PLANNING LAND

CUNNANE STRATTON REYNOLDS

TREE SURVEY

Hollybank, Swords, Co Dublin.

Updated December 2021

CUNNANE STRATTON REYNOLDS LAND PLANNING & DESIGN

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SUMMARY

This report presents a record of those trees existing within or adjacent to the site area that may potentially be impacted by a proposed residential housing development. Trees have been surveyed as individuals or tree groups in accordance with BS 5837 (2012). The survey was first undertaken on **5th November 2018** 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

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Diploma EIA Management

A second survey was undertaken on **17**th **November 2020** to review area where additional topographic information became available, (area previously inaccessible).

A third survey was undertaken on 12th October 2021 to review previous findings and update where necessary, with regarding to the establishment of Ash Dieback disease.

A fourth survey was undertaken on **3rd December 2021** to include an extension in relation to proposed water storage tank and outlet pipe along Balheary Road.

This survey and report are based on the Topographic Survey information contained in drawing - Land Surveys Topographic Survey Dwg No D16642-F2D.

A full survey record is presented in Appendix 1, together with accompanying drawings Tree Survey Dwg No 18392_T_101 Rev C, Constraints Dwg No 18392_T_102 Rev C and Tree Protection Plan Dwg No 18392_T_103 Rev C. 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 forty-five individual trees, thirteen tree groups and two hedgerows were recorded as part of the survey. Where assessment takes the form of a Tree Group – trees of greatest arboricultural significance or relevance to proposed scheme within these groups may also be identified. Every effort has been made to access all trees for inspection, however in some instances where site conditions prevent full access, some measurements may be visually estimated.

The site contains a number of trees of significant maturity and size. The design approach adopted for the scheme aimed to safely retain as many of these trees as possible through integration with development proposal. Sadly, the onset and advance of Ash Dieback disease, (during 2021 in particular), means the retention of some Ash trees previously earmarked for retention is no longer feasible. The proposed development does however present an opportunity to implement additional new tree planting, both as part of a general landscape design scheme and also as part of a tree management program aimed at maintaining high quality diverse long-term amenity tree cover, in keeping with the setting and proposed site use.

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

1. INTRODUCTION

Terms of Reference

Cunnane Stratton Reynolds (CSR) were instructed to conduct a tree survey, to inform the master planning of the existing greenfield site for a proposed residential development.

CSR considered those tree and tree groups that might potentially be impacted upon by such a 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:

- Land Surveys Topographic Survey Dwg No D15628-F2D
- Sketch Design John Fleming Architects
- CSR Landscape Master Plan 18399_2_LMP

Site Inspection & Methodology

The site was surveyed on four separate occasions, (5th November 2018, 17th November 2020, 12th October 2021 and 3rd December 2021), by a qualified Arborist.

A visual inspection from the ground was performed on all existing trees / tree groups on site. Where access allowed, principal individual trees were examined and reference number tags attached before critical measurements were taken and observations made.

A description was recorded of each tagged tree / group of trees, 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).

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 Survey (Dwg No 18392/T/101 Rev C).
- Constraints Drawing (Dwg No 18392/T/102 Rev C).
- Tree Protection Plan (Dwg No 18392/T/103 Rev C).

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

Site Location

The site is undeveloped greenfield land located between Jugback Terrace to the west and Balheary Road to the east, on the northern edge of Swords Co Dublin.

There is an existing residential housing estates to the west and south where St Colmcille GAA club is also located.

The former (now vacant) Motorolla factory and Swords Business Park adjoin the site to the east.

The Broadmeadow River defines the northern boundary, flowing eastwards into the nearby Broadmeadow estuary. Beyond the river to the north is agricultural land.

2. DESCRIPTION OF EXISTING TREES

2.1 The site area (approximate area highlighted red - Fig 1) is an existing area of undeveloped land located to on the northern edge of Swords town, which appears not to have been in agricultural use for some time given the significant level of scrub vegetation present.

The site is relatively level and lies approximately 2km inland from the Broadmeadow Estuary directly to the east, a tributary river to which defines the sites northern boundary. Most of the existing trees on site are located along the land flanking the river, as well as within former field boundary hedgerows.



Figure 1: Low resolution satellite image of approximate site area (courtesy of Google Earth).

A total of forty-five individual trees, thirteen tree groups and two hedgerows 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 18392/T/101 Rev C and the tree survey (Appendix 1).

2.2 Photographic Summary of Trees Surveyed







Tree Group 2 T544*







T674 T673 (looking south) T673 (looking north)





T548/T549/T550/T551/T552 (left to right)





T668-TG5-T671 (viewed left to right)



Tree Group 4



T555



Hedgerow 2







T556 T557 T558

Balheary Road / Watertank survey





TG7



T3* & T4* (left to right)



T5*



T6* & T7* (left to right)



TG 8*





TG9* TG9*





TG9*



TG 10*

2.3 The trees on the site are typical of those found in a rural / former agricultural setting with trees of moderate individual value being located within boundary groups or hedgerows, their value increasing when considered collectively both in terms of visual presence and ecological value.

There are relatively few of trees of significant maturity present, located intermittently along the site boundaries within hedgerows. A mix of species are present, predominantly deciduous but also some coniferous species. Age profile varies from young to mature, but most are mature.

Little or no management or maintenance of the trees appears to have been undertaken in the past. The majority of trees exhibit some signs of damage, accrued over the years in their former agricultural setting and more recently due to vandalism.

There is scope for selective management works to improve the quality of existing trees, such as the removal of; ivy, weak tree growth, overcrowding regenerative growth, rubbing limbs, deadwood etc. However, on the whole the trees appear to be in reasonable health. (A number of trees are currently heavily obscured by ivy growth and it would be beneficial to re-inspect when ivy has been removed).

The existing trees make a positive contribution to the surrounding landscape setting. In addition, they provide a high ecological habitat value and effective visual screening.

Trees often 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.

A number of trees, tree groups and portions of hedgerow are proposed for removal in order to facilitate the proposed development. New tree planting is also proposed which will assist in mitigating against the proposed losses.

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 tree (T550) was included in this category during the first survey in 2018 and has since been removed. Fifteen additional trees are now included following the Oct 2021 update survey due to Ash Dieback disease.

Direct Loss of Trees

3.3 The following trees or a significant portion of their anticipated rootzone are in direct conflict with the proposed development and are therefore proposed for removal;

Tag	Tree Species	Tree	Number of trees
No	•	Class	
T535	Fraxinus excelsior	U	1
T536	Fraxinus excelsior	U	1
T537	Fraxinus excelsior	B1	1
T539	Salix sp.	B1	1
T540	Fraxinus excelsior	U	1
T541	Fraxinus excelsior	U	1
T543	Fraxinus excelsior	U	1
T542	Fraxinus excelsior	B1	1
T553	Fraxinus excelsior	U	1
T554	Fraxinus excelsior	U	1
T555	Fraxinus excelsior	U	1
T556	Fraxinus excelsior	U	1
T557	Acer pseudoplatanus	B1	1
T558	Fraxinus excelsior	U	1
T664	Fraxinus excelsior	U	1
T667	Fraxinus excelsior	U	1
T668	Fraxinus excelsior	U	1
T669	Fraxinus excelsior	U	1
T670	Fraxinus excelsior	U	1
TG2	Fraxinus excelsior	B2	All (approximately 5) – includes
			Ash trees are displaying possible early symptoms of Ash Dieback.
TG3	Mixed deciduous	B2	Partial – includes Ash trees
			displaying possible early
			symptoms of Ash Dieback.
TG4	Mixed deciduous	B2	All (approximately 10) – includes
			Ash trees are displaying possible
			early symptoms of Ash Dieback.
TG5	Fraxinus excelsior	B2	All (approximately 3) – includes
	Acer pseudoplatanus		Ash trees are displaying possible

I				early symptoms of Ash Dieback.
	H1	Mixed native hedgerow	B2	Full removal
	H2	Mixed native hedgerow	B2	Partial removals.

The trees proposed for removal contribute to the existing landscape in a positive manner both visually and ecologically, however none are of exceptional quality and were classified as being of moderate value.

Whilst the retention of these trees is desirable, their loss can be largely mitigated through replacement planting in increased numbers. (Consideration should be given to use of primarily native species in this exercise in to increase ecological value).

Several tree groups and hedgerows will also require partial removals. Most of the existing trees within these groups are Ash and some are also beginning to display possible signs of infection with Ash Dieback disease. Whilst it may be too early to condemn these trees, it is very likely that most will succumb over the following years.

The proposed replanting with alternative native species as part of the landscape scheme for the proposed development presents an opportunity to ensure long term tree and hedgerow cover within this landscape.

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 outside of the site whose root zones may extend into the site area.

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.

Careful planning and site management will be required during construction works to ensure these areas are not adversely impacted by construction activities. The use of tree protection fencing to exclude access to root protection areas is also critical to avoiding detrimental impacts such as soil compaction or mechanical damage.

It is advised that the site manager carefully reviews the tree protection and removal drawing 20372_T_103, prior to commencement of works on site. The 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.

The use of 'Cellweb' non-dig construction method combined with permeable surfacing where a footpath crosses the trees root protection area should be carefully considered in terms of finished levels and materials specifications at the detailed design stage. All such areas shall be protected by tree protection fencing prior to installation of 'cellweb' system.

Provided proper tree protection measures are adhered to it is not anticipated that any further trees will require removal due to indirect impacts.

Additional Considerations

3.5 It is proposed to retain many sections of the existing of hedgerows on site by incorporating these into public open space. (Portions of some hedgerows will require to be removed, and these are highlighted on the Arboricultural Impact assessment Drawing 18392_T_102). The hedgerows are currently in variable condition and it is suggested a program of restorative pruning in conjunction with additional planting of suitable species of bare-root transplants is undertaken to rejuvenate them. The hedgerows should also be protected by tree protection fencing during the construction works.

A proposed water storage tank and its pipe work (running below Balheary road) as well the proposed outlet to Broadmeadow River has been considered in terms of the likelihood of impacts on existing trees situated along its route. There are no existing trees at the site of the tank itself. The proposed alignment of the pipe work below the Balheary Road successfully distances the required excavation works sufficiently far from most of the trees along the route to ensure that their 'Root Protection Areas' will not be impacted, whilst existing fencing or walls ensuring protection from any possibility of mechanical damage during the construction process.

There are potentially three exceptions, (T2* / T3* / T4*) to the above. These trees are all Sycamore that have presumably self-seeded within the margin of the roadway and have developed in their location between the road and the roadside wall. Their locations are very close to the carriageway and their long-term retention is probably not viable in this context. The trees are of relatively low merit, one has already developed a sizeable wound / decay at the base of its trunk. Whilst their retention may possible with the scope of the proposed works, (depending on to what extent their rootzone has extended beneath the existing carriageway), it is suggested that this might also be an opportune time to remove them.

Ash Dieback Disease

During the first inspection in 2018 a single tree was identified as possibly exhibiting signs of Ash dieback disease. On reinspection during October 2021, it is now clear that the disease has taken hold across the site - with fifteen trees now clearly suffering the disease and more displaying possible early signs of infection.

'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.

Summary of Trees to be Removed

3.6 (As per section 3.3 above).

Tree Class	Quantity
A Class Trees	0
B Class Trees	22
C Class Trees	0
U Class Trees	15
TOTAL	37

Tree Protection

- 3.7 Adequate protection and so successful retention of those trees to be retained within the land take area, (including those not individually surveyed), 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 18392_T_103). Protective 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.

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.

<u>Subject to the required permissions</u> removal / felling works as specified on Dwg No No18392_T_103 Rev B, 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 preferably be performed in winter outside of the bird nesting season. 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.

Following above permitted, priority tree works, protective fencing (barriers) should be erected in the positions and alignments as indicated on the Tree Protection Plan (Dwg No No18392_T_103 Rev B). 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. Boundary Treatments

Landscape works and installation of / work to boundary treatments within the Root Protection Area should be undertaken to a specification and method statement in accordance with BS 5837: 2012 - submitted for approval prior to commencement of works, under the supervision of an Arborist and / or Landscape Architect.

4. Landscape Works

Proposed landscaping works including new planting, shall be performed in accordance with BS 5837:2012. During these works, the ground around retained trees must not compacted by vehicles, nor be mechanically excavated for planting, nor be significantly altered in terms of ground levels.

5. Monitoring & Compliance

A number of potentially critical future works in proximity to retained trees are potentially to be undertaken in association with the development of this greenfield site, these should be done in accordance with approved method statements and under direct supervision by a qualified consultant Arborist. Therefore, during the development, a professionally qualified Arborist is recommended to be retained as required by the principal contractor or developer to monitor and advise on any works

within the RPA of retained trees to ensure successful tree retention and planning compliance.

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.

It is also advised that remaining Ash trees on site are monitored over the next few years for further spread of Ash Dieback disease and remedial actions taken as necessary.

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.

It is advised that all retained trees be subject to expert re-inspection within 12 months and/or prior to completion of development and public occupancy/access of the site.

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. A number of trees were visually obscured by heavy ivy growth, which could potentially hide from view existing faults or weaknesses, as such they would benefit from re-inspection upon removal of ivy growth. 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 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 12 months and 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

Common & Latin names of species are provided

Height

Overall estimated height given in meters (measured using Truplus 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

						Ht of lowest branch						Catagory	
			Crown		RPA	(m) &		Estimated				Category of	
			Spread	Diameter	circle	direction		remaining				retention	
		Height	(m)	(mm)@	radius	of	Life	contribution	Physiological	Structural	Preliminary management	+ sub-	
Tag	Species	(m)	N/S/E/W	1.5m	(m)	growth	Stage	(years)	Condition	Condition	recommendations	category	Notes
535	Fraxinus excelsior	12	5/5/5/5	175x10	6.64	0m all	MA	>10	Poor	Fair	Fell or monolith	U	Ash dieback
536	Fraxinus excelsior	11	3/3/3/3	250x3	5.20	1m all	MA	>10	Poor	Fair	Fell or monolith	U	Ash dieback
537	Fraxinus excelsior	13	5/5/5/5	500	6.00	0m all	MA	40+	Good	Fair	Remove Ivy	B1	heavily obscured
538	Acer pseudoplatanus	8	6/6/6/6	200x8	6.79	0m all	MA	40+	Good	Fair	Remove Ivy	B1	heavily obscured
539	Salix sp.	7	3/3/3/3	175x2	2.97	1m all	Υ	40+	Good	Good		B1	
540	Fraxinus excelsior	14	7\7\7\7	500x2	8.48	0m all	MA	>10	Poor	Fair	Fell or monolith	U	Ash Dieback
541	Fraxinus excelsior	11	5/5/5/5	300x5	8.05	0m all	MA	>10	Poor	Fair	Fell or monolith	U	Ash Dieback
542	Fraxinus excelsior	14	2/5/3/3	obscured		2m all	MA	40+	Good	Fair	Remove Ivy	B1	heavily obscured
543	Fraxinus excelsior	12	6/6/6/6	obscured		2m all	MA	>10	Poor	Fair	Fell or monolith	U	Ash Dieback
544	Fraxinus excelsior	17	4/4/4/4	800	9.60	0m n/s	MA	40+	Good	Fair	Remove Ivy	B1	Codependent sycamore
548	Pinus sp.	17	5/5/5/5	820	9.84	10m all	MA	40+	Good	Good		A1	
549	Pinus sp.	17	4/4/4/4	760	9.12	13m all	MA	40+	Good	Good		A1	
550	Pinus sp.	15	0/0/0/0	800		0m all	MA	10<	Dead	Poor	Monolith	U	
551	Pinus sp.	17	4/4/4/4	820	9.84	10m all	MA	40+	Good	Good		A1	
552	Pinus sp.	17	5/5/5/5	820	9.84	8m n/e	MA	40+	Good	Good		A1	
553	Fraxinus excelsior	10	6/6/6/6	570/410	8.42	3m all	MA	>10	Poor	Fair	Fell or monolith	U	Ash Dieback
554	Fraxinus excelsior	9	4/4/4/4	490	5.88	2m all	MA	>10	Poor	Fair	Fell or monolith	U	Ash Dieback
555	Fraxinus excelsior	11	4/4/4/4	450	5.40	4m all	MA	>10	Poor	Good	Fell or monolith	U	Ash dieback
556	Fraxinus excelsior	12	5/5/5/5	600	7.20	3m all	MA	>10	Poor	Fair	Fell or monolith	U	Ash Dieback
557	Acer pseudoplatanus	10	5/5/5/5	780	9.36	3m all	MA	40+	Good	Fair	Remove Ivy & Crown Clean	B1	inaccessible
558	Fraxinus excelsior	7	2/2/4/4	150x6	4.41	2m all	MA	>10	Poor	Fair	Fell or monolith	U	Ash Dieback
TG1	Cupressus x cupressocyparis				0.00		MA	10+	Good	Fair		C2	
TG2	Fraxinus excelsior				0.00		MA	40+	Good	Fair		B2	
TG3	Mixed deciduous				0.00		Υ	40+	Good	Fair		B2	
TG4	Mixed deciduous				0.00		MA	40+	Good	Fair		B2	
TG5	Acer pseudoplatanus											B2	
	Fraxinus excelsior												
TG6	Acerpseudoplatanus											B2	
H1	Mixed native hedgerow				0.00		MA	40+	Good	Fair		B2	
H2	Mixed native hedgerow				0.00		MA	40+	Good	Fair		B2	

SECOND SURVEY November 17th 2020

Tag	Species	Height (m)	Crown Spread (m) N/S/E/W	Girth (mm)@ 1.5m	RPA circle radius (m)	Ht of 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
657	Fraxinus exclesior	12	5/5/5/2	500	6.00	2m all	MA	40+	Good	Fair	Remove Ivy	B1	heavily obscured ivy
658	Fraxinus exclesior	12	5/5/2/5	500	6.00	2m all	MA	40+	Good	Fair	Remove Ivy	B1	heavily obscured ivy
659	Fraxinus exclesior	11	3/5/4/4	400x2	6.78	0m all	MA	40+	Good	Fair	Remove Ivy	B1	heavily obscured ivy
660	Fraxinus exclesior	10	3/5/5/5	450	5.40	3m all	MA	40+	Good	Fair	Remove Ivy	B1	heavily obscured ivy
661	Fraxinus exclesior	12	5/5/5/5	560	6.72	2m all	MA	40+	Good	Fair		B1	
662	Fraxinus exclesior	15	5/2/5/5	520	6.24	4m all	MA	40+	Good	Fair	Remove Ivy	B1	
663	Fraxinus exclesior	15	2/5/5/5	440	5.28	4m all	MA	40+	Good	Fair	Remove Ivy	B1	
664	Fraxinus exclesior	12	5/5/5/5	600	7.20	5m all	MA	>10	Poor	Fair	Fell or monolith	U	Ash Dieback
665	Fraxinus exclesior	9	6/6/6/6	420	5.04	3m all	MA	40+	Poor	Fair	Remove Ivy	B1	Monitor / Ash dieback?
666	Fraxinus exclesior	9	4/2/3/3	410	4.92	2m e	Υ	40+	Fair	Fair	Remove Ivy	B1	
667	Fraxinus exclesior	14	7/7/7/7	1000	12.00	3m all	MA	>10	Poor	Poor	Fell or monolith	U	Ash Dieback
668	Fraxinus exclesior	10	4/5/5/5	350	4.20	4m all	MA	>10	Poor	Fair	Fell or monolith	U	Ash Dieback
669	Fraxinus exclesior	7	5/5/4/4	300x2	5.08	0m n/s	MA	>10	Poor	Fair	Fell or monolith	U	Ash Dieback
670	Fraxinus exclesior	9	3/3/3/3	380	4.56	2m s	Υ	>10	Poor	Fair	Fell or monolith	U	Ash Dieback
671	Fraxinus exclesior	7	3/2/2/2	390	4.68	2m e/w	Υ	40+	Good	Fair	Remove Ivy	B2	
672	Fraxinus exclesior	9	3/3/3/3	450	5.40	1m n/s	MA	40+	Good	Fair	Remove Ivy	B1	heavily obscured ivy
673	Fraxinus exclesior	15	5/5/5/5	1250	15.00	4m all	М	40+	Good	Fair	Remove Ivy	A1	heavily obscured ivy
674	Acer pseudoplatanus	14	5/0/3/3	520	6.24	3m all	MA	40+	Good	Fair	Remove Ivy	B2	heavily obscured ivy

THIRD SURVEY December 3rd 2021 (Balheary Road / Water Tank Survey)

Tag	Species	Height (m)	Crown Spread (m) N/S/E/W	Girth (mm)@ 1.5m	RPA circle radius (m)	Ht of 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
TG7	Acer campestre												
	Fraxinus excelsior	8-10	2/2/2/2	100	1.20	1m all	Υ	40+	Good	Fair		B2	Group planting
1	Acer pseudoplatanus	13	5/5/5/5	450x3	9.35	1m all	MA	40+	Good	Fair	Remove Ivy	B1	heavily obscured ivy
2	Acer pseudoplatanus	9	3/3/3/3	350	4.20	2m all	MA	40+	Good	Fair	Remove	C1	Close to roadway
3	Acer pseudoplatanus	9	2/2/2/2	270	3.24	2m all	MA	10+	Good	Poor	Remove	C1	Decay at base
4	Acer pseudoplatanus	9	2/2/2/2	150	1.80	2m all	MA	40+	Good	Fair	Remove ivy	C1	
5	Fraxinus exclesior	14	3/3/3/3	250x3	3.96	2m all	MA	40+	Good	Fair	Remove Ivy	B1	
6	Acer pseudoplatanus	10	5/3/4/4	450	5.40	2m all	MA	40+	Good	Fair	Remove Ivy	B1	
7	Acer pseudoplatanus	10	3/4/4/4	300/350	5.52	2m all	MA	40+	Good	Fair	Remove Ivy	B1	
	Platanus x hispanica x												
TG8	acerifolia	11	3/3/3/3	400	4.80	2m all	MA	40+	Good	Good		B2	Group
	Acer campestre												
TG9	Fraxinus excelsior	9	2/2/2/2	300	3.60	2m all	Υ	40+	Good	Good		B2	Group
	Acer campestre												
	Betula pendula												
TG10	Fraxinus excelsior	10	2/2/2/2	350	4.20	2m all	MA	40+	Good	Fiar		B2	Group