Arboricultural Report

BS5837:2012 Trees in Relation to Design, Demolition and Construction - Recommendations

Proposed Site: Sean Walsh Park

Old Bawn Avenue

Tallaght

Dublin 24

Client: South Dublin County Council

Project: Bowling Green

Arbtech Ireland

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1.0 Project Brief and Objectives

1.1 Arbtech Ireland was retained by South Dublin County Council to undertake a pre-development tree survey at the Sean Walsh Park, Tallaght, Dublin 24 in relation to the development of a bowling green in accordance with British Standards 'Trees in relation to design, demolition & construction – Recommendations (BS 5837:2012). The surveyed trees are located within and adjacent to the boundaries of the proposed development.

1.2 The objective of this survey was to gather information regarding the location of trees and tree groups and how these may be impacted by construction works and development of the site.

1.3 The survey report will detail any constraints posed by existing trees to the proposed development.

1.4 An arboricultural impact assessment addresses the likely impact of the proposed development on trees within the site. Recommendations for the protection of trees during construction work is based on BS 5837: 2012. Any recommendations for tree work are based on BS 3998: 2010.

2.0 Survey Methodology

2.1 A tree survey and visual assessment was undertaken on 22nd September 2025 by Rik Pannett and Therese Woodruff. The trees were surveyed during daylight hours in dry and calm weather conditions.

2.2 Tree inspections have been undertaken from ground level using Visual Tree Assessment (VTA) techniques.

2.3 All trees, groups of trees and hedgerows surveyed have been allocated a number prefixed by the letter T or G. In accordance with BS 5837: 2012, only trees with a stem diameter of 75mm or greater were surveyed. As per section 4.4.2.3, some trees forming obvious groups were assessed as such.

2.4 Tree species, estimated maximum height, stem diameter and crown spread were recorded for significant trees and tree groups within the site.

2.5 The findings of the survey are given in tabular form in the Tree Survey Data (appendix A). An explanation of the survey headings is provided (appendix B).

2.6 All trees were assessed using the 'Cascade chart for tree quality assessment' as described in table 1 of BS 5837:2012 (appendix C).

2.7 The locations of trees are illustrated on the Tree Constraints Plan (TCP: appendix D).

2.8 Tree protection measures are illustrated on the Tree Protection Plan (TPP: appendix E).

2.9 An arboricultural method statement is included to provide guidance in relation to tree protection during construction of the development (appendix F).

2.10 A list of drawings referenced in preparation of the report is shown below in table 1.

3463 – SWP dwg	Sports Labs Consult
3463-SL-DR-200-DL-R00	Sports Labs Consult
3463-SL-DR-100-GA-R00	Sports Labs Consult

***Table 1**: Referenced drawings.*

3.0 Limitations of Survey Report

3.1 Trees have been inspected from ground level only. No climbing inspections have been undertaken. Should a more detailed inspection be deemed appropriate, this will be covered within recommendations. Trees are dynamic living organisms, whose health and condition can be subject to rapid change, depending upon external and internal factors. This survey does not constitute a tree risk assessment, and the conclusions and recommendations herein are valid for one year.

3.2 Where obvious features and defects were observed they have been noted in appendix A. Where fruiting bodies of tree decay fungi are present, they have been noted, however, annual fruiting bodies are not present year-round, and as such, the absence of them does not necessarily indicate the absence of active fungi within the tree crown, stem, or root system.

3.3 Attempts are made to gain access to all trees for inspection, however where site conditions cause significant obstruction or excessive hazard, some measurements are estimated. The stem diameter of trees which are heavily obscured by ivy or other vines are estimated, and these must be regarded as preliminary until accurate measurements are obtained.

3.4 No assessment of the soil has taken place as part of this report. BS 5837:2012 states that a soil assessment should be carried out by a competent person to establish the structure, clay content and potential volume for change of the soil. A survey of this nature is considered outside the scope of this arboricultural assessment. For guidance on soil structure in relation to construction, advice should be sought from a Structural Engineer.

4.0 Site Overview

4.1 The survey focuses on an area located within and adjacent to the red line as illustrated below (fig. 1).

Figure 1: *Redline boundary illustrating survey area (Google aerial maps).*

4.2 The proposed development consists of a new synthetic bowling green on the grounds of Sean Walsh Park, Tallaght, Dublin.

4.3 The site layout for the proposed development is illustrated in the plan below (fig. 2).

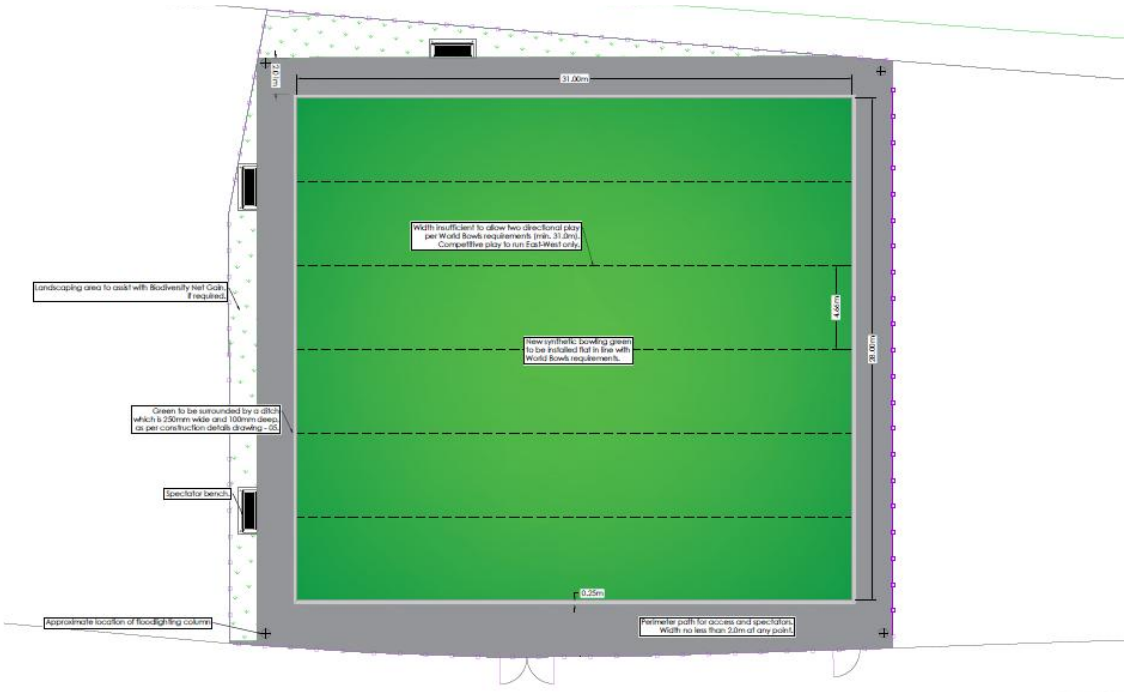

Figure 2: *Site layout for proposed development (Sports Lab Ltd.).*

4.4 The proposed bowling green development is on a sloping grassland site (fig. 3) of approximately 37.0 m x 32.0m, located to the south of Old Bawn Community School Basketball Court and north of Whitestown Stream within Sean Walsh Park.

Figure 3: *Site overview showing a variety of tree species and sloping grassland.*

4.5 The proposed development consists of a new non-infill woven synthetic turf system suitable for World Bowls Accreditation, including 3.0m perimeter twin wire panel fencing, a parallel drainage system and SUDS design with attenuation provided within pitch construction, and 4-column 12.2-metre-high LED floodlighting System.

4.6 Tree species present include ash (one with ash dieback disease – *Hymenoscy*phus *fraxineus)*, rowan, beech, silver birch and grey willow.

4.7 A row of trees delineate the western boundary of the site. These include the silver birch T2015 - T2018, which dominate the skyline. Smaller trees forming the understory include rowan – G001, and beech – G002.

4.8 A row of ash trees, T2019 – T2022, line the southern boundary. These trees are in good condition, other than T2021, which has extensive dieback. Two shrubs are sited along the northern boundary, the grey willow T2024, and the buddleia T2025.

4.9 Trees surrounding the site include a further row of ash to the south, G004, and single ash tree, T2023, and a group of lime, G005 to the east.

5.0 Summary of Findings

5.1 10 individual trees, a further 19 trees contained within 5 groups have been surveyed. A breakdown of the numbers of trees and groups in each retention category is shown in table 2 below as per BS 5837:2012:

	Category A	Category B	Category C	Category U
Individual Trees	0	6	4	0
Trees in Groups	0	8	11	0
Total	0	14	15	0

***Table 2**: Tree Categorisation.*

5.2 Category A trees are of high quality and there should be a general presumption for retention of these trees.

5.3 Category B trees are of moderate quality. It is likely that most Category B trees should be retained and regarded as a constraint to development. Some Category B trees, particularly smaller individuals are of insufficient value to impose significant design constraints and removal of such trees can be justified to promote good design (usually on the basis that mitigation is provided elsewhere on the site in the form of high-quality new planting).

5.4 Category C trees are of low quality. They should not impose significant constraints to design layout and can defensibly be removed to facilitate good design. If Category C trees can be satisfactorily retained within the proposed layout, then consideration should be given for this.

5.5 Category U trees are unsuitable for retention, usually in such a condition that they cannot realistically be retained as living trees and should be removed for reasons of sound arboricultural practice.

5.6 Tree quality categorisation (chart 1) and life stage of trees (chart 2) are displayed below.

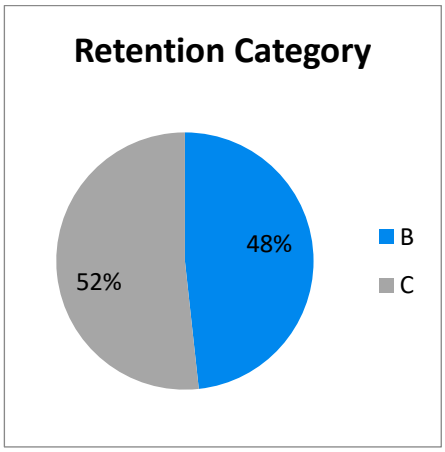

***Chart 1**: Retention category.*

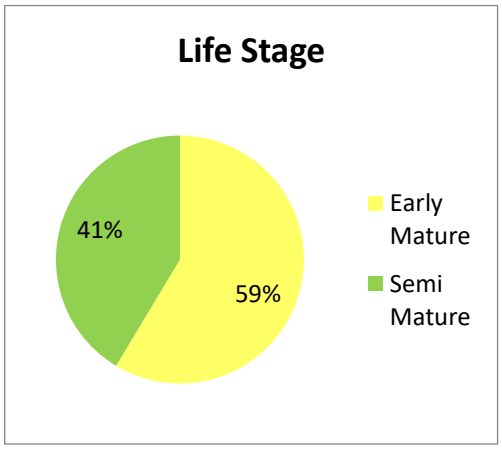

***Chart 2**: Life stage.*

5.7 Lists of tree species surveyed showing common names and botanical names (tables 3 and 4) are displayed below.

Common Name	No. trees
Broad-leaved lime	3
Common ash	10
Common beech	8
Copper beech	1
Grey willow	1
Rowan	2
Silver birch	4

Botanical Name	No. trees
Betula pendula	4
Fagus sylvatica	8
Fagus sylvatica purpurea	1
Fraxinus excelsior	10
Salix cinerea	1
Sorbus aucuparia	2
Tilia platyphyllos	3

***Tables 3 and 4**: Tree species surveyed.*

6.0 Arboricultural Impact Assessment

6.1 Based on the proposed site layout drawings supplied, the arboricultural impact of the proposed development was assessed as follows.

6.2. Works to the entirety of the site will result in the loss of groups G001-G003 (figs. 4-6), and the trees T2015-T2022 (fig. 7) and T2024 (fig. 8). While the loss is extensive, most of the trees are relatively young and small in stature. The ash T2021 (fig. 9) is not sustainable in the long term and should be removed for reasons of sound arboricultural practice.

***Figure 4:** G001 Pair of rowan for removal.*

***Figure 5:** G002 Group of beech for removal.*

Figure 6: *Overview of birch and beech for removal.*

Figure 7: *Row of ash T2019-22 for removal.*

Figure 8: *T2024 Grey willow for removal.*

Figure 9: *T2021 Ash displaying dieback disease.*

6.3 The group of broad-leaved lime G004 (fig. 10) to the east of the site is to be retained, as is the ash T2023. These trees must be protected during construction.

Figure 10: *G004 Group of lime to be protected.*

6.4 The row of ash G005 (fig. 12) adjacent the footpath will require crown lifting prior to construction and must be protected during the construction phase.

Figure 12: *G005 Row of ash to be crown lifted and protected.*

6.5 Tree Constraints Plan

The Tree Constraints Plan (TCP: appendix D) has been produced as a basis for the assessment of the constraints imposed by existing trees on the proposed design. Refer to TCP for location of trees and groups of trees surveyed.

6.6 Tree Protection Plan

The Tree Protection Plan (TPP: appendix E) shows the indicative position of the root protection area (RPA) for trees and groups of trees with a retention priority. The RPA (as described in BS5837: 2012 sec. 3.7) represents the minimum area around each tree in which the ground should remain largely undisturbed and is shown as a pink line on the TPP (refer to Tree Survey Data: appendix A for accurate RPA radiuses). Tree protection is shown as an orange line on the TPP.

6.7 Summary of Impact of Proposed Development on Tree Population

Surveyed Trees	Category A	Category B	Category C	Category U	Total no.	%
Trees proposed for retention.	0	9	0	0	9	31.03
Trees proposed for removal to facilitate development.	0	5	15	0	20	68.97

***Table 5**: Summary of Impact on Tree Population.*

6.8 In conclusion, the current development proposals impact significantly upon the surveyed trees. However, within the wider context of the local tree population, the losses are minimal. The majority of the trees which are to be removed are relatively small and can readily be replaced.

6.9 As per 'Living with Trees – SDCC Tree Management Policy 2021 – 2026', the loss of trees for development can in part be mitigated by the high-quality planting of a mixture of small, medium, and large canopy native and non-native trees. Trees should be of local provenance, selected for species diversity, pest and disease resistance, and climate change resilience. Successful establishment of trees can only be achieved by the careful selection, planting, and aftercare of high-quality trees.

6.10 Retained trees close to construction activities must be protected using barriers as specified in the method statement (appendix F). Where construction is to take place within the RPAs of retained trees, methods which prevent or limit damage to roots must be utilised.

7.0 Statutory Obligations

7.0 I am currently unaware if any trees at the site are protected by a Tree Preservation Order (TPO) or by virtue of being located within a Special Area of Conservation. I have not been instructed to establish the TPO status of trees with the Local Planning Authority. If any trees are subject to TPOs then consent should be sought from the relevant Local Authority prior to commencement of any works.

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8.0 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.

BS8545:2014 *Trees, From Nursery to Independence in The Landscape.* British Standards Institution. TSO, London.

Living with Trees – South Dublin County Council Tree Management Policy 2021 – 2026

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

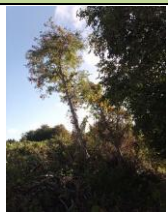
Rose B. (2020). *The use of cellular confinement systems near trees: A guide to good practice.* Arboricultural Association, Gloucestershire.

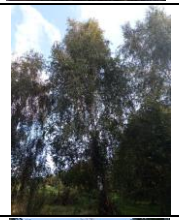
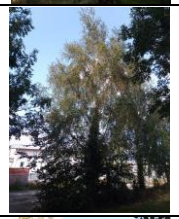
Tree Survey Data

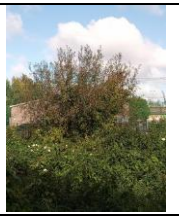
Sean Walsh Park

Bowling Green SDCC

Appendix A

Ref.	Species	Full Structure	Measurements	Survey Notes	Retention Category	RPA	Tree Features	Recommendations	Photo
G001	Rowan x2 *(Sorbus aucuparia)*	Group 2 trees	Height (m): 5 2 stems, avg.(mm): 80 Spread (m): 1N, 2E, 1S, 1W Crown Clearance (m): 2 Lowest Branch (m): 2(E) Life Stage: Semi Mature Rem. Contrib.: 10+ Years	Pair of trees growing on elevated ground. Significant stem lean to north and east. Bindweed obscuring stems. Good crown density.	C2	Area: 21 sq m.	Physiological Condition: Fair Structural Condition: Fair Public Amenity Value: Low Inspection Limitations: Vines Bat Habitat: None	Remove trees.	
G002	Common beech x6 *(Fagus sylvatica)*	Group 6 trees	Height (m): 7 6 stems, avg.(mm): 80 Spread (m): 2N, 2E, 2S, 2W Crown Clearance (m): 1 Lowest Branch (m): 1(S) Life Stage: Semi Mature Rem. Contrib.: 10+ Years	Group growing adjacent boundary wall. Sharing canopy with neighbouring tree. Good crown density.	C2	Area: 23 sq m.	Physiological Condition: Fair Structural Condition: Fair Public Amenity Value: Moderate Inspection Limitations: Vines Bat Habitat: None	Remove trees.	
G003	Common beech x2 *(Fagus sylvatica)* Copper beech *(Fagus sylvatica purpurea)*	Group 3 trees	Height (m): 6 3 stems, avg.(mm): 100# Spread (m): 2N, 1E, 3S, 2W Crown Clearance (m): 1 Lowest Branch (m): 1(W) Life Stage: Semi Mature Rem. Contrib.: 10+ Years	Group growing adjacent wall. Good crown density.	C2	Area: 29 sq m.	Physiological Condition: Fair Structural Condition: Fair Public Amenity Value: Moderate Inspection Limitations: None Bat Habitat: None	Remove trees.	
G004	Common ash x5 *(Fraxinus excelsior)*	Group 5 trees	Height (m): 7 5 stems, avg.(mm): 300 Spread (m): 3N, 3E, 3S, 3W Crown Clearance (m): 2 Lowest Branch (m): 3(N) Life Stage: Early Mature Rem. Contrib.: 20+ Years	Row growing adjacent footpath. Deadwood present. Moderate crown density.	B2	Area: 457 sq m.	Physiological Condition: Fair Structural Condition: Fair Public Amenity Value: Moderate Inspection Limitations: None Bat Habitat: None	Pre construction: Crown lift to 3 metres for pedestrian access. During construction: Protect trees with protective barriers - as shown on plans. Post construction: No action required.	
G005	Broad-leaved lime x3 *(Tilia platyphyllos)*	Group 3 trees	Height (m): 8 3 stems, avg.(mm): 300 Spread (m): 3N, 3E, 3S, 3W Crown Clearance (m): 1 Lowest Branch (m): 2(W) Life Stage: Early Mature Rem. Contrib.: 20+ Years	Group growing on mound. Good unions and good crown density.	B2	Area: 165 sq m.	Physiological Condition: Good Structural Condition: Good Public Amenity Value: Moderate Inspection Limitations: None Bat Habitat: None	Pre construction: No action required. During construction: Protect trees with protective barriers - as shown on plans. Post construction: No action required.	

Ref.	Species	Full Structure	Measurements	Survey Notes	Retention Category	RPA	Tree Features	Recommendations	Photo
T2015	Silver birch *(Betula pendula)*	Tree	Height (m): 9 Stem Diam(mm): 170 Spread (m): 2N, 2E, 2S, 2W Crown Clearance (m): 2 Lowest Branch (m): 2(W) Life Stage: Early Mature Rem. Contrib.: 10+ Years	Growing adjacent group of beech. Ivy obscuring stem and main unions. Good crown density.	C2	Radius: 2.0m. Area: 13 sq m.	Physiological Condition: Fair Structural Condition: Fair Public Amenity Value: Moderate Inspection Limitations: Vines Bat Habitat: None	Remove tree.	
T2016	Silver birch *(Betula pendula)*	Tree	Height (m): 9 Stem Diam(mm): 230 Spread (m): 3N, 2E, 2S, 2W Crown Clearance (m): 1 Lowest Branch (m): 2(SW) Life Stage: Early Mature Rem. Contrib.: 10+ Years	Growing adjacent boundary wall. Refuse surrounding base of tree. Good unions and crown density.	B2	Radius: 2.8m. Area: 25 sq m.	Physiological Condition: Good Structural Condition: Good Public Amenity Value: Moderate Inspection Limitations: None Bat Habitat: None	Remove tree.	
T2017	Silver birch *(Betula pendula)*	Tree	Height (m): 12 Stem Diam(mm): 270 Spread (m): 2N, 3E, 2S, 3W Crown Clearance (m): 1 Lowest Branch (m): 2(E) Life Stage: Early Mature Rem. Contrib.: 20+ Years	Growing adjacent boundary wall. Ivy obscuring stem and main unions. Partially occluded wound on stem to west. Good crown density.	B2	Radius: 3.2m. Area: 32 sq m.	Physiological Condition: Fair Structural Condition: Good Public Amenity Value: Moderate Inspection Limitations: Vines Bat Habitat: None	Remove tree.	
T2018	Silver birch *(Betula pendula)*	Tree	Height (m): 12 Stem Diam(mm): 310 Spread (m): 3N, 3E, 3S, 3W Crown Clearance (m): 2 Lowest Branch (m): 3(E) Life Stage: Early Mature Rem. Contrib.: 20+ Years	Ivy obscuring stem and main unions. Broad spreading crown with good density.	B2	Radius: 3.7m. Area: 43 sq m.	Physiological Condition: Fair Structural Condition: Fair Public Amenity Value: Moderate Inspection Limitations: Vines Bat Habitat: None	Remove tree.	
T2019	Common ash *(Fraxinus excelsior)*	Tree	Height (m): 9 Stem Diam(mm): 350 Spread (m): 4N, 3E, 3S, 4W Crown Clearance (m): 2 Lowest Branch (m): 3(SW) Life Stage: Early Mature Rem. Contrib.: 20+ Years	Damaged exposed surface roots. Well formed buttresses. Good unions and crown density.	B2	Radius: 4.2m. Area: 55 sq m.	Physiological Condition: Good Structural Condition: Fair Public Amenity Value: Moderate Inspection Limitations: None Bat Habitat: None	Remove tree.	
T2020	Common ash *(Fraxinus excelsior)*	Tree	Height (m): 8 Stem Diam(mm): 330 Spread (m): 3N, 4E, 4S, 3W Crown Clearance (m): 2 Lowest Branch (m): 3(E) Life Stage: Early Mature Rem. Contrib.: 20+ Years	Mechanical damage to base of stem. Good unions and good crown density.	B2	Radius: 4.0m. Area: 50 sq m.	Physiological Condition: Good Structural Condition: Fair Public Amenity Value: Moderate Inspection Limitations: None Bat Habitat: None	Remove tree.	

Ref.	Species	Full Structure	Measurements	Survey Notes	Retention Category	RPA	Tree Features	Recommendations	Photo
T2021	Common ash *(Fraxinus excelsior)*	Tree	Height (m): 9 Stem Diam(mm): 310 Spread (m): 2N, 4E, 2S, 3W Crown Clearance (m): 1 Lowest Branch (m): 1(W) Life Stage: Early Mature Rem. Contrib.: 10+ Years	Epicormic growth on stem. Cankered stem and branches. Sparse canopy. Pests and Diseases: Ash Health Class 2 - 75%-50% remaining canopy	C2	Radius: 3.7m. Area: 43 sq m.	Physiological Condition: Poor Structural Condition: Poor Public Amenity Value: Moderate Inspection Limitations: None Bat Habitat: None	Remove tree.	
T2022	Common ash *(Fraxinus excelsior)*	Tree	Height (m): 9 Stem Diam(mm): 330 Spread (m): 4N, 4E, 4S, 4W Crown Clearance (m): 1 Lowest Branch (m): 3(W) Life Stage: Early Mature Rem. Contrib.: 10+ Years	Cankered stem. Forking at 3m with included bark. Asymmetric crown due to historic storm damage. Good crown density.	C2	Radius: 4.0m. Area: 50 sq m.	Physiological Condition: Fair Structural Condition: Poor Public Amenity Value: Moderate Inspection Limitations: None Bat Habitat: None	Remove tree.	
T2023	Common ash *(Fraxinus excelsior)*	Tree	Height (m): 8 Stem Diam(mm): 300 Spread (m): 4N, 4E, 4S, 4W Crown Clearance (m): 2 Lowest Branch (m): 4(N) Life Stage: Early Mature Rem. Contrib.: 20+ Years	Forking at 3m. Minor deadwood present. Good crown density.	B2	Radius: 3.6m. Area: 41 sq m.	Physiological Condition: Fair Structural Condition: Fair Public Amenity Value: Moderate Inspection Limitations: None Bat Habitat: None	Pre construction: No action required. During construction: Protect trees with protective barriers - as shown on plans. Post construction: No action required.	
T2024	Grey willow *(Salix cinerea)*	Tree	Height (m): 5 Stem Diam(mm): 150# Spread (m): 2N, 2E, 2S, 2W Crown Clearance (m): 1 Lowest Branch (m): 1(E) Life Stage: Semi Mature Rem. Contrib.: 10+ Years	Bindweed obscuring lower canopy. Moderate crown density.	C2	Radius: 1.8m. Area: 10 sq m.	Physiological Condition: Fair Structural Condition: Fair Public Amenity Value: Low Inspection Limitations: Vines Bat Habitat: None	Remove tree.	
T2026	Buddleia *(Buddleia sp.)*	Shrub	Height (m): 3 Stem Diam(mm): 100 Spread (m): 2N, 2E, 2S, 2W Life Stage: Semi Mature Rem. Contrib.: 10+ Years	Self set shrub with good crown density.	C2	Radius: 1.2m. Area: 5 sq m.	Physiological Condition: Fair Structural Condition: Fair Public Amenity Value: Moderate Inspection Limitations: None Bat Habitat: None	Remove shrub.	

Key to Tree Survey Data

Ref.	Species	Full Structure	Measurements	Survey Notes	Retention Category	RPA	Tree Features	Recommendations	Photo

Ref. Reference number identifies the tree, tree group or hedge & corresponds with the plans e.g. T0301, H2.

Species The common and botanical names are given for each tree.

Full Structure Structure recorded e.g., tree, tree group, hedge, coppice, pollard, woodland and quantity within a group.

Measurements: Height Estimated in metres.

Stem Diameter Measured at approximately 1.5 meters above ground level, recorded in millimetres.

Number of Stems Recorded from ground level or base of tree.

Crown Spread Estimated in metres and given at cardinal compass points.

Life Stage Refers to the age of the tree or tree structure & recorded as e.g.:

Y = Young; SM = Semi-mature; EM = Early Mature; M = Mature; V = Veteran; D = Dead.

Estimated Remaining Contribution <10 years; 10+; 20+; 30+; 40+

Survey Notes Observations regarding tree condition, location, history, structure & vigour.

Retention Category Each tree or tree structure is categorised as either **A**; **B**; **C**; **U** & sub-categories:

1 = Arboricultural qualities; 2 = Landscape qualities; 3 = Cultural values (see Appendix C for further information).

RPA Root protection radius (r) measured in metres from centre of tree (r= 12 x stem diameter at 1.5m).

Tree Features Categorises physiological and structural condition; Amenity value; Bat habitat

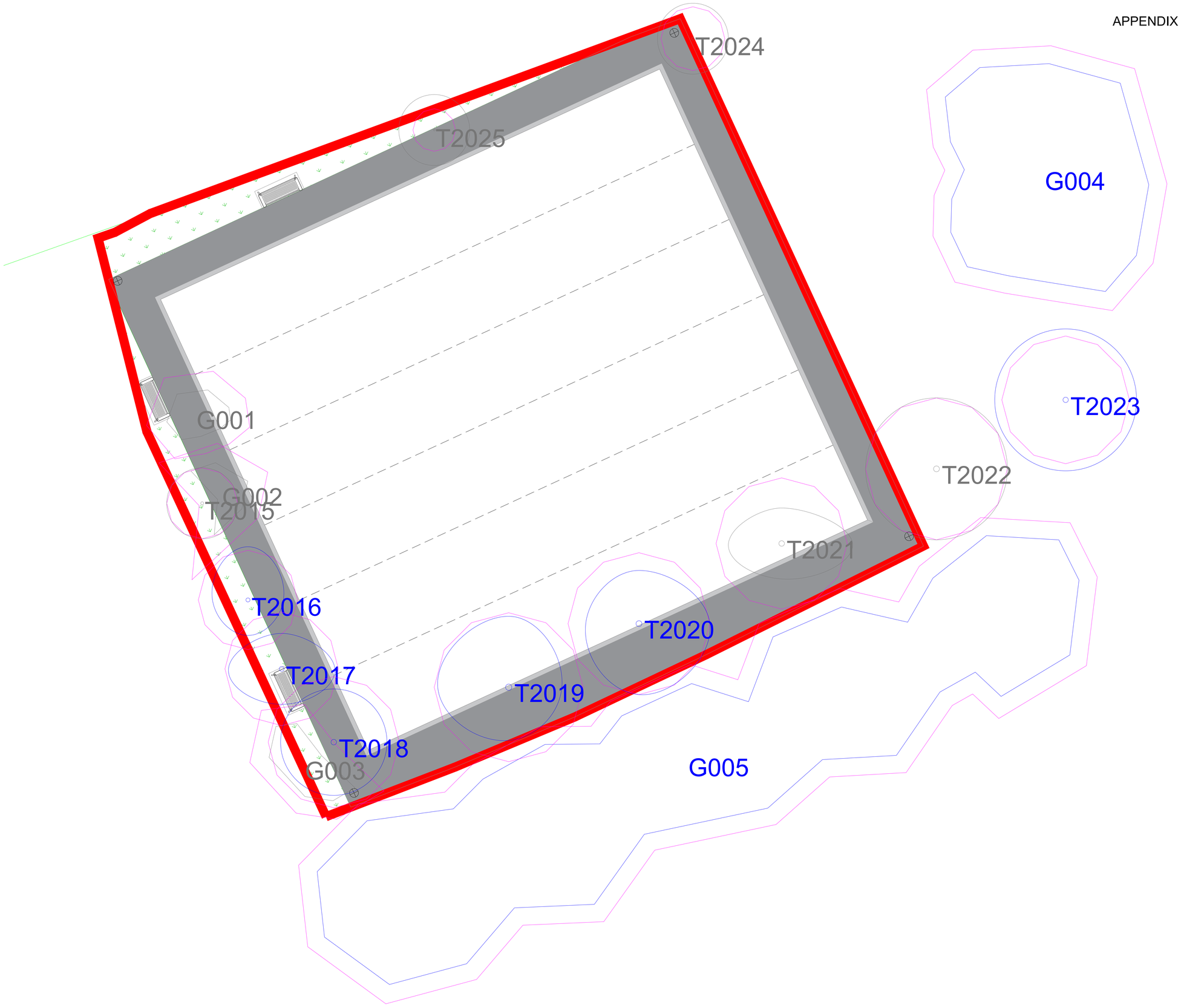
Photo Image of each tree, group or hedgerow.

Recommendations Management recommendations for trees within the development.

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.	• 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 (eg, 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; see 4.5.7.*	

TREES TO BE CONSIDERED FOR RETENTION				
Category and Definition	**Criteria**			**Identification on Plan**
	1. Mainly arboricultural qualities	2. Mainly landscape qualities	3. Mainly cultural values, including conservation	
Category A Trees of high quality with an estimated remaining life expectancy of at least 40 years.	Trees that are particularly good examples of their species, especially if rare or unusual; or those that are essential components of groups or formal or semi-formal arboricultural features (eg, the dominant and/or principal trees within an avenue.	Trees, groups or woodlands of particular visual importance as arboricultural and/or landscape features.	Trees, groups or woodlands of significant conservation, historical, commemorative or other value (e, veteran trees or wood-pasture).	
Category B Trees of moderate quality with an estimated remaining life expectancy of at least 20 years.	Trees that might be included in category A, but are downgraded because of impaired condition (eg, presence of significant though remediable defects, including unsympathetic past management and storm damage), such that they are unlikely to be suitable for retention for beyond 40 years; or trees lacking the special quality necessary to merit the category A designation.	Trees present in numbers, usually growing as groups or woodlands, such that they attract a higher collective rating than they might as individuals; or trees occurring as collectives but situated so as to make little visual contribution to the wider locality.	Trees with material conservation or other cultural value.	
Category C Trees of low quality with an estimated remaining life expectancy of at least 10 years, or young trees with a stem diameter below 150mm.	Unremarkable trees of very limited merit or such impaired condition that they do not qualify in higher categories.	Trees present in groups or woodlands, but without this conferring on them significantly greater collective landscape value, and/or trees offering low or only temporary/transient landscape benefits.	Trees with no material conservation or other cultural value.	

APPENDIX D



CONTRACTOR:

Rik Pannett : Consultant Arborist
Retained by South Dublin County Council

N

LEGEND

Root Protection Area

Actual Crown Spread

T032

Tag Number

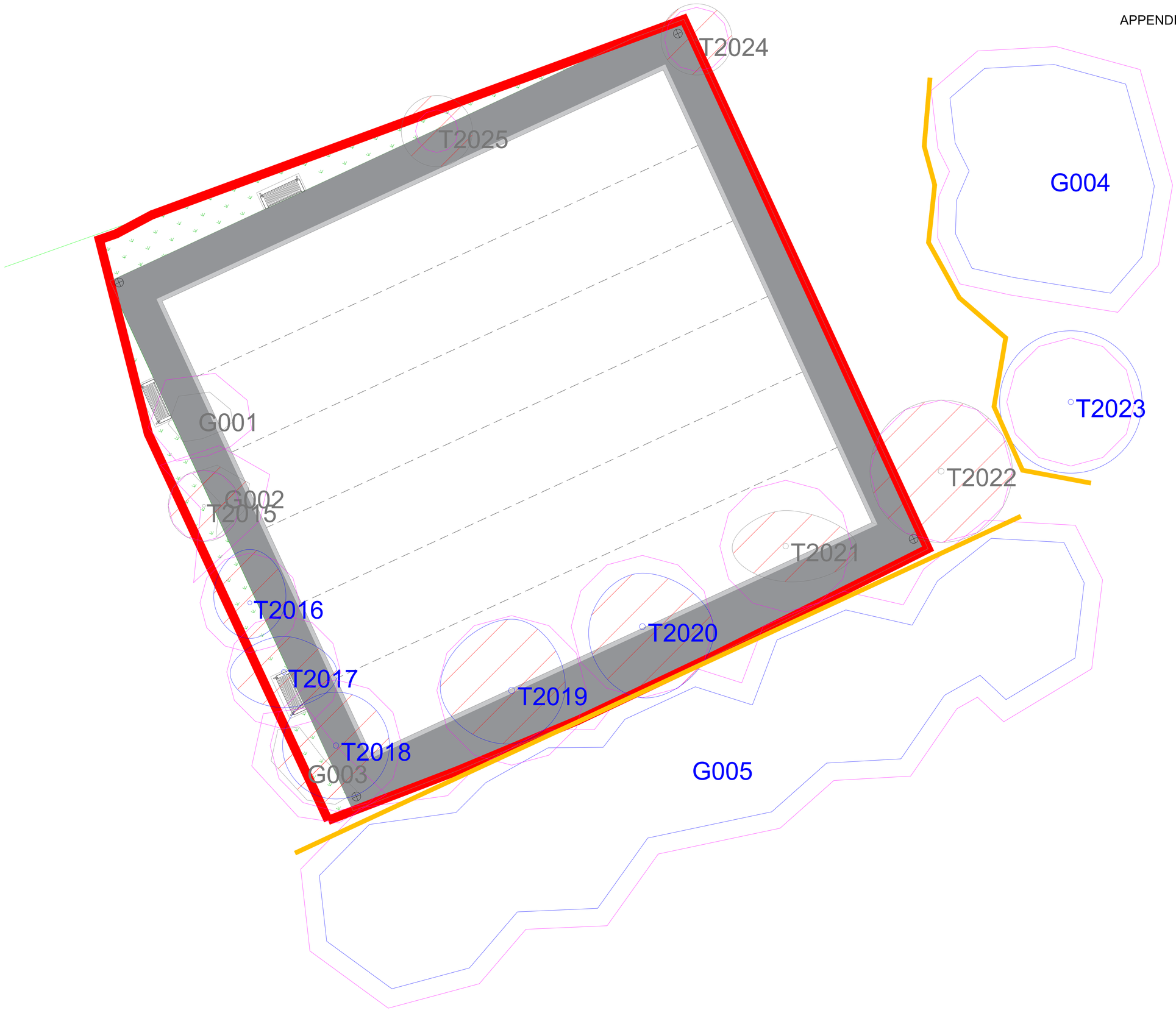
CATEGORY GRADE

- CATEGORY U
- CATEGORY A
- CATEGORY B
- CATEGORY C

Arbtech Ireland

DRAWING No	RP-2025-18-TCP			STATUS
REV SUFFIX	REVISION DETAILS			DATE
DRAWN BY	DATE	SCALE	ENG CHECK	DATE
WD	02/11/25	NTS	RP	02/11/25
PROJECT	SEAN WALSH PARK			SHEET SIZE
DRAWING TITLE	TREE CONSTRAINTS PLAN			A1

APPENDIX E



CONTRACTOR:

Rik Pannett : Consultant Arborist
Retained by South Dublin County Council

N

LEGEND

Root Protection Area

Actual Crown Spread

T032

Tag Number

CATEGORY GRADE

- CATEGORY U
- CATEGORY A
- CATEGORY B
- CATEGORY C

REMOVAL AREA

TREE PROTECTION

This plan must be read in conjunction with the tree survey data (Appendix A) and the method statement (Appendix F).

This plan must be printed in colour.

Arbtech Ireland

DRAWING No	RP-2025-18-TPP			STATUS
REV SUFFIX	REVISION DETAILS			DATE
DRAWN BY	DATE	SCALE	ENG CHECK	DATE
WD	02/11/25	NTS	RP	02/11/25
PROJECT	SEAN WALSH PARK			SHEET SIZE
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Appendix F

Arboricultural Method Statement

Method Statement Summary

The arboricultural method statement provides information about how to protect trees, their crowns, stems, and root systems during the construction process. The stages described below must be used as reference by the main contractor to prepare a site-specific method statement for the construction works. The method statement is to be used in conjunction with the Tree Survey Data (appendix A) and the Tree Protection Plan (TPP: appendix E) which detail the indicative extent of root protection areas (shown as pink line). The TPP must be made available to all contractors as a colour print only.

Stage 1: Pre-construction stage

1.0 The developer must appoint an arboriculturist who will oversee tree protection measures for the duration of the project. The arboriculturist will make regular site visits to ensure continued compliance, as well as to respond to project specific issues as they arise.

1.1 Tree work

The developer will appoint a qualified arborist to undertake pruning and felling works as specified in the tree survey recommendations (appendix A). All works carried out must conform to BS3998: 2010 Tree Work. Recommendations. Any damage caused to a tree during the construction phase must be reported immediately to the site manager so that inspection and/or remedial works can be undertaken.

1.2 Protective fencing

On completion of any tree works, protective fencing (fig. 1) must be erected at the edge of the RPA, at each phase of works, in accordance with BS5837:2012. Trees remote from construction works may be protected using a lower specification fencing such as Euromesh (fig. 2), or no fencing at all if deemed appropriate by the project arboriculturist. Fencing is intended as a precaution to prevent accidental damage to the rooting area of retained trees. The positioning of any fencing at the edge of the RPA is shown in the TPP as an orange line.

- Erection of protective fencing must be completed before any materials or construction machinery are brought onto site and before any construction works commence.
- Signage (fig. 3) indicating ‘tree protection area, no construction access’ or similar must be affixed to the protective fencing.
- Fencing is not to be removed or repositioned without the approval of the project arboriculturist

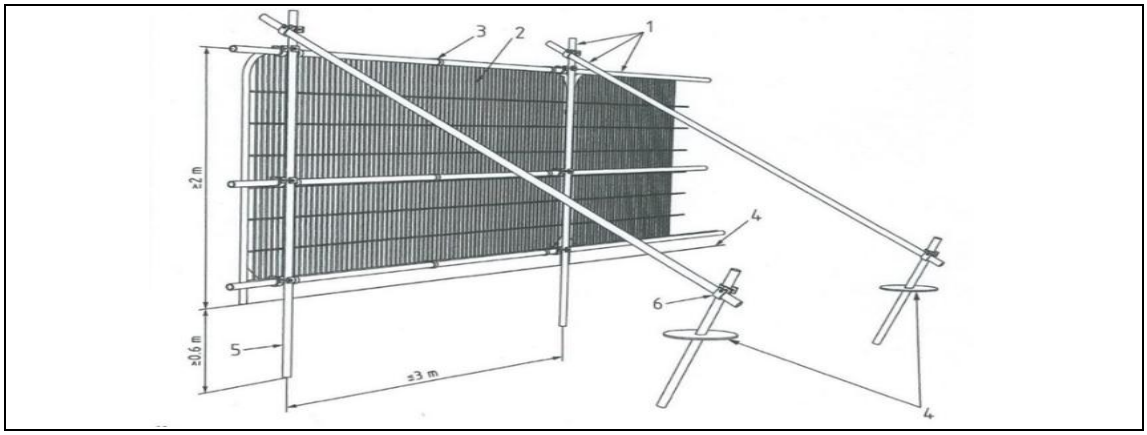

***Figure 1**: Protective barrier specifications.*

***Figure 2**: Euromesh.*

***Figure 3**: Signage to be affixed to barrier.*

1.3 Ground protection for construction access routes

Where construction or temporary construction access is considered necessary within the RPA, the alignment of the protective barrier may be set back, under supervision of the project arboriculturist.

Temporary ground protection within the RPA must be capable of supporting the load of any persons or traffic using the site without affecting or compacting the underlying soil.
The ground protection must comprise one of the following or similar, as described in BS5837:2012:

- For pedestrian movement, single thickness scaffold board shall be laid on top of 100mm of woodchip laid on top of a geotextile membrane.
- For plant up to gross weight of 2t, interlinked boards must be laid over a compression resistant layer such as woodchip to 150mm, over a geotextile membrane.
- For construction traffic over 2t gross weight a proprietary system or pre-cast concrete slabs must be installed, in conjunction with arboricultural advice.

In all instances, the objective is to prevent soil compaction where possible, which can occur from the passage of a single vehicle, especially in wet conditions.

1.4 Installation of hard surfacing in proximity to trees

Construction of hard surfaces can impact the surface roots of nearby trees and prevent soil gases exchanging if porousness and load spreading is not incorporated into the design. To prevent root damage, excavation, soil stripping or grading must not be conducted within the RPA of retained trees and hedgerows. Hard surfaces will need to be installed using a 'no dig' method of construction, using a cellular confinement system. Three cardinal principles apply when avoiding damage to trees during construction:

- Roots must not be severed.
- Soil must not be compacted.
- Oxygen and water must be able to diffuse into the soil beneath the engineered surface.

Construction of hard surfaces will incorporate a cellular no-dig solution such as Cellweb tree root protection (fig. 4) which will ensure that loads placed upon it are laterally dissipated rather than being transferred to the soil and root systems below ground.

The walls of the cellular structure are perforated and must be combined with the infill of clean angular stone, preferably of a single size (20-40mm) which will enable the passage of water and oxygen to the tree roots, ensuring their continued functioning and health.

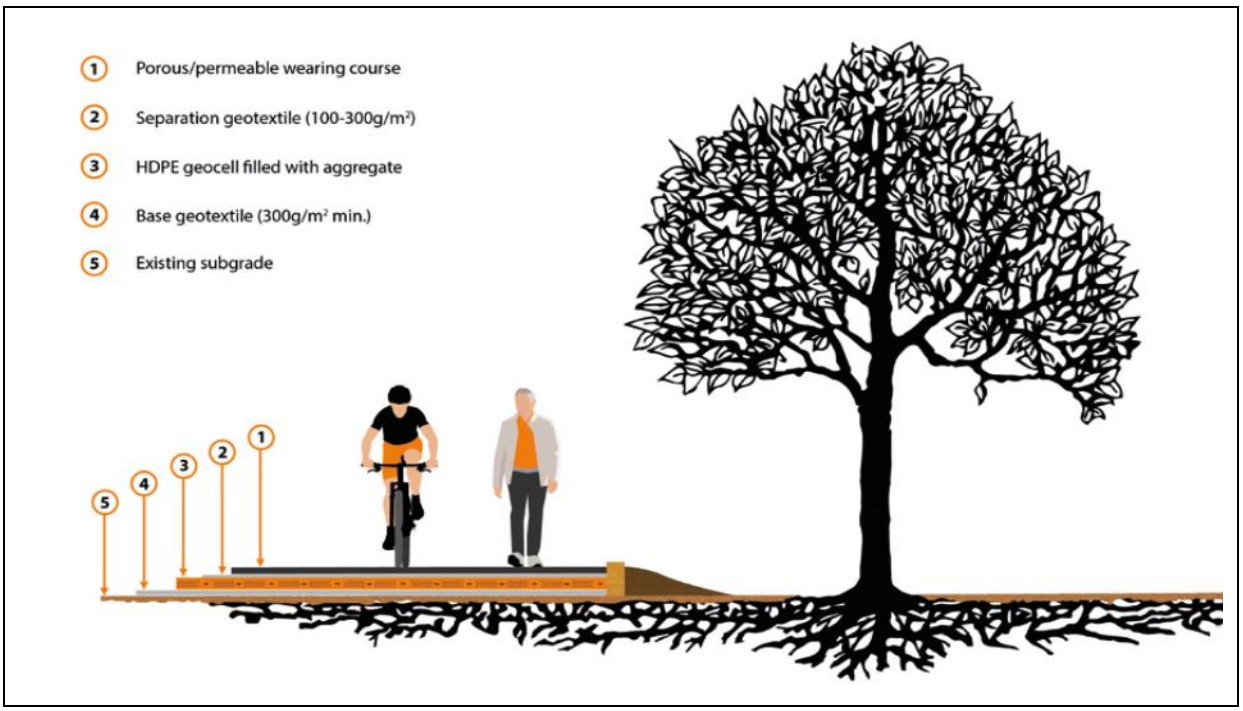

***Figure 4**: example of cellular no dig construction method.*

1.5 Installation of underground Services

Installation of underground cabling must comply with the National Joint Utilities Group (NJUG) 'Guidelines for the planning, installation, and maintenance of utility services in proximity to trees' and with BS 5837:2012. The excavation of open trenches by machine is unacceptable within the RPA of any of the retained trees, and wherever possible, services will be routed outside of any retained trees RPA. Where this is not possible cables must be routed together in a common duct and any inspection chambers sited outside the RPA.

Acceptable techniques for the laying of services are:

- Trenchless - by use of thrust boring or similar techniques. The pit excavations for starting and receiving the machinery must be located outside of the RPA. To avoid root damage, the mole must run at a depth of at least 600mm. Use of external lubricants on the mole other than water should be avoided.
- Broken trench - by using hand dug trench sections together with trenchless techniques. It must be limited to practical access and installation around or below the roots. The trench must be dug by hand and only be long enough to allow access for linking to the next section. The open sections must be kept as short as possible.
- Continuous trench - the trench is excavated by hand and retains as many roots as possible. The surface layer is removed carefully and hand digging of the trench takes place. No roots over 2.5cm diameter or clumps of smaller roots (including fibrous) shall be severed. The bark surrounding the roots must be maintained. Cutting of roots over 2.5cm diameter must be performed under supervision of the project arboriculturist. If roots must be cut, a sharp tool (defined as spade, narrow spade, fork, breaker bar, secateurs, handsaw, hand trowel) will be used.
- Roots, and in particular fine roots, are vulnerable to desiccation on exposure to air. The roots are at greatest risk when there are rapid fluctuations in the air temperature around them. It is vitally important that the roots are covered with sacking whilst the trench is open.

1.6 Pre-commencement site meeting

Prior to commencement of construction works, a pre-commencement site meeting and contractor briefing will occur. Tree protection barriers are to be inspected by the project arboriculturist, and any additional protection measures to be agreed. Scope of future inspections and monitoring to be agreed between the site manager and project arboriculturist.

1.7 Landscape works

Any new planting of trees and hedgerows shall be undertaken in accordance with BS5837:2012 and supervised by the project arboriculturist or landscape architect. The existing ground levels within the RPA must be retained and not subjected to compaction or alteration. Manual tools should be used where possible for planting within RPAs to minimise root disturbance and damage.

Stage 2: Construction Works stage

2.0 Protective fencing

During the construction phase, protective fencing must be kept in place, remain upright and rigid as intended, and checked daily for any damage. The fencing must remain in place and not be removed until all site works are completed.

2.1 Excavations

Excavation works can commence once the protective fence line is in place. In advance of excavation, the project manager, site foreman and project arboriculturist will identify and determine the extent of the impact of the proposed works and identify any additional mitigation measures to protect retained trees and hedgerows.

The project arboriculturist will supervise the pruning of roots which are exposed and damaged during excavation works. The excavated face is to be covered with soil to prevent drying out and death of further root material.

2.2 Working within RPAs

If any works are to take place within the RPA, the project arboriculturist must be informed so that mitigation measures are agreed upon to limit impact on root, stem, and crown of tree.

2.3 Site considerations

Throughout the development stages the following must be observed:

- No materials, chemicals, machinery, or vehicles are to be stored within the RPA.
- No materials are to be rested against the trunk of trees.
- Burning of rubbish is not permitted within 10m of RPA or hedgerows. Wind direction must be factored when locating a fire, and it must not be unattended.
- Attaching items to any part of a tree is not permitted.
- Washing of machinery, concrete, diesel fuel or other contaminants are not to be discharged within 10m of RPA or hedgerows.
- Any damage caused to protective fencing, ground protection, or retained trees must be reported to the site manager without delay.
- The area around trees enclosed by protective fencing must be considered a construction exclusion zone.

Stage 3: Post Construction Works stage

3.0 On completion of construction works, retained trees are to be re-examined by the project arborist to identify any additional remedial works required to ensure tree health and site safety.