C).
- 4.2.2 Young plantings were located within the centre of the car parks. These were generally considered to be of low retention value (Category C). Species included Cherry, Purple Norway Maple and Alder.
- 4.2.3 Across the southern boundary, were a number of Scots pine trees, which were awarded a category B status. These tall trees provided some landscape value to the area.
- 4.2.4 A row of attractive Alder was located towards thew east of the site of varying age. This row added some collective value to the site.
- 4.2.5 There were five category A trees recorded in this survey. These trees increased the amenity of the site, by virtue of their height and crown spread, whilst being good examples of their species.
- 4.2.6 A wooded area was located towards the south-west of the site. This area contained some open space, picnic benches with trees throughout. Although this has not been well maintained, it is evident that this space has been used for leisure associated with the existing use of the site in the past.
- 4.2.7 The Former Recreation Ground south of the main site was also inspected. This area comprised of a pond, open space and vegetation. A variety of tree species were observed Hornbeam, Willow and Oak. Trees were primarily young to mature and located within groups. There was a row of attractive plantings which suggests the area has been designed. It can be noted that there was a large coppice of Alder Buckhorn was located towards the west of the area. There was a number of impressive Oak trees located offsite adjacent the western boundary. These were prominent in the landscape.

4.3 Planning considerations

- 4.3.1 It can be noted that the wooded area located to the south-west of the main site is covered by a 'passive open space' legal agreement and its maintenance is secured under the terms of a specific legal agreement dated 20th September 1991.
- 4.3.2 Trees covered by a Tree Preservation Order are protected under the Town and Country Planning Act 1990 (Trees Regulation 2012) and the local authority must be consulted, and permission sought for any works that may affect them.



- 4.3.3 TPOs: A desktop investigation into the planning constraints on this site using the Bracknell Forest Council web map4 confirmed that there are eighteen individual TPOs located offsite but bordering the south-west boundary of the recreation area: TPO 294/Z2, TPO 294/T23, TPO 294/T24, TPO 294/T25, TPO294/T26, TPO 294/T27, TPO 294/T28, TPO 294/T29, TPO 294/T30, TPO 294/T31, TPO 294/T32, TPO 294/T33, TPO 294/T34, TPO 294/T35, TPO 294/T36, TPO 294/T37, TPO 294/T38 and TPO 294/T39(Refer to Appendix D).
- 4.3.4 Additionally, there are sixteen individual of TPOs: TPO 294/T1, TPO 294/T2, TPO 294/T3, TPO 294/T4, TPO294/T5, TPO 294/T6, TPO 294/T7, TPO 294/T8, TPO 294/T9, TPO 294/T10, TPO 294/T16 and one group TPO:TPO 294, opposite the southern boundary, on the other side of the road(Refer to Appendix D).
- 4.3.5 <u>Conservation Areas:</u> A desktop investigation into the planning constraints on this site using the Bracknell Forest Council web map3 confirmed that the survey site is not part of a conservation area.
- 4.3.6 <u>Ancient woodlands:</u> A desktop investigation of this site using the magic maps application2 confirmed that no trees within the site boundaries are identified as ancient woodland.
- 4.3.7 The Hedgerows Regulations 1997 were made under Section 97 of the Environmental Act 1995 and came into operation in England and Wales on 1 June 1997. The regulations provide important protection by prohibiting the removal of most countryside hedgerows (or parts of them) without first notifying the local planning authority (LPA). Removal includes acts which could result in the destruction of a hedgerow.
- 4.3.8 Care is needed regarding the retention of large, mature trees which become enclosed within the new development. Where such trees are retained, adequate space should be allowed for their long-term physical retention and future maintenance.
- 4.3.9 Under the UK planning system, local authorities have a statutory duty to consider the protection and planting of trees when granting planning permission for proposed development. The potential effect of development on trees, whether statutorily protected (e.g. by a tree preservation order or by their inclusion within a conservation area) or not, is a material consideration that is taken into account in dealing with planning applications.
- 4.3.10 Regarding a particularly valuable tree with serious structural faults it may be decided it be retained and the proximity of the target to the tree be reduced. This could be achieved by retaining or encouraging the formation of physical barriers (e.g. dense bramble or Holly understory) to deter direct access.
- 4.3.11 Trees can offer many benefits, including the provision of visual amenity, softening or complementing the effect of the built environment, and adding maturity to new developments by making places more comfortable in tangible ways e.g. contributing screening and shade, reducing wind speed and turbulence, intercepting snow and rainfall, and reducing glare.
- 4.3.12 Existing trees on development sites, if included into plan, can offer many benefits, including the provision of visual amenity, softening or complementing the effect of the built environment, and adding maturity and value to new developments.

⁴ https://bfcgis.maps.arcgis.com/apps/webappviewer/index.html?id=535ad58a58c44ad0a0fb6d2cb446bd1d



- 4.3.13 New tree planting opportunities should be considered as part of any potential redevelopment, this will help to broaden the age diversity of the tree cover within the area. Enough space should be provided for species with significant stature to grow out into maturity.
- 4.3.14 This scheme proposes to plant 338 new trees to compensate for tree loss.
- 4.3.15 Trees may have the potential to provide valuable habitat for significant and/or/ protected species. It is therefore recommended that this report is read in conjunction with the ecology surveys for the site.

4.4 Design and Site Layout Considerations

- 4.4.1 A tree constraints plan defines the Root Protection Area (RPA) for each tree shown as a circle. This area may be adjusted should physical constraints or topographical features limit root activity in a particular area, however the total area should remain the same. Prior to any adjustment of the trees RPA zones the changes should be assessed by an arboriculturalist. During any site planning exercises the current and future growth potential of the trees should be considered.
- 4.4.2 The RPA for single stem trees broadly equates to a radius 12 times the stem diameter of the tree at 1.5m above ground level or the extent of canopy spread, whichever is the greater. For multi-stemmed, low branching trees or those with trunks with an irregular girth the point of stem diameter measurement is adjusted in consideration of these factors and in accordance with the illustrations in BS5837:2012 (Annex C).
- 4.4.3 The RPA should become an exclusion zone during construction works and for any development. It should be fenced-off and protected in accordance with BS5837:2012. The canopy is likewise susceptible to damage during construction work and requires similar protection.
- 4.4.4 No activities that result in excavations, changes in level or soil compaction should take place within the RPA of any retained trees, especially older mature trees. This would include the storage of materials, any construction work, trafficking by vehicles or even excessive trafficking by pedestrians.
- 4.4.5 If some form of construction has to take place within the RPA, then certain measures need to be adopted to avoid disturbance or damage to the roots and to maintain moisture infiltration and gaseous diffusion into the soil.

4.5 Services

- 4.5.1 Services likewise should be routed outside the existing or potential root zone of trees. Where it is unavoidable, then certain measures should be employed to avoid damage to the tree's larger roots.
- 4.5.2 The location and siting of new facilities near trees should consider the potential impact on and conflict with both tree roots and canopy. This should take into account the ultimate size of existing young and middle-aged trees at maturity. Conversely the impact of the tree on the activities should also be considered with regard to obstruction, shading, leaf fall and root action. These are problems that can be managed provided sufficient space is allowed for.



- 4.5.3 There will be a certain amount of ongoing coordination of new service routes at the site boundaries with statutory undertakers. Any new services should avoid the RPAs of any retained tree. Where it is unavoidable, then the route of the services must be designed by an Engineer in consultation with an Arboriculturalist and methods of excavation should be chosen to minimise the impact on tree roots.
- 4.5.4 Further advice can be found in NJUG Volume 4- "Guidance for the planning, installation and maintenance of utility services in proximity of trees".

4.6 Trees and Management of Health and Safety

4.6.1 It is recommended that a programme of periodic arboricultural assessments be undertaken in order to regularly assess the full health and safety of all trees both in full leaf and bare stemmed. The assessments should prioritise areas based on levels of access and presence of target (i.e. exposure of people to hazard) and accord with arboricultural advice, taking account of relevant factors (where known) that affect safety such as the age class, condition, size and species of the trees.



5 ARBORICULTURAL IMPACT ASSESSMENT

5.1 Introduction

- 5.1.1 Trees have finite energy reserves, developed each year throughout the growing season, which are utilised for biological processes such as growth and defence against pests or diseases throughout the following year.
- 5.1.2 Any development in proximity to trees has the potential to cause harm to those trees unless control measures are identified and acted upon; as such it is essential to consider the relationship between the proposed development and the retained trees to identify what precautions are necessary, proportionate and appropriate.
- 5.1.3 Damage that is not immediately evident, but which can cause long term harm to retained trees includes things such as damage to the soil structure by compaction causing root damage and levels changes altering the water table and affecting moisture availability.
- 5.1.4 To minimise the potential for harm to occur to retained trees all works will be carried out with regard to the Tree Protection measures detailed within this report.
- 5.1.5 In general, it can be seen that, by adopting appropriate methods of working, precautionary and protective measures, significant harm to retained trees can be avoided.
- 5.1.6 In particular the establishment of a Construction Exclusion Zone (CEZ) by erection of Tree Protection Fencing will minimise the potential for harm to occur to retained trees.
- 5.1.7 The retention and protection of significant trees and vegetation will assist in assimilating the proposed development into the wider landscape and offer long term tree cover.
- 5.1.8 Furthermore, redevelopment of the site may offer an excellent opportunity to actively manage any retained vegetation and accordingly we recommend restorative tree works be undertaken as appropriate. This will further improve the amenity value and landscape setting of the site and increase the useful life of any retained trees.

5.2 Brief Description of Proposed Development

- 5.2.1 This report relates to the following:
 - New Data Centre, with associated office administration areas, emergency generators and emission stacks, diesel tanks and filling area, electrical switchroom, a water sprinkler pump room and storage tank, a gate house / security building, site access, internal access roads, drainage infrastructure and hard and soft landscaping.

5.3 Retained Trees

5.3.1 This development will necessitate the removal of:

2 category A trees: T73 and T87

<u>50 category B trees:</u> T3, T4(*13), T10(*2), T11, T15, T16, T18, T19, T20, T21, T22, T33, T35(*2), T74, T75(*2), T76, T80, T83, T85, T86, T88, T90, T94, T95, T115, T117, T120, T131, T134, T136, T140, T141, T142, T144 and T148

89 category C trees: T1(*3), T2, T5(*1), T6(*4), T7, T8, T9, T34, T44, T45(*7), T77(*7), T78(*12), T79(*3), T81(*2), T82(*2), T89, T91(*2), T92(*2), T93(*2), T96, T97, T98, T101,



T116, T118, T119, T121, T127(*4), T128(*7), T132(*9), T133, T135, T139, T143, T145, T146 and T147

1 Category U tree: T125

6 Groups (Full removal): G2, G4, G8, G9, G10, G11

1 Group (Partial Removal): G1

13 full Hedges (Full removal): H8, H11, H16, H18, H20, H21, H22, H24, H25, H26, H7, H27, H4

Hedges (Partial removal): H1, H2, H3, H12, H14, H16 and H19.

5.3.2 Pruning from the western canopies of T122, T123, T124, T126 and T129 will be required to construct the new internal access road on the southern boundary.

5.4 Proposed works within the Root Protection Area (RPA)

- 5.4.1 Root Protection Areas for each tree, group of trees and hedgerows surveyed have been determined in accordance with BS5837:20125.
- 5.4.2 It can be noted that the development overlaps with the RPA of T12. 'No-dig' design principles will be adopted here to protect the roots (Refer to Appendix C).

5.5 Outline methodology within Root Protection Areas

- 5.5.1 Details of Tree Protection Fencing and ground protection are detailed in the following section of this document.
- 5.5.2 The RPA will become an exclusion zone during construction works and for any development. It will be fenced-off and protected in accordance with BS5837:2012. The canopy is likewise susceptible to damage during construction work and requires similar protection.
- 5.5.3 No activities that result in excavations, changes in level or soil compaction will take place within the RPA of any retained trees, especially older mature trees. This will include the storage of materials, any construction work, trafficking by vehicles or even excessive trafficking by pedestrians.
- All new (and existing re-routed) services shall be routed outside the existing or potential RPA retained trees. Where it is unavoidable, then hand excavation shall be employed to avoid damage to the larger roots and the services slid through or below the root system. Ducting shall be used to carry cables. Reference shall be made to the recommendations included within Guidelines for the Planning, Installation and Maintenance of Utility Apparatus in Proximity to Trees (NJUG 4)6.

⁵ BS5837: 2012 'Trees in relation to design, demolition and construction – Recommendations'.

⁶ http://streetworks.org.uk/wp-content/uploads/V4-Trees-Issue-2-16-11-2007.pdf



- 5.5.5 The location and siting of new facilities near trees should consider the potential impact on and conflict with both tree roots and canopy. This should take into account the ultimate size of existing young and middle-aged trees at maturity. Conversely the impact of the tree/s on end user activities should also be considered with regard to obstruction, shading, leaf fall and root action. These are problems that can be managed provided sufficient space is allowed for.
- 5.5.6 Where works within the RPA are unavoidable works must be undertaken by hand and the soil levels should be carefully reduced by hand to avoid damage to the bark of larger roots directly beneath and adjacent to the excavation. Where these become exposed, they should be further protected from drying out. Where root pruning is unavoidable it should be made at a suitable place within the root system, avoiding damage to surrounding tissue in accordance with BS 3998:2010. Final pruning cuts shall be made at right angles to the axis of the root and the final cut wound should be smooth and as small as possible, free from ragged torn ends.



6 TREE WORKS

6.1 Standard of Work

- 6.1.1 All tree works shall be carried out in accordance with BS3998:2010 and latest arboricultural best practice.
- 6.1.2 All tree work shall be carried out by suitably qualified, competent and insured arboricultural contractors in accordance with Arboricultural Association Standard Conditions of Contract and Specifications for Tree Works (2008) Edition and BS 3998:2010 Tree Work.
- 6.1.3 All green and woody waste generated by the tree works shall be removed from site and disposed of in an environmentally sustainable manner.
- 6.1.4 When a branch is removed at its point of attachment, injury of the wood and bark of the parent stem or branch above the cut shall be avoided. If a branch collar is visible, the final cut shall be just outside it and care shall be taken to avoid tearing retained wood and bark when the cut is made. Preliminary cuts shall be made, if necessary, so as to remove weight, before a final cut is made. Care shall be taken to prevent falling branches from harming other parts of the tree (including its roots), its surroundings, people or property. Heavy branches shall be removed in sections and, where necessary, shall be lowered with ropes.
- 6.1.5 Prior to the commencement of any tree works an appropriate risk assessment shall be produced to describe the measures required to fulfil the statutory safety obligations. It shall aim to identify and prioritise the necessary control measures and precautions.
- 6.1.6 Following the works, it is recommended that the trees are monitored on a regular basis to ensure their ongoing vitality and health. These inspections shall be completed by a suitably qualified and experienced person.

6.2 Timing of Works

- 6.2.1 All tree works, and tree protection measures shall be completed prior to commencement of any construction and enabling works on the site.
- 6.2.2 All works shall be timed to have regard to the phenological cycles of protected species that are associated with trees; notably birds and bats.
- 6.2.3 Selective pruning shall be undertaken with regard to the phenological cycle of trees, i.e. when energy reserves are highest; generally observed to be late winter before budburst (optimal), or mid-summer before leaf drop, dependent on species.
- 6.2.4 Nesting birds are protected by law and any removal / tree works should not be carried out during the bird nesting season (March-August inclusive). As construction (involving tree clearance on the main Application Site) is likely to commence in Q3 (Jul-Sept) 2021, it is likely to be outside of the optimal bird nesting season (mid-March to mid-June). The nesting season continues to potentially the end of August so if tree clearance operations have to take place during this period, then a qualified Ecologist shall check in advance that there are no birds nesting in the planned area of operation. Should checks reveal nesting birds the vegetation must remain until September or until an ecologist has certified that the fledglings have left the nest.



6.2.5 Similarly bats and bat roots are also protected by law. The Ecological Appraisal (document ref 20305B-RPS-XX-XX-RP-P-9725) has concluded that trees within the site have not yet matured sufficient to provide roosting and there were very low levels of bat activity.



7 TREE PROTECTION MEASURES

7.1 Construction Exclusion Zone

- 7.1.1 The Construction Exclusion Zone (CEZ) shall be defined by the protection fence line as shown on the Tree Protection and Removal Plan 20305B-RPS-00-XX-DR-A-9569 76.
- 7.1.2 The tree protection fence shall be erected prior to any works commencing on site (including site clearance an enabling works) and shall remain in place until after all construction activities have been completed and then only with the prior approval of the arboricultural consultant.
- 7.1.3 This CEZ shall not be disturbed, and the protective fencing shall not be moved or taken down at any time.
- 7.1.4 Within the Construction Exclusion Zone there shall be no mechanical digging or scraping, no alteration to existing ground levels including soil stripping, no earthworks, no handling or discharge of any chemical substance, concrete washings or of any fuels.
- 7.1.5 Vehicular or pedestrian access and the storage of any materials is prohibited within the CEZ.
- 7.1.6 No materials that may contaminate the soil such as concrete mixings, diesel oil and vehicle washings shall be discharged within 10m of the stem of any tree and no fires shall be lit within 10m of the maximum extent of a trees crown.

7.2 Tree Protection Fencing

- 7.2.1 The tree protection fence shall be erected as shown on the Tree Protection and Removal Plan (20305B-RPS-00-XX-DR-A-9569 76) included with this report.
- 7.2.2 The fence line shown is the <u>minimum</u> required and the length of the fence shall be extended or adjusted on site as agreed with the Arboricultural Consultant to ensure satisfactory protection of all retained trees and RPAs.
- 7.2.3 Where proposed (permanent) construction site-hoarding provides the same level of protection to the retained trees and RPAs as the proposed tree protection fence, subject to agreement with the Arboricultural Consultant, the hoarding may serve as the tree protection fence. Notwithstanding, depending on the form and alignment of the construction site-hoarding it may be necessary to provide additional tree protection fence to ensure adequate protection of retained trees and RPAs as shown on the Tree Protection Plan.
- 7.2.4 Unless otherwise agreed in writing with the Arboricultural Consultant and/or LPA Tree Officer, the fencing system to be utilised shall be in accordance with Appendix C and compliant with BS5837:2012.
- 7.2.5 Once the protective barrier is in place it shall remain in situ throughout the course of the development until the completion of development, other than to facilitate agreed tree removal; see below.
- 7.2.6 Where necessary, tree protection fencing may be temporarily re-aligned in order to facilitate tree removal. Fencing is to be re-instated immediately following removal in a manner that encompasses the remaining trees and their respective RPAs. During tree removal, no

- wheeled or tracked machinery is to enter the area previously encompassed by tree protective fencing as shown in the Tree Protection Plan.
- 7.2.7 Copies of the Tree Protection and Removal Plan (20305B-RPS-00-XX-DR-A-9569 76) shall be placed in the site office for reference by all site staff.
- 7.2.8 Signs detailing the purpose of the protective barrier shall be attached to the barriers at 10m intervals. Such signs should be weatherproof and shall be substantially in the form of the specimen provided at Appendix F. Signs must be replaced as necessary should they be removed or become illegible.
- 7.2.9 Following erection of the protective barriers and prior to commencement of the development it is recommended that an inspection of the site, by either the Council's Tree Officer or the Arboricultural Consultant, is arranged to confirm fencing has been installed in accordance with the Tree Protection Plan and that any relevant arboreal conditions attached to the planning consent have been met.

7.3 Site Compounds and Materials Stores

- 7.3.1 Activities related to the establishment of a temporary site compound have the potential to impact upon retained trees by various means. In particular the storage and mixing of chemicals and materials such as concrete can have a damaging effect on tree health if precautions are not taken.
- 7.3.2 To prevent harm occurring to trees, provision for materials storage, deliveries and other related activities shall be made available in areas away from retained trees.
- 7.3.3 Under no circumstances shall materials or plant be stored beneath the canopy or within or abutting the Root Protection Zone of any retained trees/hedges, whether fenced or not.

7.4 Reporting

7.4.1 Should any arboricultural issues become apparent during the works the site manager should immediately contact the Arboricultural Consultant or the Council's Tree Officer for advice upon how to proceed.



8 CONCLUSIONS

- 8.1.1 A comprehensive tree survey has been completed on the Application Site and its immediate surroundings. The survey was completed in accordance with BS5837:2012.
- 8.1.2 This development will necessitate the removal of 2 category A trees, 50 category B trees, 89 category C trees, 1 category U tree, 6 full groups, partial removal of 1 group, 13 full hedges and partial removal of 2 hedges.
- 8.1.3 'No-dig' design principles will be adopted where the development overlaps with the RPA of T12 to protect the roots.
- 8.1.4 Pruning from the western canopies of T122, T123, T124, T126 and T129 will be required to construct the new internal access road on the southern boundary.
- 8.1.5 A total of 338 new trees will be planted to compensate the tree loss.
- 8.1.6 Tree protection fencing will be installed to protect the Construction Exclusion Zone.
- 8.1.7 From an arboreal perspective, subject to the satisfactory implementation of the recommendations contained within report, it is considered that the proposed scheme has minimal impacts.

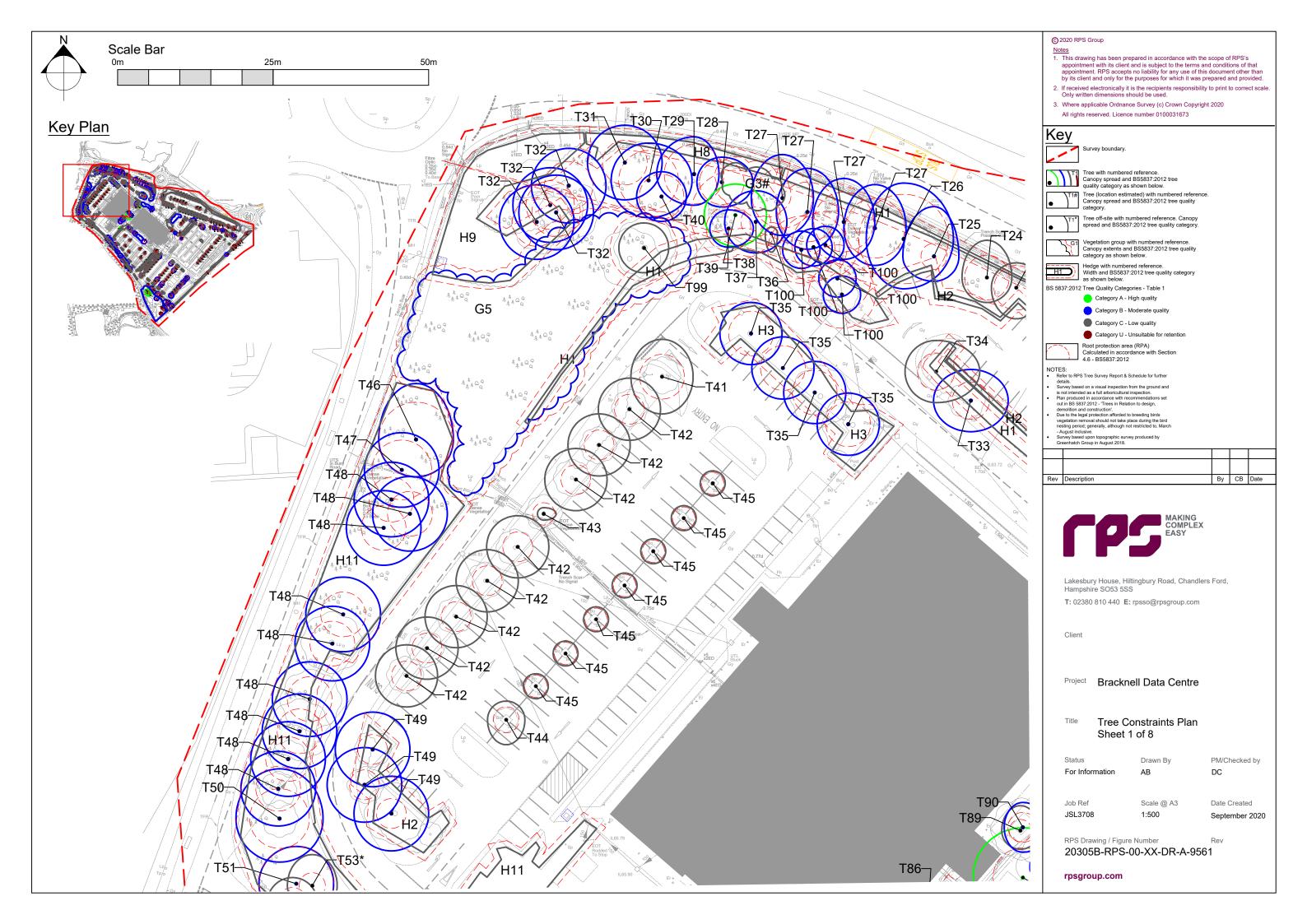


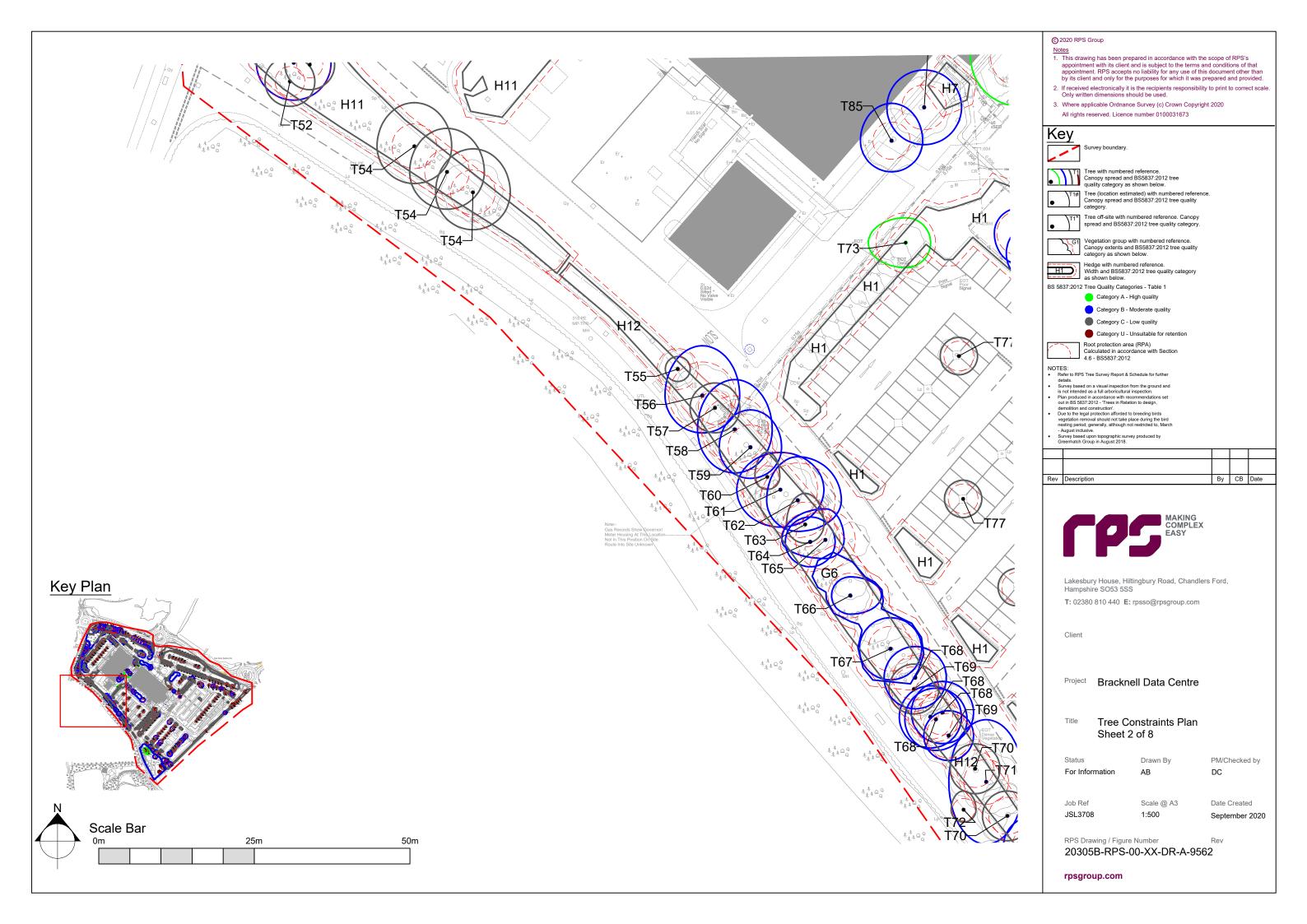


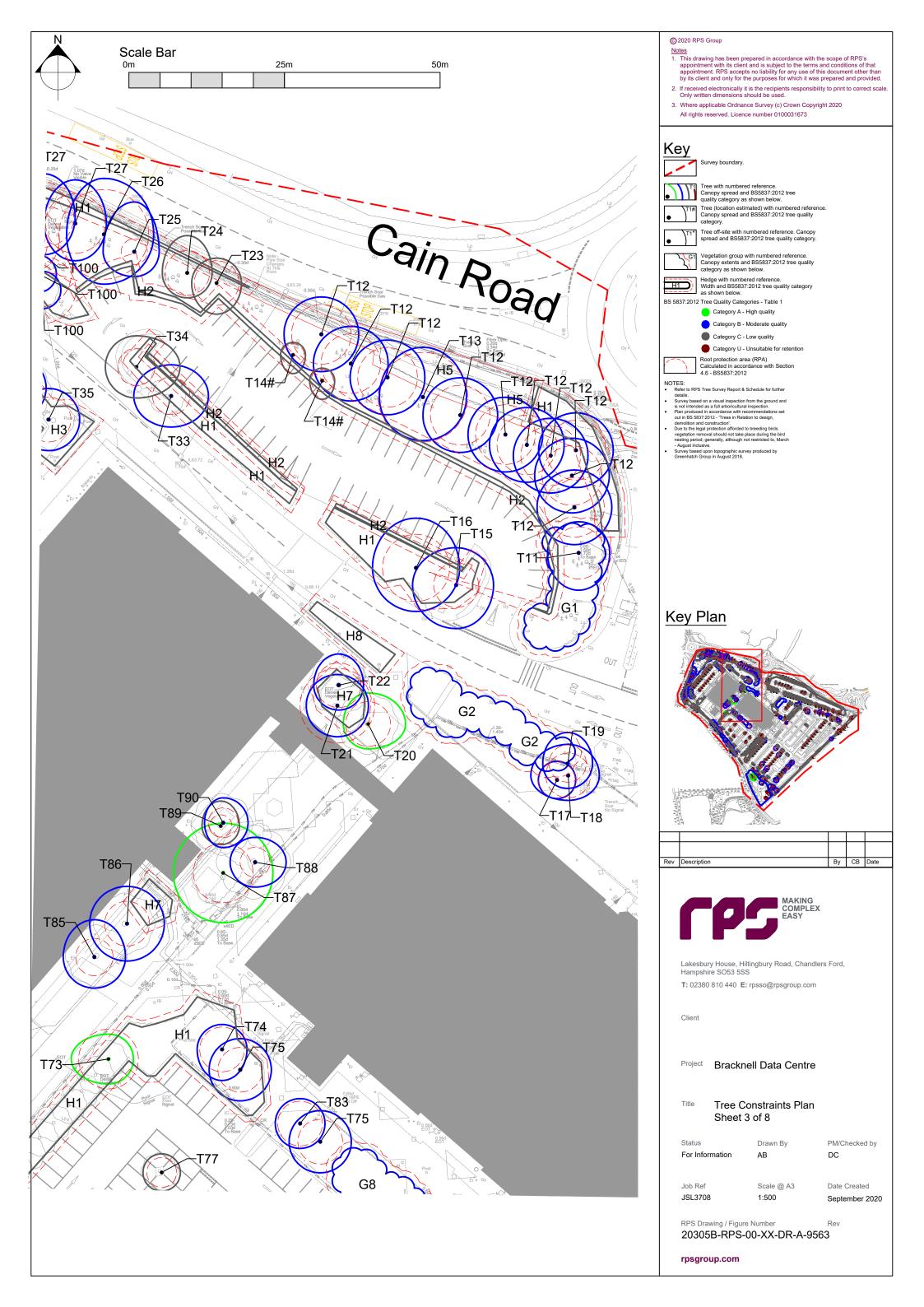


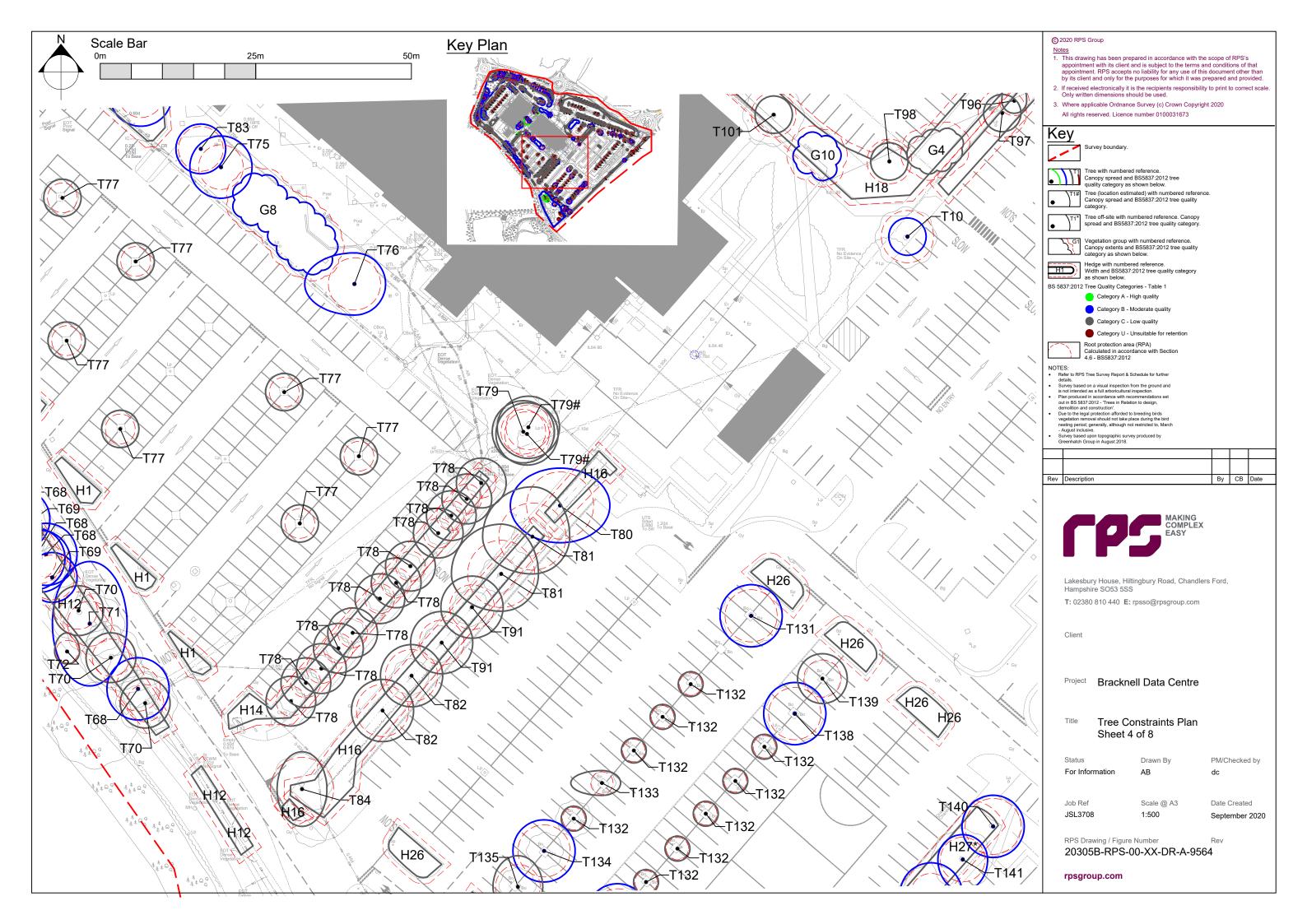
Appendix A

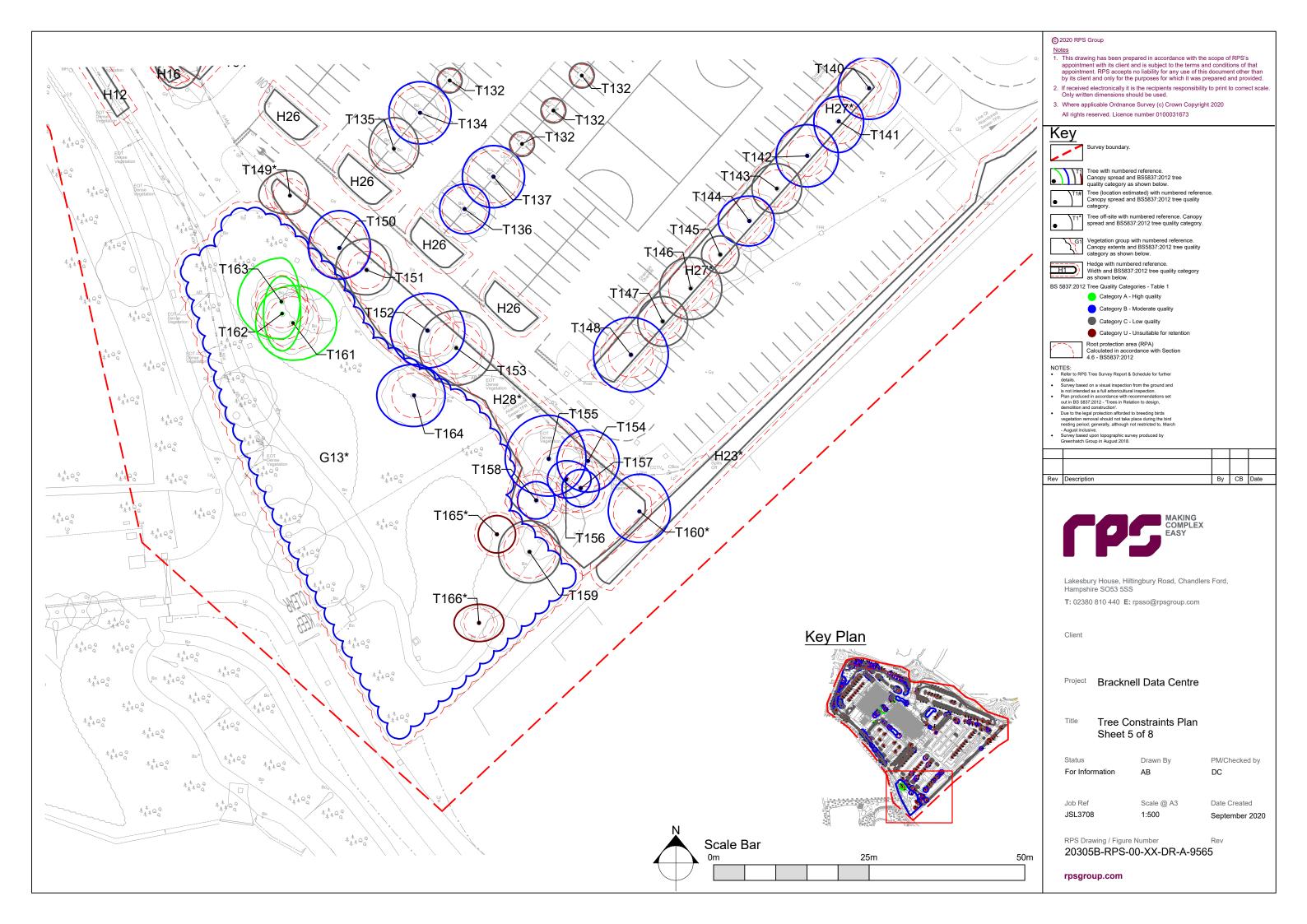
Tree Constraints Plan 20305B-RPS-00-XX-DR-A9561- 20305B-RPS-00-XX-DR-A-9568

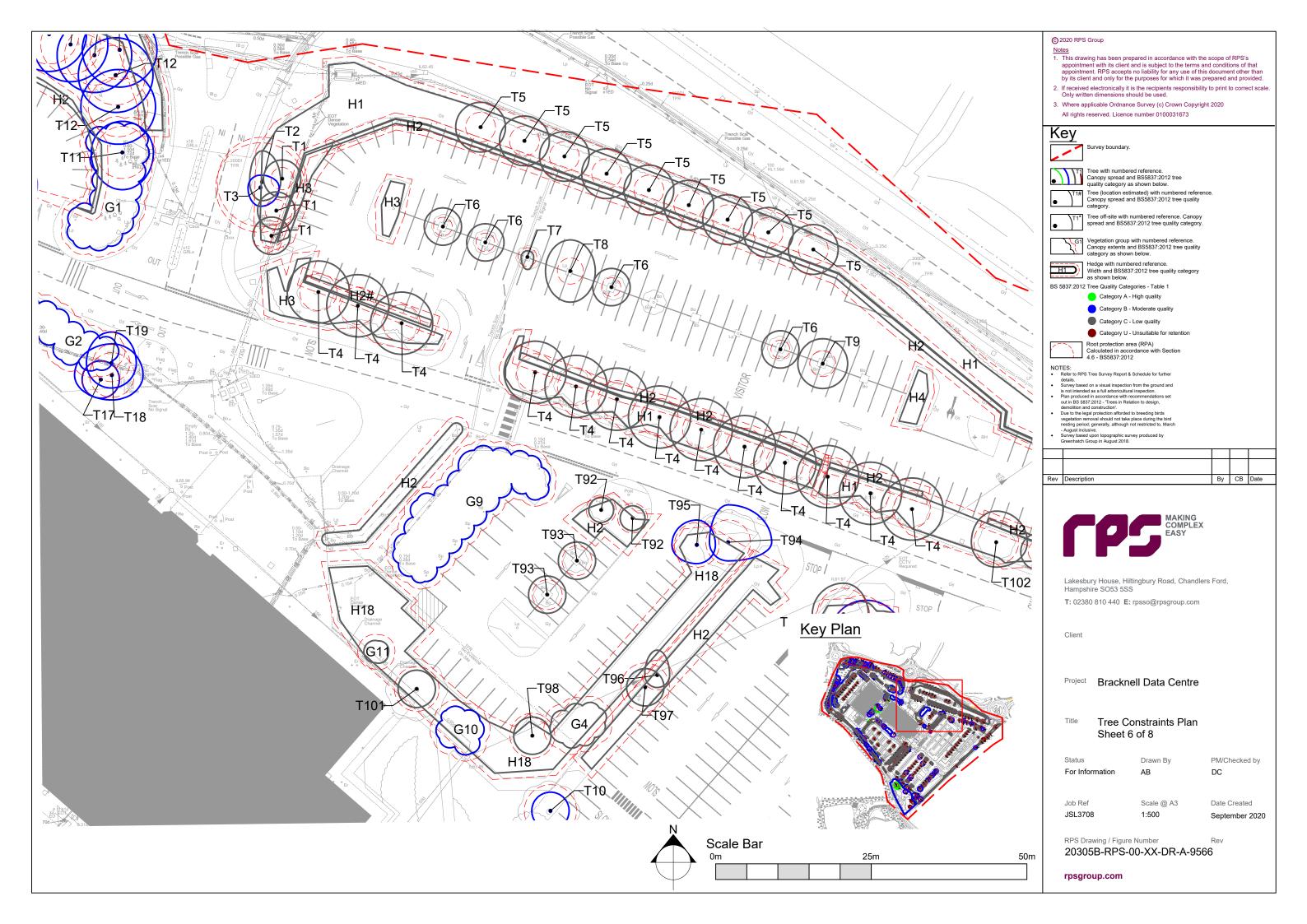


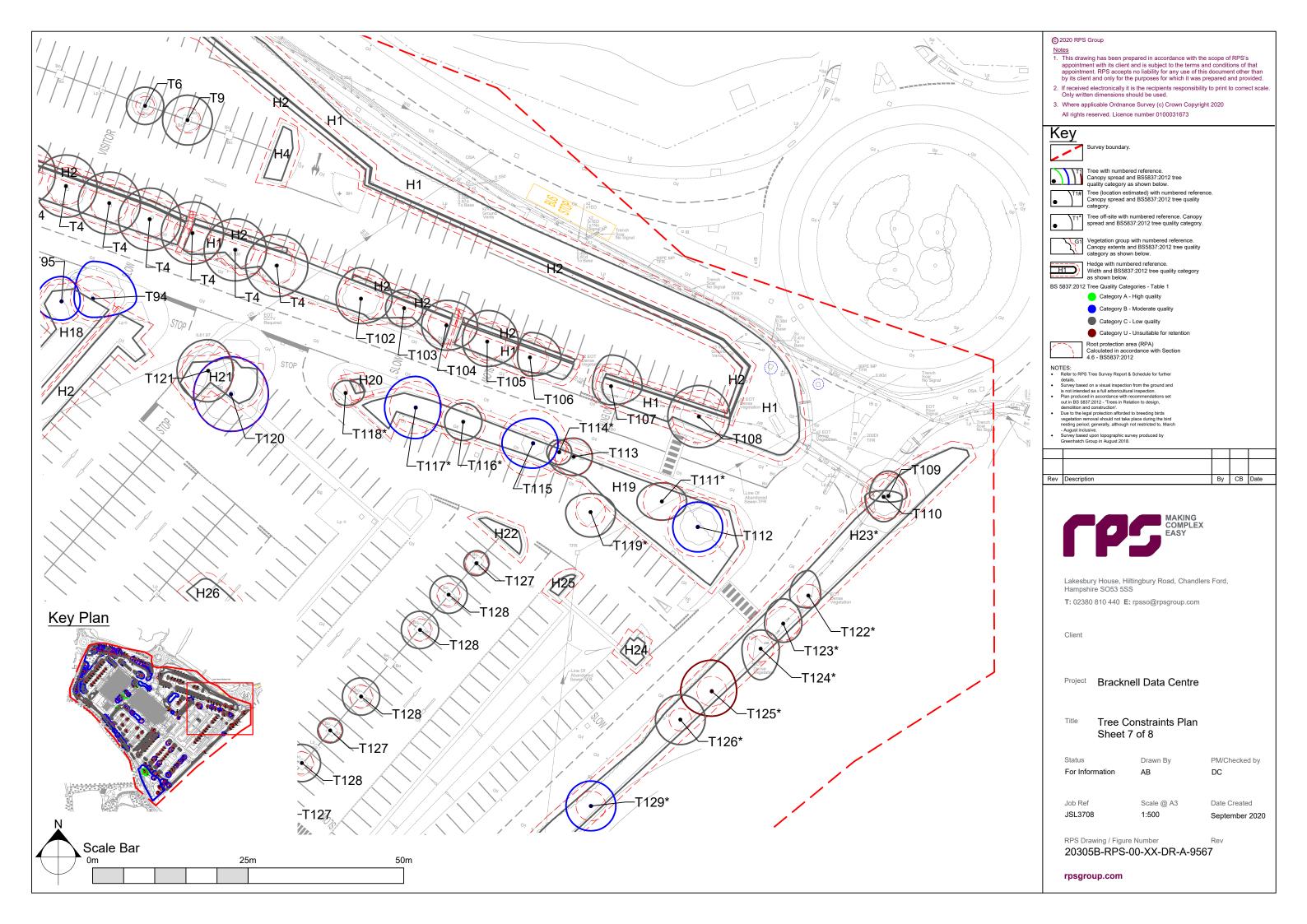


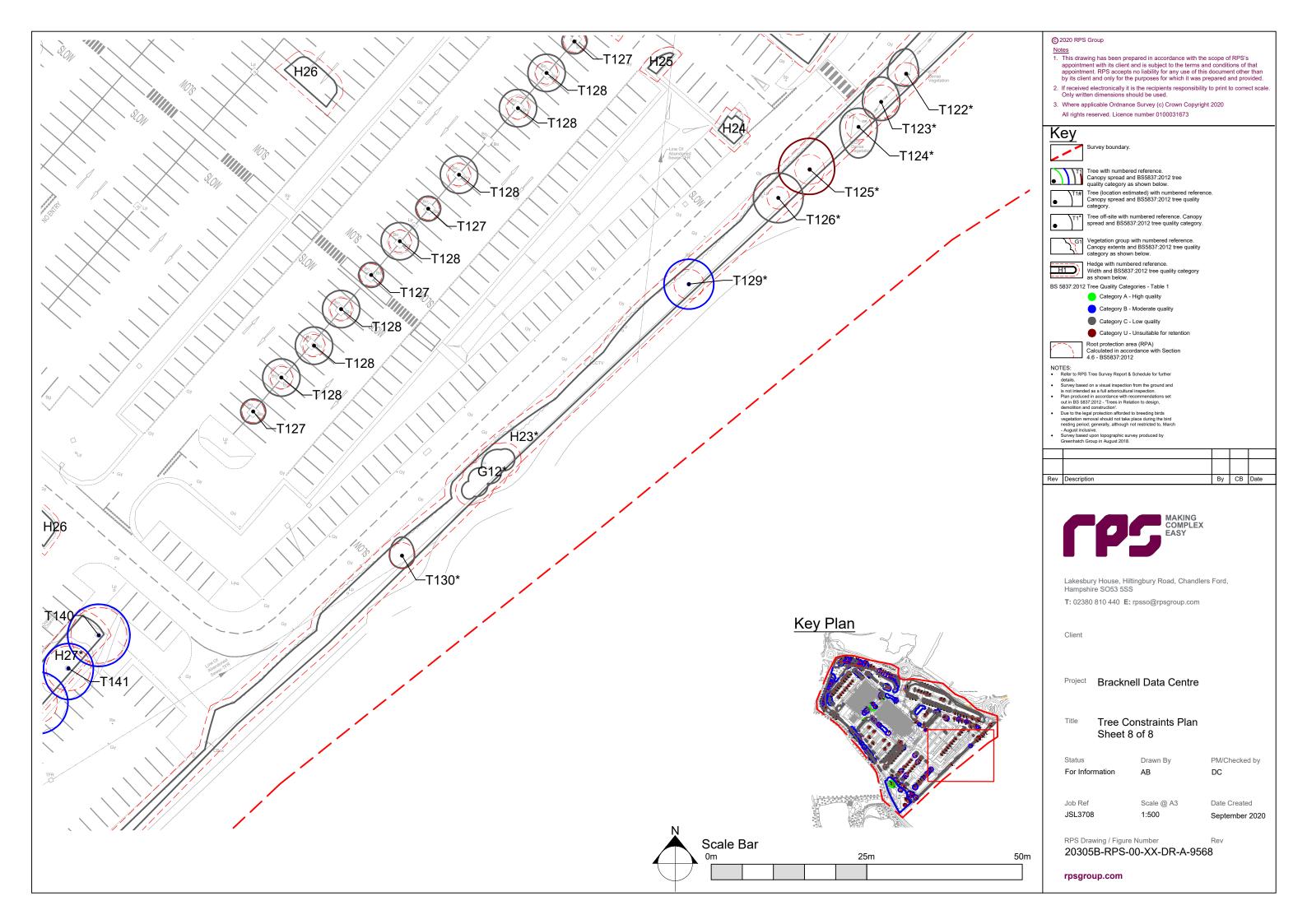














Appendix B

Tree Survey Schedule

Site Bracknell, Cain Road

Project schedule ref: JSL3708_850

Drawing reference: JSL3708_800-804

Survey date: 18/08/2020 & 08.02.2021

Surveyor: A Brown

Status: For Information

Revision: A



Ref.		Height	Cro	Crown spread (m)			Stem	Stem no.	Height of crown	Dir/	Age	Structural	Physiological	General observations	Estimated remaining	Tree Quality
no.	Species	(m)		s	W	dia. (m)	at 1.5m	clearance (m)	height		condition	condition	Management recommendations	contribution (years)	Category (BS5837)	
T1	3 Sorbus aucuparia Rowan	6.0	3.0	3.0	3.0	3.0	0.15	1.00	3.00	E	Y	G	G	Attractive Rowan trees.	10+	C2
T2	Pinus sylvestris Scots Pine	5.0	5.0	3.0	3.0	2.0	0.60	1.00	0.50	N	Υ	G	G	Small pine within hedge. Multi-stemmed.	10+	C2
Т3	Pinus sylvestris Scots Pine	3.0	2.0	3.0	3.0	2.0	0.60	1.00	0.50	S	SM	G	G	Small pine within hedge. Multi-stemmed.	20-40	B2
T4	13 Prunus avium Wild Cherry	7.0	5.0	5.0	5.0	5.0	0.25	1.00	3.00	N	SM	G	G	Attractive Cherry trees within hedge.	20-40	B2
T5	9 Sorbus aucuparia Rowan	7.0	4.0	4.0	4.0	4.0	0.20	1.00	4.00	N	SM	G	G	Attractive Rowan trees within hedge.	20-40	C2
Т6	4 Prunus avium Wild Cherry	6.0	3.0	3.0	3.0	3.0	0.12	1.00	4.00	S	Υ	F	G	Young plantings in car park.	10+	C2
T7	Prunus avium Wild Cherry	4.0	1.0	1.0	2.0	1.0	0.12	1.00	3.00	S	Y	Р	Р	Young cherry In car park. Stem occlusions and deadwood present.	10+	C2
Т8	Prunus avium Wild Cherry	5.0	5.0	4.0	5.0	4.0	0.17	1.00	3.00	S	SM	G	G	Attractive tree in car park. Relatively wide crown.	20-40	C2
Т9	Prunus avium Wild Cherry	5.5	4.0	4.0	4.0	4.0	0.18	1.00	2.50	S	SM	G	G	Cherry with relatively wide crown.	20-40	C2
T10	Alnus Sp. Alder	12.0	3.0	3.0	3.0	3.0	0.35	1.00	3.00	S	EM	G	G	Tall Alder trees.	40+	B2
T11	Pinus sylvestris Scots Pine	9.0	5.0	5.0	6.0	5.0	0.35	1.00	1.00	S	EM	G	G	Prominent pine.	40+	B2
T12	10 Acer pseudoplatanus Sycamore	10.0	6.0	6.0	6.0	6.0	0.40	1.00	2.00	N	EM	G	G	Attractive trees.	40+	B2

Site Bracknell, Cain Road

Project schedule ref: JSL3708_850

Drawing reference: JSL3708_800-804

Survey date: 18/08/2020 & 08.02.2021

Surveyor: A Brown

Status: For Information

Revision: A



Ref.	0	Height (m)	Cr	Crown spread (m)			Stem	Stem no.	Height of crown	Dir/	Age	Structural	Physiological	General observations	Estimated remaining	Tree Quality
no.	Species			N	E	s	W	dia. (m)			height		condition	condition	Management recommendations	contribution (years)
T13	Acer pseudoplatanus Sycamore	10.0	8.0	7.0	7.0	7.0	0.60	1.00	1.00	S	М	G	G	Sycamore with strong northerly bias. Ivy present.	40+	B2
T14*	8 Sorbus aucuparia Rowan	6.0	2.0	2.0	3.0	2.0	0.15	1.00	2.00	S	Y	G	G	Young Rowan trees within hedge.	10+	C2
T15	Acer pseudoplatanus Sycamore	9.0	6.0	6.0	7.0	7.0	0.30	1.00	1.00	S	EM	G	G	Attractive Sycamore.	40+	B2
T16	Acer pseudoplatanus Sycamore	9.0	8.0	7.0	7.0	7.0	0.45	1.00	2.00	S	EM	G	G	Sycamore with strong northerly bias. Lots of ivy present.	40+	B2
T17	Acer pseudoplatanus Sycamore	7.0	3.0	3.0	3.0	3.0	0.25	1.00	1.00	S	SM	G	G	Sycamore within group.	20-40	B2
T18	Sorbus aucuparia Rowan	7.0	5.0	5.0	4.0	6.0	0.30	1.00	2.00	N	EM	G	G	Sycamore near edge of group. Lots of ivy present.	20-40	B2
T19	Pinus sylvestris Scots Pine	10.0	5.0	4.0	4.0	4.0	0.25	1.00	0.50	N	EM	G	G	Pine which stands out in the landscape.	40+	B2
T20	Betula pendula Silver Birch	12.0	5.0	6.0	4.0	4.0	0.30	1.00	5.00	E	EM	G	G	Birch with slight lean to the east.	40+	B2
T21	Betula pendula Silver Birch	12.0	5.0	5.0	5.0	5.0	0.50	1.00	2.00	E	М	G	G	Mature Birch with high landscape value. Ivy present.	40+	B2
T22	Betula pendula Silver Birch	12.0	5.0	4.0	4.0	4.0	0.30	1.00	2.00	N	EM	G	G	Attractive Birch in corner.	40+	B2
T23	Sorbus aucuparia Rowan	7.0	4.0	4.0	5.0	4.0	0.30	1.00	2.00	W	SM	G	G	Rowan with easterly bias. Lots of ivy present.	20-40	C2
T24	Pinus sylvestris Scots Pine	8.0	6.0	4.0	4.0	4.0	0.30	1.00	2.00	S	SM	G	G	Pine with northerly bias. Lots of ivy present. Crown overhangs pavement.	20-40	C2

Site Bracknell, Cain Road

Project schedule ref: JSL3708_850

Drawing reference: JSL3708_800-804

Survey date: 18/08/2020 & 08.02.2021

Surveyor: A Brown

Status: For Information

Revision: A



Ref.		Height (m)	Cro	Crown spread (m)			Stem	Stem no.	Height of crown	Dir/	Age	Structural	Physiological	General observations	Estimated remaining	Tree Quality
no.	Species		N	E	s	w	dia. (m)			height		condition	condition	Management recommendations	contribution (years)	Category (BS5837)
T25	Carpinus betulus Hornbeam	7.0	8.0	4.0	4.0	5.0	0.17	1.00	3.00	N	SM	G	G	Tree with northerly bias.	20-40	B2
T26	Acer pseudoplatanus Sycamore	12.0	9.0	8.0	8.0	6.0	0.60	1.00	2.00	E	М	G	G	Sycamore which stands out in the landscape. Possesses a wide crown and lots of ivy.	40+	B2
T27	4 Acer pseudoplatanus Sycamore	12.0	7.0	5.0	6.0	5.0	0.40	1.00	3.00	N	EM	G	G	Tall sycamore. Crown overhangs pavement and road.	40+	B2
T28	Quercus rubra Red Oak	7.0	4.0	5.0	4.0	4.0	0.30	1.00	2.50	E	SM	G	G	Oak with lots of ivy present.	20-40	B2
T29	Quercus rubra Red Oak	8.0	6.0	4.0	5.0	6.0	0.40	1.00	2.50	N	SM	G	G	Oak with northerly bias.	20-40	B2
T30	Acer pseudoplatanus Sycamore	7.0	6.0	7.0	6.0	6.0	0.40	1.00	3.00	W	SM	GG	G	Sycamore which bifurcates at 3m. Possesses a wide crown and stands out in the landscape.	20-40	B2
T31	Quercus rubra Red Oak	7.0	6.0	6.0	6.0	6.0	0.30	1.00	2.00	W	SM	F	G	Oak with wide crown.	20-40	B2
T32	4 Acer pseudoplatanus Sycamore	7.0	6.0	6.0	6.0	6.0	0.32	1.00	3.00	E	SM	G	G	Attractive trees with wide crowns.	20-40	B2
T33	Acer pseudoplatanus Sycamore	8.0	5.0	6.0	5.0	6.0	0.25	1.00	3.00	S	SM	G	G	Attractive tree with ivy present adjacent car park.	20-40	B2
T34	Acer pseudoplatanus Sycamore	8.0	5.0	7.0	5.0	5.0	0.25	1.00	4.00	E	SM	F	F	Sycamore adjacent car park.	20-40	C2
T35	4 Acer pseudoplatanus Sycamore	8.0	5.0	5.0	5.0	5.0	0.30	1.00	3.00	N	SM	G	G	Attractive trees with wide crowns.	20-40	B2
T36	Pinus sylvestris Scots Pine	5.0	1.0	1.0	3.0	1.0	0.15	1.00	2.00	S	Y	G	G	Young pine.	10+	C2

Site Bracknell, Cain Road

Project schedule ref: JSL3708_850

Drawing reference: JSL3708_800-804

Survey date: 18/08/2020 & 08.02.2021

Surveyor: A Brown

Status: For Information

Revision: A



Ref.	Species	Height	Cro	Crown spread (m)			Stem	Stem no.	Height of crown	Dir/	Age	Structural	Physiological	General observations	Estimated remaining	Tree Quality
no.		(m)	N	N E S	s	W	dia. (m)			height		condition	condition	Management recommendations	contribution (years)	Category (BS5837)
T37	Acer platanoides Norway Maple	7.0	5.0	5.0	5.0	5.0	0.20	1.00	2.00	S	SM	G	G	Attractive tree.	20-40	B2
T38	Pinus sylvestris Scots Pine	9.0	5.0	5.0	5.0	5.0	0.60	1.00	4.00	N	EM	G	G	Pine which stands out in the landscape.	40+	A2
T39	Pinus sylvestris Scots Pine	8.0	3.0	4.0	3.0	3.0	0.30	1.00	2.00	S	SM	G	G	Attractive pine.	20-40	B2
T40	Pinus sylvestris Scots Pine	8.0	4.0	4.0	4.0	4.0	0.30	1.00	2.00	S	SM	G	G	Attractive pine.	20-40	B2
T41	Acer platanoides Norway Maple	7.0	6.0	5.0	6.0	5.0	0.30	1.00	2.50	N	SM	G	G	Norway maple with easterly bias.	20-40	C2
T42	8 Acer platanoides Norway Maple	6.5	5.0	5.0	5.0	5.0	0.20	1.00	3.00	E	SM	G	G	Trees within hedge.	20-40	C2
T43	Acer platanoides Norway Maple	5.5	1.0	2.0	1.0	1.0	0.15	1.00	3.00	E	Y	G	G	Young Norway Maple.	10+	C2
T44	Acer platanoides (Purple var.) Norway Maple (purple)	6.0	3.0	3.0	4.0	3.0	0.18	1.00	1.00	S	SM	G	G	Attractive tree.	20-40	C2
T45	7 Acer platanoides (Purple var.) Norway Maple (purple)	6.0	2.0	2.0	2.0	2.0	0.15	1.00	1.00	W	Y	G	G	Young plantings in car park.	10+	C2
T46	Acer platanoides Norway Maple	7.0	9.0	6.0	6.0	6.0	0.50	1.00	3.00	N	EM	G	G	Norway Maple with northerly bias.	40+	B2
T47	Quercus rubra Red Oak	10.0	6.0	6.0	6.0	6.0	0.40	1.00	3.00	N	EM	G	G	Oak with wide crown.	40+	B2
T48	9 Acer pseudoplatanus Sycamore	9.0	6.0	6.0	6.0	6.0	0.30	1.00	2.00	E	SM	G	G	Attractive Sycamore.	20-40	B2

Site Bracknell, Cain Road

Project schedule ref: JSL3708_850

Drawing reference: JSL3708_800-804

Survey date: 18/08/2020 & 08.02.2021

Surveyor: A Brown

Status: For Information

Revision: A



Ref.		Height	Cro	own s	pread	d (m)	Stem	Stem no.	Height of crown	Dir/	Age	Structural	Physiological	General observations	Estimated remaining	Tree Quality
no.	Species	(m)	N	E	S	W	dia. (m)		clearance (m)	height		condition	condition	Management recommendations	contribution (years)	Category (BS5837)
T49	3 Acer platanoides Norway Maple	8.0	6.0	6.0	6.0	6.0	0.20	1.00	3.00	S	SM	G	G	Attractive Norway Maple.	20-40	B2
T50	Acer platanoides Norway Maple	10.0	8.0	7.0	7.0	7.0	0.40	1.00	2.00	N	EM	G	G	Norway Maple in corner.	40+	B2
T51	Acer platanoides Norway Maple	10.0	6.0	6.0	6.0	6.0	0.50	1.00	2.00	S	М	G	G	Attractive Norway Maple.	40+	B2
T52	Fraxinus excelsior Common Ash	10.0	4.0	4.0	4.0	4.0	0.20	1.00	3.00	E	EM	G	G	Ash in hedge.	40+	C2
T53*	Salix caprea Goat Willow	7.0	5.0	4.0	4.0	4.0	0.18	1.00	2.00	N	SM	G	G	Willow in hedge.	20-40	C2
T54	3 Acer platanoides Norway Maple	9.0	7.0	6.0	6.0	6.0	0.30	1.00	3.00	N	SM	G	G	Norway Maples on the north-western boundary.	20-40	C2
T55	Fraxinus excelsior Common Ash	8.0	2.0	2.0	2.0	2.0	0.28	2.00	5.00	S	SM	G	G	Ash which bifurcates at 0.2m	20-40	C2
T56	Quercus rubra Red Oak	9.0	8.0	6.0	6.0	6.0	0.45	1.00	5.00	N	EM	G	G	Oak with northerly bias. Stem occlusions present.	40+	B2
T57	Acer campestre Field Maple	8.0	4.0	4.0	4.0	4.0	0.23	3.00	3.00	E	SM	G	G	Field Maple which trifurcates at 1.5m.	20-40	C2
T58	Quercus rubra Red Oak	10.0	8.0	6.0	7.0	6.0	0.45	1.00	5.00	N	EM	G	G	Oak which bifurcates at 4m. lvy present.	40+	B2
T59	Acer campestre Field Maple	8.0	6.0	5.0	5.0	5.0	0.30	1.00	2.00	N	SM	G	G	Field Maple with wide crown. Ivy present.	20-40	B2
T60	Fraxinus excelsior Common Ash	7.0	4.0	2.0	2.0	2.0	0.15	1.00	5.00	N	Y	G	G	Young Ash.	10+	C2

Site Bracknell, Cain Road

Project schedule ref: JSL3708_850

Drawing reference: JSL3708_800-804

Survey date: 18/08/2020 & 08.02.2021

Surveyor: A Brown

Status: For Information

Revision: A



Ref.		Height	Cr	own s	sprea	d (m)	Stem	Stem no.	Height of crown	Dir/	Age	Structural	Physiological	General observations	Estimated remaining	Tree Quality
no.	Species	(m)	N	E	s	W	dia. (m)			height		condition	condition	Management recommendations	contribution (years)	Category (BS5837)
T61	Alnus glutinosa Common Alder	11.0	6.0	7.0	6.0	7.0	0.50	1.00	2.00	W	M	G	G	Tree stands out in landscape.	40+	B2
T62	Pinus sylvestris Scots Pine	11.0	7.0	7.0	5.0	5.0	0.50	1.00	5.00	N	М	G	G	Tree stands out in landscape. Lots of ivy.	40+	B2
T63	Quercus rubra Red Oak	12.0	5.0	3.0	3.0	3.0	0.30	1.00	3.00	N	SM	G	G	Oak with some ivy.	20-40	C2
T64	Alnus glutinosa Common Alder	12.0	4.0	4.0	4.0	4.0	0.40	1.00	3.00	N	EM	G	G	Tall tree with ivy.	40+	B2
T65	Acer campestre Field Maple	8.0	5.0	3.0	3.0	7.0	0.40	1.00	3.00	N	SM	G	G	Tree which leans to the north-west. Bifurcates at 2m.	20-40	B2
T66	Pinus sylvestris Scots Pine	10.0	3.0	5.0	3.0	3.0	0.30	1.00	1.00	W	EM	G	G	Impressive Pine on north-west boundary. Stands out.	40+	B2
T67	Pinus sylvestris Scots Pine	10.0	5.0	5.0	5.0	5.0	0.30	1.00	1.00	N	EM	G	G	Impressive Pine on north-west boundary. Stands out.	20-40	B2
T68	5 Populus sp. Poplar sp.	12.0	5.0	5.0	5.0	5.0	0.30	1.00	4.00	N	EM	G	G	Attractive Poplars.	40+	B2
T69	2 Pinus sylvestris Scots Pine	12.0	4.0	4.0	4.0	4.0	0.30	1.00	2.00	S	SM	G	G	Two attractive pines.	20-40	B2
T70	3 Alnus glutinosa Common Alder	8.0	4.0	4.0	4.0	4.0	0.25	1.00	4.00	W	SM	G	G	Tall Poplars.	20-40	C2
T71	Populus sp. Poplar sp.	12.0	10.0	6.0	10.0	0 6.0	0.30	1.00	3.00	S	SM	G	G	Tall tree in within row.	20-40	B2
T72	Betula pendula Silver Birch	7.0	3.0	2.0	2.0	2.0	0.15	1.00	6.00	N	Υ	G	G	Young tree.	10+	C2

Site Bracknell, Cain Road

Project schedule ref: JSL3708_850

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Survey date: 18/08/2020 & 08.02.2021

Surveyor: A Brown

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Revision: A



Ref.	•	Height	Cr	own s	preac	d (m)	Stem	Stem no.	Height of crown	Dir/	Age	Structural	Physiological	General observations	Estimated remaining	Tree Quality
no.	Species	(m)	N	E	S	W	dia. (m)		clearance (m)	height		condition	condition	Management recommendations	contribution (years)	Category (BS5837)
T73	Tilia Sp. Lime	9.0	4.0	4.0	4.0	6.0	0.40	1.00	0.50	W	EM	G	G	Tree which stands out in the landscape.	40+	A2
T74	Prunus avium Wild Cherry	7.0	4.0	4.0	5.0	4.0	0.30	1.00	3.00	W	SM	G	G	Attractive cherry.	20-40	B2
T75	2 Pinus sylvestris Scots Pine	12.0	5.0	5.0	5.0	5.0	0.30	1.00	1.00	W	EM	G	G	.lmpressive Pines with high landscape value.	40+	B2
T76	Pinus sylvestris Scots Pine	8.0	5.0	5.0	5.0	8.0	0.35	1.00	1.00	W	SM	G	G	Pine with westerly bias.	20-40	B2
T77	7 Alnus glutinosa Common Alder	8.0	3.0	3.0	3.0	3.0	0.20	1.00	1.00	S	SM	G	G	Plantings in car park.	20-40	C2
T78	12 Tilia Sp. Lime	7.0	4.0	4.0	4.0	4.0	0.20	1.00		E	SM	G	G	Trees bordering car park.	20-40	C2
T79	3 Prunus avium Wild Cherry	8.0	5.0	5.0	5.0	5.0	0.30	1.00	2.00	S	EM	G	G	Attractive Cherry.	40+	C2
T80	Alnus glutinosa Common Alder	12.0	6.0	8.0	6.0	8.0	0.45	1.00	5.00	E	М	G	G	Tree which stands out in the landscape.	40+	B2
T81	2 Populus sp. Poplar sp.	12.0	8.0	6.0	6.0	8.0	0.45	1.00	5.00	W	М	G	G	Mature Poplars.	40+	C2
T82	2 Alnus glutinosa Common Alder	9.0	5.0	5.0	5.0	5.0	0.35	1.00	3.00	E	EM	G	G	Alders on South-east boundary.	40+	C2
T83	Pinus sylvestris Scots Pine	10.0	4.0	4.0	4.0	4.0	0.30	1.00	1.00	W	SM	G	G	Attractive pine.	20-40	B2
T84	Pinus sylvestris Scots Pine	9.0	6.0	4.0	6.0	4.0	0.42	2.00	1.00	S	EM	G	G	Pine which bifurcates at 0.3m.	40+	C2

Site Bracknell, Cain Road

Project schedule ref: JSL3708_850

Drawing reference: JSL3708_800-804

Survey date: 18/08/2020 & 08.02.2021

Surveyor: A Brown

Status: For Information

Revision: A



Ref.		Height	Cı	rown	sprea	d (m)	Stem	Stem no.	Height of crown	Dir/	Age	Structural	Physiological	I General observations	Estimated remaining	Tree Quality
no.	Species	(m)	N	Е	s	W			clearance (m)	height	_	condition	condition	Management recommendations	contribution (years)	Category (BS5837)
T85	Sorbus aucuparia Rowan	11.0	6.0	5.0	5.0	5.0	0.25	1.00	1.00	N	SM	G	G	Rowan which bifurcates at 4m.	20-40	B2
T86	Sorbus aucuparia Rowan	11.0	6.0) 6.0	6.0	6.0	0.30	1.00	1.00	E	EM	G	G	Tree with dense crown.	40+	B2
T87	Pinus wallichiana Bhutan Pine	13.0	8.0) 8.0	8.0	8.0	0.40	1.00	2.00	E	М	G	G	Very impressive tree.	40+	A2
T88	Betula pendula Silver Birch	12.0	4.0) 5.0	4.0	4.0	0.20	1.00	3.00	E	SM	G	G	Tall Birch.	20-40	B2
T89	Betula pendula Silver Birch	13.0	4.0	3.0	3.0	3.0	0.15	1.00	4.00	S	Y	G	G	Tall Birch.	10+	C2
T90	Betula pendula Silver Birch	13.0	4.0) 4.0	4.0	3.0	0.20	1.00	4.00	E	SM	G	G	Tall Birch.	20-40	B2
T91	2 Alnus glutinosa Common Alder	12.0	5.0	5.0	5.0	5.0	0.30	1.00	3.00	E	SM	G	G	Tree with stem occlusions.	20-40	C2
T92	2 Prunus avium Wild Cherry	7.0	2.0) 2.0) 2.0	2.0	0.20	1.00	3.00	N	SM	G	G	Tree in hedge.	20-40	C2
T93	2 Prunus avium Wild Cherry	7.0	3.0	3.0	3.0	3.0	0.20	1.00	3.00	W	SM	G	G	Plantings in car park.	20-40	C2
T94	Prunus avium Wild Cherry	9.0	6.0	7.0	3.0	3.0	0.30	1.00	4.00	E	EM	G	G	Tree in hedge. Easterly bias.	40+	B2
T95	Prunus avium Wild Cherry	9.0	4.0	3.0	3.0	4.0	0.30	1.00	2.50	W	EM	G	G	Attractive Cherry.	40+	B2
T96	Pinus sylvestris Scots Pine	11.0	4.0) 2.0	2.0	2.0	0.20	1.00	2.00	N	SM	G	G	Attractive Pine.	20-40	C2

Site Bracknell, Cain Road

Project schedule ref: JSL3708_850

Drawing reference: JSL3708_800-804

Survey date: 18/08/2020 & 08.02.2021

Surveyor: A Brown

Status: For Information

Revision: A



Ref.		Height	Cr	own s	preac	d (m)	Stem	Stem no.	Height of crown	Dir/	Age	Structural	Physiological	General observations	Estimated remaining	Tree Quality
no.	Species	(m)	N	E	S	W	dia. (m)		clearance (m)	height		condition	condition	Management recommendations	contribution (years)	Category (BS5837)
T97	Pinus sylvestris Scots Pine	11.0	3.0	3.0	3.0	3.0	0.32	3.00	2.00	W	SM	G	G	Attractive Pine.	20-40	C2
	Pinus sylvestris Scots Pine	8.0	3.0	3.0	3.0	3.0	0.30	1.00	1.00	N	EM	G	G	Attractive Pine.	40+	C2
T99	Acer platanoides Norway Maple	12.0	4.0	4.0	4.0	4.0	0.45	1.00	4.00	N	М	G	G	Attractive Maple in hedge	40+	C2
	5 Pinus sylvestris Scots Pine	12.0	3.0	3.0	3.0	3.0	0.45	1.00	2.00	S	М	G	G	Attractive, tall trees.	40+	B2
T101	Acer platanoides (Purple var.) Norway Maple (Purple)	5.0	3.0	3.0	3.0	3.0	0.30	1.00	2.00	S	М	G	G	Attractive tree.	40+	C2
T102	Prunus avium Wild Cherry	9.0	5.0	5.0	4.0	4.0	0.30	1.00	2.00	E	SM	G	G	Attractive tree in row. North-easterly bias.	20+	C2
	Prunus avium Wild Cherry	6.0	3.0	3.0	3.0	3.0	0.15	1.00	1.00	W	Υ	G	G	Young tree in row.	10+	C2
T104	Prunus avium Wild Cherry	8.0	4.0	5.0	4.0	4.0	0.25	1.00	2.00	E	SM	G	G	Attractive tree in row.	20+	C2
T105	Prunus avium Wild Cherry	7.0	5.0	5.0	4.0	4.0	0.25	1.00	2.50	S	SM	G	G	Tree in row. South-easterly bias.	20+	C2
	Prunus avium Wild Cherry	7.0	4.0	5.0	3.0	2.0	0.23	1.00	1.50	E	SM	G	G	Tree in row. Easterly bias.	20+	C2
T107	Prunus avium Wild Cherry	8.0	5.0	5.0	3.0	3.0	0.30	1.00	2.00	S	SM	G	G	Tree in row . North-easterly bias.	20+	C2
T108	Prunus avium Wild Cherry	9.0	5.0	5.0	5.0	5.0	0.35	1.00	2.50	E	SM	G	G	Tree on end row. Wide crown.	20+	C2

Site Bracknell, Cain Road

Project schedule ref: JSL3708_850

Drawing reference: JSL3708_800-804

Survey date: 18/08/2020 & 08.02.2021

Surveyor: A Brown

Status: For Information

Revision: A



Ref.		Height	Cro	own s	pread	(m)	Stem	Stem no.	Height of crown	Dir/	Age	Structural	Physiological	I General observations	Estimated remaining	Tree Quality
no.	Species	(m)	N	E	s	W		at 1.5m				condition	condition	Management recommendations	contribution (years)	Category (BS5837)
T109 Alnus glutir Common A		11.0	4.0	3.0	1.0	3.0	0.30	1.00	1.00	N	SM	G	G	Tall tree. Northerly bias.	20+	C2
T110 Alnus glutir Common A	nosa Alder	11.0	1.0	3.0	4.0	3.0	0.30	1.00	1.00	S	SM	G	G	Tall tree. Southerly bias.	20+	C2
T111 Prunus avi		9.0	3.0	4.0	3.0	4.0	0.26	1.00	3.00	S	SM	G	G	Attractive Cherry.	20+	C2
T112 Prunus avi	um y	9.0	4.0	4.0	4.0	4.0	0.40	1.00	3.50	N	EM	G	G	Attractive Cherry in hedge.	40+	B2
T113 Prunus avi	um y	8.0	3.0	3.0	3.0	4.0	0.26	1.00	2.50	W	SM	G	G	Attractive Cherry.	20+	C2
T114 Prunus avi		7.0	2.0	2.0	2.0	2.0	0.12	1.00	1.00	E	Υ	G	G	Small Cherry.	10+	C2
T115 Prunus avi	um y	12.0	4.0	4.0	4.0	5.0	0.45	1.00	2.00	W	EM	G	G	Tree within hedge, limited inspection.	40+	B2
T116 Prunus avi		9.0	3.0	3.0	3.0	3.0	0.30	1.00	2.00	W	EM	G	G	Tree in hedge, limited inspection.	40+	C2
T117 Prunus avi		10.0	5.0	4.0	5.0	5.0	0.35	1.00	2.50	E	EM	G	G	Attractive Cherry which stands out.	40+	B2
T118 Alnus glutir * Common A		8.0	2.0	3.0	2.0	2.0	0.21	1.00	0.50	E	Υ	G	G	Young tree in hedge.	10+	C2
T119 Betula pen * Silver Birch		8.0	3.0	4.0	4.0	4.0	0.20	1.00	0.50	W	SM	G	G	Attractive tree. Prominent.	20+	C2
T120 Alnus glutir Common A	nosa Alder	11.0	6.0	6.0	6.0	6.0	0.50	1.00	1.00	E	EM	G	G	Prominent tree.	40+	B2

Site Bracknell, Cain Road

Project schedule ref: JSL3708_850

Drawing reference: JSL3708_800-804

Survey date: 18/08/2020 & 08.02.2021

Surveyor: A Brown

Status: For Information

Revision: A



Ref.		Height	Cro	own s	prea	d (m)	Stem	Stem no.	Height of crown	Dir/	Age	Structural	Physiological	General observations	Estimated remaining	Tree Quality
no.	Species	(m)	N	E	s	W	dia. (m)			height		condition	condition	Management recommendations	contribution (years)	Category (BS5837)
T121 Prunus Wild Ch		9.0	5.0	4.0	5.0	5.0	0.35	1.00	2.50	N	EM	G	G	Attractive Cherry.	20+	C2
T122 Alnus g * Commo		9.0	4.0	2.0	2.0	3.0	0.16	1.00	2.00	N	Υ	G	G	Tree across eastern boundary. Northerly bias.	10+	C2
T123 Alnus g * Commo		9.0	4.0	3.0	3.0	3.0	0.23	1.00	1.00	N	SM	F	G	Tree across eastern boundary. Leans north.	20+	C2
T124 Alnus g * Commo		9.0	3.0	3.0	5.0	3.0	0.17	1.00	2.50	S	Y	G	G	Tree across eastern boundary. Southerly bias.	10+	C2
T125 Alnus g * Commo		9.0	5.0	4.0	4.0	5.0	0.20	1.00	2.50	N	SM	Р	Р	Declining tree across eastern boundary.	<10	U
T126 Alnus g * Commo		9.0	4.0	4.0	4.0	4.0	0.16	1.00	5.00	S	SM	G	G	Tree across eastern boundary.	20+	C2
T127 4 Prunu Wild Ch	us avium nerry	5.0	2.0	2.0	2.0	2.0	0.15	1.00	2.00	N	Υ	G	G	Four young Cherry trees in car park.	10+	C2
T128 7 Prunu Wild Ch	us avium nerry	7.0	3.0	3.0	3.0	3.0	0.16	1.00	2.00	-	Υ	G	G	Seven young cherry trees In car park.	10+	C2
T129 Eucalyp		12.0	4.0	4.0	4.0	4.0	0.20	1.00	2.00	W	SM	G	G	Tall tree, stands out.	20+	B2
T130 Alnus g * Commo		10.0	3.0	2.0	2.0	2.0	0.17	1.00	2.00	N	Υ	G	G	Tall tree, stands out. Limited inspection.	10+	C2
T131 Alnus g	llutinosa on Alder	10.0	5.0	5.0	5.0	5.0	0.35	1.00	1.00	S	EM	G	G	Tall prominent tree in car park. Wide crown.	40+	B2
T132 9 Alnus * Commo	glutinosa on Alder	6.0	2.0	2.0	2.0	2.0	0.15	1.00	1.00	N	Y	G	G	Nine young trees in car park.	10+	C2

Site Bracknell, Cain Road

Project schedule ref: JSL3708_850

Drawing reference: JSL3708_800-804

Survey date: 18/08/2020 & 08.02.2021

Surveyor: A Brown

Status: For Information

Revision: A



Ref.		Height	Cr	own s	preac	d (m)	Stem	Stem no.	Height of crown	Dir/	Age	Structural	Physiological	General observations	Estimated remaining	Tree Quality
no.	Species	(m)	N	E	s	W			clearance (m)			condition	condition	Management recommendations	contribution (years)	Category (BS5837)
	Alnus glutinosa Common Alder	6.0	2.0	3.0	2.0	5.0	0.16	1.00	1.00	W	Y	G	G	Young tree in car park.	10+	C2
T134 (Alnus glutinosa Common Alder	9.0	5.0	5.0	5.0	5.0	0.35	1.00	1.00	S	EM	G	G	Prominent tree.	40+	B2
T135 (Alnus glutinosa Common Alder	8.0	5.0	4.0	4.0	4.0	0.30	1.00	2.00	S	EM	G	G	Attractive tree. Dead wood.	40+	C2
T136 (Alnus glutinosa Common Alder	10.0	4.0	4.0	4.0	4.0	0.30	1.00	1.00	N	SM	G	G	Attractive tree in car park.	40+	B2
T137 (Alnus glutinosa Common Alder	10.0	5.0	5.0	5.0	5.0	0.35	1.00	1.00	N	EM	G	G	Attractive tree in car park. Wide crown.	40+	B2
T138 (Alnus glutinosa Common Alder	10.0	5.0	5.0	5.0	5.0	0.35	1.00	1.00	W	EM	G	G	Attractive tree in car park. Wide crown.	40+	B2
T139 (Alnus glutinosa Common Alder	9.0	4.0	4.0	4.0	4.0	0.25	1.00	1.00	W	SM	G	G	Attractive tree in car park. End of row.	20+	C2
T140 (Alnus glutinosa Common Alder	10.0	5.0	5.0	5.0	5.0	0.37	1.00	1.00	S	EM	G	G	Attractive tree on end of row. Leans north. On grass.	40+	B2
T141 (Alnus glutinosa Common Alder	9.0	4.0	4.0	5.0	4.0	0.30	1.00	0.50	N	EM	G	G	Tree in row on grass.	40+	B2
T142 (Alnus glutinosa Common Alder	9.0	5.0	5.0	5.0	5.0	0.28	1.00	1.00	N	EM	F	G	Tree in row on grass. Stem wound.	20+	B2
T143 (Alnus glutinosa Common Alder	9.0	4.0	4.0	4.0	4.0	0.25	1.00	1.00	W	SM	G	G	Tree in row on grass. Birds nest.	20+	C2
T144 (Alnus glutinosa Common Alder	9.0	4.0	4.0	4.0	5.0	0.30	1.00	1.00	S	EM	G	G	Tree in row on grass. Leans north.	40+	B2

Site Bracknell, Cain Road

Project schedule ref: JSL3708_850

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Status: For Information

Revision: A



Ref.		Height	Cro	own s	preac	l (m)	Stem	Stem no.	Height of crown	Dir/	Age	Structural	Physiological	General observations	Estimated remaining	Tree Quality
no.	Species	(m)	N	E	S	W	dia. (m)			height		condition	condition	Management recommendations	contribution (years)	Category (BS5837)
	nus glutinosa ommon Alder	8.0	3.0	3.0	3.0	3.0	0.16	1.00	1.00	W	Y	G	G	Tree in row on grass.	20+	C2
	nus glutinosa ommon Alder	10.0	5.0	5.0	5.0	5.0	0.30	1.00	1.00	S	EM	G	G	Tree in row on grass. Leans north. Birds nest.	40+	C2
T147 Al	nus glutinosa ommon Alder	9.0	4.0	4.0	4.0	4.0	0.26	1.00	1.00	S	SM	G	G	Tree on grass. Leans north.	20+	C2
	nus glutinosa ommon Alder	10.0	6.0	6.0	6.0	6.0	0.30	1.00	1.00	N	EM	G	G	Tree on end of row on grass. Wide crown.	40+	B2
	rataegus monogyna Common awthorn	6.0	4.0	3.0	3.0	5.0	0.22	1.00	1.00	W	SM	G	G	Tree with westerly bias.	20+	C2
	arpinus betulus ornbeam	11.0	6.0	5.0	5.0	5.0	0.40	1.00	1.50	N	EM	G	G	Attractive tree with wide crown.	40+	B2
	arpinus betulus ornbeam	8.0	5.0	4.0	4.0	5.0	0.25	1.00	1.00	Е	SM	G	G	Attractive tree.	20+	C2
	uercus robur edunculate Oak	12.0	6.0	6.0	6.0	6.0	0.35	1.00	1.50	W	EM	G	G	Tall, stands out. Ivy.	40+	B2
T153 H	arpinus betulus ornbeam	11.0	6.0	6.0	6.0	6.0	0.35	1.00	1.00	W	EM	G	G	Tree which stands out. Wide crown. Ivy.	40+	C2
	raxinus excelsior ommon Ash	11.0	5.0	5.0	5.0	5.0	0.35	1.00	1.50	E	EM	G	G	Attractive tree.	40+	B2
	uercus robur edunculate Oak	12.0	7.0	6.0	6.0	7.0	0.45	1.00	1.50	W	EM	G	G	Attractive tree with wide crown. Ivy.	40+	B2
T156 Pi	nus nigra ustrian Pine	12.0	3.0	4.0	3.0	3.0	0.35 0.3	2.00	2.00	W	EM	G	G	Pine which bifurcate at 0.5m. Ivy.	40+	B2

Site Bracknell, Cain Road

Project schedule ref: JSL3708_850

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Survey date: 18/08/2020 & 08.02.2021

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Revision: A



Ref.		Height	Cro	own s	spread	d (m)	Stem	Stem no.	Height of crown	Dir/	Age	Structural	Physiological	General observations	Estimated remaining	Tree Quality
no.	Species	(m)	N	E	s	W	dia. (m)			height		condition	condition	Management recommendations	contribution (years)	Category (BS5837)
T157	Pinus nigra Austrian Pine	12.0	3.0	3.0	3.0	3.0	0.33	1.00	2.00	W	EM	G	G	Tall tree, lots of ivy.	40+	B2
T158	Pinus nigra Austrian Pine	12.0	3.0	3.0	3.0	3.0	0.35	1.00	2.00	W	EM	G	G	Pine with lots of ivy.	40+	B2
	Quercus robur Pedunculate Oak	9.0	5.0	5.0	5.0	5.0	0.35	1.00	2.00	E	EM	G	G	Attractive tree. Ivy.	20+	C2
	Quercus robur Pedunculate Oak	10.0	6.0	5.0	5.0	5.0	0.35	1.00	1.50	W	EM	G	G	Attractive Oak.	40+	B2
T161	Pinus nigra Austrian Pine	12.0	6.0	7.0	6.0	6.0	0.35	1.00	2.00	E	EM	G	G	Attractive Pine which leans east. Lots of ivy.	40+	A2
T162	Pinus nigra Austrian Pine	12.0	6.0	3.0	6.0	3.0	0.2 0.3	2.00	2.00	S	EM	G	G	Attractive Pine. Bifurcates at 1m.	40+	A2
	Pinus nigra Austrian Pine	12.0	7.0	3.0	6.0	7.0	0.35	1.00	2.00	N	EM	G	G	Attractive Pine. Westerly bias.	40+	A2
T164	Carpinus betulus Hornbeam	9.0	5.0	5.0	5.0	6.0	0.30	1.00	1.00	W	ЕМ	G	G	Attractive tree with wide crown.	40+	B2
	Pinus nigra Austrian Pine	7.0	3.0	3.0	3.0	3.0	0.30	1.00	0.00	E	SM	Р	Р	Dead.	<10	U
	Pinus nigra Austrian Pine	8.0	3.0	4.0	3.0	4.0	0.20	1.00	2.00	W	SM	Р	Р	Dead.	<10	U
G1	Pinus sylvestris scots pine, Carpinus betulus Hornbeam	8.0		See	e Plan		-	-	0.00	_	Y- SM	G	G	Group of attractive trees.	20-40	B2
G2	Carpinus betulus Scots Pine	10.0		See	e Plan		-	-	0.50	-	Y-SM	G	G	Row of Pines. Lots of ivy present. Provide amenity.		B2

Site Bracknell, Cain Road

Project schedule ref: JSL3708_850

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Revision: A



Ref.	Outsites	Height	Crov	vn spre	ad (m)	Stem	Stem no.	Height of crown	Dir/	Age	Structural	Physiological	General observations	Estimated remaining	Tree Quality
no.	Species	(m)	N	E 5	s W	dia. (m)	at 1.5m	clearance (m)	height	class	condition	condition	Management recommendations	contribution (years)	Category (BS5837)
G3	Acer pseudoplatanus Sycamore	5.0		See Pla	ın	-	-	0.10	-	Y	G	G	Group of young Sycamore	10+	C2
G4	Pinus sylvestris scots pine	5.0		See Pla	n	-	-	2.00	-	SM-EM	G	G	Group of attractive Scots Pine.	40+	C2
G5	Acer pseudoplatanus Sycamore, Acer platanoides Norway Maple, Pinus sylvestris Scots Pine	10.0		See Pla	ın	-	-	1.00	-	SM-EM	G	G	Large, attractive group.	40+	B2
G6	Prunus Avium Wild Cherry, Fraxinus excelsior Common Ash	5.0		See Pla	n	-	-	1.00	-	SM	G	G	Group of small trees.	20-40	B2
G7	Prunus avium Wild Cherry, Tilia Sp. Lime, Carpinus betulus Hornbeam, Quercus palustris Pin Oak	7.0		See Pla	ın	-	-	0.50	-	SM	G	G	Row of SM trees.	20-40	B2
G8	Prunus avium Wild Cherry	7.0		See Pla	an	-	-	0.20	-	SM	G	G	Row of Cherries.	20-40	B2
G9	Mixed shrubs-Pinus sylvestris Scots Pine, Sorbus aucuparia Rowan, Carpinus betulus Hornbeam, Prunus laurocerasus Cherry laurel	7.0		See Pla	ın	-	-	0.00	-	SM	G	G	Attractive group.	20-40	B2
G10	Pinus sylvestris Scots Pine	7.0		See Pla	ın	-	-	2.00	-	SM	G	G	Attractive group of Pine.	20-40	B2
G11	Pinus sylvestris Scots Pine	6.0		See Pla	n	-	-	2.00		Υ	G	G	Attractive group of Pine.	10+	C2
G12*	Fraxinus excelsior Common Ash, Acer campestre Field Maple	8.0		See Pla	ın	-	-	1.00		Y	G	G	Young trees/shrubs.	10+	C2

Site Bracknell, Cain Road

Project schedule ref: JSL3708_850

Drawing reference: JSL3708_800-804

Survey date: 18/08/2020 & 08.02.2021

Surveyor: A Brown

Status: For Information

Revision: A



Ref.	Outsian	Height	Crow	n spre	ead (m)	Stem	Stem no.	Height of crown	Dir/	Age	Structural	Physiological	General observations	Estimated remaining	Tree Quality
no.	Species	(m)	N	E	s w	dia. (m)	at 1.5m	clearance (m)	height		condition	condition	Management recommendations	contribution (years)	Category (BS5837)
G13*	Quercus robur Pedunculate Oak, Pinus nigra Austrian Pine, Carpinus betulus Hornbeam, Betula pendula Silver Birch, Fraxinus excelsior Common Ash, Alnus glutinosa Common Alder,Prunus avium Wild Cherry, Acer campestre Field Maple, Sorbus aria Common Whitebeam		Ş	See Pl	an	-	-	0.00		Y-M	G	G	Wooded area with a variety of species. Open space within, forming a recreation area.		B2
H1	Buxus Box, Prunus Iusitanica Portuguese Laurel		\$	See Pl	an	-	-	0.00	-	Y	G	G	Young hedges across northern boundary and throughout site.	10+	C2
H2	Carpinus betulus Hornbeam	4.0	;	See Pl	an	-	-	0.00	-	Y	G	G	Hedge bordering car park.	10+	C2
H3	Small shrubs, Sambucus nigra Elder	1.5	\$	See Pl	an	-	-	0.00	-	Y	G	G	Small hedge in car park.	10+	C2
H4	Hedge plants, Prunus Iusitanica Portuguese Laurel	1.0	;	See Pl	an	-	-	0.00	-	Y	G	G	Island of primarily Portuguese Laurel.	10+	C2
H5	Hedge plants, Buxus Box, Prunus laurocerasus Cherry laurel	4.0	;	See Pl	an	-	-	0.00	-	Y	G	G	Hedge primarily consisting of Cherry Laurel	10+	C2
H6	Sambucus nigra Elder	4.0	;	See Pl	an	-	-	0.00	-	Y	G	G	Young hedge beneath Group 2.	10+	C2
H7	Prunus Iusitanica Portuguese Laurel, Sambucus nigra Elder, Mahonia aquifolium oregon Grape	1.5	;	See Pl	an	-	-	0.00	-	Y	G	G	Hedge beneath Silver Birch.	10+	C2
H8	Carpinus betulus Hornbeam, Sorbus aucuparia Rowan, Buxus Box	5.0	(See Pl	an	-	-	0.00	-	Υ	G	G	Small shrubs.	10+	C2
H9	Sambucus nigra Elder	6.0		See Pl	an	-	-	0.00	-	Y	G	G	Hedge across boundary.	10+	C2

Site Bracknell, Cain Road

Project schedule ref: JSL3708_850 Drawing reference: JSL3708_800-804

18/08/2020 & 08.02.2021 Survey date:

Surveyor: A Brown

Status: For Information

Revision: A



Ref.	Species	Height (m)	Crown spread (m)			Stem	Stem no.	Height of crown	Dir/	Age	Structural	Physiological	General observations	Estimated remaining	Tree Quality
			N	E S	w	dia. (m)					condition	condition	Management recommendations		Category (BS5837)
H10	Hedge plants, Carpinus betulus Hornbeam. Mahonia aquifolium Oregon Grape	3.0	;	See Plan	ı	-	-	0.00	-	Υ	G	G	Hedge beneath row of four Sycamore	10+	C2
H11	Buxus Box, Prunus Iusitanica Portuguese Laurel	7.0	;	See Plan		-	-	0.00	-	SM	G	G	Tall, dense hedge.	20-30	C2
H12	Crataegus monogyna Common Hawthorn, Populus sp., Poplar, Bramble	5.0	;	See Plan		-	-	0.00	-	Y	G	G	Mixed hedge.	10+	C2
H13	Hedge plants	1.5	:	See Plan		-	-	0.00	-	Y	G	G	Bramble dominated hedge.	10+	C2
H14	Buxus Box, Carpinus betulus Hornbeam	1.5	;	See Plan	l	-	-	0.00	-	Υ	G	G	Hedge beneath Lime trees.	10+	C2
H15	Prunus Iusitanica Portuguese Laurel	5.0	;	See Plan	ı	-	-	0.00	-	Y	G	G	Attractive hedge.	10+	C2
H16	Carpinus betulus Hornbeam, Ilex aquifolium Common Holly	1.5	;	See Plan	l	-	-	0.00	-	Y	G	G	Attractive hedge.	10+	C2
H17	Alnus glutinosa Common Alder	6.0	,	See Plan	l	-	-	0.00	-	Υ	G	G	Tall hedge near fence.	10+	C2
H18	Hedge plants, Pinus sylvestris Scots Pine	5.0	;	See Plan	l	-	-	0.00	-	Y-SM	G	G	Attractive hedge.	10+	C2
H19	Hedge plants, Carpinus betulus Hornbeam, Sambucus nigra Elder, Ilex aquifolium Common Holly, cotoneaster Sp.	6.0	;	See Plan		-	-	0.00	-	Υ	G	G	Hedge up to 6m. Mix of shrubs and hedge plants.	10+	C2
H20	Laurus nobilis Bay Laurel	0.5	;	See Plan	l	-	-	0.00	-	Υ	G	G	Young, small hedge.	10+	C2

Site Bracknell, Cain Road

Project schedule ref: JSL3708_850

Drawing reference: JSL3708_800-804

Survey date: 18/08/2020 & 08.02.2021

Surveyor: A Brown

Status: For Information

Revision: A

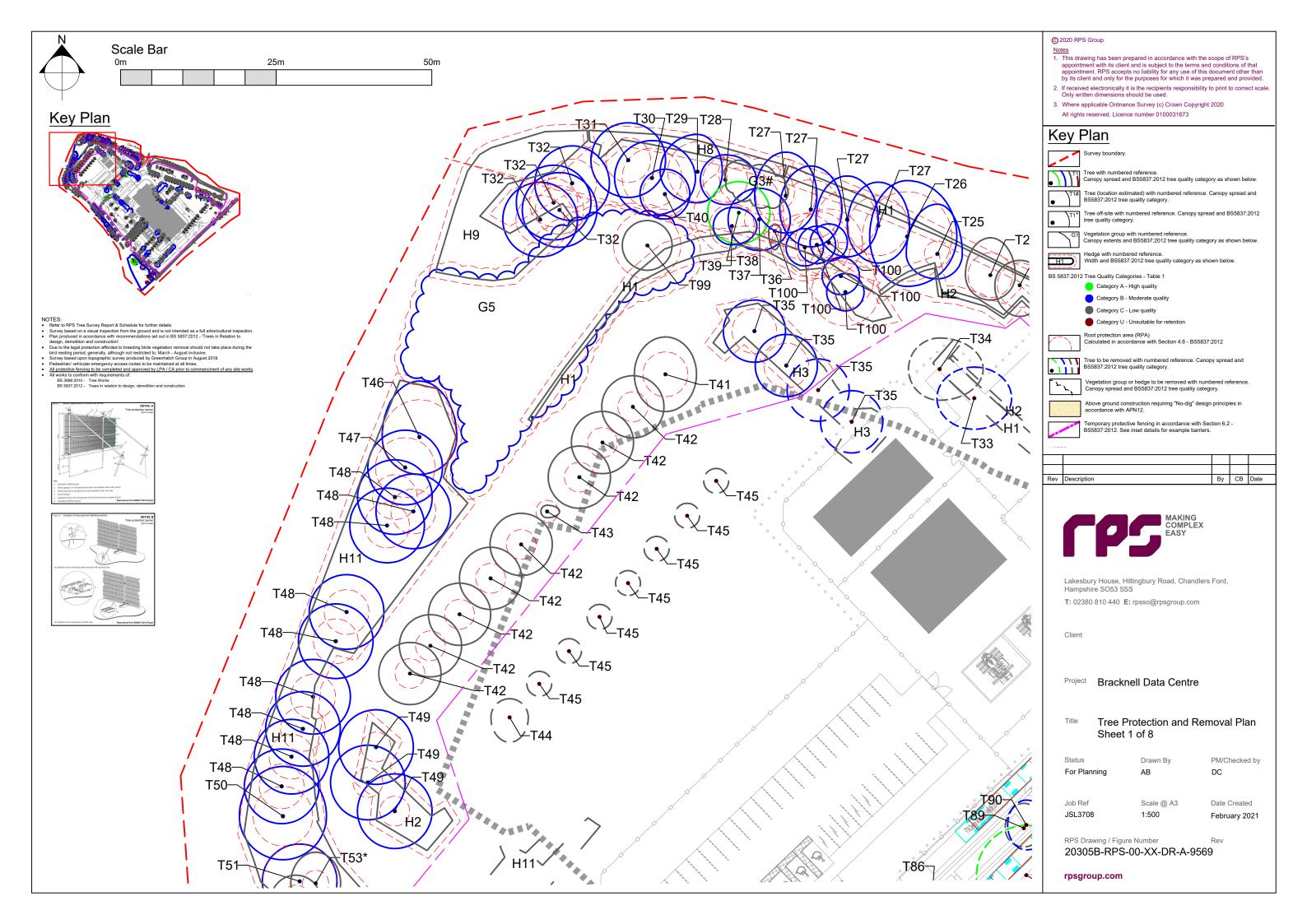


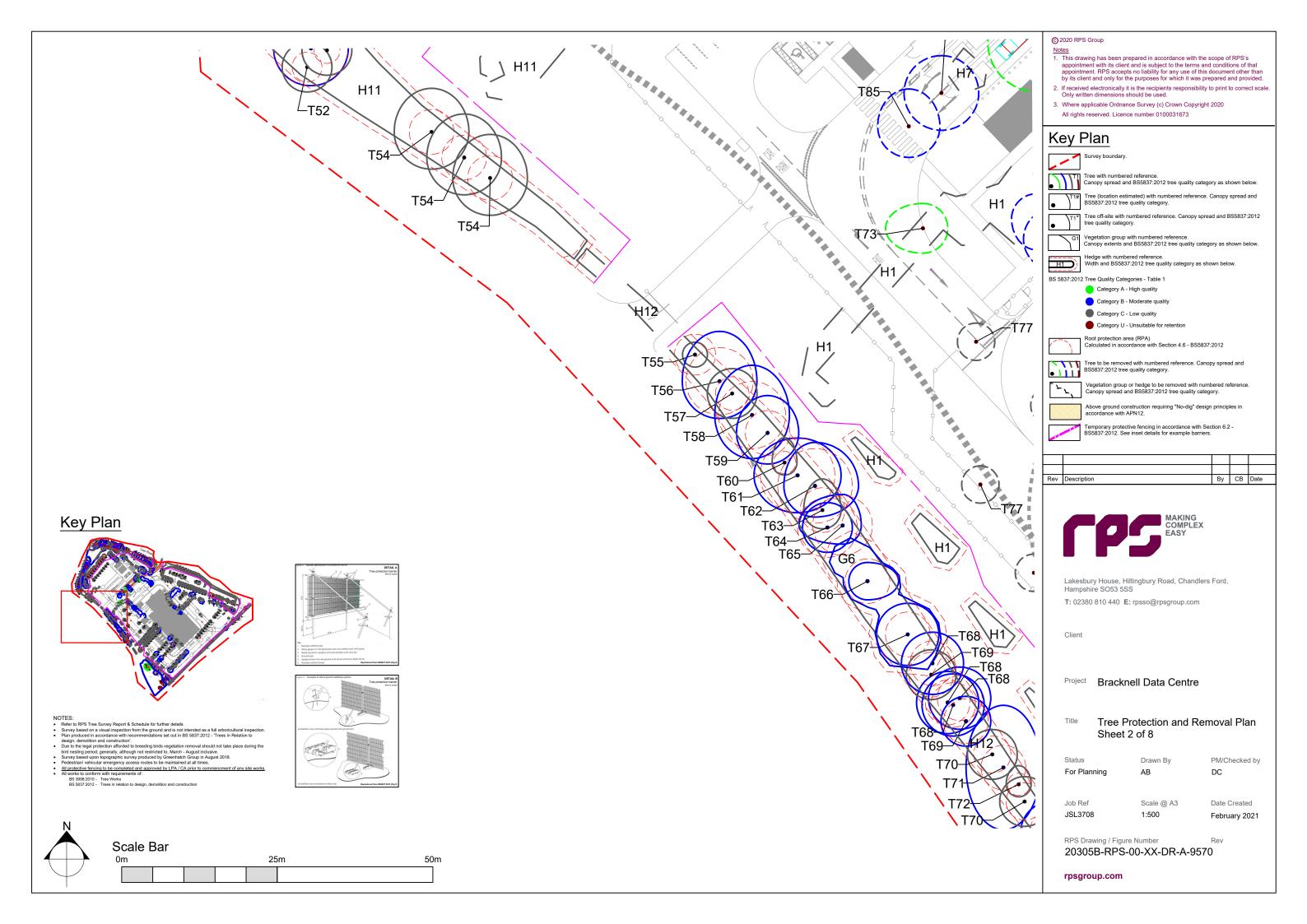
Ref.	Species	Height (m)	Cro	Crown spread (m)			Stem no.	Height of crown	Dir/	Age	Structural			Estimated remaining	Tree Quality	
			N	E	S	W	dia. (m)) at 1.5m	clearance (m)	height	class	condition	condition	Management recommendations	contribution (years)	Category (BS5837)
H21	Hedge plants, Carpinus betulus Hornbeam, llex aquifolium Common Holly	4.0		See	Plan		-	-	0.00	-	Y	G	G	Shrubs and hedge plants located beneath T20 and T21.	10+	C2
H22	Alnus glutinosa Common Alder, Corylus avellana Common Hazel	6.0		See	Plan		-	-	0.00	-	Y	F	F	Small shrubs in car park.	10+	C2
H23*	Hedge plants, Laurus nobilis Bay Laurel, Common Alder, Corylus avellana	7.0		See	Plan		-	-	0.00	-	Y	G	G	Hedge across eastern boundary. Mixture of shrubs and hedge plants.	10+	C2
H24	Chamaecyparis lawsoniana Lawson Cypress, cotoneaster Sp.	3.0		See	Plan		-	-	0.00	-	Y	G	G	Young hedge in car park.	10+	C2
H25	Chamaecyparis lawsoniana Lawson Cypress, Carpinus betulus Common Beech	6.0		See	Plan		-	-	0.00	-	Y	G	G	Young hedge in car park.	10+	C2
H26	Quercus robur Pedunculate Oak, Elaeagnus Silverberry Sp.	2.0		See	Plan		-	-	0.00	-	Υ	F	F	Hedge plants on islands within car park.	10+	C2
H27*	Bramble	4.0		See	Plan		-	-	1.00	-	Y	F	F	Hedge beneath row of Alder trees.	10+	C2
H28*	Hedge plants, Alnus glutinosa, Bramble	6.0		See	Plan		-	-	0.00	-	Υ	G	G	Mix of shrubs and hedge plants.	10+	C2

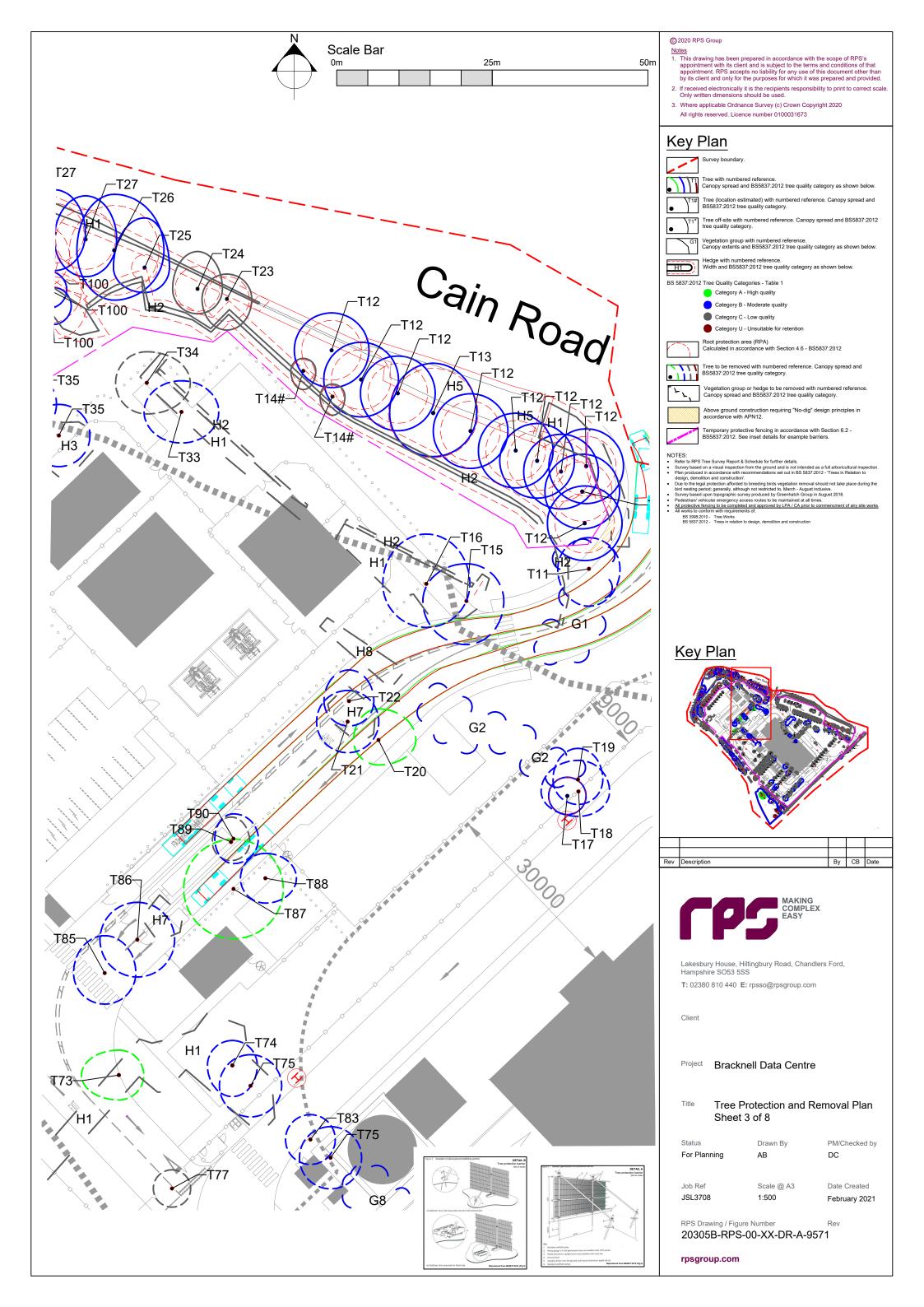


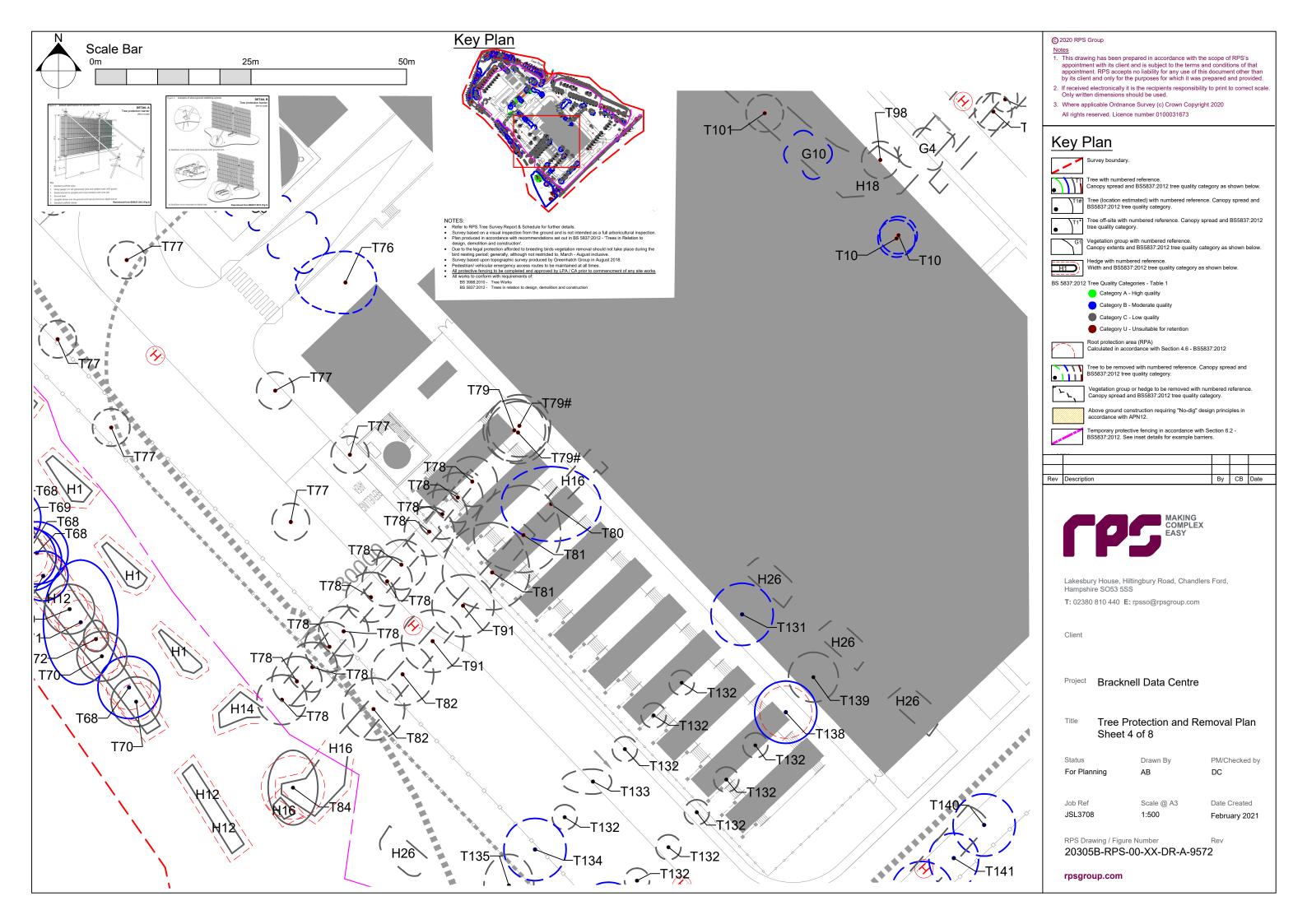
Appendix C

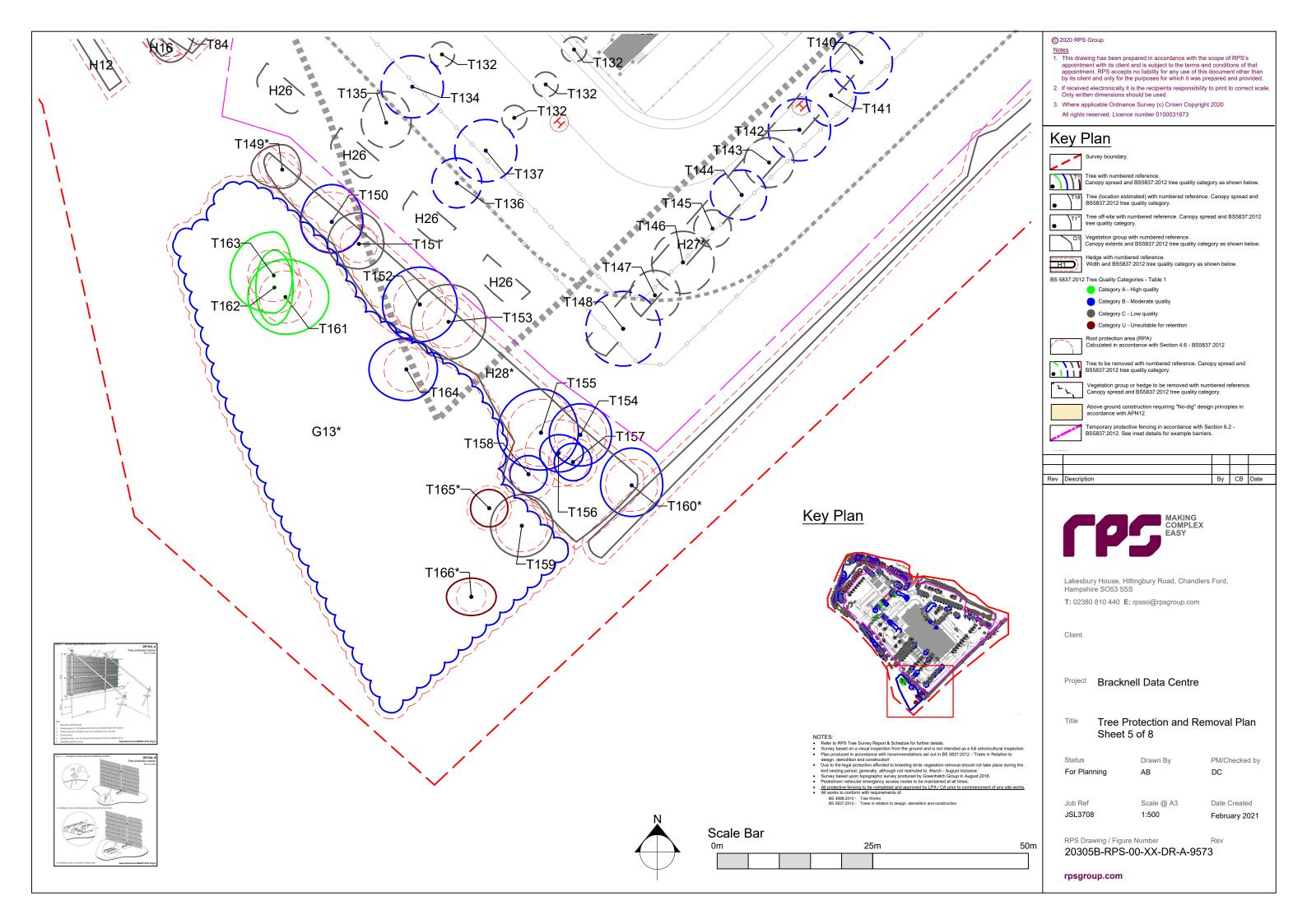
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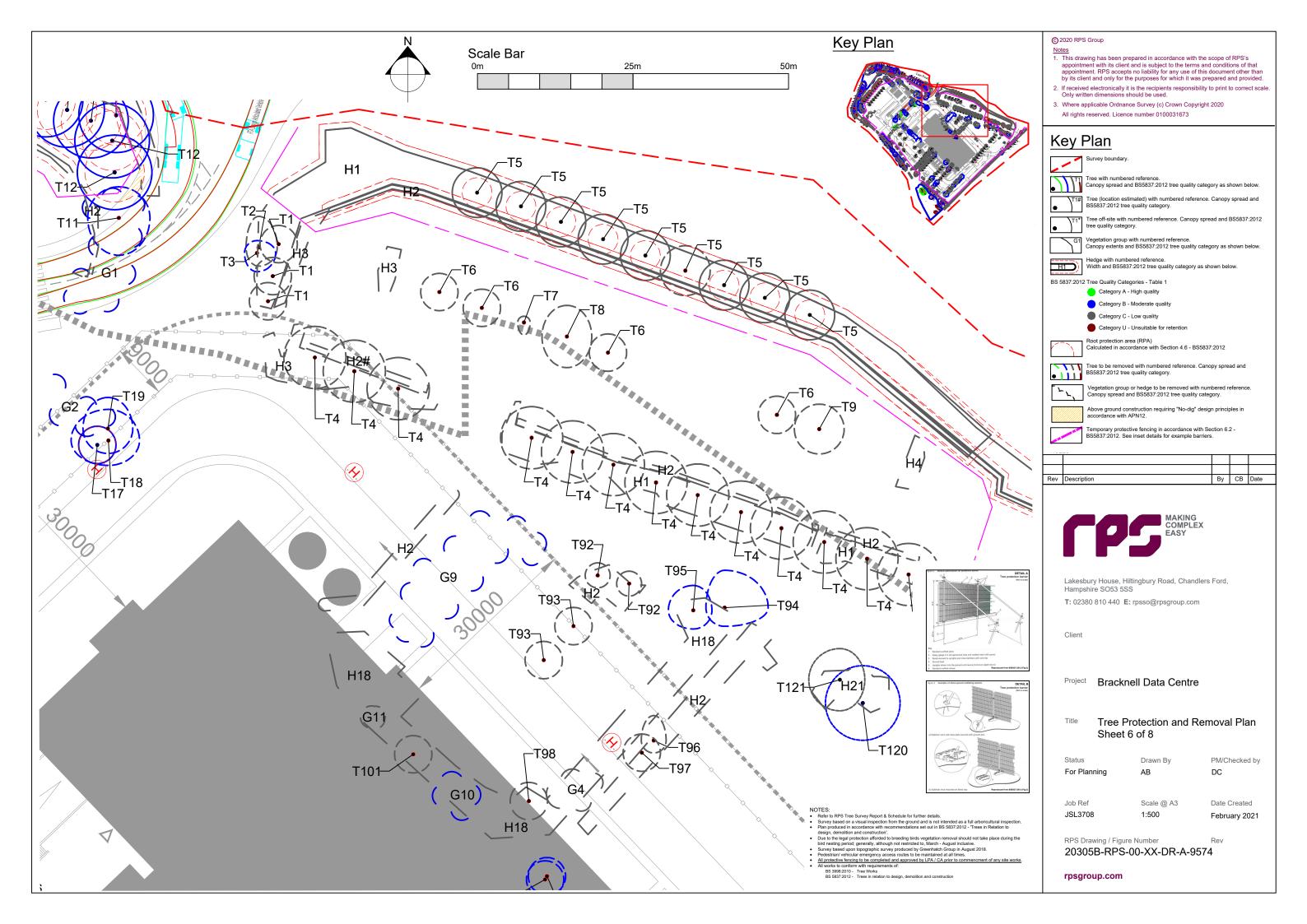


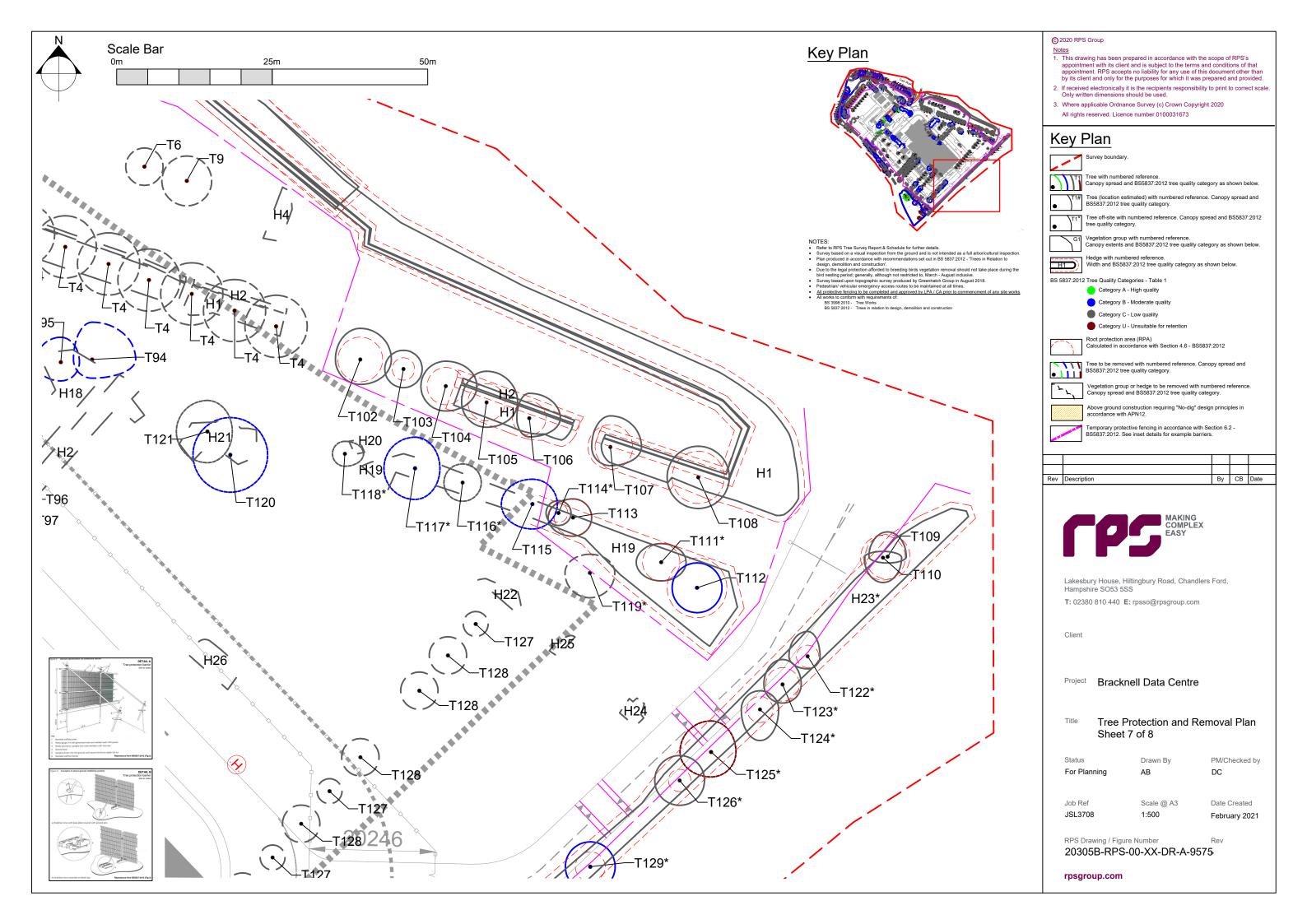


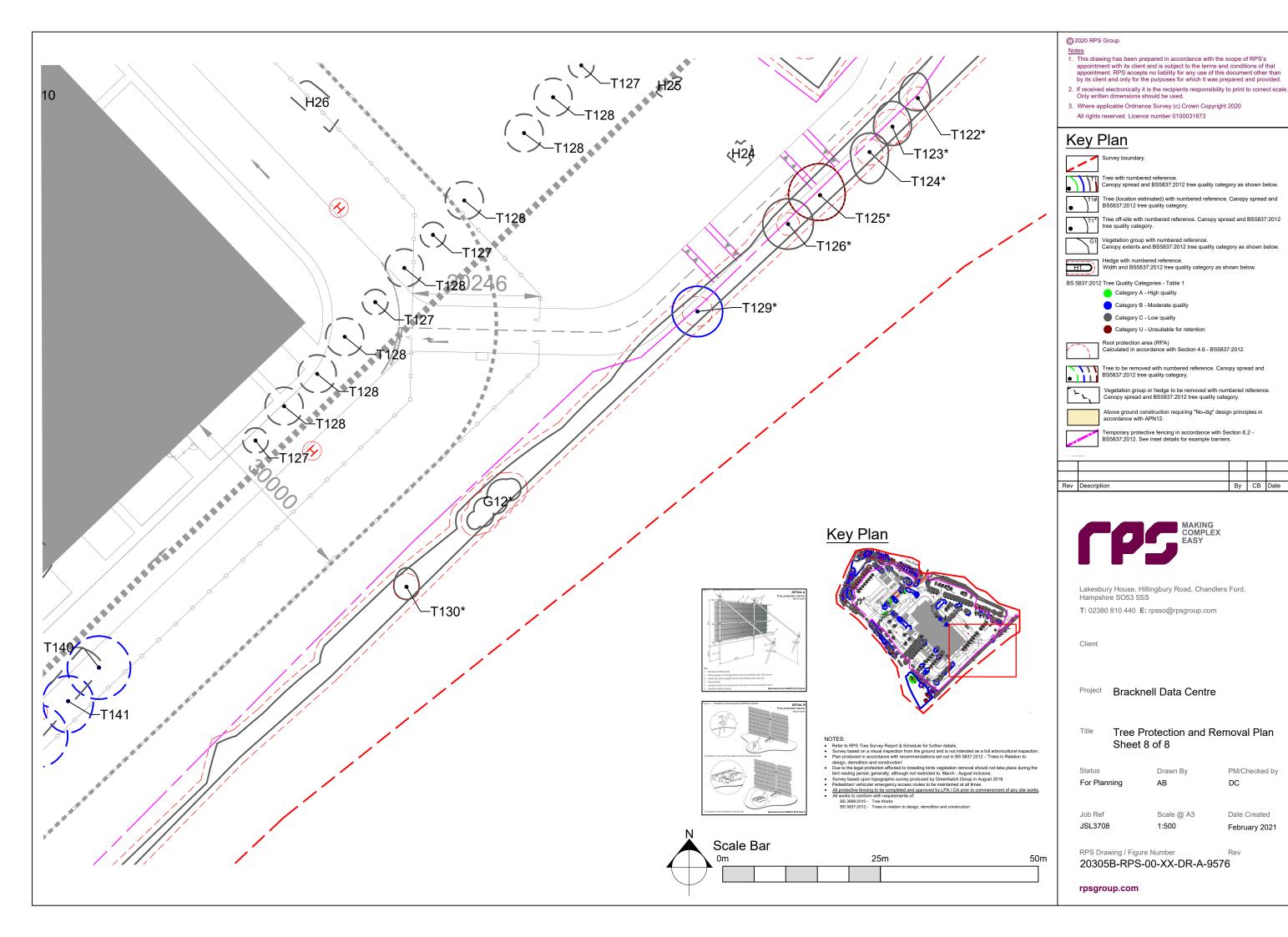














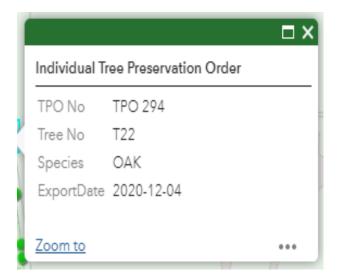
Appendix D

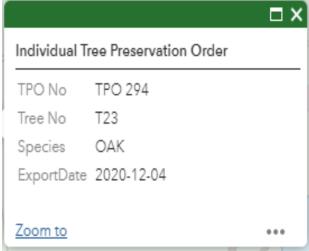
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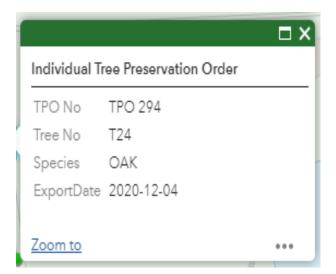
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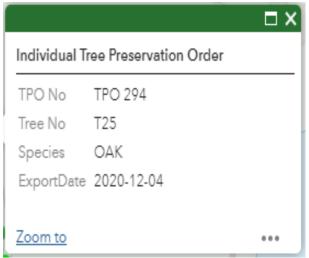


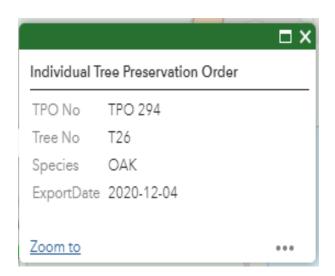


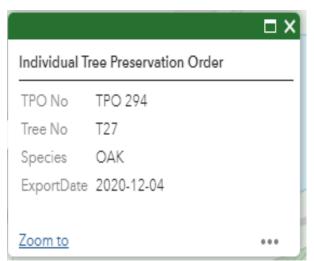




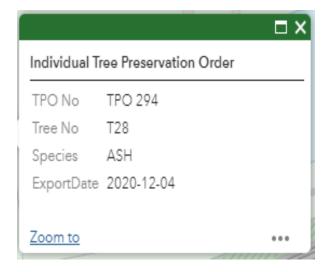


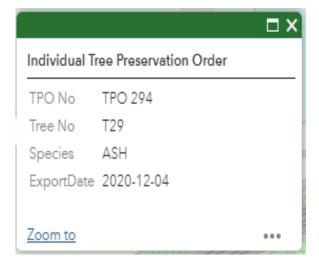


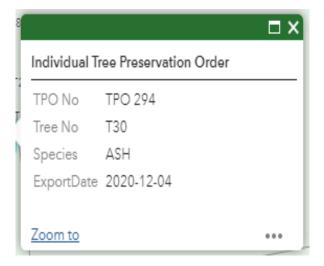


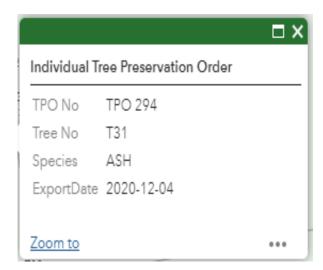


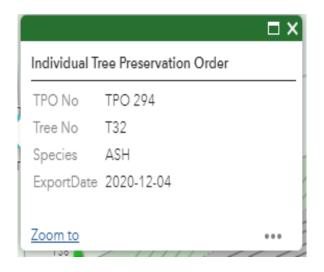


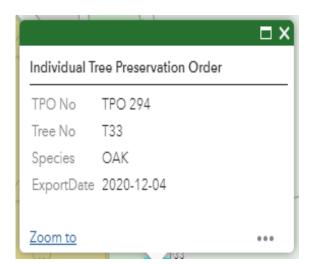




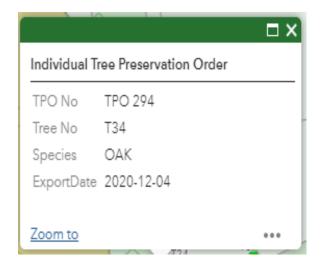


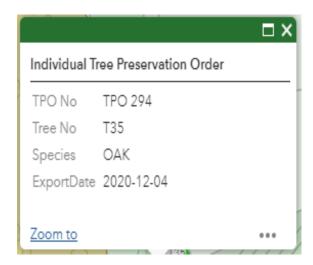


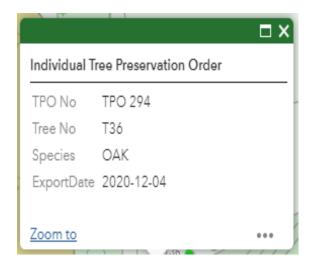


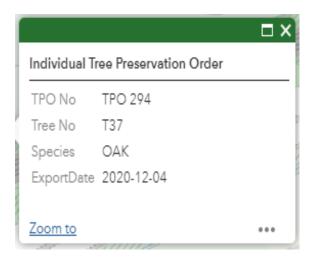


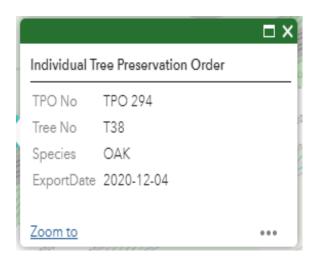


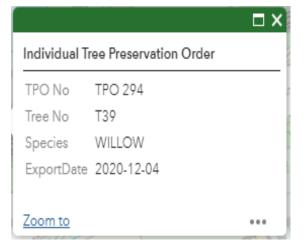










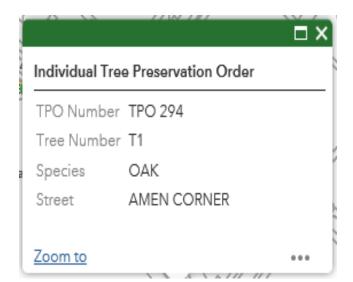


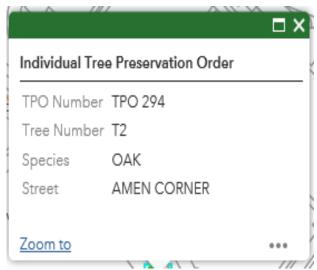


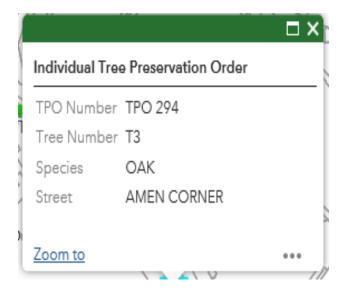
TPOs located opposite the southern boundary

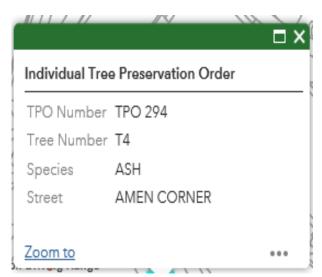


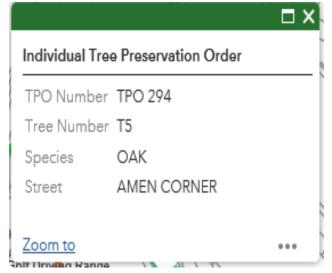


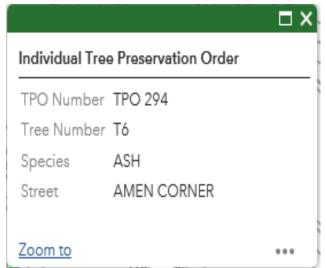




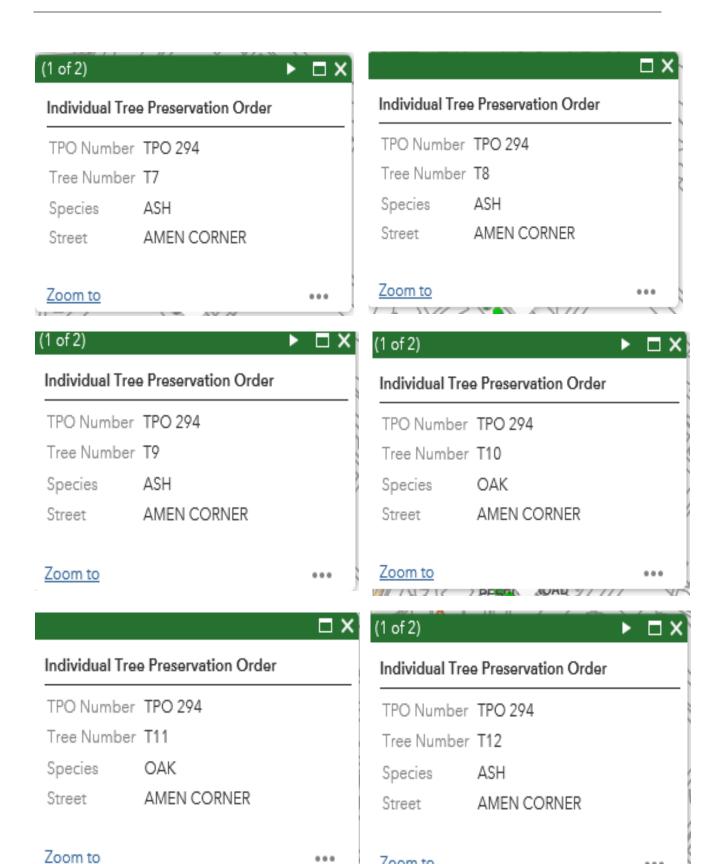












Zoom to



Appendix E

Example Tree Protection Barriers (BS5837:2012 Fig 2 & 3)

Figure 2 Default specification for protective barrier

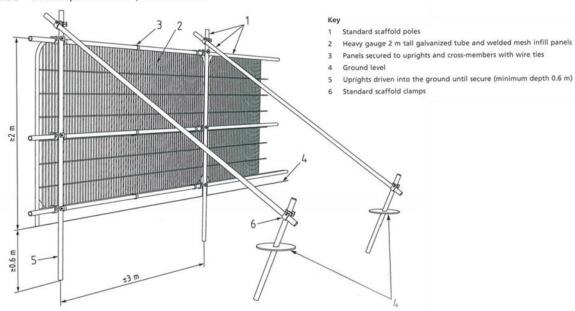
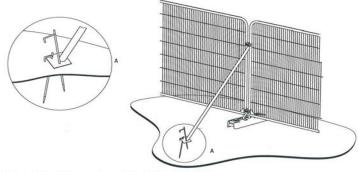
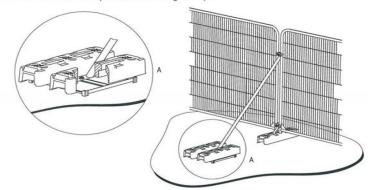


Figure 3 Examples of above-ground stabilizing systems



a) Stabilizer strut with base plate secured with ground pins



b) Stabilizer strut mounted on block tray



Appendix F

Construction Exclusion Zone (CEZ) Signage







Appendix G

Site Photographs









Appendix H

Arboricultural Glossary

- **Age-class** A general classification of the tree into either young, semi-mature, early mature, mature, overmature, or veteran.
- **Apical Bud/Shoot** The apical bud, also known as the leading shoot, is responsible for shoot extension and is dominant.
- **Apical Dominance** A singular, leading shoot remains dominant.
- Arboreal In connection with, or in relation to, trees.
- **Arboriculturalist** Person who has, through relevant education, training and experience, gained recognised qualifications and expertise in the field of trees in relation to construction.
- **Arboricultural Implications Assessment (AIA)** Study, undertaken by an arboriculturalist, to identify, evaluate and possibly mitigate the extent of direct and indirect impacts on existing trees that may arise as a result of the implementation of any site layout proposal.
- **Arboricultural Method Statement (AMS)** Methodology for the implementation of any aspect of development that has the potential to result in the loss of or damage to a tree. Note The AMS is likely to include details of an on-site tree protection monitoring regime.
- **Asymmetric crown-** Crowns that have a morphological bias in a particular direction. This can give the tree an aesthetically unfavourable appearance, but can also subject the tree to uneven wind- loading forces and potentially result in failure.
- **Basal** Referring to the bottom part of a tree's stem.
- **Basifugal mortality** A natural process seen in trees in an advanced life stage whereby the trees extremities die back and the inner crown expresses new growth, in order to conserve energy reserves.
- **Bifurcated** A growth characteristic, where two stems of similar size grow from the same point. Can create an inherent weakness.
- **Branch union/junction** The point at which a branch joins a larger stem. Can be a point of weakness, especially in certain species.
- **Brown Rot** Decay caused by certain species of fungus which results in the affected wood becoming brittle and liable to suddenly 'break out', especially if in key structural areas.



- **Buttress flares** Extensions of the basal stem of a tree that provide additional structural support. See reaction wood.
- **Bifurcated** A growth characteristic, where two or more stems of similar size grow from the same point. Can create an inherent weakness.

Cable braces – Cable braces used to support the crown of a tree, reduce impacts caused by wind- throw oscillation.

- **Canker** A clearly defined area of dead and sunken or malformed bark, caused by bacteria or fungi. Can have a bearing on structural integrity of infected limb(s) depending on size and location.
- Central leader- See apical dominance.
- **Chalara ash dieback** A disease affecting ash trees caused by the fungus *Hymenoscyphus fraxineus*.

 Usually fatal, the disease causes leaf loss and crown dieback in infected trees. It was first confirmed in Britain in 2012.
- **Chlorosis** yellowing of leaves which can be caused by a range of factors, often an indicator of nutrient deficiency.
- **Compaction** The compressing & hardening of soil around tree root systems, due to vehicular/pedestrian use etc. Loss of pore space between soil granules limits water movement and gaseous exchange, and inhibits root growth.
- **Companion shelter** Shelter provided by neighbouring trees in groups to one another, factors such as wind throw are reduced due to supporting branches and interlocking root systems. Removing individual trees on the peripheries of such groups can expose neighbouring trees to environmental factors they have not previously been subjected to and can lead to individual failure.
- **Competent person** Person who has training and experience relevant to the matter being addressed and an understanding of the requirements of the particular task being approached
 - Note 1 A competent person understands the hazards and the methods to be implemented to eliminate or reduce the risks that can arise. For example, when on site, a competent person is able to recognise at all times whether it is safe to proceed.
 - Note 2 A competent person is able to advise on the best means by which the recommendations of this British Standard may be implemented.
- **Condition** Assessment based on a visual and professional view giving consideration to many factors such as tree health, structural integrity and suitability of its position.



- **Conservation dead- wooding-** Removal of deadwood using 'coronet cuts' that mimic the way a branch would naturally break off, maximising deadwood habitat availability for invertebrates.
- **Coppice** The method of managing trees by cutting the stems at between 1.0 inch and 1.0 foot from the ground level on a regular cycle, the cut stumps of the trees or shrubs are allowed to re-grow many new stems.
- **Crown spread** Gives distances between extreme limits of the crown and the stem, usually along the four compass points. Helps to show crown symmetry.
- **Crown Reduction** The removal of branch ends to reduce the extreme limits of a trees branch spread and height.
- **Crown Thin** The removal of selected branches within the crown to thin the internal branch structure.
- **D.B.H.** 'Diameter at Breast Height', an industry standard to gauge tree stem size and development. Within arboriculture, breast height is taken to be 1.5m above ground level.
- **Dieback** The reduction in crown vigour and extension growth progressing to death of distal parts; often associated with decline.
- **Epicormic growth** New growth from dormant buds that can often form tenuous attachments. Although some species readily form such shoots, it can be an indication of stress.
- Form A general assessment of the shape and position of the tree within its environment.
- **Hanger** Term used to describe a branch that has become detached and is being supported by other branches. Can be a hazard to persons and property below.
- **Hazard Beam** After the loss of a distal part, a limb concentrates growth upwards creating adverse end weights that can render the limb susceptible to failure.
- Included bark Growth characteristic usually caused when two or more stems/branches growing in close proximity 'fuse' together entrapping the bark from when the parts were separate in the middle, creating a structural weakness.
- **Invertebrate tower** Pollarding of a (usually dead) tree to a safe height that leaves part of the main stem as a deadwood habitat for invertebrate species.
- Occlusion/Occluded Normally used to describe the overgrowth of a wound. Also, immoveable foreign objects in contact with a tree part can become encased or 'occluded' by the tree as it grows incrementally.
- Pathogen An agent that causes disease, especially a living microorganism such as a bacterium or fungus.



- **Phototropic growth** Growth responding to a light stimulus i.e. the sun. This can influence the form of a tree, particularly where other factors e.g. buildings or other trees, affect the amount/ direction light is received.
- **Pollard** The removal and subsequent regular re-removal of the crown of a tree above animal browsing height. Can be an effective method of controlling the size of trees in urban areas. This is ideally begun in the trees early stages and maintained throughout its life.
- **Reaction wood** Essentially additional wood laid down by the tree to compensate for structural defects such as cavities.
- **Rhizosphere -** The rhizosphere is the narrow region of soil that is directly influenced by root secretions and associated soil microorganisms. In particular, mycorrhizal fungi form a symbiotic relationship with trees and assist in the assimilation of phosphates essential to the trees health.
- **Ring barking/Girdling** the removal of bark around the entire circumference of a stem or branch, causing the death of all distal parts.
- **Root Protection Area (RPA)** Layout design tool indicating the area surrounding a tree that contains sufficient rooting volume to ensure the survival of the tree, shown in plan form in m².
- **Scaffold limbs** The main structural branches within the crown.
- **Tree protection plan** scale drawing prepared by an arboriculturalist showing the finalised layout proposals, tree retention and tree and landscape protection measures detailed within the arboricultural method statement (AMS), which can be shown graphically.
- **U.L.E** 'Useful Life Expectancy' is an estimate based on currently known factors of the possible remaining life of the tree as an asset. AKA 'Estimated remaining contribution'.
- **Veteran tree –** Tree that, by recognised criteria, shows features of biological, cultural or aesthetic value that are characteristic of, but not exclusive to, individuals surviving beyond the typical age range for the species concerned.
- **Vigour -** A general classification, as to the present and future potential growth and development of a tree. A comment regarding the health status of the tree specific to its species.
- White Rot A type of decay caused by certain species of fungi which results in the affected wood becoming flexible with little compressive strength.