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ARBORICULTURAL ASSESSMENT
&
IMPACT REPORT

SHB 4&5 - CGK - COOLAKNOCK GLEBE, KILDARE TOWN

Project No.	Project name	Date	Revision
TCOO001	Coolaghknock	13/05/24	A

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

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Summary

A total of five hedgerows / hedges and seven individual trees were assessed for this report. The hedgerows are of agricultural origin whereas the hedges and individual trees are of recent origin and are likely associated with the Connagh housing development.
A total of 7 trees, two areas of willow scrub and 521m of hedgerow were assessed. The proposed development will necessitate the removal of one category B and five category C trees, two areas of willow scrub and 113m of hedgerow. A total of 408m of hedgerow is to be retained.
This report should be read with reference to the following drawings:
TCOO001 101-103 Tree Survey & Constraints
TCOO001 104-106 Arboricultural Impact
TCOO001 107-109 Tree Protection

1. Client brief & Methodology

This report was prepared on behalf of the National Development Finance Agency (NDFA) and Kildare County Council to provide base-line data on the composition and condition of hedgerows and trees within an area of land adjacent to the Connagh / Coolaghknock housing developments, Kildare town. This report outlines these finding and assesses the impact on trees of the proposed development.
The fieldwork was undertaken on the 12th of July 2023.
This report should be read with reference to the following drawings:
TCOO001 101-103 Tree Survey & Constraints
TCOO001 104-106 Arboricultural Impact
TCOO001 107-109 Tree Protection
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 trees, hedges and hedgerows which form the basis of this report are located on an area of land to the east of Connagh and the Coolaghknock housing develpments, Kildare town (image 1).

Image 1. Assessment boundary.

The primary woody vegetation on the site are hedgerows. These intersperse and border the site and are a mixture of relatively recent plantings of native and non-native species and older agricultural hedgerows.

Hedge #1 which is composed of Griselinia is located on a section of the eastern boundary. It is unclear what the origin of this hedge is.

Hedgerow #2 appears to be associated with the Connagh housing development.

The remaining hedgerows are of agricultural origin. These are typically composed of hawthorn (*Crataegus monogyna*), elder (*Sambucus nigra*) with an understory of bramble (*Rubus fruticosus*). There are no standard trees present. Management of the hedgerows has been limited in recent times with the result that their original managed clipped form has been lost and is now taller and less compact.

Open areas of the site are being colonised by goat willow (*Salix caprea*) forming occasional areas of scrub vegetation.

A total of seven rowan cultivars (*Sorbus aucuparia* cv) have been planted within the open space area to the east of Connagh Road. These are poor quality trees overall and of limited long-term potential. The locations of these features are shown on drawing TCOO001 101-103 Tree Survey & Constraints

Image 2. Hedge #1 Griselinia on eastern boundary

3.

Image 3. Hedgerow #3. Internal agricultural hedgerow. Note extensive ivy growth through hawthorn.

Image 4. Hedgerow #4. Agricultural hedgerow on boundary with Coolaghknock housing development Note extent of elder forming basal vegetation

Image 5. Hedgerow #5. Agricultural hedgerow on southern boundary. Note gappy structure of hedgerow and degree of bramble forming basal vegetation

3. Impact of the proposed development

The proposed development will necessitate the removal of removal of one category B and five category C trees mainly from the existing green space to the north of the site and two areas of willow scrub and 113m of hedgerow. A total of 408m of hedgerow is to be retained (refer to drawing TCOO001 104-106 Arboricultural Impact). This equates to 22% of the total linear extent of existing hedgerows.
A total of 408m of hedgerow is to be retained and protected during the development of the site (refer to drawing TCOO001 107-109 Tree Protection).

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.
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.

Terminology cont.

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.

6. 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
399	Rowan cultivar Sorbus aucuparia cv	Early-mature	Very Poor	In a state of advanced decline	Fell	U	<10	70	3	0.5,0.5, 0.5,0.5
398	Rowan cultivar Sorbus aucuparia cv	Early-mature	Very Poor	In a state of advanced decline	Fell	U	<10	60	3.25	0.5,0.5, 0.5,0.5
397	Rowan cultivar Sorbus aucuparia cv	Early-mature	Poor	Extensive bark damage to trunk with associated decay.	Fell	U	<10	70	3.75	0.5,0.5, 0.5,0.5
396	Rowan cultivar Sorbus aucuparia cv	Early-mature	Fair	Very strong lean toward south. Long term potential compromised as a result.	Monitor	C2	<10	90	4.5	0.5,1,2, 0.5
395	Rowan cultivar Sorbus aucuparia cv	Early-mature	Good	Trunk lean towards east but appears stabilised. Canopy relatively well developed	No action necessary	B2	15-20	80	4.25	0.5,0.5, 1,0.5
394	Rowan cultivar Sorbus aucuparia cv	Early-mature	Good	Minor mower damage at base. Canopy relatively well developed	No action necessary	B2	20-30	80	4.25	0.5,0.5, 0.5,0.5
393	Rowan cultivar Sorbus aucuparia cv	Early-mature	Fair	Top lost. Strong regrowth from base.	Remove basal growth	C1	10-15	80	4.23	0.5,0.5, 0.5,0.5

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APPENDIX ii. HEDGE / HEDGEROW ANALYSIS AND PRELIMINARY RECOMMENDATIONS

Hedgerow	Species	Age Class Vigour	Comments	Preliminary Recommendations	Dbh mm Height m Spread m N, E, S, W
#1	Griselinia Griselinia littoralis	Mature Good	Located on a section of the eastern boundary of the site. A well-developed planting occasionally interspersed with bramble.	No action necessary	200 av 4 2,2,2,2
#2	Field maple Acer campestre Hawthorn Crataegus monogyna Beech Fagus sylvatica	Early-mature Good	Traversing the site from east to west. Planted as part of the development of the neighbouring housing development in 2010 approx. Developing well and becoming a dense planting forming a good screen. No visible defects.	No action necessary	200 av 4-6 2,2,2,2
#3	Hawthorn Crataegus monogyna Sycamore Acer pseudoplatanus Elder Sambucus nigra	Early Mature - Mature	An agricultural hedgerow traversing the site from east to west. Primarily composed of hawthorn with occasional self-seeded sycamore. Sections becoming colonised by elder.	To retain as a functioning hawthorn could benefit from the selected removal of elder	200-300 4-6 4,4,4,4
#4	Hawthorn Crataegus monogyna Elder Sambucus nigra	Mature	An agricultural hedgerow on the boundary with a housing development. Boundary wall in place. Hawthorn element becoming overgrown by elder in places which will ultimately degrade the overall quality of the hedgerow.	To retain as a functioning hawthorn could benefit from the selected removal of	300-350 6-9 4,4,4,4

Hedgerow	Species	Age Class Vigour	Comments	Preliminary Recommendations	Dbh mm Height m Spread m N, E, S, W
#5	Hawthorn Crataegus monogyna Elder Sambucus nigra	Mature	A degraded agricultural hedgerow. Gappy in places with hawthorn element becoming swamped by elder. Bramble and blackthorn extending into the site from base of hedgerow	To retain as a functioning hedgerow remove elder and scrub vegetation	240 4-6 3,3,3,3