



Independent Tree Surveys Ltd

Tree Survey & Planning Report 1 The Crescent Lucan Co. Dublin

July 2022



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1.0 Introduction

It is proposed to construct a new house in the rear garden of number 1 The Crescent, Lucan, Co. Dublin. The garden contains a number of trees and shrubs, some of which are likely to be affected by the proposed works. This report has been prepared to provide an Arboricultural assessment of these trees to assist with the plans for the new development and for inclusion with the planning application for the project. The survey data was collected and collated in accordance with BS5837: (2012) *Trees in relation to design, demolition, and construction – Recommendations*.

2.0 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/or dense undergrowth can obscure structural defects and some symptoms of disease, where such plants prevent a thorough examination it is recommended that the vegetation be cut back, and the tree re-inspected.
- Where trees are inaccessible due to dense vegetation, topography, structures etc. the tree will be assessed on the basis of what visual information can be observed by the surveyor. Tree stem dimensions in these circumstances will be estimated.

Report Prepared by

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July 14th 2022

3.0 Survey Methodology

The trees were accessed on foot and assessed using Visual Tree Assessment (VTA) techniques only. Field data for the trees was collected in accordance with BS5837: (2012) *Trees in relation to design, demolition and construction – Recommendations*.

4.1 Survey Key

Tree Numbers

Individual trees were tagged with numbered tree tags for identification and cross reference with the survey schedule and site 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

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	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 (RPA)

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 survey area covered the southern part of the rear garden of number 1 The Crescent. Some additional trees growing in neighbouring gardens were also included for added detail where the trees were likely to have some root-spread into the site.

The trees and shrubs were assessed during a site visit on the 16th June 2022. The field survey findings are recorded in the survey schedule appended to the report and include the data for 12 individual trees. All of the trees assessed were graded category C (low value) on account of their age class, size, species or condition. No significant mature specimen trees of high value were identified on the site. Tree location, crown spread, RPA and category are shown on the Tree Survey Drawing 22038_TS (Tree Constraints Plan).

The site is compact (approx. 7mx17m) and occupies the southern end of the sloping grounds of the house. The northern part of the site includes some flower beds etc. and several small trees (Birch and Cordyline), with the more prominent trees (mostly Sycamore) being concentrated into the far south of the garden, on a steep slope just inside the block boundary wall. These Sycamore trees are relatively young (semi-mature or early mature) and appear to be result of natural regeneration of seedlings rather than deliberate planting. The Sycamore trees are of comparatively low arboricultural value, however, collectively they do provide a form of landscape screen to the southern boundary of the property. The southern boundary itself is defined by a block retaining wall that faces the road and footpath below.

The three young Birch trees (463, 465 and 466) have been planted into the western border of the garden. The Whitebeam tree tagged 467 is within the garden of number 1 but is just outside the northern boundary of the proposed site.

Trees 452 and 458 are located within the garden of number 1A The Crescent to the west. Cypress tree 457 is close to the western boundary, which is not well defined. A young Hawthorn hedge has been established just over the boundary to the east.

6.0 Preliminary Management Recommendations

Preliminary management recommendations for the trees, (under present site conditions) are listed in the survey schedule.

7.0 Site Photographs



Photo 1 View from the centre of the proposed site looking north, with Cabbage Palm T464 in the centre and Whitebeam 467 to the right



Photo 2 Trees (457-463) growing inside the southern boundary of the property, taller Sycamore 459 in the centre



Photo 4. Sloping area around the stem bases of trees T459-462 close to the southern boundary wall

8.0 Arboricultural Impact of the New Development

The proposed new development will see a new dwelling house constructed in the southern end of the garden. The development will require that the existing sloping ground is excavated back to create the space for the new house and access in from the adjacent road. The extent of the excavation works necessary to facilitate the new layout will require that all the existing vegetation and trees (including eight trees tagged T459-T466) in the lower part of the garden of number 1 will have to be removed, along with the single Whitebeam tree tagged T467 just to the north of the site boundary. The works will also encroach into the root protection areas of trees T452, T457 and T458 in the neighbouring garden of number 1A to the west; these trees are proposed for removal as part of another planned development. The trees and shrubs proposed for removal are shown in red on the Tree Impact/Protection Plan drawing (22038_TPP). All of the trees proposed for removal are of relatively low arboricultural (all are graded category C) and conservation value. The trees do contribute some landscape amenity, but this is limited due to their relatively small size and low prominence in the local landscape.

A Hawthorn hedge has been established in recent years in the neighbouring property just outside the eastern boundary of the site; this hedge is still comparatively young, and the plants are still small, however the hedgerow plants are located in a line very close to the boundary and will be vulnerable to damage from earthworks being undertaken inside the site.

9.0 Arboricultural Method Statement

9.1 Tree Work Operations

The trees highlighted on the drawing will be felled and the resulting arisings removed to a licenced green waste facility or recycled as mulch on the site. The trees inside the site being felled are the eight tagged T459-T466, along with tree T467 just outside the northern boundary. The trees tagged T452, T457, and T458 in the neighbouring garden will also be removed as part of the development planned for the adjoining lands.

All tree surgery work should be carried out by qualified and experienced tree surgeons; and be in accordance with *BS3998 (2010) Tree Work – Recommendations*.

9.2 Tree Protection Measures

Excavation works to create the necessary site levels for the new building will require that the soil cutting will run very close to the Hawthorn hedge established inside the adjacent property. These excavation works should be closely supervised and kept as close to the building line as possible so as to minimise any direct impact on the hedgerow plants. It may be impractical to erect conventional protective fencing between the site and the young hedge, however, some form of protective structure should be erected (using scaffolding for example) along the boundary to help prevent any accidental damage being inflicted on the hedge. The exact specification for this structure will be agreed between the contractors and a qualified arborist prior to commencement of the site works.

Any exposed roots and/or soil profiles containing roots of the hedgerow trees will be kept damp in dry conditions by regular watering and be covered with a double layer of hessian fabric to prevent desiccation. Any void between the new structure and adjoining grounds should be backfilled as soon as is practicable with good quality topsoil, structural soil, or clean sand.

The young hedgerow trees will be assessed by a qualified arborist following the completion of the construction works and any damaged trees replaced with good quality replacement plants.

10.0 Appendices

Tree Survey Schedule

Tree Survey Drawing 22038_TS (Tree Constraints Plan)

Tree Impact/Protection Plan Drawing 22038_TPP

12.12.11

The survey schedule

The survey dates: 12.12.11 (12.12.11)

The impact: Protection for Drivers 12.12.11