

**High Royd Farm
Upper Hoyland Road
Proposed new access**

Phase 2 Pre-development Arboricultural Report

Prepared at the request of

Anuj Joshi

16 August 2018

By

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Summary

I have been instructed by Mr Anuj Joshi to carry out a pre-development tree survey of the small woodland area to the northeast of Upper Hoyland Road to assess the quality of the woodland and the trees.

The location of the woodland and any points of note are recorded on Plan 1 that shows the existing layout. Table 1 records the species, dimensions, age, life expectancy and retention category applied to the woodland. This information was collected, interpreted and recorded in accordance with BS5837:2012 *Trees in relation to design, demolition and construction – Recommendations*.

The woodland is a young plantation, estimated to have been established within the last 20 years. The woodland has been established in the corner of a field. The land is fertile and the trees have established well.

The woodland has been included in the lowest retention category (C) because of the young age and small size of the trees.

The access route is proposed towards the south eastern corner of Upper Hoyland Road and approximately 9m from the existing drystone wall on the boundary. The proposals would involve the removal of approximately 45 trees up to 220mm stem diameter along a 12m wide strip of through the woodland. This strip accounts for the actual access route, together with a buffer area to accommodate the root protection area of the trees either side of the proposed track. I have recommended that this buffer area is planted with native shrubs to create a graded woodland edge. This would improve the habitat value of the woodland.

I believe that the proposals would have minimal impact on the woodland as a whole because most of the valuable boundary hedge would be unaffected, the trees are too young to have any specific habitat value, there are no ancient woodland indicator plant species and new shrub planting would enhance the habitat value of the woodland.

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1.0 Introduction

1.1 Instruction

I have been instructed by Mr Anuj Joshi of Benell Ltd to carry out a pre-development tree survey of the woodland area to the north of Upper Hoyland Road, Hoyland.

The tree survey is intended to assess the quality of the woodland, the trees within it and any special features, as well as being a structured, impartial assessment of the tree population within the proposed development area.

The survey is intended to be informative to all stages of the development process and was carried out in accordance with *BS5837: 2012 Trees in relation to design, demolition and construction – Recommendations*.

1.2 Documents and Information Provided

I was provided with the following documents:

An Ordinance Survey Plan showing the position of the woodland together with the position of the access point.

Drawing showing the proposed access Ref: AJ/18-16/01.

A letter from Barnsley Metropolitan Borough Council, Ref: 2018/ENQ/00621 from Robert Tollyfield.

1.3 Limitations

This report is concerned only with assessing the condition of the trees, their importance in the local landscape and any cultural and conservation values.

It takes no account of the affects the trees may have on the soil, such as heave where trees are removed or shrinkage where trees are retained.

Trees are dynamic organisms influenced by weather, pests and diseases. Therefore, this report can only remain valid for a period of 24 months.

Any works around the trees such as trenching, pruning, storage of materials and trafficking that has not first been approved by a suitably qualified arboriculturalist will invalidate this report.

No decay detection equipment was used to gather information on the condition of the trees.

All survey and inspection was completed at ground level.

2.0 Site Visit and Observations

2.1 Site Visit

The site visit took place on 05 June 2018. All dimensions were taken using recognised methodology and arboricultural measuring equipment, unless otherwise stated.

The weather at the time of inspection was sunny with good visibility and winds remained light throughout.

2.2 Brief Site Description

The site is a small area of young woodland to the north of Upper Hoyland Road at Ordinance Survey grid reference SE 3597 0152. The woodland is adjoined by grassland to the northeast and agricultural buildings immediately to the north.

2.3 Development Proposals

The proposal involves creating a new access point and associated access track off of Upper Hoyland Road just to the west of the locked gate across the road.

2.4 Tree Observations

Information on the species, size, condition and retention category of the trees in the woodland are included in Table 1 below.

Table 1. The Tree Survey

Tree number	Species	Height (M)	Stem diameter (DBH in MM)	Branch spread (M)	Ht of canopy above GL (M)	Life stage	Vitality	General observations on the tree's condition	Estimated life in years	Category
1	Mixed species woodland; Larch, oak, ash, alder, cherry, field maple and sycamore	<14.0	10 – 22	North – 2.0 South – 2.0 East – 2.0 West – 2.0	1.0	Juvenile mature	Normal	A young mixed species woodland, but mainly broadleaves, planted within the last 20 years. The trees have established well and most have good form and good health. Some self thinning of the slower growing weaker trees is beginning to take place. An ash in the southern corner of the woodland by the proposed access is in decline. This may be associated with ash dieback. There is some small hazel coppice. The ground flora is limited to pioneer plant species and those indicative of high soil fertility such as nettles, cleavers and creeping buttercup. There are no ancient woodland indicator species. There is a dense, mature hedge along the southern boundary with Upper Hoyland Road. This is dominated by holly with some hawthorn.	40+	C (1)

3.0 Interpretation of Information and References

My interpretation and appraisal of information gathered from the survey is based on experience of tree species, visual risk hazard assessment and the guidance set out in BS5837:2012 *Trees in Relation to Design, Demolition, Construction – Recommendations*. My qualifications and experience in arboriculture are included in appendix 1.

3.1 BS5837:2012 Tree Retention Categories

The woodland has been assessed and assigned a retention category in accordance with Table 1 of the standard. A copy of Table 1 is included as Appendix 2. This categorisation is intended to rank trees according to their importance in terms of quality, health, life expectancy, amenity and landscape value, together with wildlife and cultural importance. This ranking assists in determining the suitability and appropriateness of trees for retention in any development. Categories A to C are those considered for retention, 'A' being highest. Category 'U' trees are those not suitable for retention because of impaired condition.

Generally category A and B trees and woodlands should be given more consideration in layouts than category C trees as these are considered more valuable because of their condition, landscape value, future life expectancy or, on occasions because of their more favourable habitat value.

3.2 Below Ground Constraints; Root Protection Areas (RPAs)

The root protection area is the area of land considered necessary for trees should they be retained as part of any development. This is calculated using the stem diameter measured at 1.5 metres from ground level. This protection area is shown diagrammatically as a circle centred on the base of the tree where it is expected that rooting has not been impeded in any one direction and where disturbance has not taken place. See Plan 1. Where rooting has been impeded or disturbance taken place then the shape and size of the root protection area is modified according to an assessment of where rooting is likely to take place.

Where trees are to be retained, it is optimal to locate structures and services outside the RPA. However, where incursion becomes necessary, technical solutions may be possible to limit damage, areas lost can be compensated elsewhere, or the soil environment can be improved. In these circumstances an arboricultural method statement will be necessary to ensure that works are undertaken sympathetically and do not damage the below ground parts of the trees.

3.3 Above Ground Constraints; Crown Spreads

Ideally, working areas and construction will be out with the crown spreads of trees to be retained. However where access by high sided vehicles and machinery for construction or erection of scaffolding is necessary within the crown spreads of trees to facilitate development an arboricultural method statement will be necessary to ensure pruning works are carried out sympathetically prior to construction works commencing.

Any permanent development within the canopy spread of a tree will also require a method statement. However, the effects of shade and other perceived inconveniences of trees this close to property should also be considered, together with the future growth potential of the trees and the maintenance obligation this will bring.

3.4 Conception and Design

The constraints imposed by trees should assist with site design and layout, together with the other competing needs of development. Generally the trees in the higher categories (A and B) should be given greater consideration in any layout than the lowest retention category (C).

As well as the footprint of buildings, the provisions of services, infrastructure layout and the access space required for construction itself should be considered.

4.0 Arboricultural Impact Assessment and Method Statement

4.1 Arboricultural Impact Assessment

The trees have an average diameter at 1.5m of between 140 and 200mm. The largest diameters are around 220mm. This means that they have a root protection area (RPA) of around 2.5m. I therefore recommend that a strip of woodland 2.5m wider than the width of the access track itself is removed.

This would result in a strip of woodland approximately 12m wide being removed in total. This would equate to around 45 trees. Following construction of the track I would recommend creating a graded woodland edge along the 2.5m wide strips either side of the track by establishing native shrubs such as hazel, hawthorn, holly and guelder rose over a 2m wide strip. This would leave a half metre grassy edge to the track that can be mown.

The graded woodland edge would improve the value of the woodland for wildlife. With the exception of the boundary hedge there is currently no shrub layer. This is to be expected in a woodland this young but the addition of the shrubs on the new woodland edge would improve habitat for invertebrates and breeding birds.

There is a dense hawthorn and holly hedge along most of the southern boundary of the woodland with Upper Hoyland Road. The proposals would involve removal of the end of the hedge but the remainder of the hedge would be unaffected.

The trees on the neighbouring land to the east of the boundary wall are presumed to be on highway verge. These would be unaffected. The trees at this point are coppiced willows with stem diameters of around 50cm.

4.2 Arboricultural Method Statement

Method statements are produced to avoid damage to the above and below ground parts of existing trees that are to be retained during development operations.

I would recommend that the development takes place in the following order:

- The trees along the 12m wide strip are felled.
- A temporary fence is erected along the edge of the proposed track to prevent machinery running on the 2.5m wide strip either side of the track that is to be planted. Trafficking would cause soil compaction that would prevent new shrubs from establishing successfully.
- Construct the access track.
- Remove the temporary fencing.
- Plant a mix of hawthorn, hazel, guelder rose and holly shrubs at 1m spacings along two 2m wide strips leaving a 0.5m wide grassy strip along both edges of the track. This should be done in the first planting season after the works are completed.

4.3 Relevant Industry Standards and Codes of Practice

The main arboricultural industry standards and codes of best practice relevant to the planning and execution of this project are:

- BS 5837 (2012) – Trees in relation to construction – Recommendations;
- BS 3998 (2010) – Tree Work – Recommendations; and
- National Joint Utilities Guidelines, Volume 4 – NJUG Guidelines For The Planning, Installation And Maintenance Of Utility Apparatus In Proximity To Trees (Issue 2) (www.njug.org.uk)

4.4 General Precautions

The following general precautions should ensure the health and longevity of the retained tree. They should be enforced during the construction phase within the RPAs of the retained tree and under its canopy.

- All work will be carried out in accordance with a current risk assessment.
- All proprietary materials will be installed in accordance with their manufacturer's instructions and a current risk assessment.
- All equipment and tools will be used in accordance with their manufacturer's instructions and a current risk assessment.
- No storage of materials or fuel.
- No bonfires within 10m of the outer edge of the crown or RPA of a tree.
- No refuelling of mechanical equipment.
- No mixing of cement.
- No washing of cement mixers.
- No raising the soil level without the agreement of the Local Planning Authority (LPA).
- No excavations without the agreement of the LPA.
- Only operate or park vehicles and plant if the soil is suitably protected, as agreed by the LPA.
- The guidance contained within the National Joint Utilities Group Volume 4 (Guidelines For The Planning, Installation And Maintenance Of Utility Apparatus In Proximity To Trees (Issue 2, 2007); <http://www.njug.org.uk/>) will be followed when installing underground services within the rooting areas of retained trees. To minimise potential damage to tree roots excavations will be carried out by a pneumatic excavation lance.
- No materials will be dumped or stored within the RPA of a tree or under its canopy, whether in a skip or directly on the ground, unless the ground is suitably protected against contamination and compaction.

5.0 Conclusions

- ® The woodland is young having been planted within the last 20 years.
- ® The trees have established well and are healthy but because of their young age they have been included in the lowest retention category (c).
- ® The proposed track would require the removal of up to 45 trees along a 12m wide strip.
- ® The dense boundary hedge would be unaffected.
- ® Planting of native shrubs along the edges of track would create graded woodland edges that would enhance the habitat value of the woodland.
- ® The trees are too young to have any specific habitat value.
- ® There are no ancient woodland indicator plants in the woodland.
- ® I do not believe that the proposals will have a significant detrimental impact on the woodland.

6.0 Legal Considerations

Protected trees

No checks have been made with the Local Planning Authority for Tree Preservation Orders, other planning conditions or inclusion of the site in a Conservation Area. However, if any of the trees subject to this report are protected it will be necessary to apply to the local planning authority (LPA) for permission before any work, other than certain exempted operations, can be carried out.

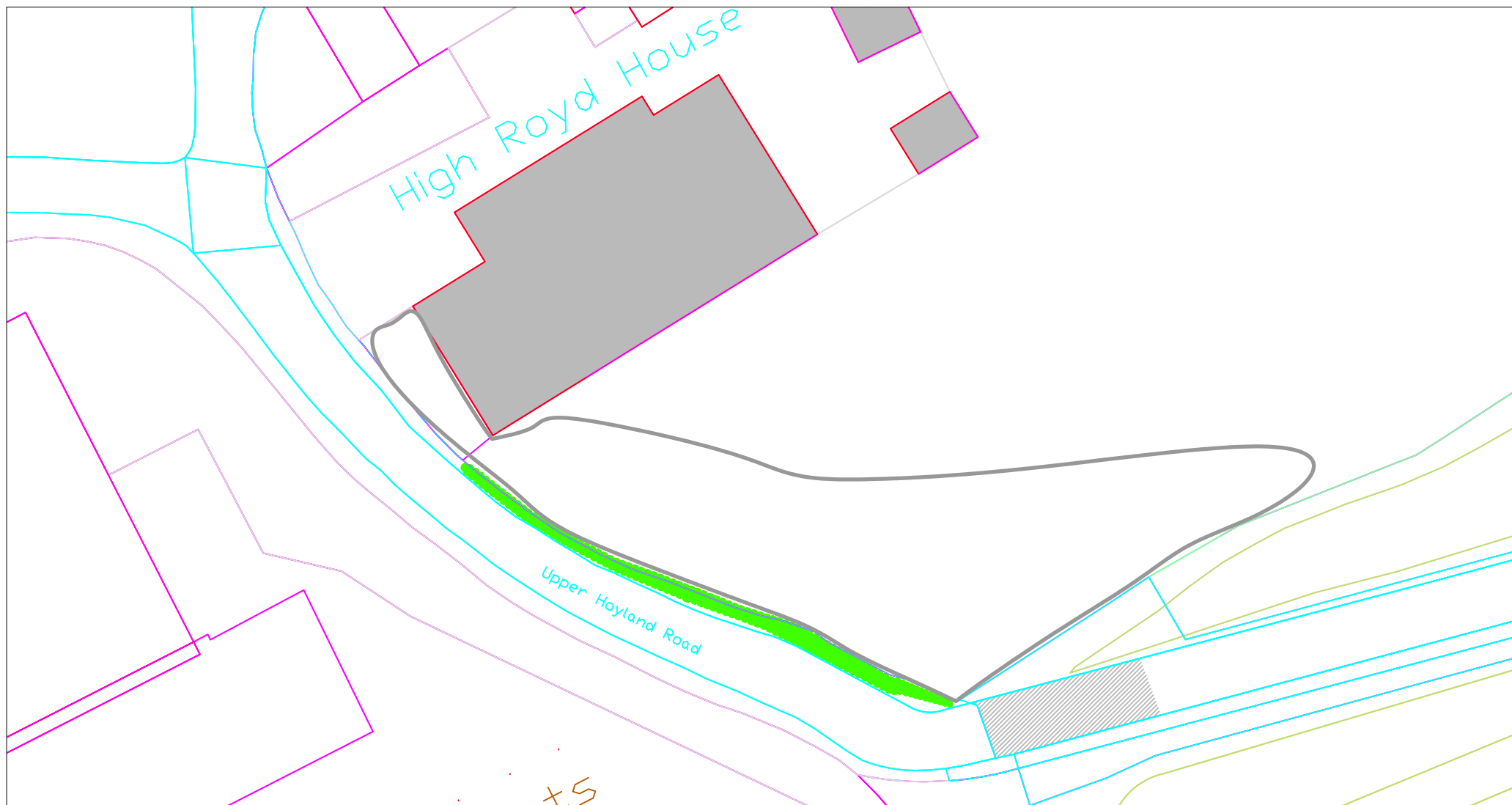
Wildlife conservation legislation

Breeding birds are protected, together with bats and their roosts, whether their roosts are in use or not.

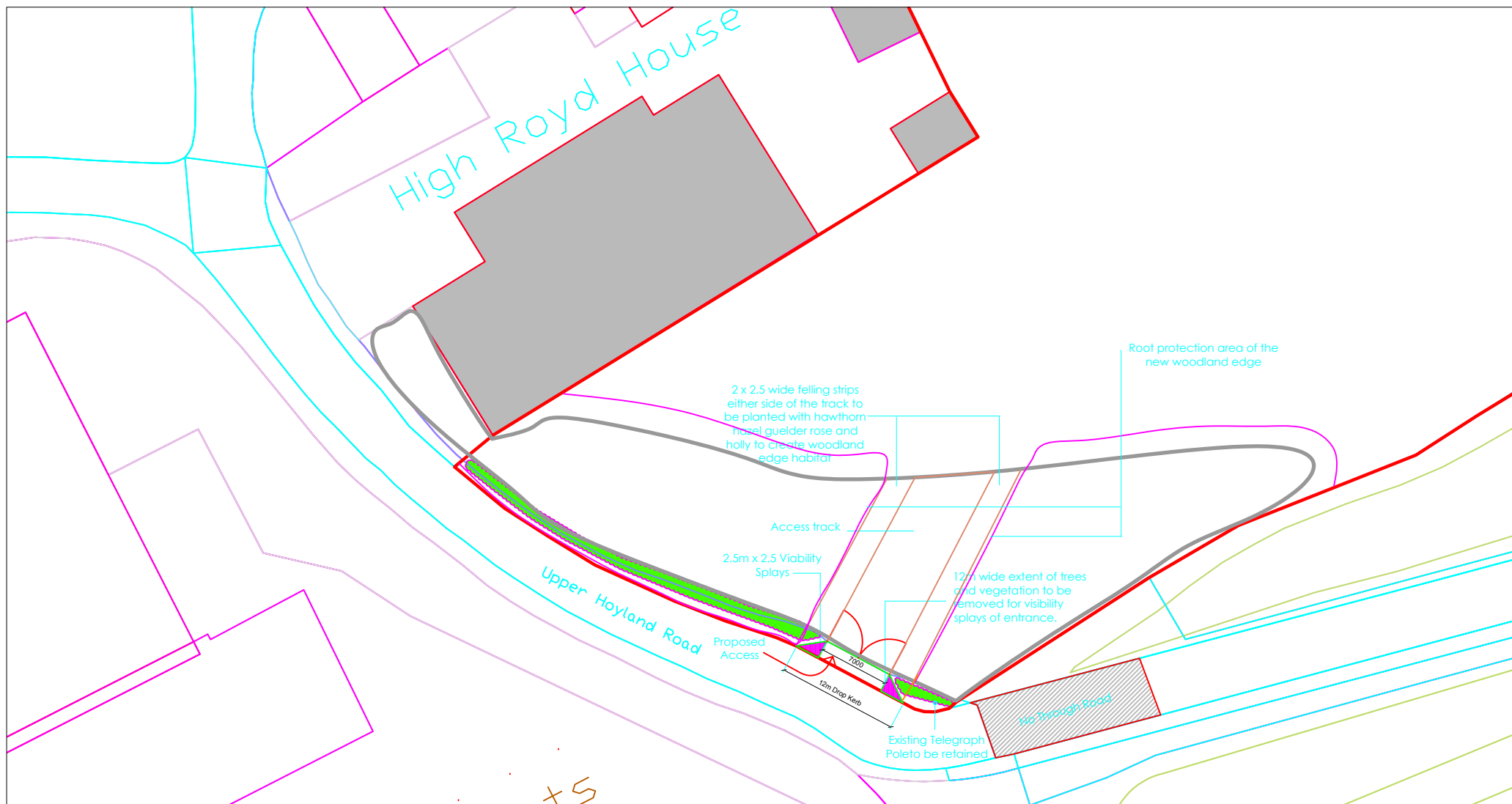
The trees are too young and small at this stage to have significant features that would be attractive to bats for roosting. Bats may use the woodland edge for commuting and foraging.

Consideration should be given to the presence of protected species prior to any proposed tree removal or maintenance. This will include breeding birds, principally between March and August, and bats at any time of year.

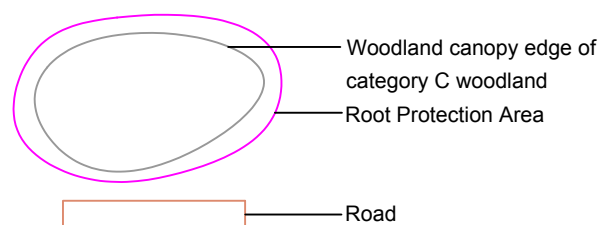
Tree surgeons should also be aware of their duties under legislation to protect wildlife and carry out their site assessment and work accordingly.

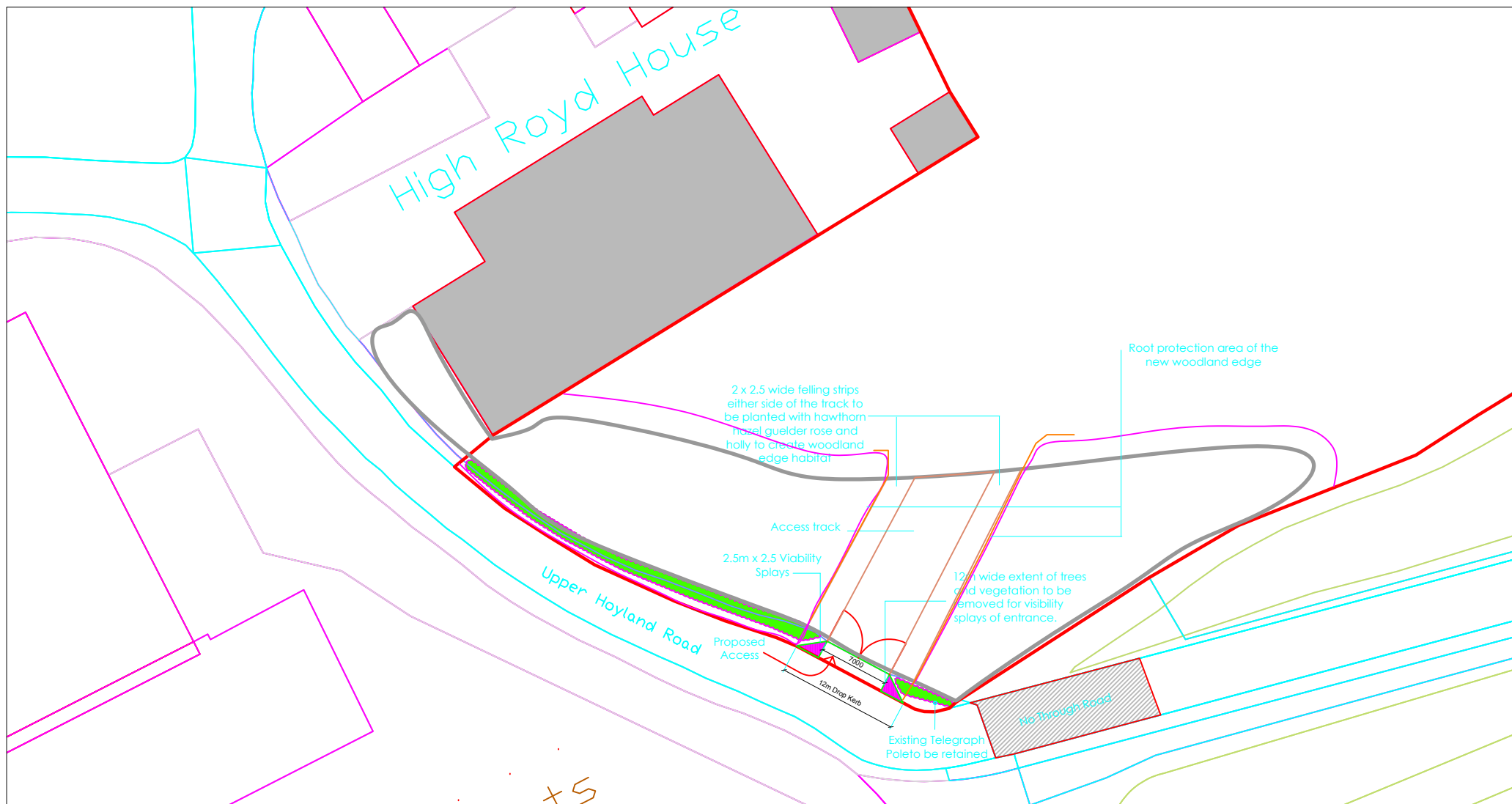


Plan 1 Tree Constraints Plan showing the existing layout

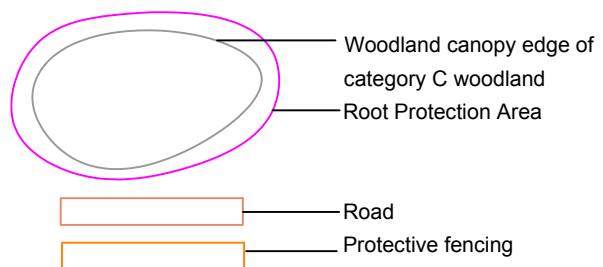


Plan 2 Tree Constraints Plan showing the proposed layout





Plan 3 Tree Protection Plan



Appendix 1. Qualifications and Experience of Ian Kennedy

1. Qualifications

Ian graduated from the Scottish Agricultural College in August 1995 with a Higher National Diploma in Horticulture (HND) with Distinction.

In 1998 Ian graduated from the University of Aberdeen with a BSc (Hons) Upper second class in Forestry with Arboriculture and Amenity Forestry.

He passed the LANTRA Professional Tree Inspection examination in 2006.

In 2009 his application to become a professional member of the Arboricultural Association was assessed to fulfil all the necessary requirements and he became a professional member of the Association that year.

In 2011 he passed the final examination of the Institute of Chartered Foresters and became a member of that institute in January 2012.

2. Practical experience

Presently Ian is working in private practice as an independent arboricultural and woodland management consultant undertaking tree conditions surveys, pre-development tree surveys to the BS5837:2012 standard, mortgage reports and woodland management planning works. Clients range from home owners and farmers to architects, building companies, local authorities, schools and larger development companies.

Prior to private practice Ian held a number of positions in local government. Firstly he was the arboriculturalist within a planning office in Essex. Ian gained considerable experience regarding trees in relation to development, in particular BS 5837.

Development work formed the core of his duties and applications ranged from small back garden developments to major schemes such as the redevelopment of Ministry of Defence land for private residential development. Ian also undertook all functions associated with

Tree Preservation Orders (TPOs), including the making of new TPOs, assessing suitability of applications to work on protected trees and trees in conservation areas.

Ian went on to managed a 500 hectare woodland estate for a local authority in South Yorkshire that included a mix of urban and rural woodlands. This included preparation and implementation of detailed management plans for multiply use woodlands. He undertook all aspects of silvicultural management from marking to contract tendering and monitoring. He also managed the access, conservation, landscape and archaeological requirements of the estate. Ian was directly involved in the estate achieving Forest Stewardship Council certification in 2003 and personally ensured continued certification.

Ian has worked extensively with Forestry Commission to obtain the necessary licences for management works and ensured the estate benefited fully from the full range of grants available.

Latterly at the same authority Ian went on to manage the trees and woodlands unit, having overall responsibility for management of the authority's tree and woodland stock and associated staff, together with delivery of other tree related services such as those associated with the Town and Country Planning Acts.

3. Continuing professional development

Ian regularly attends meetings, seminars and training events hosted by The Arboricultural Association. Institute of Chartered Foresters, Royal Forestry Society and Forestry Commission and benefits from the respective journals, briefings and newsletters available to members of the first three of the organisations listed.

4. Relevant experience

Ian Kennedy has spent 18 years working with trees, including as the arboricultural advisor to planning officers for a Local Planning Authority and manager of a trees and woodlands unit for another local authority with overall responsibility for trees, including in relation to the Town and Country Planning Acts.

Appendix 2. Tree Retention Categories

Table 1 Cascade chart for tree quality assessment

Category and definition	Criteria (including subcategories where appropriate)			Identification on plan
Trees unsuitable for retention (see Note)				
Category U 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 a serious, irremediable, structural defect, such that their early loss is expected due to collapse, including those that will become unviable after removal of other category U trees (e.g. where, for whatever reason, the loss of companion shelter cannot be mitigated by pruning) - 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 <i>NOTE Category U trees can have existing or potential conservation value which it might be desirable to preserve; see 4.5.7.</i>			See Table 2
	1 Mainly arboricultural qualities	2 Mainly landscape qualities	3 Mainly cultural values, including conservation	
Trees to be considered for retention				
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)	See Table 2
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	See Table 2
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 150 mm	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 this 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	See Table 2

Appendix 3.Explanatory notes for terms used in this report

- **Compass Bearing:** N = north; S = south; E = east; W = west;
- **Age Class:** Assessed as either:
 - Young = a size which could be easily transplanted;
 - Semi-mature = prior to seed bearing age and could be transplanted with care;
 - Young Mature = early maturity, not fully grown but of seed bearing age and may have achieved mature height;
 - Mature = fully grown, annual growth is much reduced;
 - Old Mature = old for the species, possibly starting to decline;
- **Trunk Diameter:** These figures relate to the diameter of the trunk at a given distance above ground level and are recorded in centimetres measured with a diameter tape.
- **Estimated size: #**
- **Health:**
 - Normal Vitality = normal growth and twig extension;
 - Moderate Vitality = reduced twig extension but other than that few signs of ill-health;
 - Early Decline = reduced twig extension and some dead twigs in the outer canopy;
 - Mid-decline = small internodes, the canopy may be thinning and contain dead twigs and/or branches in the outer canopy, older branch wounds that haven't occluded may be decaying and forming cavities;
 - Severe Decline = sparse crown, numerous dead twigs and branches in the outer canopy, older branch wounds likely to be decaying and forming cavities;
 - Dead.
- **Structural Condition**
 - Acute stem union = a weak union between two or more stems at the main forking point caused by the formation of reaction wood. Mechanical pressure at the forking point increases as secondary thickening occurs increasing the risk of failure at that point.
 - Acute branch union = the same principle as acute stem unions but between a stem and a branch or two branches rather than 2 main stems.

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