

**SEVENOAKS GASHOLDER SITE,  
CRAMPTON'S ROAD, SEVENOAKS**

**ARBORICULTURAL IMPACT  
ASSESSMENT**

A Report to: CBRE

Report No: RT-MME-152714-04 **Rev A**

Original Date: September 2020  
**Revised: March 2021**



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## REPORT VERIFICATION

This study has been undertaken in accordance with British Standard 5837:2012 "*Trees in Relation to Design, Demolition and Construction - Recommendations*".

Report Version	Date	Completed by:	Checked by:	Approved by:
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## DISCLAIMER

The contents of this report are the responsibility of Middlemarch Environmental Ltd. It should be noted that, whilst every effort is made to meet the client's brief, no site investigation can ensure complete assessment or prediction of the natural environment.

Middlemarch Environmental Ltd accepts no responsibility or liability for any use that is made of this document other than by the client for the purposes for which it was originally commissioned and prepared.

## VALIDITY OF DATA

The findings of this study are based upon the survey data produced as part of the Preliminary Arboricultural Assessment which is valid for a period of 12 months from the date of survey. If a planning application has not been submitted by this date, an updated site visit should be carried out by a suitably qualified and experienced arboriculturist to assess any changes to the trees and hedgerows on site to inform a review of the conclusions and recommendations made.

It should be noted that trees are dynamic living organisms that are subject to natural changes as they age or are influenced by changes in their environment. As such, following any significant meteorological event or changes in the growing environment of the trees they should be re-assessed by a suitably qualified and experienced arboriculturist.

This Arboricultural Impact Assessment has been produced following a review of a proposed development layout for the site based on data provided by the client. Should the development proposals change, this report will need to be updated to assess the impact of the amended development.

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## 1. INTRODUCTION

### 1.1 PROJECT BACKGROUND

Middlemarch Environmental Ltd were commissioned by CBRE to undertake an Arboricultural Impact Assessment as part of a planning application for residential development at Sevenoaks Gasholder Site on Crampton's Road in Sevenoaks. A survey of the trees on site and within influencing distance of the boundaries was undertaken in July 2020 as part of a Preliminary Arboricultural Assessment (RT-MME-152714-03) which was produced to identify the existing trees and hedgerows on the site to aid design and avoid unnecessary tree removal.

This Arboricultural Impact Assessment has been carried out in accordance with British Standard 5837:2012 '*Trees in Relation to Design, Demolition and Construction - Recommendations*' (hereafter referred to as BS5837). BS5837 sets out a structured assessment methodology to assist in determining which trees would be considered suitable or unsuitable for retention in the context of the proposed development. This Impact Assessment details the potential impact that the proposed development will have upon the site's existing tree stock and sets out recommendations for the subsequent mitigation or avoidance of impact.

### 1.2 SITE DESCRIPTION

The site under consideration, hereinafter referred to as the study area, is located at the former Sevenoaks gasholder site off Crampton Road, Sevenoaks, and centred at Ordnance Survey Grid Reference TQ 5286 5716.

The study area is located within a predominantly residential area on the northern fringes of Sevenoaks and Greatness. Tree cover across the site was generally found to be of a low to moderate quality and is located predominantly towards the boundaries of the site.

The location of the trees surveyed can be found on Middlemarch Environmental Ltd Drawing Number C152714-03-01, attached to this report.

### 1.3 DEVELOPMENT PROPOSALS

The proposed development of the site includes the construction of new residential properties with associated hard and soft landscaping. The proposed development has been designed so as to retain safe and healthy existing trees wherever possible. Where trees are identified for removal as part of the proposed scheme, the loss of these specimens should be mitigated through replacement tree planting post-development.

### 1.4 DOCUMENTATION PROVIDED

This assessment is based upon the information provided by the client in addition to information collected by Middlemarch Environmental Ltd during the Preliminary Arboricultural Assessment. The documents and drawings considered are detailed within Table 1.1.

**Table 1.1: Documentation Provided**

Author	Document	Drawing Number	Date
Survey Solutions	Topographical Survey	-	-
MAX Architects	Ground Floor Plan	0330 1000 A	Aug 2020
MAX Architects	Podium Plan Option 1	0330 sk005 0900 1 B	Aug 2020

## 2. STATUTORY PROTECTION

### 2.1 TREE PRESERVATION ORDER AND CONSERVATION AREA DESIGNATIONS

No direct consultation with the Local Planning Authority, Sevenoaks District Council, has taken place. However, having used the online search facility on the website for the Local Planning Authority, it is understood that there are no Tree Preservation Orders or Conservation Areas that would apply to trees present on, or in close proximity to the assessment site and therefore no statutory constraints would apply to the development in respect of trees. Prior to any tree works being undertaken, confirmation of the online information should be sought from the Local Authority.

Reference to the Multi Agency Geographical Information for the Countryside (MAGIC) website indicates that an area of ancient woodland has not been recorded within 15 metres of the survey area.

### 2.2 PROTECTED SPECIES

#### **Bats**

Mature trees often contain cavities, hollows, peeling bark or woodpecker holes which provide potential roosting locations for bats. Bats and the places they use for shelter or protection (i.e. roosts) receive European protection under The Conservation of Habitats and Species Regulations 2017 (Habitats Regulations 2017). They receive further legal protection under the Wildlife and Countryside Act (WCA) 1981, as amended. Consequently, causing damage to a bat roost constitutes an offence.

Generally, should the presence of a bat roost be suspected whilst completing works on any trees on site then an appropriately licensed bat worker should be consulted for advice.

#### **Birds**

Trees and hedgerows offer potential habitat for nesting birds which are protected under the Wildlife and Countryside Act WCA 1981 (as amended). Some species (listed in Schedule 1 of the WCA) are protected by special penalties. This legislation makes it an offence to intentionally or recklessly damage or destroy an active bird nest or part thereof.

As the trees on, and adjacent, to the site provide potential habitat for nesting birds all tree work should ideally be completed outside the nesting bird season (Generally March to September).

If this is not possible then the vegetation should be subject to a nesting bird inspection by a suitably experienced ecologist prior to commencement of works. If any active nests are identified then the vegetation, and a defined buffer zone, will need to remain in place until the young have naturally fledged.

### 3. PRELIMINARY ARBORICULTURAL ASSESSMENT RESULTS SUMMARY

Thirteen individual trees and four groups of trees were surveyed as part of the Preliminary Arboricultural Assessment. Trees assessed during the survey are listed as individual trees and groups of trees in the Tree Schedule (Appendix A) in accordance with BS5837:2012 recommendations. Table 3.1 below provides a summary of the survey results in terms of categorisation.

**Table 3.1: Summary of Trees and Groups in BS5837:2012 Categories**

BS5837:2012 Category	Tree Number
U	-
A	-
B	T1, T2, T3, T5, T8, T9, T10, T11, T13, G1, G3, G4.
C	T4, T6, T7, T12, G2.

The majority of trees recorded during the arboricultural survey were considered to be of a moderate retention value and located adjacent to the northern, eastern, and western boundaries of the site. These specimens, which include silver birch (*Betula pendula*), Lombardy poplar (*Populus nigra*) and sycamore (*Acer pseudoplatanus*) among others, offer important screening between the site and adjacent residential development. These trees in turn offer a valuable amenity contribution to the site and consideration should be made where possible for their retention in the context of new development.

Other specimens recorded were deemed less significant. These included individual silver birch, goat willow (*Salix caprea*) and rowan (*Sorbus aucuparia*), as well as groups of ash (*Fraxinus excelsior*), cherry (*Prunus* sp.), hazel (*Corylus avellana*), English oak (*Quercus robur*) and dogwood (*Cornus sanguinea*). These lower quality specimens were more scattered in distribution but were generally noted towards the edges of the site. It was considered that these have a reduced potential contribution to the overall aesthetic of the site and as such are a lower priority with respect to tree retention.

## 4. ARBORICULTURAL IMPACT ASSESSMENT

### 4.1 INTRODUCTION

This section of the report details the potential impacts that the proposed development may have upon the site's tree stock. The assessment has been based upon the documents detailed in Table 1.1 with reference to the results of the Preliminary Arboricultural Assessment (RT-MME-152714-03).

The location of the trees can be found on the Tree Survey Plan (C152714-03-01) and a schedule of the trees (Appendix A) attached to this report.

### 4.2 IMPACTS FROM DEVELOPMENT LAYOUT

#### 4.2.1 Tree Retention and Removal

The proposed development has been designed so that, where possible, existing trees are retained, however, in order to accommodate the proposed development, it will be necessary to remove a number of trees within the site.

The trees to be removed are detailed within Table 4.1 and are identified on the Tree Retention Plan, Drawing Number (C152714-04-01), attached to this report. All trees and groups not featured within Table 4.1 are to be retained within the proposed development.

**Table 4.1: Tree Removal**

Tree/ Group/ Hedgerow Reference	Species	Retention Category	Reason for Removal
T6	Goat willow	C	Located within footprint of proposed access road.
T9	Silver birch	B	
T10	Silver Birch	B	Located within footprint of proposed parking area.
T11	Silver birch	B	Located within footprint of proposed access road.
T12	Silver birch	C	
G1*	Mixed species	B	Partial removal required due to proximity with proposed development.
G2	Mixed species	C	Located within footprint of proposed development.
G3*	Mixed species	B	Partial removal required due to proximity with proposed development.
G4*	Silver birch	B	
<u>Key</u>			
*: Partial removal of trees within group.			

The proposed development will ensure the retention and incorporation of the majority of trees across the site alongside new tree planting as part of the wider landscape strategy. However, the proposed development will require the removal of five individual trees and one group of trees. The partial removal of trees forming a further two groups will also be required.

Three trees (T9, T10 & T11) identified for removal and three groups (G1, G3 & G4) identified for removal or partial removal were assessed as being of moderate retention value and as such, the loss of these trees has the potential to impact the amenity value of the site. Consequently, suitable new tree planting will be required to offer an adequate level of mitigation for the loss of these trees.

The remaining trees and groups (T6, T12 & G2) that are to be removed were considered to be of low retention value during the Preliminary Arboricultural Assessment. The proposed removal of these trees should be considered acceptable subject to the adoption of an appropriate replanting strategy as new tree planting of higher quality trees more suited to the new development will make a lasting contribution to the landscape character of the site.

#### 4.2.2 Tree Pruning

All tree pruning works should be detailed as part of an Arboricultural Method Statement and completed in accordance with the current best practice guidance set out within BS3998:2010 "*Tree Work – Recommendations*" by suitably competent, qualified and insured arboricultural contractors. It is recommended that the extent of pruning required is then identified to contractors in a pre-commencement site meeting as part of the enabling works.

### 4.3 IMPACTS FROM DEMOLITION AND RELATED OPERATIONS

#### 4.3.1 Building Demolition

The demolition of buildings adjacent to T13 and G4 will require a precautionary approach to the works and should be detailed as part of an Arboricultural Method Statement prior to site occupation.

#### 4.3.2 Removal of Hard Surfaces

Where required, the removal of existing hardstanding within the RPAs of T1, T2, T3, T7, T8, T13 and G4 will require a precautionary approach to the works and should be detailed as part of an Arboricultural Method Statement prior to site occupation.

### 4.4 DIRECT IMPACTS FROM CONSTRUCTION

#### 4.4.1 Works within RPAs

Some aspects of the proposed development will require works within the RPAs of retained trees as detailed within Table 4.2.

**Table 4.2: Works in RPAs and Canopy Spreads**

Tree/ Group Reference	Species	Retention Category	Proposed Works
T1	Lombardy poplar	B	Installation of new hard surfaces. Installation of foundations of proposed building.
T2	Cherry	B	Installation of new hard surfaces.
T3	Hawthorn	B	Installation of new hard surfaces.
T13	Silver birch	B	Installation of new wall.
G4	Silver birch	B	Installation of new wall.

It should be noted that the RPAs of trees T1, T2 and T3 affected by works to install new hard surfaces are already hard surfaced and root development from the surrounding trees in the affected areas may have been restricted. While this would normally be considered a significant factor limiting the spread of roots into the site, the prevalence of hardstanding within the RPAs of the retained trees suggests that at least some root development will have occurred within the affected areas for lack of more optimal rooting conditions.

The removal of hardstanding within the RPAs of these trees should therefore be carried out using an appropriate working methodology, to be specified within an Arboricultural Method Statement, and under supervision of a suitably qualified and experienced arboriculturist.

The works to install foundations for proposed buildings within the RPA of T1 will be located at the periphery of the RPA and the proposed works are, therefore, unlikely to cause significant harm.

The works to install a new wall within the RPAs of T13 and G4 are considered unlikely to impact the health of the trees subject to the adoption of an appropriate works methodology.

All works within the Root Protection Areas or beneath the canopy spreads of retained trees should be detailed as part of an Arboricultural Method Statement to ensure the method of construction is suitably considered.



#### 4.4.2 Underground and Overhead Utilities

Wherever possible, common service trenches should be specified to minimise land take associated with underground service provision and facilitation access for future maintenance.

#### 4.4.3 Working Space

Sufficient working space around new buildings and utility installation at a distance of approximately 2.5 m will be required across the site and will enter the RPA of retained tree T1. Suitable canopy, stem and ground protection measures will therefore be required to ensure any potential impact upon retained trees is mitigated. These mitigation measures should be included in an Arboricultural Method Statement following approval of the current planning application.

### 4.5 IMPACTS FROM CONSTRUCTION RELATED OPERATIONS

#### 4.5.1 Site Access

It is understood that construction access to the site will be provided through the existing access point and it may therefore be necessary to undertake access facilitation pruning works to low-hanging branches to minimise the potential for vehicular impact.

It will be necessary to ensure retained trees adjacent to the access route are protected from vehicular impact through the installation of tree protection barriers, prior to the commencement of the development.

#### 4.5.2 Site Compound, Contractors Car Parking, Delivery and Storage of Materials

Material deliveries to the site will utilise the existing access point. Retained trees will be protected from harm by the prior installation of tree protection barriers and the completion of access facilitation pruning works (if required).

The site compound, contractor's parking, and areas for materials storage within the site should be confirmed as part of an Arboricultural Method Statement following approval of the current planning application.

### 4.6 POST-DEVELOPMENT IMPACTS

#### 4.6.1 Shading

The shade from trees can be considered both a constraint and opportunity and therefore its effect upon the new development should be fully considered to ensure a harmonious and sustainable relationship can be achieved. When considering the position and orientation of new buildings in relation to existing trees, primary living areas should receive the largest proportion of natural sunlight. BRE guidelines recommends "*at least half of the garden or open space should receive at least two hours sunlight on March 21 (Spring Equinox)*".

It is considered unlikely that shading will cause significant conflict with the proposed development of the site as orientation of the site is such that the largest retained trees are located adjacent to the northern boundary with some smaller trees present along the western boundary. The proposed dwellings have generally been sited away from retained trees and significant shading of primary living places is considered unlikely to occur.

#### 4.6.2 Future Pressure for Removal

The layout of the proposed development is such that future pressure for tree removal is generally unlikely to occur.

#### 4.6.3 Seasonal Nuisance

The sweeping up of leaves and cleaning of gutters, which may become blocked by falling leaves, is considered to be routine seasonal maintenance and as such, no notable conflict with the proposed development is considered likely to occur. Nonetheless, it may prove appropriate in certain areas to use gutter guards, or otherwise enclosed gutters, to minimise the potential for leaf fall to cause blockage and an ongoing nuisance.

## 5. SUMMARY OF IMPACTS

The proposed development of the site is unlikely to significantly impact the visual amenity of the local area as a result of the proposed tree removal subject the adoption of a suitable replacement tree planting strategy. The proposed works are unlikely to impact significantly upon the long-term health of retained trees and whilst some works are to be undertaken within the RPAs of retained trees, the nature of those works are such that they can be completed without impacting significantly upon the trees subject to the adoption of appropriate working practices as detailed in a future Arboricultural Method Statement following approval of the current planning application .

## **6. MITIGATION AND PROTECTION**

### **6.1 INTRODUCTION**

This section of the report details the mitigation for the proposed tree loss, initial protection and avoidance measures suggested to prevent harm to the retained trees.

### **6.2 NEW TREE PLANTING**

New tree planting will form an integral part of the proposed development. However, proposals for new tree planting should be appropriate for the future use of the site and not just aim to mitigate the proposed tree loss.

At the time of writing, details of the proposed landscaping scheme for the site were unknown. The purpose and function of the new tree planting should be carefully considered so that key objectives from a wildlife habitat and landscape perspective can also be achieved.

The landscaping scheme should consider the use of both native tree species (for their low maintenance requirements and nature conservation value) and ornamental species (for their contribution to urban design and amenity value). Species choices should be selected on the basis of their suitability for the final site use. Careful consideration should be given to the following: ultimate height and canopy spread, form, habit, density of crown, potential shading effect, colour, water demand, soil type and maintenance requirements in relation to both the built form of the new development and existing properties.

Through careful species selection, the landscape scheme shall reduce the risk of trees being removed in the future on the grounds of nuisance.

Tree planting should be avoided where they may obstruct overhead power lines or cables. Any underground apparatus should be ducted or otherwise protected at the time of construction to enable trees to be planted without resulting in future conflicts.

### **6.3 GENERAL TREE PROTECTION**

#### **6.3.1 Construction Exclusion Zone**

To minimise the potential for harm to the root systems and canopies of retained trees during development construction exclusion zones will be required throughout the site. These are areas surrounding the trees' RPAs and canopies in which construction works, or related activities, will be avoided.

It is recommended that the exclusion zones are afforded protection at all times through the use of tree protection barriers and/or ground protection (specified in accordance with BS5837:2012). No works that cause compaction of the soil or severance of tree roots, except where undertaken in accordance with the guidance provided within this document or detailed within a subsequent AMS, will be undertaken within any exclusion zone.

#### **6.3.2 Tree Protection Barriers**

The protective barriers should be erected following any tree removal or tree surgery works and prior to the commencement of any construction site works e.g. before any construction materials or machinery are brought on site or the stripping of soil commences.

The protective barriers are to be constructed in accordance with the specification detailed in BS5837:2012. Any variation to the specification of the protective barrier should be agreed with the Local Planning Authority Arboricultural Officer or included as part of an Arboricultural Method Statement following approval of the current planning application.

## 7. ARBORICULTURAL METHOD STATEMENT

An Arboricultural Method Statement will be required for the site as various aspects of the proposed development will need to be fully considered due to the presence of retained trees.

The purpose of a Method Statement is to ensure that all site operations can occur with minimal risk of adverse impact upon trees that are to be retained. The document will identify all areas where specific working methods will be required to ensure protection to trees. The document will also specify the location and extent of tree protection barriers and ground protection.

In relation to this development the Method Statement should address the following:

- Tree Surgery
- Site setup and logistics
- Works within Root Protection Areas
- Working space to construct new buildings
- Suitable site access, material storage contractor's car parking and site compound locations.
- Final protective barrier and ground protection locations and specifications.
- Phased approach to development works to ensure retained trees are not impacted through demolition and new access construction works.
- Extent of access facilitation pruning works to be undertaken.
- Pre-commencement site meeting.

## 8. REFERENCES AND BIBLIOGRAPHY

British Standards Institution. (2010). *British Standard 3998:2010, Tree Work - Recommendations*. British Standards Institution, London.

British Standards Institution. (2012). *British Standard 5837:2012, Trees in Relation to Design, Demolition and Construction – Recommendations*. British Standards Institution, London.

Middlemarch Environmental Ltd. (2020). *Report Number RT-MME-152714-03*. Preliminary Arboricultural Assessment.

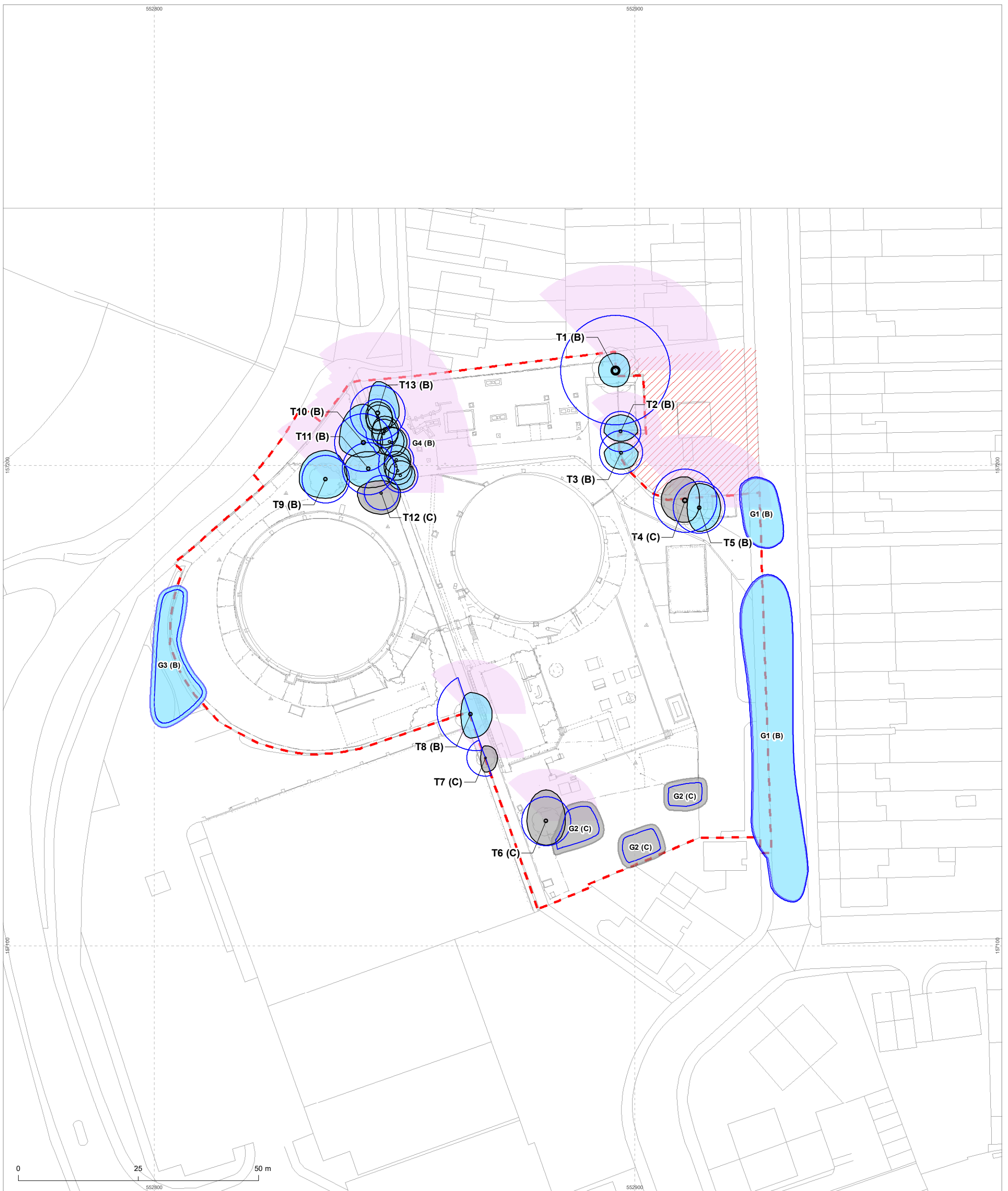
Littlefair P. (2011). *Site layout planning for daylight and sunlight: a guide to good practice* (BR 209). British Research Establishment, Watford.

## 9. DRAWINGS

Drawing Number C152714-03-01 – Tree Survey Plan

Drawing Number C152714-04-01 – Tree Retention Plan

Appendix A: Tree Schedule



**Legend**

- Tree location and stem diameter
- Category B
- Category C
- Current canopy extent
- Root Protection Area
- Indicative tree shadow
- /// No access during arboricultural survey (22/07/2020)
- - - Site boundary
- T - Tree
- G - Tree group

The original of this drawing was produced in colour - a monochrome copy should not be relied upon

**NOTES**

All dimensions to be verified on site. Do not scale this drawing, use figured dimensions only. All discrepancies to be clarified with Project Arboriculturalist. Drawing to be read in conjunction with Preliminary Arboricultural Assessment and Tree Schedule. Drawing has been produced in colour and is based on digital information in .dwg format, aerial images and/or GPS location where appropriate. A monochrome copy should not be relied upon. The exact position of individual trees or species included as part of a tree group, woodland or hedgerow should be checked and verified on site prior to any decisions for foundation design, tree operations or construction activity being undertaken. Further survey work would be required for calculating foundation depths.

Trees are living organisms that change over time, the condition of all trees illustrated herein, are to be checked by the Project Arboriculturalist should works commence 12 months after the date of this survey.

**SOME TREES MAY BE SUBJECT TO STATUTORY CONSTRAINTS. IT IS THEREFORE ADVISED THAT NO WORKS SHOULD BE UNDERTAKEN TO ANY TREES ILLUSTRATED HEREIN WITHOUT FIRST OBTAINING THE RELEVANT AUTHORISATION TO DO SO UNLESS AGREED AS PER THE APPROVED PLANS THROUGH PLANNING CONSENT.**

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Project		Sevenoaks Gasholder Site	
Drawing		Tree Survey Plan	
Client		CBRE	
Drawing Number	C152714-03-01-RevB	Revision	Rev B
Scale @ A3	1:750	Date	March 2021
Approved By	BJ	Drawn By	GT
			
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C152714-03-01-RevB



**Legend**

- Tree location and stem diameter
- Category B - to be removed
- Category B
- Category C - to be removed
- Category C
- Current canopy - tree to be removed
- Current canopy - tree to be retained
- Root Protection Area
- Indicative tree shadow
- No access during arboricultural survey (22/07/2020)
- Site boundary

T - Tree  
G - Tree group

The original of this drawing was produced in colour - a monochrome copy should not be relied upon

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Project		Sevenoaks Gasholder Site	
Drawing		Tree Retention Plan	
Client		CBRE	
Drawing Number	C152714-04-01-RevC	Revision	Rev C
Scale @ A3	1:613	Date	March 2021
Approved By	BJ	Drawn By	GT
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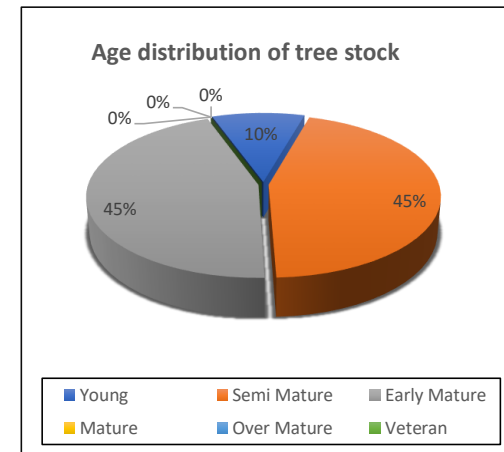
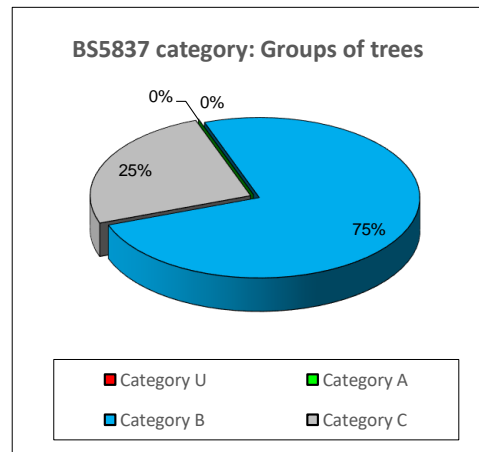
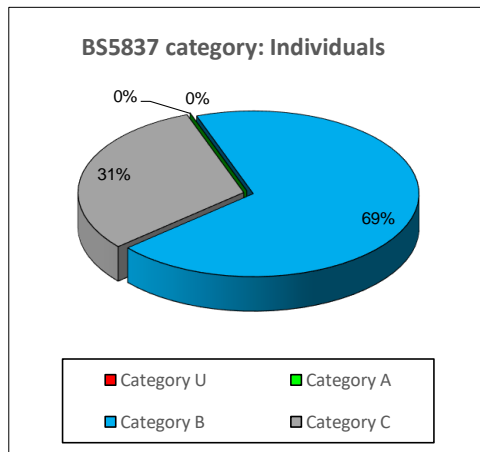
C152714-04-01-RevC

## Appendix A - Tree Schedule

Measurements	Age Class	Overall Condition	Root Protection Area (RPA)
Height - estimated from ground level (m).	YNG: Young trees up to ten years of age.	G - Good: Trees with only a few minor defects and in good overall health needing little, if any attention.	<ul style="list-style-type: none"> <li>• The RPA column gives the required area (m<sup>2</sup>).</li> <li>• The RPA Radius column gives the radius (m) of an equivalent circle.</li> <li>• The RPA is calculated using the formulae described in paragraph 4.6.1 of British Standard 5837: 2012 and is indicative of the required rooting area in order for a tree to be retained.</li> </ul>
Stem Dia. - Diameter measured (mm) in accordance with Annex C of the BS5837.	SM: Semi-mature, trees less than 1/3 life expectancy.	F - Fair: Trees with minor, but rectifiable, defects or in the early stages of stress from which it may recover.	
Crown - crown spread estimated radially from the main stem (m).	EM: Early mature, trees 1/3 – 2/3 life expectancy.	P - Poor: Trees with major structural and/or physiological defects such that it is unlikely the tree will recover in the long term.	
Abbreviations Est - Estimated stem diameter Avg - Average stem diameter Max - Maximum stem diameter	M: Mature trees, over 2/3 life expectancy.	D - Dead: Trees no longer alive. This could also apply to trees that are dying and unlikely to recover.	
	OM: Over mature, declining or moribund trees of low vigour.	In the assessment, of the BS category, particular consideration has been given to the following <ul style="list-style-type: none"> <li>• The health, vigour and condition of each tree</li> <li>• The presence of any structural defects in each tree and its future life expectancy</li> <li>• The size and form of each tree and its suitability within the context of a proposed development</li> <li>• The location of each tree relative to existing site features e.g. its screening value or landscape features</li> </ul>	
	V: Veteran, tree possessing certain attributes relating to veteran trees.	<ul style="list-style-type: none"> <li>• Age class</li> <li>• Life expectancy</li> </ul>	

Structural Condition
<p>The following has been considered when inspecting structural condition:</p> <ul style="list-style-type: none"> <li>• The presence of fungal fruiting bodies around the base of the tree or on the stem, as they could possibly indicate the presence of possible internal decay.</li> <li>• Soil cracks and any heaving of the soil around the base.</li> <li>• Any abrupt bends in branches and limbs resulting from past pruning.</li> <li>• Tight or weak 'V' shaped forks and co-dominant stems.</li> <li>• Hazard beam formations and other such biomechanical related defects (as described by Claus Mattheck, Body Language of Trees HMSO Research for Amenity Trees No. 4 1994).</li> <li>• Cavities as a result of limb losses or past pruning.</li> <li>• Broken branches or storm damage.</li> <li>• Canker formations.</li> <li>• Loose or flaking bark.</li> <li>• Damage to roots.</li> <li>• Basal, stem or branch / limb cavities.</li> <li>• Crown die-back or abnormal foliage size and colour.</li> <li>• Any changes to the timing of normal leaf flush and leaf fall patterns.</li> </ul>

Quality Assessment of Retention Category
<p>Category U - Trees 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.</p>
<p>Category A - Trees of high quality with an estimated remaining life expectancy of at least 40 years.</p>
<p>Category B - Trees of moderate quality with an estimated remaining life expectancy of at least 20 years.</p>
<p>Category C - Trees of low quality with an estimated remaining life expectancy of at least 10 years, or young trees with a stem diameter below 150mm.</p>
<p>Sub-categories: (i) - Mainly arboricultural value                      (ii) - Mainly landscape value                      (iii) - Mainly cultural or conservation value</p>





**Appendix A - Summary**

	Individual Trees	Totals	Tree Groups	Totals
Category U		0		0
Category A		0		0
Category B	T1, T2, T3, T5, T8, T9, T10, T11, T13	9	G1, G3, G4	3
Category C	T4, T6, T7, T12	4	G2	1
	<b>Total</b>	13	<b>Total</b>	4

	Hedgerows	Totals	Woodlands	Totals
Category U		0		0
Category A		0		0
Category B		0		0
Category C		0		0
	<b>Total</b>	0	<b>Total</b>	0

Tree No	Species	Height (m)	Crown Clearance (m)	No. of Stems	Stem Dia. (mm)	Crown Radius				Age Class	Structure	Vigour	RPA (m)	RPA Radius (m)	Cat	Comments
						N	E	S	W							
T1	Lombardy poplar	22.0	2.0	10	950	3.5	3.0	3.5	3.5	EM	F	G	408	11.4	B 1	Branch stubs Building in RPA Hard surfaces in RPA Epicormic growth on main stem Epicormic growth in crown Limited inspection due to access Minor deadwood in crown Typical crown form Multi-stemmed at base Major wounds on number of leaders, near base Crown touching building
T2	Cherry	8.5	2.5	2	280 210	3.5	3.5	1.0	3.5	SM	F	G	55	4.2	B 1	Branch stubs Building in RPA Hard surfaces in RPA Limited inspection due to access Old pruning wounds from crown lift Typical crown form Crown touching building Form suppressed by neighbour
T3	Hawthorn	8.5	2.0	6	370	1.0	3.5	3.5	3.5	SM	F	G	64	4.5	B 1	Branch stubs Hard surfaces in RPA Heavy ivy on the stem Limited inspection due to access Limited inspection due to ivy Minor deadwood in crown Typical crown form Form suppressed by neighbour
T4	Silver birch	14.0	3.5	1	540	5.0	3.0	4.5	5.0	EM	F	F	137	6.6	C 1	Branch stubs Building in RPA Hard surfaces in RPA Heavy ivy on the stem Limited inspection due to ivy Included unions through crown Minor deadwood in crown Major deadwood in crown Signs of decline Epicormic growth on main stem Sparse crown
T5	Silver birch	15.0	3.0	1	440	5.0	4.5	5.0	2.5	EM	F	G	92	5.4	B 1	Branch stubs Building in RPA Hard surfaces in RPA Epicormic growth on main stem Limited inspection due to ivy Light ivy on stem Included unions through crown Minor deadwood in crown

Tree No	Species	Height (m)	Crown Clearance (m)	No. of Stems	Stem Dia. (mm)	Crown Radius				Age Class	Structure	Vigour	RPA (m)	RPA Radius (m)	Cat	Comments
						N	E	S	W							
T6	Goat willow	11.0	2.0	6	420	6.5	4.0	5.0	4.0	SM	F	G	81	5.1	C 1	Branch stubs Limited inspection due to access Minor deadwood in crown Typical crown form Fence within RPA Limited contribution
T7	Rowan	8.0	2.0	6	210	2.5	2.5	3.0	1.0	SM	F	F	23	2.7	C 1	Branch stubs Building in RPA Hard surfaces in RPA Limited inspection due to access Minor deadwood in crown Signs of decline Growing in raised bed Sparse, congested crown Multi-stemmed at base - stems girdling Limited contribution
T8	Sycamore	11.5	2.5	2	300 290	4.5	4.5	5.0	2.0	EM	F	G	81	5.1	B 1	Branch stubs Building in RPA Hard surfaces in RPA Minor deadwood in crown Growing in raised bed Crown touching building
T9	Silver birch	14.0	2.5	3	210 240 250	6.0	4.5	4.0	5.5	EM	F	G	81	5.1	B 1	Branch stubs Hard surfaces in RPA Included unions through crown Limited inspection due to access Minor deadwood in crown Old pruning wounds from crown lift Epicormic growth on main stem Lateral dieback
T10	Silver birch	14.0	3.0	1	500	8.0	4.0	3.0	5.0	EM	F	G	113	6.0	B 1	Branch stubs Included unions through crown Old pruning wounds from crown lift Minor deadwood in crown Major deadwood in crown
T11	Silver birch	18.0	3.5	1	440	3.5	6.0	4.0	5.0	EM	F	G	92	5.4	B 1	Branch stubs Included unions through crown Minor deadwood in crown Limited inspection due to access Major deadwood in crown Typical crown form

Tree No	Species	Height (m)	Crown Clearance (m)	No. of Stems	Stem Dia. (mm)	Crown Radius				Age Class	Structure	Vigour	RPA (m)	RPA Radius (m)	Cat	Comments
						N	E	S	W							
T12	Silver birch	13.0	1.0	1	280	2.5	4.0	4.5	5.0	SM	F	G	41	3.6	C 1	Branch stubs Included unions through crown Minor deadwood in crown Typical crown form Old pruning wounds from crown lift Exposed roots with mower damage
T13	Silver birch	17.0	1.5	1	470	6.5	4.5	3.5	2.0	EM	F	G	102	5.7	B 1	Branch stubs Included unions through crown Minor deadwood in crown Hard surfaces in RPA Old pruning wounds from crown lift Typical crown form Fence within RPA Growing next to public access footpath

Tree No	Species	Height (m)	Crown Clearance (m)	No. of Stems	Stem Dia. (mm)	Crown Radius				Age Class	Structure	Vigour	RPA (m)	RPA Radius (m)	Cat	Comments
						N	E	S	W							
G1	Lawson cypress Sycamore Lombardy poplar	16.0	1.0	-	350	4.0	4.0	4.0	4.0	EM SM	F	G	55	4.2	B 1,2	Branch stubs observed Conjoined canopy Building in RPA Sparse in areas Hard surfaces in RPA Minor deadwood in crowns Provides screening Major deadwood in crowns No obvious defects Tree tag numbers include 03567 & 03222 Wounds observed on main stems with exposed heartwood
G2	Ash Cherry Silver birch Hazel Goat willow English oak Dogwood	9.0	0.5	-	170	3.0	3.0	3.0	3.0	Y SM	F	F	14	2.1	C 1	Branch stubs observed Sparse in areas Offsite but does overhang the study area Dead and dying trees present Hard surfaces in RPA Building in RPA Limited inspection due to access Self seeded trees present Limited contribution
G3	Field maple Sycamore Hazel	6.0	0.5	-	180	3.0	3.0	3.0	3.0	Y SM	F	G	18	2.4	B 1,2	Branch stubs observed Offsite but does overhang the study area Hard surfaces in RPA Conjoined canopy Provides screening Minor deadwood in crowns Limited inspection due to access Self seeded trees present Typical crown forms
G4	Silver birch	16.0	2.0	-	280	3.0	3.0	3.0	2.5	EM SM	F	G	41	3.6	B 1,2	Hard surfaces in RPA Branch stubs observed Included unions observed in crowns Minor deadwood in crowns Typical crown forms No obvious defects Fence within RPAs Growing next to public access footpath