

Arboricultural Report

Tree Survey,
Arboricultural Impact Assessment &
Arboricultural Method Statement

In relation to the development proposal at:

Knocklyon Road
Knocklyon
Co. Dublin

November 2022

220913-PD-11

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Section 1: Arboricultural Impact Assessment

1 Summary

- 1.1 This arboricultural report has been instructed by Pathway Homes Ltd. (the 'Applicant').
- 1.2 The development proposal is for the construction of four residential dwellings at Knocklyon Road, Knocklyon, Co. Dublin (the 'Application Site').
- 1.3 This report includes:
- an assessment of the trees, their quality and value in accordance with BS 5837:2012 - Trees in relation to design, demolition and construction;
 - the site context and observations on the trees;
 - local planning policies relevant to the consideration of trees on the site;
 - the impact of the proposed development on the tree population in and around the site; and
 - methods of reducing impacts on trees.
- 1.4 In conclusion, the proposed development will require the removal of two lime trees (T3 & T4) of moderate quality and value (B Category) and two sycamore trees (T5 & T6) and one shrub group (G7) of low quality and value (C Category).
- 1.5 The two lime trees are under the ownership of the Local Authority and their loss will have an impact on the landscape character of the immediate surrounding area due to their moderate quality and prominent location.
- 1.6 The remaining trees and shrubs to be removed will have an insignificant impact on the surrounding local area due to their low quality.
- 1.7 Replacement tree planting will be required to mitigate the loss of trees and canopy cover to ensure that the development does not have a negative impact on the local landscape character.

2 Introduction

Instructions

- 2.1 This arboricultural report has been instructed by Pathway Homes Ltd. to provide information to assist all parties involved in the planning process to make balanced judgements with regard to arboricultural features in relation to the proposed development at Knocklyon Road, Knocklyon, Co. Dublin.

Development proposal

- 2.2 The development proposal is for the construction of four new residential dwellings with associated car parking and all site infrastructure and engineering works necessary to facilitate the development.

Qualification and experience

- 2.3 The author of this report, Charles McCorkell, is a Chartered Arboricultural Consultant who deals with trees in relation to all forms of human activity, including the built environment. He is a Professional Member of the Institute of Chartered Foresters, a Professional Member of the Arboricultural Association, a qualified professional tree inspector (LANTRA), and has a BSc Honours Degree in Arboriculture from the University of Central Lancashire.

Scope and limitations

- 2.4 The survey is not a health and safety inspection of trees; however, trees identified as imminently dangerous will have been highlighted and recommendations made, where appropriate.
- 2.5 The contents of this report are the copyright of *Charles McCorkell Arboricultural Consultancy* and may not be distributed or copied without the author's permission.

Methodology and guidance

- 2.6 The author has referred to *British Standard 5837: Trees in relation to design, demolition and construction (2012)* which provides a methodology for the assessment of trees and other significant vegetation on development sites.
- 2.7 BS 5837:2012 is intended to assist decision-making with regard to existing and proposed trees and sets out the principles and procedures to be applied in order to achieve a harmonious relationship between existing and new trees and structures that can be sustained for the long term.

- 2.8 The BS 5837:2012 recommends the National Joint Utilities Group (NJUG) document *Guidelines for the planning, installation and maintenance of utility apparatus in proximity to trees*. Volume 4, issue 2. London: NJUG, 2007, as a normative reference for guidance on the installation of utilities within proximity to trees.

Supporting information

- 2.9 This report should be read in conjunction with the following supporting documents attached to this report.

Document	Reference	Location
Arboricultural Method Statement	N/A	Section 2
Tree Schedule	220913-PD-10	Appendix A
Tree Work Schedule	220913-PD-12	Appendix A
Tree Survey & Constraints Plan	220913-P-10	Appendix B
Tree Removals Plan	220913-P-11	Appendix B

Definitions

- 2.10 **Root Protection Area (RPA)** – a layout design tool indicating the area surrounding a tree that contains sufficient rooting volume to ensure the survival of the tree.

3 Observations & Context

Site visit

- 3.1 The site was visited by Charles McCorkell on 7 October 2022. The purpose of the visit was to survey on and off-site trees and vegetation which may be of significance to the proposed development. The survey was carried out in accordance with BS 5837:2012 and from ground level only.

Site location and description

- 3.2 The Application Site is an existing area of open space located on the eastern side of Knocklyon Road (Map 1).
- 3.3 The site contains two sycamore trees and an overgrown group of pyracantha shrubs and brambles. Immediately west of the site, there are two early-mature lime trees that are located within a grass verge between the public footpath and road.



Map 1 (Google 2022): Dashed yellow line highlighting the location of the site within the local area.

Views of the site and trees



Photo 1: View of the two sycamores (T5 & T6) and the shrub group (G7).



Photo 2: View of early-mature limes (T1 - T4) located adjacent to the site.

4 Local Planning Policy

Development Plan 2022-2028

- 4.1 The County Development Plan 2022-2028 contains the following policies that relate to trees and are to be considered:

GI1 Objective 1

To establish a coherent, integrated and evolving GI Network across South Dublin County with parks, open spaces, hedgerows, trees including public street trees and native mini woodlands (Miyawaki-Style), grasslands, protected areas and rivers and streams and other green and blue assets forming strategic links and to integrate and incorporate the objectives of the GI Strategy throughout all relevant land use plans and development in the County.

GI5 Objective 3

To ensure compliance with the South Dublin Climate Change Action Plan and the provisions of the Council's Tree Management Strategy.

- Increase the County's tree canopy cover by promoting annual planting, maintenance preservation and enhancement of trees, woodlands and hedgerows within the County using locally native species and supporting their integration into new development.

GI5 Objective 6

To provide more tree cover across the county, in particular to areas that are lacking trees.

NCBH11 Objective 3

To protect and retain existing trees, hedgerows, and woodlands which are of amenity and/or biodiversity and/or carbon sequestration value and/or contribute to landscape character and ensure that proper provision is made for their protection and management taking into account Living with Trees: South Dublin County Council's Tree Management Policy (2015-2020) or any superseding document and to ensure that where retention is not possible that a high-value biodiversity provision is secured as part of the phasing of any development to protect the amenity of the area.

Tree Management Policy 2015-2020

4.2 The South Dublin County Council Tree Management Policy 'Living with Trees' 2015-2020 contains information within Chapter 7 Trees and Development that relates to the retention, protection and planting of trees on development sites. Relevant points within this section include:

- The Council will use its powers to ensure that where it is conducive with the objectives of the County Development Plan, and other planning objectives there is maximum retention of trees on new development sites.
- In the processing of planning applications, the Council will seek the retention of trees of high amenity / environmental value taking consideration of both their individual merit and their interaction as part of a group or broader landscape feature.
- On construction sites all work must be in accordance with British Standard 5837 (2012): Trees in Relation to Design, Demolition and Construction – Recommendations.
- The Council will promote the replacement of trees removed to facilitate approved planning and development of urban spaces, buildings, streets, roads, infrastructural projects and private development sites.

5 Technical Information

Tree data

- 5.1 The Tree Survey & Constraints Plan at Appendix B illustrates the location of trees, the extent of the spread of their crowns, and their root protection areas. Dimensions, comments and information for each tree and group are given in the Tree Schedule at Appendix A.

Life stage analysis

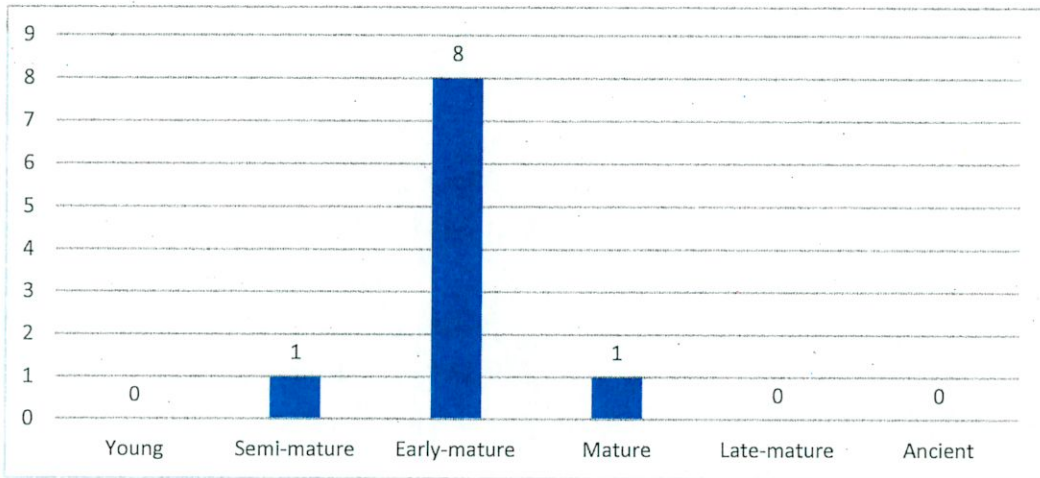


Figure 1: Life stage analysis of the 10 survey entries recorded.

BS5837 (2012) category breakdown

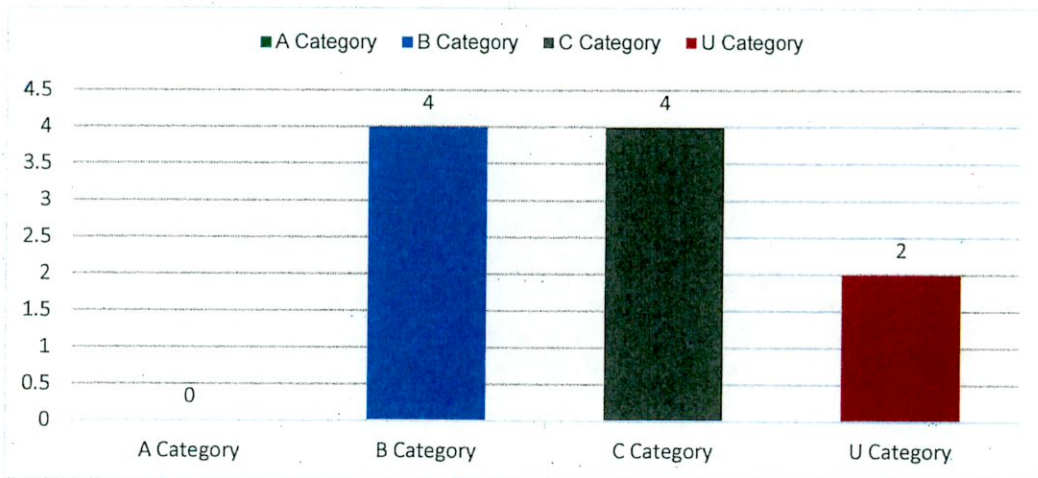


Figure 2: Breakdown of BS5837:2012 categories of the 10 survey entries recorded on and adjacent to the site.

6 Analysis of the Proposal in Respect of Trees

Arboricultural Impacts

- 6.1 **Loss of trees** – The proposed development requires the removal of two lime trees (T3 & T4) of moderate quality and value (B Category) and two sycamore trees (T5 & T6) and one shrub group (G7) of low quality and value (C Category).
- 6.2 The loss of the two sycamore trees (T5 & T6) and shrub group (G7) will not have a significant impact on the character and appearance of the surrounding local area due to their low quality and value.
- 6.3 The two lime trees (T3 & T4) proposed to be removed are owned by the Local Authority. Their removal is required to construct the two vehicle access points into the site. As the trees are located on third-party lands, written consent will be required by the owner prior to their removal.
- 6.4 The loss of these two trees will have an impact on the immediate surrounding landscape due to their moderate quality and prominent roadside location. Substantial replacement planting will be required within similar prominent locations in order to help mitigate their loss.
- 6.5 The proposed tree removals are specified within the Tree Work Schedule at Appendix A and are highlighted in the Tree Removals Plan at Appendix B.

Arboricultural mitigation

- 6.6 New tree planting will be required within the site and within public lands to mitigate the loss of trees and canopy cover.
- 6.7 To mitigate the loss of the two prominent lime trees, new semi-mature tree planting, can be carried out along the existing public highway, subject to agreement with the Local Authority Parks Department.
- 6.8 The existing grass verge that the trees are currently growing in extends north beyond the site towards the Delaford residential estate. There is sufficient space in this area to plant several new trees. There is also space between the two proposed vehicle access points and within the small area of public open space to the south of the site.
- 6.9 Strategic replacement planting with good quality tree species in prominent locations can mitigate the loss of the trees and canopy cover in the short to medium term.

7 Discussion & Conclusion

General Change

- 7.1 The loss of the two lime trees (T3 & T4) that are required to construct the two vehicle access points into the site will have an impact on the landscape character of the immediate surrounding area due to their moderate quality and prominent location.
- 7.2 Unfortunately, these trees are required to be removed in order to facilitate the development; however, sufficient space to carry out replacement planting within similar prominent locations has been identified.
- 7.3 Such new planting can mitigate the loss of these trees and possibly increase canopy cover, subject to the quantity required to be planted, in the short to medium term. Any such planting would be subject to the approval of the Local Authority Parks Department.

Proposal in relation to local planning policy

- 7.4 The removal of trees that are of amenity value is required to facilitate the development. Local planning policy NCBH11 Objective 3 specifies that where the retention of such trees is not possible, a high-value biodiversity provision should be secured as part of the phasing of development to protect the amenity of the area. To adhere to this planning policy, the development proposal will be required to carry out new tree planting of high quality within the local area under the agreement of the Local Authority Parks Department.

Conclusion

- 7.5 The proposal has been assessed in accordance with BS 5837:2012 and local planning policy as it relates to trees.
- 7.6 The removal of trees required to facilitate the development must be replaced with new high-quality planting that can mitigate their loss and canopy cover.

Section 2: Arboricultural Method Statement

Introduction	
<p>This report has been prepared in accordance with British Standard 5837: Trees in relation to design, demolition and construction – Recommendations (2012) which provides a methodology for the assessment and protection of trees and other significant vegetation on development sites.</p>	
Sequence of Operations	
<ul style="list-style-type: none"> • Proposed tree works; • Enabling works; • Construction; and • Landscaping. <p><i>Alternative sequences can be discussed and agreed upon with the local authority and project manager if required.</i></p>	
Arboricultural Method Statement	
Scope	Methodology
Tree Works	<p>Please refer to the Tree Work Schedule at Appendix A for a list of all proposed tree works. The location of trees to be removed is highlighted on the Tree Removals Plan at Appendix B.</p> <p>It is the responsibility of the Site Manager to ensure all tree works have been approved by the local planning authority.</p> <p>All tree works will be carried out by a reputable arboricultural contractor in accordance with the recommendations given in BS 3998:2010 – Tree Work Recommendations.</p> <p>All tree works should be carried out in accordance with Section 40 of the Wildlife Act 1976 and Section 46 of the Wildlife (Amendment) Act 2000.</p> <p>It is the responsibility of the arboricultural contractor to ensure that no protected species are harmed whilst carrying out site clearance or tree surgery works.</p>

Appendix A - Schedule

Document	Reference	Revision
Tree Schedule	220913-PD-10	-
Tree Work Schedule	220913-PD-12	-

220913-PD-10-Tree schedule

220913 - Knocklyon Road



Tree ID	No. Species	Height (m)	Stem diameter (cm)	No. of Stems	CROWN SPREAD (m)								L.B. (m)	Life stage	Condition Notes	Survey date	RPA (m ²)	RPR (m)	Life expectancy (Yrs)	BS Category
					N	NE	E	SE	S	SW	W	NW								
Tree T1	1 Tilia x vulgaris (Common Lime)	11.5	32	1	4.5	4.5	4.5	4.0	4.0	4.0	4.0	4.0	1.0	Early Mature	Structural condition Good. Physiological condition Good. Root damage - Mower.	07/10/2022	46.3	3.8	40+	B2
Tree T2	1 Tilia x vulgaris (Common Lime)	12.0	33	1	4.5	5.0	4.5	4.5	4.5	4.5	4.5	1.0	Early Mature	Structural condition Good. Physiological condition Good. Branch - Broken. Epicormic growth - Base. Root environment - Compacted. Root damage - Mower.	07/10/2022	49.3	4.0	40+	B2	
Tree T3	1 Tilia x vulgaris (Common Lime)	12.0	34	1	5.5	5.5	5.5	5.0	5.0	5.0	1.0	Early Mature	Structural condition Good. Physiological condition Good. Epicormic growth - Base. Root environment - Compacted. Root damage - Mower.	07/10/2022	52.3	4.1	40+	B2		
Tree T4	1 Tilia x vulgaris (Common Lime)	12.0	34	1	4.5	5.5	6.0	5.5	5.5	5.5	0.0	Early Mature	Structural condition Good. Physiological condition Good. Epicormic growth - Base. Root damage - Mower.	07/10/2022	52.3	4.1	40+	B2		
Tree T5	1 Acer pseudoplatanus (Sycamore)	12.0	31 COM	6	4.0	3.5	3.5	3.5	3.0	3.0	0.0	Early Mature	Structural condition Poor. Physiological condition Fair. Multi-stemmed. Natural regeneration.	07/10/2022	45.9	3.8	20-40	C2		
Tree T6	1 Acer pseudoplatanus (Sycamore)	9.0	25 COM	3	3.0	3.0	3.0	3.5	3.5	3.5	0.0	Early Mature	Structural condition Poor. Physiological condition Fair. Multi-stemmed. Natural regeneration.	07/10/2022	30.5	3.1	20-40	C2		
Group G7	1 Pyracantha sp. (Pyracantha)	1.5	8 AVE	1							0.0	Semi Mature	Structural condition Fair. Physiological condition Fair. Overgrown shrub group. Height and stem diameter are average for group.	07/10/2022	2.9	1.0	10-20	C2		
Group G7	1 Rubus fruticosus s. (Blackberry/Bramble)																			

The survey information in this schedule has been gathered following a BS5837 survey for planning purposes. Where hazardous trees have been noted recommendations for works may have been made but this survey cannot be relied upon as a full health and safety assessment of the trees.



220913 - Knocklyon Road

Tree ID	No. Species	Height (m)	Stem diameter (cm)	No. of Stems	CROWN SPREAD (m)								Crown Clearance (m)	L.B. (m)	Life stage	Condition Notes	Survey date	RPA (m ²)	RPR (m)	Life expectancy (yrs)	BS Category
					N	NE	E	SE	S	SW	W	NW									
Tree T8	1 Acer saccharinum (Silver Maple)	21.0	63	1	7.0	9.0	7.0	5.5	5.5	5.5	5.0		Mature	Structural condition Poor. Physiological condition Fair. Arboricultural work - Historic. Bark exudation. Decay / structural defect - Base.	07/10/2022	179.6	7.6	0-10	U		
Tree T9	1 Ulmus procera (English Elm)	18.0	49 COM	2	8.0	1.0	1.0	7.0	7.0	1.0	1.0	Early Mature	Structural condition Poor. Physiological condition Fair. Branch weight - Heavy. Deadwood - Minor. Unbalanced crown - Major. Suspected infection from Dutch elm disease. Unable to inspect tree closely as located in neighbouring property.	07/10/2022	110.8	5.9	0-10	U			
Hedge H10	1 Griselinia littoralis	1.8	10	1							0.0	Early Mature	Structural condition Good. Physiological condition Good. Hedgerow - Maintained. Height and stem diameter are average for group.	07/10/2022	4.5	1.2	20-40	C2			

Stem **green** Estimated value

Stem **AVE** Average stem diameter for tree groups

Stem **COM** Combined stem diameter in accordance with BS5837

L.B. Height of lowest branch attachment (m) - where relevant

The survey information in this schedule has been gathered following a BS5837 survey for planning purposes. Where hazardous trees have been noted recommendations for works may have been made but this survey cannot be relied upon as a full health and safety assessment of the trees.

Table 1 of BS5837 (2012) Cascade chart for tree quality assessment

Category and definition	Criteria (including subcategories where appropriate)	Identification on plan
Trees unsuitable for retention (see note)		
Category U	<p>* Trees that have a serious, irremediable, structural defect, such that their early loss is expected due to collapse, including those that will become unviable after removal of other category U trees (e.g. where, for whatever reason, the loss of companion shelter cannot be mitigated by pruning)</p> <p>* Trees that are dead or are showing signs of significant, immediate, and irreversible overall decline</p> <p>* Trees infected with pathogens of significance to health and/or safety of other trees nearby, or very low quality trees suppressing adjacent trees of better quality</p>	RED
Those 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		
NOTE Category U trees can have existing or potential conservation value which it might be desirable to preserve; see 4.5.7		
1 Mainly arboricultural qualities		
2 Mainly landscape qualities		
3 Mainly cultural values, including conservation		
Trees to be considered for retention		
Category A	Tree that are particularly good examples of their species, especially if rare or unusual; or those that are essential components of groups or formal or semi-formal arboricultural features (e.g. the dominant and/or principal trees within an avenue).	GREEN
Trees of high quality		Trees, groups or woodlands of significant conservation, historical, commemorative or other value (e.g. veteran trees or wood-pasture).
with an estimated remaining life expectancy of at least 40 years		
Category B	Trees that might be included in category A, but are downgraded because of impaired condition (e.g. presence of significant though remediable defects, including unsympathetic past management and storm damage), such that they are unlikely to be suitable for retention for beyond 40 years; or trees lacking the special quality necessary to merit the category A designation.	BLUE
Trees of moderate quality		Trees with material conservation or other cultural value.
with an estimated remaining life expectancy of at least 20 years		
Category C	Unremarkable trees of very limited merit or such impaired condition that they do not qualify in higher categories.	GREY
Trees of low quality		Trees with no material conservation or other cultural value.
with an estimated remaining life expectancy of at least 10 years, or young trees with a stem diameter below 150 mm		

220913-PD-12 - Planning Tree Works Schedule

220913 - Knocklyon Road



ID	No. / Species	BS5837 Category	Purpose of works Recommended works	Status
T3	1 <i>Tilia x vulgaris</i> Common Lime	B2	To facilitate development Fell - Ground level. Approval from the Local Authority is required prior to the removal of the tree.	Proposed
T4	1 <i>Tilia x vulgaris</i> Common Lime	B2	To facilitate development Fell - Ground level. Approval from the Local Authority is required prior to the removal of the tree.	Proposed
T5	1 <i>Acer pseudoplatanus</i> Sycamore	C2	To facilitate development Fell - Ground level.	Proposed
T6	1 <i>Acer pseudoplatanus</i> Sycamore	C2	To facilitate development Fell - Ground level.	Proposed
G7	1 <i>Pyracantha sp.</i> Pyracantha	C2	To facilitate development Fell - Ground level.	Proposed
	1 <i>Rubus fruticosus s.</i> Blackberry/Bramble			

Appendix B - Plans

Document	Reference	Revision
Tree Survey & Constraints Plan	220913-P-10	-
Tree Removals Plan	220913-P-11	-

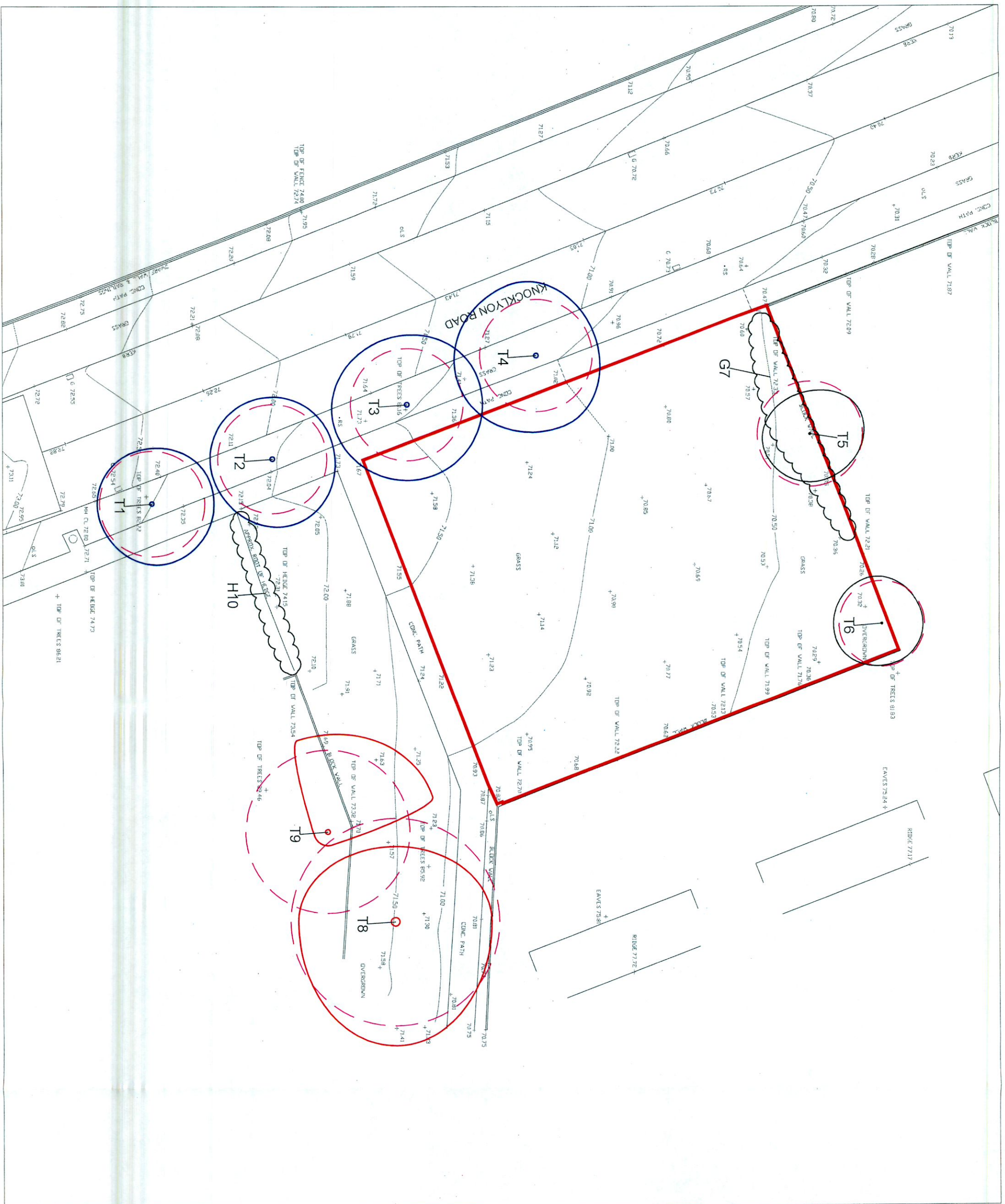
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This drawing is to be read in conjunction with the respective architectural schedules and reports relevant to this project.

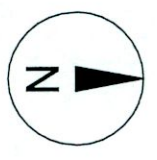
Where contradictions between the drawing and any other design information becomes apparent, the respective authors should be contacted immediately.

It is the responsibility of the main site contractor to check and verify all information and measurements onsite and confirm prior to the commencement of works, and to ensure that all site operations work in accordance with respective architectural reports and drawings. Trees to remain in design, construction and completion.

BSS937:2012 Tree Categorisation

- Category A**
Trees of high quality with an estimated remaining life expectancy of 50 years or more
- Category B**
Trees of moderate quality with an estimated life expectancy of at least 20 years
- Category C**
Trees of low quality with an estimated life expectancy of at least 10 years, or young trees with a stem diameter below 150mm
- Category U**
Trees in a condition that they cannot realistically be retained as living trees in the context of the current land use for longer than 10 years

- Key**
- Root Protection Area**
The minimum area site and deemed to contain sufficient roots and rooting volume to maintain the trees viability.
 - T10**
Tree, shrub, or hedge group.
 - T10**
Tree/Group Reference Number
 - Application Site**



Revision	Date	Description

Title:
Tree Survey & Constraints Plan

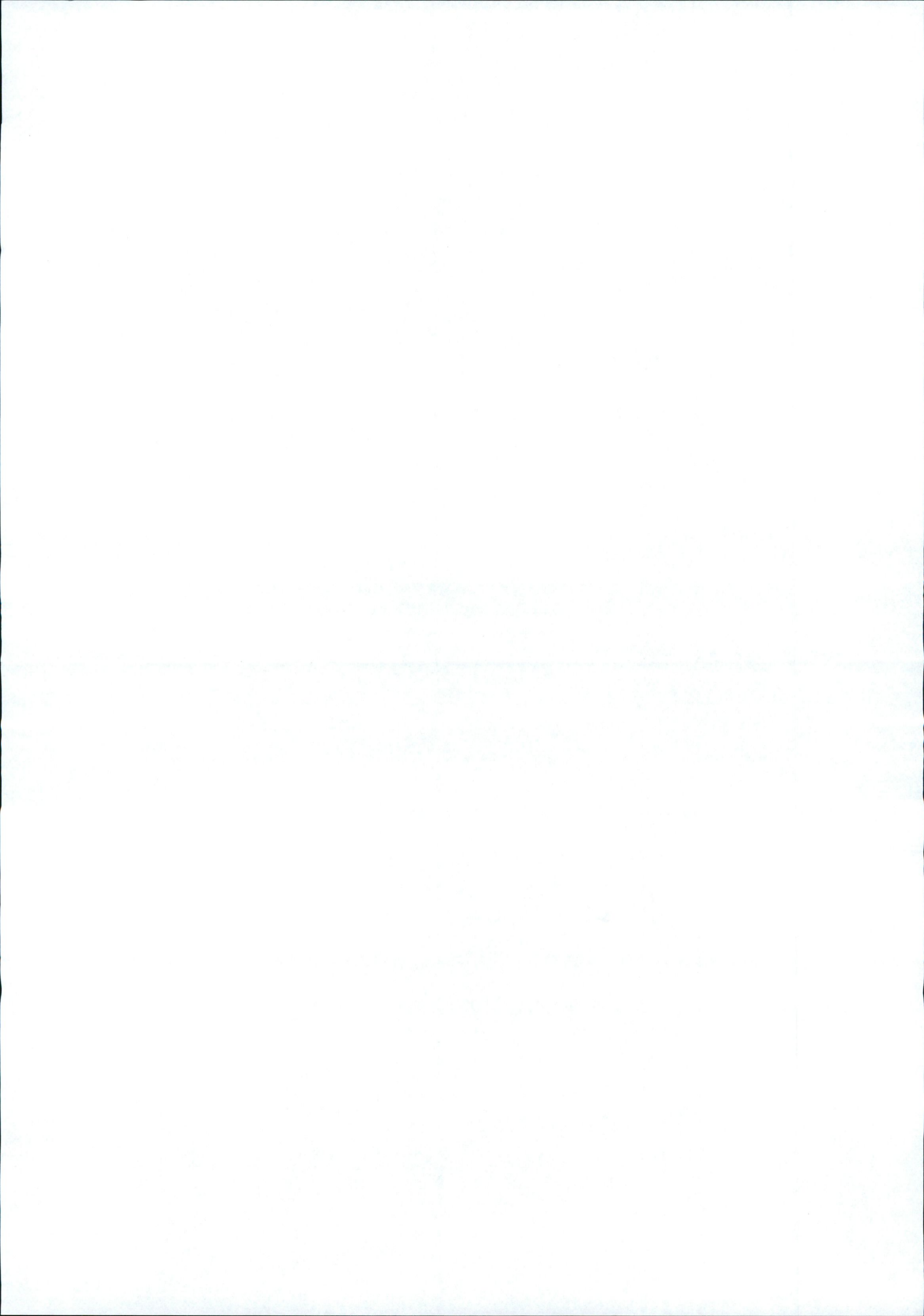
Project:
Knocklyon Road

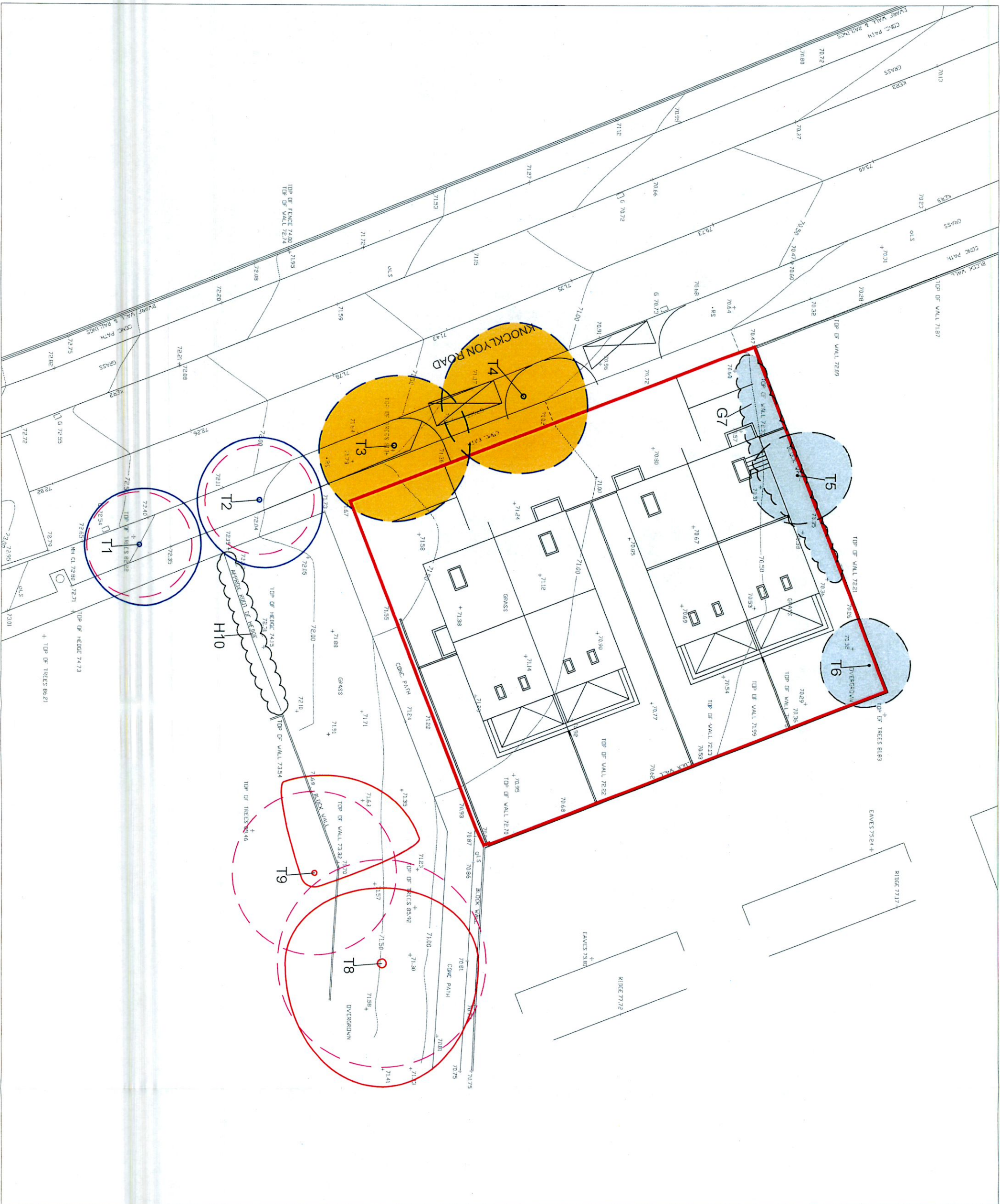
Client:
Pathway Homes Ltd.

Date	Drawn By	Checked By	Scale	Status
04/02/22	CMKC	CMKC	1:250 @ A3	Planning
22/09/13	CMKC	CMKC	Dwg ref: P-10	

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This drawing is to be read in conjunction with the respective architectural schedules and reports relevant to the project.

When conducting between this drawing and any other design information, discrepancies should be resolved in favour of the most detailed information. In the event of any discrepancy, the responsible architect should be contacted immediately.

It is the responsibility of the main site contractor to check and verify all information on site before commencing any work. The contractor shall be responsible for ensuring that all site operations are in accordance with the relevant architectural reports and BSS537/2012. Trees in relation to design, demolition and construction.

BSS537/2012 Tree Categorisation

- Category A**
Trees of high quality with an estimated remaining life expectancy of at least 40 years
- Category B**
Trees of moderate quality with an estimated life expectancy of at least 20 years
- Category C**
Trees of low quality with an estimated life expectancy of at least 10 years, or young trees with a stem diameter below 150mm
- Category U**
Those in such a condition that they cannot realistically be expected to survive for the duration of the current site use for longer than 10 years

Key

- Root Protection Areas**
The minimum area around a tree deemed to contain sufficient roots and rooting volume to maintain the tree viability.
- T10**
TreeGroup Reference Number
- Tree, shrub, or hedge group.**
- Trees and groups proposed to be removed to facilitate the development shown shaded grey.**
- Local Authority trees to be removed to facilitate the proposed access for the development.**



Revision	Date	Description

Tree Removals Plan

Project: **Knocklyon Road**

Client: **Pathway Homes Ltd.**

Date	Scale	Status
01/01/2022	1:250 @ A3	Planning

Drawn by: CMCC
Checked by: CMCC
Drawing No: 220913-P-11

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