ARBORICULTURAL REPORT

Location: -
Cornamaddy,
Athlone,
Co. Westmeath
Coordinates: 53.435293, -7.911583

Prepared for: -
Westmeath County Council

Prepared by: -
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Executive summary

In May 2025, Veon conducted a tree survey at Cornamaddy, Athlone, County Westmeath, to provide arboricultural guidance in accordance with BS 5837:2012. The survey recorded a total of 66 individual trees and 24 tree groups, documenting their dimensions and Root Protection Area (RPA) radii to assess potential impacts from proposed development works.

A total of 24 individual trees, 4 tree lines, and 2 tree groups will need to be removed to facilitate the development. All of which are Category U (poor-quality), except for one moderate quality, Category B tree (Tag No. 2501), and one low quality, Category C tree (Tag No. 1882), along with 25 metres of hedgerow Hedge No. 2 and 13 metres of hedgerow Hedge No 3 – both Category C. 17 of the Category U trees and three tree lines should be removed irrespective of development proposals, in order to reduce risk: Tree Nos. T1, T2, T4, T5, 1896, 1900, 2505, 2510, 2515, 2516, 2522, 2523, 2524, 2525, 2529, 2532, 2534, and Tree Line Nos. 4, 5, 6

Tree protection fencing will be installed to safeguard all retained trees throughout the development, and there is opportunity for supplementary planting. Provided that all mitigation measures outlined in the Arboricultural Impact Assessment, Arboricultural Method Statement, and Tree Protection Plan are followed, the overall impact on the site's arboricultural assets is considered low, with potential for enhancement through targeted replanting.

Contents

1.0 Introduction

In support of a planning application for a proposed housing development on lands at Cornamaddy, Athlone, (hereafter known as the site – Map 1 & 2), Westmeath County Council instructed Veon Ltd. to assess the tree and hedge vegetation on and proximal to the site and provide the following information in accordance with BS 5837:2012 Trees in Relation to Design, Demolition and Construction:

- Tree Survey (Appendix 1)
- Aerial Maps (Appendix 2)
- Arboricultural Impact Assessment
- Arboricultural Method Statement
- Tree Protection/Removal Plan (Appendix 3)

Map 1: Approximate outline of the site within the wider locality

Map 2: Approximate outline of the site

2.0 Proposed Development

The proposed development has been planned based on the retention and protection of the existing mature trees and hedgerows by forming the mix of detached, semi-detached, terraced houses, maisonettes, and 2–3-storey duplex apartments into courtyard arrangements around and adjacent to the trees to protect the natural environment, flora and fauna, and habitat resources. The development also includes a creche, play areas and dedicated open green spaces. Also involved is infrastructure related to the housing development such as new roads, parking, lighting and drainage infrastructure.

3.0 Site Assessment & Methodology

3.1 The trees were assessed on the 1st and 2nd of May 2025 on dry, sunny days, and the findings from this assessment are in the Tree Survey (Appendix 1), along with the supporting tree survey key. The arboricultural data presented in the Tree Survey has been recorded in line with BS 5837:2012. The tree survey was conducted by collecting and assessing the following information on all significant trees located on and proximal to the site.

- Tree number
- Tree species - common and scientific name
- Age class
- Dimensions (height, trunk diam, crown spread, crown clearance, Root Protection Area (RPA))
- Physiological condition
- Structural condition
- Management recommendations **(towards good tree management and safety, irrespective of any proposed development)**
- Life expectancy within their present environment
- Retention category grade (see Table 4 in Appendix 1 for more details on category grades)

3.2 For reference, aluminium tags were stapled to the tree's main stem at eye level, where possible. Tree groups, or trees that were inaccessible, were numbered sequentially – T1 , T2 and TG1, TG2 etc.

3.3 Tree positions have been plotted using ArcGIS software. Aerial maps of the surveyed trees in Appendix 2 show tree positions colour-coded to match their retention category grade. The tree retention category has been assessed based on quality and value within the existing context, independent of any proposed development plans. This assessment considers:

1.0 Arboricultural Value – Health, structure, lifespan, species, and physical impact on the site.

2.0 Landscape Value – Contribution to the site and surrounding area.

3.0 Cultural Value – Conservation, historical, and commemorative significance.

Trees are classified according to BS 5837:2012, beginning with Category U (unsuitable for retention). If suitable for retention, they are first assessed for Category A (high quality). Those not meeting A criteria are considered for Category B (moderate quality), and if not, they are assigned Category C (low quality).

3.4 The Arboricultural Impact Assessment evaluates the impacts the proposal could have on the existing trees and the potential effects trees may have on the site. It lists the Tree Nos. and Category Grades of all that would need to be removed to facilitate the development. It introduces recommendations for mitigation to ensure tree health and project compatibility. It should be read in conjunction with the Arboricultural Method Statement and the Tree Protection and Removal Pla

3.5 The Arboricultural Method Statement outlines specific procedures and specialised techniques to mitigate impacts on retained trees during the proposed development's construction phases. It details tree protective fencing, establishing Construction Exclusion Zones (CEZs), employing practical protection measures like air-spading or hand-digging near Root Protection Areas (RPAs) to avoid root severance, and using ground protection to minimise compaction and contamination.

3.6 The Tree Protection and Removal Plan (TPR-CM-01), included in Appendix 3, identifies the location of existing trees, tree numbers, crown spreads, category grades, and trees to be removed. It also shows the layout of tree protective fencing, CEZs, RPAs, ground protection and other tree protection measures that are to be implemented.

3.7 RPAs represent the minimum area around each tree that must be protected from disturbance during construction. These are generally shown as orange circular zones unless modified slightly to reflect site-specific conditions. The plan has been prepared to ensure that retained trees, tree groups, and hedgerows both on and adjacent to the site are adequately safeguarded throughout the development process.

4.0 Compliance with County Development Plan

4.1 This report aligns with the policies and objectives of the *Westmeath County Development Plan 2021–2027*, particularly those focused on the protection of trees, hedgerows, and green infrastructure. The following County Plan Objectives (CPOs) are directly relevant:

- **CPO 12.37** – To preserve and enhance the implementation of the Development Plan's policies relating to the protection and enhancement of natural heritage, including trees and hedgerows of ecological and landscape value.
- **CPO 12.39** – To discourage the felling of mature trees and hedgerows, particularly species-rich roadside and townland-boundary hedgerows, and to seek the

preparation of Tree Management Plans to ensure their protection and integration into development proposals.

- **CPO 12.40** – To protect and preserve existing hedgerows in new developments—especially species-rich roadside and townland-boundary hedgerows—and, where removal is unavoidable, require replacement with native hedgerow species indigenous to the area.
- **CPO 9.8** – To protect existing trees and hedgerows that contribute to landscape character and biodiversity, and to integrate them into the design of new developments where feasible.
- **CPO 13.4** – To promote green infrastructure and the retention of mature trees and native vegetation, supporting ecological connectivity and the resilience of local habitats.

4.2 The assessment and recommendations presented in this report have been prepared in accordance with best practice guidance (BS 5837:2012) and fully support the Development Plan's objectives for biodiversity protection, sustainable landscape management, and the conservation of natural features. All proposed tree works, and mitigation measures are consistent with the Council's strategic aims and reflect a commitment to retaining high-value trees and habitat features wherever possible

5.0 Limitations of Survey

5.1 The tree survey was conducted from ground level, using a monocular, pocketknife, slasher, nylon sounding mallet, diam tape, camera phone and GPS unit. Observations and recommendations are based on the knowledge and experience of the surveyor. Some defects, such as internal decay or root damage, may not be visible from a ground-level inspection.

5.2 The conclusions and recommendations in this report reflect the condition of the trees at the time of assessment. Environmental factors, such as storms, drought, or nearby construction, may affect the validity of these recommendations over time. Regular assessments are recommended, especially after severe weather events.

5.3 The surveyor assessed the trees and their growing environment to identify any perceived risks and provide management recommendations accordingly. If the assessment was obstructed due to dense vegetation, buildings, or other factors, this will be noted in the report so that further inspection arrangements can be considered if necessary.

6.0 Summary of Tree Survey Findings

6.1 The site is located approximately 2 km north of Athlone town centre, on the Ballymahon Road. It is a 6.5-hectare triangular (Maps 1 and 2) piece of land that lies in the townland of Lissywoollen between the townlands of Cornamaddy and Cornamagh to the northeast and northwest, with the N55 Athlone to Ballymahon road to the south. There are mature trees and hedgerows on site, particularly along the field boundaries.

6.2 The site is contained on all sides by agricultural hedgerows, which define its physical boundaries. To the south, the site adjoins a small public road which runs to the N55. The eastern boundary borders a built-up housing estate (southeast) and a construction site where more houses are being built (northeast). The northern boundary separates agricultural fields. The western edge of the site borders Cornamagh Cemetery with a stone wall running the length of the border. The surrounding hedgerows vary in condition, species and size. They have all received little to no maintenance in the past leading to their irregular size.

6.3 The southeast of the site looks to have been an old agricultural area based off google earth images and the concrete remaining in the site. The area has not been beneficial to tree growth due to the concrete base and construction work (possible compaction) that has occurred in the past (Images 1 & 2). The area has been left unmaintained with brambles now growing throughout the area and ivy growing through the crowns of some of the trees. Tree Line No. 1 and Tree Group No. 2, among others, have wounds present around their stems possibly due to machinery and/or livestock. These wounds may develop into cavities affecting the structural soundness of the trees.

Image 1: Looking north at Tree Line No. 1 in the left foreground with Tag No. 1881 in the background in the old agricultural area of the site

Image 2: Looking north at Tree Group 4 surrounding a concrete and gravel base once used as an agricultural yard

6.4 Heading north, down the slope at the edge of the agricultural area, there is a group of eight veteran trees along the eastern border – six of which are high-quality Category A (Tag Nos. 1887, 1889, 1890, 1892, 1894). The group is situated on a distinct mound within the field, elevating the trees above the surrounding terrain and enhancing their visibility and prominence in the landscape (Image 3), thereby contributing to their value as an amenity tree group. It contains a broadleaf mix of oak, beech and sycamore with large diameter trunks and well-developed, combined canopies. These trees have some structural defects, including cavities and decay fungi, which is expected with their age, but they are largely out of falling distance from the adjoining residences, except for Tag No. 1895 which is overhanging the eastern boundary (Image 4) toward the recent housing development – it was pruned for clearance with the adjoining house in the recent past but is regrowing and will continue to need pruning to maintain c. 2 m building clearance. Tag No. 1888 contains a decayed base (Image 5) along with a slight lean towards the house to the east, and it will need a heavy reduction to take it out of falling distance from the neighbouring development. The group holds ecological and landscape value due to the size and age of the trees.

Image 3: Looking north at the group of mature trees with Tag No. 1887 to the right of the group

Image 4: Looking south at the mature tree group with Tag No. 1895 to the left of the picture

Image 5: Tag No. 1888 – sycamore with extensive basal decay

6.5 The eastern border comprises a linear hedge line that runs north to south and follows a dry ditch with a mix of broadleaf trees growing from the original hedge (Image 6). The hedge itself is made up of a large understory of hawthorn and brambles, some sycamore has self-seeded and are growing as part of the hedge, adding to its thickness. The tree spacing through the hedge is irregular and is a mix of mature and semi mature trees (Image 7). Trees that need individual work have been tagged in the survey. The trees and hedge both contribute to a screen from the adjoining construction site. While many of the trees are in good condition, there are several trees that will require work, such as the ash trees located on the northern part of the hedge (Tree Line No. 4), which have symptoms of ash dieback (causal agent: *Hymenoscyphus fraxineus*) and will need to be reduced into the hedge to reduce the risk to the adjoining residences.

Image 6: Looking north at Hedge No. 3 which separates the survey site from a housing development to the east.

Image 7: Looking east at the middle of Hedge No. 3. Tag No. 2501, beech, and 2502 (ash)

6.6 The northern border consists of an agricultural hedge that encloses the site from an adjacent field. The hedge then continues west forming the western border which consists mostly of an old stone wall separating Cornamagh Cemetery from the site. Along the wall, there are sporadic areas of hedge plants using the wall to grow along. On Cornamagh Cemetery side of the boundary wall, there are several mature trees that are of significant age and stature. The group to the north (Tree Group No. 6) (Category A) is a mixed broadleaf group approximately 7 m from the wall (Image 8). The group to the south (Tree Group No. 7) is Lawson cypress located approximately 1 m from the boundary wall (Image 9). These trees provide ecological, cultural, and landscape value. Their roots likely extend beneath and beyond the stone wall, into the site. The most northerly tree in the group has lost a significant branch so will require a future inspection for dysfunction at the wound.

Image 8: Looking south at Hedge No. 5 in the foreground running along the boundary wall and Tree Group No. 6 in Cornamagh Cemetery to the west of the site.

Image 9: Looking south at Tree Group No. 7 (Lawson cypress) which grows in Cornamagh Cemetery to the west of the site.

6.7 Through the middle of the site is a loose line of four, high-quality (Category A) oak trees Tag Nos. 2508, 2509, 2511 and 2512 (Image 10). Each tree exhibits varying degrees of veteran characteristics, including deadwood, hollowing, fissured bark, and habitat features such as cavities and limb retrenchment. These features contribute significantly to the biodiversity value of the trees. Due to their location in an agricultural landscape, the trees may have been subject to root zone compaction from grazing or machinery, as well as minor crown damage over time. Despite this, they retain good overall vitality and structural integrity and should be considered key ecological and landscape assets within the site.

Image 10: Looking north at a line of four mature oak trees running through the survey site.

6.8 The southwest of the site comprises a small, wooded area, along with a hedge that borders some residential properties. The woodland is a mix of broadleaf species surrounded by a hawthorn hedge and an understory of brambles (Image 11). The wooded area consists of mostly ash, which show symptoms of ash dieback (Tree Group No. 9) and are in varying levels of decline. There are two, high-quality (Category A) oak trees (2513 & 2514) growing centrally in this group. The unmanaged hedge line runs east across the site separating two fields and consists largely of an understory of brambles and ivy with sycamore occurring frequently as both multi-stemmed shrubs and medium-height trees emerging through the main hedge body (Image 12). Beech trees are established sporadically along the length of the hedge, growing to full canopy height and contributing to an irregular upper canopy.

Image 11: Looking west at Tree Group 9 which is mostly ash, with Hedge No. 6 in the understory, predominantly made up of hawthorn.

Image 12: Looking west along Tree Line No. 2 to the left. Tag No. 2515 can be seen growing from the hedge with a mostly dead crown due to ash dieback. Tree Group No. 8 and Tree Group No. 9 can be seen in the background of the picture.

6.9 The southeast of the site contains a linear group of mature trees lining a small, quiet, public road. The trees are within 1 m of the road resulting in limited rooting space and potential ongoing interaction with the road (Image 13). Some of the trees are growing over a dry-stone wall that separates the road from the field, with root systems likely extending beneath or through the wall structure, causing displacement of the wall in places. The canopy extends over the road in areas, contributing to enclosure of the route and providing significant visual value (Image 14). Some of the trees show evidence of past pruning or crown management on the roadside. The ash trees in this area are all in various stages of decline due to ash dieback and will all need to be cut back into the hedge as they are in falling distance of the road. The tree line develops into an escaped hedge line of semi mature trees which provides good screening value to the agricultural lands.

Image 13: looking east along the line of trees by the road at the south of the site. Tag No. 2528 can be seen in the right of this picture.

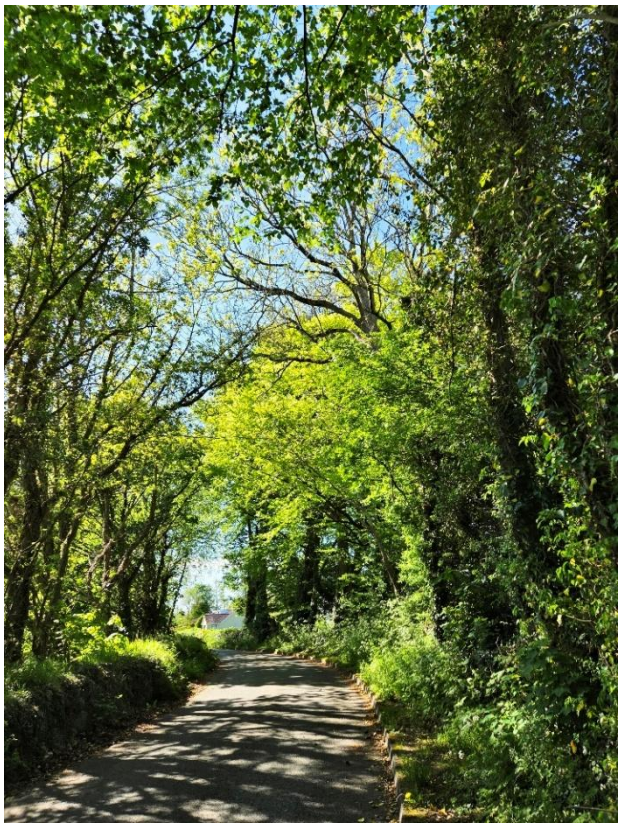


Image 14: Looking west at Tree Line No. 6 with an understory of Hedge 9, running along the right side of the road at the south of the survey site.

6.10 In total, 59 Trees were individually tagged and 7 Trees, 6 Tree Lines, 9 Tree Groups and 9 Hedges were numbered numerically. The following table lists the category grade given to the surveyed trees per the cascade chart (Table 4 Appendix 1)

Table 1: Category Grades

Reference Number	Category Grade
Tree Nos. T1, T2, T4, T5, T6, 1885, 1896, 1900, 2502, 2504, 2505, 2506, 2507, 2510, 2515, 2516, 2519, 2521, 2522, 2523, 2524, 2525, 2529, 2532, 2534. **Tree Group No**. TG2, TG5, TG9. **Tree Line Nos**. TL1, TL4, TL5, TL6.	**U** **25 X Trees** **3 X Tree Groups** **4 X Tree Lines**
Tree Nos. T3, 1887, 1889,1890, 1892, 1894, 1895, 2508, 2509, 2511, 2512, 2513, 2514, 2528, 2530, 2533. **Tree group No.** TG6.	**A** **16 X Trees** **1 X Tree Group**
Tree Nos. 1879, 1883, 1884, 1891, 1893, 2501, 2517, 2518, 2520, 2535, 2536. **Tree line No.** TL3. **Tree group Nos**. TG7, TG8.	**B** **11 X Trees** **1 X Tree Line** **2 X Tree Groups**
Tree Nos. T7, 1878, 1880, 1881, 1882, 1886, 1888, 1897, 1898, 1899, 2503, 2526, 2527, 2531. **Tree Line No.** TL2. **Tree Group Nos.** TG1, TG3, TG4. **Hedge No.** H1, H2, H3, H4, H5, H6, H7, H8, H9.	**C** **14 X Trees** **1 X Tree Lines** **3 X Tree Groups** **9 X Hedges**
Total = 66 Trees, 6 Tree Lines, 9 Tree Groups and 9 Hedges	

7.0 Arboricultural Impact Assessment

7.1 To facilitate the proposed works, the following tree and hedge vegetation will need to be removed:

Table 2: Removal Table

Reference Number	Category Grade
Tree Nos. T1, T2, T4, T5, T6, 1896, 1900, 2502, 2504, 2505, 2506, 2507, 2510, 2515, 2516, 2522, 2523, 2524, 2525, 2529, 2532, 2534. **Tree Line Nos.** TL1, TL4, TL5, TL6 **Tree Group Nos.** TG2, TG5	**U** **22 Trees** **4 Tree Lines** **2 Tree Groups**
Tree Nos. No trees	**A** **0 Trees**
Tree Nos. 2501	**B** **1 Tree**
Tree Nos. 1882, 25 m of H2, 13 m of H3	**C** **1 Tree** **38 m of hedge**
Total = 24 Trees, 4 Tree Lines, 2 Tree Groups, 38 m of hedge	

7.2 Seventeen of the Category U trees—Tree Nos. T1, T2, T4, T5, 1896, 1900, 2505, 2510, 2515, 2516, 2522, 2523, 2524, 2525, 2529, 2532, and 2534—along with Tree Line Nos. TL4, TL5, and TL6, have been recommended for removal to reduce risk, regardless of the proposed development. In addition, Tag No. 1888 (Category C) requires a heavy crown reduction due to structural concerns. The remaining Category U trees in Table 2 (T6, 2502, 2504, 2506, 2507,) have a life expectancy of less than 10 years but are in low-risk areas and may be retained to decline naturally if the development does not proceed/

7.3 The Tree Protection / Removal Plan (TPR-CM-01) in Appendix 3 shows the trees and hedges proposed for removal in 'Red Hatching'. The trunk positions of all the surveyed trees colour-coded to match the corresponding category grade colour shown in Table 2.

7.4 All retained trees will be protected with Tree Protective Fencing for the duration of development (see sections 8.4 and 8.8 for detail).

7.5 Tag Nos. 2528, 2530, 2533 (Category A), 2536 (Category B), and 2531 (Category C) will need facilitation pruning to provide 4.5 m of clearance between the road and the first branch.

7.6 Tag Nos. 1889, 1891, 1892, 1895, 2509, 2511, 2512 will require light pruning and dead wooding to reduce risk to the proposed development (see management recommendations for these trees in the Tree Survey Appendix 1).

7.7 Tree Line No. 3 – moderate quality (Category B) beech – and two high quality (Category A) oaks (Tree No. 3 and Tag No. 2508) will require crown raising to 2.5 m and crown spread reduced by 2 m to provide space in the back garden areas of the proposed development. The two oaks are veteran trees, very large and will impact on the light levels for the houses proximal to them.

7.8 To avoid damage to the roots of Tree No. 3 and Tag No. 2508, pile foundations (sec 8.11) and ground protection (sec 8.9) would be needed to mitigate soil and root damage. Ground protection and No-Dig methods will also be needed for the path installation within the RPA of Tag Nos. 2508, 2509 - see TPR-CM-01 for ground protection locations and houses that would need pile foundations.

7.9 The tree protective fencing around the perimeter trees will need to be temporarily taken down for the landscaping works for the back garden areas. This should be one of the final works done, as it reduces the likelihood of the trees being impacted while the fencing is down and construction activity is high. Garden fences should be installed using hand-dug holes for posts, to minimise and localise root damage to Tree Line No. 3, Tag Nos. 1895, 2508, 2503, 2510, 2511 and Tree No. 3. The grass over RPAs in this area is not to be scraped to create a sub-base either, instead No-Dig methods should be used (sec 8.9).

7.10 The proposed block walls within the RPA of Tag Nos. 1895, 2508, 2511 should be built with a pad raft foundation to minimise and localise root damage.

7.11 The proposed construction works would have a negative impact on two high quality (Category A) oaks (Tag Nos. 2508, 2509) even with mitigation measures implemented. From an arboricultural perspective, it would therefore be more prudent to relocate these houses to protect these high value trees (see Figures 1-3)

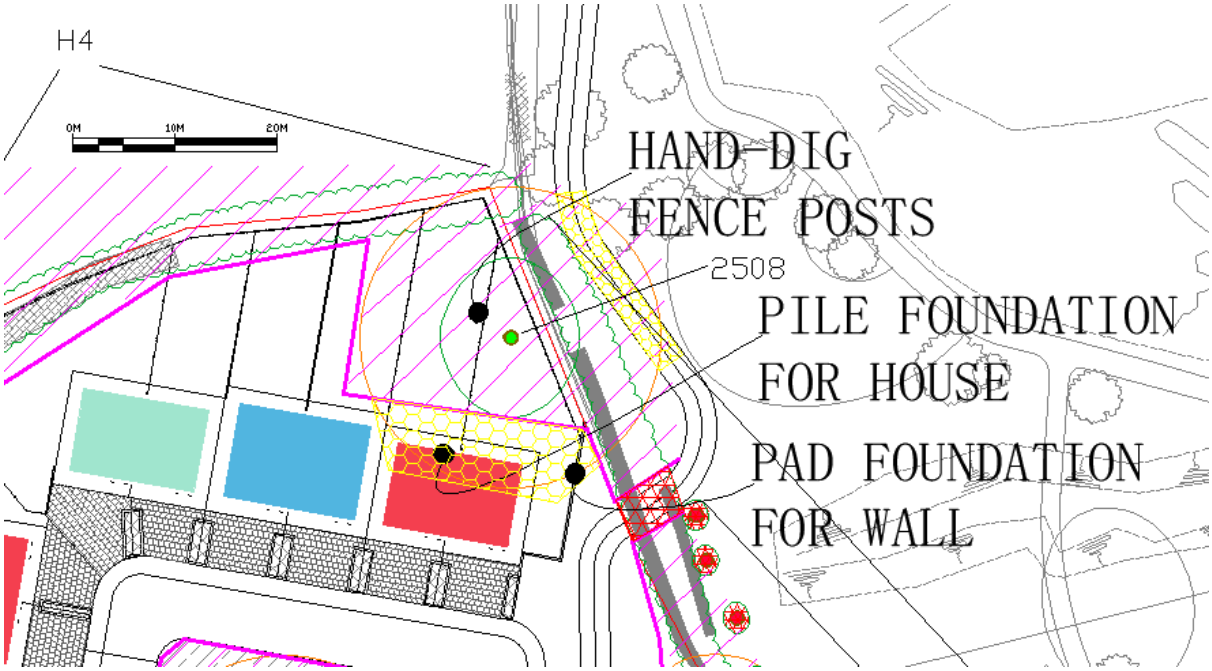


Figure 1: Excerpt from TPR-CM-01 showing the proximity of the high quality oak (Tag No. 2508) to the proposed development, which will need pile foundation, ground protection and pruning to reduce conflicts.

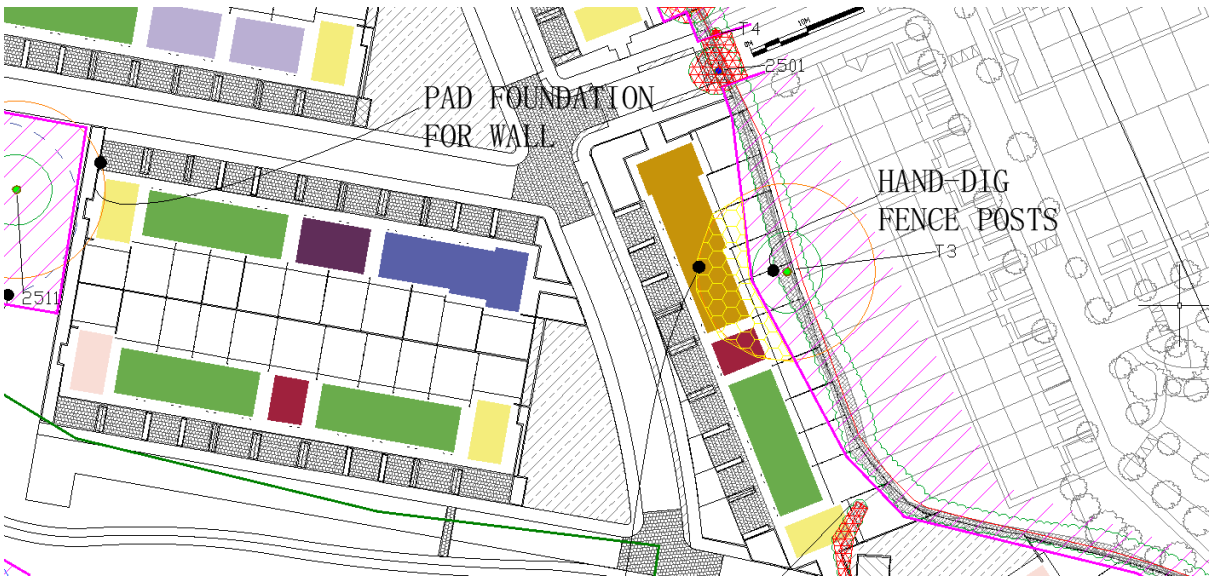


Figure 2: Excerpt from TPR-CM-01 showing the proximity of the high quality oak (Tree No. 3) to the proposed development, which will need pile foundation, ground protection and pruning to reduce conflicts.

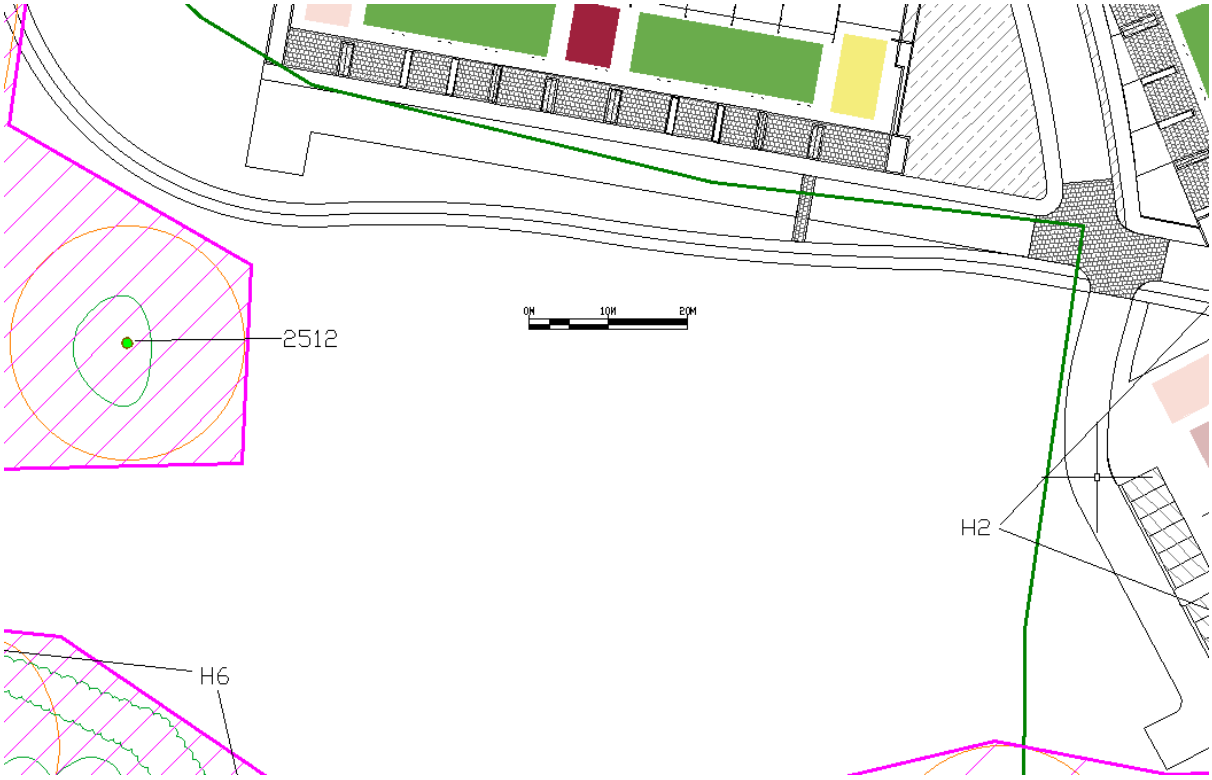


Figure 3: Excerpt from TPR-CM-01 showing the open space to the south of the site where the six houses that will impact on Tree No. 3 and Tag No. 2508 should ideally be built to reduce impacts on the high value oaks.

7.12 Hedge Nos. 3 and 4 will need to be pruned/faced to provide space along the proposed back garden areas. The heights of these hedges should also be pruned, and any gaps infilled with native hedge species to create a more cohesive hedge structure.

7.13 Tag No. 2511 will be located on a green space to the east of a house, where its Root Protection Area (RPA) will be slightly impacted by the footprint of the house. To mitigate impacts, the Construction Exclusion Zone (CEZ) of this tree will be offset to the west (see TPR-CM-01 for offset position).

7.14 All the above impacts can either be avoided or mitigated through the guidance outlined in the Arboricultural Method Statement below and through supplementary planting - see Landscape Architect's report for more details on plating plan. Planting must conform with the guidance of BS 8545:2014 Trees: from nursery to independence in the landscape – Recommendations.

7.15 The overall impact on the arboricultural assets on the site is moderate. Many of the trees for removal are poor-quality (Category U). The biggest impact could be on the veteran oak trees on site if they are not adequately protected throughout the development. If they, and the other retained trees, are properly managed during the project, and there is sufficient replacement planting, tree coverage and value will be enhanced on site.

8.0 Arboricultural Method Statement

8.1 Overview

This Arboricultural Method Statement (AMS) outlines the measures to protect trees throughout the construction phases. A copy of the AMS and Tree Protection & Removal Plans (TPR-CM-01 Appendix 3) will be retained in the site offices for reference. Tree protection is divided into three stages:

- Pre-Construction
- Construction Works
- Post-Construction

8.2 Pre-Construction

- The project arboriculturist will collaborate with the project team to minimise tree impacts where possible and ensure trees have minimal impact on the proposed development. The project team will adjust the layout where practicable to reduce these impacts.

- Any issues in relation to the trees on site will be discussed with the project arboriculturist and local authority prior to works being carried out.

8.3 Tree Works

- All tree works will likely be carried out prior to construction activity on site, though this would be subject to appropriate seasonal timing (i.e. bird nesting season).

- A qualified, insured tree surgery contractor will carry out works according to BS:3998 2010.

- Tree removal will be conducted carefully to avoid damage to surrounding trees.

- If stump grinding is necessary, protective measures (e.g., ground guards, plywood sheets) will safeguard trees' Root Protection Areas (RPAs).

8.4 Tree Protective Fencing

8.4.1 Installation

- Once tree works are completed, protective fencing will be erected in the position indicated by a solid pink line on TPR-CM-01.

- The fenced-off area, known as the Construction Exclusion Zone (CEZ), protects trees, their RPAs, and supplementary planting areas.

8.4.2 Specifications

- Fencing will be 2.3m high, using scaffold bars well-braced for impact resistance.
- Heras fence panels will be securely fixed with scaffold clamps (Figure 4).
- Where applicable, site hoarding may serve as protective fencing (subject to arboriculturist approval).
- Stabiliser struts on a block tray will be used if more practical (Figure 5).

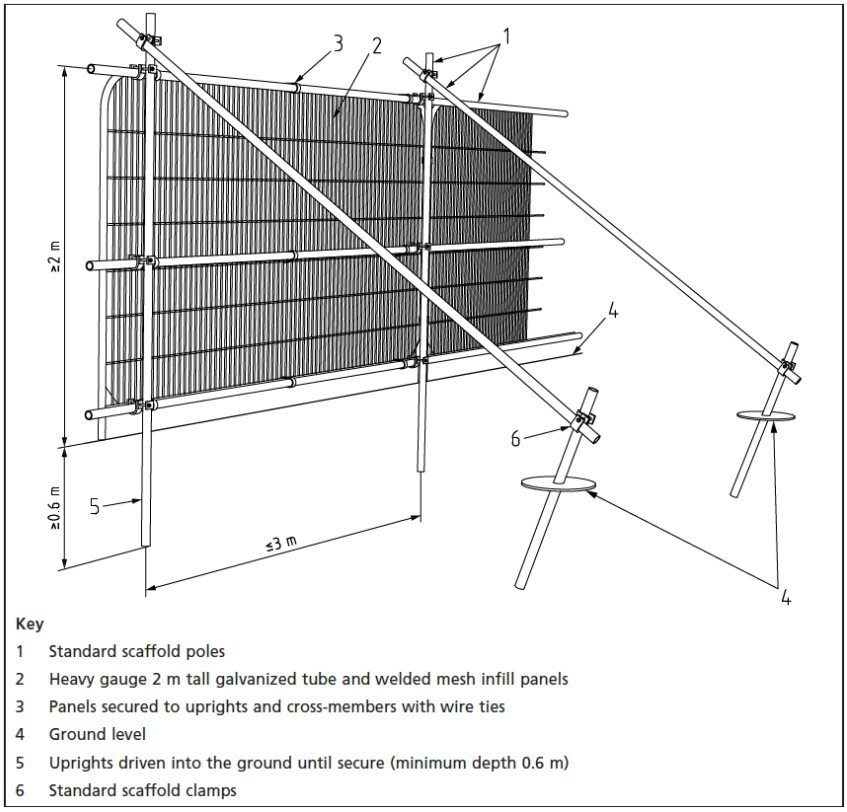


Figure 4: Tree Protective Fencing example using uprights driven into the ground.

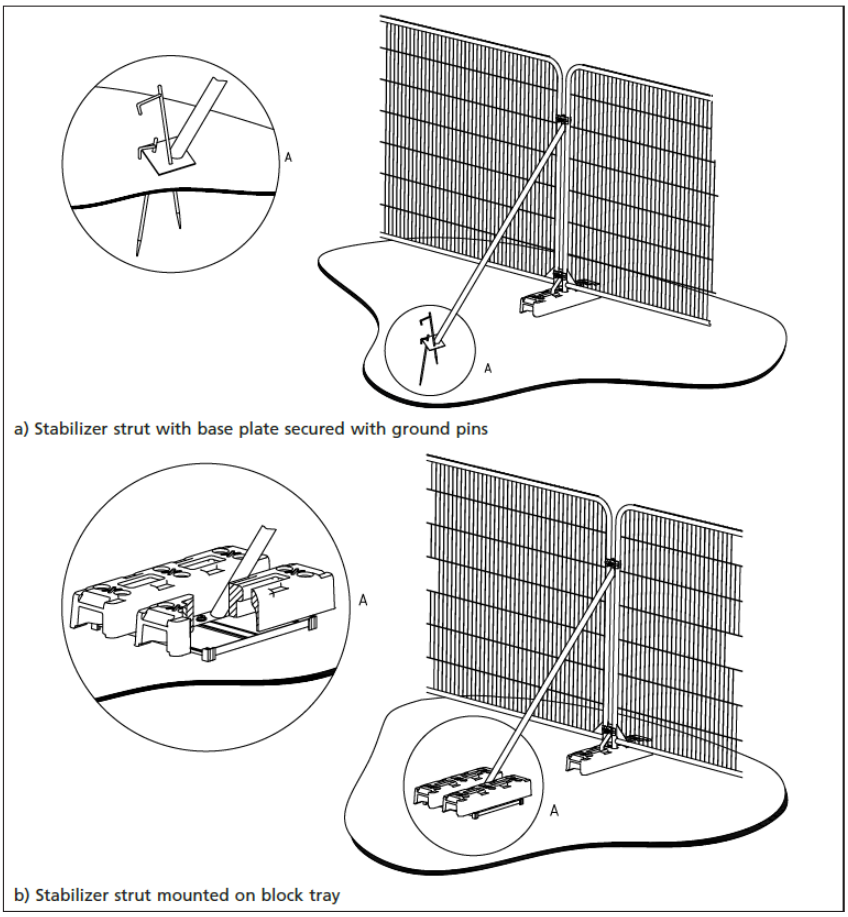


Figure 5: Tree Protective Fencing example using above ground stabilising units

8.4.3 Signage

- **All weather 'Keep Out' signs** will be secured to the fences (Figure 6).

Figure 6: 'Keep Out' sign examples for tree protective fencing.

8.4.4 Alternatives

- Where fencing is impractical, protective boxes (timber frames & plywood) and ground protection will be used (see Section 8.6).

8.5 Site Access, Storage and Parking

- These areas will be a minimum of 10 metres away from trees and slopes.
- Clearly signposted storage areas will prevent unauthorised material placement.
- Materials will be stored in containers/on pallets with plastic coverings to avoid soil compaction or contamination.

8.6 Ground Protection

Where traffic is expected within in a CEZ, approved ground protection will be used to dissipate vertical loads and prevent soil contamination.
Installation Steps:

- Prepare Ground: Remove loose organic matter; level surface with non-compacted, no-fines stone.
- Lay Geotextile: Place non-woven geotextile fleece with 300mm overlapping dry joints.
- Edge Containment: Install treated timber/railway sleepers along edges.
- Deploy Cellular System: Place Cell Web (150-200mm) over geotextile, pin/anchor open.
- Fill and Compact: Gradually fill with 20-40mm clean sharp stone using a roll-out method.
- Final Surcharge: Add 25mm of 40-20mm clean angular stone.

8.7 Construction Stage

- The project arboriculturist will be informed of any planned works in a CEZ.
- Tree monitoring will be conducted, with health and safety recommendations made as needed.

8.8 Tree Protective Fencing Maintenance

- Fencing must remain upright, rigid, and intact throughout construction.
- The main contractor is responsible for daily inspections and repairs.
- No materials or equipment shall be stored behind protective fencing.

8.9 Working within a Construction Exclusion Zone (CEZ)

- Any work in the CEZ requires project arboriculturist consultation.
- Ground protection (e.g., ground guards, heavy-duty plywood over woodchip) will be used for temporary access.
- Tree protective fencing, if removed temporarily, will be securely stored and reinstated post-works.
- Work will be manual-only—no heavy machinery allowed.
- Existing hard surfacing within a RPA should be utilised for ground protection. If its removal is necessary, it must be done in a "working back-the-way" manner to maintain continuous ground protection.
- Removal of structures and materials within the (CEZ) will be carried out manually using appropriate hand tools, such as a mattock, pneumatic breaker, shovel, and wheelbarrow. If encountered, roots under 25 mm in diameter may be pruned; larger roots require approval from an arboriculturist. Any exposed roots left overnight will be protected with soil or moist hessian
- Where permanent surfaces are to be installed within a CEZ, No-Dig methods will be implemented. Finished surfaces will be porous to allow gas and water movement. (Figure 7)

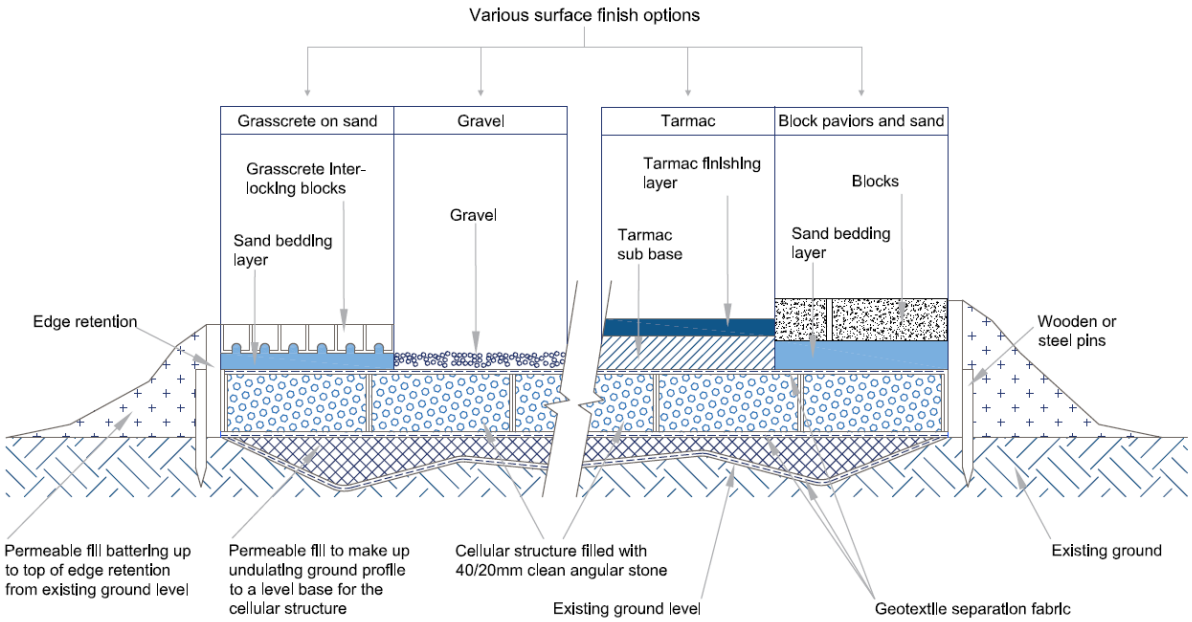


Figure 7: No-Dig, cellular confinement surface with examples of finishing options

8.10 Use of Cranes

- If the use of cranes is expected to interfere with trees, then working space will be provided by facilitation pruning or temporary branch tying. A specification for which will be prepared by the project arboriculturist.

- The smallest practicable crane will be used to prevent potential damage to trees and soil compaction. If there is a large crane on site, then it may be more prudent to move materials around trees from a far, as this will prevent soil compaction around trees.

- A banksman will direct lifting to prevent tree damage.

8.11 Excavations

- Excavations within RPAs is avoided where possible.

- If unavoidable, solutions such as piles or pads with above-ground beams will be used.

- Trial holes (600 mm deep) will be dug using Air-Spade/hand tools.

- Roots under 25 mm may be pruned; larger roots require arboriculturist approval.

- Roots left exposed overnight will be covered with soil or moist hessian.

- Piling near trees will use smallest practicable diam piles.

- Sleeved bored pile/screw piles will be used to protect the soil and roots from toxic effects of uncured concrete.

8.12 Services

- Services will be routed outside RPAs where possible.

- If unavoidable, trenchless insertion methods will be used, with entry/exit pits outside RPAs (Table 3). To avoid damage to roots when using trenchless insertion methods, the depth of the pit will be 750 mm.

Table 3: Trenchless solutions for differing utility apparatus installation requirements

Method	Accuracy	Bore dia. [A]	Max. sub. [B] length	Applications	Not suitable for
	mm	mm	m		
Microtunnelling	<20	100 to 300	40	Gravity-fall pipes, deep apparatus, watercourse/ roadway undercrossings	Low-cost projects due to relative expense
Surface-launched directional drilling	≈100	25 to 1 200	150	Pressure pipes, cables including fibre optic	Gravity-fall pipes, e.g. drains and sewers [C]
Pipe ramming	≈150	150 to 2 000	70	Any large-bore pipes and ducts	Rocky and other heavily obstructed soils
Impact moling [D]	≈50 [E]	30 to 180 [F]	40	Gas, water and cable connections, e.g. from street to property	Any application that requires accuracy over distances in excess of 5 m

- If the service route must pass through the RPA, it will be routed under the centre of the tree, where there are less roots.
- External lubrication of equipment with materials other than water or vegetable oil (e.g. mineral oil, bentonite, etc.) will not be used when working within the RPA.
- Shallow service runs may be excavated manually, avoiding roots and moving pliable ones.
- Roots under 25mm may be pruned; larger roots require arboriculturist approval.
- Roots left exposed overnight will be covered with soil or moist hessian.
- No heavy machinery excavation within RPAs.

8.13 Finished Ground Levels & Landscaping

- Existing RPA ground levels will remain unchanged and incorporated into the finished development. If the new ground level outside of the RPA is higher, then a retaining structure will be used to prevent water pooling around the tree.
- No heavy machinery within RPAs. Landscaping will be done manually.
- Herbicide use near retained trees will be minimised, with only direct, systemic applications allowed if necessary.

8.14 Prohibited Activities in CEZ

- Stockpiling of soil or rubble.
- Washing of machinery.
- Attaching notice, cables, or other services to trees.
- Using neighbouring trees as anchor points.
- Fires or burning.
- Any action likely to cause waterlogging.

8.15 Post Construction Works

- The project arboriculturist will assess all the retained trees before project completion to ensure they can be safely integrated into the development.

9.0 Regulations on Tree Felling and Wildlife Protection

9.1 In Ireland, the felling of trees is regulated primarily under the Forestry Act 2014, which requires a felling licence to be obtained from the Department of Agriculture, Food and the Marine (DAFM) before cutting down any tree, with some exceptions, such as those approved for removal under a granted planning application — see Section 19 of the Act for list of exempt trees.

9.2 The site is not subject to any Tree Preservation Orders (TPOs) and it does not fall under a Special Area of Conservation (SAC)

9.3 Under Section 40 of the Wildlife Act 1976 (as amended), hedge and tree cutting are prohibited from March 1st to August 31st to protect nesting birds and wildlife. Tree felling or vegetation clearance may proceed during the restricted period (1st March–31st August) where planning permission has been granted, provided the permission explicitly permits such works and any necessary ecological assessments, such as nesting bird surveys, have been completed. In such cases:

- The ecological impact must be minimised as a matter of compliance.
- A derogation from the National Parks and Wildlife Service (NPWS) may still be required, particularly in ecologically sensitive areas

9.4 Trees provide natural roosting spots for bats, especially mature trees with cracks, cavities, and crevices. Bats are legally protected under Irish and EU legislation, including the Wildlife Act 1976, Wildlife (Amendment) Act 2000, S.I. No. 94 of 1997, and S.I. No. 378 of 2005, which implement the EU Habitats Directive, as well as international

agreements such as the Bonn Convention and Bern Convention. Remedial tree work can disturb bats and their roosts, so before carrying out such work, advice from a licensed bat surveyor should be sought.

9.5 Unauthorised tree felling can result in substantial fines or legal action. Anyone considering tree felling should consult with the relevant Council or local authority to ensure compliance with environmental and planning regulations.

10.0 References

- British Standards Institution (BSI). (2010). BS3998: Tree Work – Recommendations. London: BSI.

- British Standards Institution (BSI). (2012). BS5837: Trees in Relation to Design, Demolition and Construction – Recommendations. London: BSI.

- British Standards Institution (BSI). (2014). BS8545: Trees: From Nursery to Independence in the Landscape – Recommendations. London: BSI.

- Council of Europe & Government of Ireland (Various). Legislation and conventions relevant to the protection of European wildlife and natural habitats, including the Bern Convention (1979), Bonn Convention (1979), Wildlife Act (1976, as amended), and European Communities (Natural Habitats) Regulations.

- National Joint Utilities Group (NJUG). (2007). Guidelines for the Planning, Installation and Maintenance of Utility Apparatus in Proximity to Trees (Vol. 4). London: NJUG.

Appendix 1
Tree Survey & Key

BS 5837 – Survey Form Key

Tag No: Tag stapled to tree for reference
Species: Both scientific and common name are provided
Stem diam: Stem diam - diam of the main stem in millimetres measured at 1.5m. This measurement forms the basis of the
Root Protection Area (RPA) calculation – that being the equivalent to a circle with a radius of 12 x the stem diam
Crown spread: The radial spread of the crown from the centre of the tree, indicated at four cardinal points, **N**orth, **S**outh, **E**ast and **W**est.
C.Ht: The height of the first significant branch, measured in metres
C. Circa
A: Average
T: Tree, **TL:** Tree Line, **TB**: Tree Belt, **TG**: Tree Group, **H**: Hedge, **SB**: Shrub Border
LE: Life Expectancy of the tree in years
Age classes:
Young: In the first fifth of its life expectancy
Semi-Mature: In the second fifth of its life expectancy
Early-Mature: In the third fifth of its life expectancy
Mature: In the penultimate fifth of its life expectancy, reached maximum height
Over-Mature: In the final fifth of its life expectancy, in natural decline
Dead wood diam sizes:
Small: <50mm
Medium: Between 50 – 100mm
Large: >100mm
Phys Cond: Physiological condition, an assessment of the tree's overall health –
Good: Good vitality e.g., healthy foliage or buds, crown density is consistent with that of the species
Fair: Low vitality e.g., sparseness of foliage or buds
Poor: Poor vitality e.g., dieback of foliage or shoot development, disease affecting growth.
Dead: The tree is dead
Struc Cond: Structural condition, noting any structural defects –
Good: No major structural defects observed (possibly some minor defects)
Fair: Minor defects present, such as bark wounds and isolated decay pockets, structure affected due to overcrowding and is dependent on group structure
Poor: Major structural defects present such as extensive dead wood, decay cavities affecting stability, splitting or cracking at unions
Preliminary Recommendations: Any initial work requirements in terms of sound arboricultural practice, irrespective of proposed works
Cat.: Category grade in terms of quality and value (Table 4)

Table 4: Category Grade Chart BS 5837: 2012

Category and definition	Criteria			Identification on plan
Trees unsuitable for retention				
Category U 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	Trees that have 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) Trees that are dead or are showing signs of significant, immediate, and irreversible overall decline Trees infected with pathogens of significance to the health and/or safety of other trees nearby, or very low quality trees suppressing adjacent trees of better quality			Red
Trees to be considered for retention				
	1. Mainly arboricultural qualities	**2. Mainly landscape qualities**	**3. Mainly cultural values, including conservation**	
Category A **Trees of high quality** with an estimated remaining life expectancy of at least 40 years	Trees 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)	Trees, groups or woodlands of particular visual importance as arboricultural and/or landscape features	Trees, groups or woodlands of significant conservation, historical, commemorative or other value (e.g. veteran trees or wood-pasture)	Green
Category B **Trees of moderate quality** with an estimated remaining life expectancy of at least 20 years	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	Trees present in numbers, usually growing as groups or woodlands, such that they attract a higher collective rating than they might as individuals; or trees occurring as collectives but situated so as to make little visual contribution to the wider locality	Trees with material conservation or other cultural value	Blue
Category C **Trees of low quality** with an estimated remaining life expectancy of at least 10 years, or young trees with a stem diameter below 150mm	Unremarkable trees of very limited merit or such impaired condition that they do not qualify in higher categories	Trees present in groups or woodlands, but without conferring on them significantly greater collective landscape value; and/or trees offering low or only temporary/transient landscape benefits	Trees with no material conservation or other cultural value	Grey

Tree Survey															
Tag No.	**Species**	**Age Class**	**Ht. m**	**Stem Diam mm**	**N m**	**E m**	**S m**	**W m**	**C. Ht m**	**RPA *r* m**	**Phys Cond**	**Struc Cond**	**Comments**	**Management Recommendations**	**LE years**	**Cat.**
TL1	**ash** *(Fraxinus excelsior)*	Young	4	90	1	1	1	1	2	1	Poor	Fair	Three self-set trees with symptoms of ash dieback and bramble around their basis.	They would need to be removed if this area came in to more active use.	<10	U
1878	**cockspur hawthorn** *(Crataegus crus-galli)*	Semi Mature	3	180	2	2	2	2	1	2	Good	Fair	It is multiple stemmed and has bramble around its base. There are bark wounds to a height of 1m, likely from grazing.	Remove bramble *(Rubus fruticosus)* from growing through crown.	20+	C1
T1	**ash** *(Fraxinus excelsior)*	Semi Mature	5	190	2	2	1	1	2	2	Poor	Fair	It has symptoms of ash dieback and is within falling distance of the overhead utility wire on public roads to the south.	Reduce to a height of 2 m.	<10	U
TG1	**sycamore** *(Acer pseudoplatanus)*	Semi Mature	4	210	1	3	1	4	2	3	Fair	Fair	A group of stems forming the southern end of H1. They have been heavily cut back on the public roadside to the south for clearance and will continue to require such too.	Maintain clearance with the public road through sympathetic pruning.	10+	C2
H1	**hawthorn** *(Crataegus monogyna)*, **ash** *(Fraxinus excelsior)*, **holly** *(Ilex aquifolium)*, **wych elm** *(Ulmus glabra)*, **dog rose** *(Rosa canina)*,	Mature	7	250		3		3		3	Fair	Fair	It extends north to south and forms part of the eastern boundary with the neighbouring residences. It receives little to no maintenance and there are small size dead elm and ash trees positioned centrally. It has some value as screening along this boundary.	Remove the dead sections of ash and elm and trim to promote better structure.	-	C2

	bramble *(Rubus fruticosus)*															
1879	**sycamore** *(Acer pseudoplatanus)*	Early Mature	9	700	2	4	3	5	2	8	Good	Fair	It is twin stemmed from base and is growing from the eastern boundary with a chain-link fence embedded in its stems. It is growing out of H1 and there is a birds nest at 7 m eastern side.	Remove ivy to a height of 2 m to allow for a closer assessment. Remove chain-link fence from stems.	20+	B2
1880	**sycamore** *(Acer pseudoplatanus)*	Semi Mature	6	200	3	1	2	2	2	2	Fair	Fair	It is self-set into this area and is growing proximal to the old farm wall, with rubble around its base and bark wounds too.	Remove rubble from around base.	20+	C2
1881	**sycamore** *(Acer pseudoplatanus)*	Semi Mature	6	200	2	3	2	3	2	2	Fair	Fair	It is self-set into this area and is growing proximal to the old farm wall. It is multiple stemmed from base and there are back wounds for from grazing too.	No work currently required.	20+	C1
TG2	**ash** *(Fraxinus excelsior)*	Semi Mature	5	180	2	2	2	2	2	2	Poor	Fair	Two trees with symptoms of ash dieback. They have a shared canopy formation and bramble growing through their lower crowns.	They would need to be removed if this area came in to more active use	<10	U
TG3	**alder** *(Alnus glutinosa),* **birch** *(Betula pendula),* **sycamore** *(Acer pseudoplatanus)*	Semi Mature	9	240	2	2	2	2	2	3	Fair	Fair	One alder, one sycamore and three birch growing together as a group with a combined canopy formation. They are located on the adjoining property side of the eastern boundary. There is ivy on their main stems.	Ivy will require severing when it suppresses their crowns.	20+	C2
1882	**sycamore** *(Acer pseudoplatanus)*	Semi Mature	6	230	4	3	3	3	2	3	Good	Fair	It is self-set into this area and growing proximal to the old farm wall. Bark wound at 1 m eastern side and rope is tight on the main stem at this height too. bramble is growing through its lower crown.	Remove bramble from lower crown.	20+	C1

TG4	**wild cherry,** *Prunus avium,* **Sycamore** *Acer pseudoplatanus*, **bramble** *Rubus fruticosus*, **hazel** *Corylus avellana*, **elder** *Sambucus nigra*, **blackthorn** *Rubus fruticosus*	Early Mature	5	300	3	3	3	3	1	4	Good	Good	A group of trees/overgrown hedge, located at the south of the survey site. This is a mixed species group that grows next to what looks to be an old agricultural area with a concrete base.	No work currently required.	20+	C2
TG5	**ash** *Fraxinus excelsior*	Semi Mature	6	200	4	1	1	4	2	2	Poor	Poor	Two trees with symptoms of ash dieback. They have a shared canopy formation and the tree to the west has split apart at its base but they are located in a low use area so are low risk and have ecological value.	They would need to be removed if this area came in to more active use.	<10	U
1883	**sycamore** *(Acer pseudoplatanus)*	Early Mature	8	450	5	4	6	5	1	5	Good	Fair	It is growing within 1 m of the eastern boundary wall, and I suspect that it is causing structural damage to the wall. It has been cut back from the adjoining house in the past to prevent interference, but its upper crown is now beginning to interfere with the roof.	Have the wall assessed by a structural engineer. The removal of this tree and the death of its roots could destabilise the wall even further. Its crown requires pruning to provide 2 m of clearance with the house.	20+	B2
1884	**sycamore** *(Acer pseudoplatanus)*	Early Mature	10	650	5	5	5	6		8	Good	Good	It is growing on top of a steep embankment and there is ivy on	Remove ivy to a height of 2 m to allow for a closer	40+	B2

													its main stem and a chain link fence embedded in its main stem	assessment and remove the chain-link fence to prevent bark damage		
T2	**ash** *(Fraxinus excelsior)*	Mature	10	800	5	6	3	4	4	10	Poor	Poor	It is an advanced decline from ash dieback and within falling distance of the neighbouring garden	Reduced to a height of 2 m and retain as hedge bulking	<10	U
1886	**sycamore** *(Acer pseudoplatanus)*	Semi Mature	6	290	3	3	2	3	2	3	Good	Good	It is self-set into this area and growing on a moderate slope. Area around tree looks to have been built up with stone and soil in the past which may have impacted root development.	No work currently required.	40+	C1
1885	**ash** *(Fraxinus excelsior)*	Semi Mature	6	160	1	2	3	2	2	2	Poor	Good	Ash tree growing on moderate bank. Soil and stone build up on roots which may impact growth. Shows some symptoms of ash dieback.	No work currently needed.	<10	U
1887	**common beech** *(Fagus sylvatica)*	Mature	24	1250	5	8	8	9	2	15	Good	Good	Tree growing on a mound of soil. It makes up part of group of mature trees. The crown displays good vitality. Some minor deadwood present which is to be expected with age. The form of the tree is good.	No work currently needed.	40+	A2
1888	**sycamore** *(Acer pseudoplatanus)*	Mature	20	1050	7	6	5	7	3	13	Good	Poor	Tree growing on a mound of soil. It makes up part of group of mature trees. The crown displays good vigour however there is basal decay present with a cavity forming and decaying approx. 50% of the base of the tree. Some of the buttress roots are also beginning to decay.	Reduce height of tree by 7 m and reduce crown spread by 3 m to keep it out of falling distance from the neighbouring housing estate. The tree should be inspected annually to monitor basal decay and its	10+	C2

														size in relation to targets.		
1889	**pedunculate oak** *(Quercus robur)*	Mature	9	1080	1	1	10	10	2	13	Good	Fair	Tree growing on a mound of soil. It makes up part of group of mature trees. The crown displays good vitality however there is basal decay present at the base, on the east side of the tree. 30 degree lean on main. Veteran features present in upper crown where limbs have torn out in the past.	Reduce crown spread to the west by 2 m. This will reduce the lean on the tree allowing it to remain as ecological value. The tree should be inspected annually to monitor basal decay.	40+	A2
1890	**pedunculate oak** *(Quercus robur)*	Mature	15	1360	5	4	5	7	2	15	Good	Good	Tree growing on a mound of soil. It makes up part of group of mature trees. The crown displays good vitality however there are multiple veteran features present on this tree where it has been damaged over time.	No work currently needed	40+	A2
1891	**pedunculate oak** *(Quercus robur)*	Mature	11	860	8	1	1	10	4	10	Good	Fair	Tree growing on a mound of soil. It makes up part of group of mature trees. The crown displays good vitality however there is approximately 40 % visible basal cavity present at the base of the tree. The decay is beginning to travel upwards as the trunk sounds hollow 1m above the base.	If the area comes into more regular use, the crown's height and spread should be reduced by 2 m and deadwood hanging wood removed. The tree should be inspected every ten months to assess basal decay.	40+	B2
1892	**sycamore** *(Acer pseudoplatanus)*	Mature	15	1100	6	5	5	4	2	13	Fair	Good	Tree growing on a mound of soil. It makes up part of group of mature trees. The tree is a dual stem. There is some deadwood in the crown which is to be expected.	If the area comes into more regular use, remove dead / hanging wood in crown.	40+	A2

													The tree has large boulders at the base which may impact its growth.			
1893	**pedunculate oak** *(Quercus robur)*	Mature	10	800	3	6	5	2	2	10	Good	Good	Tree growing on a mound of soil. It makes up part of group of mature trees. The crown displays good vitality however there is basal decay beginning at the base of the tree on the southern side.	If the area comes into more regular use the tree should be inspected every 18 months to assess basal decay.	40+	B2
1894	**pedunculate oak** *(Quercus robur)*	Mature	15	760	3	2	3	8	2	9	Good	Good	Tree growing on a mound of soil. It makes up part of group of mature trees. The crown displays good vitality however there is a significant amount of ivy present in the lower portion of the tree.	Remove ivy from base to 2m to allow for future inspections.	40+	A2
1895	**pedunculate oak** *(Quercus robur)*	Mature	20	1530	8	7	8	8	2	15	Good	Good	Tree growing on a mound of soil. It makes up part of group of mature trees. Crown density 80%. There is what looks to be Eiffel Tower fungus present on the base. There is a wall, and house built approximately 4 m to the east. This has likely impacted the root system.	Reduce crown on the east and south by 3 m to avoid conflict with the house. The tree should be inspected annually to monitor the dieback in the crown and the formation of fruiting bodies on the tree.	40+	A2
1897	**sycamore** *(Acer pseudoplatanus)*	Semi Mature	7	270	3	3	2	1	1	3	Fair	Good	The tree is growing as part of the hedge line; it is self-set into this area and growing on the bank of a ditch. A 2 m high block wall has been built 2 m to the east of the tree which has likely impacted the roots. Tree is overshadowed by oak, causing suppression.	No works presently.	20+	C2
1896	**ash** *(Fraxinus excelsior)*	Semi Mature	6	230	3	2	2	1	1	3	Poor	Good	The tree is growing as part of the hedge line; it is self-set into this area and growing on the bank of a	Reduce to the height of the hedge and	<10	U

													ditch. A 2 m high block wall has been built 2 m to the east of the tree which has likely impacted the roots. Tree is overshadowed by oak. Tree also shows signs of ash dieback.	maintain for ecological value.		
1898	**sycamore** *(Acer pseudoplatanus)*	Semi Mature	8	370	4	3	2	2	1	4	Good	Good	The tree is growing as part of the hedge line; it is self-set into this area and growing on a bank. The tree is a multi-stem. The tree has a large covering of ivy around the main stems.	No work currently needed	20+	C2
1899	**sycamore** *(Acer pseudoplatanus)*	Semi Mature	9	440	3	3	3	3	1	5	Good	Good	The tree is growing as part of the hedge line; it is self-set into this area and growing on a bank. The tree is a multi-stem. The tree may have been used as a gate post/ marker in the past.	No work currently needed	20+	C2
1900	**ash** *(Fraxinus excelsior)*	Semi Mature	8	400	3	3	3	3	1	5	Poor	Fair	The tree is growing as part of the hedge line, it is self-set into this area and growing on a bank. The tree is a multi-stem. The tree may have been used as a gate post/ marker in the past. The tree has lost a significant limb on the east side. This will allow pathogens into the tree.	No work currently needed but will need to be removed if area comes into regular use.	<10	U
H3	**hazel** *(Corylus avellana),* **holly** *(Ilex aquifolium),* **hawthorn** *(Crataegus monogyna),* **bramble**	Mature	5	300		3		3		4	Fair	Fair	It extends north to south and forms the eastern boundary with the adjoining residences. It has value as screening. It receives little to no maintenance which is affecting its structure/continuity.	It would benefit from trimming to create a more structured hedge		C2

	(Rubus fruticosus), **wych elm** *(Ulmus glabra),* **ash** *(Fraxinus excelsior),* **sycamore** *(Acer pseudoplatanus)*														
T3	**pedunculate oak** *(Quercus robur)*	Mature	17	2000	7	6	7	6	3	15	Good	Good	Tree is growing from hedge line. The tree has 2 stems which separate approx. 2 m from the base of the tree. The tree is largely covered in ivy making it impossible to survey the base until the ivy is removed. Crown density at 90% and also has some veteran features. Tree may have damaged roots due to landscape works from housing development to the east.	Remove ivy from base to 2 m to allow for future inspections.	40+	A2
2501	**common beech** *(Fagus sylvatica)*	Early Mature	9	460	4	4	4	5	1	6	Good	Good	Tree is growing from hedge line. The tree has 2 stems. The tree is largely covered in ivy and surrounded by bramble making it difficult to survey the base until the ivy is removed. The tree is growing on the top of a 2 m ditch. Tree may have damaged roots due to building works from housing.	Remove ivy from base to 2 m and remove bramble around tree to allow for future inspections.	40+	B2
T4	**ash** *(Fraxinus excelsior)*	Semi Mature	6	200	1	1	1	1	1	2	Poor	Poor	The tree shows symptoms of ash dieback. The tree is growing on the top of a 2 m ditch. Tree may	Cut tree to hedge level and retain for hedge bulking.	<10	U

													have damaged roots due to building works from housing.			
2502	**ash** *(Fraxinus excelsior)*	Early Mature	11	500	4	4	4	7	2	6	Poor	Fair	Tree is growing from hedge line. The tree shows symptoms of ash dieback. The tree is growing on the top of a 2 m ditch. Tree may have damaged roots due to building works from housing.	Cut tree to height of hedge and retain for hedge bulking.	<10	U
2503	**common beech** *(Fagus sylvatica)*	Early Mature	11	390	3	3	1	2	1	5	Good	Fair	Tree is growing from hedge line. The tree is multi-stemmed. The tree is growing on the top of a 2 m drain but is overhanging the ditch. Tree may have damaged roots due to building works from housing.	Reduce to height of hedge and maintain as hedge bulking / ecological value.	10+	C1
2504	**ash** *(Fraxinus excelsior)*	Early Mature	10	380	1	1	1	1	1	3	Poor	Poor	The tree shows symptoms of ash dieback. The tree is growing on the top of a 2 m ditch. Tree may have damaged roots due to building works from housing.	Cut tree to hedge level and retain for hedge bulking.	<10	U
TL3	**common beech** *(Fagus sylvatica)*	Mature	11	600	3	3	3	4	2	7	Good	Good	Line of 10 common beech trees running from north to south. The trees follow the hedge line on the east boundary. The trees are of similar quality to each other; however, any requiring work have been tagged individually. The trees grow along a ditch. The tree roots may be impacted by the construction work happening to the east of the site. Early basal decay at the base of some of the trees.	No work currently needed, may require future inspections with some remedial work if area comes into more frequent use.	40+	B2

T5	**ash** *(Fraxinus excelsior)*	Early Mature	11	400	3	3	2	3	1	5	Poor	Poor	The tree shows symptoms of ash dieback. The tree is growing on the top of a 2 m ditch. Tree may have damaged roots due to building works from housing. Tree is surrounded by thick understory of bramble.	Cut tree to hedge level and retain for hedge bulking.	<10	U
TL4	**ash** *(Fraxinus excelsior)*	Early Mature	11	300	2	2	2	2	2	4	Poor	Poor	Line of 13 ash trees running from north to south. The trees follow the hedge line on the east boundary. The trees are of similar quality to each other; however, they all show symptoms of ash dieback and are in decline. The trees grow along a ditch. The tree roots may be impacted by the construction work happening to the east of the site. The trees will continue to decline and as such are a future risk of falling on the new development to the east.	Due to the proximity of the construction site and possible future dwellings, cut trees to height of hedge and retain as hedge bulking/ ecological value.	<10	U
2505	**common beech** *(Fagus sylvatica)*	Early Mature	8	500	3	3	2	3	2	6	Poor	Poor	The tree is growing on the top of a 2 m ditch. Tree may have damaged roots due to building works from housing. The tree has approx. 10% covering on the circumference of *Kretzschmaria deusta* at the base. There is shoot dieback in the crown.	Cut tree to hedge level and retain for hedge bulking.	<10	U
2506	**common beech** *(Fagus sylvatica)*	Early Mature	9	500	4	3	2	4	2	6	Poor	Poor	The tree is growing on the top of a 2 m ditch. Tree may have damaged roots due to building works from housing. The tree has approximately 5% covering of *Kretzschmaria deusta* on the	Cut tree to hedge level and retain for hedge bulking.	<10	U

													circumference at the base of the tree. There is shoot dieback in the crown.			
2507	**ash** *(Fraxinus excelsior)*	Early Mature	9	400	3	1	1	1	1	5	Dead	Poor	This tree is standing dead. It is within falling distance of the construction site.	Cut tree to hedge level and retain for hedge bulking.	<10	U
2508	**pedunculate oak** *(Quercus robur)*	Mature	16	1670	8	7	8	7	2	15	Good	Good	Tree growing individually in a grazing field. The tree is growing without canopy competition. The crown displays good vitality however there are multiple veteran features present on this tree where it has been damaged over time. Some old fungal fruiting bodies at base of tree. Located approx. 7 m from construction car park. Gravel surface possibly compacted.	Assess in autumn for decay fungi and then every 18 months if this area comes into active use	40+	A2
2509	**pedunculate oak** *(Quercus robur)*	Mature	16	1520	7	7	6	7	2	15	Good	Good	Tree growing individually in a grazing field. The tree is growing without canopy competition. The crown displays good vitality however there are multiple veteran features present on this tree where it has been damaged over time. Dead branches throughout the crown which is to be expected in a tree this size and age. Some old Eiffel tower fungus fruiting bodies at base of tree on the south.	Remove medium and large size dead wood if this area comes into active use. Assess in autumn for decay fungi and then every 18 months if this area comes into active use. Mulch around base.	40+	A1
H4	**hazel** *(Corylus avellana)*, **hawthorn** *(Crataegus*	Mature	5	300	3		3			4	Fair	Fair	It extends east to west and forms the northern boundary of the survey site. It divides agricultural land. It receives little to no	No work currently needed.	-	C2

	monogyna), **bramble** *(Rubus fruticosus),* **ivy** *(Hedera helix)*												maintenance which is affecting its structure/continuity. Ivy present throughout the hedge.			
2510	**ash** *(Fraxinus excelsior)*	Early Mature	9	400	3	3	3	1	1	5	Poor	Poor	This tree is in serious decline due to ash dieback. Dieback in 60% of the tips in the crown. located in close proximity to Cornamagh Cemetery.	Cut down tree as low as possible.	<10	U
H5	**hawthorn** *(Crataegus monogyna)* **bramble** **(***Rubus fruticosus),* **ivy** *(Hedera helix)*	Mature	5	250		2		2		3	Fair	Fair	It extends north to south and forms the western boundary of the survey site. The hedge grows as part of a stone wall that divides agricultural land from Cornamagh Cemetery. The stone wall seems to be part of the structure of the hedge allowing ivy and brambles to climb along it. It receives little to no maintenance which is affecting its structure/continuity. Ivy present throughout the hedge.	No work currently needed.		C2
TG6	**horse chestnut** *Aesculus hippocastanum,* **yew** *Taxus baccata***, sycamore** *Acer pseudoplatanus***, black poplar** *Populus nigra***, copper beech** *Fagus sylvatica* f. *purpurea*	Mature	20	1200	6	6	6	6	2	14	Good	Good	This mixed species tree group is made up of high quality mature trees. It is located outside the redline boundary, however its root area can be entering the site. The trees are approx. 7m from the boundary wall. The tree group has been viewed from the survey site only.	No work currently required.	40+	A2

TG7	**Lawson cypress** *Chamaecyparis lawsoniana*	Mature	16	1000	4	4	4	4	2	12	Good	Good	This tree group is located outside the redline boundary. The trees are approx. 1m from the boundary wall. There are some wounds present, likely due to storms. Some work has been carried out to crown raise the trees in the past on the Cornamagh Cemetery side. The tree group has been viewed from the survey site.	No work currently required.	40+	B2
TL5	**ash** *(Fraxinus excelsior)*	Semi Mature	8	400	2	2	2	2	2	5	Poor	Poor	Line of 3 ash trees running from north to south. The trees follow the hedge line on the west boundary. The trees are of similar quality; however, they all show symptoms of ash dieback and are in decline. The trees grow close to an agricultural shed. The tree roots may be impacted by the shed.	Due to the proximity of the agricultural shed, cut trees to height of hedge and retain as hedge bulking/ ecological value.	<10	U
TG8	**black poplar** *(Populus nigra)*	Mature	20	1200	7	7	6	6	2	14	Good	Good	This tree group is made up of 4 black poplar located outside the redline boundary. The trees are 1 m behind stock fencing. There is a large understory of bramble at the base of the trees. The tree group has been viewed from the survey site only.	No work currently required.	20+	B2
TG9	**ash** *(Fraxinus excelsior)*	Mature	14	1000	6	6	6	6	2	12	Poor	Good	This tree group is made up of approx. 12 ash making up a small, wooded area, located in the southwest of the site. All the ash trees show symptoms of dieback; some are in a later stage of	No work currently required as low risk area.	<10	U

													decline. Some damage present to ash from other fallen trees.			
H6	**hawthorn** *(Crataegus monogyna),* **bramble** *(Rubus fruticosus),* **ivy** *(Hedera helix)*	Mature	5	250	2	2	2	2		3	Fair	Fair	It extends around the group of ash trees in the southwest corner. It receives little to no maintenance which is affecting its structure/continuity. Ivy present throughout the hedge.	No work currently needed.		C2
2511	**pedunculate oak** *(Quercus robur)*	Mature	12	1460	6	6	6	7	2	15	Good	Good	Tree growing individually in a grazing field. The tree is growing without canopy competition. The crown displays good vitality however there are multiple veteran features present on this tree where it has been damaged over time. Dead branches throughout the crown which is to be expected in a tree this size and age.	Remove medium and large size dead wood if this area comes into active use. Mulch around base	40+	A2
2512	**pedunculate oak** *(Quercus robur)*	Mature	10	1570	6	3	8	7	2	15	Good	Fair	Tree growing individually in a grazing field. The tree has lost a large portion of its crown; however, its remaining crown displays good vitality. There are multiple veteran features present on this tree where it has been damaged over time. Rootzone poached by cattle.	Remove medium and large size dead wood if this area comes into active use. And assess every 18 months for decay development at wounds. Mulch around base	40+	A2
2513	**pedunculate oak** *(Quercus robur)*	Mature	10	1170	1	6	6	2	2	14	Good	Fair	Tree growing in the southwest corner in a wooded area. The tree is growing with canopy competition by surrounding ash. The tree has lost most of its crown, however its remaining	No work currently needed.	40+	A3

													crown displays good vitality. There are multiple veteran features present on this tree where it has been damaged over time.			
2514	**pedunculate oak** *(Quercus robur)*	Mature	12	1200	4	6	4	2	2	14	Good	Poor	Tree growing in the southwest corner in a wooded area. The tree has lost 40% of its crown, possibly due to damage from fallen trees, however its remaining crown displays good vitality. There are multiple veteran features present on this tree where it has been damaged over time.	No work currently needed.	40+	A3
T6	**white poplar** *(Populus alba)*	Early Mature	1	400	1	1	1	1	1	5	Dead	Poor	The tree has fallen into the site from a neighbouring property.	Clean up fallen tree to behind boundary.	<10	U
T7	**Sitka spruce** *(Picea sitchensis)*	Semi Mature	8	400	2	2	2	2	1	5	Good	Good	This tree is growing within a neighbouring property on the south border of the site..	No work currently required.	20+	C2
2515	**ash** *(Fraxinus excelsior)*	Semi Mature	9	700	3	3	3	3	5	8	Dead	Poor	This tree is standing dead. It is within falling distance of a neighbouring property.	Cut down tree as low as possible.	<10	U
2516	**ash** *(Fraxinus excelsior)*	Semi Mature	12	1130	6	5	7	3	5	14	Poor	Fair	Tree is located as part of the escaped hedge line to the south of the site. It shows symptoms of ash dieback and is in decline.	Cut down to hedge height and retain for hedge bulking/ ecological value.	<10	U
2517	**hawthorn** *(Crataegus monogyna)*	Mature	9	540	4	3	3	3	5	6	Good	Good	Tree is located as part of the escaped hedge line to the south of the site. Tree is tall for its species. Tree has lost some large low branches in the past allowing pathogens to enter.	No work currently required.	20+	B2
2518	**common beech** *(Fagus sylvatica)*	Early Mature	10	460	4	4	6	3	3	6	Good	Good	Tree is growing from hedge line. The tree is growing on a bank with different soil levels on either side of the tree. The tree has a slight	No work currently required.	20+	B2

													lean at the base before straightening.			
2519	**ash** *(Fraxinus excelsior)*	Mature	14	1310	6	7	7	6	6	15	Fair	Fair	Tree is located as part of the escaped hedge line to the south of the site. Tree is located on a mound of soil/rock. It shows symptoms of ash dieback and is in decline.	No work currently required but will need removal if area comes into more use.	<10	U
2520	**pedunculate oak** *(Quercus robur)*	Mature	14	1280	8	7	8	5	3	15	Good	Fair	Tree is located as part of the escaped hedge line to the south of the site. Tree is located on a mound of soil/rock. The tree shows good vitality in the crown along with multiple veteran features. The tree has a lean to the north coupled with a significant wound to the south base of the tree. The wound is approx. 2 m tall and exposes 50 cm of heartwood.	No work currently required. Will need to be regularly inspected if area comes into more active use.	20+	B2
2521	**ash** *(Fraxinus excelsior)*	Mature	9	700	1	1	1	1	1	8	Dead	Poor	Ash tree which has fallen over.	No work currently required. Will need to be removed if area comes into more active use.	<10	U
2522	**ash** *(Fraxinus excelsior)*	Mature	12	900	6	5	3	3	6	11	Fair	Fair	Tree is located as part of the escaped hedge line to the south of the site. Tree is located on a mound of soil/rock. It shows signs of ash dieback and is in decline. Tree has been damaged in the past by fallen ash.	No work currently required. Tree will need to be removed if area comes into more regular use.	<10	U
2523	**ash** *(Fraxinus excelsior)*	Mature	12	800	5	2	5	4	6	10	Fair	Fair	Tree is located as part of the escaped hedge line to the south of the site. Tree is located on a	No work required currently. Tree will need to be removed if	<10	U

													mound of soil/rock. It shows symptoms of ash dieback and is in decline. Tree has large open wound present on east side at base. Cavity is forming with 30% of the internal diam rotten.	area comes into more regular use.		
2524	**ash** *(Fraxinus excelsior)*	Mature	14	1050	6	5	7	7	3	13	Fair	Fair	Tree is located as part of the escaped hedge line to the south of the site. Tree is located on a mound of soil/rock. It shows signs of ash dieback and is in decline.	No work required currently. Tree will need to be removed if area comes into more regular use.	<10	U
2525	**ash** *(Fraxinus excelsior)*	Mature	12	760	2	5	4	2	3	9	Fair	Fair	Tree is located as part of the escaped hedge line to the south of the site. Tree is located on a mound of soil/rock. It shows signs of ash dieback and is in decline.	No work required currently. Tree will need to be removed if area comes into more regular use.	<10	U
2526	**common beech** *(Fagus sylvatica)*	Mature	4	2260	1	1	3	3	3	15	Poor	Poor	Crown of tree has collapsed leaving a large stump approx. 5m tall. Stump has small amount of growth on west and south sides. Stump is beginning to rot internally with a cavity forming on the north side of the tree. Multiple hollow points around tree. Tree is declining but is of benefit to local ecology.	No work required currently. Fallen branches will need to be removed if area comes into more active use.	<10	C3
2527	**sycamore** *(Acer pseudoplatanus)*	Mature	12	960	7	7	7	4	3	12	Good	Fair	Tree is located as part of the escaped hedge line to the south of the site. Tree is located on a mound of soil/rock. It has been damaged by fallen tree to the east. There is a large cavity beginning to form at the base on the north side of the tree. The	No work required currently. Cavity will require reviewing every 10 months if area comes into more active use.	10+	C1

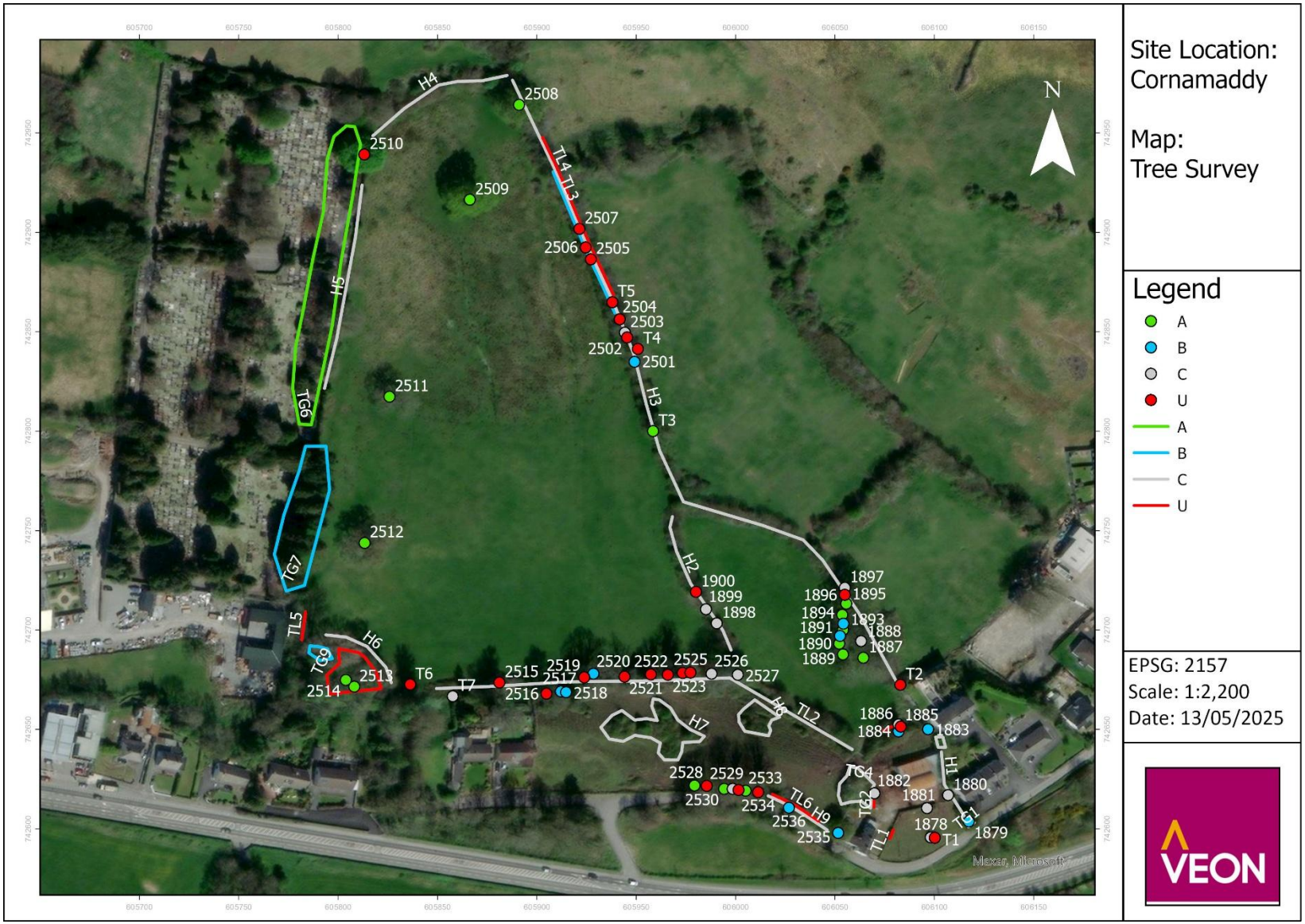
													cavity travels approx. 1 m up from the base.			
H7	**hawthorn** *(Crataegus monogyna),* **bramble** *(Rubus fruticosus),* **ivy** *(Hedera helix),* **ash** *(Fraxinus excelsior)*	Mature	4	250	2	2	2	2		3	Fair	Fair	It is located at the south of the site on a steep slope of an agricultural field. The majority of the hedge is and understory of brambles with young trees beginning to grow throughout. It receives no maintenance.	No work currently needed.	-	C2
H8	**hawthorn** *(Crataegus monogyna)* **bramble** *(Rubus fruticosus)* **ivy** *(Hedera helix),* **ash** *(Fraxinus excelsior)* **sycamore** *(Acer pseudoplatanus)*	Mature	4	250	2	2	2	2		3	Fair	Fair	It is located at the south of the survey site. The majority of the hedge is and understory of brambles with young trees beginning to grow throughout. It receives no maintenance.	No work currently needed.	-	C2
2528	**sycamore** *(Acer pseudoplatanus)*	Mature	14	960	7	4	4	5	2	12	Good	Fair	Tree is growing on southern boundary next to road. Tree makes up part of a group crown. Tarmac road and stone wall within 1 m of tree on south side. Crown has likely been raised in the past on the roadside of the tree. Ivy (*Hedera helix*) present on the lower 4 m of the tree.	Remove ivy to allow for future inspections.	40+	A2
2529	**ash** *(Fraxinus excelsior)*	Mature	15	1260	5	2	5	3	3	15	Poor	Fair	Tree is located beside the road to the south of the site. The tree is within 1 m of the tarmac road.	Cut tree as low as possible	<10	U

													Tree is located on a mound of soil/ rock wall. It shows signs of ash dieback and is in decline.			
2530	**common beech** *(Fagus sylvatica)*	Mature	16	1660	8	5	7	5	2	15	Good	Good	Tree is growing on southern boundary next to road. Tarmac road within 1 m of tree on south side. Tree makes up part of a group crown. Tree is growing over old stone wall. Crown has likely been raised in the past on the roadside of the tree. Ivy present on the lower 4 m of the tree. Some small cavities present around the tree.	Review cavities for decay development every 18 months	40+	A2
2531	**sycamore** *(Acer pseudoplatanus)*	Semi Mature	7	360	6	2	5	1	2	4	Good	Fair	Tree is growing on southern boundary next to road. Tarmac road and stone wall within 1m of tree on south side. Crown has been raised in the past on the roadside of the tree. Tree is heavily suppressed by the beech tree canopy. 3 cavities on the bottom 2 m of the tree likely from old pruning wounds.	No works presently	40+	C2
2532	**ash** *(Fraxinus excelsior)*	Mature	17	1840	8	4	7	4	3	15	Poor	Poor	Tree is located beside the road to the south of the site. The tree is within 1m of the tarmac road. Tree is located on a mound of soil/ rock wall. It shows symptoms of ash dieback and is in decline. Large wound running from base to crotch (approx. 3 m) on north side	Cut tree as low as possible.	<10	U
2533	**common beech** *(Fagus sylvatica)*	Mature	16	1530	7	6	8	4	2	15	Good	Good	Tree is growing on southern boundary next to road. Tarmac road within 1 m of tree on south	Remove ivy to 2 m and assess cavities for decay	40+	A2

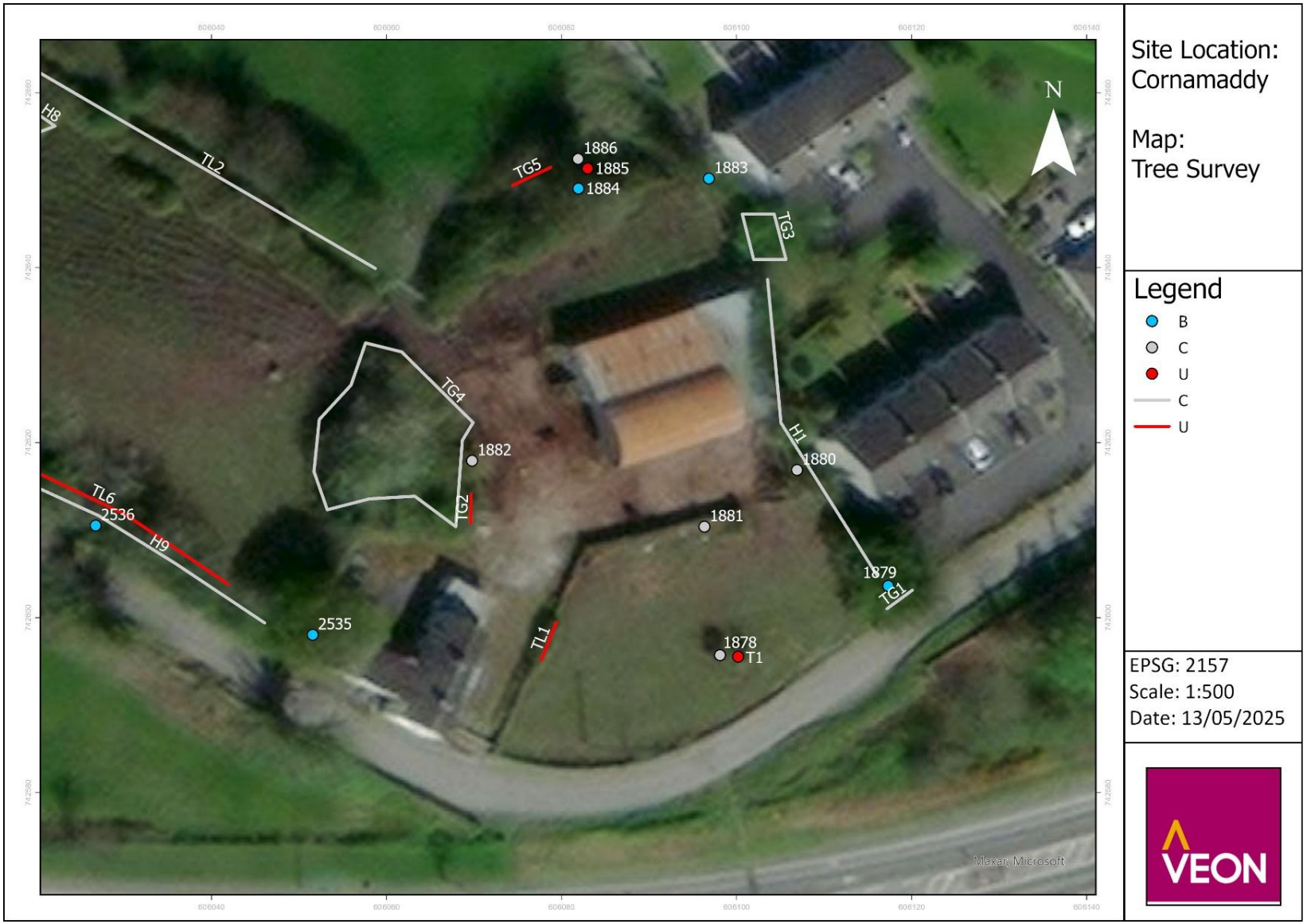
													side. Tree is growing over old stone wall. Crown has likely been raised in the past on the roadside of the tree. Ivy present on the lower 4 m of the tree. Some small cavities present around the tree.	development every 18 months.		
2534	**ash** *(Fraxinus excelsior)*	Mature	17	1870	9	7	8	4	3	15	Poor	Poor	Tree is located beside the road to the south of the site. The tree is within 1 m of the tarmac road. Tree is located on a mound of soil/ rock wall. It shows symptoms of ash dieback and is in decline.	Cut tree as low as possible.	<10	U
H9	**hawthorn** *(Crataegus monogyna),* **bramble** *(Rubus fruticosus),* **ivy** *(Hedera helix),* **sycamore** *(Acer pseudoplatanus)*	Semi Mature	6	250	2	2	2	2		3	Fair	Fair	It is located at the south of the survey site and runs parallel to the road. It is an escaped hedge, which is affecting its structure. It provides screening value for the road and agricultural lands. It has been crown raised on the roadside in the past.	Will need regular maintenance to avoid conflict with the road.	-	C2
TL6	**ash** *(Fraxinus excelsior)*	Semi Mature	7	300	2	2	2	2	2	4	Poor	Poor	Line of ash trees running from east to west. The trees follow the hedge line on the southern boundary. All the ash are of similar quality; however, they all show symptoms of ash dieback. The trees grow along a road.	Due to the trees close proximity to the road, cut trees to height of hedge and retain as hedge bulking/ ecological value.	<10	U
2535	**sycamore** *(Acer pseudoplatanus)*	Mature	12	960	5	5	5	5	2	12	Good	Fair	Tree is located next to the escaped hedge line at the southern border of the site. Tree is located on a mound of soil/rock where there is a change in ground level. Its roots have been	Review in 18 months time for decline from root damage	40+	B2

													damaged (approx. 2 m north) by the construction of an entrance.			
2536	**wych elm** *(Ulmus glabra)*	Early Mature	11	560	4	3	5	5	2	7	Good	Good	Tree is located as part of the escaped hedge line at the southern border of the site. Tree is located on a mound of soil/rock where there is a change in ground level. It's located within 1 m of the tarmac road. There are no obvious signs of Dutch Elm disease.	Review every summer for symptoms of Dutch elm disease.	10+	B2

Appendix 2
Map



Map 3: Full survey site



Map 4: Southeast corner of the survey site

Map 5: Group of mature trees in the southeast corner of the survey site

Map 6: Southern escaped hedge separating two agricultural fields of the survey site

Map 7: East border hedge of the survey site

Map 8: East border hedge of the survey site

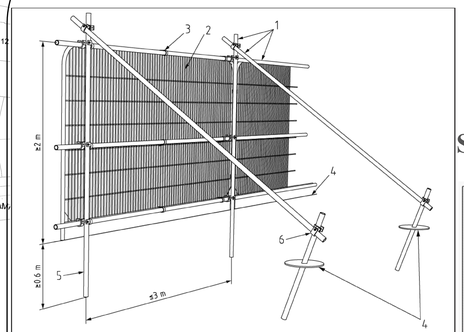
Map 9: North corner of the survey site with the east and west border hedges either side of the map

Map 10: Southwest corner of the survey site

Map 11: South border of the survey site

Appendix 3
Tree Protection / Removal Plan

Tree Protection Detail



Key
1 Standard scaffold poles
2 Heavy gauge 2 m tall galvanized tube and welded mesh infill panels
3 Panels secured to uprights and cross-members with wire ties
4 Ground level
5 Uprights driven into the ground until secure (minimum depth 0.6 m)
6 Standard scaffold clamps

Signage Detail

Tree protection fencing must be erected around the Construction Exclusion Zone (CEZ) to protect retained trees and any areas marked for supplementary planting. In some areas, site hoarding may be sufficient to act as protective fencing if the tree and its Root Protection Area (RPA) are positioned outside of the hoarding where there will be no construction activity. This must be discussed and agreed upon with the project arboriculturist before construction activity begins on site.

Where tree protection fencing is needed, it must be 2.3 metres high and constructed in accordance with figure 2 of BS 5837 2012 (see detail above), using vertical and horizontal scaffold bars, or similar, well-braced together with the verticals spaced out at a maximum of 3 metre centres. Onto this, weld mesh panels (herris fence panels) must be securely fixed with wire or scaffold clamps.

Signs must be attached to these fences warning people that this is a protective area and that the fencing must be maintained in good condition in accordance with the approved plans and drawings for this development.

Once the protective fence line is erected, then the main construction works can commence on site.

The following must be adhered to in order to protect retained trees and CEZ's:

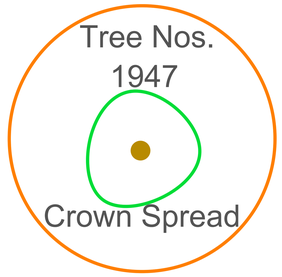
1. Protect tree root systems from damage caused by runoff or spillage of noxious materials while mixing, moving, or storing construction materials.
2. Protect root systems from ponding, eroding, or excessive wetting caused during construction operations.
3. Do not store construction materials, debris, or excavated material near trees or inside the CEZ. When excavating, place excavated material on opposite side of trench away from the tree or CEZ.
4. Do not permit vehicles or foot traffic within the CEZ; prevent soil compaction over root systems.
5. Do not allow fires near the CEZ or retained trees.
6. Do not attach notice boards, cables or other services to any part of a tree.
7. Do not use neighbouring trees as anchor points.
8. Do not use high machinery such as Tele-porters, cranes, or other equipment close to trees, to avoid damage to the crown or any other part of the tree.

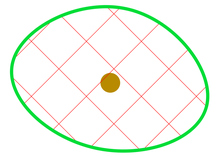
During the construction works the following is required:

1. The main contractor or site manager must brief all people working on site about the tree protection measures and the procedure if works must be carried out within the CEZ.
2. Storage of material, work yards and staff car parking must be identified on the the work drawings prior to the construction works starting, these will be positioned outside the CEZ as indicated.
3. The main contractor or site manager must check the tree protective fencing daily and carry out any repairs required to ensure they stay upright and secure.
4. The main contractor or site manager must liase with the project arboriculturist if works are to be carried out within the CEZ or near retained trees.
5. Any works that are to occur within the CEZ, such as landscaping, must be carried out manually, with no machinery allowed within the CEZ. Soil levels must not be lowered or raised with the CEZ as this affects rooting conditions. Recommendations in section 8 of BS 5837:2012 must be adhered to in relation to site works, landscape operations and management.
6. The protective fencing around the CEZ must stay in position until all the construction works are complete and are only to be removed following discussions and agreement with the project arboriculturist.

Legend

RPA

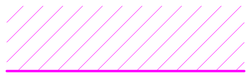




Tree Removal

Ground Protection

CEZ



Protective Fencing

Category U

Category A

Category B

Category C

Tree Layers Provided by:

VEON

1 Leopardstown,
Business Centre,
Ballyogan Road,
Dublin 18,
D18 DK64

Project name and address

Tree Protection and Removal Plan

Cornamaddy

Portlaoise

Co. Westmeath

Annotated by	Sheet
EG & CD	2A0
Date	Drawing No.
30-06-2025	TPR-CM-01
Scale	Revision No.
1:500	1

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