



Independent Tree Surveys Ltd

Tree Survey & Planning Report
Development Lands
Church Fields East
Mulhuddart
Dublin

May 2023



Independent Tree Surveys Ltd

Our Lady's Cottage,

Drummond

Rosenallis

Co. Laois

T: 057 8628597

M: 087 1380687

www.independenttreesurveys.ie

Contents

- 1.0 Introduction 1
- 2.0 Instruction 1
- 3.0 Report Limitations..... 1
- 4.0 Survey Methodology 2
 - 4.1 Survey Key 2
 - 4.2 Tree Retention Category (Cat) (BS5837: 2012 Trees in relation to design, demolition and construction – Recommendations) 4
 - 4.3 Root Protection Area 4
- 5.0 Findings 5
- 6.0 Preliminary Management Recommendations 6
- 7.0 Site Photographs 7
- 8.0 Arboricultural Impact of the New Development 9
- 9.0 Arboricultural Method Statement 9
 - 9.1 Tree Work Operations 9
 - 9.2 Tree Protection Measures 9
- 10.0 Appendices..... 10
 - A. Tree Survey Schedule 10
- 11.0 Drawings 10

1.0 Introduction

It is proposed to develop land off Church Road, Mulhuddart, Dublin for housing. There are a number of trees and hedges around the site and so this report has been prepared to provide an arboricultural assessment of the trees and hedges input into the design and planning process for the new development.

2.0 Instruction

To carry out a Tree Survey and prepare an Arboricultural Impact Assessment, Method Statement and Tree Protection Plan in accordance with BS5837: *Trees in relation to design, demolition and construction (2012)* of the trees and hedges around the site of the proposed new development off Church Road, Mulhuddart, Dublin.

3.0 Report Limitations

- The inspection has been carried out from ground level using visual observation methods only.
- Trees are living organisms whose health and condition can change rapidly. Trees should be checked on a regular basis, preferably once a year. The conclusions and recommendations of this report are valid for one year.
- The fruiting bodies of some important species of decay fungi only emerge at certain times of the year and may not have been visible during this inspection.
- There is no such thing as a 100% safe tree in all conditions, since even perfectly healthy trees may fall or suffer branch break.
- Climbing plants and dense undergrowth can obscure structural defects and some symptoms of disease, where such plants prevent a thorough examination of a tree it is recommended that the vegetation be cleared and the tree re-inspected.

Report Prepared by

John Morgan
BSc (Hons) Tech Cert (Arbor A)
M Arbor A (Membership number PR407)

May 26th 2023

4.0 Survey Methodology

The trees and hedges inside the site were assessed from ground level using Visual Tree Assessment (VTA) techniques and relevant observations and findings were recorded in compliance with the industry standard document BS5837: *Trees in relation to design, demolition and construction (2012)*.

4.1 Survey Key

Tree Numbers

The tree groups and hedges were allocated numbers. These numbers identify the tree groups and hedges in the survey schedule and on the supporting survey drawings.

Tree Species

Common and botanical names of the tree species were recorded.

Tree Crown Dimensions

Tree height (Ht), crown clearance (Cl) and crown-spread (NESW cardinal points) measurements are in metres and are estimated.

Stem Diameter (Dbh)

Measurements are in millimetres and taken at 1.5m from ground level, multiple stems (St) are recorded as a function of the BS:5837 RPA formulae described below.

Tree age classes

Age classes were recorded as:

Y	Young	Recently planted (with 5 years or so)
SM	Semi-Mature	Well established young tree
EM	Early Mature	Established tree not yet fully grown
M	Mature	Full or near full grown tree
LM	Late Mature	Older specimen in full maturity
OM	Over Mature	Reached full maturity now declining through natural causes
Vet	Veteran	Notable due to large size, old age, ecological importance

Tree Physiological and Structural condition

Tree condition was graded as

- Good: No obvious defects visible, vigour and form of tree good.
- Fair: Tree in average condition for its age and the environment.
- Poor: Tree shows signs of ill health/structural defect
- Bad: Tree in seriously bad health/major structural problem

Work Recommendations

Preliminary management recommendations are made where necessary and pertain to current site conditions unless otherwise stated.

Estimated Remaining Contribution (ERC)

The approximate number of years that a tree should continue to live and contribute amenity, conservation or landscape value to the site under current site conditions.

4.2 Tree Retention Category (Cat) (BS5837: 2012 Trees in relation to design, demolition and construction – Recommendations)

The tree retention category system grades a tree's suitability for retention within a development:

- A** Indicates a tree of high quality and value. These are trees that are particularly good examples of their species, which also provide landscape value. These trees are in such a condition as to be able to make a substantial contribution. (A minimum of 40 years is suggested)
- B** Indicates a tree of moderate quality and value. Trees that might be included in the high category, but are downgraded because of impaired condition. These trees are in such a condition as to make a significant contribution. (A minimum of 20 years is suggested)
- C** Indicates a tree of low quality and value - trees with an estimated remaining life expectancy of at least 10 years, or trees with a stem diameter of below 150mm and/or <10m in height.
- U** Trees that are 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.

Sub Categories

Tree categories may be further categorised using the following sub-categories (e.g. C1, C2 or C3) - 1 mainly Arboricultural qualities, 2 mainly landscape qualities, 3 mainly cultural values.

4.3 Root Protection Area

The Root Protection Area (RPA) is the minimum area around individual trees to be protected from disturbance during construction works; RPA is recorded as a radius in metres measured from the tree stem and is shown on the tree survey/constraints drawing as a circle with the tree stem in the centre.

For single stem trees, the root protection area (RPA) should be calculated as an area equivalent to a circle with a radius 12 times the stem diameter.

For trees with more than one stem, one of the two calculation methods below should be used.

The calculated RPA for each tree should be capped to 707 m².

a) For trees with two to five stems, the combined stem diameter should be calculated as follows:

$$\sqrt{(\text{stem diameter } 1)^2 + (\text{stem diameter } 2)^2 \dots + (\text{stem diameter } 5)^2}$$

b) For trees with more than five stems, the combined stem diameter should be calculated as follows:

$$\sqrt{(\text{mean stem diameter})^2 \times \text{number of stems}}$$

5.0 Findings

The trees were assessed during a site visit on the 5th of May 2023; the field data for the trees and hedges is contained in the accompanying Tree Survey Schedule (Appendix A) and is shown on the Tree Survey Drawing 23020_TS. The site is located on lands west of the northern end of Church Road, Mulhuddart, Dublin and are bordered to the east by the public cycle track and wooded area (Group G3) along Church Road. The north of the site borders the verge next to Damastown Avenue, with the western edge bordering open scrub land. The southern boundary lies within the existing open green space, to the north of the old hedgerow (H1).

The site boundary includes a linear group of trees and bushes running roughly west to east across the northern part of the site; this wider group was described as two groups (G1 and G2) to reflect the different characteristics of the trees. The survey schedule includes the trees making up groups G3, G4 and hedge H1 that are located outside the site limits for reference purposes.

Group G1 is set to the west and is comprised mostly of early mature Hybrid Black Poplar trees up to 22m in height. This compact group of upright trees is the most prominent landscape feature *within* the site and has some landscape and amenity value despite its comparatively low or moderate arboricultural value. For reasons that are unclear, the Poplar trees are enclosed within a low mound or bund to the north, west and south. The trees were evidently planted together as a deliberate plantation rather than being self-sown or naturally regenerated. The group is contiguous with a more mixed group that extends to the east; this group (G2) includes willow, Lime, Beech, White Poplar and Hawthorn of much lower stature (maximum 9-10m) and seems to be a mix of planted and self-seeded trees and bushes.

The lands between groups G1 and G2 and to the west of the site have been partially colonised by naturally regenerated scrub, but these areas also include numerous young and semi-mature Oak saplings that would appear to have been planted at some point in the past.

Outside the site boundary, the most significant feature is the long linear group of mature Beech trees (G3) along the western side of Church Road. These trees are a very important landscape feature and are of high amenity value. No significant root spread is expected from these trees into the site limits.

Hedge H1 runs east-west to the south of the site and appears to be the remnants of an old agricultural hedge. The hedge is heavily overgrown with Brambles etc. due to a long lapse in traditional hedge management, but still retains some landscape and more important conservation value.

The *Carpinus* spp. street trees in the verge along Damastown Avenue to the north were included for reference; they are in poor condition and are of little value due to poor establishment and more recent construction damage.

6.0 Preliminary Management Recommendations

Preliminary management recommendations for the trees and hedges assessed are listed in the tree survey schedule in the appendices; these pertain to *current* site conditions unless otherwise stated.

All tree work should be carried out by qualified and experienced tree surgeons.

All tree work should be in accordance with *BS3998 (2010) Tree Work – Recommendations*.

7.0 Site Photographs



1. Tall Poplar tree group G1 to the left, with lower group G2 to the right



2. View of the site from the south with G1 to the left, G2 in the centre and mature Beech trees group G3 to the right



3. Hedge H1 to the south of the site



4. Tree groups G1 and G2; viewed from the north-west, with scrub growth and young Oak trees in foreground



5. Carpinus street trees (group G4) along Damastown Avenue to the north of the site

8.0 Arboricultural Impact of the New Development

All of the existing vegetation within the site redline boundary is to be cleared to facilitate the new development; this will include all of groups G1 and G2 and the scrub to the north and west. There may be some potential for unintended damage to be caused to the surrounding trees and hedges unless the site is well managed during the pre-construction and construction phases of the development works. Tree and hedgerow protection recommendations are described in the Arboricultural method statement below and are shown on the Tree Protection Plan Drawing 23020_TPP.

9.0 Arboricultural Method Statement

9.1 Tree Work Operations

The existing vegetation and trees will be cut down and cleared from inside the site boundary. Tree felling work should be carried out by qualified and experienced tree surgeons; and be in accordance with *BS3998 (2010) Tree Work – Recommendations*.

Efforts should be made to try and lift and transplant some of the young Oak saplings from the areas of scrub being cleared.

9.2 Tree Protection Measures

Sturdy tree protection fencing or suitable site hoarding should be erected along the lines shown on the Tree Protection Plan Drawing 23020_TPP to prevent construction work encroaching towards the RPAs of the trees making up group G3 and hedge H1. The tree protection measures should remain in place until their removal or re-location is authorised by a qualified arborist.

All new underground services such as water, foul water and electricity will be routed away from the RPAs of trees being retained around the site; where this is not practical the services will be installed under any significant tree roots into trenches excavated by compressed air lance (*Airspade*) or other approved tree root friendly system such as Air-Vacuum truck, Mole drilling etc.

Where machinery access must encroach the RPAs of trees around the site for reasons unforeseen and unavoidable; suitable ground protection will be put in place to prevent any significant soil compaction or root damage near the trees; this should take the form of suitable strength ground protection mats or cellular confinement system capable of supporting the appropriate weight.

10.0 Appendices

A. Tree Survey Schedule

11.0 Drawings

Tree Survey Drawing 23020_TS (Tree Constraints Plan)

Tree Protection Drawing 23020_TPP

Tree Survey Schedule
Church Fields East, Mulhuddart, Dublin
May 2023

Type	No.	Species	Age	Ht m	Dbh mm	St	Cr	N	S	E	W	ERC	Phys Cond	Structural Condition/Comments	Preliminary Recommendations	RPA m	Cat
G	1	Populus alba (White Poplar) Populus X canadensis (Hybrid Black Poplar) Alnus glutinosa (Common Alder)	EM	8 to 20	300 to 450	1	2	4	4	4	4	10+	Fair	Fair. Closely spaced group plantation of trees growing in patch of ground surrounded by earthen bank (to the north south and west). Mostly tall, upright Hybrid Black Poplars 18-20m tall, 300-450mm dbh. Some old wounds with wood decay on lower stems. Smaller White Poplars 8-10m tall around edge of group. Taller Poplar trees arguably category B as quite prominent in the local landscape.	No urgent works needed.	5.4	C2 B2
G	2	Acer pseudoplatanus (Sycamore), Alnus glutinosa (Common Alder) Betula pendula (Silver Birch) Crataegus monogyna (Hawthorn) Fagus sylvatica (Beech) Salix caprea (Goat Willow) Tilia cordata (Small-leaved Lime) Populus alba (White Poplar)	SM	9	300	1	1	3	3	3	3	10+	Fair	Fair. Linear group of mixed species trees, with a mix of planted and self-sown trees at close spacing. Group forms dense landscape screen contiguous with taller Poplar group 1 to west.	No urgent works needed. Stand may benefit from some thinning/re-spacing work over next few years.	3.6	C2
G	3	Fagus sylvatica (Beech)	M	18 to 22	800	1	3	8	8	8	8	20+	Fair/Poor	Fair/Poor. Long linear group of large mature Beech trees that are located between the public cycle track/footpath and Church Road to the east of the site boundary. Very prominent in the local landscape and including trees of category A, B, C and U. Trees not individually inspected or assessed, however most trees appear to be in reasonably good condition for their species and age class; a small number are showing signs of low vitality and poor structural condition. Some trees (especially to the north) are likely to have sustained some root damage from nearby groundworks. Significant root spread into the site from the trees is unlikely due to the physical distance and past construction activity.	Trees should be reviewed annually by a qualified arborist.	9.6	B2

Tree Survey Schedule
Church Fields East, Mulhuddart, Dublin
May 2023

Type	No.	Species	Age	Ht m	Dbh mm	St	Cr	N	S	E	W	ERC	Phys Cond	Structural Condition/Comments	Preliminary Recommendations	RPA m	Cat
G	4	Carpinus betulus (Hornbeam)	SM	5 to 6	100	1	1	1	1	1	1	10	Poor	Fair. Young street trees in mostly poor condition along roadside verge at approx. 10m spacing. Soil stripping and compaction up close to the tree stems. Borderline category U trees.	Consider removal and replacement with new trees planted into well prepared planting pits.	1.2	C2 U
H	1	Crataegus monogyna (Hawthorn) Sambucus nigra (Elder)	M	4 to 5	200	1	0	2	2	2	2	10+	Fair	Fair. Section of what appears to be an old hedge (or double hedge along an old track) now engulfed by Brambles and dense undergrowth. Hawthorn bushes are somewhat sporadic, with some gaps now infilled by undergrowth. Vitality of remaining Hawthorn and Elder bushes looks reasonable considering the competition from the undergrowth.	Hedgerow could be restored by a combination of undergrowth clearance, trimming, coppicing, hedgelaying and new infill planting.	2.4	C2