

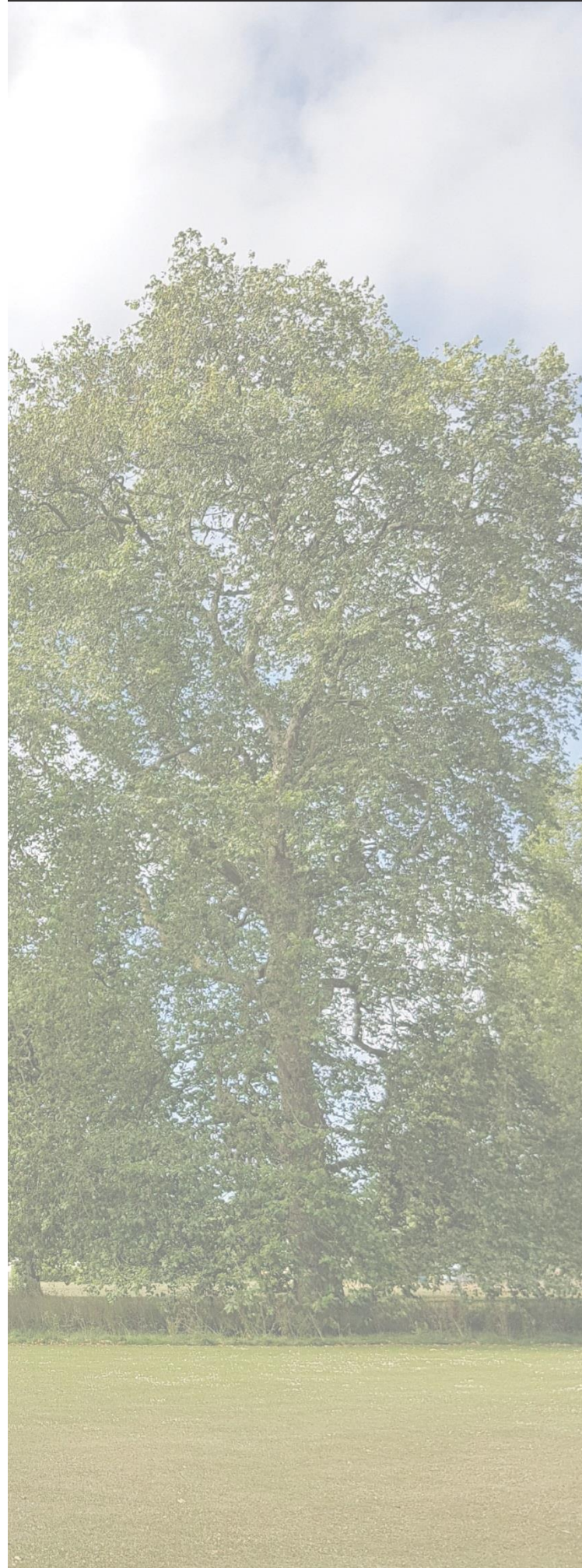


DOWN TO EARTH
— ROOTED 1979 —

East Malling Research Centre Site B

Arboricultural Report to
BS5837:2012

August 2018



Contents

If viewing on a device, click or tap the desired section to snap to it in the report

Executive summary

1. Introduction	1
Instructions	1
Purpose of the Report	1
Validation.....	2
Documents / Plans.....	2
Limitations.....	2
2. Report on site visit and survey	2
Site Description.....	2
The Trees.....	2
BS 5837:2012 – The Iterative Process.....	3
Survey Method / Parameters.....	3
3. Tree Retention or Removal Factors.....	4
4. Tree Protection Measures - Monitoring and Maintenance.....	4
5. Conclusions	5
6. Appendices.....	6
Appendix I.....	I
Cascade Chart for Tree Categorisation	i
Tree Schedule Table	i
Appendix II.....	II
Site B Tree Constraints Plan.....	ii
Site B Tree Constraints Plan (RPAs only).....	ii
Appendix III	III
Tree Protection Sign.....	iii
Statutory Restrictions to Tree Work.....	iii
List of References	iii



Instructing client:	Savills Plc
Site location:	East Malling Research Centre - Site B New Road East Malling ME19 6BJ
Project Reference:	DTE 6199

Surveyor & Dates of Survey:	Name	Position	Date
	Ben Williams Tech.Arbor.A	Arboricultural Consultant	29 Aug 2018
Report author:	Ben Williams Tech.Arbor.A	Arboricultural Consultant	3 Sept 2018
Reviewed:	John Robinson Tech Cert (Arbor A)	Consultancy Director	

Down To Earth Trees Ltd.

The Oast, Preston Farm
Shoreham Rd
Sevenoaks
Kent
TN14 7UD

Tel: 01959 524623
Email: ben@dtetrees.co.uk
Web: www.downtoearthtrees.co.uk

© 2018

All rights in this report are reserved. The content and format are for the exclusive use of Savills, East Malling Research and their direct agents to inform of trees in relation to development is intended to be submitted as part of a formal planning application. It may not be sold, lent, hired out or divulged to any third party not directly involved in this site without the written consent of Down To Earth Trees Ltd.



Executive summary

Down To Earth Trees Ltd was appointed by Savills Plc to visit East Malling Research Centre and carry out a tree survey and produce a report in accordance with the guidelines of British Standard (BS) 5837:2012 'Trees in Relation to Design, Demolition and Construction – Recommendations.'

The site visit and inspections were carried out by surveyor Ben Williams on Wednesday 29th August 2018, in an area of approximately 11.5ha and denoted 'Site B'. Within this area a total of **36 individual trees** and **8 groups of trees** were assessed. Of those;

- **1** trees are in Category 'A' "Trees of High Quality"
- **7** trees are in Category 'B' "Trees of Moderate Quality"
- **33** trees/tree groups are in Category 'C' "Trees of Low Quality"
- **3** trees are in Category 'U' "Trees Unsuitable for Retention"

All collected tree data is included in our Tree Schedule Table included at Appendix I.

1. Introduction

Instructions

- 1.1 Down To Earth Trees are instructed by Savills Plc to visit East Malling Research Centre, New Road, East Malling ME19 6BJ and carry out a tree survey in accordance with BS 5837:2012, to produce a report outlining the constraints posed by trees, and categorise them according to their individual condition, features and amenity benefit. The trees were surveyed in accordance with British Standard (BS) 5837:2012 'Trees In Relation To Design, Demolition and Construction - Recommendations' (Section 4).

Purpose of the Report

- 1.2 The purpose of this report is to record and quantify the trees most likely to be impacted upon by a development proposal and to highlight how potential damage to them may be avoided. It is intended that the client and council review the information provided and use it for the purpose of considering a planning application or engaging in further discussions towards the same end. This information is provided on the basis that it will be available to people other than arboriculturists i.e. those without specialist knowledge of the subject.
- 1.3 All trees were surveyed fully in accordance with BS5837:2012 – 'Trees in Relation to Design, Demolition and Construction – Recommendations' to assess the following:
- The physiological condition of the trees, including threats such as fungal colonisation
 - Any structural defects and their effect on remaining safe contribution
 - The size and form of the trees
 - The rare, unusual or component part of a formal feature
 - Groups or individual trees that provide definite screening or softening effect
 - Trees forming distinct landscape features
- 1.4 This report is concerned with the arboricultural aspects of the site in relation to construction only. Whilst the report is not a tree risk assessment, it will nonetheless highlight significant tree defects where visible and if necessary make prudent management recommendations in line with industry best practice.
- 1.5 Any preliminary tree work recommendations will be specified in accordance with British Standard (BS) 3998:2010 'Tree Work – Recommendations'

Validation

- 1.6 In accordance with the *Department for Communities and Local Government (DCLG) Circular 03/2010* document *Guidance on Information Requirements and Validation*, this report fulfils the recommended national listed criteria for tree survey information.
- A tree survey, undertaken by a qualified arboriculturist, and tree schedule included at Appendix I.
 - A drawing at 1:200 scale with a north point, indicating the tree locations, colour coded categories, root protection areas and approximate shading area, included at Appendix II. A copy of the drawing omitting shade constraints has also been provided for clarity.
 - It does not include an Arboricultural Impact Assessment at this time, due to there being no formal proposal to assess against.

Documents / Plans

- 1.7 Two site plans in PDF format were supplied showing draft boundaries and indicative extents. This document was used to inform the scope of the survey.
- 1.8 The client also supplied a topo survey for use on our handheld GPS devices to collect tree data. This was also used as a base plan for our Tree Constraints Plans included at Appendix II.

Limitations

- 1.9 Trees are dynamic self-optimising organisms that grow in reaction and stimulus to their immediate surroundings and the effects of wider environmental conditions. Consequently, tree health and condition will inevitably change over time therefore any comments made in this report can only be considered valid for two years from the date of the survey visit. This statement does not take into account any sudden unforeseen deterioration in the condition of inspected trees due to factors such as extreme weather conditions, accidents (including chemical or fire), mechanical damage, or instances where recommended works have not been carried out to current professional arboricultural standards or within prescribed timeframes. Down To Earth Trees therefore does not accept any liability under these circumstances.
- 1.10 The nature of living organisms and the variation of seasonal growing conditions mean that the observations and recommendations made within this report are limited to one occasion, during a particular time of year and stage in the life cycle. Therefore, elements such as the presence of annual fruiting bodies of wood decay fungi or foliar disease may not have been considered due to their absence at the time of the survey.

2. Report on site visit and survey

Site Description

- 2.1 Site B is an area situated toward the north-eastern corner of the EMR estate, covering approximately 11 hectares. It is situated east of Bradbourne House. The site consists mostly of commercial scale orchards, divided by windbreaks of Italian alder. A number of agricultural buildings are situated on the southern site boundary, and a public footpath intersects the site diagonally on the western side. The site is flanked by residential properties on the north and east, office units to the west, and further commercial orchards and fields to the south.

The Trees

- 2.2 Within Site B a total of **36 individual trees** and **8 groups of trees** were assessed. Of those;
- **1** trees are in Category 'A' "Trees of High Quality"
 - **7** trees are in Category 'B' "Trees of Moderate Quality"
 - **33** trees/tree groups are in Category 'C' "Trees of Low Quality"
 - **3** trees are in Category 'U' "Trees Unsuitable for Retention"

- 2.3 Eight of the trees surveyed are high to moderate quality 'A' and 'B' specimens offering considerable amenity value, with few significant defects. The majority of the highest quality trees are outside the indicative extents.
- 2.4 The remaining thirty-six trees/tree groups consist of Category 'C' and 'U' young and semi-mature specimens providing relatively limited long term amenity and landscape value, due to their location or condition. Some of the category 'C' trees consist of long linear features of Italian alder (*Alnus cordata*) maintained as a 5 metre high hedge, presumably as a shelterbelt for the orchard trees.
- 2.5 A number of inspected trees (T5 - T15, T18, T20, T21, T27g, T28, T29, T37, T38, T39, T41, T42, T43) were found to be on third party property, but they have been included where they have the potential to be affected by a development proposal on site e.g. where they are close to the boundary. Any preliminary or remedial tree works or removals recommended must first seek to obtain permission from the tree owner before they can proceed.
- 2.6 The Tonbridge and Malling Borough Council website was accessed on 3rd September 2018. The interactive map revealed no Tree Preservation Orders (TPOs) on site, and the site is not within a Conservation area.

BS 5837:2012 – The Iterative Process

- 2.7 The British Standard gives recommendations and guidance on the relationship between trees and the design, demolition and construction processes. It sets out the principles and procedures to be applied to achieve a sustainable relationship between trees and structures. It follows, in sequence, the stages of planning and implementation of the provisions which are essential to allow development to be integrated with existing trees.
- 2.8 The process is a logical progression, with discussions involving all parties, upheld to ensure that those trees which are appropriate for retention will enhance new developments and are suitably incorporated into the final design.
- 2.9 The first stage of the process is Feasibility and Planning. This involves a tree survey which assesses each tree and its overall quality and retention suitability within the context of a proposed development. The consideration of all tree constraints should precede any significant work on the site layout design. This survey and report forms part of the first stage.
- 2.10 The second stage – Detailed/Technical Design, incorporates the arboricultural constraints into the draft layout. Dialogue, in the form of an arboricultural impact assessment and design reviews between the client, arboriculturist and architect are to be on-going in order to achieve a layout that is viable, whilst successfully retaining appropriate trees. Part of this stage is covered in this report.
- 2.11 The third stage involves scale drawings by the project architect showing the finalised layout proposals, tree retention and tree removal and landscape protection measures. This often incorporates an Arboricultural Method Statement (AMS), which is the methodology for the implementation of any aspect of development that has the potential to result in loss of, or damage to, any retained tree.
- 2.12 Stage four involves the design team working with the project arboriculturist to secure discharge of any tree-related planning conditions not resolved by the above. This usually involves an auditable system of arboricultural site monitoring. This includes the approved tree removal and pruning works, including root pruning, the installation of protective fencing and ground protection, and the installation of any specialist engineering solutions.
- 2.13 All advice given in this report is done so on the basis of this guidance.

Survey Method / Parameters

- 2.14 The trees were inspected from ground level with the aid of binoculars where necessary. No climbing inspections were undertaken, nor was any digging or other detailed internal investigation. Any identification of pests, diseases and fungal fruiting bodies was made on a visual basis only.

- 2.15 Tree heights were measured using a laser hypsometer. The stem diameters were measured in millimetres (mm) at 1.5m above ground level from the highest adjacent ground level with a rounded-down diameter tape. The crown spreads were estimated by pacing out or using a laser distometer where practicable.
- 2.16 Where ivy or dense undergrowth inhibited close inspection this was noted, with recommendations made for its removal as necessary to facilitate future inspections. Down to Earth realise the numerous ecological benefits of ivy growth on trees, however we may recommend severing or removal of dense arboreal ivy where unhindered inspection of large or significant trees is paramount.

3. Tree Retention or Removal Factors

- 3.1 Trees are categorised in accordance with the cascade chart in Table 1 of BS 5837:2012, a copy of which is included in Appendix I. The purpose of this categorisation process is to identify the existing tree stock with regard to quality, condition and amenity value to ensure an informed decision can be made regarding their future life expectancy and potential management.
- 3.2 Overall, eight of the trees surveyed are high to moderate quality 'A' and 'B' specimens offering considerable amenity value, with few significant defects. Thirty-three trees/groups are low quality Category 'C' specimens offering limited amenity value, plus three Category 'U' trees/tree groups which are unsuitable for retention regardless of a development proposal.
- 3.3 The Category 'A' trees should be retained as part of any development proposal, as they provide substantial amenity and landscape value to the site which will become particularly more prominent as the site becomes more accessible as a result of a redevelopment. These trees are also expected to provide benefits into the long term. The LPA may not support a development proposal if it involves damage or loss to any number of Category 'A' trees, especially where it is otherwise avoidable.
- 3.4 Category 'B' trees should be viewed in a similar way, as they might have an impaired condition which would otherwise classify them as Category 'A' trees. It may be permissible to remove Category 'B' trees to support a favourable development, but care should be taken to ensure that such removals are kept to a minimum and any loss appropriately mitigated, such as by replacement planting.
- 3.5 The Category 'C' trees should not unduly constrain a development proposal. Notwithstanding this, the client is advised to consider creating set-aside areas for new planting of replacement trees which preserve and enhance the character of the site.
- 3.6 Due to the relatively low proportion of high quality trees on site it is reasonable to conclude there is likely to be some impact to both the local or wider landscape character caused the removal of any such trees to facilitate a development.
- 3.7 This impact can be mitigated by a range of control measures and site supervision where appropriate, as well as enrichment planting to replace lost trees. Ideally, the best quality trees should be identified from the outset and used to inform the proposed design, so that they may complement the proposed development rather than hinder it.

4. Tree Protection Measures - Monitoring and Maintenance

- 4.1 Consideration must be given to site access requirements onto the site and for all necessary construction equipment e.g. scaffolding, building materials and contractor car parking etc. In order to limit the pressures on retained tree RPAs. At no time will any materials or spoil be stored within the RPA of any retained tree.
- 4.2 The tree protection barrier design specified as illustrated below is to be installed on the outer edges of all retained tree RPAs. This denotes the furthest permitted spread of all construction activity and any areas inside the fenced areas will be considered 'off limits' and sacrosanct. Access to these areas will only be by prior written permission by the project arboriculturist.

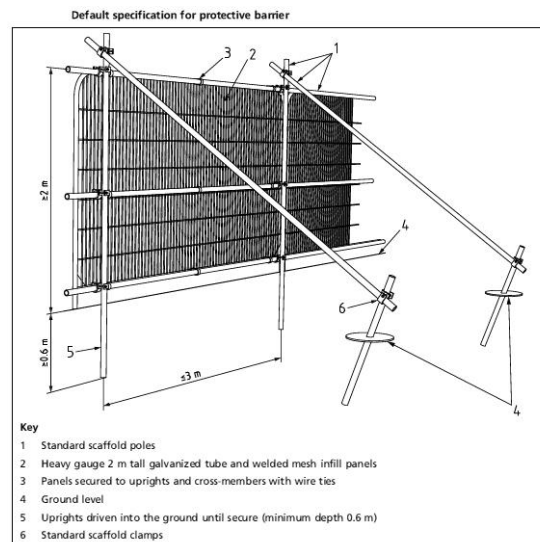


Fig. 1 – Tree protection barrier specification with diagonal supports.

- 4.3 All tree protection measures must be installed and signed off by the project arboriculturist before commencement of works on site to ensure they will provide the intended level of protection as outlined in this document. Measures will only be removed following formal signing-off by the project arboriculturist who is satisfied that all construction works are completed.
- 4.4 Any significant excavations within the RPA may be approved if they are carried out under arboricultural supervision and in accordance with the guidelines provided in Section 7.2 of BS 5837:2012. This section gives advice and guidance should any roots of structural significance be encountered during excavation. In general, roots below 25mm in diameter may be severed where they appear singly, but clumps of roots or roots appearing singly which are larger than 25mm in diameter should not be severed without first seeking arboricultural advice from the project arboriculturist and the permission of the local authority Tree Officer.

5. Conclusions

- 5.1 In summary, there is a risk of a development proposal having an adverse impact both above and below ground to existing high quality trees. Ideally, the best quality trees should be identified from the outset and used to inform the proposed design, so that they may complement the proposed development rather than hinder it.
- 5.2 The site manager is to be made aware of their responsibility to ensure that the protection of retained trees is maintained throughout the project. A copy of the report and Tree Constraints Plan must be available at all times, and the location and reason for tree protection measures must be passed on to any new contractors visiting the site.
- 5.3 It is imperative that the on-going design and planning process be undertaken in consultation with the project arboriculturist and the consulting architect to achieve a harmonious relationship between the trees and the development.

Any queries regarding this report should, in the first instance, be directed to Down To Earth Trees Ltd.

Ben Williams Tech.Arbor.A
Arboricultural Consultant
Down To Earth Trees Ltd

6. Appendices

Appendix I	I
Cascade Chart for Tree Categorisation.....	i
Tree Schedule Table.....	i
Appendix II.....	II
Site B Tree Constraints Plan.....	ii
Site B Tree Constraints Plan (RPAs only).....	ii
Appendix III	III
Tree Protection Sign.....	iii
Statutory Restrictions to Tree Work.....	iii
List of References.....	iii

Arboricultural Report To BS 5837:2012

Appendix I

Tree Survey Key and Cascade Chart from BS 5837:2012
Tree Survey Schedule Table



DOWN TO EARTH
— ROOTED 1979 —



Appendix I - Cascade Chart for Tree Categorisation from BS 5837:2012

TREES UNSUITABLE FOR RETENTION					
Category and Definition		Criteria			Identification on Plan
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		<ul style="list-style-type: none">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 (i.e. where, for whatever reason, the loss of companion shelter cannot be mitigated by pruning)Trees that are dead or are showing signs of significant, immediate and irreversible overall decline.Trees infected with pathogens of significance to the health and/or safety of other trees nearby, or very low quality trees suppressing adjacent trees of better quality. NOTE: Category U trees can have existing or potential conservation value which it might be desirable to preserve			DARK RED
TREES TO BE CONSIDERED FOR RETENTION					
Category and Definition	Subcategories:			Identification on Plan	
	1. Mainly Arboricultural Values	2. Mainly Landscape Values	3. Mainly Cultural Values, including Conservation		
Category A Trees of high quality and value: in such a condition as to be able to make a substantial contribution (a minimum of 40 years is suggested).	Trees that are particularly good examples of their species, especially if rare or unusual, or essential components of groups, or of formal or semi-formal arboricultural features (e.g. the dominant and/or principal trees within an avenue).	Trees, groups or woodlands which provide a definite screening or softening effect to the locality in relation to views into or out of the site, or those of particular visual importance (e.g. avenues or other arboricultural features assessed as groups).	Trees, groups or woodlands of significant conservation, historical, commemorative or other value (e.g. veteran trees or wood-pasture).	LIGHT GREEN	
Category B Trees of moderate quality and value: those in such a condition as to make a significant contribution (a minimum of 20 years is suggested).	Trees that might be included in the higher category, but are downgraded because of impaired condition (e.g. presence of significant but 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 form distinct landscape features, thereby attracting a higher collective rating than they might as individuals, or trees occurring as collectives but situated so as to make little visual contribution to the wider locality.	Trees with material conservation or other cultural benefits.	MID BLUE	
Category C Trees of low quality and value: currently in adequate condition to remain until new planting could be established (a minimum of 10 years is suggested), 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 benefit.	Trees with no material conservation or other cultural benefits.	GREY	
	NOTE: Whilst C category trees will not be retained where they would impose a significant constraint on development, young trees with a stem diameter of less than 150mm should be considered for relocation.				

BS5837:2012 Tree Survey

Down To Earth Trees Ltd

Client: East Malling Research Centre
Project: BS5837 Survey - Site B
Survey Date: 29/08/2018
Surveyor: Ben Williams



The Oast
Preston Farm
Shoreham Rd
Kent
TN14 7UD
Phone: 01959 524623

Tree and Tag No Species		Hght (m)	Stems		Crown		Age	RP A (m²) R (m)	Phys Condition	Structural Condition	Preliminary Recommendations			Cat ERC
			No	Ø (mm)	Spread (m)	Clear (m)					Survey Comment			
T1 352														
Narrowleaf Ash <i>Fraxinus angustifolia</i>		17	1	720	N E S W	8 7.5 8 7	1 4 2 2	M A: 234.5 R: 8.63	Good	C: Good S: Fair B: Good	Remove :: Minor dead wood Minor deadwood over footpath to west. Historic tearout wounds from included unions characteristic of the species.			B.1.2 20 to 40 yrs
T2G NT														
Italian Alder <i>Alnus cordata</i>		5.5	1	200	N E S W	1 1 1 1	0.5 0.5 0.5 0.5	SM A: 18.1 R: 2.4	Fair	C: Good S: Fair B: Good	Remove :: Dead stems Maintained as a shelter hedge approx. 5m high with 1m spacing. Some interspersed dead stems to remove x8			C.1.2 10 to 20 yrs
T3g NT														
Italian Alder <i>Alnus cordata</i>		5.5	1	200	N E S W	1 1 1 1	0.5 0.5 0.5 0.5	SM A: 18.1 R: 2.4	Good	C: Good S: Fair B: Good	No action :: No action Maintained as a shelter hedge approx. 5m high with 1m spacing. No work required at this time			C.1.2 10 to 20 yrs
T4g NT														
Italian Alder <i>Alnus cordata</i>		5.5	1	180	N E S W	1 1 1 1	0.5 0.5 0.5 0.5	SM A: 14.7 R: 2.16	Good	C: Good S: Good B: Good	No action :: No action Maintained as a shelter hedge approx. 5m high with 1m spacing. No work required at this time			C.1.2 10 to 20 yrs
Age Classifications:		N Y SM	Newly planted Young Semi-mature	EM M OM	Early Mature Mature Over Mature	Condition:		C S B	Crown Stem Basal area	Stems:		Ø (Eq)	Diameter Equivalent stem diameter using BS5837:2012 definition	

Tree and Tag No Species		Hght (m)	Stems		Crown		Age	RP A (m²) R (m)	Phys Condition	Structural Condition	Preliminary Recommendations			Cat ERC	
			No	Ø (mm)	Spread (m)	Clear (m)					Survey Comment				
T5 NT												Estimated Measurements			
Scots Pine		9	1	400	N	2	4	M	A: 72.4	Good	C: Fair	Ivy :: Sever/remove from 0-1m			C.1
Pinus sylvestris					E	4.5	2		R: 4.8		S: Ivy	Ivy clad stem hindered visual inspection. Suppressed upper crown			10 to 20 yrs
					S	4	2				B:				
					W	4	4								
T6 NT												Estimated Measurements			
Scots Pine		13	1	400	N	3	6	M	A: 72.4	Good	C: Good	Ivy :: Sever/remove from 0-1m			B.1
Pinus sylvestris					E	4	2		R: 4.8		S: Ivy	Off site tree. Ivy clad stem hindered visual inspection.			20 to 40 yrs
					S	3	6				B:				
					W	3	4								
T7 NT												Estimated Measurements			
Scots Pine		7	1	200	N	1	0.5	SM	A: 18.1	Dead	C: Poor	Fell :: Fell to near ground level			U
Pinus sylvestris					E	1	0.5		R: 2.4		S: Poor	Dead tree. Potentially off site.			<10 yrs
					S	1	0.5				B: Poor				
					W	1	0.5								
T8 NT												Estimated Measurements			
Scots Pine		12	1	250	N	2	6	SM	A: 28.3	Fair	C: Fair	Ivy :: Sever/remove from 0-1m			C.1
Pinus sylvestris					E	2	3		R: 3		S: Ivy	Ivy clad stem hindered visual inspection.			10 to 20 yrs
					S	2	3				B:				
					W	2	6								
T9 NT												Estimated Measurements			
Scots Pine		10	1	300	N	3	5	SM	A: 40.7	Good	C: Good	Ivy :: Sever/remove from 0-1m			C.1
Pinus sylvestris					E	3	2		R: 3.59		S: Ivy	Ivy clad stem hindered visual inspection.			10 to 20 yrs
					S	2	5				B:				
					W	2	5								
T10 NT												Estimated Measurements			
Scots Pine		10	2	430 (Eq)	N	3	5	SM	A: 83.7	Good	C: Good	Ivy :: Sever/remove from 0-1m			C.1
Pinus sylvestris					E	4	3		R: 5.16		S: Ivy	Included basal union appears stable at this time. Ivy clad stem hindered visual inspection.			10 to 20 yrs
					S	2	5				B: Fair				
					W	4	5								
Age Classifications:		N	Newly planted	EM	Early Mature		Condition:		C	Crown	Stems:		Ø	Diameter	
		Y	Young	M	Mature				S	Stem			(Eq)	Equivalent stem diameter using BS5837:2012 definition	
		SM	Semi-mature	OM	Over Mature				B	Basal area					

Tree and Tag No Species		Hght (m)	Stems		Crown		Age	RP A (m²) R (m)	Phys Condition	Structural Condition	Preliminary Recommendations			Cat ERC
			No	Ø (mm)	Spread (m)	Clear (m)					Survey Comment			
T11 NT														
Scots Pine		13	1	320	N	3	10	SM	A: 46.3	Good	C: Good	No action :: No action		C.1
Pinus sylvestris					E	3	3		R: 3.83		S: Fair			10 to 20 yrs
					S	3	5				B: Good	No work required at this time		
					W	3	5							
T12 NT														
Scots Pine		14.5	1	490	N	3	7	M	A: 108.6	Good	C: Good	No action :: No action		B.1.2
Pinus sylvestris					E	4	1		R: 5.87		S: Good			20 to 40 yrs
					S	3	6				B: Good	No work required at this time		
					W	3	2							
T13 NT														
Scots Pine		11	1	360	N	4	1	SM	A: 58.6	Good	C: Fair	Reduce faulted limbs/stems :: up to 2.0m		C.1
Pinus sylvestris					E	6.5	1		R: 4.31		S: Good			10 to 20 yrs
					S	2	7				B: Good	Torsional branch split failure in upper east crown.		
					W	3	3							
T14 NT														
Sycamore		8	3	238 (Eq)	N	3	1	Y	A: 25.6	Good	C: Good	No action :: No action		C.1
Acer pseudoplatanus					E	2	1		R: 2.85		S: Fair			10 to 20 yrs
					S	3	1				B: Fair	Unremarkable. No work required at this time		
					W	2	1							
T15 NT												Estimated Measurements		
Wild Cherry		5	1	300	N	3	3	SM	A: 40.7	Good	C: Fair	No action :: No action		C.1
Prunus avium					E	3	2		R: 3.59		S: Fair			10 to 20 yrs
					S	4	2				B: Fair	Off site tree. No work required at this time		
					W	2	3							
T16g NT														
Italian Alder		5.5	1	200	N	1	0.5	SM	A: 18.1	Good	C: Good	No action :: No action		C.1.2
Alnus cordata					E	1	0.5		R: 2.4		S: Fair			10 to 20 yrs
					S	1	0.5				B: Good	Maintained as a shelter hedge approx. 5m high with 1m spacing. No work required at this time		
					W	1	0.5							
Age Classifications:		N Y SM	Newly planted Young Semi-mature	EM M OM	Early Mature Mature Over Mature	Condition:		C S B	Crown Stem Basal area	Stems:		Ø (Eq)	Diameter Equivalent stem diameter using BS5837:2012 definition	

Tree and Tag No Species		Hght (m)	Stems		Crown		Age	RP A (m²) R (m)	Phys Condition	Structural Condition	Preliminary Recommendations			Cat ERC
			No	Ø (mm)	Spread (m)	Clear (m)					Survey Comment			
T17g NT														
Italian Alder <i>Alnus cordata</i>		5.5	1	200	N	1	0.5	SM	A: 18.1 R: 2.4	Good	C: Good S: Fair B: Good	No action :: No action		C.1.2
					E	1	0.5					Maintained as a shelter hedge approx. 5m high with 1m spacing. No work required at this time		10 to 20 yrs
					S	1	0.5							
					W	1	0.5							
T18 NT												Estimated Measurements		
Cider Gum <i>Eucalyptus gunnii</i>		9	1	500	N	3	3.5	SM	A: 113.1 R: 6	Good	C: Good S: Fair B:	No action :: No action		C.1
					E	4						Off site tree. Previously pollarded. No work required at this time 23m from east post. No work required at this time		10 to 20 yrs
					S	2								
					W	3								
T19g NT														
Italian Alder <i>Alnus cordata</i>		5.5	1	200	N	1	0.5	SM	A: 18.1 R: 2.4	Good	C: Good S: Fair B: Good	No action :: No action		C.1.2
					E	1	0.5					Maintained as a shelter hedge approx. 5m high with 1m spacing. No work required at this time		10 to 20 yrs
					S	1	0.5							
					W	1	0.5							
T20 NT												Estimated Measurements		
Saucer Magnolia <i>Magnolia soulangiana</i>		4	2	141 (Eq)	N	1.5	2	SM	A: 9 R: 1.69	Good	C: Fair S: Fair B: Fair	No action :: No action		C.1
					E	1.5	2					Off site tree. No work required at this time. 19m east fence		10 to 20 yrs
					S	1.5	2							
					W	1.5	2							
T21 NT												Estimated Measurements		
Lawson Cypress <i>Chamaecyparis lawsoniana</i>		6	1	250	N	2	1.5	SM	A: 28.3 R: 3	Good	C: Fair S: Fair B: Fair	No action :: No action		C.1
					E	2	1.5					Off site tree. 31m east		10 to 20 yrs
					S	2	1.5							
					W	2	1.5							
T22 NT														
London Plane <i>Platanus x hispanica</i>		17.5	1	760	N	9	1	M	A: 261.3 R: 9.11	Good	C: Good S: Good B: Good	Raise low canopy :: To 3.0m		A.1.2
					E	8	3					Lift low crown over footpaths		>40 yrs
					S	9	3							
					W	8	2							
Age Classifications:	N	Newly planted	EM	Early Mature				Condition:	C	Crown	Stems:	Ø	Diameter	
	Y	Young	M	Mature					S	Stem		(Eq)	Equivalent stem diameter using BS5837:2012 definition	
	SM	Semi-mature	OM	Over Mature					B	Basal area				

Tree and Tag No Species		Hght (m)	Stems		Crown		Age	RP A (m²) R (m)	Phys Condition	Structural Condition	Preliminary Recommendations			Cat ERC
			No	Ø (mm)	Spread (m)	Clear (m)					Survey Comment			
T23 NT														
Silver Birch		5	1	90	N	3	0.5	Y	A: 3.7	Good	C: Fair	Fell :: Fell to near ground level		C.1
Betula pendula					E	1	0.5		R: 1.08		S: Good			20 to 40 yrs
					S	3	0.5				B: Fair	Lifting damage to adjacent footpath. Remove tree		
					W	3	0.5							
T24 NT														
Silver Birch		8	2	277 (Eq)	N	3	2	SM	A: 34.8	Good	C: Fair	No action :: No action		C.1
Betula pendula					E	3	4		R: 3.32		S: Fair			10 to 20 yrs
					S	3	2				B: Fair	No work required at this time		
					W	3	2							
T25 NT														
Common or Black Elder		5	2	233 (Eq)	N	2	3	M	A: 24.6	Fair	C: Fair	Fell :: Fell to near ground level		U.1
Sambucas nigra					E	1	3		R: 2.79		S: Poor			<10 yrs
					S	2	3				B: Poor	Previously heavily pruned. Unsuitable for long term retention.		
					W	2	3							
T26 NT														
Robinia		7	2	166 (Eq)	N	3	1	Y	A: 12.5	Good	C: Good	No action :: No action		C.1
Robinia pseudoacacia					E	2	1		R: 1.99		S: Fair			10 to 20 yrs
					S	2	1				B: Fair	No work required at this time		
					W	2	3							
T27g NT														
Lawson Cypress		4	1	250	N	1.5	0.5	SM	A: 28.3	Good	C: Fair	No action :: No action		C.1
Chamaecyparis lawsoniana					E	1.5	0.5		R: 3		S: Fair			10 to 20 yrs
					S	1.5	0.5				B: Fair	Off site hedge.		
					W	1.5	0.5							
T28 NT														
Common Beech		14	1	750	N	4	2	M	A: 254.5	Good	C: Good	No action :: No action		B.1
Fagus sylvatica					E	4	2		R: 9		S: Fair			20 to 40 yrs
					S	4	2				B:	Off site tree unable to fully inspect		
					W	4	2							
Estimated Measurements														
Age Classifications:	N	Newly planted	EM	Early Mature	Condition:		C	Crown	Stems:		Ø	Diameter		
	Y	Young	M	Mature			S	Stem			(Eq)	Equivalent stem diameter using BS5837:2012 definition		
	SM	Semi-mature	OM	Over Mature			B	Basal area						

Tree and Tag No Species	Hght (m)	Stems		Crown		Age	RP A (m²) R (m)	Phys Condition	Structural Condition	Preliminary Recommendations			Cat ERC
		No	Ø (mm)	Spread (m)	Clear (m)					Survey Comment			
T29 NT											Estimated Measurements		
Common Beech <i>Fagus sylvatica</i>	15	1	600	N E S W	3 2 4 4	6	SM A: 162.9 R: 7.2	Good	C: Fair S: Ivy B:	No action :: No action Off site tree unable to fully inspect		C.1 10 to 20 yrs	
T30 NT													
Robinia <i>Robinia pseudoacacia</i>	13	1	270	N E S W	2 4 2 1	5	SM A: 33 R: 3.24	Good	C: Good S: Good B: Good	No action :: No action No work required at this time		B.1.2 20 to 40 yrs	
T31 NT													
Robinia <i>Robinia pseudoacacia</i>	14	1	230	N E S W	1 4 3 1	11	SM A: 23.9 R: 2.75	Good	C: Good S: Fair B:	No action :: No action Historic wound on mid stem north side.		C.1 10 to 20 yrs	
T32g NT													
Robinia <i>Robinia pseudoacacia</i>	14	1	180	N E S W	2 2 2 2	4	SM A: 14.7 R: 2.16	Good	C: Fair S: Fair B: Fair	No action :: No action Group of 10 stems growing as a group. Average stem diameter. No work required at this time		C.1 10 to 20 yrs	
T33 NT													
Common or Black Elder <i>Sambucas nigra</i>	4	3	163 (Eq)	N E S W	1 0.1 2 3	2	SM A: 12 R: 1.95	Good	C: Fair S: Fair B: Fair	No action :: No action No work required at this time		C.1 10 to 20 yrs	
T34 NT													
Common or Black Elder <i>Sambucas nigra</i>	4	3	163 (Eq)	N E S W	1 0.1 2 3	2	SM A: 12 R: 1.95	Good	C: Fair S: Fair B: Fair	No action :: No action No work required at this time		C.1 10 to 20 yrs	
Age Classifications:	N Y SM	Newly planted Young Semi-mature	EM M OM	Early Mature Mature Over Mature			Condition:	C S B	Crown Stem Basal area	Stems:	Ø (Eq)	Diameter Equivalent stem diameter using BS5837:2012 definition	

Tree and Tag No Species	Hght (m)	Stems		Crown		Age	RP A (m²) R (m)	Phys Condition	Structural Condition	Preliminary Recommendations			Cat ERC
		No	Ø (mm)	Spread (m)	Clear (m)					Survey Comment			
T35 NT													
Common Yew <i>Taxus baccata</i>	4	2	215 (Eq)	N	1	3	SM	A: 20.9 R: 2.57	Fair	C: Fair S: Fair B: Fair	No action :: No action ----- No work required at this time	C.1 10 to 20 yrs	
T36 NT													
Common or Black Elder <i>Sambucas nigra</i>	4	1	140	N	0.1	2	SM	A: 8.9 R: 1.68	Fair	C: Fair S: Fair B: Fair	No action :: No action ----- No work required at this time	C.1 10 to 20 yrs	
T37 NT												Estimated Measurements	
Silver Birch <i>Betula pendula</i>	18	1	600	N	6	3	M	A: 162.9 R: 7.2	Good	C: Good S: Good B: Good	No action :: No action ----- Off site tree. 5m wall	B.1 20 to 40 yrs	
T38 NT												Estimated Measurements	
Field Maple <i>Acer campestre</i>	6	1	150	N	3	2	SM	A: 10.2 R: 1.8	Good	C: Good S: Good B: Good	No action :: No action ----- Off site tree. 1m wall	C.1 20 to 40 yrs	
T39 NT												Estimated Measurements	
Corkscrew Willow <i>Salix matsudana 'Tortuosa'</i>	9	2	297 (Eq)	N	3	3	M	A: 40 R: 3.56	Decline	C: Poor S: Poor B:	Fell :: Fell to near ground level ----- Off site tree. Extensive dieback. Unsuitable for long term retention.	U <10 yrs	
T40 NT													
Wild Cherry <i>Prunus avium</i>	4	1	120	N	3	1	Y	A: 6.5 R: 1.43	Good	C: Good S: Fair B: Fair	No action :: No action ----- No work required at this time	C.1 20 to 40 yrs	
Age Classifications:	N Y SM	Newly planted Young Semi-mature	EM M OM	Early Mature Mature Over Mature			Condition:	C S B	Crown Stem Basal area	Stems:	Ø (Eq)	Diameter Equivalent stem diameter using BS5837:2012 definition	

Tree and Tag No Species		Hght (m)	Stems		Crown		Age	RP A (m²) R (m)	Phys Condition	Structural Condition	Preliminary Recommendations			Cat ERC
			No	Ø (mm)	Spread (m)	Clear (m)					Survey Comment			
T41	NT											Estimated Measurements		
Lawson Cypress 'Allumii'	8	1	350	N	3	2	M	A: 55.4	Good	C: Good	No action :: No action			C.1
				E	3	2		R: 4.19		S: Good	-----			10 to 20
				S	3	2				B:	Off site tree.			yrs
				W	3	2								
T42	NT											Estimated Measurements		
Lawson Cypress	9	1	700	N	3.5	1.5	M	A: 221.7	Good	C: Good	No action :: No action			C.1
				E	3.5	1.5		R: 8.4		S: Fair	-----			20 to 40
				S	3.5	1.5				B:	Off site tree.			yrs
				W	3.5	1.5								
T43	NT											Estimated Measurements		
Norway Maple	10	1	500	N	5	2.5	M	A: 113.1	Good	C: Good	No action :: No action			B.1
				E	5	2.5		R: 6		S: Good	-----			20 to 40
				S	5	2.5				B:	Off site tree			yrs
				W	5	2.5								
T44	NT											Estimated Measurements		
Common or Black Elder	5	10	538 (Eq)	N	4	1	M	A: 130.8	Good	C: Good	No action :: No action			C.1
				E	4	1		R: 6.45		S: Good	-----			20 to 40
				S	4	1				B: Good	Growing adjacent to wall. No work required at this time			yrs
				W	2	3								

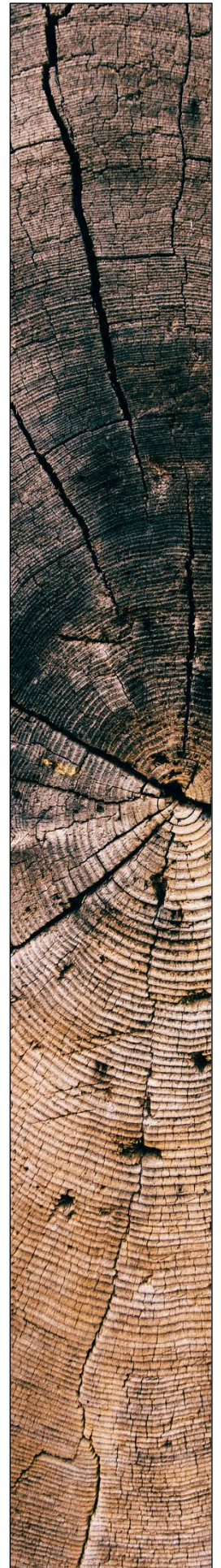
Arboricultural Report To BS 5837:2012

Appendix II

Tree Constraints Plan
Tree Constraints Plan (RPA only)



DOWN TO EARTH
— ROOTED 1979 —





DOWN TO EARTH

The Oast, Preston Farm, Shoreham, TN14 7UD
Tel: 01959 524623 Email: enquiries@dtetrees.co.uk

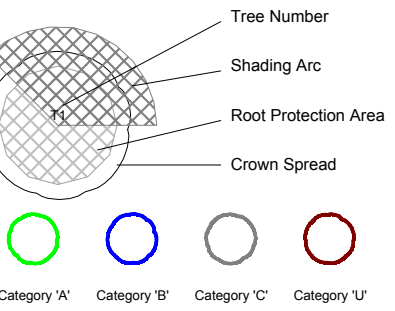
East Malling Research - Site B
New Road, East Malling ME19 6BJ

SCALE:
1: 800 @ A1

DATE:
03/09/2018

Drawing Title: Tree Constraints Plan
Drawn by: BW

Map data shown contains Ordnance Survey products
supplied by their Technology Services Ltd
© Crown Copyright and database rights from date above



0 50m

