# PLANNING LAND

### **CUNNANE STRATTON REYNOLDS**

TREE SURVEY

Passage West, Co Cork.

June 2023 (Updated August 2024)

CUNNANE STRATTON REYNOLDS LAND PLANNING & DESIGN

www.csrlandplan.ie

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### SUMMARY

This report presents an inspection record of existing trees located adjacent to an existing public coastal footpath proposed upgrade to include new cycle track and parking arrangements, in Passage West, Co Cork. The existing path is currently lined along its southern side by intermittent vegetation and trees growth and occasionally with trees along its northern side.

A number of selected trees have been surveyed as individuals in accordance with BS 5837 (2012). The site tree survey was undertaken on 15th May 2023 by Cunnane Stratton Reynolds arborist;

Keith Mitchell Diploma Arboriculture (Level 4)

Technician Member Arboricultural Association (UK)

Tree Risk Assessment Qualification (International Society of Arboriculture)

MA(Hons) Landscape Architecture Member of the Irish Landscape Institute

Chartered Member of the Landscape Institute (UK)

Diploma EIA Management

(This report has been updated in August 2024 to allow for design modifications that have evolved in the proposed path alignment and construction methods, which aim to minimize impact on existing trees and the need for tree removals).

This survey and report are based on the topographic site survey information supplied.

A full survey record is presented in Appendix 1, together with accompanying drawings Tree Constraints Dwg No 23928\_T\_101, Arboricultural Impact Assessment Dwg No 23928\_T\_102 REV A and Tree Protection Plan Dwg No 23928\_T\_103 REV A. After introducing the terms of reference and the methodology of the survey, the report summarises the survey findings in an overview of the existing tree cover within the site.

A total of thirty-four individual trees and two tree groups were recorded as part of the survey – it is proposed to remove seventeen trees.

Every effort has been made to access all trees for inspection, however where site conditions prevent full physical access, some measurements may be visually estimated. Where trees are heavily obscured by existing ivy growth a best assessment is made however this must considered preliminary until full visual access is available.

The site contains trees of variable maturity and quality. The proposed cycle track will necessitate the removal of a number of trees. It is recommended that suitable replacement tree planting, (favouring native tree species), be implemented as part of the scheme to help mitigate against proposed tree removals.

The report concludes with recommendations for protection measures to ensure the conservation of retention trees during the proposed development.

### 1. INTRODUCTION

### Terms of Reference

Cunnane Stratton Reynolds (CSR) were instructed to undertake a tree survey, to inform the proposed development plans.

CSR undertook a site survey and considered those trees potentially impacted by the proposed development and produced a subsequent tree survey report presenting our findings, (in accordance with BS 5837:2012), together with recommendations for their best practice management in relation to the proposed development.

This involved a survey of the principal trees / tree groups concerned in accordance with BS 5837 (2012).

Documents supplied to CSR for purposes of conducting a tree survey include:

- Topographic Survey Dwg No MGS47888\_T\_ITM\_Rev 1
- Proposed Layout Dwg 2576-RHA-XX-DR-C-GA000 (Aug 24)

### Site Inspection & Methodology

The site was surveyed on 17th May 2023 by a qualified Arborist. A visual inspection from the ground was performed on all relevant existing trees / tree groups on site. Where access allowed principal individual trees were examined, with critical measurements taken and observations made.

A description was recorded of each tree, their species, age class, all relevant measured dimensions (height, stem diameter, crown spread radii and crown clearance height) and an assessment of the tree health / vitality, structural form, life expectancy and quality categorisation. Any recommended remedial works required were outlined. Hedgerows and significant tree groups within/bounding the site are subject to group description and assessment, in accordance with BS 5837 (2012).

The findings of the survey are recorded and presented in this Tree Survey Report and Tree Schedule (Appendix 1). A Tree Classification and Constraints drawing was produced to inform the design process. An Arboricultural Impact Assessment and Tree Protection Proposals were considered in relation to the proposed scheme.

This report is subject to the scope and limitations as given at the end of the report.

### **Accompanying Drawings**

The tree survey report should be read in conjunction with;

- Tree Classification & Constraints (Dwg No 23928/T/101).
- Arboricultural Impact Assessment (Dwg No 23928/T/102 REV A).
- Tree Protection (Dwg No 23928/T/103 REV A).

A1 size colour coded drawings accompany this report, (monochrome drawings should not be relied upon). These drawings are based upon the topographical drawings supplied to CSR.

### 2. DESCRIPTION OF EXISTING TREES

### Site Location

The site is located at Passage West, Co Cork, along the coastline to the north northeast of the village.

2.1 The section of coastal pathway surveyed is approximately identified by red line in Figure 1 below.



Figure 1: Low resolution satellite image of approximate tree survey area in red (courtesy of Google Earth).

A total of thirty-four individual trees were recorded as part of the survey.

Their location, size and quality category may be reviewed with reference to the accompanying Tree Survey Dwg No 23928/T/101 and the tree survey (Appendix 1).

# 2.2 Photographic Summary of Trees Surveyed



T569 / T570 / T571 / T572 (seen to left of path)











T595 – T600





Typical view of woodland vegetation that exist as intermittent groups along the route.





Typical view of woodland vegetation that exist as intermittent groups along the route.

2.3 Significant trees that are in closest proximity to the proposed works have been surveyed individually, as listed above. In addition to these trees, the existing coastal pathway is lined on its southern side by intermittent sections of linear woodland vegetation which varies in depth but contain a large number of trees.

The woodland is composed of a mix of young to mature deciduous tree species, primarily Sycamore, Norway Maple, Ash, Turkey Oak, Pendunculate Oak, Hawthorn and Elder among others. The woodland is generally in good condition, with the exception of the Ash trees which are succumbing to Ash Dieback disease. The quality of individual trees within the woodland varies from low to high, however collectively as a group they constitute a high quality asset.

Trees generally become more valuable as collective groups, than they might be when considered solely as individuals in isolation - a grouping or woodland being generally of significant visual and ecological value. As such it should be noted that the cumulative value of evaluated Tree Groups often reflects an increased catergorised value than might be awarded to the constituent trees if they were assessed in isolation as individuals.

### 3. ARBORICULTURAL IMPACT ASSESSMENT

- 3.1 This section discusses the potential impact of the proposed development on the existing tree cover on site and considers the need for mitigation measures, in accordance with BS 5837 (2012), for sustainable development.
- 3.2 Category 'U' trees are recommended for immediate removal, (fell or monolith to safe height), on general management grounds, irrespective of site development one such tree (T582) was identified as such during this survey.

### **Direct Loss of Trees**

3.3 The currently proposed scheme is in conflict with the following trees and or a significant portion of their calculated root protection area, making their retention unviable in the context of the proposed development and therefore requiring their removal to facilitate the proposed development.

Tag No	Tree Species	Tree Class	Number of trees		
T575	Quercus robur (Pendunculate Oak)	C1	1		
T576	Acer psuedoplatanus (Sycamore)	B2	1		
T577	Acer platanoides (Norway Maple)	B2	1		
T579	Acer saccharum (Sugar Maple)	C1	1		
T580	Acer psuedoplatanus (Sycamore)	B2	1		
T582	Acer psuedoplatanus (Sycamore)	U	1		
T583	Acer psuedoplatanus (Sycamore)	B1	1		
T584	Acer psuedoplatanus (Sycamore)	C1	1		
T594	Carpinus betulus (Hornbeam)	B1	1		
T595	Carpinus betulus (Hornbeam)	B1	1		
T596	Carpinus betulus (Hornbeam)	B1	1		
T597	Carpinus betulus (Hornbeam)	B1	1		
T598	Carpinus betulus (Hornbeam)	B1	1		
T599	Carpinus betulus (Hornbeam)	B1	1		
T600	Carpinus betulus (Hornbeam)	B1	1		
TG2	Tree at Abbots Bridge Chainage 260	B1	1		
None	Tree at Chainage 635 (proposed to remove one of two boles)	C1	1		

### **Indirect Impacts**

3.4 Cognisance must also be given to indirect impacts - in particular care must be taken to ensure the proposed development and ancillary works do not represent an unacceptable conflict with the calculated 'Root Protection Area' of the existing trees proposed for retention.

Disturbance of 'Root Protection Area' may just as readily kill or destabilise a tree over time, by means of root damage/severance and or earth compaction/covering preventing essential transfer of water, air and nutrients to roots.

The proximity of the relatively dense woodland to the existing pathway, suggests it is likely that root growth will have extended into the area proposed for the additional cycle track to varying degrees. In order to avoid rootzone disturbance / root loss to these trees it is proposed to use a non dig construction method (cellweb) in conjunction with a permeable surface finish for the entire length of the route in close

proximity to woodland areas. (Refer to Tree Protection Drawing 23928\_T\_103 REV A).

Good planning and site management during construction works will be key to ensuring damage limitation to these adjoining woodland areas. The use of tree protection fencing to limit construction access to retaqined trees and their root protection areas of trees being retained, as illustrated in tree protection drawing Dwg 23928\_T\_103 REV 3, will be critical to avoiding further unnecessary detrimental impacts and the long-term viability of the retained trees.

It is advised that the site manager must carefully review the tree protection drawing Dwg 23928\_T\_103 REV A, prior to commencement of works on site. Proposed tree protection measures should be in place from the outset prior to the commencement of works. Any queries should be raised with the project Arborist prior to commencement of works on site.

Provided proper tree protection measures are adhered to is not anticipated that any further additional tree removals will be necessary. It is recommended that the trees are reinspected 12-18 months after the works to assess any potential decline in health / if any further removals are deemed necessary.

### **Additional Considerations**

- 3.5 Two additional tree removals are proposed.
  - Tree at Abbots Bridge Chainage 260 to prevent structural damage to existing bridge.
  - Tree at Chainage 635 removal of single subservient bole growing under canopy of adjoining dominant bole which is to be retained.

Scrub and tree removal should take place outside the bird nesting season (1st March – 31st August).

'Ash dieback' is a disease caused by the *Hymenoscyphus fraxineus* fungi which is developing rapidly across Ireland since its presence was first detected in Ireland in 2012. The disease is spread by windborne spores and once a tree is infected it will lead to its terminal decline within a few years.

At present there is no available remedy and the outlook for the survival of Ash trees in Ireland is poor, with infection rates appearing to accelerate over the past couple of years. It is hoped that genetic diversity may mean some trees might prove resistant to the disease, however there is still great uncertainty at this time regarding survival rates. The Woodland Trust estimate that at least 80% of Ash trees in the UK will die.

The retention or removal of Ash trees must therefore be viewed in the context of Ash Dieback disease, and the likelihood that at least 80% of Ash trees are likely to die over the coming years.

### New tree planting.

The proposed development offers an opportunity for new tree infill planting which will assist in mitigating against proposed losses. It is suggested that a mix of native species be planted to mitigate against loss of existing trees and their associated ecological value.

### **Summary**

3.6 Table 1 illustrates trees to be removed and their classification.

Table 1.

1 4510 11								
Tree Class	Trees proposed for removal							
A Class Trees	0							
B Class Trees	12							
C Class Trees	4							
U Class Trees	1							
TOTAL	17							

A Class - Trees of high quality with an estimated remaining life expectancy of at least 40 years.

**B Class -** Trees of moderate quality with an estimated remaining life expectancy of at least 20 years. (B2 - Trees present in numbers, usually growing as groups or woodlands, such that they attract a higher collective rating than they would as individuals – i.e. might be considered C Class as individuals).

**C Class -** Trees of low quality with an estimated remaining life expectancy of at least 10 years, or young trees with a stem diameter below 150 mm.

**U Class -** 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.

### **Tree Protection**

- 3.7 Adequate protection and so successful retention of those trees to be retained within the land take area, will be achieved by rigidly excluding all construction activities from tree root protection areas by fit for purpose barriers/fencing and/or additional ground protection.
- 3.8 Tree Protection Areas (TPAs) are proposed, as indicated on accompanying Tree Protection Plan (Dwg No 23928\_T\_103 REV A). Proposed specialized construction techniques as well as tree protection fence line locations and details for these fences are also illustrated on the plan.

### **Services**

3.9 Any services that are planned as part of this project must also avoid designated 'Root Protection Area' of tree / tree groups for retention. Open cut trenching within root protection areas is not compatible with tree retention.

### 4. RECOMMENDATIONS – Arboricultural Method Statement

Recommendations for the specific measures advised regarding management of the trees in relation to this development are detailed within Appendix 1. These recommendations should inform, and be referred to in, the method statements submitted for approval prior to commencement by the responsible building/engineering and landscape contractors whose works (subject to grant of permission) will affect retained trees and the Tree Protection Areas.

### 1. Tree Works.

Subject to the required permissions removal / felling works as specified on Dwg No 23928\_T\_102 REV A, should be performed prior to project commencement, by reputable contractors in accordance with BS 3998:2010 and current best practice. (Removal of scrub vegetation and ivy clearance should be performed outside of the bird nesting season (1<sup>st</sup> March – 31<sup>st</sup> Aug). Tree felling should be preceded by a competent assessment as to the presence of any protected wildlife species, where required specialist advice should be sought if necessary).

### 2. Protective Fencing.

Protective fencing (barriers) should be erected in the positions and alignments as indicated on the Tree Protection Plan (Dwg No 23928\_T\_103 REV A).

Fencing should be in accordance with BS 5837:2012 unless otherwise agreed with the planning authority. Commencement of development should not be permitted without adequate protective fencing being in place. This fencing, enclosing the minimum tree protection areas indicated, must be installed prior to any plant, vehicle or machinery access on site. Fencing should be signed 'Tree Protection Area – No Construction Access'. Fencing is not to be taken down or re-positioned without written approval of the project Arborist. No excavation, plant or vehicle movement, materials handling or soil storage is to be permitted within the fenced tree protection areas indicated on plan.

### 3. Geocell non dig construction

Where the proposed cycle path is required to traverse calculated RPA's of T538 a non-dig construction method, (e.g. Cellweb geocell), using a permeable tarmac finish is proposed. (Typical detail illustrated on accompanying Tree Protection Plan Dwg No 23928 T 103 REV A).

### 4. Monitoring & Compliance

A professionally qualified Arborist or Landscape Architect is recommended to be consulted as required by the principal contractor or developer to monitor compliance and any issues arising during construction period. It is advised that tree protection fencing, any required special engineering and supervision works etc. must be included / itemised in the main contractor tender document, including responsibility for the installation, costs and maintenance of tree protection measures throughout all construction phases.

Copies of the Tree Survey and all accompanying drawings, a copy of BS 5837:2012 and NJUG 4 (2007) *Guidelines for the planning, installation and maintenance of utility apparatus in proximity to trees*' should all be kept available on site by the contractor during development. All works are to be in accordance with these documents.

### **Limitations and Scope of this Survey Report**

This report covers only those trees individually inspected, (shown on the 'Tree Survey Drawings' and described in the 'Schedule'), reflecting the condition of those trees at the time of inspection. Inspection is limited to visual examination of the subject trees from the ground without; test boring, use of tomographic equipment, dissection, probing, coring, ivy removal or excavation to establish structural integrity. The trees were not climbed, and dimensions are approximate, but considered a reasonable reflection of the trees measurements. This survey can only therefore be regarded as a preliminary assessment.

There is no warranty or guarantee, expressed or implied, that problems or deficiencies of the subject trees may not arise in the future. The currency of this survey report and its recommendations is one year.

The accompanying drawings are illustrative and based on the land (topographical) survey information supplied; CSR Ltd accept no legal liability or responsibility for any errors in the information contained in the supplied drawings.

CSR Ltd accept no responsibility for the performance of trees subject to pruning or other site works (including construction activities) not performed in strict accordance with recommendations as specified in this report and/or in accordance with BS 3998:2010 and BS 5837:2012

All retained trees mentioned in this report should be subject to expert re-inspection within prior to completion of development works and public occupancy of the site.

This report was produced as a part of a planning application for the scheme; the author accepts no responsibility or liability for actions taken by reason of this report by the client or their agents unless subsequent contractual arrangements are agreed. Public disclosure or submission of any part of this report without title, or permission from the author, renders this report invalid and legally inadmissible.

### References/Bibliography

BS 5837 (2012). Trees in Relation to Design, Demolition and Construction - Recommendations. British Standards Institution. TSO, London.

BS 3998 (2010) *Tree Work - Recommendations*. British Standards Institution. TSO, London.

NJUG 4 (2007) Guidelines for the Planning, Installation and Maintenance of Utility Apparatus in Proximity to Trees (Issue 2). National Joint Utilities Group.

### TREE SURVEY KEY

Information in the attached schedule is given under the following headings:

### Tree No.

Individual trees have been numbered and tagged on site with corresponding survey tag or treated as a group where appropriate (e.g. Woodlands/hedgerows) and illustrated on accompanying tree survey drawing.

### **Species**

Latin botanical names of species are provided

### Height

Overall estimated height given in meters (measured using Trupulse 200 Laser Rangefinder).

### Stem Diameter

The diameter of the main trunk taken at a height of 1.5m on a single stem tree, or, on each branch of multi-stemmed (MS) trees.

### Crown Spread

The largest radius of branch spread is provided in meters for North / East / South and West directions.

### Height of lowest branch

The distance between ground level and first significant branch or canopy (and direction of growth) given in meters (m).

Any measurement or dimension that has been estimated (for offsite or otherwise inaccessible trees where accurate data cannot be recovered) is identified by the suffix #.

### Life stage

The tree's age is defined as:

Y = Young, in first third of life (tree which has been planted in the last 10 years or is less than 1/3 the expected height of the species in question).

MA = Middle Age, in second third of life (tree, which is between a 1/3 and 2/3's the expected height of the species in question).

M = Mature, in final third of life (tree that has reached the expected height of the species in question, but still increasing in size).

OM = Over mature (tree at the end of its life cycle and the crown is starting to break up and decrease in size).

V = Veteran Tree (exceptionally old tree).

### Physiological Condition

The tree's physiological condition is defined as:

Good -Good vitality: normal bud growth, leaf size, crown density and wound closure

**Fair** - Average to below average vitality: reduced bud growth, smaller leaf size, lower crown density and reduced wound closure

**Poor** - Low vitality: limited bud growth, small chlorotic leaves, sparse crown, poor wound closure

Dead - No longer living.

### Structural Condition

The trees structural condition is defined as:

**Good** - No major structural defects observed (possibly some minor defects)

**Fair** - Minor defects present, (such as bark wounds, isolated decay pockets or structure affected due to overcrowding), that could be alleviated by tree surgery/management

**Poor** - Major structural defects present such as extensive deadwood, decay or defective to the point of being dangerous. (Significant defects are noted e.g. decay, collapsing etc).

### Preliminary Management Recommendations & Timescale

Recommendations actions based on limitations of survey – (may include further investigation and or assessment of suspected defects by means and or methods not undertaken / within the remit of this survey).

### Estimated Remaining contribution (Years)

Life of the tree is given as;

- 10 < less than 10 years remaining
- 10 + in excess of 10 years remaining
- 20 + in excess of 20 years remaining
- 40 + in excess of 40 years remaining

### Tree Quality Assessment Category

# U Those in such a condition that they cannot realistically be retained as living trees in the context of the current land use for longer than 10 years.

- Trees that have a serious, irremediable, structural defect, such that their early loss is expected due to collapse, including those that will become unviable after removal of other category U trees (e.g. where, for whatever reason, the loss of companion shelter cannot be mitigated by pruning)
- Trees that are dead or are showing signs of significant, immediate, and irreversible overall decline

• Trees infected with pathogens of significance to the health and/or safety of other trees nearby, or very low quality trees suppressing adjacent trees of better quality

(NOTE: Category U trees can have existing or potential conservation value which it might be desirable to preserve).

### A High quality

Trees of high quality with an estimated remaining life expectancy of at least 40 years

- A1 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)
- A2 Trees, groups or woodlands of particular visual importance as arboricultural and/or landscape features
- A3 Trees, groups or woodlands of significant conservation, historical, commemorative or other value (e.g. veteran trees or wood-pasture)

### B Moderate quality

Those trees of moderate quality with an estimated remaining life expectancy of at least 20 years.

- B1 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.
- B2 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.
- B3 Trees with material conservation or other cultural value

### C Low quality

Trees of low quality with an estimated remaining life expectancy of at least 10 years, or young trees with a stem diameter below 150 mm.

- C1 Unremarkable trees of very limited merit or such impaired condition that they do not qualify in higher categories.
- C2 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.
- C3 Trees with no material conservation or other cultural value.

# APPENDIX 1

Tag	Species	Height (m)	Crown Spread (m) N/S/E/W	Diameter (mm)@ 1.5m	RPA circle radius (m)	Height lowest branch (m) & direction of growth	Life Stage	Estimated remaining contribution (years)	Physiological Condition	Structural Condition	Preliminary management recommendations	Category of retention + sub- category	Notes
567	Quercus petraea	10	7/6/6/7	720/440	10.12	0m e/w	MA	40+	Good	Fair	Remove Ivy	A1	conjoined boles
568	Malus sp.	4	3/3/3/2	200x4	4.80	0m all	MA	20+	Good	Fair		B1	
569	Quercus cerris	8	3/2/4/5	340	4.08	2m all	MA	40+	Good	Fair	Remove Ivy	B1	roots lifting tarmac
570	Quercus cerris	10	3/2/4/2	420	5.04	0m e	MA	40+	Good	Fair	Remove Ivy	B1	roots lifting tarmac
571	Quercus cerris	7	3/0/3/3	280	3.36	0m e	Υ	40+	Good	Fair	Remove Ivy	B1	
572	Quercus cerris	11	4/2/3/3	360/230/480	7.70	0m all	MA	40+	Good	Fair	Remove Ivy	B1	roots lifting tarmac
573	Quercus robur	5	2/2/2/2	160/110	2.33	0m all	Υ	20+	Fair	Fair		C1	roots excavated / stress
574	Quercus robur	3	1/1/1/1	110	1.32	0m	Υ	20+	Fair	Fair		C1	epicormic stress growth
575	Quercus robur	4	3/2/2/1	125/80	1.78	0m n/s	Υ	20+	Fair	Fair		C1	epicormic stress growth
576	Acer pseudoplatanus	8	2/2/2/2	210/200	3.48	0m n/s	Υ	40+	Good	Fair		B2	
577	Acer platanoides	5	2/2/1/1	200	2.40	1m s	Υ	40+	Good	Fair		B2	
578	Acer platanoides	6	2/2/1/2	170	2.04	0m n/s	Υ	40+	Good	Fair		B2	
579	Acer saccharum	8	3/3/2/2	250x2	4.23	0m n/s	MA	10<	Poor	Fair	Remove Ivy	C1	ivy obscured
580	Acer pseudoplatanus	11	5/5/4/4	360/440/460	8.77	1m all	MA	20+	Good	Fair	Remove Ivy	B1	root damage / girdled
581	Acer saccharum	10	3/3/4/3	360	4.32	0m w	MA	40+	Good	Fair	Remove Ivy	B1	
582	Acer pseudoplatanus	12	3/3/4/3	380	4.56	2m e/w	MA	10+	Fair	Fair	Fell	U	decay cavity at 2m/0m
583	Acer pseudoplatanus	11	3/3/3/3	360	4.32	2m all	MA	40+	Good	Fair		B1	
584	Acer pseudoplatanus	11	4/4/3/2	320/240	4.80	1m w	MA	10+	Good	Fair	Fell	C1	decay cavity at 2m se
585	Acer pseudoplatanus	13	5/5/2/5	540/500	8.83	1m e/w	MA	20+	Good	Fair		B1	compression fork at 1m
586	Acer pseudoplatanus	11	4/4/4/4	600	7.20	2m all	MA	10+	Fair	Poor	Fell	C1	decay cavity 1m ne
587	Acer pseudoplatanus	10	3/3/3/3	459	5.51	2m all	MA	10+	Fair	Poor	Fell	C1	decay cavity 1m n
588	Carpinus betulus	8	2/2/2/2	390	4.68	1m all	MA	20+	Good	Fair		B1	
589	Carpinus betulus	8	2/2/2/2	400	4.80	2m all	MA	20+	Good	Fair		B1	
590	Carpinus betulus	9	3/3/3/3	420	5.04	3m all	MA	20+	Good	Fair		B1	
591	Carpinus betulus	8	3/3/3/3	370	4.44	3m all	MA	20+	Good	Fair		B1	
592	Carpinus betulus	8	3/3/3/3	350	4.20	3m all	MA	20+	Good	Fair		B1	
593	Carpinus betulus	8	3/3/3/3	340	4.08	2m all	MA	20+	Good	Fair		B1	
594	Carpinus betulus	9	3/3/3/3	470	5.64	3m all	MA	20+	Good	Fair		B1	
595	Carpinus betulus	9	3/3/3/3	510	6.12	3m all	MA	20+	Good	Fair		B1	
596	Carpinus betulus	8	3/3/3/3	350	4.20	3m all	MA	20+	Good	Fair		B1	
597	Carpinus betulus	9	3/3/3/3	390	4.68	3m all	MA	20+	Good	Fair		B1	
598	Carpinus betulus	8	2/2/2/2	300	3.60	2m all	MA	20+	Good	Fair		B1	
599	Carpinus betulus	9	3/3/3/3	360	4.32	2m all	MA	20+	Good	Fair		B1	
600	Carpinus betulus	9	3/3/3/3	380	4.56	2m all	MA	20+	Good	fair		B1	
TG1	Tilia cordata	4	1/1/1/1	80	0.96	2m all	Y	40+	Good	Good		B1	
TG2	Quercus robur	6	2/2/2/2	200	2.40	2m all	Y	\$0+	Good	Good		B1	