

Arboricultural Assessment

(Tree & Hedge survey)

To assess the trees

On the site at

Bloomfield Park
Bracklin Road
Edgeworthstown
Co. Longford

July 2021

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PART ONE – ARBORICULTURAL ASSESSMENT

Introduction

The purpose of this report is to set out the findings following the inspection of trees on site at, **Bloomfield Park, Bracklin Road, Edgeworthstown Co. Longford** and set out their condition. The survey work was finalised on 15th July 2021 by the undersigned a qualified arboricultural consultant. The term of reference for the report is a planning application on the site. The following categories have been used within the tree report tables and, where appropriate, the criterion used to define each category is defined.

- **Tree No.** : refers to the identification tag attached to a tree [also identified as such on the accompanying survey drawings]
- **Species** : refers to the common and scientific name given to the tree.
- **Stem diameter** : refers to the diameter of the tree stem in millimetres, as measured at 1.5 metres above ground level and above the root flare for multi-stemmed trees.
- **Height** : refers to the total height of the trees and hedges in metres. (Heights measured with a TruPluse® 200)
- **Crown spread** : refers to the width of the crown in metres, measured across the width of the hedge. [Dimensions marked with # are estimates as per 4.4.2.6 c) – BS 5837:2012]
- **Condition** : refers to the physiological condition of the tree as a whole described as:
 - Good** – Full healthy canopy but possibly including some suppressed or damaged branches
 - Fair** – Slightly reduced leaf cover, minor dead wood or isolated major dead wood
 - Poor** – Overall sparse leafing or extensive dead wood
- **Age** An estimation of the age of the tree described as;
 - V- Veteran, trees, which by recognized criteria, show features of biological, cultural or aesthetic value that are characteristic of, but not exclusive to individuals surviving beyond the typical age range for the species concerned.
 - OM – Over Mature, trees reaching the end of their life, in decline and senescent.
 - M – Mature, fully grown, with only small annual increments.
 - EM – Early Mature, one-third to two thirds of total life expired.
 - Y – Young, recent planting, with up to one third of total life expired.

- **Remarks:** Descriptive comments about the health (physiological) or form (structural) of the tree, its environment or external influences and may include preliminary management recommendations.

Category grade

- **U** -Those trees in such a condition that any existing value would be lost within 10years and which should be in the correct context, be removed for reasons of sound arboricultural management.
 - **A** -Those trees of a high quality and value in such a condition as to be able to make a substantial contribution.
 - **B** - Those trees of a moderate quality and value in such a condition as to be able to make a significant contribution.
 - **C**- Those trees of a low quality and value currently inadequate condition to remain until new planting could be established, or young trees with a stem diameter below 150mm
- **Estimated remaining contribution in years (ERC):** Expressed as less than 10, 10+, 20+, more than 40

Glossary of terms used:

Basal: The base of the tree close to the ground, (basal shoots are those emanating from the base).

Crown (canopy): The leaves and branches of a tree.

Co-dominant: Stems or branches of near equal diameter, often weakly attached.

Decay: Degradation of wood by fungi and/or bacteria.

Defect: Any feature of a tree which detracts from the uniform distribution of mechanical stress, or which makes the tree mechanically unsuited to its environment.

Dieback: The death of part of a plant, usually starting from a distal point and often progressing in stages.

Epicormic : Pertaining to shoots or roots, which are initiated on mature woody stems; shoots may form in this way from dormant buds or they may be adventitious.

Dysphotic zone : A zone within the canopy which does not have enough light to carry out photosynthesis.

Included Union: bark of adjacent parts of a tree (usually in forks, acutely angled branches or basal flutes), which is in face-to-face contact, so that there is weakness due to the lack of a woody union.

Lean: Departure of the trunk from the vertical.

Scaffold limbs: The branches, which form the main framework of the crown of a tree with a decurrent growth habit.

Shoot: A shoot derived from a dormant or adventitious bud on the main stem or branch.

Stub/peg: A short section of a branch, which may have, been left after previous pruning or storm damage.

Wound: Injuries on the surface of a trunk or branch.

Full: A canopy, which extends to the ground or nearly to the ground

Natural suppressed deadwood: Deadwood in conifers, which died as the crown height extended and the lower branch no longer have a function in the production of foliage.

Pathogens: Fungal and /or bacterial infections, which degrade the wood and render trees liable to failure

Wound wood: Wood with atypical anatomical features, formed in the vicinity of a wound or the occluding tissue around a wound

Hazard Limb: An upwardly curved part in which strong internal stresses may occur, cause wood to crack

Burr: Woody protuberances, especially those derived from the mass proliferation of adventitious buds.

Root protection area (RPA) : layout design tool indicating the minimum area around a tree deemed to contain sufficient roots and rooting volume to maintain the tree's viability, and where the protection of the roots and soil structure is treated as a priority.

Survey Results

Tree Hedge no.	Species	Height (m)	Stem dia. (mm)	Spread (m)	Condition	Age	ERC	Remarks	Grade
Hedge 1	Hawthorn <i>Crataegus monogyna</i> Blackthorn <i>Prunus spinosa</i> Ash <i>Fraxinus excelsior</i> Bramble <i>Rubus fruticosus</i>	6.5	-	10.0	Fair	M	40+	This central hedge has a deep ditch to the west, the hedge has a dense ivy cover, the hedge is unmanaged and has become gappy. The ash is infected with ash die back.	B
6261	Ash <i>Fraxinus excelsior</i>	18.0	700	N 8.0 S12.0 E12.0 W10.0#	Fair	M	10+	A large specimen tree, it has very dense ivy cover with long lateral branches which have reiterative suckers. It is infected with Ash die back.	C
Hedge 2	Hawthorn <i>Crataegus monogyna</i> Blackthorn <i>Prunus spinosa</i> Privet <i>Ligustrum vulgare</i> Ash <i>Fraxinus excelsior</i> Bramble <i>Rubus fruticosus</i>	10.0 6.0	-	12.0	Fair	M	40+	This is a dense internal field boundary, the early mature ash in this hedge appear to be free from ash die back at this time.	B

Tree Hedge no.	Species	Height (m)	Stem dia. (mm)	Spread (m)	Condition	Age	ERC	Remarks	Grade
Hedge 3	Mixed ornamental hedges.	-	-	-	Good	EM/M	40+	The seven bungalows located north east of the subject site along the Bracklin Road are defined by; timber fences house 1, Cherry Laurel hedges (5 and 7), Lawson Cypress hedges (2 and 4), Hawthorn, beech, (3) together with post and wire and ornamental shrubs with Elder (<i>Sambucus nigra</i>).	B
Hedge 4	Hawthorn <i>Crataegus monogyna</i> Ash <i>Fraxinus excelsior</i> Blackthorn <i>Prunus spinosa</i> Goat Willow <i>Salix caprea</i> Bramble <i>Rubus fruticosus</i>	11.0	-	8.0	Poor	M	20+	Along the boundary to the north west of Bracklin Park. It has a deep wet ditch, it is poor quality trees and the Ash trees have Ash die back.	C
Hedge 5	Hawthorn <i>Crataegus monogyna</i> Ash <i>Fraxinus excelsior</i> Bramble <i>Rubus fruticosus</i>	6.0	-	4.0	Poor	M	10+	A weak hedge on a raised bank. The ground around the base of the hedge is watered logged on both sides. It has isolated early mature Ash with extensive crown die back.	C

Tree Hedge no.	Species	Height (m)	Stem dia. (mm)	Spread (m)	Condition	Age	ERC	Remarks	Grade
Hedge 6	Hawthorn <i>Crataegus monogyna</i> Ash <i>Fraxinus excelsior</i> Goat Willow <i>Salix caprea</i> Privet <i>Ligustrum vulgare</i> Bramble <i>Rubus fruticosus</i>	15.0	-	8.0	Poor	M	20+	A double hedge either side of a deep wet ditch, the hedge on the eastern side has been cut back and only a portion of this Hedge on the eastern side is within the Wayleave area. The Ash are infected by ash die back.	C
Hedge 7	Hawthorn <i>Crataegus monogyna</i> Holly <i>Ilex aquifolium</i> Ash <i>Fraxinus excelsior</i> Bramble <i>Rubus fruticosus</i>	16.0	-	8.0	Poor	M	10+	A short section of hedge on a bank with a deep ditch to the north, the trees are weak and the ash is infected with ash die back. ¹ The hedge is not within the application site.	C

¹ *Hymenoscyphus fraxineus* is an Ascomycete fungus that causes ash dieback, a chronic fungal disease of ash trees in Europe characterised by leaf loss and crown dieback in infected trees.

Tree Hedge no.	Species	Height (m)	Stem dia. (mm)	Spread (m)	Condition	Age	ERC	Remarks	Grade
Hedge 8	Hawthorn <i>Crataegus monogyna</i> Ash <i>Fraxinus excelsior</i>	9.0	-	6.0	Poor	M	10+	This hedge is on a bank at the base of the boundary wall to the houses at Bracklin Park. The ditch is wet, the hedge is weak the Ash saplings are infected with ash die back. The hedge is not within the application site.	C
Wood Land 1	Scot's pine <i>Pinus sylvestris</i> Spruce <i>Picea sitchensis</i> Hawthorn <i>Crataegus monogyna</i> Blackthorn <i>Prunus spinosa</i>	20.0	-	-	Poor	M	10+	A neglected stand of commercial timber, they are poor quality. The stand has suffered wind blow and wind snap, with some partially uprooted. The spruce has been affected by an infestation of Green spruce aphid (<i>Elatobium abietinum</i>) which is an important defoliating pest of spruce trees (trees in the <i>Picea</i> genus), especially Sitka spruce (<i>Picea sitchensis</i>), there are weak and dead spruce. The trees have a cover of dense ivy and the under storey of Blackthorn, Hawthorn and bramble. It has been spilt by an overhead cable. The woodland is not within the application site.	C

Assumptions and Limitations

This tree survey was carried out from the ground, no invasive or destructive evaluation techniques were used; all findings observations and recommendations are based on the knowledge and experience of the undersigned a qualified Arboriculturalist. Information contained in this report covers only those items that were examined and reflects the condition of those items at the time of the inspection.

Findings are based on a visual report from ground level only and it should be borne in mind it is subject only to faults visible at the time of inspection, certain pathogens only produce seasonal fruiting bodies and consequentially may not have been noted during this assessment. All trees should be monitored on a regular basis for signs of defects and should be reported to a person qualified to diagnose them and to recommend treatment.

In the event of adverse weather conditions, there is the possibility of any tree, despite having a good report, falling over or suffering crown damage. In the event of a falling tree causing damage to residential or non residential buildings in their proximity, or to any person, any property public or private, or any mechanical vehicle or otherwise no liability will attach to this firm.

There is no warranty or guarantee, expressed or implied, that problems or deficiencies of the trees in question may not arise in the future. The author takes no responsibility for any actions taken by the landowner or their agents by reasons of this report unless subsequent contractual arrangements are made.

This report is intended solely for the benefit of the parties to whom it is addressed and no responsibility is extended to any third party for the whole or any part of its contents. All trees mentioned in this report should be subject to reassessment every two years to assess physiological and environmental changes.

PART TWO - ARBORICULTURAL IMPACT ASSESSMENT

General Description of Site and Surroundings

The site is located within the environs of Edgeworthstown, Co. Longford.

The site is approximately c. 3.75 hectares area and it is located 1 km north-west of Main Street, Edgeworthstown. Along the eastern boundary there are seven single dwellings which back on to the site and are accessed off the Bracklin Road. To the north of the site is a farmyard which adjoins the site. To the north west, west and south west is agricultural pasture and to the south and south east are residential estates, Bracklin Park, Abhainn Glas and Cloverwell.

The site is enclosed agricultural land, with a number of distinct habitats. The soil is a Gley, 'Gleys' are soils in which the effects of drainage impedance dominate and which have developed under conditions of permanent or intermittent water logging. The proposed development would result in the loss of grassland. This resource is not scarce and this would not have a significant effect on the land. The proposed residential development would provide a change of use of the lands, which are mainly dominated by rush.

Description of Proposed Development

The proposed strategic housing development (SHD) consists of the construction of 100 dwellings and a new vehicular and pedestrian access of the Bracklin Park Link Road. In addition, all other site services and works are proposed to enable the development of the site, including car and cycle parking, bin/bike/estate stores, ESB substation, associated roadworks and services connections, a large quantity of public and communal open space, boundary treatment works, site reprofiling and landscaping.

Designations Relating to Trees

There are no Tree Preservation Orders on the site. There is no objective in the County Development plan to protect and preserve trees and Woodlands at locations within the site.

Implications of Proposed Development

The current proposal under consideration will result in the loss of one Category C tree. It will also result in the removal of very minor sections of Hedges 1 and 4 in order to facilitate the internal road and footpath network. The proposed dwellings have been designed to be located in such a way in order to retain the vast majority of remaining hedgerow and ecological features. The only development proposed within the wayleave area to the south is the installation of foul and surface drainage pipes (225m wide each) down the centre of the wayleave area. This will have no impact on Hedges 6, 7 & 8 or Woodland Area 1.

(1) Direct Loss of Trees

The following trees will have to be removed due to a direct impact;

- Tree 6261,
- Small sections of Hedges; 1 and 4.

(2) Indirect Impacts

Changes in Ground Level / Changes in Ground Surface within Root protection area (RPA).

There is no planned alterations of ground levels or ground services within the RPA of retained hedges.

Services

A new 225mm land drain and attenuation unit to be installed underground along minor section of hedge 4. The open ditch alongside hedge 1 to be retained as an open water course. Special measures will be required – see section three of arboricultural method statement.

Condition

N/A

Change in Site Use and Tree Management Implications

Above ground constraints

The retained trees are in locations where they will not be affected by the proposed buildings.

Potential Root Damage to Infrastructure

Modern construction techniques, soil types together with the species and age of the retained trees and their location make damage to infrastructure unlikely.

Potential Nuisance

The proposed development has been designed so that there will be no risk of potential nuisance from retained hedges and trees that might cause concerns and a requirement to remove them. All retained hedges and trees will have appropriate remedial tree surgery works, which will include trimming reshaping and resizing, all deadwood will be removed along any potential hazard branches from their canopies prior to the development being occupied and will have normal ongoing arboricultural management.

Construction Implications

General precautions in storage or mixing of materials that may be injurious to trees will need to be taken. All toxic materials, (cement, mortar, bitumen, diesel, bonding agents, etc) will be stored 10m from root protection areas. No wash out facilities will be provided for ready mix concrete/mortar deliveries. All fuels stored on site will be banded to prevent spillage or leakage.

Proposals for tree management

All retained trees will have necessary remedial tree surgery to ensure there are no hazard branches, deadwood and weak limbs. All retained trees will be subject to regular inspections.

PART THREE - ARBORICULTURAL METHOD STATEMENT

Introduction

This document sets out the methodology for all proposed works that affect trees on and adjacent to the site. Compliance with this method statement will be a requirement of all relevant contractors associated with the development proposals.

Copies of this document will be available for inspection on site. The developer will inform the local planning authority within twenty-four hours if the arboricultural consultant is replaced.

The contractor shall take all precautions to ensure that any trees, which are to be retained, shall remain undisturbed and undamaged.

All works to trees and all operations adjacent to trees should be undertaken in accordance with the Method Statement. The contractor shall undertake no works to trees unless instructed by the Contract Administrator. All works within or close to the protected tree zones are to be supervised by the appointed Consultant Arboriculturalist. Two working days notice of intention to undertake such works to be given prior to any works commencing.

Root Protection Area

In accordance with the Method statement protective fences shall be erected before the commencement of building works any works on site (other than remedial tree works and erection of the boundary fence). The area within the tree fencing should be clearly identified with signage as the 'Protected Tree Zone'. The local planning authority will be notified in writing once the fencing is in place. Strictly no access should be permitted to this zone unless instructed by the CA. The appointed Consultant Arboriculturalist should be notified of any works or access to this zone. The fencing will remain in place until completion of the main construction phase and then only removed with the consent of the local planning authority to permit completion of the scheme.

Other than works detailed within this method statement or approved in writing by the local planning authority, no works including storage or dumping of materials shall take place within the exclusion zones defined by the protective fencing. No fires should be lit close to or within 20 metres of the trunk of any tree that is to be retained. No materials that are likely to have an adverse effect on tree health such as oil, bitumen or cement will be stored or discharged within 10 metres of the trunk of a tree that is to be retained.

Code of Practice for the preservation of trees and hedges

The following code of practice is intended for the preservation of existing trees and hedges. These guidelines will help sustain vigour and minimise adverse growing conditions, for trees set out for retention.

This code will be brought to the attention of all site personnel including Main Contractor, sub-contractors and engineering specialists associated with the project. As appropriate this method statement should be translated. All operations are to be in accordance with BS 5837: 2012, *Trees in relation to design, demolition and construction*. The main contractor should purchase and make available on site a copy of the above.

Prior Notice and Tree removal

All necessary tree works are to be undertaken prior to the commencement of any other works on site. Trees must only be removed with the necessary licenses (*Forestry Act 2014*)² or permits. All necessary licenses and permits should be inspected by the appointed Consultant Arboriculturalist prior to commencement of works.

The Arboricultural Consultant will:

- Liaise with the relevant authorities during the project.
- Constantly monitor the project with regard to tree health to ensure that no damage is caused to the subject trees during the operational works.
- Report any negligent damage to trees, which will prejudice their health.
- Monitor works carried out by the Arboricultural Contractor and Main Contractor within the 'Root Protection Area'.

² Note that under the Forestry Act 2014, no felling licence will be required on receipt of planning permission.

Guidelines for installation of services

Where it is proposed to route underground services near trees all works shall be carried under the supervision of the consultant Arboriculturalist. Guidelines set out in the NJUG (National Joint Utilities Group) Volume 4, Guidelines for the planning, installation and maintenance of utility services in proximity to trees – 2007 will be followed together with section 7.7 Underground and above-ground utility apparatus.

Mechanical trenching for the installation of underground apparatus and drainage sewers any roots present and can change the local soil hydrology in a way that adversely affects the health of the tree. For this reason, particular care should be taken in the routing and methods of installation of all underground apparatus. Wherever possible, apparatus should be routed outside RPAs. Where this is not possible, it is preferable to keep apparatus together in common ducts. Inspection chambers should be sited outside the RPA.

7.7.2 Where underground apparatus is to pass within the RPA, detailed plans showing the proposed routing should be drawn up in conjunction with the project arboriculturist. In such cases, trenchless insertion methods should be used (see Table 3), with entry and retrieval pits being sited outside the RPA. Provided that roots can be retained and protected in accordance with **7.2.2**, excavation using hand-held tools (see **7.2.1**) might be acceptable for shallow service runs.

NOTE : The suitability of these for differing applications is summarized in Table 3. (BS 5837 : 2012)

Excavations near trees

Where deep excavations are close to retained hedges, such as for the attenuation tanks, the ground will be protected. As significant moisture can be lost from exposed soil profiles the exposed profile shall be protected to conserve moisture within the root zone. In winter, exposed roots are to be wrapped with dry sacking. In summer, exposed roots are to be covered with polythene or similar at all times. A suitable irrigation / drip feed system should be installed to maintain the soil moisture levels around the root zone if deemed necessary by the arboricultural consultant.

Hard Landscaping within the protection zone (footpath)

Where permanent hard landscaping is to be provided within root protection zones, special measure shall be implemented. All existing hollows/ drains shall be filled with 50mm crushed stone, with no fines, and then over laid with geo fabric and a cellular confinement system. The path will be

worked around the stems of existing retained trees, so as to preserve existing ground levels. Paving within root protection areas shall be in accordance with APN 12 (2007). See appendix 2 for details.

Soft Landscaping within Exclusion Zones

Preparation of ground in these areas will be carried out under the supervision of the arboricultural consultant.

Guidelines for Root Pruning:

- Roots smaller than 25mm diameter may be pruned back, roots with a diameter greater should only be cut following consultation with an arboriculturist.
- Roots should be cut cleanly after excavation to promote callus formation and wound closure.
- Exposed roots to be protected where an area of work is to be left open, particularly along the face of the excavation for the underground car parking. In winter, exposed roots are to be wrapped with dry sacking overnight.
- In summer, exposed roots are to be covered with damp sacking at all times. A suitable irrigation / drip feed system should be installed to keep sacking wet at all times.
- Back filling materials used around roots are to be of a fine granular material with no toxins and not susceptible to frost heave.

Offences and Penalties

Any damage whatsoever, caused to the protected trees shall be notified to JM McConville + Associates, so that the damage can be assessed and rectified and the main contractor subject to financial penalty as per the Conditions of Contract. Value of damaged tree will be assessed using the 'Helliwell System'.

Supervision and Monitoring

The arboricultural consultant will be responsible for monitoring of all arboricultural works and issuing a certificate of practical completion. In addition, the arboricultural consultant will inspect the protective fencing and monitor any works within exclusion zones.

A record of site visits will be maintained for inspection on site and copies forwarded to the developer / agent and to the local planning authority. The Contractor shall not fell any trees under any circumstances. All works within the protected tree zones are to be supervised by the arboricultural consultant.

Tree Protection Barrier Fencing

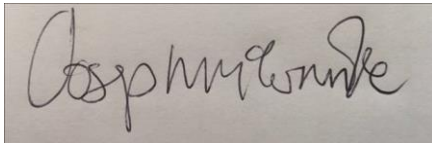
Tree protection barriers are to be in accordance with BS 5837:2012, clause 6.2. Barrier fencing to be 2.0 m high, comprising of 'Herras' style fence, each panel to be secured to the adjoining panel fixed to scaffold poles in with a minimum of 2 anti-tamper couplers, installed so that they can only be removed from inside the fence. The panels are to be supported by stabilizers struts on the inside. Barrier fencing is to be installed to an agreed alignment. The Alignment is to be marked out on site and approved by the arboricultural consultant prior to erection of the barrier fencing. 'Construction Exclusion Zone' signage to be securely attached to the fence. Barrier fencing is to be maintained by the main contractor for the duration of the contract. All damage to be reported immediately to the Arboricultural consultant. Damaged fencing is to be repaired within 2 hours of the damage occurring to the satisfaction of the Arboricultural consultant.

All site operations in the vicinity of the damaged fencing are to be suspended until the fencing is repaired. During site inspections the Arboricultural consultant reserves the right to authorise the cessation of all works in proximity to the protected zones with immediate affect. A breach of such an instruction will be deemed to be a dismissible offence for the employee. As contract work progresses the protective barrier fence can only be adjusted under the supervision of the arboricultural consultant.

CONCLUSION/RECOMMENDATION

There is no Arboricultural justification to refuse the proposed development, it is recommended from an Arboricultural prospective that the proposed development be granted provided the following are implemented.

- The removal of the trees and hedgerows are completed by a professional and competent tree surgeon.
- The Arboricultural Method Statement outlined above is implemented
- The Tree Protection Plan outlined above is implemented.



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July 2021