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

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

Appendices

- Appendix A: Tree Schedule
- Appendix B: Tree Constraints Plan
- Appendix C: Tree Protection Retention and Removal Plan
- Appendix D: Tree Protection Measures

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. TechArborA*, 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.

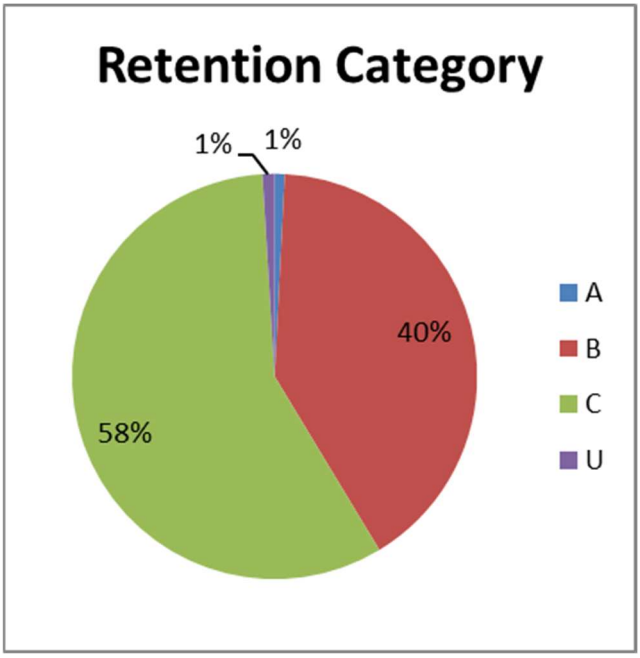


Chart 2: Provides information on the life stages of trees across the site.

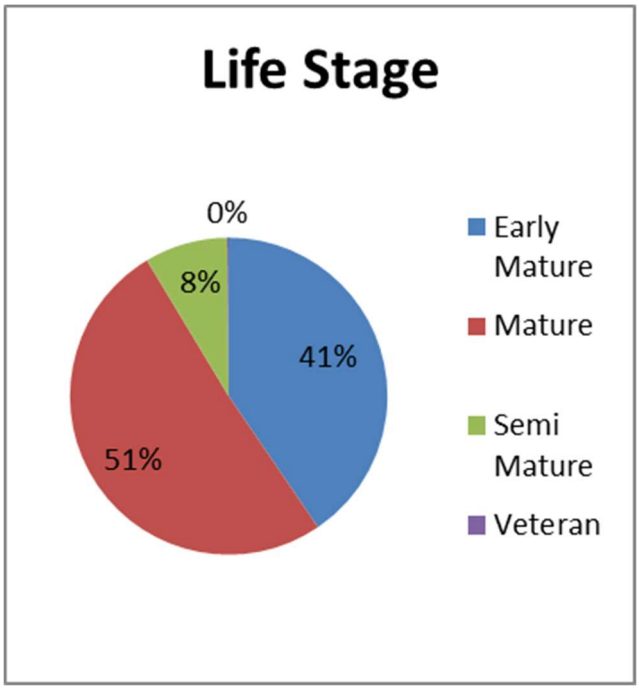


Chart 3: Provides information on the remaining contribution of trees in years across the site.

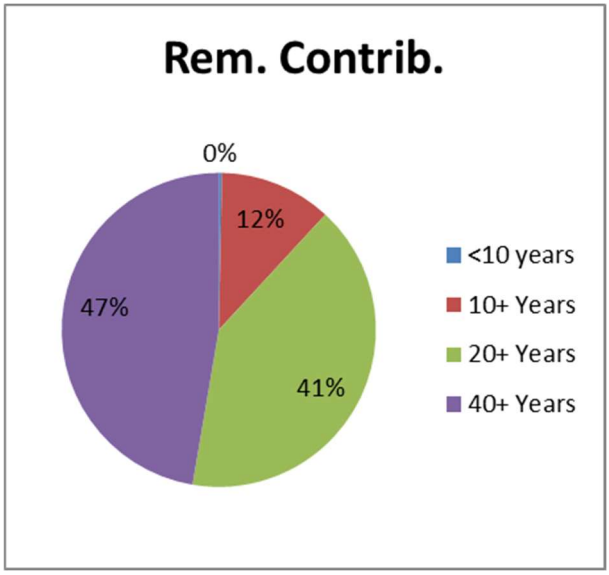
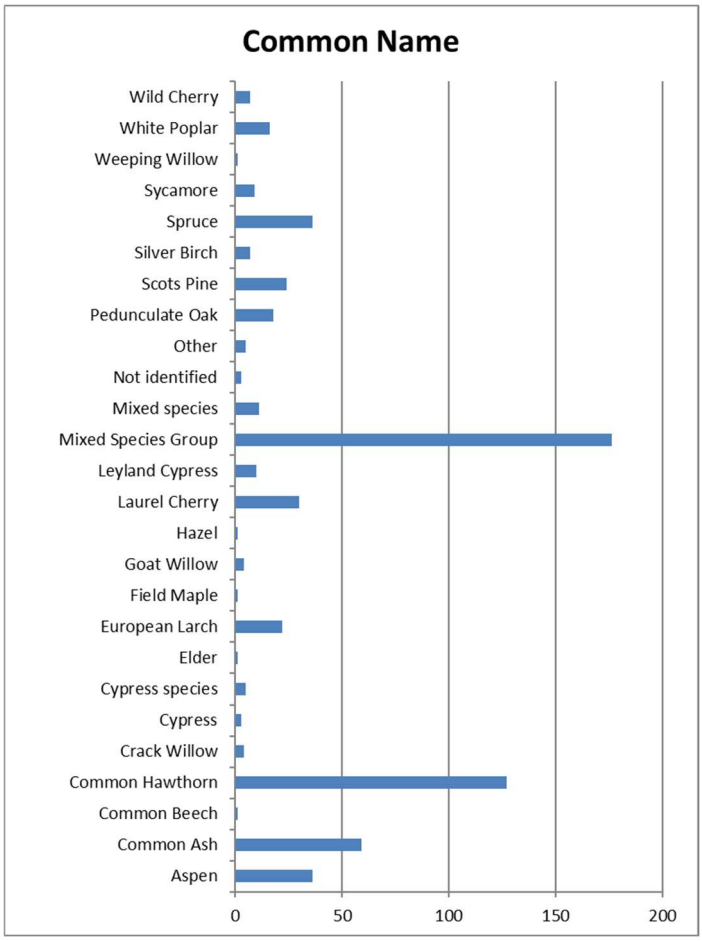


Chart 4: Provides information on the tree species across the site.



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^2 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. **12 in Total**	Total: 68 trees, 5 groups, 5 hedges, 3 part hedges and 1 part group. **82 in Total**	**1 in Total**

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

TREE SURVEYS & CONSULTANCY SERVICES

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

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

Ref.	Species	Measurements	General Observations	Category	Recommendations
G39	Mixed Species Group x50 (Group, mixed species)	Height (m): 8 50 stems, avg.(mm): 100 Spread (m): 1N, 1E, 1S, 1W Crown Clearance (m): 1 Life Stage: Semi Mature Rem. Contrib.: 40+ Years	Group covers those not plotted as individuals. Generally semi mature establishing trees within the copse.	C2 RPA Area: 938 sq m.	Remove tree group to facilitate the project.
G54	Common Ash x15 (Fraxinus excelsior)	Height (m): 13 15 stems, avg.(mm): 150 Spread (m): 3N, 3E, 3S, 3W Crown Clearance (m): 4 Life Stage: Early Mature Rem. Contrib.: 10+ Years	No signs of Ash dieback.	C2 RPA Area: 232 sq m.	Remove tree group to facilitate the project.
G63	Common Ash x10 (Fraxinus excelsior)	Height (m): 11 10 stems, avg.(mm): 150 Spread (m): 3N, 3E, 3S, 3W Crown Clearance (m): 2 Life Stage: Early Mature Rem. Contrib.: 40+ Years	No signs of Ash dieback.	C2 RPA Area: 139 sq m.	During construction: Protect group with protective barriers - as shown on plans.
G71	White Poplar x8 (Populus alba)	Height (m): 14 8 stems, avg.(mm): 150 Spread (m): 3N, 3E, 3S, 3W Crown Clearance (m): 4 Life Stage: Early Mature Rem. Contrib.: 10+ Years		C2 RPA Area: 252 sq m.	Remove tree group to facilitate the project.
G77	White Poplar x8 (Populus alba)	Height (m): 14 8 stems, avg.(mm): 150 Spread (m): 3N, 3E, 3S, 3W Crown Clearance (m): 4 Life Stage: Early Mature Rem. Contrib.: 10+ Years		C2 RPA Area: 452 sq m.	Pre construction: Remove a section to the north end and north east side of the group as illustrated on the Tree Protection, Retention & Removal Plan. During construction: 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 (Group, mixed species)	Height (m): 8 60 stems, avg.(mm): 100 Spread (m): 2N, 2E, 2S, 2W Crown Clearance (m): 1 Life Stage: Early Mature Rem. Contrib.: 20+ Years		C2 RPA Area: 2550 sq m.	Remove tree group to facilitate the project.
G85	Mixed Species Group (Group, mixed species)	Height (m): 14 Stem Diam(mm): 400 Spread (m): 4N, 4E, 4S, 4W Crown Clearance (m): 2 Life Stage: Mature Rem. Contrib.: 40+ Years	Linear tree group along a watercourse/field boundary.	B2 RPA Area: 2361 sq m.	During construction: Protect trees with protective barriers - as shown on plans.
G86	Spruce x4 (Picea sp.) Leyland Cypress x10 (Cupressocyparis leylandii X)	Height (m): 20 14 stems, avg.(mm): 350 Spread (m): 4N, 4E, 4S, 4W Crown Clearance (m): 3 Life Stage: Mature Rem. Contrib.: 40+ Years		B2 RPA Area: 546 sq m.	Pre construction: Re-design grading to prevent impact with group. During construction: Protect trees with protective barriers - as shown on plans.
G87	Spruce x9 (Picea sp.) European Larch (Larix decidua)	Height (m): 4 10 stems, avg.(mm): 300 Spread (m): 1.5N, 1.5E, 1.5S, 1.5W Crown Clearance (m): 1 Life Stage: Mature Rem. Contrib.: 20+ Years	Topped below OHL.	C2 RPA Area: 281 sq m.	During construction: Protect trees with protective barriers - as shown on plans.
G88	Not identified (Not identified) Scots Pine x4 (Pinus sylvestris) European Larch x20 (Larix decidua) Spruce x3 (Picea sp.)	Height (m): 20 28 stems, avg.(mm): 350 Spread (m): 4N, 4E, 4S, 4W Crown Clearance (m): 2 Life Stage: Mature Rem. Contrib.: 40+ Years	Linear group along water course.	B2 RPA Area: 1253 sq m.	During construction: Protect trees with protective barriers - as shown on plans.

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

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

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

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

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

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

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

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

Ref.	Species	Measurements	General Observations	Category	Recommendations
T116	Sycamore (Acer pseudoplatanus)	Height (m): 10 Stem Diam(mm): 1500 Spread (m): 4N, 4E, 4S, 4W Crown Clearance (m): 1 Lowest Branch (m): 1 Life Stage: Veteran Rem. Contrib.: 40+ Years	Veteran tree. On east bank.High habitat and cultural value.	A1,2,3 RPA Radius: 15.0m. Area: 707 sq m.	Pre construction: Grading work will not enter the protected area. During construction: 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 (Populus tremula)	Height (m): 14 Stem Diam(mm): 300 Spread (m): 2N, 2E, 2S, 2W Crown Clearance (m): 1 Life Stage: Early Mature Rem. Contrib.: 20+ Years	Co dominant stems. Tree isof General character as those within copse.	C1 RPA Radius: 3.6m. Area: 41 sq m.	Remove tree to facilitate the project.
T121	Field Maple (Acer campestre)	Height (m): 12 2 stems (mm): 10000,4010 Spread (m): 5.5N, 4.5E, 5S, 5W Crown Clearance (m): 3 Life Stage: Mature Rem. Contrib.: 10+ Years	Hedgerow tree. Multi stemmed, broken branches, decay entry points.	C1 RPA Radius: 15.0m. Area: 707 sq m.	Remove tree to facilitate the project.
T126	Common Ash (Fraxinus excelsior)	Height (m): 8.5 Stem Diam(mm): 340 Spread (m): 5N, 5E, 5S, 5W Crown Clearance (m): 2 Life Stage: Early Mature Rem. Contrib.: 10+ Years	Planted, established tree on west side of hedge. No Ash die back currently suspected.	C1 RPA Radius: 4.1m. Area: 53 sq m.	Remove tree to facilitate the project, due to excessive RPA conflict.
T127	Common Ash (Fraxinus excelsior)	Height (m): 8.5 Stem Diam(mm): 310 Spread (m): 5N, 5E, 5S, 5W Crown Clearance (m): 2 Life Stage: Early Mature Rem. Contrib.: 10+ Years	Planted, established tree on west side of hedge. No Ash die back currently suspected.	C1 RPA Radius: 3.7m. 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 (Quercus robur)	Height (m): 5 Stem Diam(mm): 160 Spread (m): 5N, 3E, 2S, 3W Crown Clearance (m): 2 Life Stage: Early Mature 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 RPA Radius: 1.9m. Area: 11 sq m.	Pre construction: Minor pruning of west lateral branches to facilitate the installation of the protective barrier. During construction: Protect tree with protective barriers - as shown on plans.
T129	Pedunculate Oak (Quercus robur)	Height (m): 6 Stem Diam(mm): 190 Spread (m): 3.5N, 3.5E, 3.5S, 3.5W Crown Clearance (m): 1.5 Life Stage: Early Mature Rem. Contrib.: 20+ Years	Planted, established tree on west side of hedge.	C1 RPA Radius: 2.3m. Area: 17 sq m.	Pre construction: Minor pruning of west lateral branches to facilitate the installation of the protective barrier. During construction: Protect tree with protective barriers - as shown on plans.
T13	Aspen (Populus tremula)	Height (m): 14 Stem Diam(mm): 300 Spread (m): 2N, 2E, 2S, 2W Crown Clearance (m): 1 Life Stage: Early Mature Rem. Contrib.: 20+ Years		C1 RPA Radius: 3.6m. Area: 41 sq m.	Remove tree to facilitate the project.
T130	Common Ash (Fraxinus excelsior)	Height (m): 8.5 Stem Diam(mm): 300 Spread (m): 5N, 5E, 5S, 5W Crown Clearance (m): 2 Life Stage: Early Mature Rem. Contrib.: 10+ Years	Planted, established tree on west side of hedge. No Ash die back currently suspected.	C1 RPA Radius: 3.6m. Area: 41 sq m.	Pre construction: Minor pruning of west lateral branches to facilitate the installation of the protective barrier. During construction: Protect tree with protective barriers - as shown on plans.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Table 1 **Cascade chart for tree quality assessment**

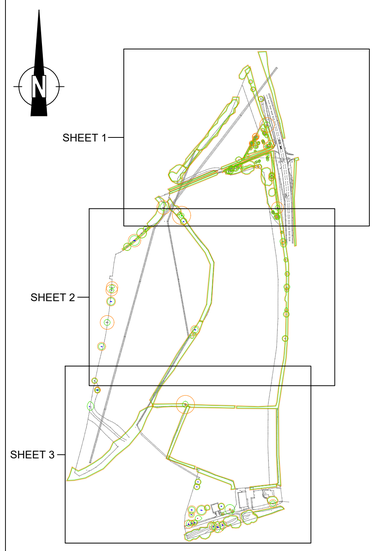
Category and definition	Criteria (including subcategories where appropriate)			Identification on plan
Trees unsuitable for retention (see Note)				
Category U Those in such a condition that they cannot realistically be retained as living trees in the context of the current land use for longer than 10 years	• Trees that have a serious, irremediable, structural defect, such that their early loss is expected due to collapse, including those that will become unviable after removal of other category U trees (e.g. where, for whatever reason, the loss of companion shelter cannot be mitigated by pruning) • Trees that are dead or are showing signs of significant, immediate, and irreversible overall decline • Trees infected with pathogens of significance to the health and/or safety of other trees nearby, or very low quality trees suppressing adjacent trees of better quality *NOTE Category U trees can have existing or potential conservation value which it might be desirable to preserve; see 4.5.7.*			See Table 2
	1 Mainly arboricultural qualities	**2 Mainly landscape qualities**	**3 Mainly cultural values, including conservation**	
Trees to be considered for retention				
Category A **Trees of high quality** with an estimated remaining life expectancy of at least 40 years	Trees that are particularly good examples of their species, especially if rare or unusual; or those that are essential components of groups or formal or semi-formal arboricultural features (e.g. the dominant and/or principal trees within an avenue)	Trees, groups or woodlands of particular visual importance as arboricultural and/or landscape features	Trees, groups or woodlands of significant conservation, historical, commemorative or other value (e.g. veteran trees or wood-pasture)	See Table 2
Category B **Trees of moderate quality** with an estimated remaining life expectancy of at least 20 years	Trees that might be included in category A, but are downgraded because of impaired condition (e.g. presence of significant though remediable defects, including unsympathetic past management and storm damage), such that they are unlikely to be suitable for retention for beyond 40 years; or trees lacking the special quality necessary to merit the category A designation	Trees present in numbers, usually growing as groups or woodlands, such that they attract a higher collective rating than they might as individuals; or trees occurring as collectives but situated so as to make little visual contribution to the wider locality	Trees with material conservation or other cultural value	See Table 2
Category C **Trees of low quality** with an estimated remaining life expectancy of at least 10 years, or young trees with a stem diameter below 150 mm	Unremarkable trees of very limited merit or such impaired condition that they do not qualify in higher categories	Trees present in groups or woodlands, but without this conferring on them significantly greater collective landscape value; and/or trees offering low or only temporary/transient landscape benefits	Trees with no material conservation or other cultural value	See Table 2

Appendix B

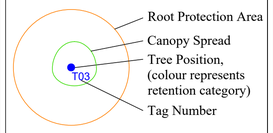
Tree Constraints Plan

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

KEY PLAN
1:5000 @ A1



Symbol Guide



BS5837:2012 - Tree Category

- Category A Trees High Quality
- Category B Trees Moderate Quality
- Category C Trees Low Quality
- Category U Trees 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 Constraints Plan Sheet 1

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

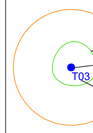
Client:
Kronospan

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 High Quality
- Category B Trees Moderate Quality
- Category C Trees Low Quality
- Category U Trees 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 Constraints Plan
Sheet 2

Drawing Number:
220824-1.0-NA-TCP-MH-02

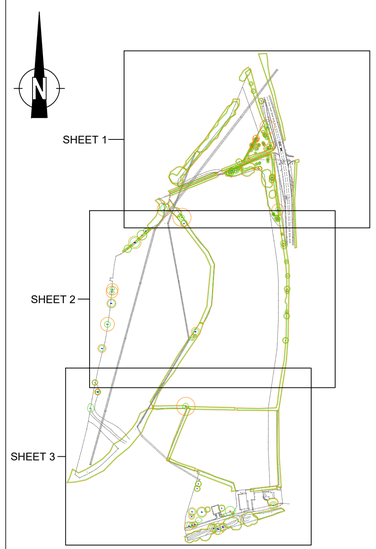
Client:
Kronospan

Agent:
AXIS

Date:
August 2022

Scale:
1:500 @A1

KEY PLAN
1:5000 @ A1



SHEET 2
CUT

T106
T107
T108
T109
T121
H111
H119
H120
H122
H123
H124
H125
G110
G157
G159
G160
T138
T139
T140
T141
T142
T143
T144
T145
T146
T147
T148
T149
T150
T151
T152
T153
T154
T155
T156
T158

Symbol Guide

Root Protection Area
Canopy Spread
Tree Position, (colour represents retention category)
Tag Number
T03

BS5837:2012 - Tree Category

- Category A Trees High Quality
- Category B Trees Moderate Quality
- Category C Trees Low Quality
- Category U Trees 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 Constraints Plan Sheet 3

Drawing Number:
220824-1.0-NA-TCP-MH-03

Client:
Kronospan

Agent:
AXIS

Date:
August 2022

Scale:
1:500 @A1

KEY PLAN
1:5000 @ A1

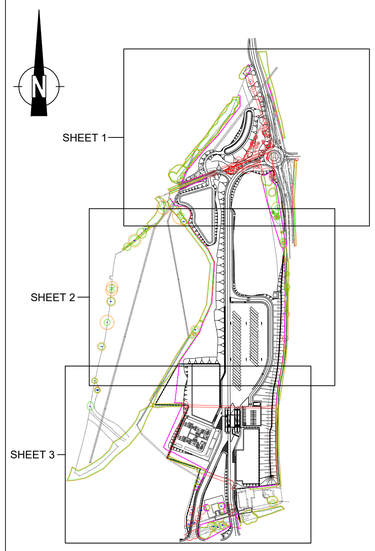
SHEET 1
SHEET 2
SHEET 3

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



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 High Quality
- Category C Trees Low Quality
- Category B Trees Moderate Quality
- Category U Trees 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 1

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

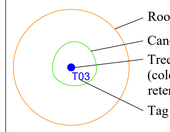
Client:
Kronospan

Agent:
AXIS

Date:
September 2023

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 High Quality
- Category B Trees Moderate Quality
- Category C Trees Low Quality
- Category U Trees 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 2

Drawing Number:
230915-2.1-NA-TPRRP-MH-02

Client:
Kronospan

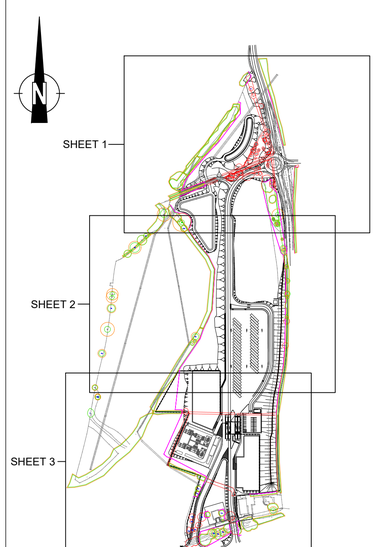
Agent:
AXIS

Date:
September 2023

Scale:
1:500 @A1

Prune back T128, T129, T130, T131 and T132 to facilitate the proposal.

KEY PLAN
1:5000 @ A1

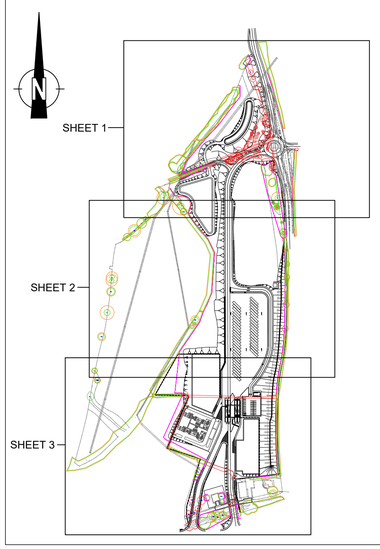


SHEET 2
CUT

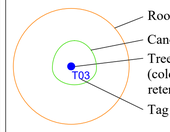
T106
T107
T108
T109
G110
H111
T112
H119
H120
H122
H123
H124
H125
T138
T139
T140
T142
T143
T144
T145
T146
T147
T148
T149
T150
T151
T154
T155
T156
T158
G157
G159
G160
G152
G153

Minor impact with RPA of T146 and T147 considered acceptable.

KEY PLAN
1:5000 @ A1



Symbol Guide



BS5837:2012 - Tree Category

- Category A Trees High Quality
- Category B Trees Moderate Quality
- Category C Trees Low Quality
- Category U Trees 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

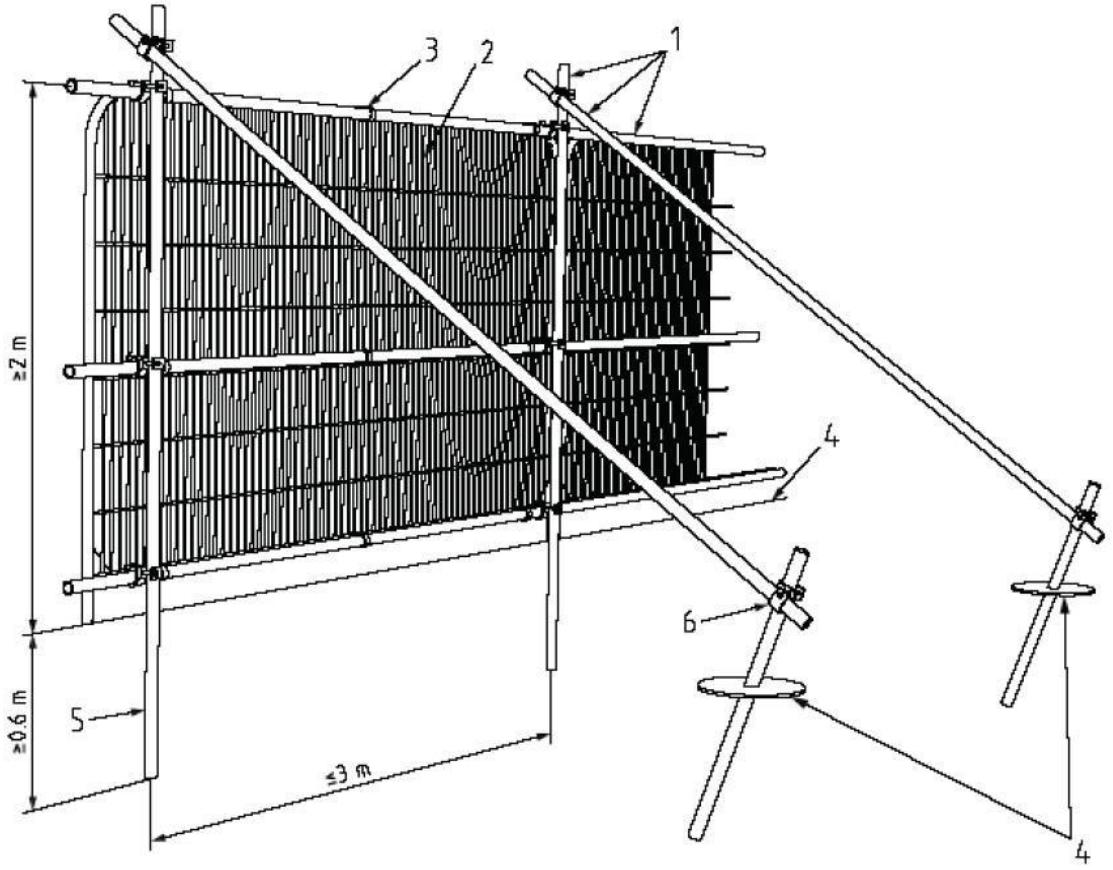
Scale:
1:500 @A1

Appendix D

Tree Protection Measures

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

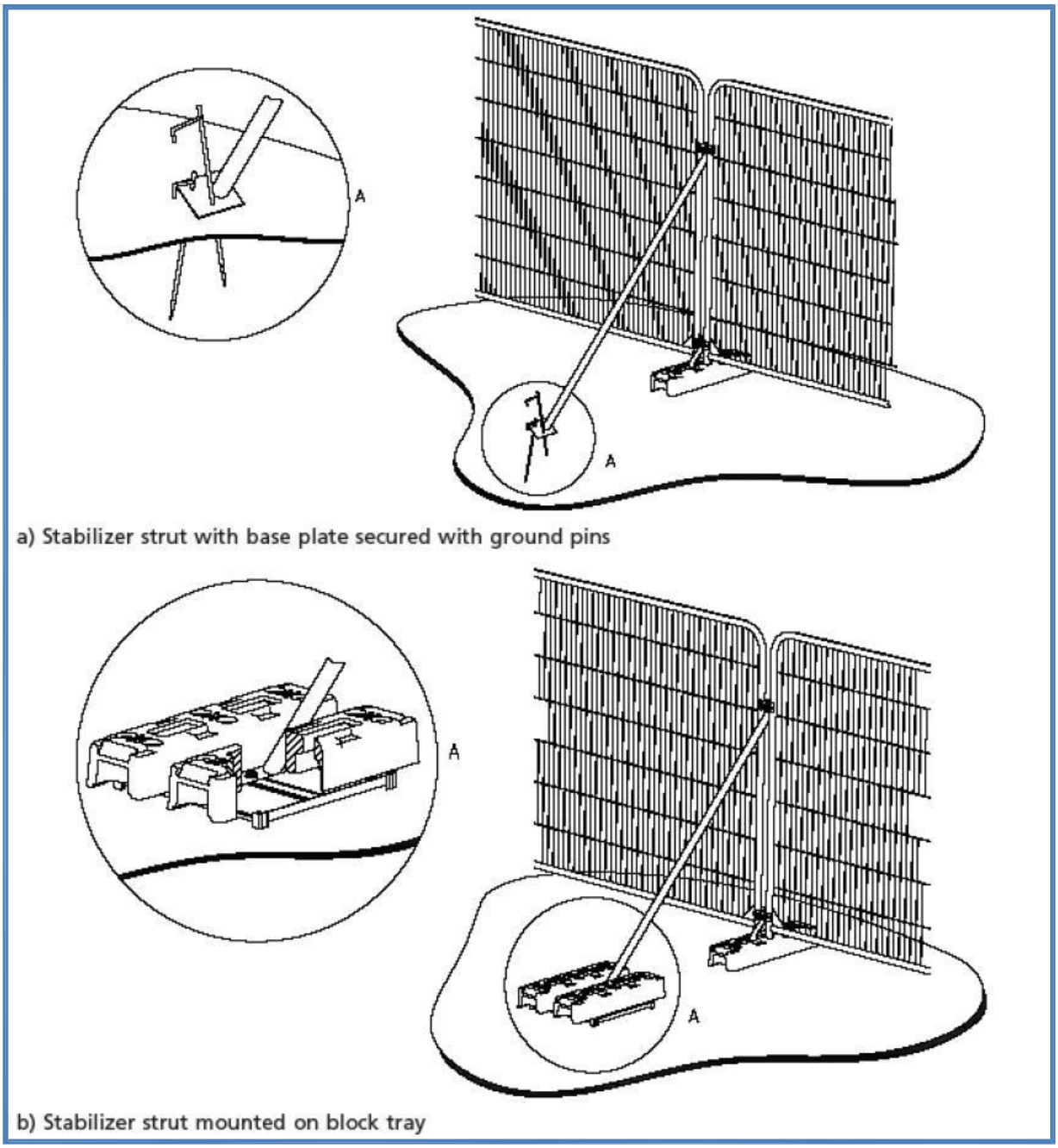
Example Tree Protection Fencing Sign



Key

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

BS5837: 2012 - Figure 2 – Tree Protective Barrier



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