



TREE SURVEYS & CONSULTANCY SERVICES

# Arboricultural Impact Assessment

**North access road into the Kronospan Facility,  
lorry park, roundwood storage areas and  
associated structures, 132kV substation, and  
ancillary works, Kronospan**

|                                  |                                                                                                                                                      |
|----------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Client</b>                    | Kronospan                                                                                                                                            |
| <b>Agent</b>                     | AXIS                                                                                                                                                 |
| <b>Site Address</b>              | Kronospan, Maesgwyn Farm, Wrexham LL14 5NT                                                                                                           |
| <b>Arboricultural Consultant</b> | Mike Wood <i>Dip Arb. PTI, TechArbor A</i>                                                                                                           |
| <b>Local Authority</b>           | Wrexham County Borough Council (WCBC)                                                                                                                |
| <b>Proposal</b>                  | North access road into the Kronospan Facility, lorry park, roundwood storage areas and associated structures, 132kV substation, and ancillary works' |
| <b>Survey Date</b>               | March 2022                                                                                                                                           |
| <b>Report Date</b>               | 19 <sup>th</sup> September 2023                                                                                                                      |
| <b>Report Reference</b>          | 230919-2.1-AIA-NAK-T21-MW                                                                                                                            |



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- Appendix A: Tree Schedule
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## Executive Summary

- This report provides an assessment upon the impact of trees and a proposal to construct a north access road into the Kronospan Facility, lorry park, roundwood storage areas and associated structures, 132kV substation, and ancillary works (the Proposed Development).
- A tree survey in accordance with BS5837:2012 was undertaken in March 2022 to inform this assessment. The survey recorded a total of 159 tree records which may be influenced by the Proposed Development. The report was undertaken in accordance with BS5837:2012 *Trees in Relation to design, Demolition and Construction - Recommendations*.
- The tree records recorded include 121 trees, 21 tree groups and 18 hedges. One tree has been recorded as category A (T116), 36 tree records have been recorded a category B, 121 as category C and one category U.
- To facilitate the project, those proposed for removal are: Seven category B trees, 1 hedge, 3 part hedges and 1 part group. 68 category C trees, 5 tree groups, 5 hedges, 3 part hedges and 1 part group. 1 category U tree.
- An extensive replanting programme has been developed as part of this Proposed Development to compensate for the trees which need to be removed.
- Five trees and 2 hedges will need pruning/trimming to facilitate the Proposed Development and/ or tree protection barriers. All tree work will be undertaken in accordance with BS3998:2010.
- Tree protection measures have been set where considered appropriate to ensure the impact upon retained trees is as low as possible.
- An Arboricultural Method Statement is recommended to ensure tree removal, retention, pruning, and protection are managed correctly throughout the project.



## 1.0 Qualifications and Experience

- 1.0.1 The survey and report have been prepared by Mike Wood *Dip Arb. Tech*ArboraA, Principal Arboricultural Consultant of Tree 21 Limited. Mike Wood has 25 years' experience in arboriculture, with over 15 years' experience in providing BS5837 surveys and reports and is a certified LANTRA Professional Tree Inspector, a registered Quantified Tree Risk Assessment (QTRA) user and a member of the Arboricultural Association.

## 2.0 Introduction

- 2.0.1 This report and appendices have been produced to assess the impact upon trees and a proposal to construct a north access road into the Kronospan Facility, lorry park, roundwood storage areas and associated structures, 132kV substation, and ancillary works (the Proposed Development). This revised version is based on the omission of the previously proposed bund in the area to the north of the proposed lorry park. As a result, additional trees - G63, T64, T65, T66, T67, T68, part of G77, T78, T79, T80, T81, part of H120, T133, T134, T135 will now be retained.
- 2.0.2 The survey was undertaken in accordance with BS5837:2012 Recommendations. A topographical survey base plan of the trees was used as a base map, to inform the position of trees in a specialist tree survey programme on an android device.
- 2.0.3 The Tree Schedule at Appendix A provides all data and proposed action for each tree record. The Tree Constraints Plan (TCP) at Appendix B illustrates the tree in the current context. The Protection, Retention and Removal Plan (TPRRP) at Appendix C illustrates the proposed context, with tree protection barriers where considered appropriate to protect retained trees. The TCP includes the position of the trees, crown spread in four cardinal directions, retention category and Root Protection Areas (RPA) in accordance with BS5837:2012.

## 3.0 Scope

- 3.0.1 A tree survey was undertaken in March 2022, further to instruction from AXIS on behalf of the client. The resulting survey data was then used to produce a Tree Schedule (Appendix A), Tree Constraints Plan (Appendix B) and Tree Protection Retention and Removal Plan (Appendix C) to inform this assessment.



### 3.1 Purpose of the Report

3.1.1 This assessment is intended to report on any impact upon trees, evaluating the impact of above ground parts (stem and branches), expressed as crown spread and below ground parts (roots), which is expressed as the Root Protection Area (RPA). The report also considers the wider impact on the landscape and post development/long-term sustainability between the proposal and the treescape.

3.1.2 The report, and the accompanying information, is supplied to assess the impact on trees from the Proposed Development, with the following areas as a framework:

- Trees to be removed to facilitate the proposal.
- Tree pruning work to facilitate the proposal.
- Identify suitable protection measures for retained trees throughout the construction of the proposal, including enabling works.
- Provide high level information on proposed compensation planting to contribute towards mitigation of the impact.
- Provide a “Heads of Terms” Arboricultural Method Statement to provide information on how trees will be managed through the process.

### 3.2 Documents Provided to Tree 21 Limited

- Location Plan
- Topographical Survey Plan
- Figure 4.3a\_revB & 4.4a-d\_revB Illustrative Landscape Masterplan & Cross Sections Figure 4.1\_revB Proposed Development - General Arrangement
- Figure 4.2\_revB Proposed Development - Proposed Landform



### 3.3 Limitations

- 3.3.1 This report is a preliminary assessment from ground level and observations have been made solely from visual inspection for the purposes of assessment in terms relevant to planning and development. Only hand tools have been used which may include binoculars, nylon mallet, laser measure, compass, height measuring device and fine manual metal probe to aid tree assessment where considered necessary during the survey. No detailed internal decay detection devices have been used in assessing trunk condition.
- 3.3.2 The conclusions relate to conditions found at the time of the survey. The recommendations contained within this report are valid for a period of one year only. Any significant alteration to the site that may affect the tree or have a bearing on the planning implications (including level changes, hydrological changes, extreme climatic events, or other site works) will necessitate a re-assessment of the trees and the site.
- 3.3.3 It should be noted that this survey is not a tree safety inspection. It is carried out to inform the planning process. Where clear and obvious hazards have been observed, these have been addressed in Appendix A - Tree Schedule). A full assessment of the levels of risk posed by trees would be informed by considering site use together with hazards present within the tree. Changes in site use are likely to occur during, and result from, the proposed development. In the light of these changes, regular tree risk assessments are advised.
- 3.3.4 Trees are living dynamic organisms, and their condition can change quickly, therefore this report is only valid for 12 months following the report date. A follow up tree survey should be undertaken beyond 12 months to re-assess the condition of the trees, which informs the retention categories in BS5837:2012, unless work has already progressed.

### 4.0 Site Visit and Tree Assessment Methodology

- 4.0.1 A site survey was undertaken in March 2022. The survey took place from ground level aided by the Visual Tree Assessment method (Mattheck and Breloer, 1994), in accordance with BS5837:2012 guidelines. The data was recorded in specialist tree data capture software.



- 4.0.2 Weather conditions were dry with adequate light and visibility to observe the trees and surrounding environs.
- 4.0.3 While this appraisal is not a tree risk assessment it nonetheless considers observed structural defects of the inspected tree, where applicable, to inform conclusions with regard to long term management.
- 4.0.4 Recommendations have been made, where considered appropriate to address immediate tree hazards/or to manage the trees within the context of the site becoming a work area and a Proposed Development site with consideration to long term retention.

## 4.1 Data Collection

- 4.1.1 Data collected includes a designated tree (T), group (G) or hedge (H) number, tree species, height, number of stems, diameter at 1.5m above ground level, crown clearance (height of periphery of crown spread above ground level), branch spread (to N, S, E and W), age class, physiological condition, useful life expectancy tree condition, site notes (where this has a bearing on the present or future health or structural condition of the tree), preliminary management recommendations, and tree retention category in accordance with BS5837:2012.

## 4.2 Presentation of the Data Collected

- 4.2.1 Data collected during the Tree Survey is presented in the Tree Schedule table in Appendix A in accordance with BS5837:2012 *Trees in Relation to Design, Demolition and Construction – Recommendations*.
- 4.2.2 The tree survey data is provided in the Tree Schedule (Appendix A) and illustrated on the Tree Constraints Plan (Appendix B). The Tree Protection, Retention and Removal Plan (Appendix C) provides the proposals, as a layer over the TCP and provides illustrative information on tree removal, tree retention and any recommended tree protection. All other relevant data are presented within the main body of this assessment.



## 5.0 Site Description and Context

5.0.1 The site within the red line application area mainly occupies grazing fields, north of the main Kronospan site. There are periphery hedges, with occasional trees within them, an early mature copse of trees to the northeast and occasional groups of trees, more so to the south. There is an access track immediately north of the existing Kronospan site complex, which leads to a sewage plant and a second access track to an existing Afon Bradley farm towards the north.

5.0.2 To the west of the site is the Afon Bradley brook. Further west lies the main rail track. The site is not level, undulating and falling towards the Afon Bradley brook and rising slightly up towards the rail track to the west.

5.0.3 The trees on site are mixture of mainly native broad-leaved deciduous and occasional evergreen conifers. Most trees are semi-mature to early mature, particularly within the copse area. There is one veteran Sycamore (T116) and larger mature trees along the west and southern boundaries.

## 6.0 Summary of Tree Data

6.0.1 The pie charts and bar chart below summarise the recorded data on the trees across the site.



Chart 1: Provides information on the tree retention categories across the site in accordance with BS5837:2012.

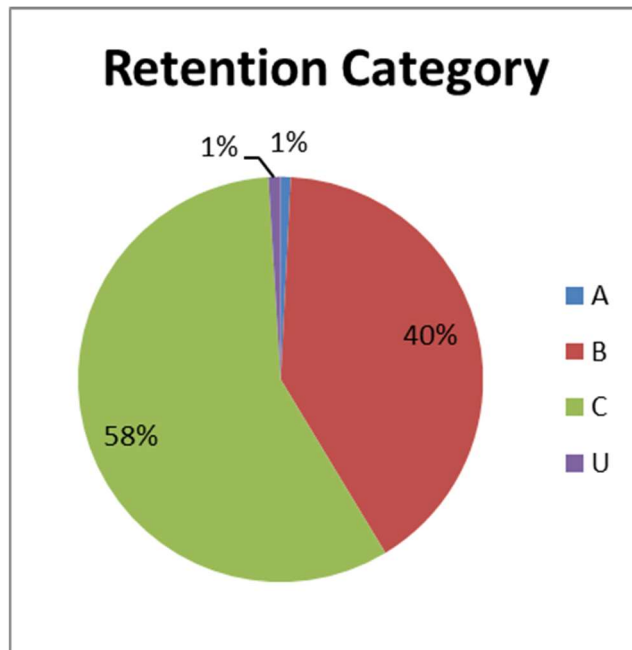
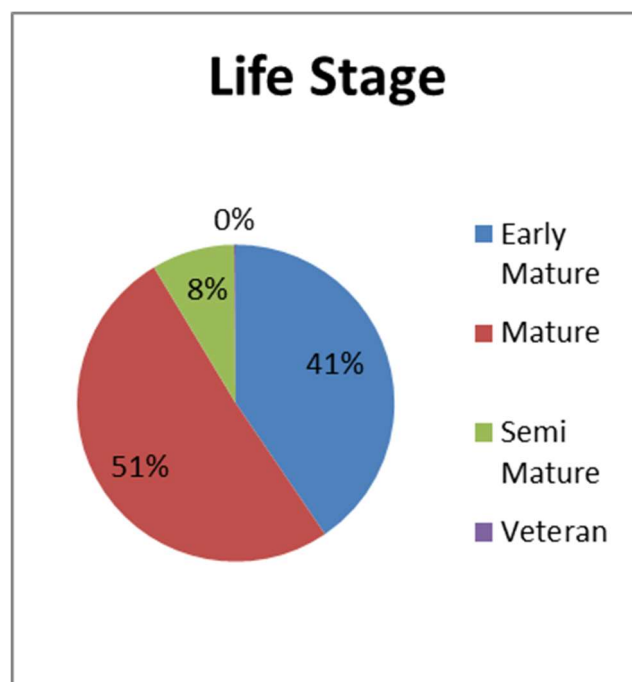
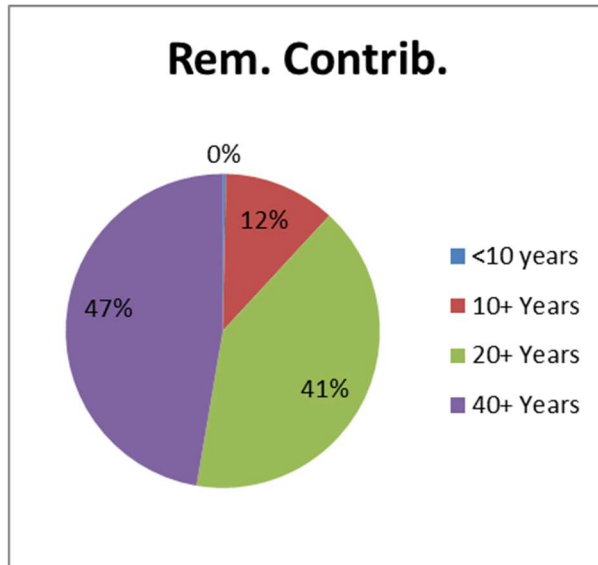


Chart 2: Provides information on the life stages of trees across the site.

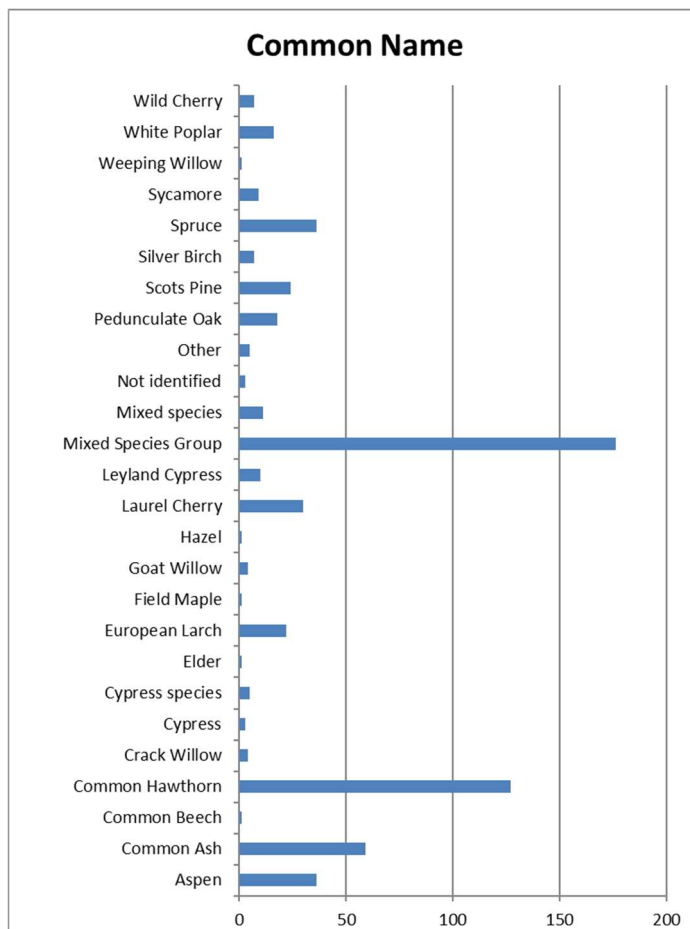




**Chart 3: Provides information on the remaining contribution of trees in years across the site.**



**Chart 4: Provides information on the tree species across the site.**





## 7.0 The Proposed Development

7.0.1 This report provides an assessment upon the impact of trees and a proposal to construct a north access road into the Kronospan Facility, lorry park, roundwood storage areas and associated structures, 132kV substation, and ancillary works (the Proposed Development) as illustrated in Appendix E.

## 8.0 Arboricultural Constraints

8.0.1 Tree constraints are presented in the Tree Schedule in Appendix A and the Tree Constraints Plan in Appendix B. These constraints are also considered further below.

8.0.2 The TCP, (Appendix B) illustrates the Root Protection Area (RPA) for the trees identified in the Tree Data Schedule (Appendix A). This represents the minimum area in m<sup>2</sup> which should ideally be left undisturbed around retained trees. The TCP also shows a representation of the crown spread of each tree measured in four cardinal directions. The RPA has been calculated in accordance with BS5837:2012 Trees in Relation to Design, Demolition & Construction – Recommendations.

## 9.0 Tree Removal and Pruning

9.0.1 Trees proposed for removal are listed in the Tree Schedule at Appendix A and illustrated on the TPRRP at Appendix C. The table below, summarises the number of trees (T), groups (G) and hedges (H) to be removed in accordance with their BS5837:2012 retention categories.

**Table 1: Tree Removal & Pruning**

| Category A | Category B                                                                  | Category C                                                                                                                                                                                                                                                                                                                                                                                                                                  | Category U        |
|------------|-----------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|
| None       | * G157, *H120, H122, *H124, *H136, T90, T138, T139, T140, T141, T143, T144, | *G153, G39, G54, G71, *G77, G83, H03, H17, H18, H40, *H84, *H85, H93, *H111, H119, T01, T02, T04, T05, T06, T07, T08, T09, T10, T11, T12, T13, T14, T15, T16, T19, T20, T21, T22, T23, T24, T25, T26, T27, T28, T29, T30, T31, T32, T33, T34, T35, T36, T37, T38, T41, T42, T43, T44, T45, T46, T47, T48, T49, T50, T51, T52, T53, T55, T56, T57, T58, T59, T60, T61, T62, T72, T73, T74, T75, T76, T91, T92, T121, T126, T127, T150, T151, | T142              |
| Total: 0   | Total: 7 trees, 1 hedge, 3 part hedge and 1 part group. <b>12 in Total</b>  | Total: 68 trees, 5 groups, 5 hedges, 3 part hedges and 1 part group. <b>82 in Total</b>                                                                                                                                                                                                                                                                                                                                                     | <b>1 in Total</b> |

*\*Indicates part removal of a group or hedge*

9.0.2 Five trees (T128, T129, T130, T131, T132) may need to be pruned to facilitate the protective barrier installation, layout and help minimise post development pressure for further pruning.

## 10 Tree Protection

10.0.1 The Tree Protection, Retention and Removal Plan (Appendix C), illustrates the proposed alignment of protective measures for retained trees. The protective barriers are intended to be installed before any works begin, including enabling works, with the exception of tree felling work, which will need to be undertaken before the installation of the protective barriers, due to practicalities.

10.0.2 The barriers will minimise damage within the Root Protection Areas (RPA) of retained tree, groups, and hedges. They will prevent potential damage such as soil compaction or contamination, or physical damage to above ground tree parts from machinery activity. The areas within the protected areas will be a Construction Exclusion Zone



(CEZ). No activity at all, including the storage of materials or equipment will be undertaken within the CEZ.

10.0.4 The protective barriers will be maintained in good condition throughout the construction works and only removed on completion, to enable final soft landscaping. Any works required within the CEZ or any other areas where Root Protection Areas cannot be fully protected, should only be undertaken following Arboricultural Method Statement, which will be approved to Wrexham County Borough Council (WCBC) before implementing the methods within the document.

## **11.0 New Tree Panting and Final Soft Landscaping**

11.0.1 As part of the proposal, new tree planting will be provided to include:

- Approximately 1.93ha of new native woodland (whips).
- Approximately 1.3km of new native hedgerow (whips).
- 84 specimen trees which would either be standards or heavy standards.

## **12.0 Underground Service Installation and Substation Connection**

12.0.1 No underground service plans have been provided. All proposed underground services should be planned outside of the RPA of retained trees. If this is not possible and installation or underground services are required within the RPA of retained trees, an Arboricultural Method Statement will be produced which will need to be reviewed and approved by the Local Authority Tree Officer before the works set out within the AMS are implemented.

12.0.2 Any alterations or plans to install underground services within RPAs of retained trees should be discussed with the Arboricultural Consultant and suitable methodology, to be agreed with the WCBC Tree Officer and approved in writing before being implemented.

12.0.3 Connection to the grid, from the proposed 132kV substation will pass through nearby roads and verges. Trees within 15m radius of the route will be surveyed separately and an Arboricultural Method Statement and Tree Protection Plan produced to manage any impact and provide suitable compensation planting where appropriate.



### 13.0 Arboricultural Method Statement Heads of Terms

In order to ensure any potential damage to retained trees are minimised, the following points will be followed.

- a. Tree removal and pruning works will be undertaken by competent and qualified arborists, working to best practice BS3998:2010. Trees will be removed, and the site cleared of all arisings unless identified for re-use on site before the tree protection barrier is installed.
- b. Tree Protection, as set out in the Tree Protection Plan at Appendix C, will be installed before any other works associated, including other enabling works and earthworks and before any plant equipment, welfare, storage or compounds are set up on site. The tree protection will be checked monthly by an Arboricultural Consultant to ensure it is maintained in good order throughout the project duration.
- c. Machinery, storage of materials, welfare areas or any other storage or activity including access and egress haul routes to remove or deliver material will not occur within the CEZ.
- d. Any damage arising to any retained tree will initiate an inspection by an Arboricultural Consultant, who will provide appropriate management specifications, to be agreed with the WCBC Tree Officer before implementation.



## **Legislation and Guidance**

Town & Country Planning Act 1990

Town & Country Planning (Trees) Regulations 1999

Forestry Act 1967

Health & Safety at Work Act 1974

Construction (Design & Management) Regulations 1994

BS 5837:2012 Trees in Relation to Design, Demolition & Construction - Recommendations

BS 3998:2010 Tree Work Recommendations

National Joint Utilities Group Publication No.4

## **REFERENCES**

Mattheck, C. and Breloer, H. (1995). The Body Language of Trees: A handbook for failure analysis. Research for Amenity Trees **4**. HMSO, London, 240pp.

Matheny, N and Clark, J (1997) Trees and Development: A Technical Guide to Preservation of Trees During Land Development. ISBN 1-881956-20-2

## **STANDARDS PUBLICATIONS**

Trees in Relation Design, Demolition & Construction – Recommendations. (BS5837), British Standards Institution, London (2012).

Tree Work - Recommendations. (BS3998), British Standards Institution, London (2010).

# Appendix A

## Tree Schedule

### Tree Categories

### Tree Data

**Table 1 Cascade Chart taken from BS5837:2012 Trees in Relation to Design, Demolition & Construction – Recommendations.**

# BS5837 Survey Data



| Ref. | Species                                                               | Measurements                                                                                                                                                                      | General Observations                                                                                                                                   | Category                          | Recommendations                                                                             |
|------|-----------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------|---------------------------------------------------------------------------------------------|
| G110 | Mixed Species Group x40<br>(Group, mixed species)                     | Height (m): 14<br>40 stems, avg.(mm): 500<br>Spread (m): 5N, 5E, 5S, 5W<br>Crown Clearance (m): 1.5<br>Life Stage: Mature<br>Rem. Contrib.: 40+ Years                             | Linear group and hedge along fenceline. Native species.                                                                                                | B2<br><br>RPA<br>Area: 3034 sq m. | Pre construction:<br>No action required.<br><br>During construction:<br>No action required. |
| G117 | Wild Cherry (Prunus avium)<br>Spruce x10 (Picea sp.)                  | Height (m): 10<br>11 stems, avg.(mm): 100<br>Spread (m): 3N, 3E, 3S, 3W<br>Crown Clearance (m): 1<br>Lowest Branch (m): 1<br>Life Stage: Early Mature<br>Rem. Contrib.: 20+ Years | Group at end of ditch . Topped below OHL.                                                                                                              | C2<br><br>RPA<br>Area: 317 sq m.  | During construction:<br>Protect trees with protective barriers - as shown on plans.         |
| G152 | Pedunculate Oak (Quercus robur)<br>Common Ash x7 (Fraxinus excelsior) | Height (m): 20<br>8 stems, avg.(mm): 450<br>Spread (m): 7N, 7E, 7S, 7W<br>Crown Clearance (m): 4<br>Life Stage: Early Mature<br>Rem. Contrib.: 20+ Years                          | Group comprises Ash, Oak, Hawthorn. Most are multi stemmed, with Ivy cover. Ash die back developing in Ash trees. Concrete access point to South West. | C2<br><br>RPA<br>Area: 479 sq m.  | During construction:<br>No action required.                                                 |

| Ref. | Species                                                                                                                                                                                                                                               | Measurements                                                                                                                                              | General Observations                                                                                                                                   | Category                         | Recommendations                                                                                                                                                                                                                                                              |
|------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| G153 | Pedunculate Oak<br>( <i>Quercus robur</i> )<br>Common Ash x7<br>( <i>Fraxinus excelsior</i> )                                                                                                                                                         | Height (m): 20<br>8 stems, avg.(mm): 450<br>Spread (m): 7N, 7E, 7S, 7W<br>Crown Clearance (m): 4<br>Life Stage: Early Mature<br>Rem. Contrib.: 20+ Years  | Group comprises Ash, Oak, Hawthorn. Most are multi stemmed, with Ivy cover. Ash die back developing in Ash trees. Concrete access point to South West. | C2<br><br>RPA<br>Area: 466 sq m. | Pre construction:<br>Remove west side of group within footprint of road infrastructure to facilitate the project, as shown on the Tree Protection Plan.<br><br>During construction:<br>Protect retained trees within the group with protective barriers - as shown on plans. |
| G157 | Sycamore<br>( <i>Acer pseudoplatanus</i> )<br>Not identified<br>(Not identified)<br>Other x5<br>(Other)<br>Goat Willow<br>( <i>Salix caprea</i> )<br>Pedunculate Oak x2<br>( <i>Quercus robur</i> )<br>Common Ash x7<br>( <i>Fraxinus excelsior</i> ) | Height (m): 20<br>17 stems, avg.(mm): 500<br>Spread (m): 7N, 7E, 7S, 7W<br>Crown Clearance (m): 1<br>Life Stage: Early Mature<br>Rem. Contrib.: 40+ Years | Woodland character group. Species composition and count is indicative only. Ash have early attributes of Ash die back disease.                         | B2<br><br>RPA<br>Area: 833 sq m. | Pre construction:<br>Remove west part of group to facilitate the road infrastructure, as shown on the Tree Protection Plan.<br><br>During construction:<br>Protect retained trees within group with protective barriers - as shown on plans.                                 |
| G159 | Mixed Species<br>Group x5<br>(Group, mixed species)                                                                                                                                                                                                   | Height (m): 8<br>5 stems, avg.(mm): 300<br>Spread (m): 4N, 4E, 4S, 4W<br>Crown Clearance (m): 3<br>Life Stage: Mature<br>Rem. Contrib.: 10+ Years         | Overhangs access track by approx. 1.5m. 3-4m clearance.                                                                                                | C2<br><br>RPA<br>Area: 183 sq m. | Pre construction:<br>No action required.<br><br>During construction:<br>No action required.                                                                                                                                                                                  |
| G160 | Not identified<br>(Not identified)<br>Mixed Species<br>Group x20<br>(Group, mixed species)                                                                                                                                                            | Height (m): 18<br>21 stems, avg.(mm): 400<br>Spread (m): 6N, 6E, 6S, 6W<br>Crown Clearance (m): 2<br>Life Stage: Early Mature<br>Rem. Contrib.: 20+ Years | Woodland character group. Ash within group have early indications of Ash dieback. Ash, Hawthorn, Sycamore, Elder observed.                             | B2<br><br>RPA<br>Area: 468 sq m. | Pre construction:<br>No action required.<br><br>During construction:<br>No action required.                                                                                                                                                                                  |

| Ref. | Species                                           | Measurements                                                                                                                                              | General Observations                                                                                      | Category                         | Recommendations                                                                                                                                                                                                                                                               |
|------|---------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------|----------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| G39  | Mixed Species Group x50<br>(Group, mixed species) | Height (m): 8<br>50 stems, avg.(mm): 100<br>Spread (m): 1N, 1E, 1S, 1W<br>Crown Clearance (m): 1<br>Life Stage: Semi Mature<br>Rem. Contrib.: 40+ Years   | Group covers those not plotted as individuals. Generally semi mature establishing trees within the copse. | C2<br><br>RPA<br>Area: 938 sq m. | Remove tree group to facilitate the project.                                                                                                                                                                                                                                  |
| G54  | Common Ash x15<br>(Fraxinus excelsior)            | Height (m): 13<br>15 stems, avg.(mm): 150<br>Spread (m): 3N, 3E, 3S, 3W<br>Crown Clearance (m): 4<br>Life Stage: Early Mature<br>Rem. Contrib.: 10+ Years | No signs of Ash dieback.                                                                                  | C2<br><br>RPA<br>Area: 232 sq m. | Remove tree group to facilitate the project.                                                                                                                                                                                                                                  |
| G63  | Common Ash x10<br>(Fraxinus excelsior)            | Height (m): 11<br>10 stems, avg.(mm): 150<br>Spread (m): 3N, 3E, 3S, 3W<br>Crown Clearance (m): 2<br>Life Stage: Early Mature<br>Rem. Contrib.: 40+ Years | No signs of Ash dieback.                                                                                  | C2<br><br>RPA<br>Area: 139 sq m. | During construction:<br>Protect group with protective barriers - as shown on plans.                                                                                                                                                                                           |
| G71  | White Poplar x8<br>(Populus alba)                 | Height (m): 14<br>8 stems, avg.(mm): 150<br>Spread (m): 3N, 3E, 3S, 3W<br>Crown Clearance (m): 4<br>Life Stage: Early Mature<br>Rem. Contrib.: 10+ Years  |                                                                                                           | C2<br><br>RPA<br>Area: 252 sq m. | Remove tree group to facilitate the project.                                                                                                                                                                                                                                  |
| G77  | White Poplar x8<br>(Populus alba)                 | Height (m): 14<br>8 stems, avg.(mm): 150<br>Spread (m): 3N, 3E, 3S, 3W<br>Crown Clearance (m): 4<br>Life Stage: Early Mature<br>Rem. Contrib.: 10+ Years  |                                                                                                           | C2<br><br>RPA<br>Area: 452 sq m. | Pre construction:<br>Remove a section to the north end and north east side of the group as illustrated on the Tree Protection, Retention & Removal Plan.<br><br>During construction:<br>Protect retained part of the tree group with protective barriers - as shown on plans. |

| Ref. | Species                                                                                                                                        | Measurements                                                                                                                                               | General Observations                                  | Category                          | Recommendations                                                                                                                                                 |
|------|------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------|-----------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|
| G83  | Mixed Species Group x60<br>(Group, mixed species)                                                                                              | Height (m): 8<br>60 stems, avg.(mm): 100<br>Spread (m): 2N, 2E, 2S, 2W<br>Crown Clearance (m): 1<br>Life Stage: Early Mature<br>Rem. Contrib.: 20+ Years   |                                                       | C2<br><br>RPA<br>Area: 2550 sq m. | Remove tree group to facilitate the project.                                                                                                                    |
| G85  | Mixed Species Group<br>(Group, mixed species)                                                                                                  | Height (m): 14<br>Stem Diam(mm): 400<br>Spread (m): 4N, 4E, 4S, 4W<br>Crown Clearance (m): 2<br>Life Stage: Mature<br>Rem. Contrib.: 40+ Years             | Linear tree group along a watercourse/field boundary. | B2<br><br>RPA<br>Area: 2361 sq m. | During construction:<br>Protect trees with protective barriers - as shown on plans.                                                                             |
| G86  | Spruce x4<br>(Picea sp.)<br>Leyland Cypress x10<br>(Cupressocyparis leylandii X)                                                               | Height (m): 20<br>14 stems, avg.(mm): 350<br>Spread (m): 4N, 4E, 4S, 4W<br>Crown Clearance (m): 3<br>Life Stage: Mature<br>Rem. Contrib.: 40+ Years        |                                                       | B2<br><br>RPA<br>Area: 546 sq m.  | Pre construction:<br>Re-design grading to prevent impact with group.<br><br>During construction:<br>Protect trees with protective barriers - as shown on plans. |
| G87  | Spruce x9<br>(Picea sp.)<br>European Larch<br>(Larix decidua)                                                                                  | Height (m): 4<br>10 stems, avg.(mm): 300<br>Spread (m): 1.5N, 1.5E, 1.5S, 1.5W<br>Crown Clearance (m): 1<br>Life Stage: Mature<br>Rem. Contrib.: 20+ Years | Topped below OHL.                                     | C2<br><br>RPA<br>Area: 281 sq m.  | During construction:<br>Protect trees with protective barriers - as shown on plans.                                                                             |
| G88  | Not identified<br>(Not identified)<br>Scots Pine x4<br>(Pinus sylvestris)<br>European Larch x20<br>(Larix decidua)<br>Spruce x3<br>(Picea sp.) | Height (m): 20<br>28 stems, avg.(mm): 350<br>Spread (m): 4N, 4E, 4S, 4W<br>Crown Clearance (m): 2<br>Life Stage: Mature<br>Rem. Contrib.: 40+ Years        | Linear group along water course.                      | B2<br><br>RPA<br>Area: 1253 sq m. | During construction:<br>Protect trees with protective barriers - as shown on plans.                                                                             |

| Ref. | Species                                                                                                                                                                                 | Measurements                                                                                                                                                  | General Observations                                                               | Category                         | Recommendations                                                                                                                                                                                                   |
|------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|----------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| G89  | Crack Willow<br>(Salix fragilis)<br>Common Ash<br>(Fraxinus excelsior)<br>Scots Pine x2<br>(Pinus sylvestris)<br>Cypress x2<br>(Chamaecyparis sp.)<br>Common Beech<br>(Fagus sylvatica) | Height (m): 10<br>7 stems, avg.(mm): 250<br>Spread (m): 2N, 2E, 2S, 2W<br>Crown Clearance (m): 1<br>Life Stage: Early Mature<br>Rem. Contrib.: 40+ Years      | Along watercourse into hedge.                                                      | B2<br><br>RPA<br>Area: 251 sq m. | Pre construction:<br>Re-design grading to prevent impact with group.<br><br>During construction:<br>Protect trees with protective barriers - as shown on plans.                                                   |
| G95  | Cypress species x5<br>(Cupressocyparis sp.)<br>Spruce x10<br>(Picea sp.)                                                                                                                | Height (m): 18<br>15 stems, avg.(mm): 300<br>Spread (m): 3N, 3E, 3S, 3W<br>Crown Clearance (m): 1<br>Life Stage: Mature<br>Rem. Contrib.: 10+ Years           | Farmhouse garden group, bounded by Hawthorn hedge adj. the site. Topped under OHL. | C2<br><br>RPA<br>Area: 650 sq m. | Pre construction:<br>No action required.<br><br>During construction:<br>No action required.                                                                                                                       |
| H03  | Mixed species<br>(Mixed species)                                                                                                                                                        | Height (m): 1.5<br>Stem Diam(mm): 100<br>Spread (m): 0.5N, 0.5E, 0.5S, 0.5W<br>Crown Clearance (m): 0<br>Life Stage: Early Mature<br>Rem. Contrib.: 20+ Years | Managed native boundary hedgerow.                                                  | C2<br><br>RPA<br>Area: 172 sq m. | Remove hedge to facilitate the project.                                                                                                                                                                           |
| H100 | Common Hawthorn<br>x10<br>(Crataegus monogyna)                                                                                                                                          | Height (m): 5<br>10 stems, avg.(mm): 200<br>Spread (m): 2N, 2E, 2S, 2W<br>Crown Clearance (m): 1<br>Life Stage: Mature<br>Rem. Contrib.: 20+ Years            | Fragmented hedgerow.                                                               | B2<br><br>RPA<br>Area: 198 sq m. | Pre construction:<br>No action required.<br><br>During construction:<br>No action required.                                                                                                                       |
| H111 | Common Hawthorn<br>x15<br>(Crataegus monogyna)                                                                                                                                          | Height (m): 8<br>15 stems, avg.(mm): 250<br>Spread (m): 3N, 3E, 3S, 3W<br>Crown Clearance (m): 1<br>Life Stage: Mature<br>Rem. Contrib.: 40+ Years            | Lapsed hedgerow, now forming a linear row of trees.                                | C2<br><br>RPA<br>Area: 320 sq m. | Pre construction:<br>Remove small section of hedge on east end as illustrated on the Tree Protection Plan.<br><br>During construction:<br>Protect remaining section with protective barriers - as shown on plans. |

| Ref. | Species                                        | Measurements                                                                                                                                           | General Observations                                                  | Category                          | Recommendations                                                                                                                                                                                                                            |
|------|------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------|-----------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| H114 | Mixed species<br>(Mixed species)               | Height (m): 20<br>Stem Diam(mm): 100<br>Spread (m): 0.5N, 0.5E, 0.5S, 0.5W<br>Crown Clearance (m): 0<br>Life Stage: Mature<br>Rem. Contrib.: 40+ Years | Managed hedgerow on west side, fragmented sections only on east side. | C2<br><br>RPA<br>Area: 1486 sq m. | During construction:<br>Protect hedge with protective barriers - as shown on plans.                                                                                                                                                        |
| H118 | Mixed species<br>(Mixed species)               | Height (m): 2<br>Stem Diam(mm): 100<br>Spread (m): 1N, 1E, 1S, 1W<br>Crown Clearance (m): 0<br>Life Stage: Mature<br>Rem. Contrib.: 40+ Years          | Two managed hedgerows adjacent the water course.                      | C2<br><br>RPA<br>Area: 1392 sq m. | During construction:<br>Protect hedge with protective barriers - as shown on plans.                                                                                                                                                        |
| H119 | Mixed species<br>(Mixed species)               | Height (m): 2<br>Stem Diam(mm): 100<br>Spread (m): 1N, 1E, 1S, 1W<br>Crown Clearance (m): 0<br>Life Stage: Mature<br>Rem. Contrib.: 20+ Years          | Managed hedge                                                         | C2<br><br>RPA<br>Area: 385 sq m.  | Remove hedge to facilitate the project.                                                                                                                                                                                                    |
| H120 | Common Hawthorn<br>(Crataegus monogyna)        | Height (m): 2<br>Stem Diam(mm): 100<br>Spread (m): 0.5N, 0.5E, 0.5S, 0.5W<br>Crown Clearance (m): 0<br>Life Stage: Mature<br>Rem. Contrib.: 20+ Years  | Managed native boundary hedgerow.                                     | B2<br><br>RPA<br>Area: 3301 sq m. | Pre construction:<br>Remove north and west sections of hedge as illustrated on the Tree Protection Plan to facilitate the project.<br><br>During construction:<br>Protect remaining hedgerow with protective barriers - as shown on plans. |
| H122 | Common Hawthorn<br>x30<br>(Crataegus monogyna) | Height (m): 8<br>30 stems, avg.(mm): 250<br>Spread (m): 3N, 3E, 3S, 3W<br>Crown Clearance (m): 1<br>Life Stage: Mature<br>Rem. Contrib.: 40+ Years     | Lapsed hedgerow, now forming a linear row of trees.                   | B2<br><br>RPA<br>Area: 559 sq m.  | Remove hedge to facilitate the project.                                                                                                                                                                                                    |

| Ref. | Species                                        | Measurements                                                                                                                                            | General Observations                                | Category                         | Recommendations                                                                                                                                                              |
|------|------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------|----------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| H123 | Common Hawthorn<br>x20<br>(Crataegus monogyna) | Height (m): 8<br>20 stems, avg.(mm): 250<br>Spread (m): 3N, 3E, 3S, 3W<br>Crown Clearance (m): 1<br>Life Stage: Mature<br>Rem. Contrib.: 40+ Years      | Lapsed hedgerow, now forming a linear row of trees. | B2<br><br>RPA<br>Area: 222 sq m. | During construction:<br>Protect hedge with protective barriers - as shown on plans.                                                                                          |
| H124 | Common Hawthorn<br>x40<br>(Crataegus monogyna) | Height (m): 8<br>40 stems, avg.(mm): 250<br>Spread (m): 3N, 3E, 3S, 3W<br>Crown Clearance (m): 1<br>Life Stage: Mature<br>Rem. Contrib.: 40+ Years      | Lapsed hedgerow, now forming a linear row of trees. | B2<br><br>RPA<br>Area: 530 sq m. | Remove majority of hedge as illustrated on the Tree Protection Plan to facilitate the project.                                                                               |
| H125 | Laurel Cherry x30<br>(Prunus laurocerasus)     | Height (m): 2.5<br>30 stems, avg.(mm): 200<br>Spread (m): 1N, 1E, 1S, 1W<br>Crown Clearance (m): 0<br>Life Stage: Mature<br>Rem. Contrib.: 20+ Years    |                                                     | C2<br><br>RPA<br>Area: 234 sq m. | During construction:<br>Protect third party hedge with protective barriers - as shown on plans.                                                                              |
| H136 | Mixed species<br>(Mixed species)               | Height (m): 1.5<br>Stem Diam(mm): 100<br>Spread (m): 0.5N, 0.5E, 0.5S, 0.5W<br>Crown Clearance (m): 0<br>Life Stage: Mature<br>Rem. Contrib.: 20+ Years | Managed native boundary hedgerow.                   | B2<br><br>RPA<br>Area: 536 sq m. | Pre construction:<br>Remove very north section to facilitate road infrastructure.<br><br>During construction:<br>Protect hedge with protective barriers - as shown on plans. |
| H137 | Mixed species<br>(Mixed species)               | Height (m): 1.5<br>Stem Diam(mm): 100<br>Spread (m): 0.5N, 0.5E, 0.5S, 0.5W<br>Crown Clearance (m): 0<br>Life Stage: Mature<br>Rem. Contrib.: 20+ Years | Managed native boundary hedgerow.                   | B2<br><br>RPA<br>Area: 959 sq m. | During construction:<br>Protect hedge with protective barriers - as shown on plans.                                                                                          |
| H17  | Mixed species<br>(Mixed species)               | Height (m): 1.5<br>Stem Diam(mm): 100<br>Spread (m): 0.5N, 0.5E, 0.5S, 0.5W<br>Crown Clearance (m): 0<br>Life Stage: Mature<br>Rem. Contrib.: 20+ Years | Managed native boundary hedgerow.                   | C2<br><br>RPA<br>Area: 97 sq m.  | Remove hedge to facilitate the project.                                                                                                                                      |

| Ref. | Species                                 | Measurements                                                                                                                                            | General Observations              | Category                         | Recommendations                                                                                                                                                                                                                                                                 |
|------|-----------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------|----------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| H18  | Mixed species<br>(Mixed species)        | Height (m): 1.5<br>Stem Diam(mm): 100<br>Spread (m): 0.5N, 0.5E, 0.5S, 0.5W<br>Crown Clearance (m): 0<br>Life Stage: Mature<br>Rem. Contrib.: 20+ Years | Managed native boundary hedgerow. | C2<br><br>RPA<br>Area: 204 sq m. | Remove hedge to facilitate the project.                                                                                                                                                                                                                                         |
| H40  | Common Hawthorn<br>(Crataegus monogyna) | Height (m): 1.5<br>Stem Diam(mm): 100<br>Spread (m): 0.5N, 0.5E, 0.5S, 0.5W<br>Crown Clearance (m): 0<br>Life Stage: Mature<br>Rem. Contrib.: 20+ Years | Managed native boundary hedgerow. | C2<br><br>RPA<br>Area: 166 sq m. | Remove hedge to facilitate the project.                                                                                                                                                                                                                                         |
| H84  | Mixed species<br>(Mixed species)        | Height (m): 1.5<br>Stem Diam(mm): 100<br>Spread (m): 0.5N, 0.5E, 0.5S, 0.5W<br>Crown Clearance (m): 0<br>Life Stage: Mature<br>Rem. Contrib.: 20+ Years | Managed native hedge.             | C2<br><br>RPA<br>Area: 311 sq m. | Pre construction:<br>Remove east hedge section to facilitate the project as shown on the Tree Protection Plan.<br>Trim hedge to facilitate grading if required.<br><br>During construction:<br>Protect remaining section of hedge with protective barriers - as shown on plans. |
| H85  | Mixed species<br>(Mixed species)        | Height (m): 1.5<br>Stem Diam(mm): 100<br>Spread (m): 0.5N, 0.5E, 0.5S, 0.5W<br>Crown Clearance (m): 0<br>Life Stage: Mature<br>Rem. Contrib.: 20+ Years | Managed native hedge.             | C2<br><br>RPA<br>Area: 359 sq m. | Pre construction:<br>Remove east section of hedge to facilitate the project.<br>Trim hedge to facilitate grading if required.<br><br>During construction:<br>Protect remaining section of hedge with protective barriers - as shown on plans.                                   |

| Ref. | Species                            | Measurements                                                                                                                                            | General Observations                                                           | Category                                         | Recommendations                         |
|------|------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------|--------------------------------------------------|-----------------------------------------|
| H93  | Mixed species<br>(Mixed species)   | Height (m): 2.5<br>Stem Diam(mm): 100<br>Spread (m): 0.5N, 0.5E, 0.5S, 0.5W<br>Crown Clearance (m): 0<br>Life Stage: Mature<br>Rem. Contrib.: 20+ Years | Native hedgerow.                                                               | C2<br><br>RPA<br>Area: 663 sq m.                 | Remove hedge to facilitate the project. |
| T01  | Common Ash<br>(Fraxinus excelsior) | Height (m): 12<br>Stem Diam(mm): 380<br>Spread (m): 5N, 5E, 4S, 6W<br>Crown Clearance (m): 2<br>Life Stage: Early Mature<br>Rem. Contrib.: 10+ Years    | Fair overall Physiological and Structural condition. No signs of Ash dieback.. | C1<br><br>RPA<br>Radius: 4.6m.<br>Area: 66 sq m. | Remove tree to facilitate the project.  |
| T02  | Aspen<br>(Populus tremula)         | Height (m): 8<br>Stem Diam(mm): 200<br>Spread (m): 4N, 0E, 1S, 7W<br>Crown Clearance (m): 3.5<br>Life Stage: Semi Mature<br>Rem. Contrib.: 10+ Years    | Poor form due to competition with now failed and cut up Oak tree.              | C1<br><br>RPA<br>Radius: 2.4m.<br>Area: 18 sq m. | Remove tree to facilitate the project.  |
| T04  | Crack Willow<br>(Salix fragilis)   | Height (m): 10<br>Stem Diam(mm): 200<br>Spread (m): 2N, 2E, 2S, 2W<br>Crown Clearance (m): 1<br>Life Stage: Semi Mature<br>Rem. Contrib.: 20+ Years     | Within copse. Individual trees are relatively low value.                       | C1<br><br>RPA<br>Radius: 2.4m.<br>Area: 18 sq m. | Remove tree to facilitate the project.  |
| T05  | Crack Willow<br>(Salix fragilis)   | Height (m): 10<br>Stem Diam(mm): 250<br>Spread (m): 2N, 2E, 2S, 2W<br>Crown Clearance (m): 1<br>Life Stage: Early Mature<br>Rem. Contrib.: 20+ Years    | Within copse. Individual trees are relatively low value.                       | C1<br><br>RPA<br>Radius: 3.0m.<br>Area: 28 sq m. | Remove tree to facilitate the project.  |
| T06  | Crack Willow<br>(Salix fragilis)   | Height (m): 10<br>Stem Diam(mm): 250<br>Spread (m): 2N, 2E, 2S, 2W<br>Crown Clearance (m): 1<br>Life Stage: Early Mature<br>Rem. Contrib.: 20+ Years    | Within copse. Individual trees are relatively low value.                       | C1<br><br>RPA<br>Radius: 3.0m.<br>Area: 28 sq m. | Remove tree to facilitate the project.  |

| Ref. | Species                           | Measurements                                                                                                                                                | General Observations                                     | Category                                          | Recommendations                             |
|------|-----------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------|---------------------------------------------------|---------------------------------------------|
| T07  | Aspen<br>(Populus tremula)        | Height (m): 10<br>Stem Diam(mm): 250<br>Spread (m): 2N, 2E, 2S, 2W<br>Crown Clearance (m): 1<br>Life Stage: Early Mature<br>Rem. Contrib.: 20+ Years        | Within copse. Individual trees are relatively low value. | C1<br><br>RPA<br>Radius: 3.0m.<br>Area: 28 sq m.  | Remove tree to facilitate the project.      |
| T08  | Aspen<br>(Populus tremula)        | Height (m): 10<br>Stem Diam(mm): 350<br>Spread (m): 2N, 2E, 2S, 2W<br>Crown Clearance (m): 1<br>Life Stage: Early Mature<br>Rem. Contrib.: 20+ Years        | Within copse. Individual trees are relatively low value. | C1<br><br>RPA<br>Radius: 4.2m.<br>Area: 55 sq m.  | Remove tree to facilitate the project.      |
| T09  | Aspen<br>(Populus tremula)        | Height (m): 10<br>Stem Diam(mm): 250<br>Spread (m): 2N, 2E, 2S, 2W<br>Crown Clearance (m): 1<br>Life Stage: Early Mature<br>Rem. Contrib.: 20+ Years        | Within copse. Individual trees are relatively low value. | C1<br><br>RPA<br>Radius: 3.0m.<br>Area: 28 sq m.  | Remove tree to facilitate the project.      |
| T10  | Aspen<br>(Populus tremula)        | Height (m): 10<br>Stem Diam(mm): 410<br>Spread (m): 2N, 2E, 2S, 2W<br>Crown Clearance (m): 1<br>Life Stage: Early Mature<br>Rem. Contrib.: 20+ Years        | Within copse. Individual trees are relatively low value. | C1<br><br>RPA<br>Radius: 4.9m.<br>Area: 75 sq m.  | Remove tree to facilitate the project.      |
| T101 | Sycamore<br>(Acer pseudoplatanus) | Height (m): 16<br>10 stems, avg.(mm): 250<br>Spread (m): 4N, 4E, 2S, 4W<br>Crown Clearance (m): 1.5<br>Life Stage: Early Mature<br>Rem. Contrib.: 10+ Years | Multi stem your on railtrack land.                       | C1<br><br>RPA<br>Radius: 9.5m.<br>Area: 284 sq m. | No action required.                         |
| T102 | Sycamore<br>(Acer pseudoplatanus) | Height (m): 16<br>10 stems, avg.(mm): 250<br>Spread (m): 2N, 4E, 4S, 4W<br>Crown Clearance (m): 1.5<br>Life Stage: Early Mature<br>Rem. Contrib.: 10+ Years | Multi stem your on railtrack land.                       | C1<br><br>RPA<br>Radius: 9.5m.<br>Area: 284 sq m. | During construction:<br>No action required. |

| Ref. | Species                                    | Measurements                                                                                                                                                | General Observations                                        | Category                                           | Recommendations     |
|------|--------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------|----------------------------------------------------|---------------------|
| T103 | Sycamore<br>(Acer<br>pseudoplatanus)       | Height (m): 15<br>Stem Diam(mm): 600<br>Spread (m): 6N, 6E, 6S, 6W<br>Crown Clearance (m): 1<br>Life Stage: Mature<br>Rem. Contrib.: 40+ Years              | On rail land.                                               | B1<br><br>RPA<br>Radius: 7.2m.<br>Area: 163 sq m.  | No action required. |
| T104 | Sycamore<br>(Acer<br>pseudoplatanus)       | Height (m): 16<br>10 stems, avg.(mm): 300<br>Spread (m): 5N, 5E, 5S, 5W<br>Crown Clearance (m): 1.5<br>Life Stage: Early Mature<br>Rem. Contrib.: 10+ Years | Multi stem your on railtrack land.                          | C1<br><br>RPA<br>Radius: 11.4m.<br>Area: 408 sq m. | No action required. |
| T105 | Wild Cherry<br>(Prunus avium)              | Height (m): 12<br>Stem Diam(mm): 550<br>Spread (m): 5N, 5E, 5S, 5W<br>Crown Clearance (m): 3<br>Life Stage: Mature<br>Rem. Contrib.: 20+ Years              | On rail land                                                | B1<br><br>RPA<br>Radius: 6.6m.<br>Area: 137 sq m.  | No action required. |
| T106 | Common Ash<br>(Fraxinus excelsior)         | Height (m): 10<br>Stem Diam(mm): 400<br>Spread (m): 4N, 4E, 4S, 4W<br>Crown Clearance (m): 2<br>Life Stage: Early Mature<br>Rem. Contrib.: 10+ Years        | On tail land.                                               | C1<br><br>RPA<br>Radius: 4.8m.<br>Area: 72 sq m.   | No action required. |
| T107 | Common Hawthorn<br>(Crataegus<br>monogyna) | Height (m): 8<br>Stem Diam(mm): 400<br>Spread (m): 4N, 4E, 1S, 4W<br>Crown Clearance (m): 1<br>Life Stage: Mature<br>Rem. Contrib.: 40+ Years               | One of a pair of mature Hawthorn 5m from<br>boundary fence. | B1<br><br>RPA<br>Radius: 4.8m.<br>Area: 72 sq m.   | No action required. |
| T108 | Common Hawthorn<br>(Crataegus<br>monogyna) | Height (m): 8<br>Stem Diam(mm): 400<br>Spread (m): 1N, 4E, 4S, 4W<br>Crown Clearance (m): 1<br>Life Stage: Mature<br>Rem. Contrib.: 40+ Years               | One of a pair of mature Hawthorn 5m from<br>boundary fence. | B1<br><br>RPA<br>Radius: 4.8m.<br>Area: 72 sq m.   | No action required. |

| Ref. | Species                                     | Measurements                                                                                                                                            | General Observations               | Category                                          | Recommendations                                                                       |
|------|---------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------|---------------------------------------------------|---------------------------------------------------------------------------------------|
| T109 | Pedunculate Oak<br>( <i>Quercus robur</i> ) | Height (m): 13<br>Stem Diam(mm): 300<br>Spread (m): 8N, 7E, 7S, 4W<br>Crown Clearance (m): 3<br>Life Stage: Early Mature<br>Rem. Contrib.: 40+ Years    | On rail land, extending into site. | B1<br><br>RPA<br>Radius: 3.6m.<br>Area: 41 sq m.  | No action required.                                                                   |
| T11  | Aspen<br>( <i>Populus tremula</i> )         | Height (m): 10<br>Stem Diam(mm): 430<br>Spread (m): 2N, 2E, 2S, 2W<br>Crown Clearance (m): 1<br>Life Stage: Early Mature<br>Rem. Contrib.: 20+ Years    |                                    | C1<br><br>RPA<br>Radius: 5.2m.<br>Area: 85 sq m.  | Remove tree to facilitate the project.                                                |
| T112 | Hazel<br>( <i>Corylus avellana</i> )        | Height (m): 5<br>5 stems, avg.(mm): 100<br>Spread (m): 3N, 3E, 3S, 3W<br>Crown Clearance (m): 0<br>Life Stage: Mature<br>Rem. Contrib.: 10+ Years       | Multi stem hazel adjacent ditch.   | C1<br><br>RPA<br>Radius: 2.7m.<br>Area: 23 sq m.  | During construction:<br>Protect tree with protective barriers -<br>as shown on plans. |
| T113 | Sycamore<br>( <i>Acer pseudoplatanus</i> )  | Height (m): 8<br>3 stems, avg.(mm): 150<br>Spread (m): 2N, 2E, 2S, 2W<br>Crown Clearance (m): 1<br>Life Stage: Early Mature<br>Rem. Contrib.: 20+ Years | Self set on edge of ditch.         | C1<br><br>RPA<br>Radius: 3.1m.<br>Area: 30 sq m.  | During construction:<br>Protect tree with protective barriers -<br>as shown on plans. |
| T114 | European Larch<br>( <i>Larix decidua</i> )  | Height (m): 11<br>2 stems, avg.(mm): 420<br>Spread (m): 5N, 5E, 5S, 5W<br>Crown Clearance (m): 1<br>Life Stage: Mature<br>Rem. Contrib.: 20+ Years      | On west bank.                      | B1<br><br>RPA<br>Radius: 7.1m.<br>Area: 158 sq m. | During construction:<br>Protect tree with protective barriers -<br>as shown on plans. |
| T115 | Goat Willow<br>( <i>Salix caprea</i> )      | Height (m): 10<br>10 stems, avg.(mm): 150<br>Spread (m): 5N, 5E, 5S, 5W<br>Crown Clearance (m): 1<br>Life Stage: Mature<br>Rem. Contrib.: 20+ Years     | Multi stem tree on west ditch.     | B1<br><br>RPA<br>Radius: 5.7m.<br>Area: 102 sq m. | During construction:<br>Protect tree with protective barriers -<br>as shown on plans. |

| Ref. | Species                            | Measurements                                                                                                                                                             | General Observations                                                                  | Category                                               | Recommendations                                                                                                                                                                                                                                                                                           |
|------|------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|--------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| T116 | Sycamore<br>(Acer pseudoplatanus)  | Height (m): 10<br>Stem Diam(mm): 1500<br>Spread (m): 4N, 4E, 4S, 4W<br>Crown Clearance (m): 1<br>Lowest Branch (m): 1<br>Life Stage: Veteran<br>Rem. Contrib.: 40+ Years | Veteran tree. On east bank. High habitat and cultural value.                          | A1,2,3<br><br>RPA<br>Radius: 15.0m.<br>Area: 707 sq m. | Pre construction:<br>Grading work will not enter the protected area.<br><br>During construction:<br>Protect tree with protective barriers - as shown on plans. Note, there will be no grading work within the protected area, which is shown on the plan. The ground within the RPA will remain as it is. |
| T12  | Aspen<br>(Populus tremula)         | Height (m): 14<br>Stem Diam(mm): 300<br>Spread (m): 2N, 2E, 2S, 2W<br>Crown Clearance (m): 1<br>Life Stage: Early Mature<br>Rem. Contrib.: 20+ Years                     | Co dominant stems. Tree is of General character as those within copse.                | C1<br><br>RPA<br>Radius: 3.6m.<br>Area: 41 sq m.       | Remove tree to facilitate the project.                                                                                                                                                                                                                                                                    |
| T121 | Field Maple<br>(Acer campestre)    | Height (m): 12<br>2 stems (mm): 10000, 4010<br>Spread (m): 5.5N, 4.5E, 5S, 5W<br>Crown Clearance (m): 3<br>Life Stage: Mature<br>Rem. Contrib.: 10+ Years                | Hedgerow tree. Multi stemmed, broken branches, decay entry points.                    | C1<br><br>RPA<br>Radius: 15.0m.<br>Area: 707 sq m.     | Remove tree to facilitate the project.                                                                                                                                                                                                                                                                    |
| T126 | Common Ash<br>(Fraxinus excelsior) | Height (m): 8.5<br>Stem Diam(mm): 340<br>Spread (m): 5N, 5E, 5S, 5W<br>Crown Clearance (m): 2<br>Life Stage: Early Mature<br>Rem. Contrib.: 10+ Years                    | Planted, established tree on west side of hedge. No Ash die back currently suspected. | C1<br><br>RPA<br>Radius: 4.1m.<br>Area: 53 sq m.       | Remove tree to facilitate the project, due to excessive RPA conflict.                                                                                                                                                                                                                                     |
| T127 | Common Ash<br>(Fraxinus excelsior) | Height (m): 8.5<br>Stem Diam(mm): 310<br>Spread (m): 5N, 5E, 5S, 5W<br>Crown Clearance (m): 2<br>Life Stage: Early Mature<br>Rem. Contrib.: 10+ Years                    | Planted, established tree on west side of hedge. No Ash die back currently suspected. | C1<br><br>RPA<br>Radius: 3.7m.<br>Area: 43 sq m.       | Remove tree to facilitate the project, due to excessive RPA conflict.                                                                                                                                                                                                                                     |

| Ref. | Species                            | Measurements                                                                                                                                                  | General Observations                                                                                                    | Category                                         | Recommendations                                                                                                                                                                                                 |
|------|------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| T128 | Pedunculate Oak<br>(Quercus robur) | Height (m): 5<br>Stem Diam(mm): 160<br>Spread (m): 5N, 3E, 2S, 3W<br>Crown Clearance (m): 2<br>Life Stage: Early Mature<br>Rem. Contrib.: 20+ Years           | Planted, established tree on west side of hedge. Lower crown branches cut, poor form due to adjacent more dominant Ash. | C1<br><br>RPA<br>Radius: 1.9m.<br>Area: 11 sq m. | Pre construction:<br>Minor pruning of west lateral branches to facilitate the installation of the protective barrier.<br><br>During construction:<br>Protect tree with protective barriers - as shown on plans. |
| T129 | Pedunculate Oak<br>(Quercus robur) | Height (m): 6<br>Stem Diam(mm): 190<br>Spread (m): 3.5N, 3.5E, 3.5S, 3.5W<br>Crown Clearance (m): 1.5<br>Life Stage: Early Mature<br>Rem. Contrib.: 20+ Years | Planted, established tree on west side of hedge.                                                                        | C1<br><br>RPA<br>Radius: 2.3m.<br>Area: 17 sq m. | Pre construction:<br>Minor pruning of west lateral branches to facilitate the installation of the protective barrier.<br><br>During construction:<br>Protect tree with protective barriers - as shown on plans. |
| T13  | Aspen<br>(Populus tremula)         | Height (m): 14<br>Stem Diam(mm): 300<br>Spread (m): 2N, 2E, 2S, 2W<br>Crown Clearance (m): 1<br>Life Stage: Early Mature<br>Rem. Contrib.: 20+ Years          |                                                                                                                         | C1<br><br>RPA<br>Radius: 3.6m.<br>Area: 41 sq m. | Remove tree to facilitate the project.                                                                                                                                                                          |
| T130 | Common Ash<br>(Fraxinus excelsior) | Height (m): 8.5<br>Stem Diam(mm): 300<br>Spread (m): 5N, 5E, 5S, 5W<br>Crown Clearance (m): 2<br>Life Stage: Early Mature<br>Rem. Contrib.: 10+ Years         | Planted, established tree on west side of hedge. No Ash die back currently suspected.                                   | C1<br><br>RPA<br>Radius: 3.6m.<br>Area: 41 sq m. | Pre construction:<br>Minor pruning of west lateral branches to facilitate the installation of the protective barrier.<br><br>During construction:<br>Protect tree with protective barriers - as shown on plans. |

| Ref. | Species                            | Measurements                                                                                                                                                             | General Observations                                                                  | Category                                         | Recommendations                                                                                                                                                                                                 |
|------|------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|--------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| T131 | Pedunculate Oak<br>(Quercus robur) | Height (m): 6<br>Stem Diam(mm): 220<br>Spread (m): 4N, 4E, 4S, 4W<br>Crown Clearance (m): 1.5<br>Life Stage: Early Mature<br>Rem. Contrib.: 20+ Years                    | Planted, established tree on west side of hedge.                                      | C1<br><br>RPA<br>Radius: 2.6m.<br>Area: 21 sq m. | Pre construction:<br>Minor pruning of west lateral branches to facilitate the installation of the protective barrier.<br><br>During construction:<br>Protect tree with protective barriers - as shown on plans. |
| T132 | Pedunculate Oak<br>(Quercus robur) | Height (m): 6<br>Stem Diam(mm): 190<br>Spread (m): 3.5N, 3.5E, 3.5S, 3.5W<br>Crown Clearance (m): 1.5<br>Life Stage: Early Mature<br>Rem. Contrib.: 20+ Years            | Planted, established tree on west side of hedge.                                      | C1<br><br>RPA<br>Radius: 2.3m.<br>Area: 17 sq m. | Pre construction:<br>Minor pruning of west lateral branches to facilitate the installation of the protective barrier.<br><br>During construction:<br>Protect tree with protective barriers - as shown on plans. |
| T133 | Common Ash<br>(Fraxinus excelsior) | Height (m): 8.5<br>Stem Diam(mm): 270<br>Spread (m): 5N, 5E, 5S, 5W<br>Crown Clearance (m): 2<br>Life Stage: Early Mature<br>Rem. Contrib.: 10+ Years                    | Planted, established tree on west side of hedge. No Ash die back currently suspected. | C1<br><br>RPA<br>Radius: 3.2m.<br>Area: 32 sq m. | During construction:<br>Protect trees with protective barriers - as shown on plans.                                                                                                                             |
| T134 | Common Ash<br>(Fraxinus excelsior) | Height (m): 8.5<br>Stem Diam(mm): 280<br>Spread (m): 5N, 5E, 5S, 5W<br>Crown Clearance (m): 2<br>Life Stage: Early Mature<br>Rem. Contrib.: 10+ Years                    | Planted, established tree on west side of hedge. No Ash die back currently suspected. | C1<br><br>RPA<br>Radius: 3.4m.<br>Area: 36 sq m. | During construction:<br>Protect trees with protective barriers - as shown on plans.                                                                                                                             |
| T135 | Pedunculate Oak<br>(Quercus robur) | Height (m): 4<br>4 stems (mm): 100,100,100,100<br>Spread (m): 1.5N, 1.5E, 1.5S, 1.5W<br>Crown Clearance (m): 1.5<br>Life Stage: Early Mature<br>Rem. Contrib.: 20+ Years | Planted, established tree on west side of hedge.                                      | C1<br><br>RPA<br>Radius: 2.4m.<br>Area: 18 sq m. | During construction:<br>Protect trees with protective barriers - as shown on plans.                                                                                                                             |

| Ref. | Species                                 | Measurements                                                                                                                                                                | General Observations                                                                  | Category                                                  | Recommendations                                                |
|------|-----------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|-----------------------------------------------------------|----------------------------------------------------------------|
| T138 | Silver Birch<br>(Betula pendula)        | Height (m): 18<br>Stem Diam(mm): 390<br>Spread (m): 4N, 4E, 4S, 2W<br>Crown Clearance (m): 1.5<br>Lowest Branch (m): 2(W)<br>Life Stage: Mature<br>Rem. Contrib.: 20+ Years |                                                                                       | B1<br><br>RPA<br>Radius: 4.7m.<br>Area: 69 sq m.          | Remove tree to facilitate the road infrastructure.             |
| T139 | Silver Birch<br>(Betula pendula)        | Height (m): 18<br>Stem Diam(mm): 410<br>Spread (m): 4N, 4E, 4S, 2W<br>Crown Clearance (m): 1.5<br>Lowest Branch (m): 2(W)<br>Life Stage: Mature<br>Rem. Contrib.: 20+ Years | Minor deadwood and cavities in stem.                                                  | B1<br><br>RPA<br>Radius: 4.9m.<br>Area: 75 sq m.          | Remove tree to facilitate the road infrastructure.             |
| T14  | Aspen<br>(Populus tremula)              | Height (m): 14<br>Stem Diam(mm): 300<br>Spread (m): 2N, 2E, 2S, 2W<br>Crown Clearance (m): 1<br>Life Stage: Early Mature<br>Rem. Contrib.: 20+ Years                        |                                                                                       | C1<br><br>RPA<br>Radius: 3.6m.<br>Area: 41 sq m.          | Remove tree to facilitate the project.                         |
| T140 | Silver Birch<br>(Betula pendula)        | Height (m): 18<br>Stem Diam(mm): 570<br>Spread (m): 7N, 4E, 4S, 4W<br>Crown Clearance (m): 1.5<br>Lowest Branch (m): 2(W)<br>Life Stage: Mature<br>Rem. Contrib.: 20+ Years | Minor deadwood.                                                                       | B1<br><br>RPA<br>Radius: 6.8m.<br>Area: 145 sq m.         | Remove tree to facilitate the road infrastructure.             |
| T141 | Common Hawthorn<br>(Crataegus monogyna) | Height (m): 9<br>Stem Diam(mm): 400<br>Spread (m): 3N, 3E, 3S, 3W<br>Crown Clearance (m): 1<br>Life Stage: Early Mature<br>Rem. Contrib.: 40+ Years                         |                                                                                       | B1<br><br>RPA<br>Radius: 4.8m.<br>Area: 72 sq m.          | Remove tree to facilitate the road infrastructure.             |
| T142 | Goat Willow<br>(Salix caprea)           | Height (m): 12<br>Stem Diam(mm): 60<br>Spread (m): 5N, 7E, 4S, 4W<br>Crown Clearance (m): 1<br>Life Stage: Mature<br>Rem. Contrib.: <10 years                               | Stem has broken out to North east. Dieback in lower crown. Poor structural condition. | U<br><br>RPA<br>No RPA due to Retention<br>Category of U. | Remove low quality tree to facilitate the road infrastructure. |

| Ref. | Species                                                                                                                          | Measurements                                                                                                                                                                 | General Observations                                                                                                                                                                                                     | Category                                          | Recommendations                                                                    |
|------|----------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------|------------------------------------------------------------------------------------|
| T143 | Pedunculate Oak<br>( <i>Quercus robur</i> )                                                                                      | Height (m): 10<br>2 stems (mm): 500,250<br>Spread (m): 5N, 5E, 5S, 5W<br>Crown Clearance (m): 1<br>Life Stage: Early Mature<br>Rem. Contrib.: 40+ Years                      | Good overall Physiological and Structural condition.<br><br>Additional Comments:<br>Surveyed from nearest viewpoint due to access restrictions.                                                                          | B1<br><br>RPA<br>Radius: 6.7m.<br>Area: 141 sq m. | Remove tree to facilitate the road infrastructure.                                 |
| T144 | Silver Birch<br>( <i>Betula pendula</i> )                                                                                        | Height (m): 17<br>4 stems, avg.(mm): 350<br>Spread (m): 7N, 7E, 7S, 7W<br>Crown Clearance (m): 1.5<br>Lowest Branch (m): 2<br>Life Stage: Mature<br>Rem. Contrib.: 20+ Years | Surveyed from a distance due to access restrictions.                                                                                                                                                                     | B1<br><br>RPA<br>Radius: 8.4m.<br>Area: 222 sq m. | Remove tree to facilitate the project.                                             |
| T145 | Elder<br>( <i>Sambucus nigra</i> )<br>Goat Willow<br>( <i>Salix caprea</i> )<br>Common Hawthorn<br>( <i>Crataegus monogyna</i> ) | Height (m): 8<br>Stem Diam(mm): 250<br>Spread (m): 4N, 4E, 4S, 4W<br>Crown Clearance (m): 1<br>Life Stage: Early Mature<br>Rem. Contrib.: 20+ Years                          | Group of 3, not recorded on the topographical basemap. Position, therefore plotted with GPS.                                                                                                                             | C2<br><br>RPA<br>Area: 72 sq m.                   | During construction:<br>Protect tree with protective barriers - as shown on plans. |
| T146 | Pedunculate Oak<br>( <i>Quercus robur</i> )                                                                                      | Height (m): 10<br>Stem Diam(mm): 350<br>Spread (m): 5N, 5E, 5S, 5W<br>Crown Clearance (m): 1.5<br>Life Stage: Early Mature<br>Rem. Contrib.: 40+ Years                       | Good overall Physiological and Structural condition.<br><br>Additional Comments:<br>Not plotted on topographical basemap and access impenetrable due to dense vegetation. Therefore plotted position is indicative only. | B1<br><br>RPA<br>Radius: 4.2m.<br>Area: 55 sq m.  | During construction:<br>Protect tree with protective barriers - as shown on plans. |
| T147 | Pedunculate Oak<br>( <i>Quercus robur</i> )                                                                                      | Height (m): 10<br>Stem Diam(mm): 350<br>Spread (m): 5N, 5E, 5S, 5W<br>Crown Clearance (m): 1.5<br>Life Stage: Early Mature<br>Rem. Contrib.: 40+ Years                       | Good overall Physiological and Structural condition.<br><br>Additional Comments:<br>Not plotted on topographical basemap and access impenetrable due to dense vegetation. Therefore plotted position is indicative only. | B1<br><br>RPA<br>Radius: 4.2m.<br>Area: 55 sq m.  | During construction:<br>Protect tree with protective barriers - as shown on plans. |

| Ref. | Species                                 | Measurements                                                                                                                                                                    | General Observations                                                                                                                                                                                                                      | Category                                         | Recommendations                                                                    |
|------|-----------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------|------------------------------------------------------------------------------------|
| T148 | Common Hawthorn<br>(Crataegus monogyna) | Height (m): 7<br>5 stems, avg.(mm): 200<br>Spread (m): 4.5N, 4.5E, 4.5S, 4.5W<br>Crown Clearance (m): 1<br>Life Stage: Mature<br>Rem. Contrib.: 40+ Years                       | Multi stemmed.<br>Good overall Physiological and Structural condition.<br><br>Additional Comments:<br>Not plotted on topographical basemap and located within impenetrable vegetation, therefore the plotted position is indicative only. | B1<br><br>RPA<br>Radius: 5.4m.<br>Area: 92 sq m. | During construction:<br>Protect tree with protective barriers - as shown on plans. |
| T149 | Common Hawthorn<br>(Crataegus monogyna) | Height (m): 4.5<br>Stem Diam(mm): 120<br>Spread (m): 2.5N, 2.5E, 2.5S, 2.5W<br>Crown Clearance (m): 1<br>Life Stage: Mature<br>Rem. Contrib.: 40+ Years                         | Small tree on edge of track.<br><br>Additional Comments:<br>Not plotted on topographical basemap therefore the plotted position has been estimated.                                                                                       | C1<br><br>RPA<br>Radius: 1.4m.<br>Area: 6 sq m.  | During construction:<br>Protect tree with protective barriers - as shown on plans. |
| T15  | Aspen<br>(Populus tremula)              | Height (m): 14<br>Stem Diam(mm): 300<br>Spread (m): 2N, 2E, 2S, 2W<br>Crown Clearance (m): 1<br>Life Stage: Early Mature<br>Rem. Contrib.: 20+ Years                            | Co dominant stems. Tree is of General character as those within copse.                                                                                                                                                                    | C1<br><br>RPA<br>Radius: 3.6m.<br>Area: 41 sq m. | Remove tree to facilitate the project.                                             |
| T150 | Common Ash<br>(Fraxinus excelsior)      | Height (m): 20<br>8 stems, avg.(mm): 40<br>Spread (m): 8N, 8E, 8S, 8W<br>Crown Clearance (m): 3<br>Lowest Branch (m): 1.5(NE)<br>Life Stage: Mature<br>Rem. Contrib.: <10 years | 25% Ash die back through the crown, with epicormics present. Also deadwood through low and mid crown, low vigour.                                                                                                                         | C1<br><br>RPA<br>Radius: 1.4m.<br>Area: 6 sq m.  | Remove tree to facilitate the road infrastructure.                                 |
| T151 | Common Hawthorn<br>(Crataegus monogyna) | Height (m): 4.5<br>Stem Diam(mm): 120<br>Spread (m): 2.5N, 2.5E, 2.5S, 2.5W<br>Crown Clearance (m): 1<br>Life Stage: Early Mature<br>Rem. Contrib.: 40+ Years                   | Small tree on edge of track.<br><br>Additional Comments:<br>Not plotted on topographical basemap therefore the plotted position has been estimated.                                                                                       | C1<br><br>RPA<br>Radius: 1.4m.<br>Area: 6 sq m.  | Remove tree to facilitate the road infrastructure.                                 |

| Ref. | Species                            | Measurements                                                                                                                                                    | General Observations                                                                                        | Category                                          | Recommendations                                                                    |
|------|------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------|---------------------------------------------------|------------------------------------------------------------------------------------|
| T154 | Pedunculate Oak<br>(Quercus robur) | Height (m): 18<br>4 stems (mm): 230,340,260,280<br>Spread (m): 6N, 4E, 9S, 5W<br>Crown Clearance (m): 5<br>Life Stage: Early Mature<br>Rem. Contrib.: 40+ Years | Multi stem tree with Ivy cover. Coppice regrowth. Minor deadwood.                                           | B1<br><br>RPA<br>Radius: 6.7m.<br>Area: 141 sq m. | During construction:<br>Protect tree with protective barriers - as shown on plans. |
| T155 | Pedunculate Oak<br>(Quercus robur) | Height (m): 18<br>3 stems (mm): 460,470,410<br>Spread (m): 9N, 5E, 9S, 7W<br>Crown Clearance (m): 5<br>Life Stage: Early Mature<br>Rem. Contrib.: 40+ Years     | Multi stem tree with Ivy cover. Coppice regrowth. Minor deadwood. Ash and Hawthorn within group, near base. | B1<br><br>RPA<br>Radius: 9.3m.<br>Area: 272 sq m. | During construction:<br>Protect tree with protective barriers - as shown on plans. |
| T156 | Pedunculate Oak<br>(Quercus robur) | Height (m): 19<br>2 stems (mm): 440,330<br>Spread (m): 8N, 5E, 5S, 4W<br>Crown Clearance (m): 5<br>Life Stage: Early Mature<br>Rem. Contrib.: 40+ Years         | Dense Ivy cover.                                                                                            | B1<br><br>RPA<br>Radius: 6.6m.<br>Area: 137 sq m. | During construction:<br>Protect tree with protective barriers - as shown on plans. |
| T158 | Cypress<br>(Chamaecyparis sp.)     | Height (m): 12<br>Stem Diam(mm): 550<br>Spread (m): 4.5N, 4.5E, 4.5S, 4.5W<br>Crown Clearance (m): 4.5<br>Life Stage: Mature<br>Rem. Contrib.: 20+ Years        | 3m from curb edge, overhangs access road by around 0.5m.                                                    | C1<br><br>RPA<br>Radius: 6.6m.<br>Area: 137 sq m. | During construction:<br>No action required.                                        |
| T16  | Aspen<br>(Populus tremula)         | Height (m): 14<br>Stem Diam(mm): 200<br>Spread (m): 2N, 2E, 2S, 2W<br>Crown Clearance (m): 1<br>Life Stage: Early Mature<br>Rem. Contrib.: 20+ Years            | Co dominant stems. Tree is of General character as those within copse.                                      | C1<br><br>RPA<br>Radius: 2.4m.<br>Area: 18 sq m.  | Remove tree to facilitate the project.                                             |
| T19  | Scots Pine<br>(Pinus sylvestris)   | Height (m): 14<br>Stem Diam(mm): 220<br>Spread (m): 3N, 3E, 3S, 3W<br>Crown Clearance (m): 5<br>Life Stage: Early Mature<br>Rem. Contrib.: 20+ Years            |                                                                                                             | C2<br><br>RPA<br>Radius: 2.6m.<br>Area: 21 sq m.  | Remove tree to facilitate the project.                                             |

| Ref. | Species                                 | Measurements                                                                                                                                             | General Observations                                                    | Category                                          | Recommendations                        |
|------|-----------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------|---------------------------------------------------|----------------------------------------|
| T20  | Scots Pine<br>(Pinus sylvestris)        | Height (m): 14<br>Stem Diam(mm): 170<br>Spread (m): 3N, 3E, 3S, 3W<br>Crown Clearance (m): 5<br>Life Stage: Early Mature<br>Rem. Contrib.: 20+ Years     |                                                                         | C2<br><br>RPA<br>Radius: 2.0m.<br>Area: 13 sq m.  | Remove tree to facilitate the project. |
| T21  | Common Hawthorn<br>(Crataegus monogyna) | Height (m): 9<br>Stem Diam(mm): 100<br>Spread (m): 2N, 2E, 2S, 2W<br>Crown Clearance (m): 1<br>Life Stage: Early Mature<br>Rem. Contrib.: 20+ Years      | Ivy, poor form.                                                         | C2<br><br>RPA<br>Radius: 1.2m.<br>Area: 5 sq m.   | Remove tree to facilitate the project. |
| T22  | Aspen<br>(Populus tremula)              | Height (m): 10<br>Stem Diam(mm): 200<br>Spread (m): 2N, 2E, 2S, 2W<br>Crown Clearance (m): 1<br>Life Stage: Early Mature<br>Rem. Contrib.: 20+ Years     | Co dominant stems. Tree is of General character as those within copse.  | C1<br><br>RPA<br>Radius: 2.4m.<br>Area: 18 sq m.  | Remove tree to facilitate the project. |
| T23  | Aspen<br>(Populus tremula)              | Height (m): 10<br>Stem Diam(mm): 200<br>Spread (m): 2N, 2E, 2S, 2W<br>Crown Clearance (m): 1<br>Life Stage: Early Mature<br>Rem. Contrib.: 20+ Years     | Co dominant stems. Tree is of General character as those within copse.  | C1<br><br>RPA<br>Radius: 2.4m.<br>Area: 18 sq m.  | Remove tree to facilitate the project. |
| T24  | Aspen<br>(Populus tremula)              | Height (m): 14<br>Stem Diam(mm): 300<br>Spread (m): 2N, 2E, 2S, 2W<br>Crown Clearance (m): 1<br>Life Stage: Early Mature<br>Rem. Contrib.: 20+ Years     | Bifurcated at 1.7m. Tree is of General character as those within copse. | C1<br><br>RPA<br>Radius: 3.6m.<br>Area: 41 sq m.  | Remove tree to facilitate the project. |
| T25  | Aspen<br>(Populus tremula)              | Height (m): 14<br>2 stems, avg.(mm): 400<br>Spread (m): 2N, 2E, 2S, 2W<br>Crown Clearance (m): 1<br>Life Stage: Early Mature<br>Rem. Contrib.: 20+ Years | Bifurcated at 1.7m. Tree is of General character as those within copse. | C1<br><br>RPA<br>Radius: 6.8m.<br>Area: 147 sq m. | Remove tree to facilitate the project. |

| Ref. | Species                          | Measurements                                                                                                                                         | General Observations                                                  | Category                                          | Recommendations                        |
|------|----------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------|---------------------------------------------------|----------------------------------------|
| T26  | Scots Pine<br>(Pinus sylvestris) | Height (m): 14<br>Stem Diam(mm): 200<br>Spread (m): 3N, 3E, 3S, 3W<br>Crown Clearance (m): 5<br>Life Stage: Early Mature<br>Rem. Contrib.: 20+ Years |                                                                       | C2<br><br>RPA<br>Radius: 2.4m.<br>Area: 18 sq m.  | Remove tree to facilitate the project. |
| T27  | Scots Pine<br>(Pinus sylvestris) | Height (m): 14<br>Stem Diam(mm): 200<br>Spread (m): 3N, 3E, 3S, 3W<br>Crown Clearance (m): 5<br>Life Stage: Early Mature<br>Rem. Contrib.: 20+ Years |                                                                       | C2<br><br>RPA<br>Radius: 2.4m.<br>Area: 18 sq m.  | Remove tree to facilitate the project. |
| T28  | Scots Pine<br>(Pinus sylvestris) | Height (m): 14<br>Stem Diam(mm): 200<br>Spread (m): 3N, 3E, 3S, 3W<br>Crown Clearance (m): 5<br>Life Stage: Early Mature<br>Rem. Contrib.: 20+ Years |                                                                       | C2<br><br>RPA<br>Radius: 2.4m.<br>Area: 18 sq m.  | Remove tree to facilitate the project. |
| T29  | Aspen<br>(Populus tremula)       | Height (m): 14<br>Stem Diam(mm): 450<br>Spread (m): 2N, 2E, 2S, 2W<br>Crown Clearance (m): 1<br>Life Stage: Early Mature<br>Rem. Contrib.: 20+ Years |                                                                       | C1<br><br>RPA<br>Radius: 5.4m.<br>Area: 100 sq m. | Remove tree to facilitate the project. |
| T30  | Aspen<br>(Populus tremula)       | Height (m): 10<br>Stem Diam(mm): 200<br>Spread (m): 2N, 2E, 2S, 2W<br>Crown Clearance (m): 1<br>Life Stage: Early Mature<br>Rem. Contrib.: 20+ Years | Co dominant stems. Tree isof General character as those within copse. | C1<br><br>RPA<br>Radius: 2.4m.<br>Area: 18 sq m.  | Remove tree to facilitate the project. |
| T31  | Aspen<br>(Populus tremula)       | Height (m): 10<br>Stem Diam(mm): 200<br>Spread (m): 2N, 2E, 2S, 2W<br>Crown Clearance (m): 1<br>Life Stage: Early Mature<br>Rem. Contrib.: 20+ Years | Co dominant stems. Tree isof General character as those within copse. | C1<br><br>RPA<br>Radius: 2.4m.<br>Area: 18 sq m.  | Remove tree to facilitate the project. |

| Ref. | Species                          | Measurements                                                                                                                                         | General Observations                                                  | Category                                         | Recommendations                        |
|------|----------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------|--------------------------------------------------|----------------------------------------|
| T32  | Aspen<br>(Populus tremula)       | Height (m): 10<br>Stem Diam(mm): 200<br>Spread (m): 2N, 2E, 2S, 2W<br>Crown Clearance (m): 1<br>Life Stage: Early Mature<br>Rem. Contrib.: 20+ Years | Co dominant stems. Tree isof General character as those within copse. | C1<br><br>RPA<br>Radius: 2.4m.<br>Area: 18 sq m. | Remove tree to facilitate the project. |
| T33  | Scots Pine<br>(Pinus sylvestris) | Height (m): 14<br>Stem Diam(mm): 200<br>Spread (m): 3N, 3E, 3S, 3W<br>Crown Clearance (m): 5<br>Life Stage: Early Mature<br>Rem. Contrib.: 20+ Years |                                                                       | C2<br><br>RPA<br>Radius: 2.4m.<br>Area: 18 sq m. | Remove tree to facilitate the project. |
| T34  | Scots Pine<br>(Pinus sylvestris) | Height (m): 14<br>Stem Diam(mm): 200<br>Spread (m): 3N, 3E, 3S, 3W<br>Crown Clearance (m): 5<br>Life Stage: Early Mature<br>Rem. Contrib.: 20+ Years |                                                                       | C2<br><br>RPA<br>Radius: 2.4m.<br>Area: 18 sq m. | Remove tree to facilitate the project. |
| T35  | Scots Pine<br>(Pinus sylvestris) | Height (m): 14<br>Stem Diam(mm): 200<br>Spread (m): 3N, 3E, 3S, 3W<br>Crown Clearance (m): 5<br>Life Stage: Early Mature<br>Rem. Contrib.: 20+ Years |                                                                       | C2<br><br>RPA<br>Radius: 2.4m.<br>Area: 18 sq m. | Remove tree to facilitate the project. |
| T36  | Scots Pine<br>(Pinus sylvestris) | Height (m): 14<br>Stem Diam(mm): 200<br>Spread (m): 3N, 3E, 3S, 3W<br>Crown Clearance (m): 5<br>Life Stage: Early Mature<br>Rem. Contrib.: 20+ Years |                                                                       | C2<br><br>RPA<br>Radius: 2.4m.<br>Area: 18 sq m. | Remove tree to facilitate the project. |
| T37  | Scots Pine<br>(Pinus sylvestris) | Height (m): 14<br>Stem Diam(mm): 200<br>Spread (m): 3N, 3E, 3S, 3W<br>Crown Clearance (m): 5<br>Life Stage: Early Mature<br>Rem. Contrib.: 20+ Years |                                                                       | C2<br><br>RPA<br>Radius: 2.4m.<br>Area: 18 sq m. | Remove tree to facilitate the project. |

| Ref. | Species                              | Measurements                                                                                                                                             | General Observations              | Category                                           | Recommendations                        |
|------|--------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------|----------------------------------------------------|----------------------------------------|
| T38  | Sycamore<br>(Acer<br>pseudoplatanus) | Height (m): 12<br>8 stems, avg.(mm): 350<br>Spread (m): 5N, 5E, 5S, 5W<br>Crown Clearance (m): 1<br>Life Stage: Early Mature<br>Rem. Contrib.: 10+ Years | Self set and previously coppiced. | C1<br><br>RPA<br>Radius: 11.9m.<br>Area: 446 sq m. | Remove tree to facilitate the project. |
| T41  | Aspen<br>(Populus tremula)           | Height (m): 14<br>Stem Diam(mm): 360<br>Spread (m): 4N, 4E, 4S, 4W<br>Crown Clearance (m): 4<br>Life Stage: Mature<br>Rem. Contrib.: 20+ Years           |                                   | C1<br><br>RPA<br>Radius: 4.3m.<br>Area: 58 sq m.   | Remove tree to facilitate the project. |
| T42  | Aspen<br>(Populus tremula)           | Height (m): 14<br>Stem Diam(mm): 340<br>Spread (m): 4N, 4E, 4S, 4W<br>Crown Clearance (m): 4<br>Life Stage: Mature<br>Rem. Contrib.: 20+ Years           |                                   | C1<br><br>RPA<br>Radius: 4.1m.<br>Area: 53 sq m.   | Remove tree to facilitate the project. |
| T43  | Aspen<br>(Populus tremula)           | Height (m): 14<br>Stem Diam(mm): 320<br>Spread (m): 4N, 4E, 4S, 4W<br>Crown Clearance (m): 4<br>Life Stage: Mature<br>Rem. Contrib.: 20+ Years           |                                   | C1<br><br>RPA<br>Radius: 3.8m.<br>Area: 45 sq m.   | Remove tree to facilitate the project. |
| T44  | Aspen<br>(Populus tremula)           | Height (m): 14<br>Stem Diam(mm): 320<br>Spread (m): 4N, 4E, 4S, 4W<br>Crown Clearance (m): 4<br>Life Stage: Mature<br>Rem. Contrib.: 20+ Years           |                                   | C1<br><br>RPA<br>Radius: 3.8m.<br>Area: 45 sq m.   | Remove tree to facilitate the project. |
| T45  | Aspen<br>(Populus tremula)           | Height (m): 14<br>Stem Diam(mm): 300<br>Spread (m): 4N, 4E, 4S, 4W<br>Crown Clearance (m): 4<br>Life Stage: Mature<br>Rem. Contrib.: 20+ Years           |                                   | C1<br><br>RPA<br>Radius: 3.6m.<br>Area: 41 sq m.   | Remove tree to facilitate the project. |

| Ref. | Species                       | Measurements                                                                                                                                          | General Observations | Category                                         | Recommendations                        |
|------|-------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|--------------------------------------------------|----------------------------------------|
| T46  | Aspen<br>(Populus tremula)    | Height (m): 14<br>Stem Diam(mm): 360<br>Spread (m): 4N, 4E, 4S, 4W<br>Crown Clearance (m): 4<br>Life Stage: Mature<br>Rem. Contrib.: 20+ Years        |                      | C1<br><br>RPA<br>Radius: 4.3m.<br>Area: 58 sq m. | Remove tree to facilitate the project. |
| T47  | Wild Cherry<br>(Prunus avium) | Height (m): 12<br>3 stems (mm): 200,200,200<br>Spread (m): 4N, 4E, 4S, 4W<br>Crown Clearance (m): 4<br>Life Stage: Mature<br>Rem. Contrib.: 20+ Years |                      | C1<br><br>RPA<br>Radius: 4.2m.<br>Area: 55 sq m. | Remove tree to facilitate the project. |
| T48  | Wild Cherry<br>(Prunus avium) | Height (m): 12<br>Stem Diam(mm): 150<br>Spread (m): 4N, 4E, 4S, 4W<br>Crown Clearance (m): 4<br>Life Stage: Mature<br>Rem. Contrib.: 20+ Years        |                      | C1<br><br>RPA<br>Radius: 1.8m.<br>Area: 10 sq m. | Remove tree to facilitate the project. |
| T49  | Wild Cherry<br>(Prunus avium) | Height (m): 12<br>Stem Diam(mm): 150<br>Spread (m): 4N, 4E, 4S, 4W<br>Crown Clearance (m): 4<br>Life Stage: Mature<br>Rem. Contrib.: 20+ Years        |                      | C1<br><br>RPA<br>Radius: 1.8m.<br>Area: 10 sq m. | Remove tree to facilitate the project. |
| T50  | Wild Cherry<br>(Prunus avium) | Height (m): 12<br>Stem Diam(mm): 150<br>Spread (m): 4N, 4E, 4S, 4W<br>Crown Clearance (m): 4<br>Life Stage: Mature<br>Rem. Contrib.: 20+ Years        |                      | C1<br><br>RPA<br>Radius: 1.8m.<br>Area: 10 sq m. | Remove tree to facilitate the project. |
| T51  | Wild Cherry<br>(Prunus avium) | Height (m): 12<br>Stem Diam(mm): 150<br>Spread (m): 4N, 4E, 4S, 4W<br>Crown Clearance (m): 4<br>Life Stage: Mature<br>Rem. Contrib.: 20+ Years        |                      | C1<br><br>RPA<br>Radius: 1.8m.<br>Area: 10 sq m. | Remove tree to facilitate the project. |

| Ref. | Species                          | Measurements                                                                                                                                         | General Observations | Category                                         | Recommendations                        |
|------|----------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|--------------------------------------------------|----------------------------------------|
| T52  | Aspen<br>(Populus tremula)       | Height (m): 14<br>Stem Diam(mm): 300<br>Spread (m): 4N, 4E, 4S, 4W<br>Crown Clearance (m): 4<br>Life Stage: Mature<br>Rem. Contrib.: 20+ Years       |                      | C1<br><br>RPA<br>Radius: 3.6m.<br>Area: 41 sq m. | Remove tree to facilitate the project. |
| T53  | Aspen<br>(Populus tremula)       | Height (m): 14<br>Stem Diam(mm): 300<br>Spread (m): 4N, 4E, 4S, 4W<br>Crown Clearance (m): 4<br>Life Stage: Mature<br>Rem. Contrib.: 20+ Years       |                      | C1<br><br>RPA<br>Radius: 3.6m.<br>Area: 41 sq m. | Remove tree to facilitate the project. |
| T55  | Scots Pine<br>(Pinus sylvestris) | Height (m): 11<br>Stem Diam(mm): 150<br>Spread (m): 2N, 2E, 2S, 2W<br>Crown Clearance (m): 6<br>Life Stage: Early Mature<br>Rem. Contrib.: 20+ Years |                      | C1<br><br>RPA<br>Radius: 1.8m.<br>Area: 10 sq m. | Remove tree to facilitate the project. |
| T56  | Aspen<br>(Populus tremula)       | Height (m): 14<br>Stem Diam(mm): 300<br>Spread (m): 2N, 2E, 2S, 2W<br>Crown Clearance (m): 1<br>Life Stage: Early Mature<br>Rem. Contrib.: 20+ Years | Poor form/leaning.   | C1<br><br>RPA<br>Radius: 3.6m.<br>Area: 41 sq m. | Remove tree to facilitate the project. |
| T57  | Silver Birch<br>(Betula pendula) | Height (m): 12<br>Stem Diam(mm): 150<br>Spread (m): 2N, 2E, 2S, 2W<br>Crown Clearance (m): 7<br>Life Stage: Early Mature<br>Rem. Contrib.: 20+ Years |                      | C1<br><br>RPA<br>Radius: 1.8m.<br>Area: 10 sq m. | Remove tree to facilitate the project. |
| T58  | Silver Birch<br>(Betula pendula) | Height (m): 12<br>Stem Diam(mm): 150<br>Spread (m): 2N, 2E, 2S, 2W<br>Crown Clearance (m): 7<br>Life Stage: Early Mature<br>Rem. Contrib.: 20+ Years |                      | C1<br><br>RPA<br>Radius: 1.8m.<br>Area: 10 sq m. | Remove tree to facilitate the project. |

| Ref. | Species                          | Measurements                                                                                                                                         | General Observations | Category                                          | Recommendations                                                                        |
|------|----------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|---------------------------------------------------|----------------------------------------------------------------------------------------|
| T59  | Silver Birch<br>(Betula pendula) | Height (m): 12<br>Stem Diam(mm): 150<br>Spread (m): 2N, 2E, 2S, 2W<br>Crown Clearance (m): 7<br>Life Stage: Early Mature<br>Rem. Contrib.: 20+ Years |                      | C1<br><br>RPA<br>Radius: 1.8m.<br>Area: 10 sq m.  | Remove tree to facilitate the project.                                                 |
| T60  | Aspen<br>(Populus tremula)       | Height (m): 14<br>Stem Diam(mm): 400<br>Spread (m): 4N, 4E, 4S, 4W<br>Crown Clearance (m): 2<br>Life Stage: Mature<br>Rem. Contrib.: 20+ Years       |                      | C1<br><br>RPA<br>Radius: 4.8m.<br>Area: 72 sq m.  | Remove tree to facilitate earth works.                                                 |
| T61  | Aspen<br>(Populus tremula)       | Height (m): 14<br>Stem Diam(mm): 400<br>Spread (m): 4N, 4E, 4S, 4W<br>Crown Clearance (m): 2<br>Life Stage: Mature<br>Rem. Contrib.: 20+ Years       |                      | C1<br><br>RPA<br>Radius: 4.8m.<br>Area: 72 sq m.  | Remove tree to facilitate the earth works.                                             |
| T62  | Aspen<br>(Populus tremula)       | Height (m): 14<br>Stem Diam(mm): 400<br>Spread (m): 4N, 4E, 4S, 4W<br>Crown Clearance (m): 2<br>Life Stage: Mature<br>Rem. Contrib.: 20+ Years       |                      | C1<br><br>RPA<br>Radius: 4.8m.<br>Area: 72 sq m.  | Remove tree to facilitate the earth works.                                             |
| T64  | Aspen<br>(Populus tremula)       | Height (m): 14<br>7 stems, avg.(mm): 300<br>Spread (m): 4N, 4E, 4S, 4W<br>Crown Clearance (m): 2<br>Life Stage: Mature<br>Rem. Contrib.: 10+ Years   | Multi stem tree.     | C1<br><br>RPA<br>Radius: 9.5m.<br>Area: 284 sq m. | During construction:<br>Protect trees with protective barriers -<br>as shown on plans. |
| T65  | Aspen<br>(Populus tremula)       | Height (m): 10<br>Stem Diam(mm): 200<br>Spread (m): 4N, 4E, 4S, 4W<br>Crown Clearance (m): 2<br>Life Stage: Mature<br>Rem. Contrib.: 20+ Years       |                      | C1<br><br>RPA<br>Radius: 2.4m.<br>Area: 18 sq m.  | During construction:<br>Protect trees with protective barriers -<br>as shown on plans. |

| Ref. | Species                          | Measurements                                                                                                                                         | General Observations | Category                                         | Recommendations                                                                        |
|------|----------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|--------------------------------------------------|----------------------------------------------------------------------------------------|
| T66  | Aspen<br>(Populus tremula)       | Height (m): 10<br>Stem Diam(mm): 200<br>Spread (m): 4N, 4E, 4S, 4W<br>Crown Clearance (m): 2<br>Life Stage: Mature<br>Rem. Contrib.: 20+ Years       |                      | C1<br><br>RPA<br>Radius: 2.4m.<br>Area: 18 sq m. | During construction:<br>Protect trees with protective barriers -<br>as shown on plans. |
| T67  | Aspen<br>(Populus tremula)       | Height (m): 10<br>Stem Diam(mm): 200<br>Spread (m): 4N, 4E, 4S, 4W<br>Crown Clearance (m): 2<br>Life Stage: Mature<br>Rem. Contrib.: 20+ Years       |                      | C1<br><br>RPA<br>Radius: 2.4m.<br>Area: 18 sq m. | During construction:<br>Protect trees with protective barriers -<br>as shown on plans. |
| T68  | Aspen<br>(Populus tremula)       | Height (m): 10<br>Stem Diam(mm): 200<br>Spread (m): 4N, 4E, 4S, 4W<br>Crown Clearance (m): 2<br>Life Stage: Mature<br>Rem. Contrib.: 20+ Years       |                      | C1<br><br>RPA<br>Radius: 2.4m.<br>Area: 18 sq m. | During construction:<br>Protect trees with protective barriers -<br>as shown on plans. |
| T72  | Scots Pine<br>(Pinus sylvestris) | Height (m): 11<br>Stem Diam(mm): 150<br>Spread (m): 2N, 2E, 2S, 2W<br>Crown Clearance (m): 6<br>Life Stage: Early Mature<br>Rem. Contrib.: 20+ Years |                      | C1<br><br>RPA<br>Radius: 1.8m.<br>Area: 10 sq m. | Remove tree to facilitate the project.                                                 |
| T73  | Scots Pine<br>(Pinus sylvestris) | Height (m): 11<br>Stem Diam(mm): 150<br>Spread (m): 2N, 2E, 2S, 2W<br>Crown Clearance (m): 6<br>Life Stage: Early Mature<br>Rem. Contrib.: 20+ Years |                      | C1<br><br>RPA<br>Radius: 1.8m.<br>Area: 10 sq m. | Remove tree to facilitate the project.                                                 |
| T74  | Scots Pine<br>(Pinus sylvestris) | Height (m): 11<br>Stem Diam(mm): 150<br>Spread (m): 2N, 2E, 2S, 2W<br>Crown Clearance (m): 6<br>Life Stage: Early Mature<br>Rem. Contrib.: 20+ Years |                      | C1<br><br>RPA<br>Radius: 1.8m.<br>Area: 10 sq m. | Remove tree to facilitate the project.                                                 |

| Ref. | Species                                 | Measurements                                                                                                                                         | General Observations | Category                                         | Recommendations                                                                        |
|------|-----------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|--------------------------------------------------|----------------------------------------------------------------------------------------|
| T75  | Common Hawthorn<br>(Crataegus monogyna) | Height (m): 8<br>Stem Diam(mm): 230<br>Spread (m): 3N, 3E, 3S, 3W<br>Crown Clearance (m): 1<br>Life Stage: Mature<br>Rem. Contrib.: 20+ Years        |                      | C2<br><br>RPA<br>Radius: 2.8m.<br>Area: 25 sq m. | Remove tree to facilitate the project.                                                 |
| T76  | Common Hawthorn<br>(Crataegus monogyna) | Height (m): 8<br>Stem Diam(mm): 260<br>Spread (m): 3N, 3E, 3S, 3W<br>Crown Clearance (m): 1<br>Life Stage: Mature<br>Rem. Contrib.: 20+ Years        |                      | C2<br><br>RPA<br>Radius: 3.1m.<br>Area: 30 sq m. | Remove tree to facilitate the project.                                                 |
| T78  | Scots Pine<br>(Pinus sylvestris)        | Height (m): 11<br>Stem Diam(mm): 150<br>Spread (m): 2N, 2E, 2S, 2W<br>Crown Clearance (m): 6<br>Life Stage: Early Mature<br>Rem. Contrib.: 20+ Years |                      | C1<br><br>RPA<br>Radius: 1.8m.<br>Area: 10 sq m. | During construction:<br>Protect trees with protective barriers -<br>as shown on plans. |
| T79  | Scots Pine<br>(Pinus sylvestris)        | Height (m): 11<br>Stem Diam(mm): 150<br>Spread (m): 2N, 2E, 2S, 2W<br>Crown Clearance (m): 6<br>Life Stage: Early Mature<br>Rem. Contrib.: 20+ Years |                      | C1<br><br>RPA<br>Radius: 1.8m.<br>Area: 10 sq m. | During construction:<br>Protect trees with protective barriers -<br>as shown on plans. |
| T80  | Scots Pine<br>(Pinus sylvestris)        | Height (m): 11<br>Stem Diam(mm): 150<br>Spread (m): 2N, 2E, 2S, 2W<br>Crown Clearance (m): 6<br>Life Stage: Early Mature<br>Rem. Contrib.: 20+ Years |                      | C1<br><br>RPA<br>Radius: 1.8m.<br>Area: 10 sq m. | During construction:<br>Protect trees with protective barriers -<br>as shown on plans. |
| T81  | Scots Pine<br>(Pinus sylvestris)        | Height (m): 11<br>Stem Diam(mm): 150<br>Spread (m): 2N, 2E, 2S, 2W<br>Crown Clearance (m): 6<br>Life Stage: Early Mature<br>Rem. Contrib.: 20+ Years |                      | C1<br><br>RPA<br>Radius: 1.8m.<br>Area: 10 sq m. | During construction:<br>Protect trees with protective barriers -<br>as shown on plans. |

| Ref. | Species                                       | Measurements                                                                                                                                                | General Observations                                                 | Category                                           | Recommendations                                                                                                                                        |
|------|-----------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------|----------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| T90  | Pedunculate Oak<br>( <i>Quercus robur</i> )   | Height (m): 7<br>Stem Diam(mm): 210<br>Spread (m): 3.5N, 3.5E, 3.5S, 3.5W<br>Crown Clearance (m): 2<br>Life Stage: Early Mature<br>Rem. Contrib.: 40+ Years | Established, planted tree at the edge of a hedgerow.                 | B1<br><br>RPA<br>Radius: 2.5m.<br>Area: 20 sq m.   | Pre construction:<br>Remove tree to facilitate grading work.<br><br>During construction:<br>No action required.                                        |
| T91  | Common Ash<br>( <i>Fraxinus excelsior</i> )   | Height (m): 10<br>Stem Diam(mm): 260<br>Spread (m): 4N, 4E, 4S, 4W<br>Crown Clearance (m): 4<br>Life Stage: Early Mature<br>Rem. Contrib.: 10+ Years        | No Ash dieback disease currently present.                            | C1<br><br>RPA<br>Radius: 3.1m.<br>Area: 30 sq m.   | Pre construction:<br>Remove tree to facilitate grading work.<br><br>During construction:<br>Protect tree with protective barriers - as shown on plans. |
| T92  | Common Ash<br>( <i>Fraxinus excelsior</i> )   | Height (m): 11<br>2 stems (mm): 210,340<br>Spread (m): 4N, 4E, 4S, 4W<br>Crown Clearance (m): 4<br>Life Stage: Early Mature<br>Rem. Contrib.: 10+ Years     | No Ash dieback disease currently present.                            | C1<br><br>RPA<br>Radius: 4.8m.<br>Area: 72 sq m.   | Remove tree to facilitate the project.                                                                                                                 |
| T94  | Weeping Willow<br>( <i>Salix babylonica</i> ) | Height (m): 18<br>Stem Diam(mm): 930<br>Spread (m): 9N, 6E, 5S, 6W<br>Crown Clearance (m): 3<br>Life Stage: Mature<br>Rem. Contrib.: 10+ Years              | Deadwood through crown. Located in farmhouse garden.                 | C1<br><br>RPA<br>Radius: 11.2m.<br>Area: 394 sq m. | During construction:<br>No action required.                                                                                                            |
| T96  | Sycamore<br>( <i>Acer pseudoplatanus</i> )    | Height (m): 15<br>Stem Diam(mm): 340<br>Spread (m): 4N, 4E, 4S, 4W<br>Crown Clearance (m): 2<br>Life Stage: Early Mature<br>Rem. Contrib.: 20+ Years        | In fence line.                                                       | B1<br><br>RPA<br>Radius: 4.1m.<br>Area: 53 sq m.   | During construction:<br>No action required.                                                                                                            |
| T97  | Common Ash<br>( <i>Fraxinus excelsior</i> )   | Height (m): 14<br>2 stems (mm): 380,520<br>Spread (m): 8N, 8E, 8S, 8W<br>Crown Clearance (m): 2<br>Life Stage: Early Mature<br>Rem. Contrib.: 10+ Years     | In fence line. Broken branches, rubble around base. No Ash die back. | C1<br><br>RPA<br>Radius: 7.7m.<br>Area: 186 sq m.  | During construction:<br>No action required.                                                                                                            |

| Ref. | Species                                     | Measurements                                                                                                                                      | General Observations                                    | Category                                           | Recommendations                             |
|------|---------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------|----------------------------------------------------|---------------------------------------------|
| T98  | Pedunculate Oak<br>( <i>Quercus robur</i> ) | Height (m): 17<br>Stem Diam(mm): 850<br>Spread (m): 8N, 8E, 8S, 8W<br>Crown Clearance (m): 3<br>Life Stage: Mature<br>Rem. Contrib.: 40+ Years    | Valuable deadwood habitat through crown. In fence line. | B1<br><br>RPA<br>Radius: 10.2m.<br>Area: 327 sq m. | During construction:<br>No action required. |
| T99  | Common Ash<br>( <i>Fraxinus excelsior</i> ) | Height (m): 15<br>2 stems (mm): 300,400<br>Spread (m): 6N, 6E, 6S, 6W<br>Crown Clearance (m): 3<br>Life Stage: Mature<br>Rem. Contrib.: 10+ Years | In fence line. No signs of Ash dieback.                 | C1<br><br>RPA<br>Radius: 6.0m.<br>Area: 113 sq m.  | During construction:<br>No action required. |

Table 1 Cascade chart for tree quality assessment

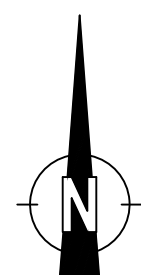
| Category and definition                                                                                                                                                   | Criteria (including subcategories where appropriate)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                   |                                                                                                                                       | Identification on plan |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------|------------------------|
| Trees unsuitable for retention (see Note)                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                   |                                                                                                                                       |                        |
| <b>Category U</b><br>Those in such a condition that they cannot realistically be retained as living trees in the context of the current land use for longer than 10 years | <ul style="list-style-type: none"><li>Trees that have a serious, irremediable, structural defect, such that their early loss is expected due to collapse, including those that will become unviable after removal of other category U trees (e.g. where, for whatever reason, the loss of companion shelter cannot be mitigated by pruning)</li><li>Trees that are dead or are showing signs of significant, immediate, and irreversible overall decline</li><li>Trees infected with pathogens of significance to the health and/or safety of other trees nearby, or very low quality trees suppressing adjacent trees of better quality</li></ul> <p><i>NOTE Category U trees can have existing or potential conservation value which it might be desirable to preserve; see 4.5.7.</i></p> |                                                                                                                                                                                                                                                                   |                                                                                                                                       | See Table 2            |
|                                                                                                                                                                           | 1 Mainly arboricultural qualities                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 2 Mainly landscape qualities                                                                                                                                                                                                                                      | 3 Mainly cultural values, including conservation                                                                                      |                        |
| Trees to be considered for retention                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                   |                                                                                                                                       |                        |
| <b>Category A</b><br><b>Trees of high quality</b> with an estimated remaining life expectancy of at least 40 years                                                        | Trees that are particularly good examples of their species, especially if rare or unusual; or those that are essential components of groups or formal or semi-formal arboricultural features (e.g. the dominant and/or principal trees within an avenue)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Trees, groups or woodlands of particular visual importance as arboricultural and/or landscape features                                                                                                                                                            | Trees, groups or woodlands of significant conservation, historical, commemorative or other value (e.g. veteran trees or wood-pasture) | See Table 2            |
| <b>Category B</b><br><b>Trees of moderate quality</b> with an estimated remaining life expectancy of at least 20 years                                                    | Trees that might be included in category A, but are downgraded because of impaired condition (e.g. presence of significant though remediable defects, including unsympathetic past management and storm damage), such that they are unlikely to be suitable for retention for beyond 40 years; or trees lacking the special quality necessary to merit the category A designation                                                                                                                                                                                                                                                                                                                                                                                                            | Trees present in numbers, usually growing as groups or woodlands, such that they attract a higher collective rating than they might as individuals; or trees occurring as collectives but situated so as to make little visual contribution to the wider locality | Trees with material conservation or other cultural value                                                                              | See Table 2            |
| <b>Category C</b><br><b>Trees of low quality</b> with an estimated remaining life expectancy of at least 10 years, or young trees with a stem diameter below 150 mm       | Unremarkable trees of very limited merit or such impaired condition that they do not qualify in higher categories                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Trees present in groups or woodlands, but without this conferring on them significantly greater collective landscape value; and/or trees offering low or only temporary/transient landscape benefits                                                              | Trees with no material conservation or other cultural value                                                                           | See Table 2            |

# Appendix B

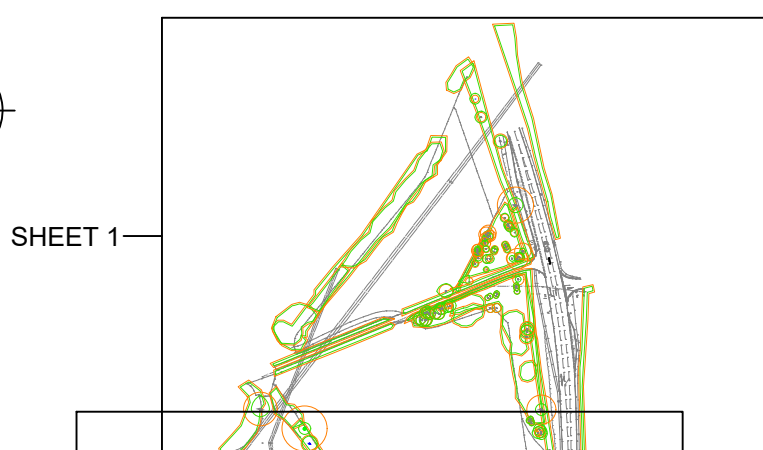
## Tree Constraints Plan

**Plan showing constraints imposed on development layout by trees considered during the design process.**

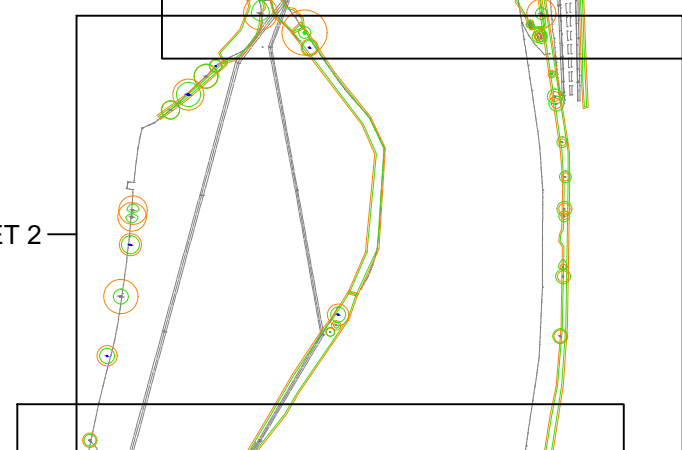
KEY PLAN  
1:5000 @ A1



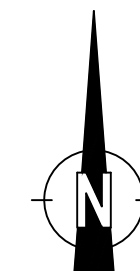
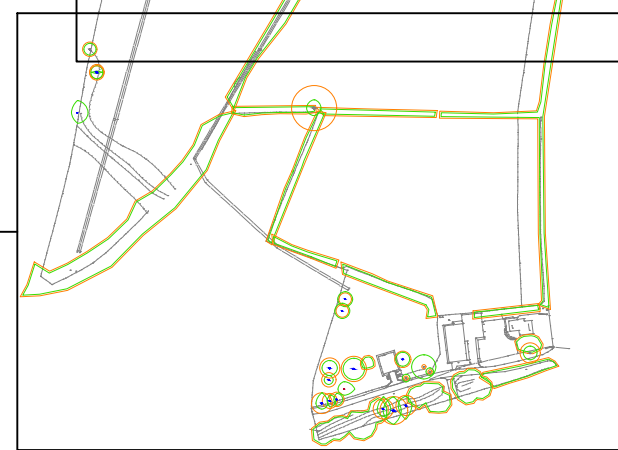
SHEET 1-



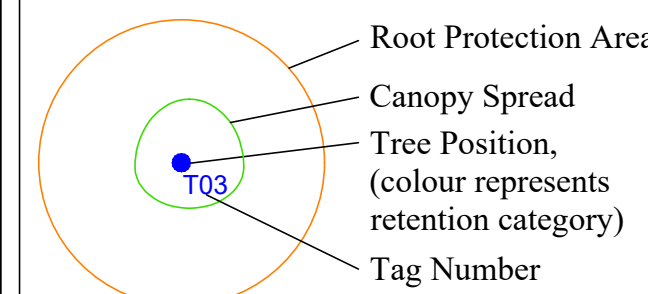
SHEET 2-



SHEET 3-



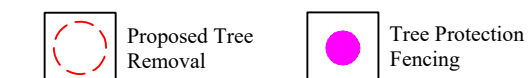
## Symbol Guide



## BS5837:2012 - Tree Category



## Tree Protection & Removal



|               |                                                        |
|---------------|--------------------------------------------------------|
| Project Name: | Access Road, Lorry Park, 132kv<br>Substation & Lagoons |
|---------------|--------------------------------------------------------|

Drawing Title:  
Tree Constraints Plan  
Sheet 1

|                 |                         |
|-----------------|-------------------------|
| Drawing Number: | 220824-1.0-NA-TCP-MH-01 |
|-----------------|-------------------------|

|         |           |
|---------|-----------|
| Client: | Kronospan |
|---------|-----------|

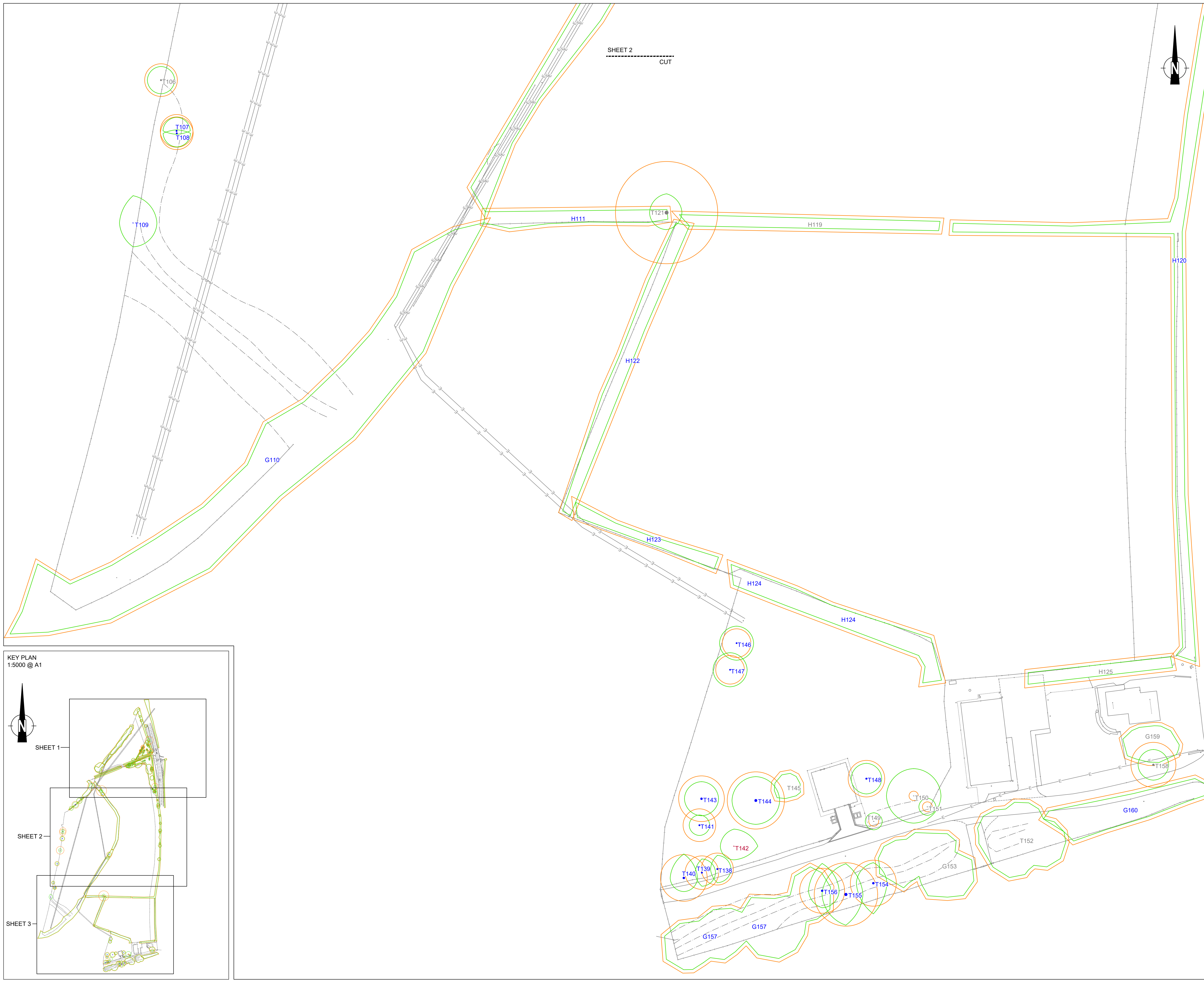
|        |      |
|--------|------|
| Agent: | AXIS |
|--------|------|

Date: August 2022

Scale: 1:500 @A1







**Symbol Guide**

- Root Protection Area
- Canopy Spread
- Tree Position, (colour represents retention category)
- Tag Number

**BS5837:2012 - Tree Category**

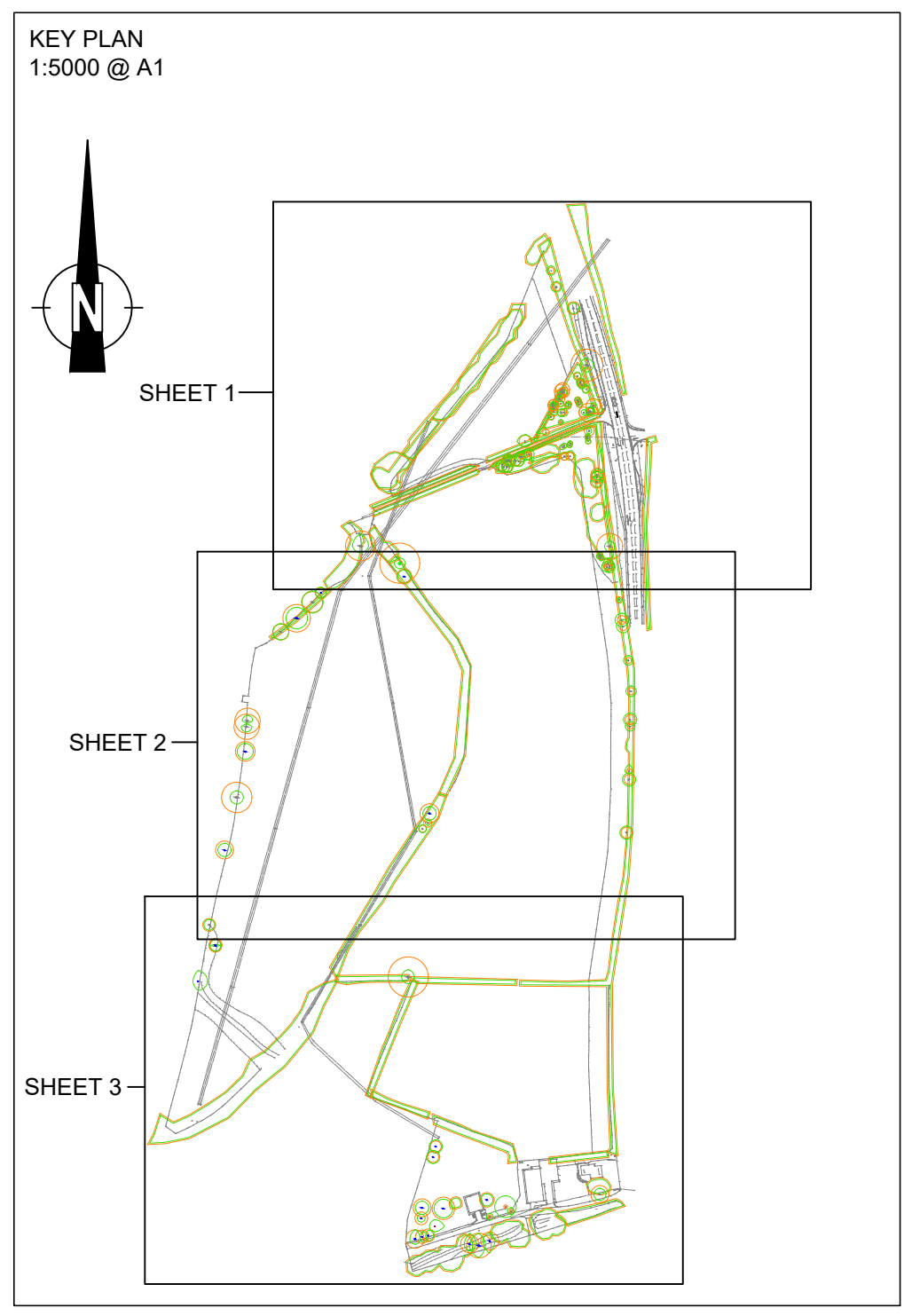
|                                      |                                         |
|--------------------------------------|-----------------------------------------|
| Category A Trees<br>High Quality     | Category C Trees<br>Low Quality         |
| Category B Trees<br>Moderate Quality | Category U Trees<br>Poor Quality/Remove |

**Tree Protection & Removal**

|                          |                            |
|--------------------------|----------------------------|
| Proposed Tree<br>Removal | Tree Protection<br>Fencing |
|--------------------------|----------------------------|



|                 |                                                     |
|-----------------|-----------------------------------------------------|
| Project Name:   | Access Road, Lorry Park, 132kv Substation & Lagoons |
| Drawing Title:  | Tree Constraints Plan Sheet 3                       |
| Drawing Number: | 220824-1.0-NA-TCP-MH-03                             |
| Client:         | Kronospan                                           |
| Agent:          | AXIS                                                |
| Date:           | August 2022                                         |
| Scale:          | 1:500 @A1                                           |

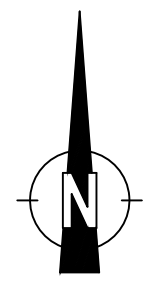


# Appendix C

## Tree Protection Retention & Removal Plan

**Plan showing Trees Proposed for Removal and General Arrangement with Notes on Tree Protection.**

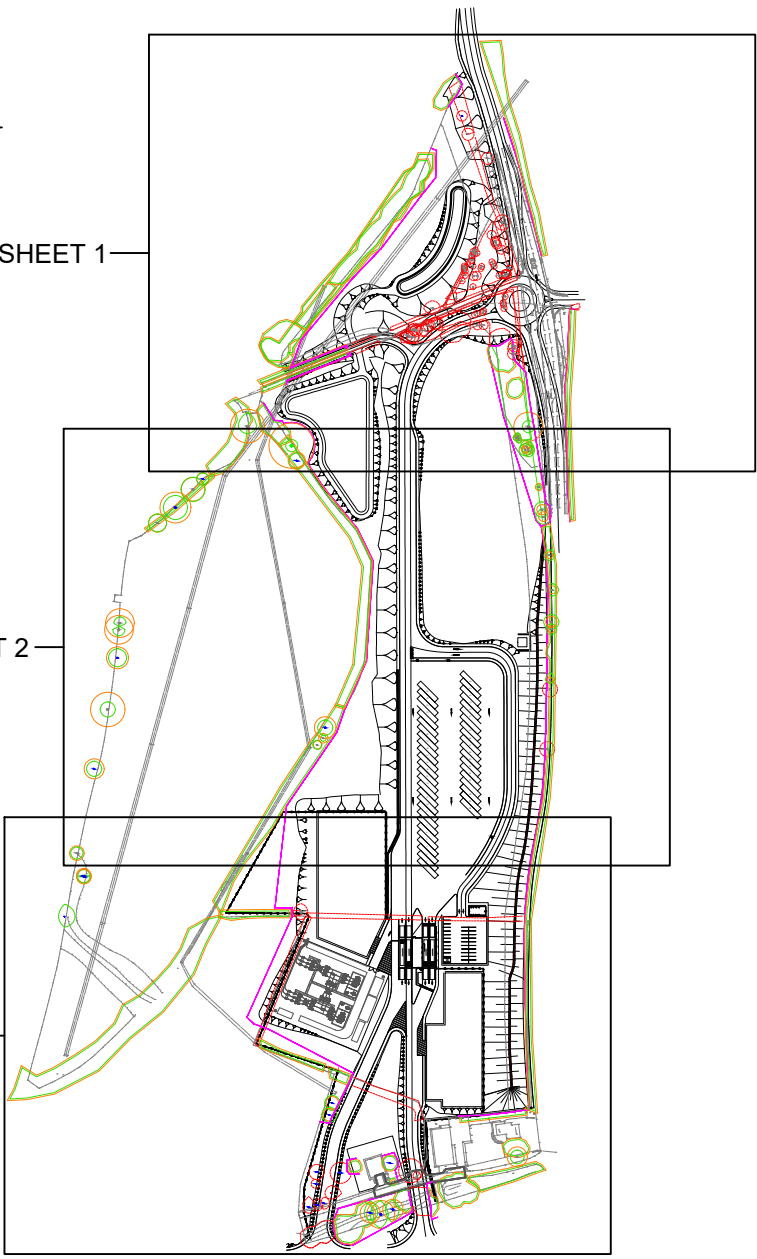
KEY PLAN  
1:5000 @ A1



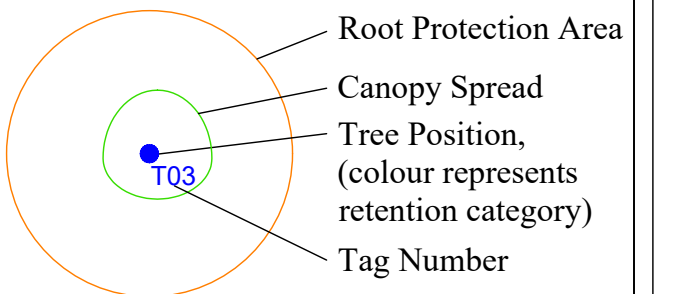
SHEET 1

SHEET 2

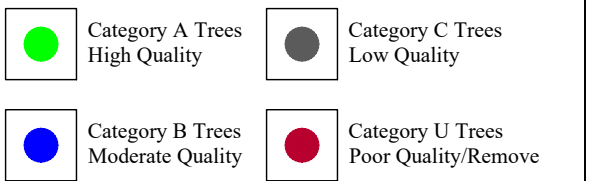
SHEET 3



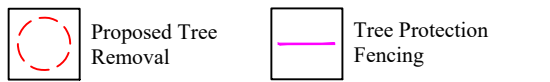
### Symbol Guide



### BS5837:2012 - Tree Category



### Tree Protection & Removal



Project Name:  
Access Road, Lorry Park, 132kv  
Substation & Lagoons

Drawing Title:  
Tree Protection, Retention and Removal Plan  
- Sheet 1

Drawing Number:  
230915-2.1-NA-TPRRP-MH-01

Client:  
Kronospan

Agent:  
AXIS

Date:  
September 2023

Scale:  
1:500 @A1

Grading to be altered to prevent  
impact with G89.

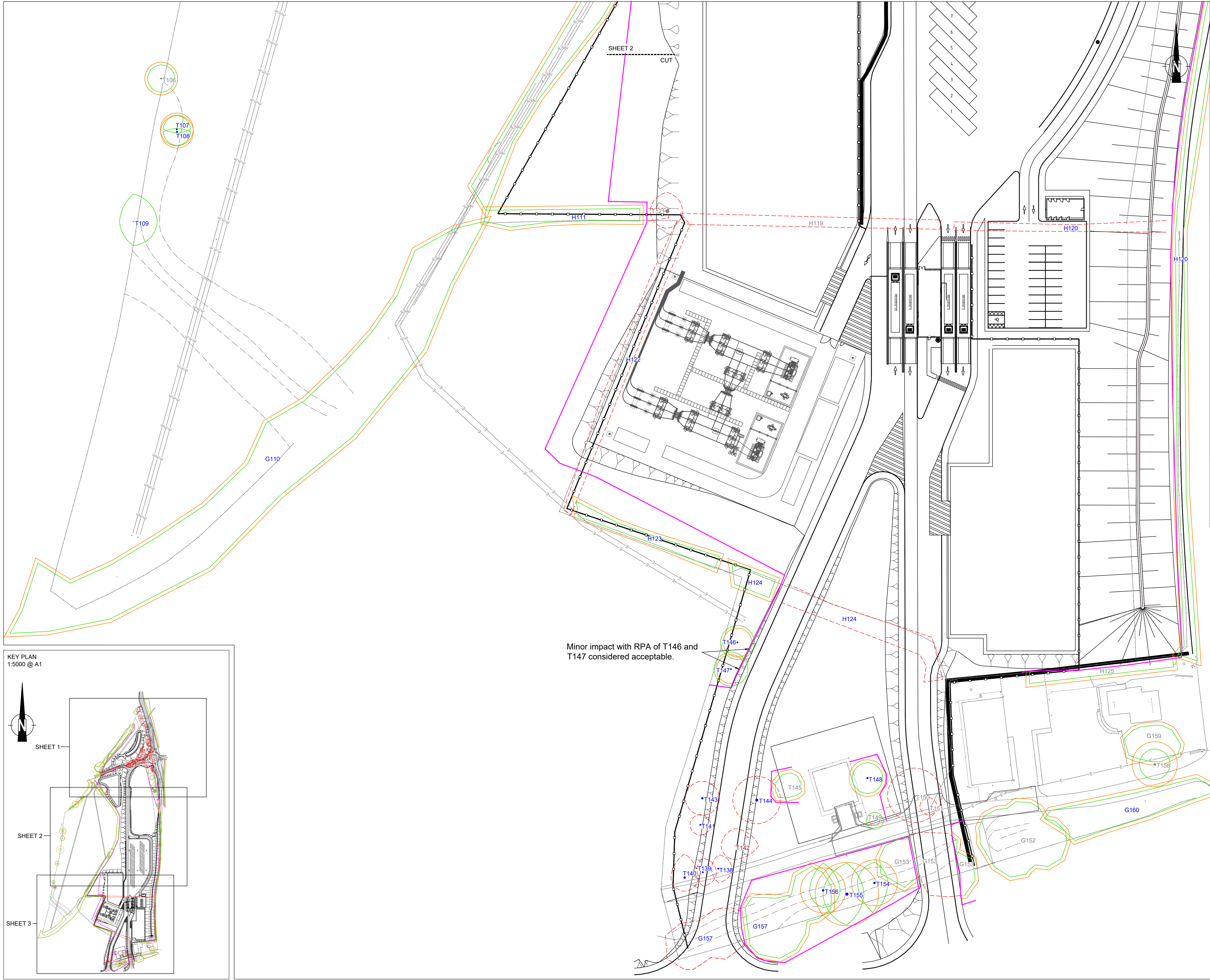
Grading to be altered to prevent  
impact with G89.

H84 & H85 to be trimmed  
back to facilitate tree  
protection and grading work.

Grading work will be  
altered to prevent  
conflict with the  
protected area of tree  
T116.

CUT  
SHEET 2





**Symbol Guide**

Root Protection Area  
Canopy Spread  
Tree Position, (colour represents retention category)  
Tag Number

**BS5837:2012 - Tree Category**

|                                      |                                         |
|--------------------------------------|-----------------------------------------|
| Category A Trees<br>High Quality     | Category C Trees<br>Low Quality         |
| Category B Trees<br>Moderate Quality | Category U Trees<br>Poor Quality/Remove |

**Tree Protection & Removal**

|                       |                         |
|-----------------------|-------------------------|
| Proposed Tree Removal | Tree Protection Fencing |
|-----------------------|-------------------------|

**tree 21**  
Tree Surveys & Consultancy Services

**Project Name:**  
Access Road, Lorry Park, 132kv Substation & Lagoons

**Drawing Title:**  
Tree Protection, Retention and Removal Plan - Sheet 3

**Drawing Number:**  
230915-2.1-NA-TPRRP-MH-03

**Client:**  
Kronospan

**Agent:**  
AXIS

**Date:**  
September 2023

**Scale:**  
1:500 @A1

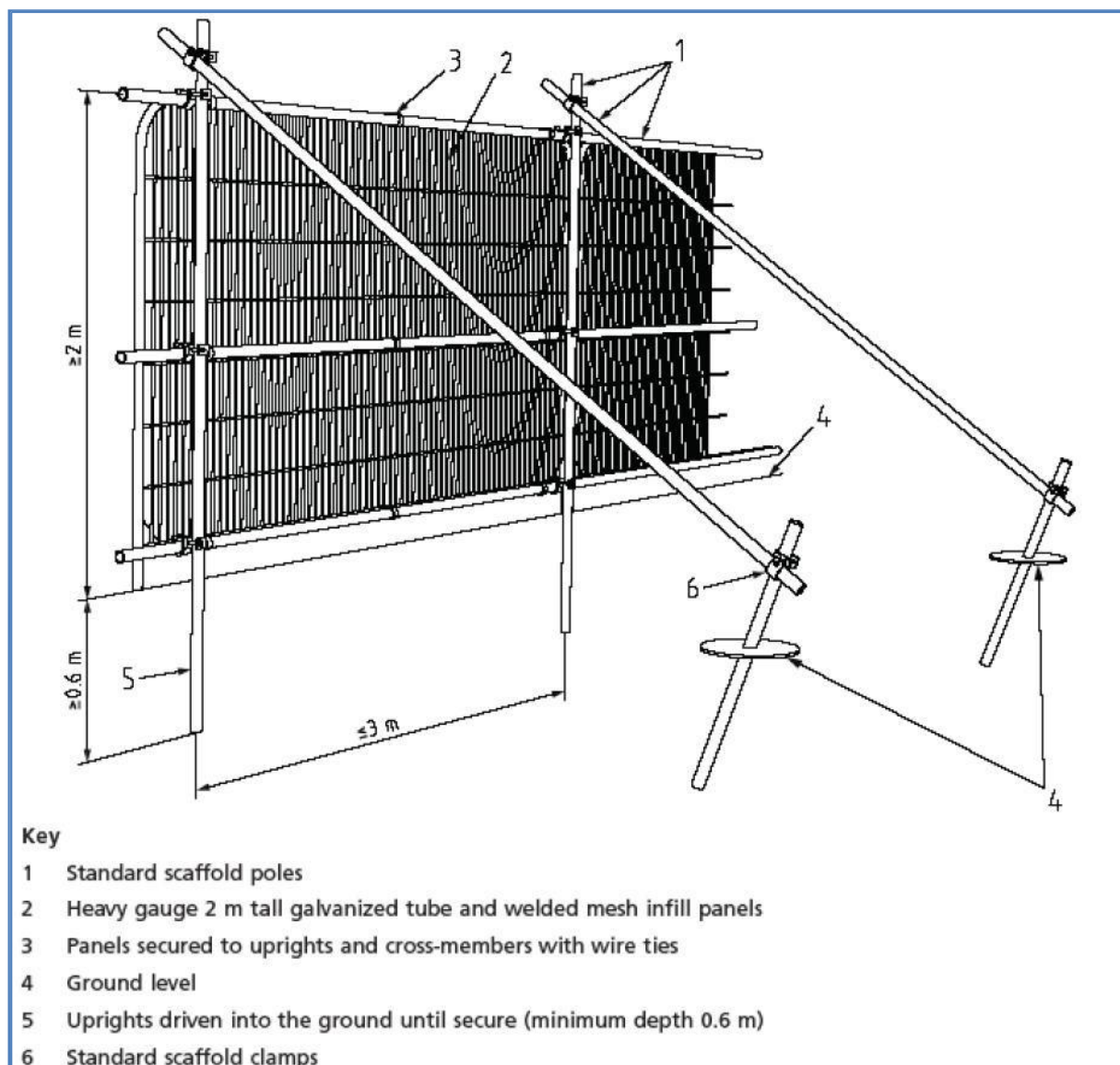
# Appendix D

## Tree Protection Measures

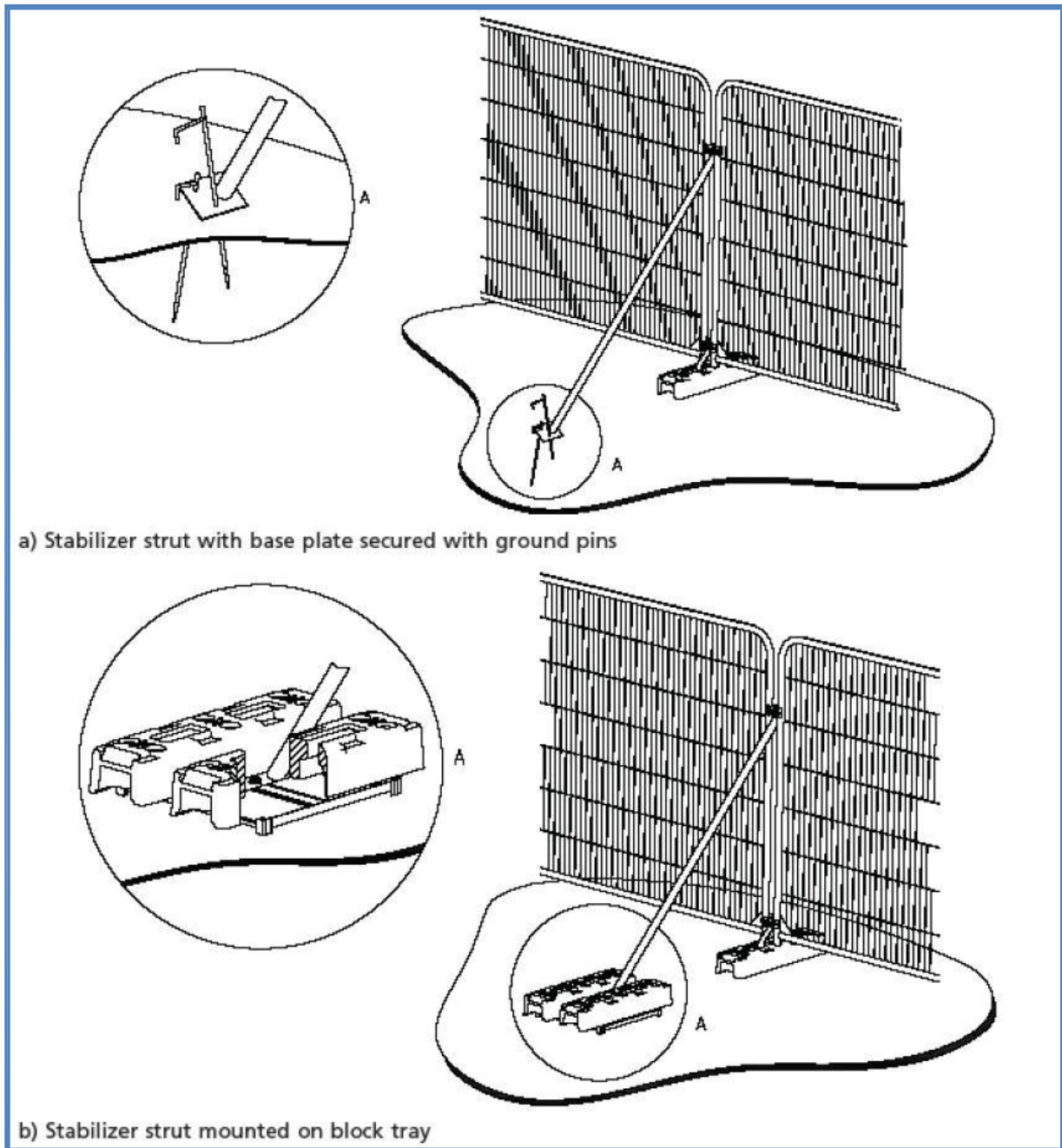
**Illustrative information on proposed tree protection measures to be installed as set out on the Tree Protection Plan**



Example Tree Protection Fencing Sign



**BS5837: 2012 - Figure 2 – Tree Protective Barrier**



BS5837: 2012 - Figure 3 – Examples of Above Ground Stabilisation Systems