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# Immingham Green Energy Terminal 

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Volume 6
6.4 Environmental Statement Appendices

Appendix 8.F: Arboricultural Impact Assessment

Planning Act 2008
Regulation 5(2)(a) and 5(2)(I)
Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009 (as amended)

September 2023

# Infrastructure Planning 

Planning Act 2008
The Infrastructure Planning
(Applications: Prescribed Forms and Procedure) Regulations 2009 (as amended)

## Immingham Green Energy Terminal

## Development Consent Order 2023

### 6.4 Environmental Statement Appendices Appendix 8.F: Arboricultural Impact Assessment

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## 1. Arboricultural Impact Assessment

### 1.1 Introduction

## Background

1.1.1 An Arboricultural Impact Assessment was undertaken on behalf of Associated British Ports ("The Applicant") for the full terrestrial extent of the Site Boundary of the Immingham Green Energy Terminal ("IGET") project (hereafter referred to as 'the Project'). The survey extent is shown on the Tree Protection Plan (Annex D).
1.1.2 The Project is located on the south bank of Humber Estuary to the east of the Port of Immingham (hereafter referred to as "the Port"), on land adjacent to Kings Road, Queens Road and Laporte Road, Immingham, as shown by the Site Boundary as presented in Figure 1.2: Application Site Boundary [TR030008/APP/6.3].
1.1.3 This report identifies the likely direct and indirect impacts of the Project on existing trees, quantifying tree loss, impacted trees and retained trees, along with providing suitable mitigation measures, as appropriate. Information within this report is also used in Chapter 13: Landscape and Visual Impact Assessment ("LVIA") and Chapter 8: Nature Conservation (Terrestrial Ecology) [TR030008/APP/6.2]. The Tree Protection Plan ("TPP") (included within Annex D) identifies trees to be removed and how retained trees are to be successfully protected.

### 1.2 Trees and National Policy

1.2.1 The National Policy Statement for Ports ("NPSP") (Ref 1-1) details the framework for decision making for new port developments and recognises the importance of carrying out assessments of the effects of construction on the landscape components and landscape character of a site. The document also distinguishes the decision making for projects located outside and within nationally designated areas (including National Parks, the Broads and Areas of Outstanding Natural Beauty).
1.2.2 Where any development is required within a nationally designated area "5.11.7 The conservation of the natural beauty of the landscape and countryside should be given substantial weight by the decision-maker in deciding on applications for development consent in these areas". However, consent for development can be considered in exceptional circumstances and where it is in the public interest.
1.2.3 Developments located outside of nationally designated areas should take into consideration highly valued local landscapes and areas protected by local designations. Local development policies should be given particular attention, however "5.11.12-local landscape designations should not be used in themselves as reasons to refuse consent, as this may unduly restrict acceptable development". New development should ensure that due consideration has been given in the design process minimise environmental impacts on the landscape.

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1.2.4 Consideration should also be given for mitigation where the scale of a development could be reduced to mitigate impacts to the landscape. "5.11.16However, reducing the scale or otherwise amending the design of development may result in a significant operational constraint and reduction in function. There may, however, be exceptional circumstances where mitigation could have a very significant benefit and warrant a small reduction in function. In these circumstances, the decision-maker may decide that the benefits of the mitigation to reduce the landscape effects outweigh the marginal loss of function". Where feasible the siting of infrastructure within a site should be positioned to minimise landscape impacts.
1.2.5 The importance of ancient woodland and veteran trees is also recognised "5.1.15 Ancient woodland is a valuable biodiversity resource, both for its diversity of species and for its longevity as woodland. Once lost, it cannot be recreated". Where development would result in the loss or deterioration of ancient woodland consent will not be granted "unless the benefits (including need) of the development, in that location, outweigh the loss of the woodland habitat". Outside of ancient woodland, aged or veteran trees are also of particular biodiversity value and their loss should be avoided. "5.1.15-Where such trees would be affected by development proposals, the applicant should set out proposals for their conservation or, where their loss is unavoidable, the reasons why".
1.2.6 In addition it states that "5.11.4 - applicant's assessment should include the effects during construction of the project and the effects of the completed development and its operation on landscape components and landscape character".
1.2.7 The National Planning Policy Framework ("NPPF") (Ref 1-2) seeks to ensure that new development is sustainable and underlines the importance of green infrastructure, of which trees form an integral part. This encompasses a recognition of the importance of trees in relation to the management of air, soil and water quality along with other associated ecosystem services and climate change adaption. The NPPF also seeks to achieve the protection and enhancement of landscapes and a net gain in biodiversity. Finally, it specifically identifies veteran and ancient trees and woodland as a highly valuable and irreplaceable habitat. Where development would require the loss or deterioration of an irreplaceable habitat, the policy states that it should be refused, unless there are wholly exceptional reasons and a suitable compensation strategy exists.

### 1.3 Trees and Local Policy

1.3.1 Local Planning Authorities ("LPAs") in the UK have a statutory duty to consider both the protection and planting of trees when considering planning applications and when commenting on Development Consent Order ("DCO") applications. The potential impact of development on all trees (including those not protected by a Tree Preservation Order ("TPO") or other statutory designation) is therefore a potential consideration.
1.3.2 The North East Lincolnshire Council ("NELC") Local Plan 2013-2032 (adopted 2018) (Ref 1-4) has several policies relating to trees and new development including:

## Policy 40 - Developing a Green Infrastructure Network

2. Proposals that would result in the loss or reduction in quality of existing public rights of way will not be permitted, unless acceptable equivalent alternative provision is made.

## Policy 42 - Landscape

Landscape character should be given due consideration in the nature, location, design and implementation of development proposals. Developers should:
C. seek opportunities, when incorporating landscape buffers to offset development impacts, to enhance landscape quality including opportunities to incorporate suitable landscape planting;
D. retain and protect trees and hedgerows which offer value for amenity, biodiversity and landscape;
1.3.3 In respect of Policy 42D, the majority of the trees recorded in this survey and in particular the trees positioned in the TPO area offer value for amenity, biodiversity and/or landscape.

### 1.4 Trees and the Planning Process

1.4.1 'BS5837:2012 Trees in relation to design demolition and construction Recommendations (BS5837)' (Ref 1-3) provides a framework for how trees should be considered in this context and also explicitly applies to development where planning consent is required.
1.4.2 BS5837:2012 (Ref 1-3) recommends that a tree survey is undertaken to identify the quality and benefits of trees and the spatial constraints associated with them. This can then be used to produce a Tree Constraints Plan showing the above and below ground constraints associated with trees. This drawing can inform the design process and facilitate the retention of good quality trees where appropriate.
1.4.3 An Arboricultural Impact Assessment can then be developed to identify the likely direct and indirect impacts of the Project, and a Tree Protection Plan can identify trees to be removed or retained and to illustrate how retained trees are to be protected. An Arboricultural Method Statement is often required to detail how sensitive operations are to be achieved in close proximity to retained trees. These elements are the minimum normally required for a planning application and are intended to ensure both a sustainable and harmonious relationship between trees and new development.

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### 1.5 Methodology

1.5.1 The tree survey has been based on a topographical survey plan (Ref: P-3509-IMM-075-SU-DRG-001) and Ordnance Survey ("OS") Mastermap with tree positions being aligned to an orthophoto drone survey (Ref: G22154-Geoterra-Immingham-Port-5cm-Orthomosaic) and with reference to site features.
1.5.2 Where trees were not included on the topographical survey plan their positions should be considered to be indicative only. Such trees have been marked with an '*' on the Tree Survey Schedule included as Annex B.
1.5.3 The survey was otherwise conducted in accordance with the requirements of BS5837:2012 Trees in relation to design, demolition and construction Recommendations (Ref 1-3).
1.5.4 The initial fieldwork based on the orthophoto drone survey was undertaken in September 2022 with a subsequent more detailed survey of the 'Long Strip' woodland to the northeast of Laporte Road undertaken using the topographical survey plan on $4-6$ April 2023, during which dimensional data and observational information were collected. A diameter tape measure was used to measure stem diameters where feasible.
1.5.5 Both sets of survey information from 2022 and 2023 have been combined to inform the assessment in this report. Trees recorded in the 2022 survey have been identified with ' A ' at the beginning of their tree identification tag and trees recorded in the 2023 survey have been identified with an 'l'.
1.5.6 The fieldwork informing this report has comprised a preliminary, non-intrusive, visual survey undertaken from ground level with the specific intention of evaluating the quality and benefits of trees on the Site.
1.5.7 Where further inspection is deemed appropriate to ascertain the condition of the tree or other arboreal features, this has been identified within the preliminary management recommendations. Average dimensions or dimensional ranges have occasionally been used, where appropriate, to best describe features.
1.5.8 The Root Protection Area ("RPA") is the notional extent of what is considered to be the key rooting area for tree health and function. This is generally depicted as a circle but can be amended to a polygon with an equivalent area in accordance with Section 4.6.2 of BS5837:2012 (Ref 1-3) where the RPA is likely to have developed asymmetrically. For the Project, the RPA of all surveyed trees is depicted as a circle and the RPA of IT287, a veteran tree, has been extended to 15 times its stem diameter (at 1.5 m ) as per standing advice from the Forestry Commission and Natural England (2022) (Ref 1-5).
1.5.9 A Tree Constraints Plan showing the position of trees and the spatial constraints associated with them is included as Annex A of this report, which corresponds with the Tree Survey Schedule presented in Annex B.
1.5.10 The tree categorisation process recommended by BS5837:2012 (Ref 1-3) is summarised in Table 1 below and corresponds with the tree canopy outline shown on the Tree Constraints Plan included as Annex A and the information in the Tree Survey Schedule included as Annex B.

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Table 1: BS5837:2012 Tree Categorisation process

| Category | Definition |
| :---: | :---: |
| A | High quality, minimum of 40+ years remaining contribution |
| B | Moderate quality, minimum of $20+$ years remaining contribution |
| C | Low quality, minimum of $10+$ years remaining contribution |
| $U$ | Unsuitable for retention, <10 years remaining contribution |
| 1 | Arboricultural value |
| 2 | Landscape value |
| 3 | Conservation or cultural value |

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## 2 General Arboricultural Principles

### 2.1 General Principles

2.1.1 Trees are dynamic living organisms which provide essential benefits to society and the wider environment. Any project with the potential to impact trees should take into consideration the value of trees on a site, the impact of any proposed activity along with any potential future conflicts on a site. Suitable measures to safeguard retained trees or mitigate the loss of trees (to be removed) also need to be considered.
2.1.2 Tree branches and roots frequently grow across site boundaries and off-site trees need to be considered when assessing the developable space within a site.

### 2.2 Below Ground Constraints

2.2.1 Below ground tree roots and the soil environment in which they grow need to be protected if the tree is to be retained. Trees grow in association with fungi and other soil organisms which are of key importance to tree health. Roots are essential for anchorage, the uptake of water and nutrients, and the storage of energy (carbohydrates) for the future growth and function of the tree.
2.2.2 Roots can be damaged by physical severance or wounding (e.g. following excavation of the soil) which can lead to the development of decay and a decline in vitality and/or instability. Raising the soil level can bury tree roots at a depth where suitable conditions for growth are less available. Toxic materials discharged into the soil (such as cement based aggregates, fuel and chemicals) can lead to root death and dysfunction. Soils can be compacted to levels inhospitable to tree growth with even a single pass of machinery, regular pedestrian traffic or the storage of plant and materials. Relieving compaction can be problematic and may require costly remedial works. Changes in drainage/water levels can also have significant long term impacts for tree health.
2.2.3 The effects of these incursions may take many years to manifest, with a resulting decline in amenity value and potentially the death or failure of the tree. It should be noted that older trees are particularly sensitive to damage and changes in conditions.
2.2.4 The RPA is a notional area considered to be the minimum zone that must be protected to avoid any adverse impacts on retained trees. This area is deemed to be particularly important for tree stability, growth, function and health. However, roots may extend far greater distances, with the distribution of the root system relating directly to the availability of suitable conditions for growth (namely oxygen, water and nutrients). It is generally accepted that tree roots are predominantly located in the upper 1000mm of soil; however, roots may develop at deeper levels where conditions allow.
2.2.5 RPAs for the trees affected by the Project have been calculated in accordance with Annexe C, D and Section 4.6 in the BS 58372012 (Ref 1-3).

### 2.2.6 The RPA of the existing tree stock to be retained is an important consideration when considering site constraints and planning development activities. The RPA of significant trees on the Site are shown on the Tree Constraints Plans included as Annex A.

2.2.7 The recommended position is that all development, including any associated services should occur outside the RPAs of retained trees and this area will form a construction exclusion zone. Where this is unavoidable, it may be appropriate to use special measures to install structures, services or surfacing within RPAs which allow the protection of roots and soil structure which are essential for tree growth and keep any incursion to a minimum.
2.2.8 Further steps to improve or increase the useable rooting area available to the tree may also be required.
2.3 Soils
2.3.1 On shrinkable clay soil, tree growth can lead to the differential movement of structures as moisture is removed from the soil during the growing season. Soils must be carefully assessed, and any foundations must be installed following the recommendations of National House Building Council ("NHBC") Standards Chapter 4.2: Building Near Trees (2021) (Ref 1-6) to avoid potential future damage. Where trees which predate existing structures are to be removed, this can result in heave as the soils are re-wet.
2.3.2 The advice of a suitably qualified engineer must be obtained to inform any potential issue of heave. Specific advice in relation to this issue is beyond the scope of this report.

### 2.4 Above Ground Constraints

2.4.1 Tree stems and branches can restrict available space on the Site. Damage or wounding (including excessive pruning) can significantly reduce the amenity contribution of the tree and may lead to the development of dysfunction and decay, with significant long term implications for tree health. The future impact of existing trees should be carefully considered, including individual species characteristics (such as potential future size, fruit fall, shade etc.) and how the tree will interact with any project and future land use. Annual tree growth can lead to direct damage if stems/branches (or roots) come into physical contact with structures and this must also be taken into consideration.

### 2.5 Trees and Risk in the Context of Development

2.5.1 Tree owners/managers have a legal duty under 'common law' and the Occupiers Liability Act 1984 (Ref 1-19), to prevent foreseeable harm to third parties. It is generally accepted that this duty can be fulfilled by undertaking proactive inspections of significant trees to identify obvious defects and by taking appropriate remedial action or gaining further advice as appropriate.
2.5.2 Further guidance is available from the National Tree Safety Group (Ref 1-7).
2.5.3 The tree survey carried out as the basis of this report is primarily for planning and assessment purposes, focusing on the quality of the trees and is not specifically designed to assess the safety of trees on the Site. However, when obvious issues have been identified, for retained trees, recommendations have been included in the Tree Survey Schedule.
2.5.4 The Construction (Design and Management) Regulations (2015) (Ref 1-8) state that developers and contractors have responsibilities for health and safety as a result of their actions. Should trees be left in an unstable or hazardous condition the Health and Safety Executive ("HSE") could seek to prosecute those responsible along with the potential for further civil claims for damages.

### 2.6 Trees and Wildlife

2.6.1 Full consideration must be given to the presence of species protected under the Wildlife and Countryside Act 1981 (Ref 1-9), the Countryside Rights of Way Act 2000 (Ref 1-10) and the Conservation of Habitats and Species Regulations 2017 (Ref 1-11), in particular the presence of bats and nesting birds. An assessment of the impacts on these species is provided within Chapter 8: Nature Conservation (Terrestrial Ecology) [TR030008/APP/6.2].

### 2.7 Tree Works

2.7.1 Any tree surgery recommendations contained within this report for retained trees would be undertaken in accordance with BS3998:2010 Tree work Recommendations (Ref 1-12) by suitably qualified and insured contractors. Significant pruning works are best undertaken when trees are dormant or outside periods of high functional activity to reduce the overall impact on energy available to the tree for growth and processes. In general, the optimum period for works is between November to February and July to August (subject to the presence of protected species) when the tree is less active and better placed to respond to wounding and a reduction in leaf area.

## 3 Field Work Observations

### 3.1 The Site

3.1.1 The Site is shown on the Tree Constraints Plan ("TCP") included within Annex A (Ref: 60673509-ACM-XX-XX-AB-TCP-000) of this report.

### 3.1.2 The following sections describe the location, nearest sensitive receptors, features and elements associated with the Site, as detailed within the Environmental Statement Chapter 2: The Project [TR030008/APP/6.2].

### 3.2 Project Location

3.2.1 The Site is located in North East Lincolnshire on the south bank of the Humber Estuary to the east of the Port. Figure 1.1 [TR030008/APP/6.3] illustrates the Project's location, which is approximately centred on National Grid Reference ("NGR") E520783 N415271.
3.2.2 The land-side works fall within the administrative boundary of NELC, as illustrated on Figure 2.1 [TR030008/APP/6.3]. The marine-side works, that extend seaward and fall beyond the local authority's boundary, would take place in the bed of the Humber Estuary, which is owned by the Crown Estate and over which the Applicant has the benefit of a long lease. The Project in its entirety covers an area of approximately 121ha.
3.2.3 The Site Boundary as presented in Figure 1.2: Application Site Boundary [TR030008/APP/6.3], has been refined through ongoing studies and taking into account responses to the Applicant's consultation.

### 3.3 Parts of the Site

3.3.1 The Site is situated to the east of the Port and largely outside of the operational area of the Port. The area surrounding the Port is industrial in nature, being dominated by chemical manufacturing, oil processing and power generation facilities. Residential and mixed residential/commercial properties are present to the south of the Port on Queens Road and the residential properties west of Queens Road lie within the Site Boundary. Beyond the industrial facilities, the wider area is largely agricultural. The nearest residential area is the town of Immingham approximately 460 m from the western edge of the West Site.
3.3.2 The Port lies immediately adjacent to the main deep-water shipping channel which serves the Humber Estuary, thereby enabling access to the Port by some of the largest vessels afloat. The Port has good access for road haulage to the M180 Motorway and from there to the M1 Motorway or the A1, via the M18 Motorway. In addition, the Port has its own rail terminal, with some $25 \%$ of all rail freight in the UK originating from the Port. This primarily connects to local power stations and steel works moving circa 10 million tonnes of cargo per annum by rail.

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### 3.4 The Trees

3.4.1 A total of 551 tree features were recorded within and immediately adjacent to the Site Boundary during the surveys, which includes 451 individual trees, 92 tree groups, four hedges and four woodlands. Of these, 124 tree features were recorded in the 2022 survey and an additional 427 tree features were recorded during the 2023 survey.
3.4.2 The recorded trees on the Site are predominantly semi to early mature and in fair to good condition. Species present on the Site are included in Table 2 below.

Table 2: List of tree species recorded on site

| Common Name | Scientific Name |
| :--- | :--- |
| field maple | Acer campestre |
| Norway maple | Acer platanoides |
| sycamore | Acer pseudoplatanus |
| horse chestnut | Aesculus hippocastanum |
| common alder | Alnus glutinosa |
| grey alder | Alnus incana |
| silver birch | Carpinus betulus |
| hornbeam | Corylus avellana |
| hazel | Crataegus monogyna |
| hawthorn | Fagus sy/vatica |
| beech | Fraxinus excelsior |
| common ash | Ilex aquifolium |
| holly | Malus sylvestris |
| crab apple | Pinus sylvestris |
| Scot's pine | Populus alba |
| white poplar | Populus tremula |
| aspen | Prunus avium |
| wild cherry | Prunus cerasifera |
| cherry plum |  |


| Common Name | Scientific Name |
| :--- | :--- |
| blackthorn | Prunus spinosa |
| common oak | Quercus robur |
| elder | Sambucus nigra |
| goat willow | Salix caprea |
| crack willow | Salix fragilis |
| weeping willow | Salix $X$ chrysocoma |
| rowan | Sorbus aucuparia |
| yew | Taxus baccata |
| large-leaved lime | Tilia platyphyllos |
| common lime | Tilia X europaea |
| wych elm | Ulmus glabra |
| Leyland cypress | X Cupressocyparis leylandii |

3.4.3 The most significant tree recorded in the survey is IT287 a veteran ash (Fraxinus excelsior) tree of high quality (Category A). The RPA of IT287 has been amended on the TCP to 15 times its stem diameter (at 1.5 m ) as per standing advice from the Forestry Commission and Natural England (2022) (Ref 1-5).
3.4.4 There are a number of other less mature trees with habitat features which are not considered to be veteran but are still likely to provide habitat value. A further 22 individual trees were recorded as high quality (Category A) which are considered to provide significant landscape, habitat or amenity value. A total of 271 tree features were recorded as moderate quality (Category B) which are considered to provide moderate landscape and amenity value, and 216 tree features were recorded as low quality (Category C). The remaining 41 tree features have been recorded as very low quality (Category U ) and are considered to be unsuitable for long term retention. A breakdown of this is shown in Table 3 below.

Table 3: Summary of trees in each quality category

| Quality Category | A | B | C |  |
| :--- | :--- | :--- | :--- | :--- |
| Number of individual trees | 23 | 237 | 151 | 40 |
| Number of tree groups | - | 30 | 61 | 1 |
| Number of hedges | - | - | 4 | - |
| Number of woodlands | - | 4 | - | - |

## 4 Statutory and Non-Statutory Designations

### 4.1 Statutory Designations

4.1.1 North East Lincolnshire Council on 5 October 2022 confirmed via email on 6th October 2022 that two woodland groups identified within the tree survey are subject to a TPO as shown below on Plate 1 as W1 and W2 (TPO Ref: NEL 107). A full copy of the TPO is included within Annex C of this report.
4.1.2 No further statutory designations were confirmed within or immediately adjacent to the Site.

Plate 1: Showing the area TPO designations within and adjacent to the Site

4.1.3 Magic Map (Ref 1-13) was checked on 19 June 2023 for the presence of any other statutory designations relating to trees. The Humber Estuary Site of Special Scientific Interest ("SSSI") is located directly adjacent to the Site to the north east. However, this designation does not correlate with any trees recorded in the survey. The extent of this designation is shown on the TCP in Annex A.
4.1.4 A felling licence may be required by the Forestry Commission to fell more than $5 \mathrm{~m}^{3}$ of timber in any calendar quarter (subject to relevant exemptions including tree safety works, tree works for a statutory undertaking and tree works in gardens, churchyards and designated public open space).
4.1.5 The Hedgerow Regulations 1997 (Ref 1-16) protect agricultural or countryside hedgerows which meet the requirements of an 'important hedgerow'. These include a minimum length of 20 m (or meets another hedge at each end) and a minimum age of at least 30 years. A wide range of other ecological and archaeological/heritage features can constitute an important hedgerow under the regulations and further advice from a qualified ecologist is recommended in advance of any planned works which could impact established hedgerows on or bordering agricultural or countryside land. Prior to the removal or destruction of a

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protected hedgerow an application must be made to the Local Planning Authority. Full planning consent is an exemption to this requirement.
4.1.6 Full planning consent and/or DCO consent (which explicitly identifies trees for removal) provides an exemption from the need to apply for consent for such works to trees protected by the Hedgerow Regulations 1997 (Ref 1-16), a TPO, the need to give notice of the intention to undertake works within a Conservation Area and the need to apply for a Felling Licence with the Forestry Commission (to fell more than $5 \mathrm{~m}^{3}$ per calendar quarter) - provided the work is 'immediately required' to facilitate the consented scheme.

### 4.2 Non-Statutory Designations

4.2.1 Magic Map (Ref 1-13) was checked on 19th June 2023 for the presence of any non-statutory designations relating to trees such as ancient woodland or Deciduous Woodland (included within the Priority Habitat Inventory). Two areas of Deciduous Woodland (included within the Priority Habitat Inventory) were identified that include areas of woodland to the north and south of Laporte Road as shown on the TCP in Annex A. No further non-statutory designations relating to trees were identified within or immediately adjacent to the Site.
4.2.2 The Woodland Trust Ancient Tree Inventory (Ref 1-17) was checked for the presence of any notable, veteran or ancient trees within or immediately adjacent to the Site and none were identified. However, one tree IT287 has been recorded as veteran due to containing numerous veteran features such as large cavities, extensive stem decay and numerous limb failure wounds.
4.2.3 The NPSP (Ref 1-1) states that aged or 'veteran' trees found outside ancient woodland are particularly valuable for biodiversity and their loss should be avoided. Further, where such trees would be affected by development proposals, the applicant should set out proposals for their conservation or, where their loss is unavoidable, the reasons why. Damage or loss of veteran trees should not be permitted unless there are 'wholly exceptional reasons' according to the NPPF (2021) (Ref 1-2).

## 5 The Project

5.1.1 The Project is illustrated on the Tree Protection Plan included as Annex D and includes the following elements (references to 'Work No.' are to the corresponding Work Numbers in Schedule 1 of the draft DCO
[TR030008/APP/2.1] whilst the location of each Work No. within the Site is shown on the Works Plans [TR030008/APP/4.5]) (see Chapter 2: The Project [TR030008/APP/6.2] for a full description of the works:
a. The Nationally Significant Infrastructure project ("NSIP"), Work No. 1, comprising:
i On the marine side, a terminal for liquid bulks: comprising:
A. A jetty (defined by Work No. 1a) including a loading platform, associated dolphins, fenders and walkways, topside infrastructure but not limited to control rooms, marine loading arms, pipe-racks, pipelines and other infrastructure.
B. A single berth, with a berthing pocket with a depth of up to 14.5 m below chart datum.
ii Related landside infrastructure including, but not limited to, a jetty access ramp, a flood defence access ramp and works to raise the seawall locally under the jetty access ramp.
b. Associated Development on the landside, comprising:
i A corridor between the new jetty and Laporte Road which would support a private road (the 'jetty access road'), pipe-racks, pipelines to enable the ammonia import to the East Site, as well as security gates, a security building, a power distribution building and associated utilities (Work No. 2).
ii 'East Site - Ammonia Storage' (Work No. 3) on which an ammonia storage tank and related plant including an ammonia tank flare stack would be constructed (Work No. 3a) as well as additional buildings (including welfare building, power distribution building and a process instrumentation building), pipe-racks, pipelines, pipes, cable-racks, utilities and other infrastructure.
iii Construction of a culvert (Work No. 4) under Laporte Road for pipelines, pipes and cables and other conducting media linking the two parts of the East Site.
iv 'East Site - Hydrogen Production Facility’ (Work No. 5) on which up to three hydrogen production units and associated plant including flue gas stacks and flare stacks would be constructed (Work No. 5a) together with additional buildings (including process control building, power distribution buildings, process instrumentation buildings, analyser shelters), pipe-racks, pipelines, pipes, utilities and other infrastructure.
v Underground pipelines, pipes, cables and other conducting media (Work No. 6), between the East and West Sites, for the transfer of ammonia, hydrogen, nitrogen and utilities, with cathodic protection against saline corrosion.
vi 'West Site' (Work No. 7) involving the construction of up to three hydrogen production units with associated flue gas stacks and flare stacks and up to four liquefier units (Work No. 7a and Work No. 7b combined); hydrogen storage tanks, hydrogen trailer filling stations, a hydrogen vent stack and associated process equipment (Work No. 7c); and hydrogen vehicle and trailer filling stations, hydrogen compressors and associated process equipment (Work No. 7d). Also additional buildings (including but not limited to control room and workshop building, security and visitor building, contractor building, warehouse, driver administration building, safe haven building, electrical substation and metering station, power distribution buildings, process instrumentation buildings, analyser buildings and additional temporary buildings during construction), process and utility plant including cooling towers and pumps, fire water tank, instrument air equipment, piperacks, pipelines, pipes, cable-racks, utilities and other infrastructure;
vii Formation of temporary construction and laydown areas on Queens Road (Work No. 8) and off Laporte Road (Work No. 9).
viii Temporary removal of street furniture and modification of overhead cables on Kings Road (Work No. 10) associated with the transport of large construction components from the Port to the Site.
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## 6 Arboricultural Impact Assessment

### 6.1 Purpose

6.1.1 This impact assessment sets out the likely principal direct and indirect impacts of the Project on the trees on or immediately adjacent to the Site and suitable mitigation measures to allow for the successful retention of significant trees or to compensate for trees to be removed, where appropriate.
6.1.2 A brief summary of trees to be removed, tree works and incursions related to the Project are detailed within Table 4 below.

Table 4: Summary of Removals, Incursions and Pruning to Facilitate the Project

| Impact | Category A | Category B | Category C | Category U |
| :--- | :--- | :--- | :--- | :--- |
| Trees to be removed to <br> facilitate the Project | 8 individual trees | 113 individual <br> trees, 8 tree <br> groups, 8 part <br> tree groups and 1 <br> part woodland | 97 individual <br> trees, 22 tree <br> groups, 8 part <br> tree groups, 2 <br> hedges and 1 <br> part hedge | 25 individual <br> trees and 1 tree <br> group |
| Trees which may require <br> some incursion into their <br> construction exclusion zone <br> to allow the Project | 2 individual trees | 24 individual <br> trees and 6 tree <br> groups | 5individual trees <br> and 1 tree group | 0 |
| Trees to be pruned to <br> facilitate the Project | 2 individual trees | 19 individual <br> trees, 4 tree <br> groups and 1 <br> woodland | 4 individual trees <br> and 3 tree groups | 0 |

Table 5: Summary of tree removals within the TPO designation

| Impact | Category A | Category B | Category C | Category U |
| :--- | :--- | :--- | :--- | :--- |
| Trees to be removed to <br> facilitate the Project within <br> the TPO designation | 8 individual trees, |  | 106 individual <br> trees, 1 tree <br> groups, 6 part <br> tree groups, | 68 individual <br> trees, 2 part tree <br> groups and 1 part <br> hedge |
| trees, |  |  |  |  |

Table 6: Summary of tree removals outside of the TPO designation

| Impact | Category A | Category B | Category C | Category U |
| :--- | :--- | :--- | :--- | :--- |
| Trees to be removed to <br> facilitate the Project outside <br> of the TPO designation | 0 | 7 individual trees, <br> 7 tree groups, 2 individual <br> part tree group <br> and 1 part <br> woodland | 2 individual trees <br> trees, 22 tree <br> and 1 tree group <br> groups, 6 part <br> aedge | heop and 2 |

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### 6.2 Trees to be Removed

6.2.1 Tree removals associated with the Project are required for a variety of reasons. These include (i) the need for a sufficient footprint to facilitate the main elements of the development, (ii) to avoid inappropriate tree retention close to new structures and (iii) to maintain a 2 m clear zone from the proposed security fencing to minimise the risk of inadvertently facilitating access over the fence. Tree removal from part of the TPO is required to provide a corridor for the jetty access road and a pipe-rack (Work No. 2) from the terminal to the hydrogen production facility.
6.2.2 A total of 294 tree features will require removal or part removal to facilitate the Project; this includes eight individual trees classed as high quality (Category A), 113 individual trees, eight tree groups, eight part tree groups and one part woodland classed as moderate quality (Category B), 97 individual trees, 22 tree groups, eight part tree groups, two hedges and one part hedge classified as low quality (Category C) and the remaining 25 individual trees and one tree group classified as unsuitable for retention (Category U). The Category U trees are arguably not suitable for long term retention and their removal is justified regardless of the Project.
6.2.3 No veteran trees are to be removed. As noted above, part of a woodland group subject to TPO is to be removed to provide the corridor for Work No. 2, which equates to an area of $6440.6 \mathrm{~m}^{2}$ ( 0.6440 .6 ha ) to be lost and this impact cannot be avoided if the Project is to be achieved. The design of Work No. 2 has been carefully considered in this area to minimise tree loss and to safeguard those trees of the highest quality where feasible. The number of trees to be removed within and outside of the TPO designation are detailed in Table 5 and Table 6 above.
6.2.4 All trees to be removed are positioned within the Site Boundary.
6.2.5 Where extensive tree removal is to take place in proximity to trees to be retained there is some potential for additional tree removals or other remedial works (such as pruning or pollarding) to be required to address any loss of companion shelter (shelter and protection created by the presence of trees, particularly those to the edge of a group, to those beyond). It is not feasible to reliably determine this at this stage and an on-site assessment of retained trees is required by an Arboriculturist following site clearance works to determine the extent of any additional works required. This is particularly relevant to the interface between areas of the Long Strip woodland where trees are removed or retained.
6.2.6 Compensation is proposed in respect of tree removals including through new tree planting and associated landscaping works as detailed in the Outline
Landscape and Ecology Management Plan [TR030008/APP/6.9] and an offsite Outline Woodland Compensation Strategy [TR030008/APP/6.8]; both are to be secured via a Requirement in the draft DCO.
6.2.7 Subject to the above, the remaining recorded trees can be retained and protected.

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### 6.3 Tree Works

6.3.1 Tree removals and tree pruning works to facilitate the Project are detailed in the Tree Survey Schedule included as Annex B. Trees IT1, IT2, IT3, IT5, IT10, IT17, IT29, IG32, IT37, IG44, IG51, IT84, AG92, AG122, IT123, AG136, AG141, IT247, IT278, IT307, IT318, IT368, IT371, IT382, IT383, IT391, IT392, IT393, IT394, IT395, IT396, IT414 and W425 will require localised crown reductions and/or crown lifting to up to a height of 5 m to provide a reasonable clearance from the proposed security fencing and over areas of construction access. Of these trees IT5, IT10, IT17, IT29, IG32, IT37, IG44, IG51, IT84, IT123, IT247, IT278, IT307, IT318, IT368, IT371, IT382, IT383, IT391, IT392, IT393, IT394, IT395, IT396, IT414 and IW425 are subject to TPO and this impact cannot be avoided if the Project is to be achieved. This level of pruning will not have a significant negative impact on the physiological or structural condition of the trees. Further details of pruning works are included within the Tree Survey Schedule (Annex B).
6.3.2 Tree loss and the impact of exposure on adjacent retained trees would be minimised by undertaking pollarding or coppicing works to trees in immediate proximity to the Site Boundary. This approach would be used to minimise tree loss in the Long Strip TPO woodland. The suitability of individual trees on the site margins for pollarding or coppicing would be assessed by a walkover of the Site by the Site Arboriculturist prior to the commencement of site works. No additional works to retained trees are likely to be required.
6.3.3 All tree work is to follow the principles of BS3998: 2010 Treework Recommendations and must be carried out by suitably qualified and insured contractors. The Arboricultural Association provides a list of contractors who meet these requirements which can be found at www.trees.org.uk.
6.3.4 A tree condition survey will be undertaken by a competent Arboriculturist immediately following the tree removal works within the Long Strip woodland to identify any safety risks to the Site. Following this a periodic inspection regime will be implemented and an initial tree condition survey will be undertaken one month following the commencement of site works and then six monthly for the first two years. After the first two years the Arboriculturist will advise on the recommended frequency of surveys. Further details of the surveys and how they are secured are referred to in Paragraph 6.5.3.
6.3.5 Should the requirement for additional tree works be identified in the future following tree condition surveys, if necessary, consent from NELC would be obtained in respect of any works proposed to trees protected by the TPO.

### 6.4 Incursions within the RPA or Canopy Spread

6.4.1 The Project will require RPA and/or canopy spread incursions for 38 tree features to facilitate construction access. To avoid negatively impacting the structure of the soil prior to the commencement of relevant phases of site works, fit for purpose ground protection will be installed within the RPAs, specified to the highest expected load and installed in accordance with the Outline Tree Protection Measures included within Annex E (see Paragraph 6.6.2 for further details).

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6.4.2 In addition, T414 will require an outer RPA incursion to facilitate the construction of a new temporary access road and a footway into Work No. 9. The access road will only require a very minor RPA incursion and prior to its construction a trench is to be excavated by hand (using compressed air and a soil vacuum where available) under the supervision of an Arboriculturist to a depth of 1 m along the outermost extent of the proposed footprint for the new road and edging within the RPA. Roots will be carefully exposed and severed with a clean sharp tool to leave a clean cut end (set back 200 mm from the edge of the excavation). Root pruning will be timed to avoid times of high physiological activity for the tree (e.g. in winter or late summer avoiding periods of drought) and will be supervised by an Arboriculturist.
6.4.3 Installation of the footway must follow 'no dig' principles to avoid adverse effects to the structure of the soil and excavation which could require root severance. This can be achieved with the use of a three dimensional load bearing surface (such as Cellweb, ArborRaft or equivalent) that is designed to meet the highest expected loads and is positioned on top of the existing ground level.
6.4.4 Edging is often not required to stabilise the load bearing surface and the edge of the surface. If edging is required, this must be installed without excavation and can be cast directly onto the load bearing surface with any uncured concrete contained within impermeable sheeting to prevent leaching into the RPA.
6.4.5 These works must be supervised by an Arboriculturist and will not negatively impact the physiological or structural condition of the tree.
6.4.6 Further information relating to the above will be included within an Arboricultural Method Statement which will where applicable form part of the final construction environmental management plans ("CEMP") secured as a Requirement of the draft DCO. The final CEMP must accord with the Outline CEMP ("OCEMP") [TR030008/APP/6.5] forming part of the Application.

### 6.5 The Future Impact of Retained Trees

6.5.1 The future impact of retained trees in conjunction with the Project and future use of the Site has been considered.
6.5.2 Retained trees will require periodic inspection by a competent person to assess their structural condition and safety. Removal of dead wood or other remedial works to address significant defects may be required in areas of frequent access, which is likely to be more significant following the tree removal works and proposed change in land use.
6.5.3 As outlined within the OCEMP [TR030008/APP/6.5] a tree condition survey will be undertaken by a competent Arboriculturist immediately following the tree removal works within the Long Strip woodland to identify any safety risks to the Site. Following this a periodic inspection regime will be implemented and an initial tree condition survey will be undertaken one month following the commencement of site works and then six monthly for the first two years. After the first two years the Arboriculturist will advise on the recommended frequency of surveys.

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6.5.4 The majority of trees on the Site are broadleaved and will drop leaves and fruits in autumn and will produce flowers in the spring. This can affect the use of adjacent land and can block gutters where tree branches overhang roofs and drains where leaf fall collects.
6.5.5 The layout of the Project has been developed so that no trees will overhang new structures which will reduce the potential nuisance associated with this issue. Any trees that develop canopies which overhang structures in the future can be pruned back on an ad hoc basis as required.
6.5.6 Where tree canopies encroach the security fencing there will be an ongoing maintenance requirement to maintain a 2 m clearance. Clearance requirements would be recorded during the periodic tree condition surveys.
6.5.7 Clearance works will not have a negative impact on the health or amenity value of the trees. Gutter guards or equivalent can be used to prevent leaf ingress into guttering if required. Regular maintenance of drains can address any issues of blockage associated with leaf fall.

### 6.6 Tree Protection

6.6.1 Retained trees are vulnerable to damage from construction activities which can include physical damage to stems and branches following impacts with plant, root severance following trenching, root death or dysfunction following damage to soil structure (caused by the movement of people or machinery on unsurfaced ground) or via the spillage of materials toxic to tree health. The RPA and canopy spread of trees to be retained should form an effective Construction Exclusion Zone, secured with robust fencing where no access will be permitted. Where access is necessary within this area special measures such as the use of ground protection and arboricultural supervision are generally required.
6.6.2 Outline tree protection measures are considered in Annex E of this report which includes tree protection fencing, ground protection, the management of exposed roots and the storage and mixing of materials. The Arboricultural Method Statement to be produced as part of the CEMP (and referred to within the OCEMP [TR030008/APP/6.5]) will contain appropriate tree protection measures based on the detailed design including measures referred to in Section 6.7 and 6.9 below and the conclusions in Section 7, as applicable to the relevant works.
6.7 Site Organisation, Storage and Use of Materials, Plant and Machinery.
6.7.1 All construction site facilities including site huts, staff and contractor parking and areas for storage will be located outside of the RPA or crown spread of retained trees, including those not specifically covered in this report. Space is likely to be constrained on the Site and will need to be carefully considered. The Construction Exclusion Zones identified on the Tree Protection Plan must be respected and their location and significance is to be highlighted to all site staff and contractors during the formal site briefing.
6.7.2 The use, mixing and washing of materials can lead to run off or inadvertent spillage into tree root zones. Many substances often used on construction sites

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can be toxic to tree roots (such as concrete, fuels, salts, builders sand and herbicides) and can result in the death of tree roots and beneficial soil organisms and can have a significant impact on the future health and appearance of the tree.
6.7.3 The storage of materials and arisings can result in an effective raised soil level. This buries tree roots at depths where air and water are less available and can lead to the decline or death of the tree.
6.7.4 For these reasons the storage of materials and any washing, mixing or refuelling will take place in agreed allocated areas at least 5 m from the edge of the RPA of retained trees.
6.7.5 Any slope effect must be taken into account and where there is a potential for run off, heavy duty polythene sheeting and sandbags must be in place as bunding to prevent toxic materials reaching RPAs.
6.7.6 Particular care is required where high sided vehicles, long reach machinery and plant with jibs, booms and counterweights are to operate with in proximity to retained trees. A banksman will be used where the movement of plant or long reach machinery occurs within 5 m of any part of a retained tree to ensure no damage is sustained.

### 6.8 Tree Planting

6.8.1 Existing areas of unsurfaced ground must be protected during the demolition and construction phases if they are to be re-used for new plantings. Protection can be achieved using fit for purpose ground protection measures as set out in BS5837:2012 (Ref 1-3) Section 6.2.3 or by creating a fenced exclusion zone. Where protection is not feasible, soil amelioration or replacement works will be required to ensure suitable growing conditions for new trees to fully establish.
6.8.2 Where new trees are to be planted, the minimum planting distances detailed in Annexe A, Table A. 1 of BS5837:2012 (Ref 1-3) must be adhered to, to prevent direct damage to services and structures from future tree growth.
6.8.3 New tree planting would be implemented in accordance with the guidance set out in BS8545: 2014 Trees: from nursery to establishment in the landscape Recommendations.

### 6.9 Services

6.9.1 New services are proposed to the north west of Queens Road and these are proposed to be installed using trenchless techniques beneath trees AG106, AG104, AT111, AG82, AG79, AT78, AG76, AG75, AG67, AG71, AG74, AG70, AT72 and AG64. These services will be installed in accordance with the general principles detailed below.
6.9.2 Where existing services become redundant within the RPA of a retained tree, the recommended position is that they are decommissioned and left in situ. Where this is not feasible the following principles are to be observed.
6.9.3 Existing services are to be removed by winching out from an access/inspection chamber located outside of an RPA. It may be acceptable to fill redundant pipe

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work with an inert material or undertake pipe bursting where necessary within the RPA of retained trees.
6.9.4 Excavation to install services has the potential to result in unacceptable root severance which could result in instability, dysfunction or the death of trees. Repeated incursions are particularly damaging and should be avoided by bundling services wherever possible.
6.9.5 Services should be routed outside of the RPA of retained trees where practicable. The following general principles will apply and where services must be routed within the RPA of a retained tree this process will be subject to a detailed method statement within the CEMP reflecting the principles of the National Joint Utilities Group ("NJUG") Volume 4 (Ref 1-18) where practicable.
6.9.6 All services will be bundled as far as possible and installed within RPAs using hand/compressed air excavation (e.g. for shallow service runs) or trenchless techniques such as impact moling (thrust boring) with all access pits and inspection chambers being located outside of the RPA. The route will run as far from the main stem of a retained tree as possible and will be at a minimum depth so that the upper 2 m of the soil profile is undisturbed where practicable. The depth of the run may need to be adjusted to account for soil type and species variation and this will be determined subject to the advice of an arboriculturist.
6.9.7 Any water pipes would be constructed so as to be resistant to ingress by tree roots (both existing trees, and newly planted trees) which would include the use of root barriers where appropriate.

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## 7 Conclusions

7.1.1 A total of 294 tree features will require removal or part removal to facilitate the Project. These tree features include eight individual trees classed as high quality (Category A), 113 individual trees, eight tree groups, eight part tree groups and one part woodland classed as moderate quality (Category B), 97 individual trees, 22 tree groups, eight part tree groups, two hedges and one part hedge classified as low quality (Category C) and the remaining 25 individual trees and one tree group classified as unsuitable for retention (Category U). The Category U trees are arguably not suitable for long term retention and their removal is justified regardless of the Project.
7.1.2 No veteran trees are to be removed. Part of a woodland group subject to TPO is to be removed which equates to an area of $6440.6 \mathrm{~m}^{2}(0.6440 .6 \mathrm{ha})$ to be lost and this impact cannot be avoided if the Project is to be achieved. The design has been carefully considered in this area to minimise tree loss and to safeguard those trees of the highest quality where feasible.
7.1.3 All trees to be removed are positioned within the Site Boundary.
7.1.4 Thirty-three tree features will require localised crown reductions and/or crown lifting to up to a height of 5 m to provide a reasonable clearance for visibility splays, from the proposed security fencing and over areas of construction access. Of these trees IT5, IT10, IT17, IT29, IG32, IT37, IG44, IG51, IT84, IT123, IT247, IT278, IT307, IT318, IT368, IT371, IT382, IT383, IT391, IT392, IT393, IT394, IT395, IT396, IT414 and IW425 are subject to TPO and this impact cannot be avoided if the Project is to be achieved. This level of pruning will not have a negative impact on the health or amenity of these trees. Further details of pruning works are included within the Tree Survey Schedule (Annex B).
7.1.5 Tree loss and the impact of exposure on adjacent retained trees would be minimised by undertaking pollarding or coppicing works to trees in immediate proximity to the Site Boundary. This approach would be used to minimise tree loss in the Long Strip TPO woodland. The suitability of individual trees on the site margins for pollarding or coppicing would be assessed by a walkover of the Site by the Site Arboriculturist prior to the commencement of site works. No additional works to retained trees are likely to be required.
7.1.6 The final extent of tree loss must be determined on site by an Arboriculturist who will consider the stability and suitability of retained trees. This is particularly important in relation to the area of removal within the Long Strip woodland. This area will be subject to regular inspection for a two-year period to manage the risk of tree failure following a loss of companion shelter.
7.1.7 An Outline Woodland Compensation Strategy [TR030008/APP/6.8] has been prepared to compensate for the loss of tree loss from Long Strip. The Strategy sets out the approach to off-site planting in the Immingham area, as well as enhancement of existing retained on-site woodland. The Strategy has been discussed with the local planning authority and is secured by DCO Requirement in the draft DCO [TR030008/APP/2.1].

### 7.2 Issues to be addressed by an Arboricultural Method Statement:

a. Summary of the final arboricultural impacts related to the detailed design;
b. Pre commencement meeting, site briefing and assessment of trees to be removed by an arboriculturist for their suitability for tree pruning;
c. Order and phasing of operations affecting trees;
d. Site supervision and monitoring of implementation;
e. Tree works and confirmation of the final extent of tree loss;
f. Tree protection fencing;
g. Ground protection;
h. Site storage and facilities;
i. Movement of people, plant and materials;
j. Enabling works;
k. Installation of new surfacing;
I. Installation of new structures;
m. Installation of new services and/or diversion of existing services;
n. Hard landscaping;
o. Soft Landscaping; and
p. Removal of tree protection measures.

## 8 References

Ref 1-1 Department for Transport (2012) National Policy Statement for Ports.
Ref 1-2 Ministry of Housing, Communities and Local Government (2021) National Planning Policy Framework.

Ref 1-3 British Standards Institute (2012) BS5837 Trees in relation to design demolition and construction - Recommendations. BSI; London.

Ref 1-4 North East Lincolnshire Council (2018) North East Lincolnshire Local Plan 20132032.

Ref 1-5 Natural England and Forestry Commission (2022) Ancient woodland, ancient trees and veteran trees: advice for making planning decisions (standing advice)

Ref 1-6 National House Building Council (NHBC) Standards, (2023). Chapter 4.2: Building Near Trees.

Ref 1-7 National Tree Safety Group (NTSG), 2011. Common sense risk management of trees. Forestry Commission.

Ref 1-8 UK Government (2015) The Construction (Design and Management) Regulations.

Ref 1-9 UK Government (1981) Wildlife and Countryside Act.
Ref 1-10 UK Government (2000) Countryside Rights of Way Act.
Ref 1-11 UK Government (2017) The Conservation of Habitats and Species Regulations.
Ref 1-12 British Standards Institute (2010) BS3998 Tree work - Recommendations. BSI; London.

Ref 1-13 Defra. (2023). Multi-Agency Geographic Information for the Countryside (MAGIC) website.

Ref 1-14 Forestry Commission (2021). Environmental Impact Assessments for Woodland.
Ref 1-15 Forestry Commission (2023) Map Browser.
Ref 1-16 UK Government (1997). The Hedgerow Regulations 1997.
Ref 1-17 Woodland Trust (2023). Ancient Tree Inventory website.
Ref 1-18 National Joint Utilities Group (NJUG) (2007). Vol 4 Issue 2 - Guidelines for the Planning, Installation and Maintenance of Utility Apparatus in Proximity to Trees.

Ref 1-19 UK Government (1984). Occupiers Liability Act.

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## Annex A: Tree Constraints Plan

## Annex B Tree Survey Schedule

| $\begin{aligned} & \text { Tree } \\ & \text { ID } \end{aligned}$ | Species | Estimated Height | Stem Diameter (mm) | Canopy N | Canopy S | Canopy E | Canopy w | First Significant Branch | Canopy Clearance | Physiological Condition | Age | Structural Condition | Condition Comments | Preliminary Management Comments | Tree works to facilitate the Project | Estimated Remaining Contribution in Years | Category | Root Protection Area Radius (m) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| IT1 | Ash (Fraxinus excelsior) | 13 | 380 | 6 | 6 | 3 | 3 | 2.0/E | 7 | Good | SM | Good | Codominant. Branching pattern and bud density normal. | - | Localised crown lifting to 5m over the Project. | 20+ | B2 | 4.56 m |
| IT2 | Sessile Oak (Quercus petraea) | 7 | 360 | 7 | 1 | 2 | 3 | 2.0/N | 2 | Fair | SM | Poor | Suppressed. Significant bark dysfunction to stem south, no woundwood visible, crown south dead. Likely functional unit north. | - | Localised crown lifting to 5 m over the Project. | 10+ | C1,2 | 4.32 m |
| IT3 | Ash (Fraxinus excelsior) | 14 | 340 | 6 | 2 | 4 | 2 | 4.0/S | 7 | Good | SM | Good | Dominant. Minor bud sparsity, branching pattern normal. | - | Localised crown lifting to 5 m over the Project. | 20+ | B2 | 4.08m |
| IT4 | Sessile Oak (Quercus petraea) | 14 | 530 | 8 | 8 | 8 | 8 | 2.0/W | 2 | Good | EM | Good | Dominant. Major deadwood in crown. Branching pattern and bud density normal. | - | - | 40+ | A2 | 6.36 m |
| IT5 | Sessile Oak (Quercus petraea) | 13 | 420 | 7 | 4 | 6 | 4 | 2.0/W | 1 | Good | SM | Good | Dominant. Minor deadwood in crown. | - | Localised crown lifting to 5m over the Project. | 40+ | A2 | 5.04m |
| IT6 | Sessile Oak (Quercus petraea) | 13 | 590 | 8 | 8 | 8 | 8 | 4.0/W | 4 | Good | EM | Good | Dominant. Upper crown west previously pruned back to stem. Epicormic regrowth. | - | - | 40+ | A2 | 7.08m |
| IT7 | Sessile Oak (Quercus petraea) | 14 | 440 | 3 | 4 | 4 | 6 | 5.0/NW | 8 | Good | SM | Fair | Codominant. <br> Major deadwood. Previous second order limb union failure in crown east at circa 4 m . | - | - | 40+ | A2 | 5.28m |









## Annex B Tree Survey Schedule

| $\begin{aligned} & \text { Tree } \\ & \text { ID } \end{aligned}$ | Species | Estimated Height | Stem Diameter (mm) | Canopy N | Canopy S | Canopy E | Canopy w | First Significant Branch | Canopy Clearance | Physiological Condition | Age | Structural Condition | Condition Comments | Preliminary Management Comments | Tree works to facilitate the Project | Estimated Remaining Contribution in Years | Category | Root Protection Area Radius (m) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| IT1 | Ash (Fraxinus excelsior) | 13 | 380 | 6 | 6 | 3 | 3 | 2.0/E | 7 | Good | SM | Good | Codominant. Branching pattern and bud density normal. | - | Localised crown lifting to 5m over the Project. | 20+ | B2 | 4.56 m |
| IT2 | Sessile Oak (Quercus petraea) | 7 | 360 | 7 | 1 | 2 | 3 | 2.0/N | 2 | Fair | SM | Poor | Suppressed. Significant bark dysfunction to stem south, no woundwood visible, crown south dead. Likely functional unit north. | - | Localised crown lifting to 5 m over the Project. | 10+ | C1,2 | 4.32 m |
| IT3 | Ash (Fraxinus excelsior) | 14 | 340 | 6 | 2 | 4 | 2 | 4.0/S | 7 | Good | SM | Good | Dominant. Minor bud sparsity, branching pattern normal. | - | Localised crown lifting to 5 m over the Project. | 20+ | B2 | 4.08m |
| IT4 | Sessile Oak (Quercus petraea) | 14 | 530 | 8 | 8 | 8 | 8 | 2.0/W | 2 | Good | EM | Good | Dominant. Major deadwood in crown. Branching pattern and bud density normal. | - | - | 40+ | A2 | 6.36 m |
| IT5 | Sessile Oak (Quercus petraea) | 13 | 420 | 7 | 4 | 6 | 4 | 2.0/W | 1 | Good | SM | Good | Dominant. Minor deadwood in crown. | - | Localised crown lifting to 5m over the Project. | 40+ | A2 | 5.04m |
| IT6 | Sessile Oak (Quercus petraea) | 13 | 590 | 8 | 8 | 8 | 8 | 4.0/W | 4 | Good | EM | Good | Dominant. Upper crown west previously pruned back to stem. Epicormic regrowth. | - | - | 40+ | A2 | 7.08m |
| IT7 | Sessile Oak (Quercus petraea) | 14 | 440 | 3 | 4 | 4 | 6 | 5.0/NW | 8 | Good | SM | Fair | Codominant. <br> Major deadwood. Previous second order limb union failure in crown east at circa 4 m . | - | - | 40+ | A2 | 5.28m |


| Tree ID | Species | Estimated Height | Stem Diameter (mm) | Canopy $\mathrm{N}$ | $\begin{gathered} \text { Canopy } \\ S \end{gathered}$ | Canopy $E$ | Canopy w | First Significant Branch | Canopy Clearance | Physiological Condition | Age | Structural Condition | Condition Comments | Preliminary Management Comments | Tree works to facilitate the Project | Estimated Remaining Contribution in Years | Category | Root Protection Area Radius (m) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| IT8 | Sessile Oak (Quercus petraea) | 14 | 580 | 7 | 3 | 7 | 7 | 5.0/S | 5 | Good | EM | Good | Dominant. Major deadwood in crown. Burring across stem. | - | - | 40+ | A2 | 6.96 m |
| IT9 | Common Oak (Quercus robur) | 13 | 500 | 3 | 6 | 5 | 5 | 4.0/N | 4 | Good | EM | Fair | Codominant. Large deadwood in Central crown. | - | - | 20+ | B2 | 6 m |
| IT10 | Sessile Oak (Quercus petraea) | 12 | 360 | 7 | 1 | 1 | 6 | 4.0/N | 5 | Fair | SM | Fair | Subdominant. Crown extension north - positive phototropism. | - | Localised crown lifting to 5 m over the Project. | 20+ | B2 | 4.32 m |
| IT11 | Ash (Fraxinus excelsior) | 14 | $\begin{aligned} & 290,380,32 \\ & 0 \end{aligned}$ | 5 | 5 | 5 | 5 | 5.0/SW | 8 | Good | EM | Fair | Codominant. Four stems from ground level. | - | - | 20+ | B2 | 6.9 m |
| IT12 | Sessile Oak (Quercus petraea) | 14 | 260 | 5 | 1 | 1 | 5 | 5.0/N | 8 | Fair | SM | Fair | Subdominant. | - | - | 20+ | B2 | 3.12 m |
| IT13 | White Poplar (Populus alba) | 14 | 420 | 5 | 5 | 5 | 4 | 4.0/W | 3 | Good | SM | Good | Dominant. | - | Remove | 20+ | B2 | 5.04 m |
| IG14 | Hawthorn (Crataegus monogyna), Common Oak (Quercus robur),Rayw ood ash (Fraxinus angustifolia Raywood) | 9 | <200\# | 3 | 3 | 3 | 3 | n/a | 0 | Good - Fair | Y-SM | Good - Fair |  | - | Part remove as per TPP | 10+ | C2 | 2.4 m |
| IT15 | Sessile Oak (Quercus petraea) | 14 | 410 | 7 | 2 | 4 | 6 | 3.0/NE | 4 | Good | EM | Fair | Codominant. Significant adaptive swelling at circa 2 m area of multiple previous second order limbs. Epicormic regrowth. | - | Remove | 20+ | B2 | 4.92m |


| Tree ID | Species | Estimated Height | Stem Diameter (mm) | Canopy N | Canopy s | Canopy E | Canopy w | First Significant Branch | Canopy Clearance | Physiological Condition | Age | Structural Condition | Condition Comments | Preliminary Management Comments | Tree works to facilitate the Project | Estimated Remaining Contribution in Years | Category | Root Protection Area Radius (m) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| IT16 | Ash (Fraxinus excelsior) | 15 | 500\# | 5 | 4 | 6 | 5 | 7.0/N | 8 | Good | EM | Good | Dominant. No access to base. | - | - | 20+ | B2 | 6m |
| IT17 | Sessile Oak (Quercus petraea) | 13 | 350 | 7 | 2 | 4 | 1 | 2.0/E | 6 | Good | SM | Fair | Codominant. Western crown suppressed with major deadwood. | - | Localised crown lifting to 5 m over the Project. | 20+ | B2 | 4.2 m |
| IT18 | English Elm (Ulmus procera) | 7 | 360 | 1 | 6 | 5 | 6 | 0.5/W | 1 | Good | SM | Fair | Suppressed. Significant for species. Prolific burring. | - | - | 20+ | B2,3 | 4.32 m |
| IT19 | Ash (Fraxinus excelsior) | 15 | 430 | 5 | 3 | 7 | 5 | 7.0/E | 4 | Good | EM | Good | Codominant. | - | - | 20+ | B2 | 5.16 m |
| IT20 | Ash (Fraxinus excelsior) | 16 | 480 | 4 | 5 | 4 | 5 | 6.0/NW | 9 | Good | EM | Good | Codominant. | - | - | 20+ | B2 | 5.76 m |
| IT21 | Ash (Fraxinus excelsior) | 14 | 490 | 10 | 1 | 3 | 3 | 3.0/N | 6 | Fair | EM | Poor | Codominant. <br> Previous apical stem failure at approx., 5 m . significant cavitation with decay of inner wood. Stub circa $3 \mathrm{~m} \times 400 \mathrm{~mm}$. Not considered mature due to size. | - | - | 40+ | A3 | 7.35m |
| IW22 | Hawthorn (Crataegus monogyna), Common Oak (Quercus robur),Ash (Fraxinus excelsior) | 15 | <410 | 4 | 4 | 4 | 4 | n/a | 0 | Good - Fair | SM- <br> EM | Good - Fair | Codominant group. | - | - | 20+ | B2 | 4.92m |
| IT23 | Sessile Oak (Quercus petraea) | 14 | 400 | 1 | 4 | 2 | 8 | 2.0/S | 2 | Good | EM | Good | Dominant. | - | - | 40+ | A2 | 4.8m |


| Tree ID | Species | Estimated Height | Stem Diameter (mm) | Canopy N | $\begin{gathered} \text { Canopy } \\ \mathrm{S} \end{gathered}$ | Canopy E | Canopy w | First Significant Branch | Canopy Clearance | Physiological Condition | Age | Structural Condition | Condition Comments | Preliminary Management Comments | Tree works to facilitate the Project | Estimated Remaining Contribution in Years | Category | Root Protection Area Radius (m) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| IT24 | Sessile Oak (Quercus petraea) | 14 | 400 | 5 | 4 | 3 | 7 | 2.0/E | 2 | Good | EM | Good | Dominant. Major deadwood in crown. | - | - | 40+ | A2 | 4.8 m |
| IT25 | Ash (Fraxinus excelsior) | 16 | 490 | 7 | 6 | 4 | 6 | 4.5/E | 8 | Good | EM | Fair | Codominant. Black fungi on limb to north at 7 m . Likely Inonotus hispidus. Low traffic area. | - | - | 20+ | B2 | 5.88m |
| IT26 | Ash (Fraxinus excelsior) | 15 | 420 | 1 | 6 | 3 | 3 | 8.0/S | 7 | Fair | EM | Poor | Codominant. Minor crown sparsity. Black fruiting body on stem to north at 9 m . Likely Inonotus hispidus. Low traffic area. | - | - | <10 | U2 | 5.04m |
| IG27 | Hawthorn (Crataegus monogyna), Sessile Oak (Quercus petraea),As h (Fraxinus excelsior) | 14 | 400 | 6 | 6 | 6 | 6 | n/a | 4 | Fair | SM- <br> EM | Fair | Co to sub dominant. | - | Part remove as per TPP | 20+ | B2 | 4.8 m |
| IT28 | Ash (Fraxinus excelsior) | 16 | 420 | 5 | 5 | 6 | 4 | 6.0/E | 10 | Good | EM | Good | Codominant. | - | - | 20+ | B2 | 5.04m |
| IT29 | Sessile Oak (Quercus petraea) | 14 | 440 | 6 | 3 | 4 | 6 | $3.0 / \mathrm{N}$ | 3 | Fair | EM | Fair | Dominant. Significant upper crown gap west, unknown cause. Moderate bud sparsity. | - | Localised crown lifting to 5m over the Project. | 20+ | B2 | 5.28m |
| IT30 | Ash (Fraxinus excelsior) | 17 | 400 | 6 | 4 | 6 | 4 | 8.0/N | 10 | Good | EM | Good | Emergent. | - | - | 20+ | B1,2 | 4.8 m |


| $\begin{aligned} & \text { Tree } \\ & \text { ID } \end{aligned}$ | Species | Estimated Height | Stem Diameter (mm) | Canopy N | Canopy S | Canopy E | Canopy W | First Significant Branch | Canopy Clearance | Physiological Condition | Age | Structural Condition | Condition Comments | Preliminary Management Comments | Tree works to facilitate the Project | Estimated Remaining Contribution in Years | Category | Root Protection Area Radius (m) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| IW31 | Hawthorn (Crataegus monogyna), Elder (Sambucus nigra),Ash (Fraxinus excelsior) | 15 | <400 | 4 | 4 | 4 | 4 | n/a | 0 | Good - Fair | $\begin{aligned} & \text { SM- } \\ & \text { EM } \end{aligned}$ | Good - Fair | Codominant/sub dominant group. | - | - | 20+ | B2 | 4.8 m |
| IG32 | Sessile Oak (Quercus petraea) | 12 | 360 | 5 | 5 | 5 | 5 | n/a | 2 | Fair | SM | Fair | subdominant. | - | Localised crown lifting to 5m over the Project. | 20+ | B2 | 4.32 m |
| IT33 | Hawthorn (Crataegus monogyna) | 7 | 170\# | 3 | 3 | 3 | 3 | 2.0/E | 1 | Good | EM | Good | Subdominant. | - | - | 20+ | B2 | 2.04 m |
| IT34 | Common Oak (Quercus robur) | 16 | 460 | 0 | 8 | 5 | 4 | 4.5/E | 3 | Good | EM | Good | Codominant. | - | - | 20+ | B2 | 5.52m |
| IT35 | Ash (Fraxinus excelsior) | 14 | 420 | 6 | 3 | 3 | 6 | 2.5/S | 4 | Fair | EM | Poor | Dominant. <br> Previous stem failure at circa 6m. Likely Inonotus hispidus brackets around base. Not considered mature due to size. | - | - | 20+ | B3 | 5.04 m |
| IT36 | Ash (Fraxinus excelsior) | 15 | 450 | 6 | 4 | 4 | 6 | 5.0/E | 7 | Fair | EM | Good | Codominant. Minor crown sparsity. | - | - | 20+ | B2 | 5.4 m |
| IT37 | Sessile Oak (Quercus petraea) | 11 | 480 | 7 | 2 | 7 | 7 | 3.5/SE | 5 | Good | EM | Fair | Subdominant | - | Localised crown lifting to 5m over the Project. | 40+ | A2 | 5.76 m |
| IT38 | Ash (Fraxinus excelsior) | 17 | 490 | 5 | 6 | 5 | 3 | 9.0/SE | 1 | Good | EM | Fair | Codominant. Several animal holes in upper crown to north. | - | - | 20+ | B2 | 5.88m |


| $\begin{aligned} & \text { Tree } \\ & \text { ID } \end{aligned}$ | Species | Estimated Height | Stem Diameter (mm) | Canopy N | Canopy S | Canopy $E$ | Canopy W | First Significant Branch | Canopy Clearance | Physiological Condition | Age | Structural Condition | Condition Comments | Preliminary Management Comments | Tree works to facilitate the Project | Estimated Remaining Contribution in Years | Category | Root Protection Area Radius (m) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| IT39 | Common Oak (Quercus robur) | 15 | 400 | 3 | 4 | 4 | 4 | 7.0/E | 6 | Good | EM | Good | Codominant. Lots of epicormic growth on stem. | - | - | 20+ | B2 | 4.8m |
| IT40 | Ash (Fraxinus excelsior) | 16 | 390 | 5 | 4 | 5 | 4 | 7.0/SE | 8 | Good | EM | Good | Codominant. | - | - | 20+ | B2 | 4.68m |
| IT41 | Ash (Fraxinus excelsior) | 15 | 500 | 6 | 2 | 6 | 3 | 1.0/W | 10 | Good | EM | Poor | Dominant. Circa 50\% stem exposure from circa 500 mm at ground level to 4m. Cavitation. Good columnar woundwood formation. Not considered mature due to size. | - | - | 40+ | A3 | 7.5 m |
| IT42 | Common Oak (Quercus robur) | 14 | 390 | 4 | 3 | 3 | 5 | 7.0/E | 7 | Good | EM | Good | Subdominant. | - | - | 20+ | B2 | 4.68m |
| IT43 | Hawthorn (Crataegus monogyna) | 8 | 190\# | 0.5 | 5 | 3 | 3 | 3.0/S | 4 | Good | EM | Good | Subdominant. Leaning south. | - | - | 20+ | B2 | 2.28 m |
| IG44 | Sessile Oak (Quercus petraea), Ha wthorn (Crataegus monogyna), Wych Elm (Ulmus glabra),Elde r (Sambucus nigra) | 14 | 410 | 6 | 6 | 6 | 6 | n/a | 3 | Good - Fair | SM- <br> EM | Good - Fair | Co to subdominant group homogenous. Hawthorn present significant for species. | - | Localised crown lifting to 5 m over the Project. | 20+ | B1,2 | 4.92 m |
| IT45 | Ash (Fraxinus excelsior) | 16 | 520 | 5 | 6 | 7 | 6 | 6.0/E | 8 | Good | EM | Good | Codominant. <br> Large basal wound to southwest. Good wound wood | - | - | 20+ | B2 | 6.24m |


| Tree ID | Species | Estimated Height | Stem Diameter (mm) | Canopy N | Canopy S | Canopy E | Canopy w | First Significant Branch | Canopy Clearance | Physiological Condition | Age | Structural Condition | Condition Comments | Preliminary Management Comments | Tree works to facilitate the Project | Estimated Remaining Contribution in Years | Category | Root Protection Area Radius (m) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |  |  |  |  |  | development. Sound tested with localised abnormalities in wood density around wound. |  |  |  |  |  |
| IT46 | Ash (Fraxinus excelsior) | 13 | 420 | 6 | 6 | 6 | 6 | 2.0/S | 2 | Fair | EM | Poor | Dominant. <br> Multiple cavities throughout branching structure visible. Numerous desiccated fungal fruiting bodies around base, likely Inonotus hispidus. Structural collapse likely. Not considered mature due to size. | - | - | 20+ | B3 | 5.04m |
| IT47 | Common Oak (Quercus robur) | 17 | 540 | 6 | 7 | 7 | 5 | 4.0/S | 1 | Good | EM | Good | Dominant. | - | - | 20+ | B1,2 | 6.48m |
| IG48 | Hawthorn (Crataegus monogyna) | 10 | <300\# | 3 | 3 | 3 | 3 | n/a | 0 | Good | SM- <br> EM | Good | Subdominant group of hawthorn. | - | - | 20+ | B2 | 3.6 m |
| IT49 | Ash (Fraxinus excelsior) | 13 | 520 | 7 | 3 | 6 | 6 | 3.0/S | 10 | Fair | EM | Poor | Death of apical stem, major deadwood, multiple habitat holes e.g. from woodpeckers or similar. Crown east and west with high vitality. Fungal fruiting bodies in crown, likely Inonotus hispidus. | - | - | 20+ | B3 | 6.24 m |


| $\begin{aligned} & \text { Tree } \\ & \text { ID } \end{aligned}$ | Species | Estimated Height | Stem Diameter (mm) | Canopy N | Canopy S | Canopy $E$ | Canopy W | First Significant Branch | Canopy Clearance | Physiological Condition | Age | Structural Condition | Condition Comments | Preliminary Management Comments | Tree works to facilitate the Project | Estimated Remaining Contribution in Years | Category | Root Protection Area Radius (m) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| IT50 | Ash (Fraxinus excelsior) | 16 | 510 | 4 | 4 | 6 | 4 | 7.0/E | 2 | Good | EM | Fair | Dominant. Several large limb failures in crown. Two stem wounds to south with good wound wood development. Not considered mature due to size. | - | - | 20+ | B2 | 6.12m |
| IG51 | Sessile Oak (Quercus petraea), Ha wthorn (Crataegus monogyna), Elder (Sambucus nigra) | 14 | 400 | 7 | 7 | 7 | 7 | n/a | 2 | Good | Y-EM | Good - Fair | Codominant. Homogenous group - overstory oak dominant, understory with hawthorn significant for species and young elder. | - | Part remove as per TPP. Localised crown lifting to 5 m over the Project. | 20+ | B1,2 | 4.8m |
| IT52 | Elm (Ulmus $s p)$ | 12 | 330 | 3 | 6 | 5 | 3 | 2.0/E | 1 | Good | SM | Good | Subdominant | - | - | 20+ | B2 | 3.96 m |
| IT53 | Common Oak (Quercus robur) | 17 | 530 | 6 | 5 | 6 | 7 | 10.0/S | 1 | Good | EM | Good | Subdominant. | - | - | 20+ | B1,2 | 6.36 m |
| IT54 | Sessile Oak (Quercus petraea) | 14 | 390 | 2 | 7 | 3 | 7 | 5.0/SE | 8 | Good | EM | Good | Dominant. | - | - | 40+ | A2 | 4.68m |
| IT55 | Ash (Fraxinus excelsior) | 17 | 530,330 | 6 | 6 | 7 | 5 | 10.0/S | 4 | Good | EM | Good | Codominant. | - | - | 20+ | B1,2 | 7.49 m |
| IT56 | Sessile Oak (Quercus petraea) | 15 | 460 | 7 | 3 | 5 | 1 | 6.0/NE | 6 | Good | EM | Good | Co-becoming dominant. At clearing edge. | - | Remove | 40+ | A2 | 5.52 m |
| IT57 | Ash (Fraxinus excelsior) | 16 | 420 | 5 | 4 | 6 | 6 | 6.0/SW | 3 | Good | EM | Poor | Codominant. Large hole on main stem to south at 10 m . No wound wood development. Low traffic area. | - | - | <10 | U1 | 5.04m |


| $\begin{aligned} & \text { Tree } \\ & \text { ID } \end{aligned}$ | Species | Estimated Height | Stem Diameter (mm) | Canopy N | $\begin{gathered} \text { Canopy } \\ \mathrm{S} \end{gathered}$ | Canopy E | Canopy w | First Significant Branch | Canopy Clearance | Physiological Condition | Age | Structural Condition | Condition Comments | Preliminary Management Comments | Tree works to facilitate the Project | Estimated Remaining Contribution in Years | Category | Root Protection Area Radius (m) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |  |  |  |  |  | High likelihood for future stem failure. |  |  |  |  |  |
| IT58 | Common Oak (Quercus robur) | 16 | 430 | 3 | 6 | 5 | 5 | 5.0/S | 1 | Good | EM | Good | Codominant. | - | - | 20+ | B2 | 5.16 m |
| IT59 | Hawthorn (Crataegus monogyna) | 11 | 350 | 4 | 2 | 4 | 4 | 3.0/NE | 1 | Good | M | Good | Codominant. | - | - | 40+ | A1,2 | 4.2 m |
| IT60 | Sessile Oak (Quercus petraea) | 6 | 250 | 6 | 1 | 2 | 1 | 1.5/E | 3 | Fair | SM | Poor | Suppressed. Mature dead oak hung up in crown. | - | Remove | 10+ | C1 | 3 m |
| IT61 | Sessile Oak (Quercus petraea) | 15 | 380 | 4 | 7 | 3 | 3 | 7.0/W | 7 | Good | EM | Good | Emergent. Hung up tree in crown west. | - | - | 20+ | B1,2 | 4.56 m |
| IG62 | Hawthorn (Crataegus monogyna), Common Oak (Quercus robur),Ash (Fraxinus excelsior) | 16 | <350 | 4 | 4 | 4 | 4 | n/a | 0 | Good | SM- <br> EM | Good | Codominant/sub dominant group. | - | - | 20+ | B2 | 4.2 m |
| IT63 | Sessile Oak (Quercus petraea) | 10 | 360 | 5 | 2 | 5 | 5 | 2.0/E | 4 | Good | SM | Good | Codominant. | - | Remove | 20+ | B1,2 | 4.32 m |
| IT64 | Common Oak (Quercus robur) | 16 | 390 | 5 | 6 | 4 | 5 | 4.5/SE | 7 | Good | EM | Good | Codominant. | - | - | 20+ | B2 | 4.68 m |
| IT65 | Sessile Oak (Quercus petraea) | 12 | 320 | 1 | 6 | 5 | 5 | 7.0/W | 6 | Good | SM | Fair | Sub to co dominant | - | - | 20+ | B2 | 3.84m |
| IT66 | Hawthorn (Crataegus monogyna) | 10 | 320 | 4 | 4 | 4 | 4 | 2.0/N | 2 | Good | M | Good | Subdominant. | - | - | 40+ | A1,2 | 3.84m |


| Tree ID | Species | Estimated Height | Stem Diameter (mm) | Canopy N | Canopy S | Canopy $E$ | Canopy W | First Significant Branch | Canopy Clearance | Physiological Condition | Age | Structural Condition | Condition Comments | Preliminary Management Comments | Tree works to facilitate the Project | Estimated Remaining Contribution in Years | Category | Root Protection Area Radius (m) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| IT67 | Ash (Fraxinus excelsior) | 17 | 450 | 6 | 6 | 5 | 6 | 5.0/S | 7 | Good | EM | Good | Dominant. Two stems from 5m that cross over. | - | - | 20+ | B1,2 | 5.4 m |
| IT68 | Sessile Oak (Quercus petraea) | 14 | 480 | 8 | 6 | 3 | 7 | n/a | 5 | Good | M | Good | Dominant. | - | - | 40+ | A2 | 5.76 m |
| IG69 | Hawthorn (Crataegus monogyna), Common Oak (Quercus robur),Ash (Fraxinus excelsior) | 15 | <330 | 4 | 4 | 4 | 4 | n/a | 0 | Good | SMEM | Good | Codominant/sub dominant. | - | - | 20+ | B2 | 3.96m |
| IT70 | Sessile Oak (Quercus petraea) | 14 | 490 | 7 | 4 | 6 | 6 | 5.0/W | 7 | Fair | M | Fair | Moderate to high bud sparsity, no clear deviation in branching pattern. Unknown cause. Major deadwood in crown. | $\square^{-}$ | Remove | 20+ | B2 | 5.88m |
| IT71 | Ash (Fraxinus excelsior) | 16 | 480 | 5 | 5 | 6 | 5 | 9.0/E | 4 | Fair | EM | Good | Dominant. Minor crown sparsity. | - | - | 20+ | B2 | 5.76 m |
| IT72 | Hawthorn (Crataegus monogyna) | 8 | 290 | 4 | 3 | 2 | 4 | 2.0/W | 3 | Good | M | Good | Codominant within understory. Dead stem hung up in crown. <br> Significant for species. | - | Remove | 20+ | B1 | 3.48 m |
| IT73 | Hawthorn (Crataegus monogyna) | 5 | 250 | 1 | 3 | 3 | 1 | 2.0/E | 0 | Good | SM | Good |  | - | - | 20+ | B2 | 3 m |
| IT74 | Ash (Fraxinus excelsior) | 14 | 490 | 7 | 2 | 2 | 5 | 3.0/SW | 3 | Good | EM | Good | Codominant. Bud density normal. | - | Remove | 20+ | B2 | 5.88m |


| Tree ID | Species | Estimated Height | Stem Diameter (mm) | Canopy $N$ | $\begin{gathered} \text { Canopy } \\ \mathrm{S} \end{gathered}$ | Canopy E | Canopy w | First Significant Branch | Canopy Clearance | Physiological Condition | Age | Structural Condition | Condition Comments | Preliminary Management Comments | Tree works to facilitate the Project | Estimated Remaining Contribution in Years | Category | Root Protection Area Radius (m) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| IT75 | Common Oak (Quercus robur) | 11 | 370 | 4 | 5 | 4 | 4 | 3.0/SW | 0 | Good | SM | Good | Subdominant. Large longitudinal stem wound to south $0.7-4 \mathrm{~m}$. Good wound wood development. | - | - | 20+ | B2 | 4.44m |
| IT76 | Sessile Oak (Quercus petraea) | 15 | 420 | 5 | 3 | 8 | 3 | 4.5/S | 10 | Good | EM | Good | Dominant. Major deadwood in crown. | - | Remove | 40+ | A2 | 5.04 m |
| IT77 | Ash (Fraxinus excelsior) | 16 | 430 | 3 | 5 | 6 | 5 | 6.5/S | 4 | Fair | EM | Poor | Codominant. Multiple stem wounds to north with large cavity at 5 m . Significant internal decay visible. Low traffic area. | - | - | <10 | U2 | 5.16 m |
| IT78 | Sessile Oak (Quercus petraea) | 15 | 400 | 4 | 4 | 1 | 4 | 2.0/N | 5 | Poor | EM | Fair | Codominant. Significant crown dieback - high bud sparsity with significant deviation in branching pattern. | - | Remove | <10 | U1 | 4.8 m |
| IG79 | Hawthorn (Crataegus monogyna) | 6 | <100\# | 3 | 3 | 3 | 3 | n/a | 0 | Good | Y-SM | Good |  | - | - | 10+ | C2 | 1.2 m |
| IG80 | Sessile Oak (Quercus petraea), Ha wthorn (Crataegus monogyna), Elder (Sambucus nigra) | 10 | 300 | 6 | 6 | 6 | 6 | n/a | 1 | Good | Y-SM | Good | Largely homogenous group - co to sub dominant. | - | Part remove as per TPP | 20+ | B2 | 3.6 m |
| 1781 | Ash (Fraxinus excelsior) | 17 | 490 | 5 | 6 | 6 | 6 | 6.0/SE | 5 | Good | EM | Good | Dominant. | - | - | 20+ | B1,2 | 5.88m |


| Tree ID | Species | Estimated Height | Stem Diameter (mm) | Canopy N | Canopy S | Canopy $E$ | Canopy W | First Significant Branch | Canopy Clearance | Physiological Condition | Age | Structural Condition | Condition Comments | Preliminary Management Comments | Tree works to facilitate the Project | Estimated Remaining Contribution in Years | Category | Root Protection Area Radius (m) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| IT82 | Ash (Fraxinus excelsior) | 17 | 470 | 5 | 6 | 6 | 5 | 7.0/E | 5 | Good | EM | Good | Dominant. | - | Remove | 20+ | B1,2 | 5.64m |
| IT83 | Sessile Oak (Quercus petraea) | 14 | 370 | 3 | 6 | 6 | 6 | 2.0/SE | 2 | Good | EM | Good | Codominant. | - | Remove | 20+ | B2 | 4.44m |
| IT84 | Common Oak (Quercus robur) | 17 | 460 | 5 | 6 | 6 | 5 | 5.0/NW | 5 | Good | EM | Good | Codominant. | - | Localised crown lifting to 5 m over the Project. | 20+ | B2 | 5.52m |
| IT85 | Common Oak (Quercus robur) | 17 | 420 | 6 | 5 | 7 | 5 | 7.0/N | 5 | Good | EM | Good | Codominant. | - | - | 20+ | B2 | 5.04m |
| IT86 | Sessile Oak (Quercus petraea) | 12 | 380 | 1 | 6 | 1 | 6 | 2.0/S | 5 | Good | SM | Fair | Codominant. | - | Remove | 20+ | B2 | 4.56 m |
| 1787 | Sessile Oak (Quercus petraea) | 12 | 440 | 7 | 5 | 1 | 6 | 2.0/N | 5 | Good | EM | Good | Codominant. | - | Remove | 20+ | B1,2 | 5.28 m |
| IG88 | Hawthorn (Crataegus monogyna), Common Oak (Quercus robur),Ash (Fraxinus excelsior) | 17 | <450 | 5 | 5 | 5 | 5 | n/a | 0 | Good - Fair | SM- <br> EM | Good - Fair | Codominant/sub dominant group. | - | Part remove as per TPP | 20+ | B1,2 | 5.4 m |
| IG89 | Hawthorn (Crataegus monogyna), Common Oak (Quercus robur) | 17 | <420 | 5 | 5 | 5 | 5 | n/a | 0 | Good - Fair | SM- <br> EM | Good - Fair | Codominant/sub dominant group. | - | Remove | 20+ | B1,2 | 5.04m |
| IT90 | Sessile Oak (Quercus petraea) | 13 | 590 | 2 | 8 | 8 | 8 | 3.0/W | 4 | Good | M | Good | Dominant. Major deadwood in crown. | - | Remove | 40+ | A2 | 7.08m |


| Tree ID | Species | Estimated Height | Stem Diameter (mm) | Canopy $\mathrm{N}$ | Canopy S | Canopy $E$ | Canopy w | First Significant Branch | Canopy Clearance | Physiological Condition | Age | Structural Condition | Condition Comments | Preliminary Management Comments | Tree works to facilitate the Project | Estimated Remaining Contribution in Years | Category | Root Protection Area Radius (m) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| IT91 | Common Oak (Quercus robur) | 16 | 390 | 5 | 4 | 6 | 4 | 5.0/E | 9 | Good | EM | Good | Codominant | - | Remove | 20+ | B2 | 4.68m |
| IT92 | Ash (Fraxinus excelsior) | 18 | 510 | 6 | 6 | 6 | 7 | 7.0/W | 6 | Good | EM | Good | Dominant | - | - | 20+ | B1,2 | 6.12 m |
| IT93 | Sessile Oak (Quercus petraea) | 13 | 540 | 5 | 7 | 7 | 7 | 3.0/SE | 3 | Good | M | Good | Dominant. | - | Remove | 40+ | A2 | 6.48m |
| IT94 | Common Oak (Quercus robur) | 17 | 510 | 5 | 7 | 8 | 3 | 7.0/S | 4 | Good | EM | Good | Codominant. Lean east. | - | - | 20+ | B2 | 6.12 m |
| IT95 | Common Oak (Quercus robur) | 15 | 530 | 5 | 5 | 5 | 3 | 8.0/S | 6 | Good | EM | Good | Codominant. | - | - | 20+ | B2 | 6.36 m |
| IT96 | Sessile Oak (Quercus petraea) | 14 | 390 | 5 | 1 | 5 | 6 | 4.0/NW | 8 | Good | EM | Good | Codominant. | - | Remove | 20+ | B2 | 4.68m |
| IT97 | Sessile Oak (Quercus petraea) | 10 | 460 | 6 | 6 | 6 | 6 | 4.0/E | 4 | Good | EM | Good | Dominant. Squat height - local competition of scrub. | - | Remove | 20+ | B1,2 | 5.52 m |
| IT98 | Ash (Fraxinus excelsior) | 16 | 530 | 6 | 6 | 7 | 5 | 5.0/E | 5 | Good | EM | Fair | Dominant. Ivy covered. Black remnant fruiting body 1 m to west of base. Likely Inonotus hispidus that has fallen off. Ivy obstructing visibility but likely to be from stem wound to west at 5 m . Low traffic area. | - | - | 10+ | C1,2 | 6.36 m |


| $\begin{aligned} & \text { Tree } \\ & \text { ID } \end{aligned}$ | Species | Estimated Height | Stem Diameter (mm) | Canopy N | Canopy S | Canopy E | Canopy W | First Significant Branch | Canopy Clearance | Physiological Condition | Age | Structural Condition | Condition Comments | Preliminary Management Comments | Tree works to facilitate the Project | Estimated Remaining Contribution in Years | Category | Root Protection Area Radius (m) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| IT99 | Ash (Fraxinus excelsior) | 16 | 520 | 4 | 4 | 6 | 2 | 8.0/E | 8 | Good | EM | Poor | Codominant. Large longitudinal stem wound/cavity 08m. Significant internal stem decay. Not considered mature due to size. | - | Remove | 20+ | B2,3 | 6.24 m |
| IT100 | Sessile Oak (Quercus petraea) | 14 | 320,320 | 5 | 5 | 5 | 5 | 5.0/NE | 5 | Good | SM | Fair | Locally dominant. | - | Remove | 20+ | B2 | 5.43 m |
| IT101 | Ash (Fraxinus excelsior) | 12 | 500 | 5 | 5 | 6 | 4 | 5.0/W | 5 | Good | EM | Poor | Codominant. <br> Large longitudinal stem wound/cavity 0 3 m . Not considered mature due to size. | - | Remove | 40+ | A3 | 6 m |
| IT102 | Common Oak (Quercus robur) | 13 | 380 | 1 | 7 | 7 | 3 | 4.0/E | 3 | Good | EM | Good | Codominant. | - | Remove | 20+ | B2 | 4.56 m |
| IT103 | Ash (Fraxinus excelsior) | 17 | 460 | 2 | 7 | 5 | 5 | 5.0/S | 7 | Good | EM | Fair | Cavity to west at 1m. Extends 0.3 m in, 0.7 m down, and 0.4 m up. Internal decay visible. Several other stem/branch wounds in crown. Not considered mature due to size. | - | Remove | 20+ | B2 | 5.52 m |
| IT104 | Sessile Oak (Quercus petraea) | 10 | 510 | 3 | 3 | 3 | 3 | 2.0/W | 4 | Good | EM | Good | Dominant at scrub edge. | - | - | 20+ | B1,2 | 6.12 m |


| Tree ID | Species | Estimated Height | Stem Diameter (mm) | Canopy N | Canopy S | Canopy | Canopy W | First Significant Branch | Canopy Clearance | Physiological Condition | Age | Structural Condition | Condition Comments | Preliminary Management Comments | Tree works to facilitate the Project | Estimated Remaining Contribution in Years | Category | Root Protection Area Radius (m) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| IT105 | Sessile Oak (Quercus petraea) | 12 | 450 | 4 | 4 | 5 | 3 | 1.0/S | 1 | Good | EM | Good | Dominant. | - | Remove | 40+ | A2 | 5.4 m |
| IG106 | Hawthorn (Crataegus monogyna), Common Oak (Quercus robur),Ash (Fraxinus excelsior) | 16 | <450 | 4 | 4 | 4 | 4 | n/a | 0 | Good - Fair | SM- <br> EM | Good - Fair | Codominant/sub dominant group. | - | Part remove as per TPP | 20+ | B2 | 5.4 m |
| IT107 | Ash (Fraxinus excelsior) | 16 | 450 | 4 | 6 | 6 | 4 | 6.0/S | 2 | Good | EM | Good | Dominant. | - | - | 20+ | B2 | 5.4 m |
| IT108 | Sessile Oak (Quercus petraea) | 12 | 350,380 | 6 | 4 | 5 | 6 | 1.5/NW | 2 | Good | EM | Good | Locally dominant. | - | Remove | 40+ | A2 | 6.2 m |
| IT109 | Common Oak (Quercus robur) | 16 | 470 | 3 | 5 | 6 | 6 | 6.0/S | 5 | Good | EM | Good | Codominant. Lean west. | - | - | 20+ | B2 | 5.64m |
| IT110 | Ash (Fraxinus excelsior) | 18 | 530 | 5 | 6 | 6 | 7 | 8.0/S | 5 | Good | EM | Fair | Dominant. Minor crown sparsity. Large stem wound at base to south east. Sound tested with localised abnormalities in wood density around wound. Low traffic area | - | - | 20+ | B2 | 6.36 m |
| IT111 | Common Oak (Quercus robur) | 12 | 470 | 7 | 7 | 1 | 7 | 2.0/N | 2 | Good | EM | Good | Codominant. | - | Remove | 20+ | B1,2 | 5.64 m |
| IT112 | Ash (Fraxinus excelsior) | 15 | 480 | 8 | 2 | 8 | 8 | 3.0/E | 10 | Fair | EM | Good | Codominant. Moderate crown gaps and bud sparsity. | - | Remove | 20+ | B2 | 5.76 m |


| $\begin{aligned} & \text { Tree } \\ & \text { ID } \end{aligned}$ | Species | Estimated Height | Stem Diameter (mm) | Canopy N | Canopy S | Canopy $E$ | Canopy W | First Significant Branch | Canopy Clearance | Physiological Condition | Age | Structural Condition | Condition Comments | Preliminary Management Comments | Tree works to facilitate the Project | Estimated Remaining Contribution in Years | Category | Root Protection Area Radius (m) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| IT113 | Hawthorn (Crataegus monogyna) | 6 | 170\# | 3 | 4 | 3 | 3 | 1.0/E | 1 | Good | EM | Good | Adjacent to ditch. Lean south east. | - | - | 20+ | B2 | 2.04 m |
| IT114 | Ash (Fraxinus excelsior) | 15 | 560 | 4 | 8 | 8 | 5 | 2.5/E | 5 | Fair | M | Good | Dominant. Moderate crown gaps and bud density. | - | Remove | 20+ | B1,2 | 6.72m |
| IT115 | Ash (Fraxinus excelsior) | 18 | 500 | 5 | 6 | 5 | 5 | 5.0/E | 9 | Good | EM | Good | Dominant. | - | Remove | 20+ | B2 | 6 m |
| IT116 | Common Oak (Quercus robur) | 13 | 490 | 6 | 6 | 6 | 6 | 2.5/NE | 6 | Good | EM | Good | Dominant. Major deadwood in crown. | - | Remove | 40+ | A2 | 5.88m |
| IT117 | Ash (Fraxinus excelsior) | 18 | 570 | 3 | 7 | 6 | 4 | 7.0/S | 5 | Fair | M | Good | Dominant. <br> Moderate sparsity of western crown. Previous dieback of northern stem. Numerous cankers on lower stem. | - | - | 20+ | B2 | 6.84 m |
| IT118 | Common Oak (Quercus robur) | 10 | 490 | 5 | 3 | 4 | 4 | 2.0/S | 4 | Good | EM | Good | Codominant. | - | Remove | 20+ | B2 | 5.88m |
| IT119 | Ash (Fraxinus excelsior) | 18 | 550 | 6 | 7 | 6 | 4 | 6.0/NW | 10 | Fair | EM | Good | Dominant. | - | Remove | 20+ | B2 | 6.6 m |
| IT120 | Ash (Fraxinus excelsior) | 15 | 470 | 8 | 2 | 4 | 2 | 5.0/W | 6 | Fair | EM | Good | Codominant. | - | Remove | 20+ | B2 | 5.64 m |
| IT121 | Ash (Fraxinus excelsior) | 16 | 410 | 5 | 3 | 3 | 7 | 5.0/NW | 7 | Good | EM | Fair | Codominant. <br> Large longitudinal stem wound to east 2 3.5m. Extends approximately 0.3 m into stem. Good wound | - | Remove | 20+ | B2 | 4.92 m |


| Tree ID | Species | Estimated Height | Stem Diameter (mm) | Canopy N | $\begin{gathered} \text { Canopy } \\ \mathrm{S} \end{gathered}$ | Canopy $E$ | Canopy w | First Significant Branch | Canopy Clearance | Physiological Condition | Age | Structural Condition | Condition Comments | Preliminary Management Comments | Tree works to facilitate the Project | Estimated Remaining Contribution in Years | Category | Root Protection Area Radius (m) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |  |  |  |  |  | wood development. |  |  |  |  |  |
| IT122 | Common Oak (Quercus robur) | 11 | 460 | 6 | 5 | 6 | 6 | 4.0/N | 7 | Fair | M | Good | Locally dominant. Moderate bud sparsity. | - | Remove | 20+ | B2 | 5.52 m |
| IT123 | Ash (Fraxinus excelsior) | 17 | 490 | 4 | 7 | 5 | 6 | 7.0/N | 4 | Good | EM | Good | Dominant. | - | Localised crown lifting to 5 m over the Project. Localised crown reduction to provide a 2 m clearance from the security fence. | 20+ | B2 | 5.88m |
| IT124 | Ash (Fraxinus excelsior) | 17 | 510 | 5 | 6 | 6 | 6 | 8.0/S | 9 | Good | EM | Good | Dominant. | - | - | 20+ | B1,2 | 6.12 m |
| IT125 | Ash (Fraxinus excelsior) | 18 | 510 | 5 | 7 | 6 | 7 | 5.0/W | 10 | Good | EM | Good | Codominant. | - | Remove | 20+ | B2 | 6.12 m |
| IT126 | Ash (Fraxinus excelsior) | 14 | 390 | 6 | 1 | 2 | 4 | 5.0/W | 8 | Fair | EM | Good | Codominant. | - | Remove | 20+ | B2 | 4.68 m |
| IT127 | Ash (Fraxinus excelsior) | 17 | 440 | 3 | 7 | 6 | 4 | 5.0/E | 5 | Fair | EM | Good | Codominant. Moderate dieback of northern and western crown. Likely to be Ash dieback. Low traffic area. | - | - | 10+ | C2 | 5.28 m |
| IT128 | Common Oak (Quercus robur) | 11 | 420 | 7 | 7 | 7 | 7 | 3.0/NW | 4 | Good | EM | Good | Dominant. | - | Remove | 20+ | B1,2 | 5.04 m |
| IT129 | Sessile Oak (Quercus petraea) | 9 | 350 | 4 | 4 | 4 | 4 | 2.0/N | 4 | Good | SM | Good | Locally dominant. | - | Remove | 20+ | B2 | 4.2 m |


| Tree ID | Species | Estimated Height | Stem Diameter (mm) | Canopy N | $\begin{aligned} & \text { Canopy } \\ & \mathrm{S} \end{aligned}$ | Canopy E | Canopy W | First Significant Branch | Canopy Clearance | Physiological Condition | Age | Structural Condition | Condition Comments | Preliminary Management Comments | Tree works to facilitate the Project | Estimated Remaining Contribution in Years | Category | Root Protection Area Radius (m) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| IT130 | Ash (Fraxinus excelsior) | 16 | 440 | 3 | 5 | 5 | 2 | 5.0/NE | 6 | Good | EM | Fair | Codominant. Large longitudinal stem wound to southeast 2-4m. Good wound wood development. Visible extensive internal decay. Low traffic area. | - | - | 10+ | C2 | 5.28 m |
| IT131 | Ash (Fraxinus excelsior) | 8 | 490 | 5 | 5 | 5 | 5 | 4.0/N | 5 | Fair | EM | Good | Codominant. Squat height for species. Burring across stem. | - | Remove | 20+ | B1,2 | 5.88m |
| IT132 | Ash (Fraxinus excelsior) | 17 | 470 | 5 | 6 | 6 | 5 | 5.0/NE | 5 | Poor | EM | Good | Codominant. <br> Significant dieback of southern crown. <br> Large <br> deadwood. <br> Remaining crown with minor sparsity. Northern stem with large Iongitudinal wound $2-4 \mathrm{~m}$. Moderate wound wood development. | - | - | 10+ | C2 | 5.64 m |
| IT133 | Ash (Fraxinus excelsior) | 14 | 540 | 6 | 6 | 6 | 6 | 6.0/NE | 5 | Fair | EM | Good | Dominant. Moderate crown sparsity. | - | Remove | $20+$ | B1,2 | 6.48 m |
| IT134 | Common Oak (Quercus robur) | 15 | 480\# | 6 | 6 | 6 | 6 | 5.0/W | 2 | Good | EM | Good |  | - | - | 20+ | B1,2 | 5.76 m |
| IG135 | Hawthorn (Crataegus monogyna), Common Oak Quercus | 16 | <450 | 4 | 4 | 4 | 4 | n/a | 0 | Good - Fair | SM- <br> EM | Good - Fair | Codominant/sub dominant group. | - | Part remove as per TPP | $20+$ | B2 | 5.4 m |


| $\begin{aligned} & \text { Tree } \\ & \text { ID } \end{aligned}$ | Species | Estimated Height | Stem Diameter (mm) | Canopy N | Canopy S | Canopy $E$ | Canopy W | First Significant Branch | Canopy Clearance | Physiological Condition | Age | Structural Condition | Condition Comments | Preliminary Management Comments | Tree works to facilitate the Project | Estimated Remaining Contribution in Years | Category | Root Protection Area Radius (m) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | robur),Ash (Fraxinus excelsior) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| IT136 | Hawthorn (Crataegus monogyna) | 4 | 120\# | 2 | 2 | 2 | 2 | n/a | 0 | Good | SM | Good | Now access to base. | - | - | 10+ | C2 | 1.44 m |
| IT137 | Hawthorn (Crataegus monogyna) | 4 | 100\# | 2 | 2 | 2 | 2 | n/a | 0 | Good | SM | Good | Now access to base. | - | - | 10+ | C2 | 1.2 m |
| IT138 | Common Oak (Quercus robur) | 14 | 370 | 0 | 0 | 0 | 0 | 4.0/W | 4 | Good | EM | Good | Codominant. | - | Remove | 20+ | B2 | 4.44 m |
| IT139 | Ash (Fraxinus excelsior) | 11 | 370 | 0 | 0 | 0 | 0 | 5.0/N | 4 | Good | SM | Fair | Codominant. Minor basal cavity north. Adaptive swelling, good woundwood. | - | Remove | 20+ | B2 | 4.44 m |
| IT140 | Common Oak (Quercus robur) | 11 | 430 | 0 | 0 | 0 | 0 | 3.5/N | 2 | Good | EM | Good | Codominant. <br> Minor stem wound west at circa 1.2 m , good adaptive growth, partially occluded. | - | Remove | 20+ | B2 | 5.16 m |
| IT141 | Ash (Fraxinus excelsior) | 14 | 460 | 0 | 0 | 0 | 0 | 2.0/E | 3 | Good | EM | Fair | Codominant. <br> Previous failure of main stem at 4 m . Large wound present with black staining. Moderate wound wood development. Black fruiting body on ground next to tree, likely to be associated with wound. Likely Inonotus | - | Remove | 10+ | C2 | 5.52 m |


| Tree ID | Species | Estimated Height | Stem Diameter (mm) | Canopy $\mathrm{N}$ | Canopy S | Canopy E | Canopy w | First Significant Branch | Canopy Clearance | Physiological Condition | Age | Structural Condition | Condition Comments | Preliminary Management Comments | Tree works to facilitate the Project | Estimated Remaining Contribution in Years | Category | Root Protection Area Radius (m) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |  |  |  |  |  | hispidus. Low traffic area |  |  |  |  |  |
| IT142 | Ash (Fraxinus excelsior) | 14 | 380 | 0 | 0 | 0 | 0 | 7.0/S | 8 | Fair | EM | Fair | Codominant. Several limb failure 2ounds in crown. Animal hole to west at 6 m . Minor crown sparsity. Low traffic area. | - | Remove | 10+ | C2 | 4.56m |
| IT143 | Common Oak (Quercus robur) | 8 | 340 | 0 | 0 | 0 | 0 | 1.0/S | 2 | Good | SM | Fair | Dominant. Stem north dead. Stem south likely functional unit, full crown formation. Deadwood habitat. | - | Remove | 20+ | B2,3 | 4.08m |
| IT144 | Hawthorn (Crataegus monogyna) | 8 | 290 | 0 | 0 | 0 | 0 | 1.5/W | 3 | Good | SM | Good | Codominant. Significant for species. | - | Remove | 20+ | B2 | 3.48 m |
| IT145 | Common Oak (Quercus robur) | 10 | 340 | 0 | 0 | 0 | 0 | 5.0/S | 2 | Good | SM | Good | Codominant. | - | Remove | 20+ | B2 | 4.08m |
| IT146 | Ash (Fraxinus excelsior) | 14 | 400 | 0 | 0 | 0 | 0 | 6.0/NW | 4 | Good | EM | Fair | Codominant. Several limb failure wounds in crown. Animal hole to east at 5 m . Low traffic area. | - | Remove | 10+ | C2 | 4.8m |
| IT147 | Common Oak (Quercus robur) | 10 | 290 | 0 | 0 | 0 | 0 | 5.0/E | 7 | Good | SM | Good | Codominant. | - | Remove | 20+ | B2 | 3.48 m |
| IT148 | Hawthorn (Crataegus monogyna) | 8 | 170 | 0 | 0 | 0 | 0 | 3.0/S | 3 | Good | SM | Good | Subdominant. Several small stem wounds. | - | Remove | 10+ | C2 | 2.04 m |


| Tree ID | Species | Estimated Height | Stem Diameter (mm) | Canopy $N$ | $\begin{gathered} \text { Canopy } \\ S \end{gathered}$ | Canopy $E$ | Canopy W | First Significant Branch | Canopy Clearance | Physiological Condition | Age | Structural Condition | Condition Comments | Preliminary Management Comments | Tree works to facilitate the Project | Estimated Remaining Contribution in Years | Category | Root Protection Area Radius (m) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| IT149 | Common Oak (Quercus robur) | 9 | 300 | 0 | 0 | 0 | 0 | 3.0/NW | 4 | Good | SM | Fair | Subdominant. | - | Remove | 20+ | B2 | 3.6 m |
| IT150 | Common Oak (Quercus robur) | 10 | 300 | 0 | 0 | 0 | 0 | 2.0/E | 3 | Good | SM | Good | Codominant. | - | Remove | 20+ | B2 | 3.6 m |
| IT151 | Common Oak (Quercus robur) | 14 | 400 | 0 | 0 | 0 | 0 | 9.0/W | 0 | Good | EM | Good | Codominant. | - | Remove | 20+ | B2 | 4.8 m |
| IT152 | Common Oak (Quercus robur) | 11 | 330 | 0 | 0 | 0 | 0 | 4.0/E | 9 | Good | SM | Good | Codominant. | - | Remove | 20+ | B1,2 | 3.96 m |
| IT153 | Common Oak (Quercus robur) | 15 | 410 | 0 | 0 | 0 | 0 | 6.0/N | 9 | Good | EM | Good | Codominant. | - | Remove | 20+ | B2 | 4.92m |
| IT154 | Hawthorn (Crataegus monogyna) | 11 | 240 | 0 | 0 | 0 | 0 | 4.0/E | 1 | Good | EM | Good | Subdominant. Previous failure of northern stem. 1 m stub remaining. | - | Remove | 10+ | C2 | 2.88 m |
| IT155 | Hawthorn (Crataegus monogyna) | 7 | 250 | 0 | 0 | 0 | 0 | 2.0/S | 5 | Good | SM | Good | Codominant. | - | Remove | 20+ | B2 | 3 m |
| IT156 | Hawthorn (Crataegus monogyna) | 6 | 170 | 0 | 0 | 0 | 0 | 2.0/N | 3 | Good | SM | Good | Codominant. Use smaller topo crown. | - | Remove | 10+ | C1,2 | 2.04 m |
| IT157 | Hawthorn (Crataegus monogyna) | 13 | 240 | 0 | 0 | 0 | 0 | 4.0/N | 7 | Good | EM | Good | Subdominant. | - | Remove | 20+ | B2 | 2.88 m |
| IT158 | Hawthorn (Crataegus monogyna) | 4 | 90 | 0 | 0 | 0 | 0 | 0.5/E | 2 | Good | Y | Good | Subdominant. Use smaller topo crown. | - | Remove | 10+ | C2 | 1.08 m |


| $\begin{aligned} & \text { Tree } \\ & \text { ID } \end{aligned}$ | Species | Estimated Height | Stem Diameter (mm) | Canopy N | Canopy S | Canopy E | Canopy W | First Significant Branch | Canopy Clearance | Physiological Condition | Age | Structural Condition | Condition Comments | Preliminary Management Comments | Tree works to facilitate the Project | Estimated Remaining Contribution in Years | Category | Root Protection Area Radius (m) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| IT159 | Hawthorn (Crataegus monogyna) | 4 | 140 | 0 | 0 | 0 | 0 | 2.0/SW | 2 | Good | Y | Good | Subdominant. | - | Remove | 10+ | C2 | 1.68m |
| IT160 | Hawthorn (Crataegus monogyna) | 6 | 120 | 2 | 2 | 2 | 2 | 0.2/SE | 1 | Fair | SM | Fair | Subdominant. Significant crown dieback. Low traffic area. | - | Remove | 10+ | C2 | 1.44m |
| IT161 | Hawthorn (Crataegus monogyna) | 5 | 170 | 0 | 0 | 0 | 0 | 2.0/W | 2 | Good | Y | Poor | Subdominant. <br> Stem cavity, likely from previous loss of apical leader. | - | Remove | 10+ | C2 | 2.04 m |
| IT162 | Hawthorn (Crataegus monogyna) | 6 | 100\# | 0 | 0 | 0 | 0 | n/a | 1 | Dead | SM | Dead | Dead tree. Low traffic area. | - | Remove | <10 | U2 | 1.2 m |
| IT163 | Hawthorn (Crataegus monogyna) | 5 | 160 | 0 | 0 | 0 | 0 | 3.0/W | 4 | Dead | Y | Poor | Dead. | - | Remove | <10 | U2 | 1.92 m |
| IT164 | Hawthorn (Crataegus monogyna) | 8 | 170 | 0 | 6 | 2 | 2 | 3.0/S | 4 | Good | SM | Good | Subdominant. Lean south. | - | Remove | 20+ | B2 | 2.04 m |
| IT165 | Hawthorn (Crataegus monogyna) | 8 | 200 | 1 | 1 | 1 | 1 | n/a | 0 | Dead | SM | Dead | Dead tree. Low traffic area. | - | Remove | <10 | U2 | 2.4 m |
| IT166 | Hawthorn (Crataegus monogyna) | 5 | 150 | 0 | 0 | 0 | 0 | 4.0/NW | 4 | Fair | Y | Fair | suppressed | - | Remove | 10+ | C2 | 1.8 m |
| IT167 | Hawthorn (Crataegus monogyna) | 5 | 170 | 0 | 0 | 0 | 0 | 3.0/E | 3 | Good | Y | Good | Subdominant. | - | Remove | 10+ | C2 | 2.04m |
| IT168 | Hawthorn (Crataegus monogyna) | 9 | 250 | 0 | 0 | 0 | 0 | 5.0/N | 5 | Good | SM | Good | Subdominant. | - | Remove | 20+ | B2 | 3 m |
| IT169 | Hawthorn (Crataegus monogyna) | 9 | 210 | 0 | 0 | 0 | 0 | 6.0/N | 5 | Good | SM | Good | Subdominant. | - | Remove | 20+ | B2 | 2.52 m |


| $\begin{aligned} & \text { Tree } \\ & \text { ID } \end{aligned}$ | Species | Estimated Height | Stem Diameter (mm) | Canopy N | Canopy S | Canopy E | Canopy W | First Significant Branch | Canopy Clearance | Physiological Condition | Age | Structural Condition | Condition Comments | Preliminary Management Comments | Tree works to facilitate the Project | Estimated Remaining Contribution in Years | Category | Root Protection Area Radius (m) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| IT170 | Hawthorn (Crataegus monogyna) | 4 | 110 | 0 | 0 | 0 | 0 | 2.0/NW | 2 | Fair | Y | Poor | suppressed Significant lean north. | - | Remove | 10+ | C2 | 1.32 m |
| IT171 | Hawthorn (Crataegus monogyna) | 9 | 180 | 0 | 0 | 0 | 0 | 3.0/S | 3 | Fair | SM | Good | Subdominant. Moderate dieback of lower Western crown. Low traffic area. | - | Remove | 10+ | C2 | 2.16 m |
| IT172 | Hawthorn (Crataegus monogyna) | 4 | 120 | 0 | 0 | 0 | 0 | 1.5/SE | 1 | Good | Y | Fair | Subdominant. Significant lean north. | - | Remove | 10+ | C1,2 | 1.44 m |
| IT173 | Hawthorn (Crataegus monogyna) | 9 | 160 | 0 | 0 | 0 | 0 | 5.0/E | 4 | Good | SM | Good | Subdominant. | - | Remove | 20+ | B2 | 1.92 m |
| IT174 | Hawthorn (Crataegus monogyna) | 5 | 170 | 0 | 0 | 0 | 0 | 2.0/W | 3 | Good | Y | Good | Subdominant. | - | Remove | 10+ | C1,2 | 2.04 m |
| IT175 | Hawthorn (Crataegus monogyna) | 6 | 140 | 0 | 0 | 0 | 0 | 1.5/S | 0 | Good | SM | Good | Subdominant. | - | Remove | 10+ | C2 | 1.68 m |
| IT176 | Ash <br> (Fraxinus excelsior) | 6 | 110 | 0 | 0 | 0 | 0 | 1.5/SW | 2 | Good | Y | Good | Codominant. | - | Remove | 10+ | C1,2 | 1.32 m |
| IT177 | Hawthorn (Crataegus monogyna) | 9 | 260 | 0 | 0 | 0 | 0 | 1.6/S | 5 | Good | SM | Good | Codominant. | - | Remove | 20+ | B2 | 3.12 m |
| IT178 | Hawthorn (Crataegus monogyna) | 5 | 160 | 0 | 0 | 0 | 0 | 1.0/N | 1 | Good | Y | Poor | Suppressed. Stem parallel with ground 1.5 m above ground level. | - | Remove | 10+ | C2 | 1.92 m |
| IT179 | Hawthorn (Crataegus monogyna) | 7 | 140 | 0 | 0 | 0 | 0 | 3.0/W | 2 | Good | SM | Good | Subdominant. | - | Remove | 10+ | C2 | 1.68 m |
| IT180 | Hawthorn (Crataegus monogyna) | 4 | 80 | 0 | 0 | 0 | 0 | 3.0/N | 3 | Good | Y | Good | Suppressed. | - | Remove | 10+ | C2 | 0.96m |


| Tree ID | Species | Estimated Height | Stem Diameter (mm) | Canopy $N$ | $\begin{gathered} \text { Canopy } \\ S \end{gathered}$ | Canopy E | Canopy w | First Significant Branch | Canopy Clearance | Physiological Condition | Age | Structural Condition | Condition Comments | Preliminary Management Comments | Tree works to facilitate the Project | Estimated Remaining Contribution in Years | Category | Root Protection Area Radius (m) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| IT181 | Hawthorn (Crataegus monogyna) | 4 | 100 | 0 | 0 | 0 | 0 | 2.0/S | 3 | Good | Y | Good | Suppressed. | - | Remove | 10+ | C2 | 1.2 m |
| IT182 | Ash (Fraxinus excelsior) | 15 | 410 | 0 | 0 | 0 | 0 | 8.0/W | 7 | Fair | EM | Good | Codominant. Minor sparsity of northern crown. | - | Remove | 20+ | B2 | 4.92m |
| IT183 | Common Oak (Quercus robur) | 6 | 170 | 0 | 0 | 0 | 0 | 2.0/W | 2 | Fair | Y | Fair | Suppressed. | - | Remove | 10+ | C1,2 | 2.04 m |
| IT184 | Hawthorn (Crataegus monogyna) | 8 | 200 | 0 | 0 | 0 | 0 | 2.0/W | 3 | Dead | Y | Poor | Suppressed. | - | Remove | <10 | U1 | 2.4 m |
| IT185 | Common Oak (Quercus robur) | 15 | 420 | 0 | 0 | 0 | 0 | 5.0/N | 2 | Good | EM | Good | Codominant. | - | Remove | 20+ | B2 | 5.04 m |
| IT186 | Hawthorn (Crataegus monogyna) | 8 | 270 | 0 | 0 | 0 | 0 | 2.0/SE | 2 | Good | EM | Good | Locally dominant. | - | Remove | 20+ | B2 | 3.24m |
| IT187 | Hawthorn (Crataegus monogyna) | 9 | 250 | 4 | 0 | 7 | 0 | 1.6/S | 2 | Good | SM | Poor | Subdominant. Heavy lean to northeast, appear to have partially uprooted with minimal corrective growth. Low traffic area. | - | Remove | 10+ | C2 | 3 m |
| IT188 | Hawthorn (Crataegus monogyna) | 6 | 160 | 0 | 0 | 0 | 0 | 2.0/W | 1 | Fair | SM | Good | Suppressed. | - | Remove | 10+ | C2 | 1.92 m |
| IT189 | Hawthorn (Crataegus monogyna) | 9 | 190 | 3 | 2 | 3 | 3 | 2.0/W | 1 | Good | SM | Good | Subdominant. | - | Remove | 20+ | B2 | 2.28 m |
| IT190 | Common Oak (Quercus robur) | 11 | 260 | 0 | 0 | 0 | 0 | 2.0/N | 6 | Fair | SM | Fair | Suppressed. Major deadwood in crown. | - | Remove | 20+ | B2 | 3.12 m |


| Tree ID | Species | Estimated Height | Stem Diameter (mm) | Canopy $N$ | $\begin{gathered} \text { Canopy } \\ S \end{gathered}$ | Canopy E | Canopy w | First Significant Branch | Canopy Clearance | Physiological Condition | Age | Structural Condition | Condition Comments | Preliminary Management Comments | Tree works to facilitate the Project | Estimated Remaining Contribution in Years | Category | Root Protection Area Radius (m) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| IT191 | Common Oak (Quercus robur) | 10 | 210 | 0 | 0 | 0 | 0 | 3.5/NE | 3 | Fair | SM | Fair | Suppressed. Basal wound south, good woundwood and adaptive growth, partially occluded. | - | Remove | 10+ | C2 | 2.52 m |
| IT192 | $\begin{aligned} & \text { Elm (Ulmus } \\ & s p) \end{aligned}$ | 9 | 210 | 0 | 0 | 0 | 0 | 4.0/W | 0 | Fair | EM | Fair | Suppressed. Large sections of dead bark on stem. Several limb failure wounds in crown. Low traffic area, | - | Remove | 10+ | C2 | 2.52 m |
| IT193 | Common Oak (Quercus robur) | 10 | 210 | 4 | 0.5 | 0.5 | 4 | 2.0/S | 9 | Fair | SM | Fair | Suppressed. | - | Remove | 10+ | C2 | 2.52 m |
| IT194 | Common Oak (Quercus robur) | 10 | 240 | 0 | 0 | 0 | 0 | 5.0/NW | 5 | Fair | SM | Fair | Suppressed. | - | Remove | 20+ | B2 | 2.88 m |
| IT195 | Common Oak (Quercus robur) | 13 | 330 | 0 | 0 | 0 | 0 | 6.0/W | 2 | Good | EM | Good | Subdominant. | - | Remove | 20+ | B2 | 3.96 m |
| IT196 | Common Oak (Quercus robur) | 10 | 170 | 0 | 0 | 0 | 0 | 6.0/W | 7 | Fair | SM | Fair | Suppressed. | - | Remove | 10+ | C1,2 | 2.04 m |
| IT197 | Common Oak (Quercus robur) | 13 | 330 | 0 | 0 | 0 | 0 | 5.0/W | 0 | Good | EM | Good | Codominant. | - | Remove | 20+ | B2 | 3.96 m |
| IT198 | Common Oak (Quercus robur) | 13 | 380 | 6 | 1 | 2 | 4 | 3.0/E | 4 | Good | SM | Good | Codominant. | - | Remove | 20+ | B1,2 | 4.56 m |


| Tree | Species | Estimated Height | Stem <br> Diameter (mm) | Canopy N | Canopy s | Canopy E | Canopy w | First Significant Branch | Canopy Clearance | Physiological Condition | Age | Structural Condition | Condition Comments | Preliminary Management Comments | Tree works to facilitate the Project | Estimated Remaining Contribution in Years | Category | Root Protection Area Radius (m) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| IT199 | Common Oak (Quercus robur) | 10 | 350 | 0 | 0 | 0 | 0 | 2.5/NE | 5 | Good | SM | Fair | Codominant. | - | Remove | 20+ | B2 | 4.2 m |
| IT200 | Hawthorn (Crataegus monogyna) | 8 | 190 | 0 | 0 | 0 | 0 | 4.0/E | 4 | Fair | EM | Poor | Suppressed. Large stem wound to south 0-1.3m. Low traffic area. | - | Remove | <10 | U2 | 2.28 m |
| IT201 | Ash (Fraxinus excelsior) | 11 | 350 | 0 | 0 | 0 | 0 | 7.0/SW | 9 | Poor | SM | Fair | Codominant becoming suppressed. High crown sparsity. | - | Remove | 10+ | C2 | 4.2 m |
| IT202 | Ash (Fraxinus excelsior) | 17 | 350 | 0 | 0 | 0 | 0 | 8.0/N | 10 | Good | EM | Good | Codominant. Large limb wounds to west and east at 810m. Moderate wound wood development. Low traffic area. | - | Remove | 10+ | C2 | 4.2 m |
| IT203 | Elm (Ulmus sp) | 8 | 240 | 0 | 0 | 0 | 0 | n/a | 1 | Poor | SM | Poor | Suppressed. Large sections of dead bark on stem. Significant crown dieback. Low traffic area. | - | Remove | <10 | U2 | 2.88 m |
| IT204 | Common Oak (Quercus robur) | 10 | 270 | 0 | 0 | 0 | 0 | 5.0/SW | 6 | Good | SM | Good | Codominant. | - | Remove | 20+ | B2 | 3.24 m |
| IT205 | Hawthorn (Crataegus monogyna) | 6 | 100 | 0 | 0 | 0 | 0 | n/a | 1 | Good | Y | Fair | Suppressed. Basal wound to north with moderate wound wood development. | - | Remove | 10+ | C2 | 1.2 m |
| IT206 | Hawthorn (Crataegus monogyna) | 8 | 130 | 0 | 0 | 0 | 0 | 2.5/E | 3 | Good | SM | Good | Subdominant. | - | Remove | 10+ | C2 | 1.56 m |


| Tree ID | Species | Estimated Height | Stem Diameter (mm) | Canopy N | $\begin{gathered} \text { Canopy } \\ S \end{gathered}$ | Canopy E | Canopy w | First Significant Branch | Canopy Clearance | Physiological Condition | Age | Structural Condition | Condition Comments | Preliminary Management Comments | Tree works to facilitate the Project | Estimated Remaining Contribution in Years | Category | Root Protection Area Radius (m) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| IT207 | Ash (Fraxinus excelsior) | 14 | 360 | 0 | 0 | 0 | 0 | 3.0/W | 9 | Good | SM | Good | Codominant. High bud density. | - | Remove | 20+ | B1,2 | 4.32 m |
| IT208 | Hawthorn (Crataegus monogyna) | 10 | 250 | 0 | 0 | 0 | 0 | 2.0/N | 8 | Good | SM | Good | Subdominant. | - | Remove | 20+ | B2 | 3 m |
| IT209 | Common Oak (Quercus robur) | 11 | 210 | 4 | 2 | 0 | 7 | 7.0/E | 7 | Good | SM | Good | Subdominant. Lean west. | - | Remove | 20+ | B2 | 2.52m |
| IT210 | Common Oak (Quercus robur) | 15 | 440 | 0 | 0 | 0 | 0 | 6.0/SE | 10 | Good | SM | Good | Dominant. | - | Remove | 20+ | B1,2 | 5.28m |
| IT211 | Hawthorn (Crataegus monogyna) | 8 | 170 | 0 | 0 | 0 | 0 | 4.0/W | 1 | Good | SM | Good | Subdominant. | - | Remove | 20+ | B2 | 2.04 m |
| IT212 | Hawthorn (Crataegus monogyna) | 9 | 260 | 0 | 0 | 0 | 0 | 3.0/W | 0 | Good | SM | Poor | Subdominant. Lean south east. Visible root heave. Minimal adaptive growth. Low traffic area. | - | Remove | 10+ | C2 | 3.12 m |
| IT213 | Common Oak (Quercus robur) | 10 | 280 | 0 | 0 | 0 | 0 | 4.0/W | 7 | Poor | SM | Fair | Suppressed. Poor bud density. | - | Remove | 10+ | C1,2 | 3.36 m |
| IT214 | Ash (Fraxinus excelsior) | 14 | 340 | 0 | 0 | 0 | 0 | 9.0/E | 10 | Good | EM | Good | Codominant. | - | Remove | 20+ | B2 | 4.08m |
| IT215 | Common Oak (Quercus robur) | 10 | 240 | 0 | 0 | 0 | 0 | 6.0/N | 9 | Poor | SM | Fair | Suppressed. Poor bud density. | - | Remove | 10+ | C2 | 2.88 m |
| IT216 | Hawthorn (Crataegus monogyna) | 9 | 170 | 0 | 0 | 0 | 0 | 4.0/N | 7 | Good | SM | Good | Subdominant. | - | Remove | 20+ | B2 | 2.04 m |


| Tree ID | Species | Estimated Height | Stem Diameter (mm) | Canopy $N$ | $\begin{gathered} \text { Canopy } \\ S \end{gathered}$ | $\underset{E}{\text { Canopy }}$ | Canopy w | First Significant Branch | Canopy Clearance | Physiological Condition | Age | Structural Condition | Condition Comments | Preliminary Management Comments | Tree works to facilitate the Project | Estimated Remaining Contribution in Years | Category | Root Protection Area Radius (m) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| IT217 | Hawthorn (Crataegus monogyna) | 10 | 300 | 0 | 0 | 0 | 0 | 2.0/E | 2 | Fair | EM | Poor | Subdominant. Lean north, hung up in crown, no corrective growth, no sign of root plate movement visible e.g. protruding roots, soil cracks etc. Decay/dysfunctio n to stem north, no woundwood or adaptive growth. | - | Remove | <10 | U1 | 3.6 m |
| IT218 | Common Oak (Quercus robur) | 14 | 340 | 0 | 0 | 0 | 0 | 7.0/N | 8 | Good | EM | Good | Codominant. | - | Remove | 20+ | B2 | 4.08m |
| IT219 | Common Oak (Quercus robur) | 14 | 400 | 0 | 0 | 0 | 0 | 2.0/N | 6 | Good | EM | Good | Codominant. | - | Remove | 20+ | B2 | 4.8 m |
| IT220 | Ash (Fraxinus excelsior) | 14 | 340 | 0 | 0 | 0 | 0 | 2.0/W | 7 | Poor | SM | Fair | Codominant. Significantly high bud sparsity. | - | Remove | <10 | U1 | 4.08m |
| IT221 | Hawthorn (Crataegus monogyna) | 11 | 220 | 0 | 0 | 0 | 0 | 2.0/W | 1 | Good | SM | Good | Subdominant. | - | Remove | 20+ | B2 | 2.64 m |
| IT222 | Common Oak (Quercus robur) | 13 | 270 | 0 | 0 | 0 | 0 | 5.0/SW | 10 | Good | SM | Good | Codominant. | - | Remove | 20+ | B2 | 3.24 m |
| IT223 | Hawthorn (Crataegus monogyna) | 7 | 180 | 0 | 0 | 0 | 0 | 1.5/N | 2 | Good | Y | Fair | Subdominant. | - | Remove | 10+ | C2 | 2.16 m |
| IT224 | Hawthorn (Crataegus monogyna) | 4 | 80 | 0 | 0 | 0 | 0 | 1.5/N | 2 | Good | Y | Fair | Subdominant. | - | Remove | 10+ | C2 | 0.96m |


| $\begin{aligned} & \text { Tree } \\ & \text { ID } \end{aligned}$ | Species | Estimated Height | Stem Diameter (mm) | Canopy N | Canopy S | Canopy $E$ | Canopy W | First Significant Branch | Canopy Clearance | Physiological Condition | Age | Structural Condition | Condition Comments | Preliminary Management Comments | Tree works to facilitate the Project | Estimated Remaining Contribution in Years | Category | Root Protection Area Radius (m) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| IT225 | Common Oak (Quercus robur) | 14 | 330 | 0 | 0 | 0 | 0 | 2.5/W | 6 | Good | SM | Good | Codominant. Second order limb union wounds, exposure of inner wood substrate, decay, adaptive growth, major deadwood. | - | Remove | 20+ | B1,2 | 3.96m |
| IT226 | Hawthorn (Crataegus monogyna) | 8 | 200 | 0 | 0 | 0 | 0 | 1.5/S | 1 | Good | SM | Good | Subdominant. | - | Remove | 20+ | B2 | 2.4 m |
| IT227 | Common Oak (Quercus robur) | 12 | 320 | 0 | 0 | 0 | 0 | 2.0/N | 5 | Good | SM | Good | Codominant. Burring across stem. | - | Remove | 20+ | B2 | 3.84 m |
| IT228 | Common Oak (Quercus robur) | 12 | 270 | 0 | 0 | 0 | 0 | 8.0/S | 9 | Good | SM | Good | Codominant. | - | Remove | 20+ | B2 | 3.24 m |
| IT229 | Hawthorn (Crataegus monogyna) | 6 | 150 | 2 | 1 | 3 | 0 | 2.0/E | 2 | Poor | Y | Poor | Large stem wound to south 0-1.5m. Significant crown dieback. Low traffic area. | - | Remove | <10 | U2 | 1.8 m |
| IT230 | Hawthorn (Crataegus monogyna) | 8 | 180 | 0 | 0 | 0 | 0 | 2.0/S | 1 | Good | SM | Good | Subdominant. | - | Remove | 20+ | B2 | 2.16 m |
| IT231 | Common Oak (Quercus robur) | 12 | 310 | 0 | 0 | 0 | 0 | 2.5/N | 5 | Good | SM | Good | Codominant. | - | Remove | 20+ | B2 | 3.72 m |
| IT232 | Ash (Fraxinus excelsior) | 9 | 260 | 0 | 0 | 0 | 0 | $3.0 / \mathrm{N}$ | 2 | Fair | SM | Good | Suppressed. Moderate crown sparsity. | - | - | 10+ | C2 | 3.12 m |
| IT233 | English Elm (Ulmus procera) | 8 | 120 | 3 | 3 | 3 | 3 | 1.5/E | 1 | Good | Y | Poor | Becoming emergent from subdominance. Basal cavity, significant | - | Remove | 10+ | C1 | 1.44 m |


| Tree ID | Species | Estimated Height | Stem Diameter (mm) | Canopy N | $\begin{gathered} \text { Canopy } \\ \mathrm{S} \end{gathered}$ | Canopy E | Canopy W | First Significant Branch | Canopy Clearance | Physiological Condition | Age | Structural Condition | Condition Comments | Preliminary Management Comments | Tree works to facilitate the Project | Estimated Remaining Contribution in Years | Category | Root Protection Area Radius (m) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |  |  |  |  |  | adaptive swelling. |  |  |  |  |  |
| IT234 | Ash (Fraxinus excelsior) | 15 | 390 | 0 | 0 | 0 | 0 | 7.0/E | 4 | Fair | EM | Good | Codominant. Minor crown sparsity with moderate dieback to north. | - | - | 20+ | B2 | 4.68m |
| IT235 | English Elm (Ulmus procera) | 8 | 90,90,80 | 2 | 2 | 2 | 2 | 0.5/N | 1 | Good | Y | Poor | Codominant. Basal wound west, likely historic stem failures, remaining stem functional unit. | - | Remove | 10+ | C1 | 1.8 m |
| IT236 | Hawthorn (Crataegus monogyna) | 10 | 270 | 0 | 0 | 0 | 0 | 2.5/W | 2 | Good | EM | Fair | Subdominant. Crack at base to northeast with cavity. Brown rot visible. Moderate wound wood development. Sheltered position. | - | - | 10+ | C2 | 3.24 m |
| 17237 | Hawthorn (Crataegus monogyna) | 7 | 200 | 0 | 0 | 0 | 0 | 2.0/NE | 2 | Good | SM | Good | Subdominant. | - | Remove | 10+ | C2 | 2.4 m |
| IT238 | Hawthorn (Crataegus monogyna) | 8 | 220 | 3 | 3 | 8 | 0 | n/a | 0 | Poor | EM | Poor | Root heave and hung up to east in adjacent trees. | - | Remove | <10 | U2 | 2.64 m |
| IT239 | Ash (Fraxinus excelsior) | 11 | 250 | 0 | 0 | 0 | 0 | 4.0/N | 6 | Good | SM | Fair | Subdominant. | - | Remove | 20+ | B2 | 3 m |
| IT240 | Hawthorn (Crataegus monogyna) | 4 | 120\# | 2 | 2 | 5 | 0 | n/a | 0 | Poor | SM | Poor | Root heave and hung up to east in adjacent trees. | - | Remove | <10 | U2 | 1.44 m |
| IT241 | Hawthorn (Crataegus monogyna) | 8 | 200 | 0 | 0 | 0 | 0 | 2.0/S | 5 | Fair | SM | Poor | Subdominant. Significant lean west, in contact with oak limb. | - | Remove | 10+ | C1,2 | 2.4 m |


| Tree ID | Species | Estimated Height | Stem Diameter (mm) | Canopy N | $\begin{gathered} \text { Canopy } \\ \mathrm{S} \end{gathered}$ | Canopy E | Canopy w | First Significant Branch | Canopy Clearance | Physiological Condition | Age | Structural Condition | Condition Comments | Preliminary Management Comments | Tree works to facilitate the Project | Estimated Remaining Contribution in Years | Category | Root Protection Area Radius (m) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| IT242 | Hawthorn (Crataegus monogyna) | 8 | 200\# | 5 | 2 | 4 | 1 | 2.0/S | 1 | Poor | EM | Fair | Lean north. Multiple trees hung up in crown. Minimal live branches remain in crown. | - | Remove | <10 | U2 | 2.4 m |
| IT243 | Hawthorn (Crataegus monogyna) | 10 | 250 | 4 | 1 | 2 | 6 | 3.0/N | 1 | Good | EM | Good | Codominant. | - | Remove | 20+ | B2 | 3 m |
| IT244 | Common Oak (Quercus robur) | 9 | 280 | 0 | 0 | 0 | 0 | 1.0/S | 4 | Fair | SM | Fair | Stem wound northwest from ground level to circa 2.5 m . <br> Likely dysfunction of functional unit. Decay. Good woundwood, partially occluded with adaptive swelling. Value as deadwood habitat. | - | Remove | 20+ | B3 | 3.36 m |
| IT245 | Hawthorn (Crataegus monogyna) | 8 | 160 | 2 | 3 | 3 | 2 | $3.0 / \mathrm{N}$ | 6 | Good | EM | Good | Subdominant. | - | Remove | 20+ | B2 | 1.92 m |
| IT246 | Hawthorn (Crataegus monogyna) | 3 | 140 | 0 | 0 | 0 | 0 | 1.0/S | 0 | Fair | SM | Poor | Root plate heave, tree on ground level. | - | Remove | <10 | U1 | 1.68 m |
| IT247 | Elm (Ulmus sp) | 6 | 90 | 2 | 3 | 3 | 2 | 2.0/N | 6 | Good | Y | Good | Subdominant. | - | Localised crown lifting to 5 m over the Project. Localised crown reduction to provide a 2 m clearance from the security fence. | 10+ | C2 | 1.08 m |


| Tree ID | Species | Estimated Height | Stem Diameter (mm) | Canopy $\mathrm{N}$ | Canopy s | Canopy E | Canopy w | First Significant Branch | Canopy Clearance | Physiological Condition | Age | Structural Condition | Condition Comments | Preliminary Management Comments | Tree works to facilitate the Project | Estimated Remaining Contribution in Years | Category | Root Protection Area Radius (m) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| IT248 | Hawthorn (Crataegus monogyna) | 6 | 130 | 2 | 2 | 2 | 2 | 2.0/S | 2 | Good | Y | Fair | Stem lean SE, corrective growth. Crown offset circa 2 m SE. | - | Remove | 10+ | C2 | 1.56 m |
| IT249 | Hawthorn (Crataegus monogyna) | 12 | 320 | 0 | 0 | 0 | 0 | 1.7/W | 6 | Good | M | Good | Codominant. Lean north east. | - | - | 20+ | B1,2 | 3.84 m |
| IT250 | Hawthorn (Crataegus monogyna) | 5 | 130 | 0 | 0 | 0 | 0 | 1.0/W | 3 | Dead | Y | Poor | Dead tree | - | Remove | <10 | U1 | 1.56 m |
| IT251 | Common Oak (Quercus robur) | 15 | 390 | 0 | 0 | 0 | 0 | 7.0/W | 1 | Good | EM | Good | Codominant. | - | - | 20+ | B2 | 4.68 m |
| IT252 | Hawthorn (Crataegus monogyna) | 7 | 160,100 | 0 | 0 | 0 | 0 | 4.0/S | 4 | Good | SM | Good | Codominant. | - | Remove | 10+ | C1 | 2.26 m |
| IT253 | Hawthorn (Crataegus monogyna) | 7 | 130 | 0 | 0 | 0 | 0 | n/a | 1 | Poor | SM | Fair | Suppressed. Significant crown dieback. Low traffic area. | - | - | <10 | U2 | 1.56 m |
| IT254 | Hawthorn (Crataegus monogyna) | 6 | 320 | 0 | 0 | 0 | 0 | 1.5/W | 3 | Good | SM | Fair | Codominant. Lean with corrective growth. | - | Remove | 20+ | B2 | 3.84 m |
| IT255 | Hawthorn (Crataegus monogyna) | 10 | 220 | 0 | 0 | 0 | 0 | 7.0/E | 5 | Good | EM | Poor | Significant root heave with visibly split roots. Heavy lean south east. Low traffic area. | - | - | <10 | U2 | 2.64 m |
| IT256 | Hawthorn (Crataegus monogyna) | 8 | 190 | 0 | 0 | 0 | 0 | 4.0/N | 4 | Good | SM | Good | Codominant. | - | Remove | 20+ | B2 | 2.28 m |
| IT257 | Hawthorn (Crataegus monogyna) | 10 | 250 | 0 | 0 | 0 | 0 | 8.0/E | 1 | Good | EM | Poor | Significant root heave with visibly split roots. Heavy lean east. Low traffic area. | - | Remove | <10 | U2 | 3 m |


| Tree ID | Species | Estimated Height | Stem Diameter (mm) | Canopy $\mathrm{N}$ | $\begin{gathered} \text { Canopy } \\ \mathrm{S} \end{gathered}$ | Canopy $\mathrm{E}$ | $\begin{gathered} \text { Canopy } \\ \text { W } \end{gathered}$ | First Significant Branch | Canopy Clearance | Physiological Condition | Age | Structural Condition | Condition Comments | Preliminary Management Comments | Tree works to facilitate the Project | Estimated Remaining Contribution in Years | Category | Root Protection Area Radius (m) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| IT258 | Hawthorn (Crataegus monogyna) | 7 | 130 | 0 | 0 | 0 | 0 | 4.0/S | 3 | Fair | SM | Good | Suppressed. | - | Remove | 10+ | C2 | 1.56 m |
| IT259 | Common Oak (Quercus robur) | 13 | 360 | 0 | 0 | 0 | 0 | 7.0/N | 3 | Good | EM | Good | Subdominant. | - | Remove | 20+ | B2 | 4.32 m |
| IT260 | English Elm (Ulmus procera) | 8 | 300 | 0 | 0 | 0 | 0 | 1.0/W | 1 | Good | SM | Good | Codominant. | - | Remove | 20+ | B2 | 3.6 m |
| IT261 | Hawthorn (Crataegus monogyna) | 7 | 150 | 4 | 0 | 1 | 4 | $3.0 / \mathrm{N}$ | 0 | Good | SM | Poor | Significant root heave with visibly split roots. Heavy lean north. Low traffic area. | $\square^{-}$ | Remove | <10 | U2 | 1.8 m |
| IT262 | Hawthorn (Crataegus monogyna) | 5 | 180 | 0 | 0 | 0 | 0 | 0.5/SE | 0 | Fair | SM | Poor | Tree on ground level. Connect crown to pink polygon on topo. Two trees make up the drawn crown. | - | Remove | <10 | U2 | 2.16 m |
| IT263 | Hawthorn (Crataegus monogyna) | 7 | 110 | 2 | 2 | 2 | 2 | n/a | 0 | Good | Y | Good | Suppressed. Large Ash limb hung up in crown. | - | - | 10+ | C2 | 1.32 m |
| IT264 | Hawthorn (Crataegus monogyna) | 5 | 180 | 0 | 0 | 0 | 0 | 1.5/S | 2 | Fair | SM | Poor | Lean south, likely cause of heave, caught in crown of fallen tree. Connect crown to pink polygon on topo. Two trees make up the drawn crown. | - | Remove | <10 | U2 | 2.16 m |
| IT265 | Common Oak (Quercus robur) | 14 | 360 | 4 | 4 | 6 | 2 | 5.0/E | 4 | Good | EM | Good | Codominant. | - | - | 20+ | B2 | 4.32 m |


| Tree ID | Species | Estimated Height | Stem Diameter (mm) | Canopy N | Canopy s | Canopy E | Canopy W | First Significant Branch | Canopy Clearance | Physiological Condition | Age | Structural Condition | Condition Comments | Preliminary Management Comments | Tree works to facilitate the Project | Estimated Remaining Contribution in Years | Category | Root Protection Area Radius (m) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| IT266 | Ash (Fraxinus excelsior) | 10 | 410 | 0 | 0 | 0 | 0 | 0.1/N | 0 | Fair | EM | Good | Codominant. Minor to moderate bud sparsity. Significant epicormic growth from base north. | - | Remove | 20+ | B2 | 4.92m |
| IT267 | Hawthorn (Crataegus monogyna) | 9 | 210,180 | 0 | 0 | 0 | 0 | 4.0/S | 1 | Fair | EM | Good | Subdominant. <br> Moderate dieback of southern crown. | - | - | 10+ | C2 | 3.32 m |
| IT268 | Ash (Fraxinus excelsior) | 13 | 470 | 0 | 0 | 0 | 0 | 4.0/W | 6 | Fair | EM | Good | Codominant. Minor to moderate bud sparsity. | - | Remove | 20+ | B2 | 5.64m |
| IT269 | Common Oak (Quercus robur) | 13 | 340 | 0 | 0 | 0 | 0 | 8.0/N | 7 | Fair | EM | Good | Codominant. Moderate dieback of inner central crown. Minor sparsity of outer crown. | - | Remove | 10+ | C2 | 4.08m |
| IT270 | Common Oak (Quercus robur) | 5 | 280 | 0 | 0 | 0 | 0 | 2.0/SW | 5 | Fair | SM | Fair | Suppressed. | - | Remove | 10+ | C1,2 | 3.36 m |
| IT271 | Hawthorn (Crataegus monogyna) | 9 | 150,200 | 0 | 0 | 0 | 0 | $1.7 / \mathrm{N}$ | 1 | Good | EM | Good | Subdominant. | - | - | 20+ | B2 | 3 m |
| IT272 | Common Oak (Quercus robur) | 14 | 320 | 0 | 0 | 0 | 0 | 5.0/S | 3 | Good | EM | Good | Codominant. | - | - | 20+ | B2 | 3.84 m |
| IT273 | Hawthorn (Crataegus monogyna) | 4 | 100,100\# | 0 | 0 | 0 | 0 | 1.0/E | 3 | Dead | SM | Poor | No access. Scrub edge to woodland. Poor density. | - | Remove | <10 | U1 | 1.7 m |
| IT274 | Hawthorn (Crataegus monogyna) | 5 | 70,60\# | 2 | 2 | 2 | 2 | n/a | 2 | Good | Y | Good | Suppressed. | - | - | 10+ | C2 | 1.11 m |


| Tree ID | Species | Estimated Height | Stem Diameter (mm) | Canopy N | Canopy s | Canopy E | Canopy W | First Significant Branch | Canopy Clearance | Physiological Condition | Age | Structural Condition | Condition Comments | Preliminary Management Comments | Tree works to facilitate the Project | Estimated Remaining Contribution in Years | Category | Root Protection Area Radius (m) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| IT275 | Hawthorn (Crataegus monogyna) | 4 | 140\# | 0 | 0 | 0 | 0 | 1.0/W | 2 | Good | SM | Good | No access. Scrub edge to woodland. Poor density of scrub. | - | Remove | 10+ | C1 | 1.68 m |
| IT276 | Elm (Ulmus sp) | 6 | 90,110 | 2 | 2 | 2 | 2 | n/a | 0 | Good | Y | Good | Suppressed. | - | - | 10+ | C2 | 1.71 m |
| IT277 | Hawthorn (Crataegus monogyna) | 4 | 240\# | 0 | 0 | 0 | 0 | 2.0/E | 2 | Good | SM | Good | No access. Scrub edge to woodland. Poor density of scrub. | - | Remove | 10+ | C1,2 | 2.88m |
| IT278 | Hawthorn (Crataegus monogyna) | 6 | 120\# | 0 | 0 | 0 | 0 | 2.0/N | 2 | Fair | Y | Good | Suppressed. Ivy covered. | - | Localised crown lifting to 5 m over the Project. Localised crown reduction to provide a 2 m clearance from the security fence. | 10+ | C2 | 1.44m |
| IT279 | Hawthorn (Crataegus monogyna) | 6 | 100\# | 0 | 0 | 0 | 0 | n/a | 1 | Fair | Y | Good | Suppressed. Ivy covered. | - | Remove | 10+ | C2 | 1.2 m |
| IT280 | Hawthorn (Crataegus monogyna) | 8 | 200\# | 0 | 0 | 0 | 0 | 4.0/S | 4 | Good | EM | Good | Codominant. Ivy covered. | - | - | 20+ | B2 | 2.4 m |
| IT281 | Hawthorn (Crataegus monogyna) | 3 | 200\# | 0 | 0 | 0 | 0 | 1.0/N | 1 | Good | SM | Good | No access. Scrub edge to woodland. Poor density of scrub. | - | Remove | 10+ | C2 | 2.4 m |
| IT282 | Common Oak (Quercus robur) | 12 | 230,400\# | 0 | 0 | 0 | 0 | 4.0/S | 1 | Good | EM | Good | Codominant. | - | Remove | 20+ | B2 | 5.54m |
| IT283 | Unknown | 1 | 450\# | 0 | 0 | 0 | 0 | n/a | 0 | Stump | M | Stump | 1.5 m tall ivy covered stump. | - | Remove | <10 | U2 | 5.4 m | mmingham Green Energy Terminal

Environmental Statement Appendix 8.F: Arboricultural Impact Assessmen

| Tree ID | Species | Estimated Height | Stem Diameter (mm) | Canopy $\mathrm{N}$ | $\begin{gathered} \text { Canopy } \\ S \end{gathered}$ | Canopy $E$ | Canopy w | First Significant Branch | Canopy Clearance | Physiological Condition | Age | Structural Condition | Condition Comments | Preliminary Management Comments | Tree works to facilitate the Project | Estimated Remaining Contribution in Years | Category | Root Protection Area Radius (m) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| IT284 | Hawthorn (Crataegus monogyna) | 8 | 310 | 0 | 0 | 0 | 0 | 5.0/S | 3 | Fair | EM | Good | Codominant. Ivy covered. Moderate dieback of northern crown. Low traffic area. | - | - | 10+ | C2 | 3.72 m |
| IT285 | Hawthorn (Crataegus monogyna) | 5 | 200,200\# | 0 | 0 | 0 | 0 | 2.0/S | 3 | Fair | EM | Good | Subdominant. Dense ivy cover. | - | - | 10+ | C2 | 3.39 m |
| IG286 | Hawthorn (Crataegus monogyna) | 6 | 250 | 0 | 0 | 0 | 0 | n/a | 0 | Good - Fair | Y-SM | Good - Fair | Scrub boundary at woodland edge. | - | Part remove as per TPP | 10+ | C2 | 3 m |
| IT287 | Ash (Fraxinus excelsior) | 13 | 570 | 0 | 0 | 0 | 0 | 2.5/E | 2 | Fair | V | Good | Dominant. <br> Significant cavity east from circa 2 m to 4 m . Opening of circa 200mm Depth approx., 300 mm . Adaptive swelling with good woundwood. Veteran Tree. | - | - | 40+ | A3 | 8.55 m |
| IT288 | Hawthorn (Crataegus monogyna) | 7 | 250\# | 0 | 0 | 0 | 0 | 3.0/N | 2 | Fair | EM | Good | Codominant. Dense ivy cover. | - | - | 20+ | B2 | 3 m |
| IT289 | Hawthorn (Crataegus monogyna) | 8 | 250\# | 0 | 0 | 0 | 0 | 2.0/S | 1 | Fair | EM | Good | Codominant. Dense ivy cover. | - | - | 20+ | B2 | 3 m |
| IT290 | Hawthorn (Crataegus monogyna) | 7 | 260\# | 2 | 3 | 3 | 1 | 1.7/S | 1 | Good | EM | Good | Codominant. Dense ivy cover. | - | - | 20+ | B2 | 3.12 m |
| IT291 | Hawthorn (Crataegus monogyna) | 7 | 280\# | 2 | 2 | 1 | 2 | 4.0/S | 2 | Good | EM | Good | Codominant. Dense ivy cover. | - | - | 20+ | B2 | 3.36 m |
| IT292 | Common Oak (Quercus robur) | 15 | 420\# | 4 | 5 | 3 | 5 | 4.0/NE | 4 | Good | EM | Good | Codominant. | - | - | 20+ | B2 | 5.04 m |

$\qquad$

| Tree ID | Species | Estimated Height | Stem Diameter (mm) | Canopy N | $\begin{gathered} \text { Canopy } \\ \mathrm{S} \end{gathered}$ | Canopy $E$ | Canopy w | First Significant Branch | Canopy Clearance | Physiological Condition | Age | Structural Condition | Condition Comments | Preliminary Management Comments | Tree works to facilitate the Project | Estimated Remaining Contribution in Years | Category | Root Protection Area Radius (m) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| IT293 | Hawthorn (Crataegus monogyna) | 8 | 170 | 2 | 2 | 2 | 2 | 0.5/SE | 1 | Good | SM | Good | Subdominant. | - | - | 10+ | C1,2 | 2.04 m |
| IT294 | Hawthorn (Crataegus monogyna) | 8 | 210 | 2 | 3 | 3 | 2 | 4.0/E | 3 | Good | SM | Good | Subdominant. | - | - | 20+ | B2 | 2.52 m |
| IT295 | English Elm (Ulmus procera) | 13 | 270 | 0 | 0 | 0 | 0 | 0.5/N | 1 | Good | SM | Good | Codominant. | - | - | 20+ | B2 | 3.24 m |
| IT296 | Ash (Fraxinus excelsior) | 10 | 300 | 0 | 0 | 0 | 0 | 5.0/SE | 7 | Poor | SM | Poor | Suppressed. Loss of two second order crown leaders. Epicormic regrowth. Value as habitat pole. Crown likely to become shaded out. | - | Remove | <10 | U1 | 3.6 m |
| IT297 | Ash (Fraxinus excelsior) | 15 | 320 | 0 | 0 | 0 | 0 | 6.0/S | 10 | Fair | EM | Fair | Codominant. A number of limb failure wounds in crown including an animal hole on a large limb to the south. Minor crown sparsity. Low traffic area. | - | - | 10+ | C2 | 3.84 m |
| IT298 | Ash (Fraxinus excelsior) | 15 | 470 | 0 | 0 | 0 | 0 | 3.0/E | 5 | Fair | EM | Good | Dominant. Major deadwood in crown. Branching pattern normal. Moderate bud sparsity. | - | Remove | 20+ | B2 | 5.64 m |
| IT299 | Sessile Oak (Quercus petraea) | 7 | 200\# | 0 | 0 | 0 | 0 | 5.0/E | 3 | Fair | SM | Fair | Subdominant. <br> Large <br> longitudinal stem wound to south. <br> Minimal wound wood development. Previous failure | - | - | <10 | U2 | 2.4 m |


| Tree ID | Species | Estimated Height | Stem Diameter (mm) | Canopy $\mathrm{N}$ | Canopy S | Canopy E | Canopy w | First Significant Branch | Canopy Clearance | Physiological Condition | Age | Structural Condition | Condition Comments | Preliminary Management Comments | Tree works to facilitate the Project | Estimated Remaining Contribution in Years | Category | Root Protection Area Radius (m) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |  |  |  |  |  | of main stem at 5 m . Low traffic area. |  |  |  |  |  |
| IT300 | Common Oak (Quercus robur) | 13 | 420 | 0 | 0 | 0 | 0 | $3.0 / \mathrm{N}$ | 2 | Good | EM | Good | Codominant. | - | - | 20+ | B1,2 | 5.04 m |
| IT301 | Hawthorn (Crataegus monogyna) | 10 | 280 | 0 | 0 | 0 | 0 | 4.0/NE | 6 | Good | EM | Good | Codominant. | - | - | 20+ | B2 | 3.36 m |
| IT302 | Common Oak (Quercus robur) | 11 | 270 | 3 | 4 | 3 | 5 | 6.0/E | 2 | Good | SM | Good | Subdominant. | - | - | 20+ | B2 | 3.24 m |
| IT303 | Hawthorn (Crataegus monogyna) | 8 | 240,220 | 0 | 0 | 0 | 0 | 1.0/SW | 2 | Good | SM | Fair | Subdominant. Included bark union at circa 1m. No adaptive growth. Low target occupancy. | - | - | 20+ | B2 | 3.91 m |
| IT304 | Common Oak (Quercus robur) | 12 | 310 | 1 | 5 | 5 | 2 | 8.0/S | 3 | Good | SM | Good | Subdominant. Large longitudinal stem wound to north 5-8m. Good wound wood development. | - | - | 10+ | C2 | 3.72 m |
| IT305 | Hawthorn (Crataegus monogyna) | 9 | 250 | 0 | 0 | 0 | 0 | 1.5/SW | 2 | Good | EM | Poor | Subdominant. Lean west, corrective growth of crown apices, likely historic heave. | - | - | 10+ | C1,2 | 3 m |
| IT306 | Elm (Ulmus $s p)$ | 4 | 110 | 3 | 3 | 1 | 4 | 3.0/N | 0 | Good | Y | Good |  | - | - | 10+ | C2 | 1.32 m |
| IT307 | Hawthorn (Crataegus monogyna) | 10 | 290 | 0 | 0 | 0 | 0 | 1.5/NW | 2 | Good | EM | Good | Codominant. | - | Localised crown lifting to 5 m over the Project. | 20+ | B2 | 3.48 m |


| Tree ID | Species | Estimated Height | Stem Diameter (mm) | Canopy $N$ | $\begin{gathered} \text { Canopy } \\ \mathrm{S} \end{gathered}$ | Canopy $E$ | Canopy w | First Significant Branch | Canopy Clearance | Physiological Condition | Age | Structural Condition | Condition Comments | Preliminary Management Comments | Tree works to facilitate the Project | Estimated Remaining Contribution in Years | Category | Root Protection Area Radius (m) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| IT308 | Common Oak (Quercus robur) | 15 | 380 | 0 | 0 | 0 | 0 | 7.0/SE | 1 | Good | EM | Good | Codominant. | - | - | 20+ | B2 | 4.56 m |
| IT309 | Hawthorn (Crataegus monogyna) | 10 | 360 | 0 | 0 | 0 | 0 | 1.5/E | 3 | Good | EM | Good | Codominant. | - | - | 20+ | B2 | 4.32 m |
| IT310 | Ash (Fraxinus excelsior) | 8 | 310 | 0 | 0 | 0 | 0 | n/a | 2 | Poor | SM | Fair | Suppressed. Significant crown dieback. Low traffic area. | - | - | <10 | U2 | 3.72 m |
| IT311 | Ash (Fraxinus excelsior) | 14 | 410 | 0 | 0 | 0 | 0 | 6.0/SW | 10 | Fair | EM | Good | Dominant. Moderate bud sparsity. | - | - | 20+ | B2 | 4.92m |
| IT312 | Ash (Fraxinus excelsior) | 13 | 380 | 0 | 0 | 0 | 0 | 6.0/S | 4 | Fair | EM | Good | Subdominant. Moderate crown sparsity and suppressed form. | - | - | 10+ | C2 | 4.56 m |
| IT313 | English Elm (Ulmus procera) | 8 | 260 | 0 | 0 | 0 | 0 | 0.1/S | 8 | Dead | SM | Poor | Dead stem standing deadwood habitat value. | - | Remove | <10 | U1 | 3.12 m |
| IT314 | Common Oak (Quercus robur) | 14 | 340 | 0 | 0 | 0 | 0 | 6.0/W | 4 | Good | EM | Good | Codominant. | - | - | 20+ | B2 | 4.08m |
| IT315 | Ash (Fraxinus excelsior) | 14 | 390 | 0 | 0 | 0 | 0 | 10.0/N | 10 | Poor | EM | Fair | Codominant. High bud sparsity, significant crown gaps. | - | Remove | 10+ | C2 | 4.68m |
| IT316 | Ash (Fraxinus excelsior) | 15 | 420 | 0 | 0 | 0 | 0 | 7.0/w | 7 | Poor | EM | Fair | Codominant. <br> High bud sparsity, significant crown gaps. | - | Remove | 10+ | C2 | 5.04 m |
| IT317 | Hawthorn (Crataegus monogyna) | 7 | $\begin{aligned} & 130,140,15 \\ & 0 \# \end{aligned}$ | 0 | 0 | 0 | 0 | 1.0/SE | 0 | Good | EM | Good | Subdominant. | - | - | 20+ | B2 | 2.91 m |


| Tree ID | Species | Estimated Height | Stem Diameter (mm) | Canopy $N$ | $\begin{gathered} \text { Canopy } \\ S \end{gathered}$ | Canopy $E$ | Canopy W | First Significant Branch | Canopy Clearance | Physiological Condition | Age | Structural Condition | Condition Comments | Preliminary Management Comments | Tree works to facilitate the Project | Estimated Remaining Contribution in Years | Category | Root Protection Area Radius (m) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| IT318 | Common Oak (Quercus robur) | 16 | 280 | 0 | 0 | 0 | 0 | 6.0/N | 5 | Good | EM | Good | Codominant. <br> Stem dog legs at 8 m . | - | Localised crown lifting to 5 m over the Project. Localised crown reduction to provide a 2 m clearance from the security fence. | 20+ | B2 | 3.36 m |
| IT319 | Ash (Fraxinus excelsior) | 14 | 390 | 0 | 0 | 0 | 0 | 6.0/W | 10 | Fair | EM | Good | Dominant. Moderate bud sparsity. | - | - | 20+ | B2 | 4.68m |
| IT320 | Common Oak (Quercus robur) | 16 | 440 | 0 | 0 | 0 | 0 | 4.0/SE | 6 | Good | EM | Good | Codominant. | - | Remove | 20+ | B1,2 | 5.28 m |
| IT321 | Hawthorn (Crataegus monogyna) | 5 | 200 | 0 | 0 | 0 | 0 | 2.0/NE | 2 | Poor | SM | Poor | Significant crown dieback. Lean NE likely partial heave of root plate. | - | - | <10 | U2 | 2.4 m |
| IT322 | Ash (Fraxinus excelsior) | 16 | 430 | 0 | 0 | 0 | 0 | 6.0/NE | 10 | Poor | EM | Good | Codominant. Significant inner crown sparsity. Minor outer crown dieback. Likely Ash dieback. Low traffic area. | - | Remove | 10+ | C2 | 5.16 m |
| IT323 | Common Oak (Quercus robur) | 10 | 270 | 0 | 0 | 0 | 0 | 3.0/N | 1 | Fair | SM | Good | Subdominant. Main stem has dieback to 6 m . Remaining crown in good condition. | - | Remove | 20+ | B2 | 3.24 m |
| IT324 | Common Oak (Quercus robur) | 14 | 350 | 0 | 0 | 0 | 0 | 6.0/W | 7 | Fair | SM | Good | Codominant. Burring across stem. Dead limb leaning against stem. | - | - | 20+ | B2 | 4.2 m |


| Tree ID | Species | Estimated Height | Stem Diameter (mm) | Canopy N | $\begin{gathered} \text { Canopy } \\ \mathrm{S} \end{gathered}$ | Canopy E | Canopy W | First Significant Branch | Canopy Clearance | Physiological Condition | Age | Structural Condition | Condition Comments | Preliminary Management Comments | Tree works to facilitate the Project | Estimated Remaining Contribution in Years | Category | Root Protection Area Radius (m) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| IT325 | Ash (Fraxinus excelsior) | 15 | 400 | 0 | 0 | 0 | 0 | 4.0/NE | 10 | Fair | SM | Fair | Previous loss of apical leader. Now stub circa 3 mx 300 mm . Second order limbs below forming full crown. Dominant. | - | Remove | 20+ | B2,3 | 4.8 m |
| IT326 | Common Oak (Quercus robur) | 12 | 300 | 0 | 0 | 0 | 0 | 4.0/S | 1 | Good | SM | Good | Codominant. | - | - | 20+ | B2 | 3.6 m |
| IT327 | Common Oak (Quercus robur) | 8 | 300 | 0 | 0 | 0 | 0 | n/a | 3 | Poor | SM | Fair | Suppressed. Significant crown dieback. Low traffic area. | - | - | <10 | U2 | 3.6 m |
| IT328 | Common Oak (Quercus robur) | 6 | 300 | 0 | 0 | 0 | 0 | 2.0/S | 1 | Fair | SM | Fair | Suppressed. | - | - | 10+ | C1,2 | 3.6 m |
| IT329 | Common Oak (Quercus robur) | 9 | 200 | 0 | 0 | 0 | 0 | n/a | 1 | Poor | SM | Fair | Suppressed. Significant crown dieback. Low traffic area. | - | - | <10 | U2 | 2.4 m |
| IT330 | Common Oak (Quercus robur) | 13 | 420 | 0 | 0 | 0 | 0 | 4.0/S | 4 | Good | EM | Good | Dominant. | - | - | 20+ | B1,2 | 5.04 m |
| IT331 | Common Oak (Quercus robur) | 10 | 260 | 0 | 0 | 0 | 0 | 2.0/S | 0 | Poor | SM | Fair | Suppressed. Significant crown dieback. Low traffic area. | - | - | <10 | U2 | 3.12 m |
| IT332 | Hawthorn (Crataegus monogyna) | 7 | 130 | 2 | 2 | 2 | 2 | n/a | 1 | Good | SM | Poor | Suppressed. Significant stem wound to south 0-1.8m. Minimal wound wood development. Low traffic area. | - | - | <10 | U2 | 1.56 m |


| $\begin{aligned} & \text { Tree } \\ & \text { ID } \end{aligned}$ | Species | Estimated Height | Stem Diameter (mm) | Canopy N | Canopy S | Canopy E | Canopy W | First Significant Branch | Canopy Clearance | Physiological Condition | Age | Structural Condition | Condition Comments | Preliminary Management Comments | Tree works to facilitate the Project | Estimated Remaining Contribution in Years | Category | Root Protection Area Radius (m) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| IT333 | Ash (Fraxinus excelsior) | 13 | 480 | 0 | 0 | 0 | 0 | 5.0/S | 6 | Fair | EM | Fair | Codominant. <br> Previous loss of western crown/limb. Moderate bud sparsity. | - | - | 20+ | B2 | 5.76 m |
| IT334 | Elm (Ulmus $s p)$ | 8 | $\begin{aligned} & 110,100,19 \\ & 0 \end{aligned}$ | 0 | 0 | 0 | 0 | 2.0/NW | 0 | Good | SM | Good | Subdominant. | - | Remove | $20+$ | B2 | 2.89 m |
| IT335 | Common Oak (Quercus robur) | 14 | 310 | 0 | 0 | 0 | 0 | 6.0/W | 11 | Good | EM | Good | Codominant. | - | - | $20+$ | B1,2 | 3.72 m |
| IT336 | Common Oak (Quercus robur) | 10 | 250 | 0 | 0 | 0 | 0 | 5.0/SE | 2 | Fair | SM | Fair | Suppressed. <br> Moderate dieback of upper crown. Low traffic area. | - | - | 10+ | C2 | 3 m |
| IT337 | Hawthorn (Crataegus monogyna) | 8 | 150 | 1 | 2 | 1 | 1 | 4.0/S | 5 | Poor | SM | Fair | Suppressed. High bud sparsity. | - | - | 10+ | C2 | 1.8 m |
| IT338 | Common Oak (Quercus robur) | 14 | 340 | 0 | 0 | 0 | 0 | 9.0/E | 1 | Good | EM | Good | Codominant. | - | - | 20+ | B2 | 4.08m |
| IT339 | Hawthorn (Crataegus monogyna) | 2 | 150\# | 0.5 | 0.5 | 0.5 | 0.5 | n/a | 0 | Poor | SM | Poor | Monolith with few epicormic shoots. Disregard topo crown. | - | - | <10 | U1 | 1.8 m |
| IT340 | Common Oak (Quercus robur) | 11 | 290 | 0 | 0 | 0 | 0 | 4.0/N | 2 | Fair | SM | Good | Subdominant. Moderate dieback of central stem. Remaining crown in good condition. | - | - | $20+$ | B2 | 3.48 m |
| IT341 | Common Oak (Quercus robur) | 13 | 350 | 0 | 0 | 0 | 0 | 6.0/E | 1 | Good | EM | Good | Subdominant. Large pruning wound to south at 4 m . Large limb failure | - | - | 20+ | B2 | 4.2 m | mmingham Green Energy Terminal


| Tree ID | Species | Estimated Height | Stem Diameter (mm) | Canopy $\mathrm{N}$ | $\begin{gathered} \text { Canopy } \\ \mathrm{S} \end{gathered}$ | Canopy E | Canopy W | First Significant Branch | Canopy Clearance | Physiological Condition | Age | Structural Condition | Condition Comments | Preliminary Management Comments | Tree works to facilitate the Project | Estimated Remaining Contribution in Years | Category | Root Protection Area Radius (m) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |  |  |  |  |  | would to south at 5 m . Both with moderate wound wood development. |  |  |  |  |  |
| IT342 | Hawthorn (Crataegus monogyna) | 7 | 210 | 0 | 0 | 0 | 0 | 2.0/E | 4 | Good | SM | Fair | Suppressed. <br> Lean with apical crown corrective growth. Use northern topo crown, disregard southern. | - | - | 10+ | C1 | 2.52 m |
| IT343 | Ash (Fraxinus excelsior) | 15 | 400 | 0 | 0 | 0 | 0 | 6.0/N | 3 | Good | EM | Good | Codominant. | - | - | 20+ | B2 | 4.8 m |
| IT344 | Hawthorn (Crataegus monogyna) | 7 | 130 | 0.5 | 0.5 | 3 | 0.5 | 5.0/E | 4 | Good | SM | Fair | Suppressed. Lean with apical crown corrective growth. Use northern topo crown, disregard southern. | - | - | 10+ | C2 | 1.56 m |
| IT345 | Common Oak (Quercus robur) | 13 | 220 | 0 | 0 | 0 | 0 | 7.0/E | 0 | Good | SM | Good | Subdominant. | - | Remove | 20+ | B2 | 2.64 m |
| IT346 | Hawthorn (Crataegus monogyna) | 8 | 280 | 0 | 0 | 0 | 0 | 1.5/E | 3 | Good | SM | Fair | Subdominant. Lean with apical crown corrective growth. Use northern topo crown, disregard southern. | - | - | 20+ | B2 | 3.36 m |
| IT347 | Common Oak (Quercus robur) | 10 | 300\# | 0 | 0 | 0 | 0 | 7.0/E | 1 | Good | SM | Good | Subdominant. Moderate dieback of central stem. Remaining crown in good condition. | - | - | 10+ | C2 | 3.6 m |


| $\begin{aligned} & \text { Tree } \\ & \text { ID } \end{aligned}$ | Species | Estimated Height | Stem Diameter (mm) | Canopy N | Canopy S | Canopy $E$ | Canopy W | First Significant Branch | Canopy Clearance | Physiological Condition | Age | Structural Condition | Condition Comments | Preliminary Management Comments | Tree works to facilitate the Project | Estimated Remaining Contribution in Years | Category | Root Protection Area Radius (m) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| IT348 | Hawthorn (Crataegus monogyna) | 7 | 120 | 0 | 0 | 0 | 0 | 1.5/S | 2 | Good | SM | Fair | Suppressed. | - | Remove | 10+ | C1 | 1.44m |
| IT349 | Common Oak (Quercus robur) | 14 | 320 | 0 | 0 | 0 | 0 | 10.0/S | 0 | Good | SM | Good | Codominant. | - | - | 20+ | B2 | 3.84 m |
| IT350 | Common Oak (Quercus robur) | 13 | 270 | 0 | 0 | 0 | 0 | 7.0/W | 6 | Good | SM | Fair | Suppressed in upper canopy. | - | Remove | 20+ | B2 | 3.24 m |
| IT351 | Ash (Fraxinus excelsior) | 10 | 380 | 0 | 0 | 0 | 0 | n/a | 0 | Poor | SM | Poor | Significant crown dieback. Low traffic area. | - | - | <10 | U2 | 4.56 m |
| IT352 | Common Oak (Quercus robur) | 8 | 210 | 0 | 0 | 0 | 0 | 2.5/S | 2 | Fair | SM | Good | Subdominant. Significant dieback of central stem. Formation of lower crown in good condition. | - | Remove | 10+ | C2 | 2.52 m |
| IT353 | Hawthorn (Crataegus monogyna) | 6 | 170 | 0 | 0 | 0 | 0 | 2.0/N | 3 | Good | SM | Poor | Suppressed likely cause of significant lean north. Crown apices with corrective growth. Topo point south of tree is a stump. | - | Remove | 10+ | C2 | 2.04 m |
| IT354 | Ash (Fraxinus excelsior) | 16 | 410 | 0 | 0 | 0 | 0 | 7.0/W | 7 | Fair | EM | Good | Codominant. A number of animal holes on stem to south and west at 10 m . High likelihood of stem failure. Low traffic area. | - | Remove | <10 | U2 | 4.92m |
| 17355 | English Elm (Ulmus procera) | 7 | 120 | 0 | 0 | 0 | 0 | 2.0/W | 1 | Good | Y | Good | Subdominant. | - | Remove | 10+ | C1 | 1.44m |


| Tree ID | Species | Estimated Height | Stem Diameter (mm) | Canopy $\mathrm{N}$ | $\begin{gathered} \text { Canopy } \\ \mathrm{S} \end{gathered}$ | Canopy E | Canopy W | First Significant Branch | Canopy Clearance | Physiological Condition | Age | Structural Condition | Condition Comments | Preliminary Management Comments | Tree works to facilitate the Project | Estimated Remaining Contribution in Years | Category | Root Protection Area Radius (m) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| IT356 | Hawthorn (Crataegus monogyna) | 8 | 230 | 0 | 0 | 0 | 0 | 2.5/W | 3 | Good | EM | Fair | Subdominant. | - | Remove | 20+ | B2 | 2.76 m |
| IT357 | Common Oak (Quercus robur) | 11 | 230 | 1 | 1 | 1 | 1 | n/a | 0 | Dead | SM | Dead | Dead tree. Low traffic area. | - | - | <10 | U2 | 2.76 m |
| IT358 | Common Oak (Quercus robur) | 13 | 390 | 0 | 0 | 0 | 0 | 5.0/E | 0 | Good | SM | Good | Codominant. | - | - | 20+ | B2 | 4.68m |
| IT359 | Hawthorn (Crataegus monogyna) | 7 | 180 | 0 | 0 | 0 | 0 | 2.5/SE | 3 | Good | SM | Fair | Subdominant. Lean with apical crown corrective growth. | - | Remove | 10+ | C2 | 2.16 m |
| IT360 | Common Oak (Quercus robur) | 11 | 220 | 0 | 0 | 0 | 0 | 5.0/N | 2 | Fair | SM | Good | Subdominant. Moderate dieback of central stem but with good regrowth. | - | - | 10+ | C2 | 2.64 m |
| IT361 | Hawthorn (Crataegus monogyna) | 7 | 220 | 0 | 0 | 0 | 0 | 3.0/S | 3 | Good | SM | Fair | Subdominant. Lean with apical crown corrective growth. Signs of root plate heave at base. | - | Remove | 10+ | C2 | 2.64 m |
| IT362 | Hawthorn (Crataegus monogyna) | 5 | 80\# | 2 | 2 | 2 | 2 | n/a | 0 | Good | Y | Good | Suppressed. | - | - | 10+ | C2 | 0.96m |
| IT363 | Hawthorn (Crataegus monogyna) | 8 | 160 | 0 | 0 | 0 | 0 | 3.0/N | 1 | Good | SM | Good | Subdominant. | - | Remove | 20+ | B2 | 1.92 m |
| IT364 | Hawthorn (Crataegus monogyna) | 9 | 260,180 | 0 | 0 | 0 | 0 | 2.0/N | 3 | Good | SM | Fair | Suppressed. One oak and one hawthorn. Oak with loss of apical leader channel of dysfunction. | - | - | 10+ | C2 | 3.79 m |


| Tree ID | Species | Estimated Height | Stem Diameter (mm) | Canopy N | Canopy s | Canopy E | Canopy w | First Significant Branch | Canopy Clearance | Physiological Condition | Age | Structural Condition | Condition Comments | Preliminary Management Comments | Tree works to facilitate the Project | Estimated Remaining Contribution in Years | Category | Root Protection Area Radius (m) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |  |  |  |  |  | Peripheral woundwood. |  |  |  |  |  |
| IT365 | Ash (Fraxinus excelsior) | 16 | 370 | 3 | 5 | 5 | 4 | 11.0/E | 12 | Good | EM | Good | Codominant. | - | - | 20+ | B2 | 4.44 m |
| IT366 | Common Oak (Quercus robur) | 9 | 260 | 0 | 0 | 0 | 0 | 3.5/NW | 1 | Good | SM | Fair | Suppressed. | - | - | 20+ | B2 | 3.12 m |
| IT367 | Common Oak (Quercus robur) | 15 | 360 | 0 | 0 | 0 | 0 | 9.0/N | 10 | Good | EM | Good | Codominant. | - | Remove | 20+ | B2 | 4.32 m |
| IT368 | Common Oak (Quercus robur) | 15 | 370 | 0 | 0 | 0 | 0 | 8.0/E | 8 | Good | EM | Good | Codominant. | - | Localised crown lifting to 5m over the Project. Localised crown reduction to provide a $2 m$ clearance from the security fence | 20+ | B2 | 4.44 m |
| IT369 | Common Oak (Quercus robur) | 8 | 438 | 0 | 0 | 0 | 0 | 1.5/W | 1 | Fair | EM | Fair | Suppressed. Loss of apical stem, topped at circa 4 m , shrouded by ivy. | - | - | 20+ | B2 | 5.26 m |
| IT370 | Hawthorn (Crataegus monogyna) | 11 | 220 | 0 | 0 | 0 | 0 | 5.0/S | 6 | Good | EM | Good | Subdominant. | - | Remove | 20+ | B2 | 2.64 m |
| IT371 | Common Oak (Quercus robur) | 16 | 410 | 0 | 0 | 0 | 0 | 5.0/S | 4 | Good | EM | Good | Codominant. | - | Localised crown lifting to 5 m over the Project. Localised crown reduction to provide a 2 m clearance | 20+ | B1,2 | 4.92m |


| Tree ID | Species | Estimated Height | Stem Diameter (mm) | Canopy $N$ | $\begin{gathered} \text { Canopy } \\ S \end{gathered}$ | Canopy E | Canopy w | First Significant Branch | Canopy Clearance | Physiological Condition | Age | Structural Condition | Condition Comments | Preliminary Management Comments | Tree works to facilitate the Project | Estimated Remaining Contribution in Years | Category | Root Protection Area Radius (m) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | from the security fence. |  |  |  |
| IT372 | Hawthorn (Crataegus monogyna) | 5 | 200 | 2 | 3 | 2 | 2 | 1.5/E | 2 | Good | SM | Good | Shrouded by ivy. | - | - | 10+ | C1,2 | 2.4 m |
| IT373 | Elder (Sambucus nigra) | 3 | 40 | 1 | 1 | 1 | 1 | n/a | 0 | Good | Y | Good |  | - | - | 10+ | C2 | 0.48 m |
| IT374 | Common Oak (Quercus robur) | 15 | 390 | 0 | 0 | 0 | 0 | 7.0/w | 7 | Good | EM | Good | Codominant. | - | Remove | 20+ | B2 | 4.68m |
| IT375 | Hawthorn (Crataegus monogyna) | 6 | 200 | 0 | 0 | 0 | 0 | 1.0/SE | 1 | Good | SM | Fair | Subdominant. | - | Remove | 10+ | C1,2 | 2.4 m |
| IT376 | Hawthorn (Crataegus monogyna) | 9 | 180 | 0 | 0 | 0 | 0 | 3.0/S | 1 | Good | EM | Good | Subdominant. | - | Remove | 20+ | B2 | 2.16 m |
| 17377 | Hawthorn (Crataegus monogyna) | 8 | 150 | 0 | 0 | 0 | 0 | 3.0/N | 3 | Good | SM | Fair | Subdominant. Basal wound to north with moderate wound wood development. Low traffic area. | - | Remove | 10+ | C2 | 1.8 m |
| IT378 | Hawthorn (Crataegus monogyna) | 9 | 130 | 1 | 2 | 1 | 2 | 4.0/N | 7 | Good | SM | Good | Subdominant. | - | Remove | 10+ | C2 | 1.56 m |
| IT379 | Hawthorn (Crataegus monogyna) | 9 | 100 | 1 | 1 | 1 | 1 | n/a | 1 | Good | SM | Good | Subdominant. | - | Remove | 10+ | C2 | 1.2 m |
| IT380 | Hawthorn (Crataegus monogyna) | 3 | 140 | 2 | 2 | 2 | 2 | 1.5/SE | 2 | Fair | SM | Fair | Suppressed. | - | - | 10+ | C2 | 1.68 m |
| IT381 | Hawthorn (Crataegus monogyna) | 4 | 250 | 4 | 4 | 4 | 4 | 0.5/S | 0 | Good | EM | Poor | fallen hawthorn, harping. | - | Remove | 10+ | C1 | 3 m |


| Tree ID | Species | Estimated Height | Stem Diameter (mm) | Canopy N | $\begin{gathered} \text { Canopy } \\ \mathrm{S} \end{gathered}$ | Canopy E | Canopy w | First Significant Branch | Canopy Clearance | Physiological Condition | Age | Structural Condition | Condition Comments | Preliminary Management Comments | Tree works to facilitate the Project | Estimated Remaining Contribution in Years | Category | Root Protection Area Radius (m) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| IT382 | Common Oak (Quercus robur) | 15 | 360 | 0 | 0 | 0 | 0 | 6.0/S | 8 | Good | EM | Good | Codominant. | - | Localised crown lifting to 5 m over the Project. Localised crown reduction to provide a 2 m clearance from the security fence | 20+ | B2 | 4.32 m |
| IT383 | Hawthorn (Crataegus monogyna) | 15 | 280 | 0 | 0 | 0 | 0 | 4.0/N | 4 | Good | EM | Good | Codominant. | - | Localised crown lifting to 5 m over the Project. Localised crown reduction to provide a $2 m$ clearance from the security fence | 20+ | B2 | 3.36 m |
| IT384 | Common Oak (Quercus robur) | 15 | 410 | 0 | 0 | 0 | 0 | 7.0/S | 4 | Good | EM | Good | Codominant. | - | - | 20+ | B2 | 4.92m |
| IT385 | Hawthorn (Crataegus monogyna) | 6 | 80 | 1 | 1 | 1 | 2 | 2.0/S | 3 | Good | SM | Good | Subdominant. | - | Remove | 10+ | C2 | 0.96 m |
| IT386 | Common Oak (Quercus robur) | 11 | 350,390 | 0 | 0 | 0 | 0 | 7.0/W | 4 | Good | EM | Fair | Codominant. Major deadwood. | - | - | 20+ | B1,2 | 6.29 m |
| IT387 | Hawthorn (Crataegus monogyna) | 6 | 90 | 4 | 1 | 2 | 3 | 1.6/N | 1 | Good | SM | Good | Subdominant. | - | Remove | 10+ | C2 | 1.08 m |
| IT388 | Hawthorn (Crataegus monogyna) | 11 | 240 | 0 | 0 | 0 | 0 | 3.0/W | 6 | Good | EM | Good | Becoming codominant. | - | - | 10+ | C1 | 2.88 m |
| IT389 | Hawthorn (Crataegus monogyna) | 8 | 150 | 4 | 1 | 2 | 3 | 5.0/N | 6 | Good | SM | Good | Subdominant. | - | Remove | 10+ | C2 | 1.8 m |


| $\begin{aligned} & \text { Tree } \\ & \text { ID } \end{aligned}$ | Species | Estimated Height | Stem Diameter (mm) | Canopy $\mathrm{N}$ | $\begin{gathered} \text { Canopy } \\ \mathrm{S} \end{gathered}$ | Canopy E | Canopy w | First Significant Branch | Canopy Clearance | Physiological Condition | Age | Structural Condition | Condition Comments | Preliminary Management Comments | Tree works to facilitate the Project | Estimated Remaining Contribution in Years | Category | Root Protection Area Radius (m) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| IT390 | Hawthorn (Crataegus monogyna) | 7 | 100,100 | 2 | 3 | 3 | 2 | 2.5/S | 0 | Good | SM | Good | Subdominant. | - | - | 10+ | C2 | 1.7 m |
| IT391 | Ash (Fraxinus excelsior) | 14 | 270 | 0 | 0 | 0 | 0 | 9.0/E | 11 | Fair | SM | Good | Moderate crown sparsity. | - | Localised crown lifting to 5 m over the Project. Localised crown reduction to provide a $2 m$ clearance from the security fence. | 10+ | C1,2 | 3.24 m |
| IT392 | Common Oak (Quercus robur) | 11 | 340 | 0 | 0 | 0 | 0 | 2.0/W | 3 | Good | EM | Good | Codominant. | - | Localised crown lifting to 5 m over the Project. | 20+ | B1,2 | 4.08m |
| IT393 | Common Oak (Quercus robur) | 12 | 310 | 0 | 0 | 0 | 0 | 6.0/E | 5 | Good | EM | Good | Codominant. | - | Localised crown lifting to 5 m over the Project. | 20+ | B2 | 3.72 m |
| IT394 | Common Oak (Quercus robur) | 12 | 400\# | 0 | 0 | 0 | 0 | 6.0/N | 7 | Good | EM | Good | Codominant. | - | Localised crown lifting to 5 m over the Project. | 20+ | B2 | 4.8 m |
| IT395 | Common Oak (Quercus robur) | 14 | 390 | 0 | 0 | 0 | 0 | 5.0/N | 3 | Good | EM | Good | Codominant. Dead hawthorn hung up in crown. | - | Localised crown lifting to 5 m over the Project. | 20+ | B1,2 | 4.68m |
| IT396 | Common Oak (Quercus robur) | 12 | 320 | 0 | 0 | 0 | 0 | 4.0/NW | 3 | Good | SM | Good | Codominant. | - | Localised crown lifting to 5m over the Project. | 20+ | B1,2 | 3.84 m |
| IT397 | Common Oak (Quercus robur) | 14 | 380 | 0 | 0 | 0 | 0 | 4.0/NW | 3 | Good | SM | Good | Codominant. | - | Remove | 20+ | B1,2 | 4.56 m |
| IT398 | Ash (Fraxinus excelsior) | 14 | 360 | 0 | 0 | 0 | 0 | 6.0/W | 8 | Good | EM | Good |  | - | - | 20+ | B2 | 4.32 m |


| $\begin{aligned} & \text { Tree } \\ & \text { ID } \end{aligned}$ | Species | Estimated Height | Stem Diameter (mm) | Canopy $N$ | $\begin{gathered} \text { Canopy } \\ S \end{gathered}$ | Canopy E | Canopy W | First Significant Branch | Canopy Clearance | Physiological Condition | Age | Structural Condition | Condition Comments | Preliminary Management Comments | Tree works to facilitate the Project | Estimated Remaining Contribution in Years | Category | Root Protection Area Radius (m) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| IT399 | Common Oak (Quercus robur) | 14 | 280 | 0 | 0 | 0 | 0 | 3.0/E | 10 | Fair | SM | Good | Subdominant. | - | Remove | 20+ | B2 | 3.36 m |
| IT400 | Common Oak (Quercus robur) | 14 | 350 | 0 | 0 | 0 | 0 | 7.0/S | 3 | Good | EM | Good | Codominant. Stem wound to north west 01.8 m . Good wound wood development. | - | Remove | 20+ | B2 | 4.2 m |
| IT401 | Common Oak (Quercus robur) | 15 | 390 | 0 | 0 | 0 | 0 | 6.0/N | 8 | Good | EM | Good | Codominant. | - | - | 20+ | B2 | 4.68m |
| IT402 | Hawthorn (Crataegus monogyna) | 9 | 310 | 0 | 0 | 0 | 0 | 3.0/E | 6 | Good | EM | Good | Codominant. | - | Remove | 20+ | B2 | 3.72 m |
| IT403 | Common Oak (Quercus robur) | 14 | 340 | 0 | 0 | 0 | 0 | 7.0/S | 9 | Good | EM | Good | Codominant. | - | - | 20+ | B2 | 4.08m |
| IG404 | Hawthorn (Crataegus monogyna) | 8 | 220 | 3 | 3 | 3 | 3 | n/a | 0 | Good | SM | Good |  | - | - | 20+ | B2 | 2.64 m |
| IG405 | Ash (Fraxinus $s p)$ | 4 | 120 | 2 | 2 | 2 | 2 | n/a | n/a | Dead | SM | Dead | Standing dead individuals to NE of ditch. | - | Remove | <10 | U1 | 0.48 m |
| IG406 | Hawthorn (Crataegus monogyna), Ash (Fraxinus sp),Elder (Sambucus nigra) | 3 | 150 | 2 | 2 | 2 | 2 | n/a | n/a | Good | Y-EM | Good | Dense group beyond fencing around water feature. No access. No obvious individual trees of note. | - | Part remove as per TPP | 10+ | C1,2 | 0.36m |
| IT407 | Common Oak (Quercus robur) | 9 | 420 | 5.5 | 4 | 6 | 4.5 | 3.0/S | 1 | Good | EM | Good | Minor deadwood. Slightly one sided away from path, crown lifted in the past. | - | - | 20+ | B1 | 1.08 m |


| Tree ID | Species | Estimated Height | Stem Diameter (mm) | Canopy $\mathrm{N}$ | $\begin{gathered} \text { Canopy } \\ \mathrm{S} \end{gathered}$ | Canopy $E$ | Canopy w | First Significant Branch | Canopy Clearance | Physiological Condition | Age | Structural Condition | Condition Comments | Preliminary Management Comments | Tree works to facilitate the Project | Estimated Remaining Contribution in Years | Category | Root Protection Area Radius (m) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| IT408 | Ash (Fraxinus excelsior) | 6 | 160 | 3 | 3 | 2 | 2 | 2.0/S | 1 | Good | SM | Good | On NE side of ditch outside of perimeter fence. | - | Remove | 10+ | C1 | 0.72m |
| IT409 | Ash (Fraxinus excelsior) | 4 | 100 | 2 | 2.5 | 2 | 2 | $\begin{aligned} & \text { 2.0/E , 2.0/N } \\ & \text { 2.0/S } \\ & \text { 2.0/W } \end{aligned}$ | 1 | Good | SM | Good | On NE side of ditch outside of perimeter fence. | - | Remove | 10+ | C1 | 0.48 m |
| IT410 | Common Oak (Quercus robur) | 8 | 240 | 2 | 4 | 4 | 2 | 3.0/E | 1 | Good | SM | Good | In hedge and slightly one sided out towards arable field. Minor deadwood. | - | - | 20+ | B1 | 0.96 m |
| IH411 | Hawthorn (Crataegus monogyna) | 4 | 200 | 1.5 | 1.5 | 1.5 | 1.5 | n/a | n/a | Good - Fair | SM- <br> EM | Good - Fair | Sporadic hedgerow consisting mainly of hawthorn with rose understory. Sections of bramble and rose with no trees. | Fell split stem leaning to North. (<3 months) | Part remove as per TPP | 10+ | C1,2 | 0.48m |
| IT412 | Common Oak (Quercus robur) | 11 | 310 | 4 | 4 | 5 | 3 | 4.0/E | 1 | Good | SM | Good | In hedge and slightly one sided out towards arable field. Minor deadwood. | - | - | $20+$ | B1 | 1.32 m |
| IT413 | Ash (Fraxinus excelsior) | 9 | 450 | 2 | 7 | 6 | 4 | 3.0/E | 1 | Fair | EM | Fair | No access to base. Beginning to show typical signs of ash Dieback with dieback of branches and epicormic shoots along branches. | - | Remove | 10+ | C1 | 1.08 m |
| IT414 | Common Oak (Quercus robur) | 12 | 630 | 6 | 3 | 7 | 7 | 1.5/NE | 0 | Good | M | Fair | Large tear out at 3 m to east leaving large wound on main stem approx. 1 m $x 0.5 \mathrm{~m}$. Stubs and deadwood throughout canopy. | - | Localised crown lifting to 5 m over the Project. | 20+ | B1,2 | 1.44 m |


| Tree ID | Species | Estimated Height | Stem Diameter (mm) | Canopy N | $\begin{gathered} \text { Canopy } \\ \mathrm{S} \end{gathered}$ | Canopy E | Canopy w | First Significant Branch | Canopy Clearance | Physiological Condition | Age | Structural Condition | Condition Comments | Preliminary Management Comments | Tree works to facilitate the Project | Estimated Remaining Contribution in Years | Category | Root Protection Area Radius (m) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |  |  |  |  |  | Extensive epicormic growth on lower limbs. |  |  |  |  |  |
| IH415 | Leyland <br> Cypress ( $X$ <br> Cupressocy <br> paris <br> leylandii) | 14 | 430 | 2 | 2 | 2 | 2 | n/a | n/a | Good - Poor | EM | Good Poor | Single line. Avg DBH 280mm. First dozen or so trees are of good health although some suppression due to adjacent trees. Next 6 trees are dead. Line continues but not surveyed. | Fell dead trees within line. (When funds allow) | Remove | 10+ | C1,2 | 5.16 m |
| IG416 | Hawthorn (Crataegus monogyna), Goat Willow (Salix caprea),Syc amore (Acer pseudoplata nus) | 7 | <280\# | 3 | 3 | 3 | 3 | n/a | n/a | Good - Fair | SM | Good - Fair | scattered group of predominantly scrub growth. dense buddleja and brambles undergrowth. | - | Remove | 10+ | C2 | 3.36 m |
| IG417 | Aspen (Populus tremula), White Poplar (Populus alba), Crack Willow (Salix fragilis) | 12 | <500\# | 6 | 6 | 6 | 6 | n/a | n/a | Good - Fair | SM-M | Good Poor | Intermittent group unmanaged along highway. Some minor split out limbs and deadwood noted but unlikely to reach road. | $\square^{-}$ | Remove | 20+ | B2 | 6m |
| IG418 | Hawthorn (Crataegus monogyna), Goat Willow (Salix caprea) | 8 | <200\# | 3 | 3 | 3 | 3 | n/a | n/a | Good - Fair | Y-SM | Good - Fair | predominantly scrub hawthorn growth. dense bramble undergrowth roadside limiting access. surveyed from LaPorte Road. | - | Remove | 10+ | C1,2 | 2.4 m |


| $\begin{aligned} & \text { Tree } \\ & \text { ID } \end{aligned}$ | Species | Estimated Height | Stem Diameter (mm) | Canopy $\mathrm{N}$ | Canopy S | Canopy E | Canopy w | First Significant Branch | Canopy Clearance | Physiological Condition | Age | Structural Condition | Condition Comments | Preliminary Management Comments | Tree works to facilitate the Project | Estimated Remaining Contribution in Years | Category | Root Protection Area Radius (m) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| IG419 | Goat Willow (Salix caprea) | 8 | <250\# | 4 | 4 | 4 | 4 | n/a | n/a | Good | Y-SM | Good |  | - | Remove | 20+ | B1,2 | 3 m |
| IG420 | Aspen (Populus tremula), Crack Willow (Salix fragilis) | 12 | <370 | 1 | 6 | 4 | 6 | n/a | n/a | Good - Fair | SM- <br> EM | Good - Fair | Minor deadwood throughout and some minor decaying stems. | $\square^{-}$ | Remove | 20+ | B1,2 | 4.44 m |
| IT421 | Ash (Fraxinus excelsior) | 12 | 210 | 5 | 3 | 3.5 | 4 | n/a | 6 | Poor | SM | Poor | Ash Dieback noted approx 20\% of crown. | Fell or monitor condition (< 12 months) | Remove | <10 | U1 | 2.52 m |
| IT422 | Aspen (Populus tremula) | 15 | 360,240 | 6 | 5 | 7 | 6 | 6.0/S | 2 | Good | EM | Good | Forked at base with one dominant leader. Reasonable shape and form with deadwood throughout. | $\square^{-}$ | Remove | 20+ | B1,2 | 5.2 m |
| IT423 | Aspen (Populus tremula) | 14 | 410 | 5 | 8 | 9 | 6 | 4.0/W | 2 | Fair | EM | Fair | Twisted form. Large sections of deadwood to North. | - | Remove | 20+ | B2 | 4.92m |
| IT424 | Crack Willow (Salix fragilis) | 12 | $\begin{aligned} & 310,320,35 \\ & 0,310 \end{aligned}$ | 2 | 8 | 10 | 8 | 3.0/E | 3 | Fair | M | Fair | Four main leaders from short bole. Small decaying branch collar wound at main fork. Dieback of central upper crown and deadwood throughout. | Remove dead wood (<3 months) | Remove | 20+ | B1,2 | 7.7 m |
| IW425 | Ash (Fraxinus excelsior), Elder (Sambucus nigra),Com | 16 | <590 | 5 | 5 | 5 | 5 | n/a | n/a | Good - Fair | Y-EM | Good Poor | dominant species is ash. many ash with varying symptoms of ash dieback. | $\square^{-}$ | Localised crown lifting to 5 m over the Project. | 20+ | B1,2 | 7.08m |


| Tree ID | Species | Estimated Height | Stem Diameter (mm) | Canopy N | Canopy S | Canopy $E$ | Canopy W | First Significant Branch | Canopy Clearance | Physiological Condition | Age | Structural Condition | Condition Comments | Preliminary Management Comments | Tree works to facilitate the Project | Estimated Remaining Contribution in Years | Category | Root Protection Area Radius (m) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | mon Oak (Quercus robur),Wych Elm (Ulmus glabra),Haw thorn (Crataegus monogyna) |  |  |  |  |  |  |  |  |  |  |  | undergrowth of hawthorn and elder. few early mature oak. |  |  |  |  |  |
| IG426 | Leyland Cypress ( $X$ Cupressocy paris leylandii) | 10 | <160\# | 2 | 2 | 2 | 2 | n/a | n/a | Good | SM | Good | formally planted line of conifers. homogenous group. | - | Remove | 10+ | C2 | 1.92 m |
| IH427 | Leyland Cypress ( $X$ Cupressocy paris leylandii) | 12 | <310 | 3 | 3 | 3 | 3 | n/a | n/a | Good - Fair | EM | Good | Row of trees less than 0.5 m apart. Some browning to peripheral foliage. Closest tree within 4 m of edge of ditch. Providing some screening to temporary buildings further back. | - | Remove | 10+ | C1,2 | 3.72 m |
| AH1 | Leyland Cypress ( $X$ Cupressocy paris leylandii) | 8 | <250\# | 2 | 2 | 2 | 2 | n/a | n/a | Good - Poor | EM | Fair | Section of hedging behind perimeter fencing. Some sections very sparce and almost dead. | - | - | 10+ | C1,2 | 3 m |
| AT3 | Ash (Fraxinus excelsior) | 6 | 140\# | 2 | 2 | 2 | 2 | $\begin{aligned} & \text { 2.0/E , 2.0/N } \\ & \text { 2.0/S } \\ & 2.0 / \mathrm{W} \end{aligned}$ | 1 | Good | SM | Good | On southwest side of ditch outside of perimeter fence. | - | Remove | 10+ | C1 | 1.68 m |
| AG9 | Leyland Cypress ( $X$ Cupressocy paris leylandii) | 10 | <160\# | 2 | 2 | 2 | 2 | n/a | n/a | Good | SM | Good | Formally planted line of conifers. Homogenous group. | - | Remove | 10+ | C2 | 1.92m |


| Tree ID | Species | Estimated Height | Stem Diameter (mm) | Canopy N | Canopy S | Canopy E | Canopy W | First Significant Branch | Canopy Clearance | Physiological Condition | Age | Structural Condition | Condition Comments | Preliminary Management Comments | Tree works to facilitate the Project | Estimated Remaining Contribution in Years | Category | Root Protection Area Radius (m) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| AG11 | Hawthorn (Crataegus monogyna) | 5 | <180\# | 2 | 2 | 2 | 2 | n/a | n/a | Good - Fair | SM | Good |  | - | - | 10+ | C2 | 2.16 m |
| AG12 | Hawthorn (Crataegus monogyna) | 3 | <100\# | 2 | 2 | 2 | 2 | n/a | n/a | Good | Y-SM | Good | Sporadic individual trees within area of long grass to northeast of drainage ditch. | - | - | 10+ | C1,2 | 1.2 m |
| AG13 | Hawthorn (Crataegus monogyna) | 4 | <180\# | 2 | 2 | 2 | 2 | n/a | n/a | Good | SM | Good | Small clump of tightly packed hawthorn. | - | - | 10+ | C2 | 2.16 m |
| AG14 | Hawthorn (Crataegus monogyna) | 6 | <200\# | 3 | 3 | 3 | 3 | n/a | n/a | Good | SM- <br> EM | Good |  | - | - | 10+ | C2 | 2.4 m |
| AG15 | Hawthorn (Crataegus monogyna), Elder (Sambucus nigra) | 6 | <200\# | 3 | 3 | 3 | 3 | n/a | n/a | Good | SM- <br> EM | Good |  | - | - | 10+ | C2 | 2.4 m |
| AG19 | Leyland <br> Cypress ( $X$ <br> Cupressocy <br> paris <br> leylandii) | 10 | <160\# | 2 | 2 | 2 | 2 | n/a | n/a | Good | SM | Good | Formally planted line of conifers. Homogenous group. | - | Remove | 10+ | C2 | 1.92 m |
| AT20 | Largeleaved Lime (Tilia platyphyllos) | 8 | 370 | 3 | 3 | 3 | 3 | 2.0/S | 2 | Good | SM | Good | Mechanical damage to exposed surface root. | - | - | 20+ | B2 | 4.44 m |
| AT21 | Largeleaved Lime (Tilia platyphyllos) | 6 | 250 | 3 | 3 | 3 | 3 | 2.0/N | 1 | Good | SM | Good | Minor wound on stem at circa $2 m$ west. Good woundwood formation. Good overall form. Good future potential. | - | - | 20+ | B2 | 3 m |

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| Tree ID | Species | Estimated Height | Stem Diameter (mm) | Canopy $\mathrm{N}$ | $\begin{gathered} \text { Canopy } \\ \mathrm{S} \end{gathered}$ | Canopy E | Canopy w | First Significant Branch | Canopy Clearance | Physiological Condition | Age | Structural Condition | Condition Comments | Preliminary Management Comments | Tree works to facilitate the Project | Estimated Remaining Contribution in Years | Category | Root Protection Area Radius (m) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| AT22 | Largeleaved Lime ( Tilia platyphyllos) | 8 | 370 | 3 | 3 | 3 | 3 | 2.0/W | 2 | Good | SM | Good | Previous pruning to raise crown. Minor deadwood and slight sparsity of leaf density. | - | - | 20+ | B2 | 4.44m |
| AT23 | Hawthorn (Crataegus monogyna) | 2 | 180\# | 1 | 1 | 1 | 1 | $\begin{aligned} & \text { 1.0/E , } 1.0 / \mathrm{N} \\ & \text { 1.0/S } \\ & \text { 1.0/W } \\ & \text { 1.0/NE }, \\ & \text { 1.0/NW } \\ & \text { 1.0/SE, } \\ & \text { 1.0/SW } \end{aligned}$ | 0 | Good | SM | Good |  | - | - | 10+ | C2 | 2.16 m |
| AG24 | Hawthorn (Crataegus monogyna), Sycamore (Acer pseudoplata nus),Goat Willow (Salix caprea) | 12 | <450\# | 4 | 4 | 4 | 4 | n/a | n/a | Good - Fair | Y-EM | Good - Fair | No access, surveyed from queen's Road. Dense hawthorn undergrowth. likely ash within group. Typical of area, bordering pipeline outside red line boundary. | - | - | 20+ | B1,2 | 5.4 m |
| AT25 | Leyland Cypress (X Cupressocy paris leylandii) | 12 | 260,340 | 3 | 3 | 3 | 3 | 0.3/N | 2 | Good | EM | Fair |  | - | - | 20+ | B2 | 5.1 m |
| AG26 | Leyland Cypress ( $X$ Cupressocy paris leylandii) | 10 | <160\# | 2 | 2 | 2 | 2 | n/a | n/a | Good | SM | Good | Formally planted line of conifers. Homogenous group. | - | Remove | 10+ | C2 | 1.92m |
| AT27 | Leyland Cypress (X Cupressocy paris leylandii) | 12 | 590 | 4 | 4 | 4 | 4 | 0.3/E | 2 | Good | M | Good | Previous pruning to raise crown. | - | - | 20+ | B2 | 7.08m |
| AT28 | Leyland Cypress (X Cupressocy | 12 | 530 | 4 | 4 | 4 | 4 | 0.3/S | 2 | Good | M | Good | Poor aspect ratio limb to south. Previous pruning to raise crown. | - | - | 20+ | B2 | 6.36 |


| Tree ID | Species | Estimated Height | Stem Diameter (mm) | Canopy N | $\begin{gathered} \text { Canopy } \\ S \end{gathered}$ | Canopy $E$ | Canopy W | First Significant Branch | Canopy Clearance | Physiological Condition | Age | Structural Condition | Condition Comments | Preliminary Management Comments | Tree works to facilitate the Project | Estimated Remaining Contribution in Years | Category | Root Protection Area Radius (m) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | paris leylandii) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| AG29 | Weeping Willow (Salix X chrysocoma ), Lime (Tilia sp),Rowan (Sorbus aucuparia) | 3 | 445 | 4 | 4 | 4 | 4 | n/a | n/a | Good | SM-M | Good | Formal planting of individual trees although grass recently left. Two mature willow with semimature rowan and lime. | - | Remove | 20+ | B1,2 | 5.34m |
| AH30 | Leyland Cypress ( $X$ Cupressocy paris leylandii) | 14 | 430 | 2 | 2 | 2 | 2 | n/a | n/a | Good - Poor | EM | Good Poor | Single line. Avg stem diameter 280mm. First dozen or so trees are of good health although some suppression due to adjacent trees. Next 6 trees are dead. Line continues but not surveyed. | Fell dead trees within line. (When funds allow) | Remove | 10+ | C1,2 | 5.16 m |
| AG31 | Grey Alder (Alnus incana), Hawthorn (Crataegus monogyna) | 6 | <270 | 1 | 3 | 4 | 1.5 | n/a | n/a | Good | Y-EM | Good | One mature hawthorn and 3 individual alder growing close to ditch with lots of sucker growth alder along ditch. | $\square^{-}$ | Remove | 10+ | C1,2 | 3.24 m |
| AG32 | Elder (Sambucus nigra), Hawthorn (Crataegus monogyna) | 6 | <300\# | 3 | 3 | 3 | 3 | n/a | n/a | Good - Dead | SM- <br> EM | Good Dead | Hedgerow group in front of Leyland hedge. First tree dead but remainder of hedgerow appears in good condition. | - | Remove | 20+ | B1,2 | 3.6 m |
| AG33 | Cherry <br> (Prunus sp), Hawthorn (Crataegus monogyna), Common | 10 | <260 | 3.5 | 3.5 | 3.5 | 3.5 | n/a | n/a | Good - Fair | SM- <br> EM | Good - Fair | Deadwood within crowns in group. Small tightly packed group behind boundary fence. Previous | - | - | 20+ | B2 | 3.12 m |


| Tree ID | Species | Estimated Height | Stem Diameter (mm) | Canopy N | Canopy s | Canopy E | Canopy w | First Significant Branch | Canopy Clearance | Physiological Condition | Age | Structural Condition | Condition Comments | Preliminary Management Comments | Tree works to facilitate the Project | Estimated Remaining Contribution in Years | Category | Root Protection Area Radius (m) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Lime (Tilia X europaea) |  |  |  |  |  |  |  |  |  |  |  | pruning on lower stems. |  |  |  |  |  |
| AT35 | Sycamore (Acer pseudoplata nus) | 12 | 580 | 6 | 8 | 7 | 8 | 3.0/W | 2 | Good | M | Good | On edge of dry ditch. Dense multi-stemmed crown. | - | Remove | 20+ | B1,2 | 6.96 m |
| AG36 | Ash <br> (Fraxinus <br> excelsior), <br> White <br> Poplar <br> (Populus <br> alba), Crack <br> Willow <br> (Salix <br> fragilis) | 12 | 410 | 6 | 6 | 6 | 6 | n/a | n/a | Good - Fair | SM-M | Good - Fair | Informal group along road with drainage ditch behind. Hawthorn understory. Minor deadwood and stubs. | - | Remove | 20+ | B1,2 | 4.92 m |
| AT37 | White <br> Poplar (Populus alba) | 14 | 640 | 4 | 4 | 4 | 4 | 0.5/SW | 4 | Good | M | Good | Tree forks into multiple leaders at 0.5 m , cup Union formed. Minor deadwood within crown. Previously pruned up to circa 2 m . | - | - | 20+ | B1 | 7.68m |
| AG38 | White Poplar (Populus alba) | 12 | <450\# | 4 | 4 | 4 | 4 | n/a | n/a | Good | Y-EM | Good - Fair | No view of bases due to boundary fence. No access, dimensions estimated. Likely multistemmed. Good future potential. Young sucker growth in group. | - | - | 20+ | B2 | 5.4 m |
| AG40 | Hawthorn (Crataegus monogyna), Elder (Sambucus nigra) | 6 | <250\# | 3 | 3 | 3 | 3 | n/a | n/a | Good - Fair | Y-SM | Good - Fair |  | - | - | 10+ | C1,2 | 3 m |

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| $\begin{aligned} & \text { Tree } \\ & \text { ID } \end{aligned}$ | Species | Estimated Height | Stem Diameter (mm) | Canopy N | Canopy S | Canopy E | Canopy W | First Significant Branch | Canopy Clearance | Physiological Condition | Age | Structural Condition | Condition Comments | Preliminary Management Comments | Tree works to facilitate the Project | Estimated Remaining Contribution in Years | Category | Root Protection Area Radius (m) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| AT41 | White Poplar (Populus alba) | 12 | 330 | 3.5 | 3.5 | 3.5 | 3.5 | 2.0/S | 2 | Good | SM | Good | Minor area of decay on branch stub at lower stem. Minor deadwood in crown to west. Good form. | - | - | 20+ | B2 | 3.96 m |
| AG42 | Hawthorn (Crataegus monogyna), Other | 5 | <300\# | 2.5 | 2.5 | 2.5 | 2.5 | n/a | n/a | Good | SM- <br> EM | Good | Linear group of formal planted hawthorn and cockspur hawthorn. Homogenous group. Good landscape value. | - | Part remove as per TPP | 10+ | C2 | 3.6 m |
| AG44 | White <br> Poplar (Populus alba), Ash (Fraxinus excelsior), Hawthorn (Crataegus monogyna), Goat Willow (Salix caprea) | 4 | 480 | 5 | 5 | 5 | 5 | n/a | n/a | Fair | EM-M | Good - Fair | Poplar with split limb out over road. Significant deadwood throughout. | - | Remove | 20+ | B1,2 | 5.76 m |
| AG47 | Goat Willow (Salix caprea), Birch (Betula sp) | 6 | 100 | 2 | 2 | 2 | 2 | n/a | n/a | Good | Y-SM | Good |  | - | Remove | 10+ | C1,2 | 1.2 m |
| AT51 | Goat Willow (Salix caprea) | 12 | 680 | 4.5 | 4.5 | 4.5 | 4.5 | $\begin{aligned} & \text { 1.0/E, 1.0/N } \\ & \text { 1.0/S, } \\ & \text { 1.0/NE, } \\ & \text { 1.0/NW, } \\ & \text { 1.0/SE, } \\ & \text { 1.0/SW } \end{aligned}$ | 1 | Good | M | Fair | Plotted indicative location using GPS due to poor aerial imagery. Splits into multiple stems from 1 m . Stem diameter measured at base. Split limb hung up in crown. | - | Remove | $20+$ | B2 | 8.16 m |


| $\begin{aligned} & \text { Tree } \\ & \text { ID } \end{aligned}$ | Species | Estimated Height | Stem Diameter (mm) | Canopy N | Canopy S | Canopy E | Canopy W | First Significant Branch | Canopy Clearance | Physiological Condition | Age | Structural Condition | Condition Comments | Preliminary Management Comments | Tree works to facilitate the Project | Estimated Remaining Contribution in Years | Category | Root Protection Area Radius (m) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |  |  |  |  |  | Formation of cup union. |  |  |  |  |  |
| AT55 | Goat Willow (Salix caprea) | 8 | 420 | 2.5 | 2.5 | 2.5 | 2.5 | 1.0/E | 2 | Fair | EM | Fair | Indicative location due to poor aerial imagery. Splits into multiple stems at 0.5 m . Stem measured around base. Minor deadwood within crown. | - | Remove | 10+ | C2 | 5.04 m |
| AT57 | Goat Willow (Salix caprea) | 8 | 310 | 3 | 3 | 3 | 3 | 1.0/S | 2 | Good | SM | Good | Indicative location due to poor aerial imagery. Splits into 3 stems at 0.5 m . Minor deadwood within crown. <br> Previously pruned around base flush to stem. | - | Remove | 10+ | C2 | 3.72 m |
| AT59 | Goat Willow (Salix caprea) | 10 | 440\# | 5 | 5 | 5 | 5 | 0.5/NE | 1 | Good | EM | Good | Large primary limb tearout to east. | - | Remove | 20+ | B2 | 5.28 m |
| AT61 | Goat Willow (Salix caprea) | 8 | 360 | 4 | 4 | 4 | 4 | 1.0/E | 2 | Good | SM | Fair | Twin stemmed from 0.5m. Minor deadwood within crown. Location indicative. | - | Remove | 10+ | C2 | 4.32 m |
| AT62 | Goat Willow (Salix caprea) | 6 | 390 | 3 | 3 | 3 | 3 | 1.0/N | 1 | Fair | SM | Good | Indicative location. Deadwood abundant in crown. | - | Remove | 10+ | C 2 | 4.68m |
| AT63 | Hawthorn (Crataegus monogyna) | 3 | 150,150\# | 1 | 2.5 | 1 | 2.5 | n/a | 0 | Good | SM | Good | On edge of field boundary. Dense. | - | - | $10+$ | C1,2 | 2.5 m |

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| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| AG64 | Hawthorn (Crataegus monogyna), Elder (Sambucus nigra) | 4 | <250\# | 2 | 2 | 2 | 2 | n/a | n/a | Good - Fair | SM- <br> EM | Good | Typical shrub group. Roadside on grass verge. | - | - | 10+ | C2 | 3 m |
| AG65 | Leyland <br> Cypress (X <br> Cupressocy <br> paris <br> leylandii), <br> Yew (Taxus baccata) | 4 | <350\# | 1 | 1 | 1 | 1 | n/a | n/a | Good | EM | Good | Typical managed hedgerow. Small section of yew to east. | - | - | 10+ | C2 | 4.2 m |
| AG66 | Hawthorn (Crataegus monogyna), S cots Pine (Pinus sylvestris),S ycamore (Acer pseudoplata nus) | 12 | <450\# | 4 | 4 | 4 | 4 | n/a | n/a | Good - Fair | Y-EM | Good - Fair | Long stretch of mostly hawthorn and pine bordering pipeline outside red line boundary. No access, viewed from a distance. | - | - | 20+ | B1,2 | 5.4 m |
| AG67 | Hawthorn (Crataegus monogyna), Elder (Sambucus nigra) | 4 | <150\# | 2.5 | 2.5 | 2.5 | 2.5 | n/a | n/a | Good - Fair | SM | Good - Fair | Typical line of shrub species bordering disused railway line. | - | Part remove as per TPP | 10+ | C 2 | 1.8 m |
| AG68 | Willow <br> (Salix sp) | 4 | <100\# | 2 | 2 | 2 | 2 | n/a | n/a | Good | SM | Fair | Minor group of multistemmed willow shrub, section previously cut back from roadway. | - | - | 10+ | C2 | 1.2 m |
| AG69 | Willow (Salix sp), Field Maple (Acer campestre), Hawthorn (Crataegus monogyna), | 6 | <300\# | 3 | 3 | 3 | 3 | n/a | n/a | Good | SM | Good - Fair | Typical roadside group. Dominant species field maple. Few gaps with Minor deadwood. | - | - | 10+ | C1,2 | 3.6 m |


| Tree ID | Species | Estimated Height | Stem Diameter (mm) | Canopy N | $\begin{gathered} \text { Canopy } \\ S \end{gathered}$ | Canopy $E$ | Canopy W | First Significant Branch | Canopy Clearance | Physiological Condition | Age | Structural Condition | Condition Comments | Preliminary Management Comments | Tree works to facilitate the Project | Estimated Remaining Contribution in Years | Category | Root Protection Area Radius (m) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Blackthorn (Prunus spinosa) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| AG70 | Hawthorn (Crataegus monogyna), Elder (Sambucus nigra),Ash (Fraxinus excelsior) | 4 | <150\# | 2 | 2 | 2 | 2 | n/a | n/a | Good | Y-SM | Good | Typical shrub group containing few young ash. | - | - | 10+ | C2 | 1.8 m |
| AG71 | Ash <br> (Fraxinus excelsior), Elder (Sambucus nigra), Hawt horn (Crataegus monogyna) | 12 | <450\# | 6 | 6 | 6 | 6 | n/a | n/a | Good - Fair | Y-EM | Good - Fair | Surveyed from Queen's Road due to access limitations. Large group of likely early mature ash surrounded by typical shrub layer. | - | - | 20+ | B2 | 5.4 m |
| AT72 | Ash (Fraxinus excelsior) | 8 | $\begin{aligned} & 200,200,15 \\ & 0,150 \# \end{aligned}$ | 3 | 3 | 3 | 3 | 0.3/E | 2 | Good | SM | Good | Multistemmed from base. Basal growth obscuring visibility of lower stems. Few stems to east previously removed. | - | - | 10+ | C1 | 4.2 m |
| AG73 | Leyland <br> Cypress ( $X$ <br> Cupressocy <br> paris <br> leylandii), <br> Yew (Taxus baccata), <br> Horse <br> Chestnut <br> (Aesculus <br> hippocastan <br> um), Hawtho <br> rn <br> (Crataegus <br> monogyna), <br> Other | 4 | <350\# | 1.5 | 1.5 | 1.5 | 1.5 | n/a | n/a | Good | Y-EM | Good | Typical managed conifer hedge. Small section of yew to west. One young chestnut central to group. Small landscape section to east, hawthorn and snowberry. | - | - | 10+ | C2 | 4.2 m |


| Tree | Species | Estimated Height | Stem Diameter (mm) | Canopy N | Canopy s | Canopy E | Canopy w | First Significant Branch | Canopy Clearance | Physiological Condition | Age | Structural Condition | Condition Comments | Preliminary Management Comments | Tree works to facilitate the Project | Estimated Remaining Contribution in Years | Category | Root Protection Area Radius (m) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| AG74 | Hawthorn (Crataegus monogyna), Elder (Sambucus nigra) | 4 | <180\# | 2 | 2 | 2 | 2 | n/a | n/a | Good - Fair | Y-SM | Good - Fair | Viewed from Queens Road, no access. Typical shrub group at side of railway. | - | - | 10+ | C2 | 2.16 m |
| AG75 | Hawthorn (Crataegus monogyna) | 4 | <200\# | 3 | 3 | 3 | 3 | n/a | n/a | Good - Fair | SM | Good - Fair | Shrub group growing within disused railway line. | - | - | 10+ | C2 | 2.4 m |
| AG76 | Hawthorn (Crataegus monogyna), Elder (Sambucus nigra),Goat Willow (Salix caprea) | 8 | <280\# | 2 | 2 | 2 | 2 | n/a | n/a | Good - Fair | Y-SM | Good - Fair | Goat willow to east of group is max height. Group mostly consists of shrub species below 3 m height. Dense bramble undergrowth. No access surveyed from Queen's Road. | $\square^{-}$ | - | 10+ | C2 | 3.36 m |
| AG77 | Leyland <br> Cypress (X <br> Cupressocy <br> paris <br> leylandii) | 3 | 400 | 2 | 2 | 2 | 2 | n/a | n/a | Good | EM | Good |  | - | - | 10+ | C2 | 4.8 m |
| AT78 | Ash (Fraxinus excelsior) | 7 | $\begin{aligned} & 200,150,15 \\ & 0,150,150 \# \end{aligned}$ | 4 | 4 | 4 | 4 | 0.5/W | 2 | Good | SM | Fair | Multistemmed from base. Two stems removed south, roadside. Minor deadwood within crown. | - | - | 10+ | C2 | 4.3 m |
| AG79 | Hawthorn (Crataegus monogyna), Elder (Sambucus nigra),Ash (Fraxinus excelsior),S ycamore (Acer | 7 | <180\# | 2.5 | 2.5 | 2.5 | 2.5 | n/a | n/a | Good - Fair | Y-SM | Good - Fair |  | - | - | 10+ | C1,2 | 2.16 m |


| $\begin{aligned} & \text { Tree } \\ & \text { ID } \end{aligned}$ | Species | Estimated Height | Stem Diameter (mm) | Canopy N | $\begin{gathered} \text { Canopy } \\ S \end{gathered}$ | Canopy E | Canopy w | First Significant Branch | Canopy Clearance | Physiological Condition | Age | Structural Condition | Condition Comments | Preliminary Management Comments | Tree works to facilitate the Project | Estimated Remaining Contribution in Years | Category | Root Protection Area Radius (m) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | pseudoplata nus) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| AG80 | Elder (Sambucus nigra), Sycamore (Acer pseudoplata nus) | 5 | <150\# | 3 | 3 | 3 | 3 | n/a | n/a | Good | SM | Good - Fair |  | - | - | 10+ | C2 | 1.8m |
| AG81 | Elder <br> (Sambucus nigra), Sycamore (Acer pseudoplata nus), Hawtho rn (Crataegus monogyna) | 4 | <150\# | 2 | 2 | 2 | 2 | n/a | n/a | Good - Fair | Y-SM | Good - Fair | Predominantly scrub growth with few young sycamores within. | - | - | 10+ | C2 | 1.8 m |
| AG82 | Hawthorn (Crataegus monogyna) | 4 | 150 | 2 | 2 | 2 | 2 | n/a | n/a | Good - Fair | SM | Good - Fair | Typical gappy hawthorn group with dense bramble undergrowth. | - | Remove | 10+ | C2 | 1.8 m |
| AG83 | Hawthorn (Crataegus monogyna), Elder (Sambucus nigra) | 4 | <220 | 2 | 2 | 2 | 2 | n/a | n/a | Good | SM- <br> EM | Good |  | - | Remove | 10+ | C2 | 2.64 m |
| AG84 | Hornbeam (Carpinus betulus) | 3 | <70 | 0.5 | 0.5 | 0.5 | 0.5 | n/a | n/a | Fair | Y | Good |  | - | Remove | 10+ | C2 | 0.84m |
| AT85 | Hornbeam (Carpinus betulus) | 3 | 70 | 0.5 | 0.5 | 0.5 | 0.5 | n/a | 1 | Fair | Y | Good | Recently planted. Dieback of crown likely due to drought. | - | Remove | 10+ | C1 | 0.84m |
| AT86 | Hornbeam (Carpinus betulus) | 3 | 70 | 0.5 | 0.5 | 0.5 | 0.5 | n/a | 1 | Fair | Y | Good | Recently planted. Dieback of crown likely due to drought. | - | Remove | 10+ | C1 | 0.84m |


| Tree ID | Species | Estimated Height | Stem Diameter (mm) | Canopy N | Canopy s | Canopy E | Canopy w | First Significant Branch | Canopy Clearance | Physiological Condition | Age | Structural Condition | Condition Comments | Preliminary Management Comments | Tree works to facilitate the Project | Estimated Remaining Contribution in Years | Category | Root Protection Area Radius (m) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| AG87 | Hawthorn (Crataegus monogyna), Elder (Sambucus nigra) | 4 | <180\# | 2 | 2 | 2 | 2 | n/a | n/a | Good - Fair | SM | Good |  | - | - | 10+ | C 2 | 2.16 m |
| AT88 | Hornbeam (Carpinus betulus) | 3 | 70 | 0.5 | 0.5 | 0.5 | 0.5 | n/a | 1 | Fair | Y | Good | Recently planted. Dieback of crown likely due to drought. | - | Remove | 10+ | C1 | 0.84m |
| AT89 | Hornbeam (Carpinus betulus) | 3 | 70 | 0.5 | 0.5 | 0.5 | 0.5 | n/a | 1 | Fair | Y | Good | Recently planted. Dieback of crown likely due to drought. | - | Remove | 10+ | C1 | 0.84m |
| AT90 | Hornbeam (Carpinus betulus) | 3 | 70 | 0.5 | 0.5 | 0.5 | 0.5 | n/a | 1 | Fair | Y | Good | Recently planted. Dieback of crown likely due to drought. | - | Remove | 10+ | C1 | 0.84m |
| AT91 | Hornbeam (Carpinus betulus) | 3 | 70 | 0.5 | 0.5 | 0.5 | 0.5 | n/a | 1 | Fair | Y | Good | Recently planted. Dieback of crown likely due to drought. | - | Remove | 10+ | C1 | 0.84m |
| AG92 | Leyland <br> Cypress ( $X$ <br> Cupressocy <br> paris <br> leylandii), <br> Scots Pine (Pinus <br> sylvestris), Ash (Fraxinus excelsior),B eech (Fagus sy/vatica) | 12 | <300\# | 4 | 4 | 4 | 4 | n/a | n/a | Good | SM- <br> EM | Good | Privately owned garden trees. Formally planted line of Leyland with larger ash and pine. One beech with large included union with natural bracing present. | - | Localised crown reduction to provide a 2 m clearance from the security fence | $20+$ | B1,2 | 3.6 m |
| AT93 | Hornbeam (Carpinus betulus) | 3 | 70 | 0.5 | 0.5 | 0.5 | 0.5 | n/a | 1 | Fair | Y | Good | Recently planted. Dieback of crown likely due to drought. | - | Remove | 10+ | C1 | 0.84m |
| AT94 | Hornbeam (Carpinus betulus) | 3 | 70 | 0.5 | 0.5 | 0.5 | 0.5 | n/a | 1 | Fair | Y | Good | Recently planted. Dieback | - | Remove | 10+ | C1 | 0.84 m |


| Tree ID | Species | Estimated Height | Stem Diameter (mm) | Canopy N | $\begin{gathered} \text { Canopy } \\ \mathrm{S} \end{gathered}$ | Canopy $E$ | Canopy w | First Significant Branch | Canopy Clearance | Physiological Condition | Age | Structural Condition | Condition Comments | Preliminary Management Comments | Tree works to facilitate the Project | Estimated Remaining Contribution in Years | Category | Root Protection Area Radius (m) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |  |  |  |  |  | of crown likely due to drought. |  |  |  |  |  |
| AT95 | Hornbeam (Carpinus betulus) | 3 | 70 | 0.5 | 0.5 | 0.5 | 0.5 | n/a | 1 | Fair | Y | Good | Recently planted. Dieback of crown likely due to drought. | - | Remove | 10+ | C1 | 0.84m |
| AT96 | Hornbeam (Carpinus betulus) | 3 | 70 | 0.5 | 0.5 | 0.5 | 0.5 | n/a | 1 | Fair | Y | Good | Recently planted. Dieback of crown likely due to drought. | - | Remove | 10+ | C1 | 0.84m |
| AT97 | Hornbeam (Carpinus betulus) | 3 | 70 | 0.5 | 0.5 | 0.5 | 0.5 | n/a | 1 | Fair | Y | Good | Recently planted. Dieback of crown likely due to drought. | - | Remove | 10+ | C1 | 0.84m |
| AT98 | Sycamore (Acer pseudoplata nus) | 10 | 250\# | 2 | 2 | 2 | 2 | n/a | 3 | Good | SM | Good | Private garden tree. | - | - | 10+ | C2 | 3 m |
| AG99 | Hawthorn (Crataegus monogyna), Elder (Sambucus nigra) | 5 | <200\# | 3 | 3 | 3 | 3 | n/a | n/a | Good - Fair | SM- <br> EM | Good - Fair | Large group of inaccessible hawthorn and elder shrub growth. Dense bramble undergrowth. | - | - | 10+ | C2 | 2.4 m |
| AT100 | Hornbeam (Carpinus betulus) | 3 | 70 | 0.5 | 0.5 | 0.5 | 0.5 | n/a | 1 | Fair | Y | Good | Recently planted. Dieback of crown likely due to drought. | - | Remove | 10+ | C1 | 0.84m |
| AT101 | Sycamore (Acer pseudoplata nus) | 6 | $\begin{aligned} & 150,150,10 \\ & 0,100 \# \end{aligned}$ | 2 | 2 | 2 | 2 | 2.0/N | 1 | Good | SM | Good | Multistemmed from base. Good future potential. | - | - | 10+ | C1 | 3.1 m |
| AT102 | Hornbeam (Carpinus betulus) | 3 | 70 | 0.5 | 0.5 | 0.5 | 0.5 | n/a | 1 | Fair | Y | Good | Recently planted. Dieback of crown likely due to drought. | - | Remove | 10+ | C1 | 0.84m |
| AG103 | Goat Willow (Salix caprea), Hawthorn | 5 | <250\# | 3 | 3 | 3 | 3 | n/a | n/a | Good | SM | Good |  | - | - | 10+ | C2 | 3 m |


| Tree ID | Species | Estimated Height | Stem Diameter (mm) | Canopy N | Canopy S | Canopy $E$ | Canopy W | First Significant Branch | Canopy Clearance | Physiological Condition | Age | Structural Condition | Condition Comments | Preliminary Management Comments | Tree works to facilitate the Project | Estimated Remaining Contribution in Years | Category | Root Protection Area Radius (m) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | (Crataegus monogyna), Blackthorn (Prunus spinosa) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| AG104 | Hawthorn (Crataegus monogyna) | 4 | <220\# | 3 | 3 | 3 | 3 | n/a | n/a | Good - Fair | EM | Good - Fair | Typical hawthorn shrubs with dense bramble undergrowth. | - | - | 10+ | C2 | 2.64m |
| AT105 | Hornbeam (Carpinus betulus) | 3 | 70 | 0.5 | 0.5 | 0.5 | 0.5 | n/a | 1 | Fair | Y | Good | Recently planted. Dieback of crown likely due to drought. | - | Remove | 10+ | C1 | 0.84m |
| AG106 | Hawthorn (Crataegus monogyna) | 4 | <180\# | 3 | 3 | 3 | 3 | n/a | n/a | Good - Fair | SM- <br> EM | Good - Fair | Scattered hawthorn shrub group with very dense bramble undergrowth. | - | - | 10+ | C2 | 2.16 m |
| AT107 | Hornbeam (Carpinus betulus) | 3 | 70 | 0.5 | 0.5 | 0.5 | 0.5 | n/a | 1 | Fair | Y | Good | Recently planted. Dieback of crown likely due to drought. | - | Remove | 10+ | C1 | 0.84 m |
| AG108 | Hazel (Corylus avellana), Hawthorn (Crataegus monogyna), Goat Willow (Salix caprea),Fiel d Maple (Acer campestre), Ash (Fraxinus excelsior), C ommon Alder (Alnus glutinosa) | 12 | <450\# | 4 | 4 | 4 | 4 | n/a | n/a | Good - Fair | Y-EM | Good - Fair | Large group bordering access road for landfill site. No access, surveyed from Queen's Road. One ash withered symptoms of ash dieback. Good mix of species. | ${ }^{-}$ | - | 20+ | B2 | 5.4 m |
| AT109 | Hornbeam (Carpinus betulus) | 3 | 70 | 0.5 | 0.5 | 0.5 | 0.5 | n/a | 1 | Fair | Y | Good | Recently planted. Dieback | - | Remove | 10+ | C1 | 0.84m |


| Tree ID | Species | Estimated Height | Stem Diameter (mm) | Canopy | $\begin{gathered} \text { Canopy } \\ S \end{gathered}$ | Canopy E | Canopy w | First Significant Branch | Canopy Clearance | Physiological Condition | Age | Structural Condition | Condition Comments | Preliminary Management Comments | Tree works to facilitate the Project | Estimated Remaining Contribution in Years | Category | Root Protection Area Radius (m) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |  |  |  |  |  | of crown likely due to drought. |  |  |  |  |  |
| AT110 | Hornbeam (Carpinus betulus) | 3 | 70 | 0.5 | 0.5 | 0.5 | 0.5 | n/a | 1 | Fair | Y | Good | Recently planted. Dieback of crown likely due to drought. | - | Remove | 10+ | C1 | 0.84m |
| AT111 | Hornbeam (Carpinus betulus) | 4 | 150\# | 3 | 3 | 3 | 3 | n/a | 0 | Good | SM | Good | No access due to dense undergrowth. Good future potential. | - | - | 10+ | C1,2 | 1.8 m |
| AG112 | Hawthorn (Crataegus monogyna), Silver Birch (Betula pendula), Ot her, Crab Apple (Malus sylvestris) | 10 | <220\# | 3 | 3 | 3 | 3 | n/a | n/a | Good | Y-SM | Good | Privately owned garden trees with privet hedgerow. | - | Part remove as per TPP | 10+ | C2 | 2.64 m |
| AG113 | Hazel (Corylus avellana), Hawthorn (Crataegus monogyna), Goat Willow (Salix caprea),Eld er (Sambucus nigra) | 8 | <350\# | 3 | 3 | 3 | 3 | n/a | n/a | Good - Fair | Y-EM | Good - Fair | No access surveyed from Queen's Road. | - | - | 20+ | B2 | 4.2 m |
| AG114 | Elder (Sambucus nigra) | 2 | <150\# | 1.5 | 1.5 | 1.5 | 1.5 | n/a | n/a | Good | Y-SM | Good | Small section of elder with dense bramble growth. | - | Remove | 10+ | C2 | 1.8 m |
| AT115 | Ash (Fraxinus excelsior) | 5 | $\begin{aligned} & 200,150,15 \\ & 0,150,150 \# \end{aligned}$ | 2 | 2 | 2 | 2 | n/a | 1 | Good | SM | Good | Minor ash tree. Multistemmed from base. Directly adjacent to boundary fence. | - | Remove | 10+ | C2 | 4.3 m |


| Tree ID | Species | Estimated Height | Stem Diameter (mm) | Canopy $\mathrm{N}$ | $\begin{gathered} \text { Canopy } \\ \mathrm{S} \end{gathered}$ | Canopy E | Canopy w | First Significant Branch | Canopy Clearance | Physiological Condition | Age | Structural Condition | Condition Comments | Preliminary Management Comments | Tree works to facilitate the Project | Estimated Remaining Contribution in Years | Category | Root Protection Area Radius (m) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| AG116 | Cherry <br> (Prunus sp), <br> Silver Birch <br> (Betula <br> pendula), Ha <br> wthorn <br> (Crataegus <br> monogyna), <br> Cherry Plum <br> (Prunus cerasifera), <br> Holly (llex aquifolium) | 8 | <300\# | 3 | 3 | 3 | 3 | n/a | n/a | Good | SM- <br> EM | Good | Private garden trees, no access surveyed from Queen's Road. | - | Part remove as per TPP | 20+ | B1,2 | 3.6 m |
| AT117 | Field Maple (Acer campestre) | 9 | 450\# | 5 | 5 | 5 | 5 | 0.3/S | 0 | Good | M | Good | Mature field maple at edge of group. <br> Multistemmed from 0.25 m . Stem diameter estimated around base. | $\square^{-}$ | - | 20+ | B2 | 5.4 m |
| AT118 | Ash (Fraxinus excelsior) | 10 | 400\# | 5.5 | 5.5 | 5.5 | 5.5 | 1.0/W | 2 | Fair | EM | Good | Early symptoms of ash dieback. Previously pruned to clear access road. | - | - | 10+ | C1 | 4.8m |
| AG119 | Elder (Sambucus nigra) | 1 | <100\# | 0.5 | 0.5 | 0.5 | 0.5 | n/a | n/a | Good | SM | Good | Small section of shrub growth. | - | - | 10+ | C2 | 1.2 m |
| AT120 | Ash (Fraxinus excelsior) | 8 | 380\# | 4 | 4 | 4 | 4 | 2.0/SW | 3 | Fair | EM | Good | Symptoms of ash dieback, bare branches within crown, apical dieback. | - | - | 10+ | C1 | 4.56 m |
| AG121 | Willow <br> (Salix sp) | 2 | <75\# | 1 | 1 | 1 | 1 | n/a | n/a | Good - Fair | Y | Good - Fair | Large area of open space, grey willow and goat willow. Young growth all less than 75 mm stem diameter. | - | Remove | 10+ | C 2 | 0.9 m |

Ewironmental Statement Appendix 8.F: Arboricultural Impact Assessment

| Tree ID | Species | Estimated Height | Stem Diameter (mm) | Canopy N | $\begin{gathered} \text { Canopy } \\ \mathrm{S} \end{gathered}$ | Canopy $E$ | Canopy W | First Significant Branch | Canopy Clearance | Physiological Condition | Age | Structural Condition | Condition Comments | Preliminary Management Comments | Tree works to facilitate the Project | Estimated Remaining Contribution in Years | Category | Root Protection Area Radius (m) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| AG122 | Hawthorn (Crataegus monogyna) | 4 | <200\# | 4 | 4 | 4 | 4 | n/a | n/a | Good - Fair | SM- <br> EM | Good - Fair | Large area of hawthorn scrub growth. Limited access due to dense overgrowth of area. | - | Localised crown reduction to provide a $2 m$ clearance from the security fence. | 10+ | C2 | 2.4 m |
| AT123 | Ash (Fraxinus excelsior) | 10 | 260\# | 4 | 4 | 4 | 4 | 3.0/SW | 2 | Good | SM | Good |  | - | - | 10+ | C1 | 3.12 m |
| AG124 | Elder <br> (Sambucus nigra), Hawthorn (Crataegus monogyna) | 4 | <280\# | 3 | 3 | 3 | 3 | n/a | n/a | Good - Fair | EM | Good |  | - | Remove | 10+ | C2 | 3.36 m |
| AG125 | Hawthorn (Crataegus monogyna), Goat Willow (Salix caprea),Ash (Fraxinus excelsior), Fi eld Maple (Acer campestre) | 10 | <280\# | 3 | 3 | 3 | 3 | n/a | n/a | Good - Fair | Y-SM | Good - Fair | Large group outside red line boundary. Dense group with good mix of species predominantly semi mature. | - | - | 20+ | B2 | 3.36 m |
| AT126 | Elder (Sambucus nigra) | 3 | $\begin{array}{\|l\|} \text { 100,100,10 } \\ 0,90,80 \# \end{array}$ | 2 | 2 | 2 | 2 | n/a | 1 | Good - Fair | SM | Good | Minor deadwood. | - | Remove | 10+ | C2 | 2.5m |
| AT127 | Ash (Fraxinus excelsior) | 3 | 150,100\# | 1.5 | 1.5 | 1.5 | 1.5 | 0.3/N | 0 | Good | SM | Good | Good future potential. | - | Remove | 10+ | C1 | 2.2 m |
| AG128 | Hawthorn (Crataegus monogyna), Goat Willow (Salix caprea),Ash (Fraxinus excelsior),El der | 6 | <200\# | 3 | 3 | 3 | 3 | n/a | n/a | Good - Fair | Y-SM | Good - Fair | Predominantly hawthorn scrub growth with few young ash and willow within. | - | - | 10+ | C2 | 2.4 m |


| Tree ID | Species | Estimated Height | Stem Diameter (mm) | Canopy $N$ | $\begin{gathered} \text { Canopy } \\ S \end{gathered}$ | Canopy $E$ | Canopy W | First Significant Branch | Canopy Clearance | Physiological Condition | Age | Structural Condition | Condition Comments | Preliminary Management Comments | Tree works to facilitate the Project | Estimated Remaining Contribution in Years | Category | Root Protection Area Radius (m) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | (Sambucus nigra) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| AT129 | Ash (Fraxinus excelsior) | 6 | 200 | 3 | 3 | 3 | 1 | 1.0/E | 1 | Fair | SM | Good | Early symptoms of ash dieback. | - | - | 10+ | C2 | 2.4 m |
| AT130 | Ash (Fraxinus excelsior) | 5 | 180 | 3 | 3 | 1 | 3 | 2.0/W | 1 | Fair | SM | Good | Early symptoms of ash dieback. | - | - | 10+ | C2 | 2.16 m |
| AG131 | Ash (Fraxinus excelsior) | 6 | 180 | 2 | 2 | 2 | 2 | n/a | n/a | Poor | Y-SM | Fair | Severe symptoms of ash dieback. | - | - | 10+ | C2 | 2.16 m |
| AG132 | Willow (Salix sp) | 5 | <150\# | 3 | 3 | 3 | 3 | n/a | n/a | Good | SM | Good | Small clump of willow growth. | - | - | 10+ | C2 | 1.8 m |
| AT133 | Ash (Fraxinus excelsior) | 4 | 120\# | 1 | 1 | 1 | 1 | 1.5/W | 1 | Fair | SM | Good | Symptoms of ash dieback. | - | - | 10+ | C2 | 1.44 m |
| AT134 | Ash (Fraxinus excelsior) | 10 | 620\# | 6 | 6 | 6 | 6 | 0.3/E | 2 | Fair | M | Good | Early symptoms of ash dieback in upper crown. Hawthorn growing around base restricting view of stem. | - | - | 10+ | C1,2 | 7.44 m |
| AG135 | Hawthorn (Crataegus monogyna), Goat Willow (Salix caprea) | 6 | <250\# | 3 | 3 | 3 | 3 | n/a | n/a | Good - Fair | Y-SM | Good - Fair | Predominantly hawthorn scrub growth. Few goat willow mixed within. | - | Part remove as per TPP | 10+ | C2 | 3 m |
| AG136 | Hawthorn (Crataegus monogyna) | 4 | <200\# | 3 | 3 | 3 | 3 | n/a | n/a | Good | SM- <br> EM | Good |  | - | Localised crown reduction to provide a 2 m clearance from the security fence. | 10+ | C2 | 2.4 m |
| AT137 | Ash (Fraxinus excelsior) | 5 | 160\# | 1.5 | 1.5 | 1.5 | 1.5 | 1.0/W | 1 | Good | SM | Fair |  | - | - | 10+ | C1 | 1.92 m |


| Tree ID | Species | Estimated Height | Stem Diameter (mm) | Canopy N | $\begin{gathered} \text { Canopy } \\ \mathrm{S} \end{gathered}$ | Canopy E | Canopy w | First Significant Branch | Canopy Clearance | Physiological Condition | Age | Structural Condition | Condition Comments | Preliminary Management Comments | Tree works to facilitate the Project | Estimated Remaining Contribution in Years | Category | Root Protection Area Radius (m) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| AG138 | Hawthorn (Crataegus monogyna) | 4 | <200\# | 2.5 | 2.5 | 2.5 | 2.5 | n/a | n/a | Good | SM- <br> EM | Good |  | - | Remove | 10+ | C2 | 2.4 m |
| AT139 | Goat Willow (Salix caprea) | 10 | 300 | 2.5 | 2.5 | 2.5 | 2.5 | 2.0/NW | 3 | Good | EM | Fair | Minor bark damage to lower stem. Sprayed blue paint on stem. Eastern lean toward boundary fence. | - | - | 20+ | B2 | 3.6 m |
| AG140 | Hawthorn (Crataegus monogyna) | 5 | <200\# | 3 | 3 | 3 | 3 | n/a | n/a | Good | SM- <br> EM | Good | Long stretch of hawthorn separating field sections. Unmanaged. | - | Remove | 10+ | C2 | 2.4 m |
| AG141 | Hawthorn (Crataegus monogyna), Goat Willow (Salix caprea) | 8 | <260 | 2 | 2 | 2 | 2 | n/a | n/a | Fair - Poor | Y-SM | Fair | Low quality group of mostly hawthorn. Goat willow with wound to stem good woundwood formation. Minor internal decay. | - | Localised crown reduction to provide a 2 m clearance from the security fence. | 10+ | C2 | 3.12 m |
| AG142 | Willow (Salix sp) | 4 | <100\# | 2 | 2 | 2 | 2 | n/a | n/a | Good - Fair | Y-SM | Good - Fair | Large area of open space colonised by young willow growth, all less than 100 stem diameter. Scattered growth with gaps. | - | Remove | 10+ | C2 | 1.2 m |
| AG143 | Hawthorn (Crataegus monogyna) | 4 | <240 | 2 | 2 | 2 | 2 | n/a | n/a | Good - Fair | SM- <br> EM | Good | Group of hawthorn along boundary fence. | - | Remove | 10+ | C2 | 2.88 m |
| AT144 | Hawthorn (Crataegus monogyna) | 5 | 200\# | 2.5 | 2.5 | 2.5 | 2.5 | n/a | 0 | Good | EM | Good |  | - | - | 10+ | C2 | 2.4 m |


| $\begin{aligned} & \text { Tree } \\ & \text { ID } \end{aligned}$ | Species | Estimated Height | Stem Diameter (mm) | Canopy N | Canopy S | Canopy $E$ | Canopy w | First Significant Branch | Canopy Clearance | Physiological Condition | Age | Structural Condition | Condition Comments | Preliminary Management Comments | Tree works to facilitate the Project | Estimated Remaining Contribution in Years | Category | Root Protection Area Radius (m) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| AG145 | Hawthorn (Crataegus monogyna), Elder (Sambucus nigra),Goat Willow (Salix caprea) | 6 | <200\# | 4 | 4 | 4 | 4 | n/a | n/a | Good | SM- <br> EM | Good |  | - | Remove | 10+ | C2 | 2.4 m |
| AG146 | Hawthorn (Crataegus monogyna) | 4 | <180 | 2 | 2 | 2 | 2 | n/a | n/a | Good - Fair | SM | Good | Group of hawthorn bordering edge of land adjacent to boundary fence. Minor deadwood. | - | Remove | 10+ | C2 | 2.16 m |
| AW147 | Hawthorn <br> (Crataegus monogyna), <br> Goat Willow (Salix caprea),Che rry (Prunus sp),Ash (Fraxinus excelsior), H azel (Corylus avellana) | 15 | <450\# | 4 | 4 | 4 | 4 | n/a | n/a | Good - Fair | Y-EM | Good - Fair | Inaccessible woodland group. Good mix of species. bordering red line boundary. | - | Part remove as per TPP | 20+ | B1,2 | 5.4 m |
| AG148 | Hawthorn (Crataegus monogyna) | 6 | <250\# | 3 | 3 | 3 | 3 | n/a | n/a | Good - Fair | Y-EM | Good - Fair | Long strip of scrub hawthorn bordering large area of open space. | - | Remove | $10+$ | C1,2 | 3 m |

## Key to Abbreviations Used in the Survey

| Abbreviation | Definition |
| :---: | :---: |
| \# | Estimated dimensions |
| * | Indicates estimated position of tree (not indicated on topographical survey). |
| Crown clearance | The estimated height (in metres) above ground level of the lowest significant branch attachments. <br> Av / Average: |
| Stem diameter | Diameter of main stem, measured in millimetres at 1.5 m above ground level. <br> indicates an average <br> (MS = Multi-stem tree measured in accordance with representative BS5837:2012 Annexe C) <br> measured dimension |
| Spread | The width and breadth of the crown. Estimated on the four compass points in metres. |
| Category | Categorisation of the quality and benefits of trees on the Site as per Table 1 and 2 of BS5837:2012. <br> 1=Arboricultural quality/value <br> 2=Landscape quality/value <br> $3=$ Cultural quality/value (including conservation) |
|  | A=High quality/value 40yrs+ (light green). <br> $B=$ Moderate quality/value 20yrs+ (mid blue) <br> C=Low quality/value min $10 y r s /$ stem diameter less than 150 mm (grey). <br> U=Unsuitable for retention (dark red). |
| Life stage | Young (Y): Newly planted tree 0-10 years. <br> Semi-Mature (SM): Tree in the first third of its normal life expectancy for the species (significant potential for future growth in size). <br> Early Mature (EM): Tree in the second third of its normal life expectancy for the species (some potential for future growth in size) <br> Mature (M): Tree in the final third of its normal life expectancy for the species (having typically reached its approximate ultimate size). <br> Over Mature (OM): Tree beyond the normal life expectancy for the species. <br> Veteran (V): Tree which is of interest biologically, aesthetically or culturally because of its condition, size or age. |
| Physiological condition | Good: Normal vitality including leaf size, bud growth, density of crown and wound wood development. <br> Fair: Lower than normal vitality, reduced bud development, reduced crown density, reduced response to wounds. |

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|  | Poor: Low vitality, low development and distribution of buds, discoloured <br> leaves, low crown density, little extension growth for the species. <br> Dead: Dead <br> Fair/Good = Indicates an intermediate condition <br> Fair - Good = Indicates a range of conditions (e.g. within a group) |
| :--- | :--- |
| Preliminary <br> management <br> recommendations | Works identified during the tree survey as part of sound arboricultural <br> management, based on the current context of the Site (where relevant <br> reference has been made to tree management based on the potential future <br> context of the site). |
| Ref No | Specific identification number given to each tree or group. <br> T=Tree/H=Hedge/G=Group/W=Woodland |
| RPA | Root Protection Area (As defined by BS5837:2012) |
| Species | Common name followed by botanical name shown in italics |
| Structural <br> condition | Good: No significant structural defects <br> Fair: Structural defects which can be resolved via remedial works. <br> Poor: Structural defects which cannot be resolved via remedial works. <br> Dead: Dead. |
| Works to facilitate <br> the development | Tree works identified as necessary to facilitate the Project following a desk <br> top analysis of the proposals in relation to tree constraints. |

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## Annex C Copy of Tree Preservation Order

## NORTH EAST LINCOLNSHIRE COUNCIL

For action by: Gary Lewis

Meeting: Planning Committee
Date of Meeting: 16 May 2003

Minute No: P. 208
P. 208 CONFIRMATION OF NORTH EAST LINCOLNSHIRE BOROUGH COUNCIL TREE PRESERVATION ORDER 2002. NEL 107

The Committee received a report from the Director of Environmental Services regarding confirmation of the above preservation order.

RESOLVED - That the order be confirmed.

## NORTH EAST LINCOLNSHIRE BOROUGH COUNCIL

TOWN AND COUNTRY PLANNING ACT 1990

# TREE PRESERVATION ORDER RELATING TO TREES AT <br> LONG WOOD, LAPORTE ROAD, STALLINGBOROUGH 

M. J Walters

Director of Law and Democratic Services

# TOWN AND COUNTRY PLANNING (TREES) REGULATIONS <br> 1999 <br> MODEL FORM OF TREE PRESERVATION ORDER 

Town and Country Planning Act 1990<br>The North East Lincolnshire Borough Council No. 107 (Long Wood, Laporte Road, Stallingborough)<br>Tree Preservation Order 2002

The North East Lincolnshire Council, in exercise of the powers conferred on them by sections 198 [,201] and 203 of the Town and Country Planning Act 1990 hereby make the following Order-

## Citation

1. This Order may be cited as the North East Lincolnshire Borough Council No. 107 (Long Wood, Laporte Road, Stallingborough) Tree Preservation Order 2002

## Interpretation

2. In this Order "the authority" means the North East Lincolnshire Council and unless the context otherwise requires, any reference in this Order to a numbered section is a reference to the section so numbered in the Town and Country Planning Act 1990.

## [Application of section 201

3. The authority hereby direct that section 201 (provisional tree preservation orders) shall apply to this Order and, accordingly, this Order shall take effect provisionally on


## Prohibited acts in relation to trees

4. Without prejudice to subsections (6) and (7) of section 198 (power to make tree preservation orders)(1) [or subsection (3) of section 200 (orders affecting land where Forestry Commissioners interested)], and subject to article 5, no person shall-
(a) cut down, top, lop, uproot, wilfully damage or wilfully destroy; or
(b) cause or permit the cutting down, topping, lopping, uprooting, wilful damage or wilful destruction of,
any tree specified in Schedule 1 to this Order or comprised in a group of trees or in a woodland so specified, except with the consent of the authority and, where such consent is given subject to conditions, in accordance with those conditions.
(1) Subsection (6) of section 198 exempts from the application of tree preservation orders the cutting down, uprooting, topping or lopping or lopping trees which are dying, dead or have become dangerous, or the undertaking of those acts in compliance with obligations imposed by or under an Act of Parliament or so far as may be necessary for the prevention or abatement of a nuisance. Subsection (7) of that section makes section 198 subject to section 39(2) of the Housing and Planning Act 1986 and section 14 of the Forestry Act 1967.

## Exemptions

5.-(1) Nothing in article 4 shall prevent-
(a) the cutting down, topping, lopping or uprooting of a tree by or at the request of a statutory undertaker, where the land on which the tree is situated is operational land of the statutory undertaker and the work is necessary-
(i) in the interests of the safe operation of the undertaking;
(ii) in connection with the inspection, repair or renewal of any sewers, mains, pipes, cables or other apparatus of the statutory undertaker; or
(iii) to enable the statutory undertaker to carry out development permitted by or under the Town and Country Planning (General Permitted Development) Order 1995;
(b) the cutting down, topping, lopping or uprooting of a tree cultivated for the production of fruit in the course of a business or trade where such work is in the interests of that business or trade;
(c) the pruning, in accordance with good horticultural practice, of any tree cultivated for the production of fruit;
(d) the cutting down, topping, lopping or uprooting of a tree where that work is required to enable a person to implement a planning permission (other than an outline planning permission or, without prejudice to paragraph (a)(iii), a permission granted by or under the Town and Country Planning (General Permitted Development) Order 1995) granted on an application under Part III of the Act, or deemed to have been granted (whether for the purposes of that Part or otherwise);
(e) the cutting down, topping, lopping or uprooting of a tree by or at the request of the Environment Agency to enable the Agency to carry out development permitted by or under the Town and Country Planning (General Development Order) 1995;
(f) the cutting down, topping, lopping or uprooting of a tree by or at the request of a drainage body where that tree interferes, or is likely to interfere, with the exercise of any of the functions of that body in relation to the maintenance, improvement or construction of watercourses or of drainage works, and for this purpose "drainage body" and "drainage" have the same meanings as in the Land Drainage Act 1991; or
(g) without prejudice to section 198(6)(b), the felling or lopping of a tree or the cutting back of its roots by or at the request of, or in accordance with a notice served by, a licence holder under paragraph 9 of Schedule 4 to the Electricity Act 1989.
(2) In paragraph (1), "statutory undertaker" means any of the following-

- a person authorised by any enactment to carry on any railway, light railway, tramway, road transport, water transport, canal, inland navigation, dock, harbour, pier or lighthouse undertaking, or any undertaking for the supply of hydraulic power,
- a relevant airport operator (within the meaning of Part V of the Airports Act 1986),
- the holder of a licence under section 6 of the Electricity Act 1989,
- a public gas transporter,
- the holder of a licence under section 7 of the Telecommunications Act 1984 to whom the telecommunications code (within the meaning of that Act) is applied,
- a water or sewerage undertaker,
- the Civil Aviation Authority or a body acting on behalf of that Authority,
- the Post Office.


## Applications for consent under the Order

6. An application for consent to the cutting down, topping, lopping or uprooting of any tree in respect of which this Order is for the time being in force shall be made in writing to the authority and shall-
(a) identify the tree or trees to which it relates (if necessary, by reference to a plan);
(b) specify the work for which consent is sought; and
(c) contain a statement of the applicant's reasons for making the application.

## Application of provisions of the Town and Country Planning Act 1990

7.-(1) The provisions of the Town and Country Planning Act 1990 relating to registers, applications, permissions and appeals mentioned in column (1) of Part I of Schedule 2 to this Order shall have effect, in relation to consents under this Order and applications for such consent, subject to the adaptations and modifications mentioned in column (2).
(2) The provisions referred to in paragraph (1), as so adapted and modified, are set out in Part II of that Schedule.

## Directions as to replanting

8.-(1) Where consent is granted under this Order for the felling in the course of forestry operations of any part of a woodland area, the authority may give to the owner of the land on which that part is situated ("the relevant land") a direction in writing specifying the manner in which and the time within which he shall replant the relevant land.
(2) Where a direction is given under paragraph (1) and trees on the relevant land are felled (pursuant to the consent), the owner of that land shall replant it in accordance with the direction.
(3) A direction under paragraph (1) may include requirements as to-
(a) species;
(b) number of trees per hectare;
(c) the preparation of the relevant land prior to the replanting; and
(d) the erection of fencing necessary for the protection of the newly planted trees.

## Compensation

9.-(1) If, on a claim under this article, a person establishes that loss or damage has been caused or incurred in consequence of-
(a) the refusal of any consent required under this Order; or
(b) the grant of any such consent subject to conditions,
he shall, subject to paragraphs (3) and (4), be entitled to compensation from the authority.
(2) No claim, other than a claim made under paragraph (3), may be made under this article-
(a) if more than 12 months has elapsed since the date of the authority's decision or, where such a decision is the subject of an appeal to the Secretary of State, the date of the final determination of the appeal; or
(b) if the amount in respect of which the claim would otherwise have been made is less than $£ 500$.
(3) Where the authority refuse consent under this Order for the felling in the course of forestry operations of any part of a woodland area, they shall not be required to pay compensation to any person other than the owner of the land; and such compensation shall be limited to an amount equal to any depreciation in the value of the trees which is attributable to deterioration in the quality of the timber in consequence of the refusal.
(4) In any other case, no compensation shall be payable to a person-
(a) for loss of development value or other diminution in the value of the land;
(b) for loss or damage which, having regard to the statement of reasons submitted in accordance with article 6(c) and any documents or other evidence submitted in support of any such statement, was not reasonably foreseeable when consent was refused or was granted subject to conditions;
(c) for loss or damage reasonably foreseeable by that person and attributable to his failure to take reasonable steps to avert the loss or damage or to mitigate its extent; or
(d) for costs incurred in appealing to the Secretary of State against the refusal of any consent required under this Order or the grant of any such consent subject to conditions.
(5) Subsections (3) to (5) of section 11 (terms of compensation on refusal of licence) of the Forestry Act 1967 shall apply to the assessment of compensation under paragraph (3) as it applies to the assessment of compensation where a felling licence is refused under section 10 (application for felling licence and decision of Commissioners thereon) of that Act as if for any reference to a felling licence there were substituted a reference to a consent required under this Order and for the reference to the Commissioners there were substituted a reference to the authority.
(6) In this article-
"development value" means an increase in value attributable to the prospect of development; and, in relation to any land, the development of it shall include the clearing of it; and
"owner" has the meaning given to it by section 34 of the Forestry Act 1967.

## [Application to trees to be planted pursuant to a condition

[10.] In relation to the tree[s] identified in the first column of Schedule 1 by the letter "C", being [a tree] [trees] to be planted pursuant to a condition (being a condition imposed under paragraph (a) of section 197 (planning permission to include appropriate provision for preservation and planting of trees)), this Order takes effect as from the time when [that tree is planted] [those trees are planted].]
[Orders made by virtue of section 300
[11.] This Order takes effect in accordance with subsection (3) of section 300 (tree preservation orders in anticipation of disposal of Crown land).]

The Common Seal of the North East Lincolnshire Borough Council was hereunto affixed in the oresence of -


Chief Executive / Director o


## CONFIRMATION OF ORDER

[This Order was confirmed by the North East Lincolnshire Borough Council without modification on the I. $6+4$ day of MAY 2008.
OR
[This Order was confirmed by the North East Lincolnshire Borough Council, subject to the modifications indicated by ..................................., on the day of $\qquad$

[DECISION NOT TO CONFIRM ORDER
[A decision not to confirm this Order was taken by North East Lincolnshire Borough Council on the [ ] day of [insert month and year]

Authorised by the Council to sign in that behalf]
[VARIATION OF ORDER
[This Order was varied by the North East Lincolnshire Borough Council on the [ ] day of [insert month and year] under the reference number [insert reference number of the variation order]

Authorised by the Council to sign in that behalf]
[REVOCATION OF ORDER
[This Order was revoked by the North East Lincolnshire Borough Council on the [ ] day of [insert month and year] under the reference number [insert reference number of the revocation order]

Authorised by the Council to sign in that behalf]

## SCHEDULE 1

## SPECIFICATION OF TREES

## Trees specified individually

(encircled in black on the map)


## SCHEDULE 2

## PART I

PROVISIONS OF THE TOWN AND COUNTRY PLANNING ACT 1990 APPLIED WITH ADAPTATIONS OR MODIFICATIONS

| Provision of the Town and Country Planning Act 1990 | Adaptation or Modification |
| :---: | :---: |
| Section 69 (registers) | (a) In subsection (1)- <br> (i) omit- <br> ", in such manner as may be prescribed by a development order,", <br> "such" in the second place where it appears, and <br> "as may be so prescribed"; and <br> (ii) substitute "matters relevant to tree preservation orders made by the authority" for "applications for planning permission". <br> (b) In subsection (2)- <br> (i) after "contain" insert ", as regards each such order"; and <br> (ii) for paragraphs (a) and (b) substitute- <br> (a) details of every application under the order and of the authorty's decision (if any) in relation to eachj such application, and <br> (b) a statement as to the subject-matter of every appeal under the order and of the date and nature of the Secretary of State's determination of it.". <br> (c) Omit subsections (3) and (4) (as required by section 198(4)). |
| Section 70 (determination of applications: general considerations) | (a) In subsection (1)- <br> (i) substitute- <br> "Subject to subsections (1A) and (1B), where" for "Where"; |

$\left.\begin{array}{|l|l|}\hline & \begin{array}{r}\text { "the authority" for "a local planning authority"; } \\ \text { "consent under a tree preservation order" for } \\ \text { "planning permission" where those words first } \\ \text { appear; and }\end{array} \\ \text { "consent under the order" for "planning } \\ \text { permission" in both of the other places where } \\ \text { those words appear; }\end{array}\right\}$

$\left.\begin{array}{|l|l|}\hline \text { (e) For subsection (5), substitute- } \\ \text { "(5) For the purposes of the application of section } \\ \text { 79(1), in relation to an appeal made under subsection } \\ \text { (1)(d), it shall be assumed that the authority decided to } \\ \text { refuse the application in question.". }\end{array}\right\}$

## PART II

## PROVISIONS OF THE TOWN AND COUNTRY PLANNING ACT 1990, AS ADAPTED AND MODIFIED BY PART I

The following provisions of the Town and Country Planning Act 1990, as adapted and modified by Part I of this Schedule, apply in relation to consents, and applications for consent, under this Order.

## Section 69

(1) Every local planning authority shall keep a register containing information with respect to matters relevant to tree preservation orders made by the authority.
(2) The register shall contain, as regards each such order-
(a) details of every application under the order and of the authority's decision (if any) in relation to each such application, and
(b) a statement as to the subject-matter of every appeal under the order and of the date and nature of the Secretary of State's determination of it.
(5) Every register kept under this section shall be available for inspection by the public at all reasonable hours.

## Section 70

(1) Subject to subsections (1A) and (1B), where an application is made to the authority for consent under a tree preservation order-
(a) they may grant consent under the order, either unconditionally or subject to such conditions as they think fit (including conditions limiting the duration of the consent or requiring the replacement of trees); or
(b) they may refuse consent under the order.
(1A) Where an application relates to an area of woodland, the authority shall grant consent so far as accords with the practice of good forestry, unless they are satisfied that the granting of consent would fail to secure the maintenance of the special character of the woodland or the woodland character of the area.
(1B) Where the authority grant consent for the felling of trees in a woodland area they shall not impose conditions requiring replacement where such felling is carried out in the course of forestry operations (but may give directions for securing replanting).

## Section 75

Any grant of consent under a tree preservation order shall (except in so far as the consent otherwise provides) enure for the benefit of the land to which the order relates and of all persons for the time being interested in it.

## Section 78

(1) Where the authority-
(a) refuse an application for consent under a tree preservation order or grant it subject to conditions;
(b) refuse an application for any consent, agreement or approval of that authority required by a condition imposed on a grant of consent under such an order or grant it subject to conditions;
(c) give a direction under a tree preservation order, or refuse an application for any consent, agreement or approval of that authority required by such a direction; or
(d) fail to determine any such application as is referred to in paragraphs (a) to (c) within the period of 8 weeks beginning with the date on which the application was received by the authority,
the applicant may by notice appeal to the Secretary of State.
(3) Any appeal under this section shall be made by notice in writing addressed to the Secretary of State, specifying the grounds on which the appeal is made; and such notice shall be served-
(a) in respect of a matter mentioned in any of paragraphs (a) to (c) of subsection (1), within the period of 28 days from the receipt of notification of the authority's decision or direction or within such longer period as the Secretary of State may allow;
(b) in respect of such a failure as is mentioned in paragraph (d) of that subsection, at any time after the expiration of the period mentioned in that paragraph, but if the authority have informed the applicant that the application has been refused, or granted subject to conditions, before an appeal has been made, an appeal may only be made against that refusal or grant.
(4) The appellant shall serve on the authority a copy of the notice mentioned in subsection (3).
(5) For the purposes of the application of section 79(1), in relation to an appeal made under subsection (1)(d), it shall be assumed that the authority decided to refuse the application in question.
(1) On an appeal under section 78 the Secretary of State may-
(a) allow or dismiss the appeal, or
(b) reverse or vary any part of the decision of the authority (whether the appeal relates to that part of it or not),
and may deal with the application as if it had been made to him in the first instance.
(2) Before determining an appeal under section 78 the Secretary of State shall, if either the appellant or the authority so wish, give each of them an opportunity of appearing before and being heard by a person appointed by the Secretary of State for the purpose.
(4) Subject to subsection (2), the provisions of section $70(1),(1 A)$ and (1B) shall apply, with any necessary modifications, in relation to an appeal to the Secretary of State under section 78 as they apply in relation to an application for consent under a tree preservation order which falls to be determined by the authority.
(5) The decision of the Secretary of State on such an appeal shall be final.
(7) Schedule 6 applies to appeals under section 78.


| LOCATION PLAN |
| :--- |
| Address: Long Wood, Laporte Road, |
| Stallingboroough |
| T.P.O. : North East Lincolnshire Borough |
| Council No. 107 (Long Wood, Laporte Road, |
| Stallingboroough) Tree Preservation Order |
| 2002 |
| Trees: W. 1 \& W. 2 Mixed deciduous |
| WoodInds |


| NORTH EAST LINCOLNSHIRE |
| :--- |
| BOROUGH COUNCIL |
| ENVIRONMENTAL SERVICES |
| ENGINEERING SERVICES |
| CIVIC OFFICES |
| KNOLL STREET |
| CLEETHORPES DN35 8LN |
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## Annex D Tree Protection Plan









## Annex E Outline Tree Protection Measures

## Outline Tree Protection Measures

1.1.1 The default position as set out by BS 5837:2012 is that retained trees must be protected from construction operations with the erection of robust protective fencing positioned on the outer edge of the RPA or crown spread (whichever is greatest). All site operations will be restricted to the area outside of tree protection fencing and this area will form a Construction Exclusion Zone ("CEZ") unless agreed otherwise. Protection measures will be installed as set out in the Tree Protection Plan included as Annex D of this report.
1.1.2 The area inside the fence and any additional tree protection measures will be sacrosanct and must not be removed or altered without the prior approval of an arboriculturist. Any damage to tree protection measures must be reported immediately.
1.1.3 Fencing shall be constructed with robust vertical and horizontal scaffold framework with weldmesh panels firmly attached as per BS 5837:2012 Figure 7 (included below). Vertical support poles and bracing poles must be located with care to avoid underground utility services and will be sited to avoid the structural roots of retained trees.
1.1.4 Alternative equivalent robust and immovable fencing specification including site hoarding will also be appropriate.
1.1.5 Suitable all weather signage will be fixed to fencing to notify site staff and visitors of the construction exclusion zone and its purpose (example included as Annex F).

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## Plate E-1 Default specification for protective barrier


1.1.6 When entering and exiting the Site the fencing contractor must avoid the production of ruts on the unprotected surface of the ground.
1.1.7 Protective fencing and ground protection shall stay in place until all development operations have been completed and the prior consent of the project arboriculturist has been obtained.

## Ground Protection

1.1.8 Should access be unavoidable within the RPA of a retained tree, fit for purpose ground protection must be in place which is sufficient to protect the structure of the soil from damage based on the heaviest anticipated load.
1.1.9 As set out in section 6.2.3.3 of BS5837:2012 the following ground protection measures will be appropriate:
a. Suitable ground protection for pedestrian only access will comprise a single thickness of scaffold boards set on a compressible layer of 100 mm of woodchip on a geotextile separation layer.
b. Pedestrian operated plant up to two tonnes in weight would require the use of a proprietary ground protection system (such as Ground Guards or Eve Trakway or equivalent) set on a minimum depth of 150 mm woodchip or sharp sand.
c. Heavier loads will require ground protection to an engineering specification in conjunction with arboricultural advice.

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1.1.10 As a guide the threshold beyond which root development is significantly affected is a bulk density ranging from 1.4 g per $\mathrm{cm}^{3}$ for clay soils, to $1.75 \mathrm{~g} \mathrm{per} \mathrm{cm}^{3}$ for sandy soils.
1.1.11 Tree protective measures shall stay in place until all construction operations are completed and removal is agreed with the project arboriculturist.

## General guidance for the management of exposed roots

1.1.12 Excavation must only take place within the RPA of a retained tree with the prior agreement of the project arboriculturist. All excavation must be undertaken using hand tools or compressed air (such as an air spade).
1.1.13 The following general principles will apply:
a. Individual or small groups of roots less than 25 mm in diameter will be retained where possible but can be severed with a sharp tool such as secateurs or pruning saws to leave a clean cut end (ideally 100 mm back from the face of the excavation to account for future regrowth) where they pose an obstruction.
b. Where roots are encountered which are larger than 25 mm in diameter or where significant groups of smaller roots are found, the advice of an arboriculturist must be sought to decide an appropriate course of action
c. Roots must only be exposed for the minimum period possible. In the interim period any exposed roots must be completely covered with dampened hessian sacking (which may require ongoing re wetting) to avoid drying out and exposure to light (which can result in the death of roots). Backfill for excavations would utilise the parent material and must not be significantly compacted.

## Storage, use and mixing of materials

1.1.14 The use, mixing and washing of materials can lead to run off or inadvertent spillage into tree root zones. Many substances often used on construction sites can be toxic to tree roots (such as concrete, fuels, salts, builders sand and herbicides), can result in the death of tree roots and beneficial soil organisms; and have a significant impact on the future health and appearance of trees.
1.1.15 The storage of materials can result in an effective raised soil level. This buries tree roots at depths where air and water are less available and can lead to the decline or death of the tree.
1.1.16 For these reasons the storage of materials and any washing, mixing or refuelling must take place in agreed allocated areas at least 5 m from the edge of the RPA of retained trees.
1.1.17 Any slope effect must be taken into account and where there is a potential for run off, heavy duty polythene sheeting and sandbags must be in place as bunding to prevent toxic materials reaching RPAs.

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Environmental Statement Appendix 8.F: Arboricultural Impact Assessment

## Annex F Tree Protection Signage (Example)



