Parkgate Street Arboricultural Assessment and Tree Protection Report

Parkgate Street

Dublin 8

Project No.	Project name	Date	Revision
TPAR002	Parkgate Street	14/04/21	-

Report Prepared by
Ciaran Keating
BSc Pl. Sci. & Ecol
H.N.D. Hort
AA Tech Cert Arb,
PG Dip. Arb & Urban Forestry

E-mail: cmkhortandarb@gmail.com
Mobile: 087 1182343
Drumone, Oldcastle, Co. Meath A82FK79

CMK
Hort + Arb Ltd.

CMK
Hort + Arb Ltd.

CONTENTS

CMK
Hort + Arb Ltd.

1. Client brief & Methodology

CMK Hort + Arb Ltd. were commissioned by Ruirside Developments Ltd. to undertake an assessment of trees at Parkgate Street, Dublin 8 (image 1). The fieldwork was undertaken on the 14th of April 2021.

The survey is designed to be an independent analysis of the trees therefore this assessment does not take into consideration any plans for the future development of the site; however, it is recognised that there are proposals to re-develop the site therefore some of the comments within section 2 and 7 may reference the suitability or otherwise of particular trees in this context.

The survey methodology, supporting drawings and documentation follow the recommendations contained within BS 5837 (2012). The analysis of the trees was undertaken using the VTA methodology as developed by Mattheck and Breloer (1994).

2. General description of trees

The site is a small parcel of land to the edge of the Parkgate House adjacent to Seán Heuston Bridge and Parkgate street (images 1 Red Line). There are four early-mature lime cultivars within the site (image 2). It can be presumed that all were planted at the same time though competition between trees has led to some becoming more dominant than others (image 4). The condition of the trees is generally good (table 1) though there are typical issues regarding tight unions between stems common in lime trees (section 7). Management to date has been confined to crown reductions particularly to the trees nearest the Parkgate House building. This has reduced the visual quality of the winter profile of these trees but is unlikely to have had a significant structural impact.

The root development of these trees can be considered to be restricted by the river Liffey wall, the Parkgate House building and the ESB sub-station to the south and west with the paving toward north also restricting root development but to a lesser degree. As a result the root protection area (RPA) dimensions provided within section 8 of this report are unlikely to be relevant and follow the convention within BS5837 (2012) to include them only. Reference should be made to drawing TPAR002 101 for a more accurate estimation of root spread.

Category	Number	% of total
A	0	0
B	4	100
C	0	0
U	0	0

Table 1. Tree Categories

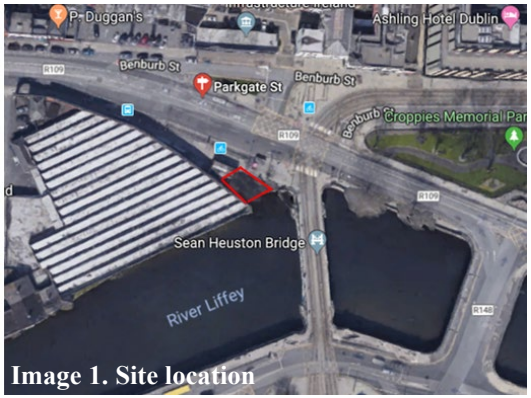

Image 1. Site location

3. Image sheet

Image 2. View of tree group from north

Image 3. View of tree group from south

Image 4. Tree #1 to left of image with a lean

4. Limitations of Survey

This survey should be regarded as a preliminary assessment of the trees and deals with the current condition as identified during this survey only. Every attempt was made to identify hazardous trees in this report however; this survey was carried out from the ground and therefore cannot be held to have identified elements of decay, which may be hidden out of sight within the crown or beneath ivy or other obstructions. To counter this limitation in the survey process it is vital that during tree works any additional defects found by the climbing arborist are communicated to the consulting arborist to allow appropriate action to be taken.

The details within this survey are based on the condition of the trees during the survey period only. The findings in this survey cannot be held to be valid after any site disturbance, man-made or natural, which may have an adverse effect on any trees present.

CMK
Hort + Arb Ltd.

5 Relevant legislation

There are no Tree Protection Orders (TPOs) on any of the trees on this site. However, unless planning permission which clearly identifies trees for removal has been granted then under Section 7 of the Forestry Act 2014 a person wishing to fell trees must apply to the minister for a licence to do so.
Exempted trees: Section 19 states that the requirement for a felling licence for the uprooting or cutting down of trees does not apply where:

- The tree in question is standing in an urban area
- The tree is considered dangerous and hazardous.
- The tree is within 10m of a public road and regarded as hazardous
- The tree in question is less than 100 ft. / 30m from a dwelling other than a wall or temporary structure;
- The tree in question is a hazel, apple, plum, damson, pear, or cherry tree grown for the value of its fruit or any ozier;

Other exceptions apply in the case of local authority road construction, road safety and electricity supply operations.

The Act is administered by the Forest Service (Department of Agriculture, Fisheries and Food). The Felling Section of the Forest Service is based in Johnstown Castle, Co. Wexford (053-9160200 or 1890-200223).

If you have any queries about felling in general or are unsure whether or not the trees fall under any of the above cases, it is recommended that you seek the advice of the Felling Section or of your local forestry development officer for further information.

Trees may contain bats. Bats are protected under Schedule 5 of the Wildlife Act 1976 and Schedule 1 of the European Communities (Natural Habitats) Regulations 1997. Professional advice from a licenced surveyor should be sought prior to any works commencing on trees.

CMK
Hort + Arb Ltd.

6. Terminology

Tree categories	
A	Trees of high quality and value due to their size, age, condition, historical/visual merit and/or conservation potential (a minimum of 40 years).
A1	Mainly arboricultural values. Particularly good examples of species, essential components of groups or of formal or semi-formal arboricultural features.
A2	Mainly landscape values. Trees, groups or woodlands which provide a definite screening or softening effects to the locality in relation to views into or out of site, or those of particular visual importance.
A3	Mainly cultural values, including conservation. Trees, groups or woodlands of significant conservation, historical, comparative or other value (e.g. veteran trees or wood-pasture).
B	Trees of moderate quality and value (a minimum of 20 years).
B1	Mainly arboricultural values. Trees that might be included in high categories but are downgraded because of impaired condition (e.g. presence of remedial defects including unsympathetic past management and minor storm damage).
B2	Mainly landscape values. Trees present in numbers, usually as groups or woodlands, such that they form distinct landscape features, thereby attracting a higher collective rating than they might as individuals but which are not, individually, essential components of formal or semi-formal features (e.g. trees of moderate quality within an avenue that includes better A category specimens) or trees situated internally to the site, therefore individually having little visual impact on the wider locality.
B3	Mainly cultural values including conservation. Trees with clearly identifiable conservation or other cultural benefits.
C	Trees of low quality and value (a minimum of 10 years).
C1	Not qualifying in higher categories.
C2	Trees present in groups or woodlands but without conferring on them greater landscape value and/or trees offering low or only temporary screening benefit.
C3	Trees with very limited conservation or other cultural benefits.
U	Trees in such condition that any existing value would be lost within 10 years and which should, in the current context, be removed for reasons of sound arboricultural management. Trees that are dead, dying or showing immediate and irreversible decline.

CMK
Hort + Arb Ltd.

Terminology (cont.)

Comments: Refers to the tree's condition and suitability for the site.

Common name: Most widely used non-botanical name.

Co-dominant: Two branches assuming the role of leading shoots. When growing close together may form a weak attachment (included bark) at their point of contact. Trees with this defect may be in danger of splitting at this weak attachment.

Crown Spread: Measured in meters north, south, east and west.

Decay fungi: Refers to those species of fungi which degrade living wood and which may, depending on the degree of degradation, render the tree structurally unsound.

Defects: Refers to cracks, storm damage and any other damage mechanical or biological.

Diameter: Diameter of the trunk (millimetres) at 1.5m. M.S. after the measurement refers to the tree being multi-stemmed.

Genus & Species: Refers to the botanical names for the tree.

Height: Measured in meters.

Monitor: Refers to trees which need to be re-surveyed on a yearly basis to assess their condition. This timescale may be sooner where works or adverse
Weather conditions have impacted negatively on the trees.

Overhaul: A reference to standard tree surgery work which consists of the removal of deadwood, crossing branches and balancing where appropriate.

Recommendations: Indicates surgery work necessary for the retention or, where necessary, removal of the tree.

Tree No. Refers to numbered tag fixed to tree during survey.

CMK
Hort + Arb Ltd.

7. Tree condition analysis & preliminary recommendations

Tag No.	Species	Age Category	General Condition	Comments	Preliminary Recommendations	Landscape and Arboricultural Category	Useful Life Expectany
0001	Lime cultivar Tilia cordata cv	Early-mature	Good	Trunk with a lean toward north-east due to competition from neighbourig tree. Lean not significant with crown vertical in orientation. Upper canopy relatively well dveloped with no visible defects.	No action necessary	B2	30-40
0002	Lime cultivar Tilia cordata cv	Early-mature	Good	Trunk co-dminant from 3m with a wide union between stems. Upper canopy relatively well developed with no visible defects.	No action necessary	B2	30-40
0003	Lime cultivar Tilia cordata cv	Early-mature	Good	Upper canopy topped to east over neighbouring building reducing the trees visual quality. Remaining crown relatively well developed. Trunk co-dominant from 2m with a tight union and included bark between stems which may reduce long term potential.	No action necessary	B2	30-40
0004	Lime cultivar Tilia cordata cv	Early-mature	Good	Trunk multi-stemmed from 3m with tight unions between stems, which is unlikely to be significant at present. Root girdling west has potential to reduce long term potential, though not significant at present. Canopy toward west has been reduced in the past but overall crown relatively well developed.	No action necessary	B2	30-40

CMK
Hort + Arb Ltd.

8. Tree measurements

Tree No.	Height m.	D.B.H. mm.	Spread m. N,S,E,W	Clear Stem first cardinal point	Root Protection radius m.
001	9.5	370	5;4.25;3;4	2.5e	4.4
002	10.5	290	6;4;3;4	4s	3.5
003	10.5	420	5;3;2;4	4w	5.0
004	10.75	410	5;4;3;4	3s	4.9

9. Tree protection

Tree protection fencing must be erected before construction works commence and must be in accordance with BS 5837 (2012). Shown on drawing TPAR002 Tree Protection 102. Fencing will remain in place until the landscaping phase.

During landscaping, light soil scraping to a depth no greater than 150mm will occur near trees. To accommodate foot traffic, gravel and 60mm porous paving slabs shall be laid. A 0.5m zone around the trees root flare shall remain clear to aid soil aeration.

a. Oil, bitumen, cement or other materials likely to be injurious to a tree should not be stacked or discharged within 10m of a bole, and materials generally should not be stacked or discharged within 5m of a bole. It is essential that allowance is made for the slope of the ground so that damaging materials such as concrete washings, mortar or diesel oil cannot run towards trees.

b. Concrete mixing should not be carried out within 10m of a tree.

c. Fires should not be lit in a position where the flames could extend within 5m of foliage, branches or trunk, bearing in mind the size of the fire and the wind direction.

d. As the majority of tree roots occur within the top 600mm of soil changes to soil levels within the root zone can have serious consequences for tree health.

Increases in soil levels within the root zone of trees can lead to root asphyxiation and ultimately to tree decline and/or death.

A reduction in soil levels may expose roots to drying out and/or being damaged and have the same effect on the tree as described above.

Tree root protection

The Root Protection Area should be calculated using as per Table 1 and/or Annex D (BS 5837 2012) as an area equivalent to a circle with a radius 12 times the stem diameter for single stem trees and 10 times basal diameter for trees with more than one stem arising below 1.5m above ground level.

Number of stems	Calculation
Single stem tree	$RPA\ (m^2) = \frac{(\text{stem diameter (mm) @ 1.5 m} \times 12)^2 \times 3.142}{1000}$
Tree with more than one stem arising below 1.5m above ground level.	$RPA\ (m^2) = \frac{(\text{basal diameter (immediately above root flare (mm)} \times 10)^2 \times 3.142}{1000}$

10. References

BS 5837 (2012). Trees in Relation to Design Demolition and Construction

Mattheck and Breloer (1994). The body language of trees