

# ARBORICULTURAL ASSESSMENT & IMPACT REPORT

## Library Square Ringsend - Public Realm Improvement & Library Refurbishment & Extension

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- i Tree Condition Analysis & Preliminary Recommendations**
- ii TLIB001 101 Arboricultural Assessment & Constraints drawing**
- iii TLIB001 102 Arboricultural Impact drawing**

## 1. Client brief & Methodology

CMK Hort + Arb Ltd. were commissioned by Mitchell & Associates on behalf of Dublin City Council to provide base-line data on the composition and condition of trees and the impact on trees of the proposed development at Irishtown. The initial fieldwork was undertaken on the 14th of April 2022.

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).



**Image 1.** Site location (red line for illustrative purposes only)

## 2. General description of trees

The trees which are the subject of this report are located within two distinct locations within the streetscape of Irishtown. The larger group (11 individual trees) are positioned within a plaza beside the library with the less numerous group (3 individual trees) to the north of the R802 (image 1).

All of the trees recorded are Norway maple (*Acer platanoides*). The trees beside the library and are an even-aged group of variable size and quality (image 2). The condition of the trees suggests that they were planted with insufficient distance between trees within sub-standard planting pits with the result that intense competition and poor root conditions has led to a number of trees performing very poorly. In addition, all the trees' crowns are affected in some way by completion from neighbouring trees. Tree grills are an issue particularly where trees have developed larger trunks and are becoming enmeshed in the grills.

Norway maple attract aphids which in turn exude honeydew. This makes the seating and paving beneath the trees particularly at the plaza sticky and unsuitable for use over much of the year.

The three trees on the northern side of the R802 are also Norway maple of variable quality. All have had extensive crown raising leading to large pruning cuts. There is no evidence of associated decay at present however decay is likely to become an issue in time. One tree (#592) is in contact with raised paving and will cause damage in time (image 3).

Individual tree assessments are outlined within Appendix I with table 1 providing a breakdown of the categories of trees assessed. There are no trees of significance present though the better-quality trees do provide the benefits of tree canopy in this area of limited street tree cover.

Category	Number	% of total
A	0	0
B	7	50
C	5	36
U	2	14

**Table 1.** Tree Categories



**Image 2.** Trees adjacent to the library. Note variable quality of trees.



**Image 3.** Trees on the northern side of the R802. Note proximity of tree trunk to raised paving (arrowed).

Unfortunately, poor species choice, limited and inappropriate management inputs have created a mixed bag of trees which are limited in their ability to provide the range of ecosystem services which a healthy tree population can.

It is the opinion of the author of this report that with the possible exception of tree #593 that all the trees should be removed and replaced with more appropriate species / cultivars with the potential to become trees of appropriate stature for this location. This will require long-term management with trees planted within suitable planting pits where root systems can develop in support of the trees.

### **3. Impact of the proposed development**

The impact of the proposed Library Square public realm improvement and library refurbishment and extension will necessitate the removal of all the existing trees within the square and on the northern side of the R802. This loss of trees will have a relatively large initial impact on the existing streetscape, however as already alluded to within section 2 of this report the existing trees are poorly suited for inclusion within public open space areas such as Library Square. This should be considered an opportunity to select more suitable trees which will fit within the revitalised Library Square public realm space.

## 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.

## 5. 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.



## Terminology continued

- 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.

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.

## 4. References

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

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

## APPENDIX I. TREE CONDITION ANALYSIS AND PRELIMINARY RECOMMENDATIONS

Tag number	Species	Age Class	Vigour	Comments	Preliminary Recommendations	Category	Long-term potential (years)	Dbh mm	Height m	Spread m N, E, S, W	Clear Stem m
580	Norway maple Acer platanoides	Young	Very Poor	In a state of advanced decline	Fell	U	<10	90	5.5	0,1,1,1	NA
581	Norway maple Acer platanoides	Young	Fair	Relatively well developed though crown restricted toward west due to competition from neighbouring tree.	No action necessary	C2	10-15	170	10	2,2,2,1	3n
582	Norway maple Acer platanoides	Early Mature	Fair	Relatively well developed but crown restricted toward west due to competition from neighbouring tree.	No action necessary	B2	15-20	140	10	3,2,2,0. 5	2s
853	Norway maple Acer platanoides	Early Mature	Good	A well-developed dominant specimen within tree group. Very minor deadwood in lower crown but not indicative of decline. No visible defects.	No action necessary	B2	30-40	270	12	3,3,5,3	2.5w
584	Norway maple Acer platanoides	Early Mature	Fair	Canopy restricted toward west due to competition from neighbouring trees. Deadwood in lower canopy may be indicative of decline.	Dead wood	C2	10	230	11	3,3,1,0. 5	2.25n

Tag number	Species	Age Class	Vigour	Comments	Preliminary Recommendations	Category	Long-term potential (years)	Dbh mm	Height m	Spread m N, E, S, W	Clear Stem m
585	Norway maple Acer platanoides	Early Mature	Good	A relatively well developed dominant specimen with deadwood in lower canopy to east. Unlikely to be indicative of decline. Crown restricted toward east due to competition	Deadwood	B2	15-20	340	11	3,1,5,5	2.5s
586	Norway maple Acer platanoides	Early Mature	Good	A well-developed specimen with minor deadwood in crown. Crown slightly restricted toward south due to competition from neighbouring tree. Becoming enmeshed in tree grill.	Deadwood. Remove tree grill.	B2	30-40	330	12	3.5,2,1,4.5	2n
587	Norway maple Acer platanoides	Young	Very Poor	A sub dominant specimen with very limited crown development. Bark damage at base of trunk. Crown very limited in extent.	Fell	U	10	120	5.5	2,0,0,0	NA
588	Norway maple Acer platanoides	Early Mature	Good	Crown slightly restricted toward west due to competition from neighbouring tree. Well-developed overall with no visible defects.	No action necessary	B2	30-40	190	10	3,2,1.2,1	2.25s
589	Norway maple Acer platanoides	Early Mature	Good	A well-developed specimen with no visible defects.	Remove grill	B2	40	180	9	3,3,2,1.5	2.15w



Tag number	Species	Age Class	Vigour	Comments	Preliminary Recommendations	Category	Long-term potential (years)	Dbh mm	Height m	Spread m N, E, S, W	Clear Stem m
590	Norway maple Acer platanoides	Early Mature	Poor	Deadwood in canopy. Overall appearance is of a tree in decline.	Fell	C2	<10	200	7.5	2,1,1,2	2.5n
591	Norway maple Acer platanoides	Early Mature	Poor	Bark damage to base of trunk but unlikely to be significant at present. Crown limited in extent. Large pruning cuts to raise canopy. No associated decay visible at present.	No action necessary	C2	10	240	10	1,1,1,1	4.5n
592	Norway maple Acer platanoides	Early Mature	Fair	Base of tree in contact with raised paving. Large diameter pruning cuts to raise canopy. No associated decay visible. Crown restricted in extent to north due to competition from neighbouring trees but extension growth and canopy limited overall.	No action necessary	C2	10	230	10	1,2,1,1. 5	2.5nw
593	Norway maple Acer platanoides	Early Mature	Good	The dominant specimen within tree group. Base of tree raising nearby paving. Large diameter pruning cuts to raise canopy but no visible decay. Crown relatively well developed.	No action necessary	B2	30-40	370	11	4,3,3,3	2.15w