



# Tree report and survey


FOR  
PROPOSED WAREHOUSE DEVELOPMENT  
AT  
MAGNA AVENUE  
MAGNA BUSINESS PARK  
DUBLIN 24


18 February 2022


ON BEHALF OF

Rockface Developments

Prepared by  
Enviroguide Consulting

 *Dublin*  
3D Core C, Block 71, The Plaza,  
Park West, Dublin 12

 *Kerry*  
19 Henry Street  
Kenmare, Co. Kerry

 *Wexford*  
M10, Wexford Enterprise  
Centre, Strandfield Business  
Park, Rosslare Road, Wexford

 [www.enviroguide.ie](http://www.enviroguide.ie)  
 [info@enviroguide.ie](mailto:info@enviroguide.ie)  
 +353 1 565 4730



## DOCUMENT CONTROL SHEET

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### Report Prepared by

Dara Hilliard, B. Ag (Landscape Hort), MILI (Member of the Irish Landscape Institute), Professional Member of the International Society of Arboriculture who has over 25 years experience in the design, specification and management of soft and hard landscapes.

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- 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 such as Ivy can obscure structural defects and some symptoms of disease, where such plants prevent a thorough examination it is recommended that the climber be cut at ground level and the tree re-inspected when it has died back.
- Some of the trees included in the survey drawing originate outside the boundary fence of the site; these trees were not fully accessed, and so the condition assessments are preliminary and the tree dimension measurements are estimated.

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## 1 INTRODUCTION

Rockface Developments Limited intend to apply for permission for development at this 3.03 Ha site at Magna Avenue and Magna Drive, Citywest, Dublin 24. The lands are bounded to the south by Magna Avenue, to the north and west by Magna Drive and to the east by development within Magna Business Park. The building will have a maximum height of 15.5 m with a gross floor area of 13,604 sq m including a warehouse area (12,568 sq m), staff facilities (498 sq m) and ancillary office area (538 sq m).

The development will also include: a vehicular and pedestrian entrance to the site from Magna Avenue, a separate HGV entrance from Magna Drive; 69 No. ancillary car parking spaces; covered bicycle parking; HGV parking and yards; level access goods doors; dock levellers; access gates; signage; hard and soft landscaping; lighting; boundary treatments; ESB substation; sprinkler tank and pump house; and all associated site development works above and below ground.

The site itself has no trees on it but trees do exist close to the site boundaries and so this report has been commissioned to provide an arboricultural assessment of the adjoining trees to input into the design and layout of the project and to form part of the planning package for the project

### 1.1 Project Objective

To carry out a Tree Survey and prepare an Arboricultural Impact Assessment, Method Statement and Tree Protection Plan compliant with BS5837: Trees in relation to design, demolition and construction (2012) of the trees and hedges located on and around the property at Magna Avenue and Magna Drive, Citywest, Dublin 24.

## 2 SURVEY METHODOLOGY

The significant individual trees inside and adjacent to 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).

### 2.1 Survey Key

#### Tree Numbers

As the trees inspected are not on the site individual trees, hedges and shrub groups were not allocated numbers.

#### 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.



## 2.2 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 younger 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.

## 2.3 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 m<sup>2</sup>.

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:

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

### 3.0 Findings

Offsite trees and shrubs were assessed during a site visit on the 3rd February 2022. The field data for the trees is contained in the accompanying Tree Survey Schedule. Tree location, BS5837 category, RPA and approximate crown shape are shown on the Tree Survey Drawing.

Full details of the individual trees assessed on the site are listed in the Tree Survey Schedule in the appendices of the report. A total of 61 lime trees, 8 pine and 1 leylandii cypress and a number of cherry laurel shrubs were assessed off site.

The 61 lime trees (Tree group 1) were classed as of moderate value as they appear to not be growing vigorously and suffering from the harsh conditions of the surrounding environment and /or poor ground conditions. They do provide landscape value as a soft edge to the west and north boundaries.

The 8 pine, 1 leylandii cypress and a number of cherry laurel are offset approximately 2 to 3m along a c. 45m section of the boundary of the site in the north east corner. This planting is essentially an over grown evergreen screen between the two sites and is classed as low value due to the very tight spacing of the individual trees, their deformed growth and also given their location. They are positioned directly on top of a 3 to 4 m high gabbion retaining wall in the adjoining site. Their long term suitability and safety for this location is questionable given the proximity to the retaining structure and their eventual expected size.

### 6.0 Preliminary Management Recommendations

There are no preliminary management recommendations as all trees are outside the control of the owner.

## 7.0 Site Photographs



1. Tree group 1 forming soft landscape edge to site.



2. Tree group 2 in north east corner of the site.



*3. Tree group 2 in north east corner of the site.*

## 8.0 Arboricultural Impact of the New Development

The planned development of the site requires the removal of 5 lime trees in the north east to facilitate a vehicular access to the site. The rest of the proposed site works all lie outside the root protection zone of the offsite vegetation and it is unlikely the roots of Tree Group 2 (8 pine, 1 leylandii cypress and a number of cherry laurel) extend into the works area. It is highly likely that these roots have grown down through the back fill behind the gabbion wall and not into the poor soil conditions of the subject site.

The redevelopment of the site includes a major new landscape scheme that will see significant new tree shrub and perennial planting in and around the site. The non existent tree or shrub cover on site will be replaced by high quality new planting stock in a far more coherent landscape layout that will create a marked improvement in the arboricultural value of the site, especially as the planting scheme matures.

## 9.0 Arboricultural Method Statement

### 9.1 Tree Work Operations

The existing trees and shrubs on the site will be felled and the stumps removed. Specialist tree workers will not necessarily be required for this site clearance operation.

All arisings (cordwood and brash) will be processed and either disposed of in an appropriate green waste facility or recycled as mulch on-site.

### 9.2 Tree Protection Measures

Sturdy tree protection fencing (see figure 1 below) or site hoarding will be erected along the lines shown on the Tree Protection Plan Drawing 19049\_TPP to prevent construction work encroaching into the root protection areas of the trees and scrub in the neighbouring property. The tree protection measures will be put in place *before* demolition or construction work commences and should remain in place until their removal or re-location is authorised by a qualified arborist.

## 10.0 Appendices

Tree Protection on Construction Sites – General Recommendations

Tree Survey Schedule

Tree Survey Drawing 19049\_TS (Tree Constraints Plan)

Tree Protection Plan 19049\_TPP

### Tree Protection on Construction Sites – General Recommendations

Trees being retained should be protected from unnecessary damage during the construction process by effective construction-proof barriers that will define the limits for machinery drivers and other construction staff. Ground protected by the fencing will be known as the Construction Exclusion Zone (CEZ). Sturdy protective fencing will be erected along the points identified in the Tree Protection Plan **prior** to any soil disturbance and excavation work starting; this is essential to prevent any root or branch damage to the retained trees. The British Standard BS5837: *Trees in relation to design, demolition and construction (2012)* specifies appropriate fencing; see figure 1 below.



Figure 1. Protective fence specification

For light access works within the CEZ the installation of suitable ground protection in the form of scaffold boards, woodchip mulch or specialist ground protection mats/plates may be acceptable.

All weather notices will be erected on the fence with words such as: "Tree Protection Fence — Keep Out". When the fencing has been erected, the construction work can commence. The fencing will be inspected on a regular basis during the duration of the construction process and shall remain in place until heavy building and landscaping work has finished and its removal is authorised by a qualified arborist.

Trench digging or other excavation works for services etc. will not be permitted in the CEZ unless approved and supervised by a qualified arborist using methods outlined in BS5837: *Trees in relation to design, demolition and construction (2012)*.

Care will be taken when planning site operations to ensure that wide or tall loads or plant with booms, jibs and counterweights can operate without coming into contact with retained trees. Such contact can result in serious damage to them and might make their safe retention impossible.

Materials, which can contaminate the soil, e.g. concrete mixings, diesel oil and vehicle washings, will not be discharged within 10 m of a tree stem.

Fires will not be lit in a position where their flames can extend to within 5 m of foliage, branches or trunk. This will depend on the size of the fire and the wind direction.

Notice boards, wires and such like will not be attached to any trees. Site offices, materials storage and contractor parking will all be outside the CEZ.