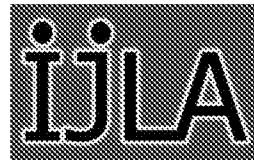
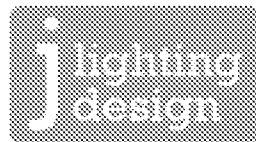
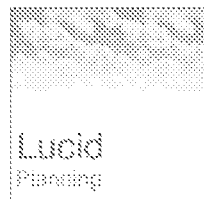


Arboricultural Impact Assessment

DREW SMITH GROUP



Land at Summer Lane Pagham Reserved Matters Application Planning Update

July 2019 Rev. A



Arboricultural Impact Assessment

In support of a planning application at

LAND OFF SUMMER LANE, PAGHAM, WEST SUSSEX

On Behalf of: Drew Smith Group
Reference: C.MW.19.0612.AIA
Date issued: 04.07.2019

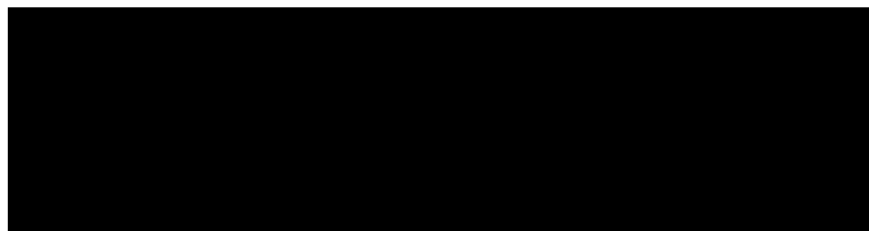


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1.0 INSTRUCTIONS AND TERMS OF REFERENCE

- 1.1 In June 2019, ArborCall Ltd. was instructed by Drew Smith Group to undertake a tree survey and produce this report, to support the reserved matters planning application for residential dwellings on the site: Land off Summer Lane, Pagham, West Sussex, within the administrative boundary of the South Downs Country Park.
- 1.2 Document supplied to assist this assessment include:
- Pagham Full Topo
 - 1177 PD100_Rev_J - SITE PLAN
 - Tree Survey and Impact Assessment by ArborTech, dated May 2015
- 1.3 The assessment considers the impact of the proposal on the constraint presented by trees retained within the site, and those on adjacent land. Such impact can be caused directly through construction damage and indirectly from post development resentment and pressure to detrimentally prune or remove the trees. The latter is often due to a poor juxtaposition between the proposal and the trees.
- 1.4 The root protection area (RPA) for each tree represents a minimum area in m² that should be left undisturbed around each retained tree. This is initially represented by a circle but is fundamentally an area of rooting volume. This is often adjusted to account for constraints to root growth within the site (primarily highways and buildings). Recommendations are provided in the British Standard as to the protection of existing trees during the construction process. This is achieved by ensuring a tree protection strategy is implemented before any demolition or construction on site.
- 1.5 Any questions relating to the content of this report should be directed, in the first instance, to ArborCall Ltd., at mail@mwelby.com or 01730 239 492 quoting the site address and report reference number.

2.0 SITE DESCRIPTION

- 2.1 The site is currently unused land on the edge of the existing settlement area of Pagham.
- 2.2 It is predominantly flat in nature and covered by scrub and seedling trees that were too small to be included within this assessment.
- 2.3 The site is centred at Ordnance Survey Grid Reference: SZ 89043 98547.

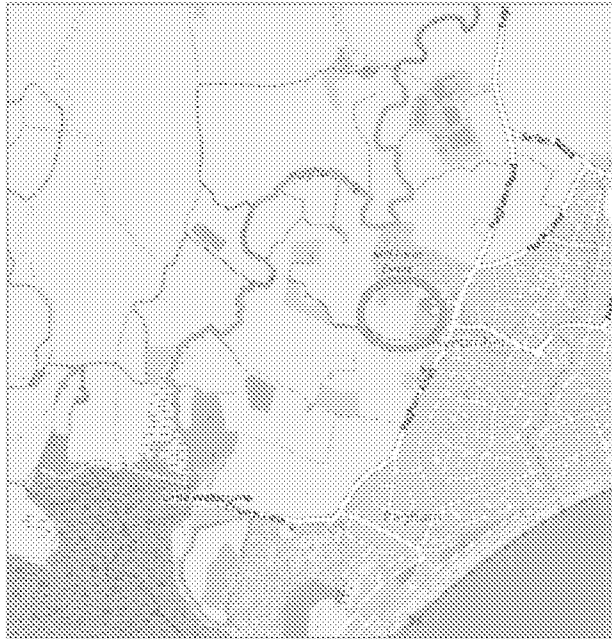


Figure 1: Site location plan © OpenStreetMap contributors



Figure 2: Site photograph

3.0 STATUTORY LEGISLATION

- 3.1 According to Arun District Council's on-line service¹, there is one tree preservation order on the site (checked at the date of writing).
- 3.2 Scant data was available through the online portal. So, based upon previous correspondence from the tree officer, it is known that two oak trees are subject to TPO protection. These are numbered 3 & 5 within this assessment.

4.0 TREE SURVEY - SCOPE AND METHODOLOGY

- 4.1 Tree survey data can be found on the plan at Appendix 2.
- 4.2 The tree survey has been carried out following the recommendations of The British Standard and the trees are assessed objectively and without reference to any site layout proposals. Categories are based on each tree's health and condition, together with an assessment of its life expectancy if its surroundings were to be unchanged.
- 4.3 The reference numbers of surveyed trees and groups of trees are shown on the tree reference plan, which is appended to this report and based on the supplied survey drawing. Stem locations within groups may be estimated, and indicative of canopy only.
- 4.4 The tree survey was carried out from ground level only, with the aid of binoculars as necessary, following the Visual Tree Assessment² (VTA) method.
- 4.5 Where trees are located on neighbouring land an estimated appraisal has been made of their quality and dimensions.
- 4.6 Where stems or branches are obscured by ivy or other materials a full assessment of those parts will not be possible.
- 4.7 Tree heights were measured with a clinometer or estimated in relation to those measured.
- 4.8 Trunk diameters are measured at 1.5m above ground level, where this is not possible, then Figure C.1 of the British Standard is followed.

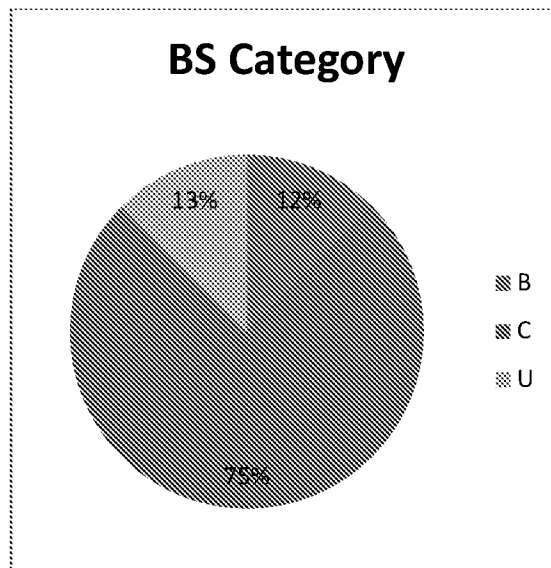
¹ <https://www1.arun.gov.uk/webapps/wmil/>

² Mattheck, C. & Breloer, H., 1998. The Body Language of Trees: A Handbook for Failure Analysis. London:H.M.S.O.

- 4.9 Tree canopies, where markedly asymmetrical, were measured (or estimated by pacing) in four directions using a laser measure. Symmetrical canopies are measured in one direction only, with dimensions in the remaining directions assumed to be similar. For the canopies of groups of trees, the maximum radius for each compass point is measured (more complicated groups will have further notes taken and an accurate representation will be shown on the plan).
- 4.10 All estimated dimensions are noted in the data.

5.0 SUMMARY OF SURVEYED TREES

5.1 Seven trees and one group were surveyed. The survey schedule can be found at Appendix 2 on the tree survey plan.



BS Category	Quantity
B	1
C	6
U	1

Common Name	Quantity
Ash, Common	1
Hawthorn, Common	1
Mixed species	1
Oak, pedunculate	4
Willow, Goat	1

- 5.2 The off-site oak T8 is the principal specimen on site in terms of landscape value.
- 5.3 The oaks that are subject to the TPO (3 & 5) have been assigned category C due to their poor quality and value. They have recently had damage to their roots occur during works, by a third party, to clear the existing drainage ditch.
- 5.4 Both trees are displaying indications of physiological stress in the form of epicormic shoots on the stem and branches. Neither tree is especially tall thus providing only limited wider landscape value.



Figure 3: Hedge 02. To be partially retained as required



Figure 4: Ash 01. To be removed to facilitate access construction.



Figure 5: Oaks 03, 04, 05 Category C & U. To be removed.

6.0 ARBORICULTURAL IMPACT ASSESSMENT (AIA)

6.1 As can be seen on the appended tree survey, there are no trees of value within the site. The category B oak T8 is actually off-site and its RPA doesn't actually cross the boundary line.

6.2 Therefore, it is proposed to remove all surveyed trees. any loss that may be felt as a result of their removal will be more than mitigated through the substantial new planting proposed for the site.

6.3 Breakdown of removals:

- The willow and hawthorn 06 & 07 are within the centre of the site and must be removed to facilitate holistic site development.
- Ash 01 is in the location of the main site access.
- Oak 04 is of very poor quality and is to be removed as good arboricultural practice.
- Oaks 03 & 05 are showing signs of stress, have had recent root damage, are limited in height and thus landscape presence. The main site road will pass too close to them to allow for their sustainable retention.

- 6.4 The boundary hedge No.2 will be retained where room allows.
- 6.5 Thus, no tree protection measures are required.

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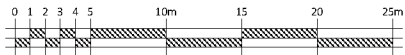
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APPENDIX 1: TREE CATEGORIES EXPLAINED

BS5837:2012 Table 1 -Cascade chart for tree quality assessment			
Category and definition		Criteria (including subcategories where appropriate)	
Trees unsuitable for retention (see Note)			
Category U Those in such a condition that they cannot realistically be retained as living trees in the context of the current land use for longer than 10 years	*Trees that have a serious, irremediable, structural defect, such that their early loss is expected due to collapse, including those that will become unviable after removal of other category U trees (e.g. where, for whatever reason, the loss of companion shelter cannot be mitigated by pruning) *Trees that are dead or are showing signs of significant, immediate, and irreversible overall decline *Trees infected with pathogens of significance to the health and/or safety of other trees nearby, or very low quality trees suppressing adjacent trees of better quality <i>NOTE Category U trees can have existing or potential conservation value which it might be desirable to preserve; see 4.5.7.</i>		
	1 Mainly arboricultural qualities	2 Mainly landscape qualities	3 Mainly cultural values, including conservation
Trees to be considered for retention			
Category A Trees of high quality with an estimated remaining life expectancy of at least 40 years	Trees that are particularly good examples of their species, especially if rare or unusual; or those that are essential components of groups or formal or semi-formal arboricultural features (e.g. the dominant and/or principal trees within an avenue)	Trees, groups or woodlands of particular visual importance as arboricultural and/or landscape features	Trees, groups or woodlands of significant conservation, historical, commemorative or other value (e.g. veteran trees or wood-pasture)
Category B Trees of moderate quality with an estimated remaining life expectancy of at least 20 years	Trees that might be included in category A, but are downgraded because of impaired condition (e.g. presence of significant though remediable defects, including unsympathetic past management and storm damage), such that they are unlikely to be suitable for retention for beyond 40 years; or trees lacking the special quality necessary to merit the category A designation	Trees present in numbers, usually growing as groups or woodlands, such that they attract a higher collective rating than they might as individuals; or trees occurring as collectives but situated so as to make little visual contribution to the wider locality	Trees with material conservation or other cultural value
Category C Trees of low quality with an estimated remaining life expectancy of at least 10 years, or young trees with a stem diameter below 150mm	Unremarkable trees of very limited merit or such impaired condition that they do not qualify in higher categories	Trees present in groups or woodlands, but without this conferring on them significantly greater collective landscape value; and/or trees offering low or only temporary/transient landscape benefits	Trees with no material conservation or other cultural value

APPENDIX 2: TREE SURVEY PLAN

Intentionally blank - Plan is on next page



Date	Notes	Rev



Key

BS 5837:2012 Tree Quality Categories - Table 1

Category A - High quality

Category B - Moderate quality

Category C - Low quality

Category U - Unsuitable for retention

How to use this data

As recommended by BS5837:2012 this plan provides information for designers to interpret the constraints presented by trees. A planning application will typically require arboricultural impact assessment (AIA) and method statement (AMS).

Designers shall seek to retain all A & B category trees, and work within the constraints posed by them. C category trees may not be a material constraint and may be removed to facilitate development. However, their retention may be sought where practical, but any proposals need not be designed around them.

Root protection areas (RPAs) - The minimum area around a tree deemed to contain sufficient roots and rooting volume to successfully retain it. This is initially represented by a circle but is fundamentally an area of rooting volume. It may be adjusted to account for constraints to root growth within the site (primarily highways and buildings). In the RPA, the protection of the roots and soil structure is treated as a priority. BS5837:2012 advises that default position is that structures & surfaces are located outside this area. However, where there is an overriding justification for construction within the RPA, technical solutions might be available that prevent damage to the tree(s). It is essential that any proposals within this area are discussed with the project arboriculturist before finalising the design.**Future tree growth** - Any design should only place small non-habitable buildings (garages, cycle stores, etc) within 2m of, or under, tree crowns. Whilst providing space for the tree's growth, this also provides working room needed for construction. In some instances it may be viable to carry out some pruning but this often raises objections and therefore should only be implemented under advice, before finalising any design.**Shade** - Any design should also avoid unreasonable obstruction of light, by siting buildings so that only back walls and/or non-habitable/aspect rooms are close to retained trees. Gardens should be orientated to provide some shade tree areas during the day. Guidance can be found in BRE208 Site Layout Planning for Daylight and Sunlight (2011). Detailed shade analysis can be provided on request.

If you have any questions regarding the details presented on this plan, or before finalising any layout design, please seek advice and guidance.

Scope and Methodology

This tree survey has been carried out following the recommendations of The British Standard and the trees are assessed objectively and without reference to any site layout proposals. Categories are based on each tree's health and condition, together with an assessment of its life expectancy if its surroundings were to be unchanged.

The reference numbers of surveyed trees and groups of trees are shown on the tree reference plan, which is appended to this report and based on the supplied survey drawing. Stem locations within groups may be estimated, and indicative of canopy only.

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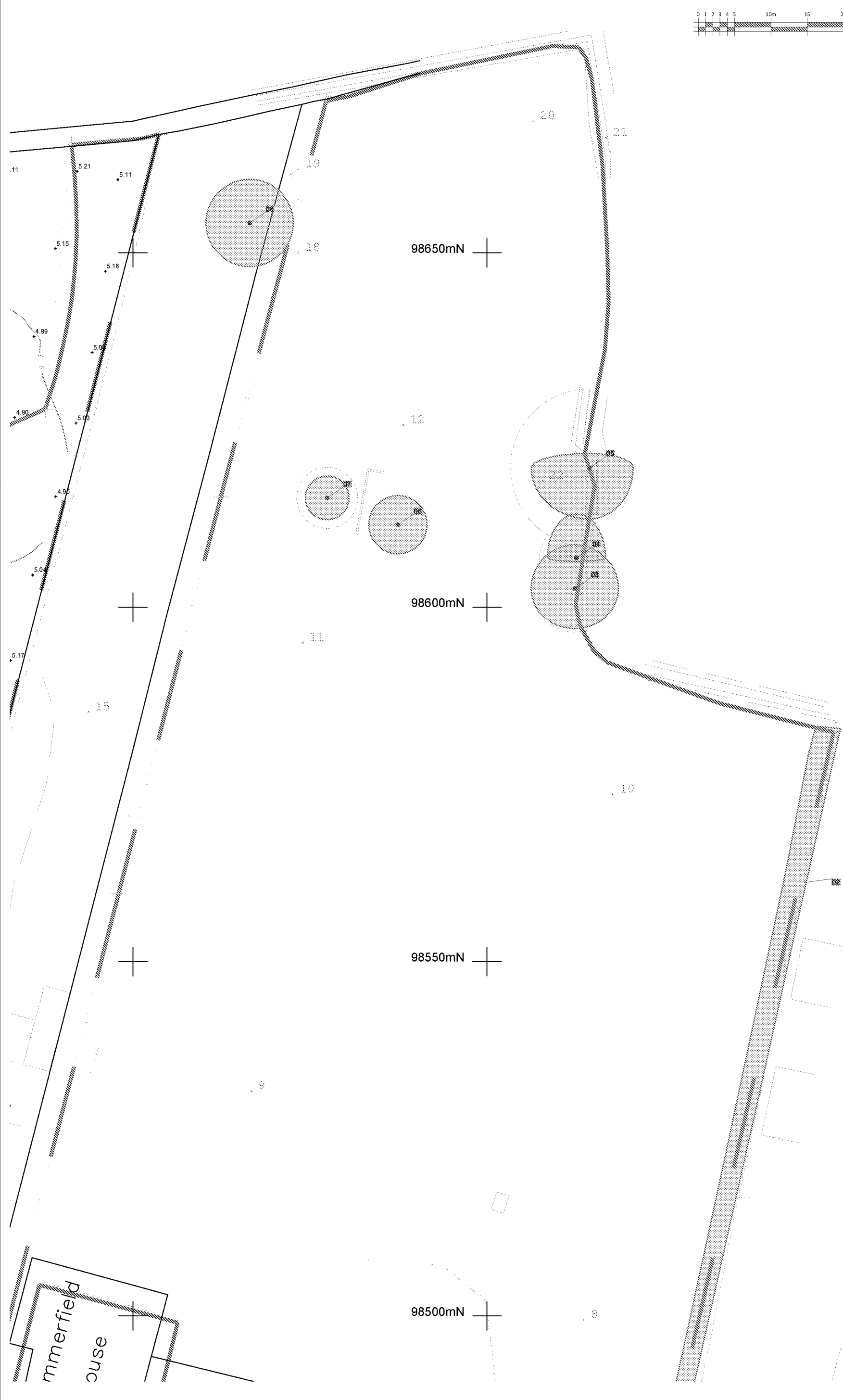
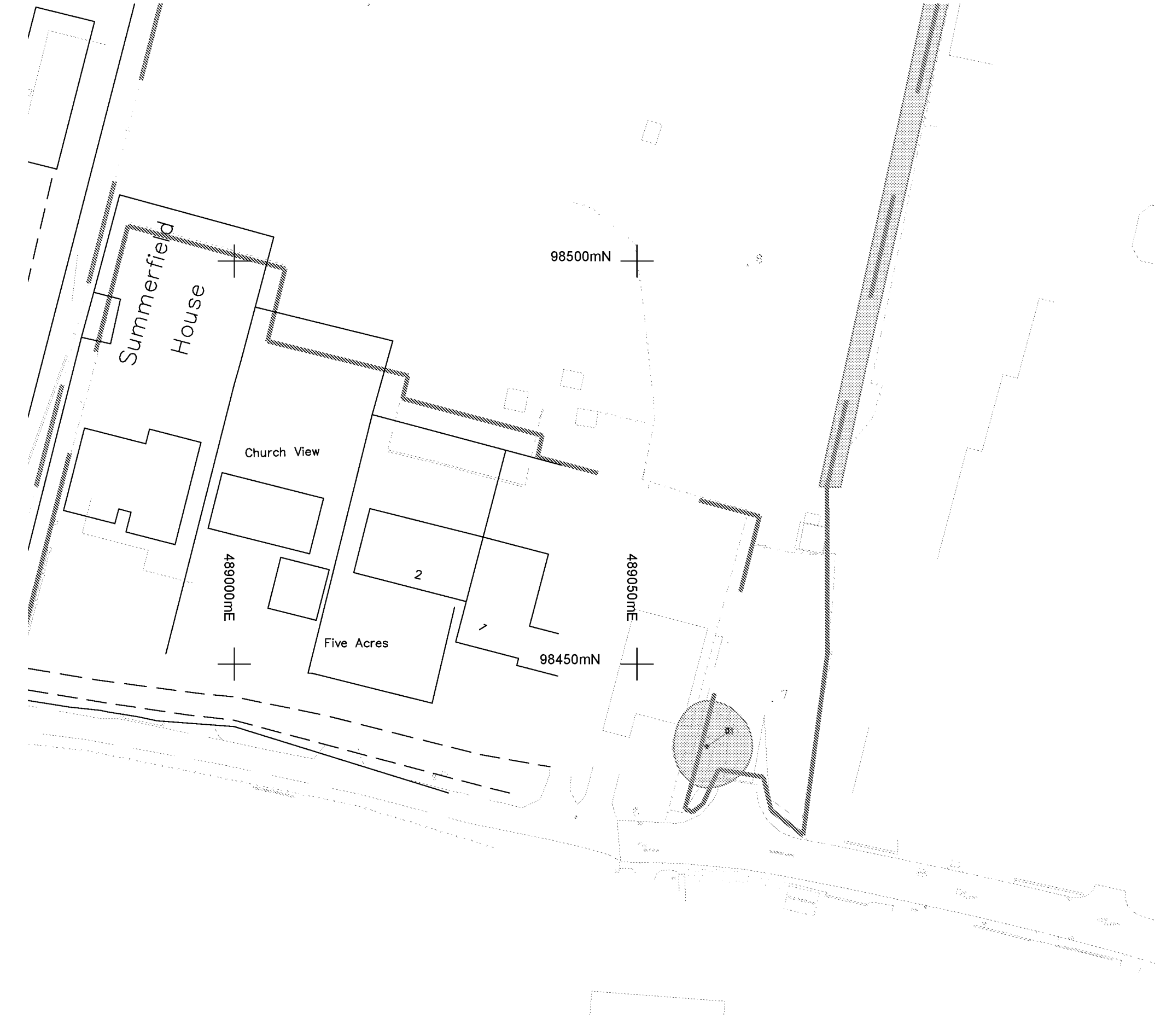
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All estimated dimensions are noted in the data.

BS5837:2012 survey by M Welby RCArborA 03.07.2019										
Surveyed Trees										
Ref	Species	Common Name	Height	Stem Diameter	Canopy NESW	Crown Clearance	Age Class	Observations	Est. Remaining Contribution	BS Cat
01	Fraxinus excelsior	Ash, Common	10m	0.35m	5.5 N 5.5 E 5.5 S 4 W	1m	Early-Mature	No obvious significant defects. Downgraded due to limited life expectancy.	10 Years	C1
02	Quercus robur	Oak, pedunculata	10m	0.41m	6 N 6 E 5.5 S 6 W	0.5m	Early-Mature	Recent ditch excavation and associated works have severed roots broken limbs and damaged bark on trunk. Brambles in crown and epicormic flushing on southern side of stem.	10 Years	C1
04	Quercus robur	Oak, pedunculata	9m	0.3m; 0.2m	6 N 4 E 0.5 S 4 W	2m	Early-Mature	Poor shape and form. Split at base	0 Years	U
05	Quercus robur	Oak, pedunculata	8m	0.4m; 0.5m	2 N 6 E 7 S 8 W	2.5m	Mature	Tree severely impacted by recent ditch excavation. Epicormic growth throughout crown. Extensive root loss north and east.	10 Years	C1
06	Salix caprea	Willow, Goat	5m	0.3m	4 N 4 E 4 S 4 W		Early-Mature	Tree of low quality and value.	10 Years	C1
07	Crataegus monogyna	Hawthorn, Common	4m	0.25m; 0.25m	3 N 3 E 3 S 3 W		Early-Mature	Small with limited wider landscape value.	10 Years	C1
08	Quercus robur	Oak, pedunculata	9m	0.45m	6 N 6 E 6 S 6 W	1.5m	Mature	Fair overall Physiological and Structural condition. No obvious significant defects. Off-site and inaccessible.	20 Years	B1
Surveyed Tree Groups										
Ref	Species	Common Name	Height	Stem Diameter	Canopy NESW	Crown Clearance	Age Class	Observations	Est. Remaining Contribution	BS Cat
02	Crataegus monogyna x10 Prunus spinosa x10	Hawthorn, Common x10 Blackthorn x10						Boundary hedge		C1



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Client	Drew Smith Group		
Project	Summer Lane, Pagham West Sussex		
Drawing Title	Tree Survey		
Scale	Date	DB	CB
1:500@A2	Jul 2019	MW	
Drawing Number	MW.19.0612.TS		Rev
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