



DUCKWORTHS
ARBORICULTURE LTD.

BS:5837 ARBORICULTURAL REPORT

ARBORICULTURAL SURVEY, IMPACT ASSESSMENT &
METHOD STATEMENT

PINEWOOD MINIATURE RAILWAY
PINEWOOD LEISURE CENTRE
CROWTHORNE
BERKSHIRE
RG40 3AQ

CLIENT: PMRS COMMITTEE

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Ref: AIA/AMS 06435 / 2024

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EXECUTIVE SUMMARY

This report provides detailed and site-specific information on the steps which will be undertaken to ensure retained trees are not harmed during the proposed erection of a prefabricated shed to be used as a signal box following the removal of the existing signal box which is no longer fit for purpose.

The signal box is a wooden shed situated in a woodland setting and there are a number of trees growing directly adjacent to the existing building. Collectively the trees enhance the verdant setting of the railway and the amenity of the local area.

Pinewood Miniature Railway Committee have expressed a wish to retain all the trees and they are committed to ensuring the trees are fully protected during the proposed installation works.

As with the existing building, the replacement signal box has no foundations and will be erected onto paving slabs and concrete blocks laid on the existing ground and stacked where necessary to create a level surface. This is a low-impact construction and represents a very low risk to trees.

The new signal box will be slightly larger than the existing structure and its position will be locally adjusted to create more room for the future growth of the adjacent trees. It will be installed by volunteers over a two-day period. All components of the shed will be walked to the build area via the existing railway route. There will be no vehicle access to the build site at any time.

Provided the methodology specified within the Arboricultural Method Statement is followed during the building installation I am satisfied that this application can be undertaken without unacceptable harm to the trees and in accordance with the guidelines and recommendations in BS:5837 2012 – Trees in Relation to Design, Demolition and Construction.

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1. INTRODUCTION

1.1 INSTRUCTION

This Arboricultural report has been prepared by Sarah Duckworth, Arboricultural Consultant and provides an Arboricultural Survey, Impact Assessment and Method Statement relating to trees growing on and adjacent to land at Pinewood Miniature Railway, Pinewood Leisure Centre, Crowthorne, Berkshire, RG40 3AQ.

I have been instructed to survey relevant trees in accordance with BS:5837 (2012) to ascertain the constraints posed by the trees to the construction of a new replacement Signal box.

The Arboricultural Impact Assessment in this report uses the tree data to identify any short or longer-term impact the proposed building works might have on the surrounding trees and makes recommendations for amendments or mitigation where appropriate.

This report also includes a site-specific Arboricultural Method Statement and Tree Protection Plan which details the steps which will be taken to ensure trees can be successfully protected and retained during and on completion of the proposed construction work.

1.2 SCOPE

The British Standard 5837:2012 'Trees in Relation to Design, Demolition and Construction' is designed to assist those concerned with trees and planning to form balanced judgments. This report does not therefore seek to put arguments for or against development but provides a means of protecting the trees which may be affected during development.

The report is for the sole use of the client and its reproduction or use by anyone else is forbidden unless written consent is given by the author.

1.3 DOCUMENTS

Trees on site have been plotted by the Tree Surveyor and their positions measured with a laser against boundaries and triangulated against fixed objects on site. The position of these trees should not therefore, be taken as exact but the plan is a good representation of tree locations in relation to the proposed build area.

The Tree Protection Plan which accompanies this report is illustrative and should be used for dealing with tree issues only.

1.4 CAVEATS

The report is valid for a period of two years from the date of issue being 15th July 2024 and will expire on 15th July 2026.

The report is not a Tree Risk Management Report or a Hazard Analysis Report and its use as such is invalid.

The report refers to the condition of tree(s) and an assessment of the site on the day the evaluation was undertaken. The trees were assessed from ground level only and not climbed. My assessment of third-party trees was limited where direct access was not available to the adjoining properties.

DISCLAIMER: This is an independently produced Arboricultural Report. I have no connection with any of the parties involved in this site or application that could influence or bias the opinions expressed in this report.

2. ARBORICULTURAL IMPACT ASSESSMENT

2.1 INTRODUCTION

The purpose of the Arboricultural Impact Assessment (AIA) is to evaluate the direct and indirect effects of the proposed building works and where necessary recommend solutions or mitigation as appropriate. The assessment will take account of the effects of any tree works which may be required to implement the design and identify any potentially damaging activities proposed in the vicinity of the retained trees.

2.2 PLANNING CONSTRAINTS

TREE PRESERVATION ORDERS

I have confirmed on the Wokingham Borough Council website that there are no Tree Preservation Orders affecting Pinewood Miniature Railway.

The protected status of trees is subject to change. You are advised to reconfirm the protected status of trees prior to carrying out any works to trees on site.

CONSERVATION AREA

Pinewood Miniature Railway is not within a Conservation Area.

ANCIENT WOODLAND

Pinewood Miniature Railway does not include Ancient Woodland, nor is it within an Ancient Woodland Buffer Zone.

2.3 SOIL

The soil on site was assessed by an appraisal on the British Geological Drift Survey Map only. According to the 1:50,000 scale map records, the bedrock geology for Pinewood Miniature Railway is Bagshot Formation - Sand. Sedimentary bedrock formed between 56 and 47.8 million years ago during the Palaeogene period.

The soil at Pinewood Miniature Railway is therefore likely to be free -draining and resistant to compaction. Sandy soil has less capacity to shrink and swell with changing moisture levels¹.

2.4 TREE WORKS AND REMOVAL

No trees are to be removed or pruned to facilitate the installation of the new signal box.

¹ P.G. Biddle (1998) Tree Root Damage to Buildings - Volume 1 Causes, Diagnosis and Remedy. Published Willowmead Publishing Limited. Fig. 4.3, Principal Geological Strata Pg. 39

2.5 APPLICATION ASSESSMENT

The suitability of planning development in relation to trees is assessed by the Local Authority in accordance with the British Standard 5837: 2012 'Trees in Relation to Design, Demolition and Construction.

This document requires that the conception and design of the final development layout must take into account the constraints posed by the trees on site. These constraints include not only the existing canopy and likely root spread but also:

- The ultimate height and spread of the trees.
- Potential impact of species characteristics for future residents – evergreen / deciduous, density of foliage, seasonal leaf drop / berries etc.
- Current and future shade patterns.

The default position in planning is that every effort should be made to retain and protect the category A and B trees on site and that new structures should be located outside of the identified RPA's of trees to be retained.

The new signal box is within the root protection areas of four trees, one of which is a category 'B' Scots pines, three are lower grade category 'C' trees (2x Holly, 1x Scots pine). The shed will be largely positioned over the site of the original building structure. A storage compartment to the rear of the existing structure is close to T003 (Scots pine). The replacement building does not have this storage element and the new shed position will be situated at least 200mm away from T003 (Scots pine) to allow for future growing space for the tree's trunk.

The replacement Signal box will be a lightweight structure erected onto paving slabs or concrete (breeze) blocks placed on the existing ground and stacked where necessary to create a level plinth onto which the base of the Signal Box can be constructed.

As with the existing building, the replacement signal box will be partially located on the periphery of the root protection areas of four trees within the woodland. Overall, the new building footprint will require a slightly larger footprint for development within the trees' rooting areas but as a lightweight structure on no foundations any impact on trees will be negligible.

There will be no changes in ground level on site. The structure will maintain a void under the building structure to accommodate the changes in ground level on site and to maintain gaseous exchange to tree roots on completion of the build.

Wires and electrical connections to the signal box will connect to those of the existing structure. There will be no trenching for services anywhere around the building site. Rainwater run-off will be directed to a water-butt to be reused as soft water for the Steam Locomotives.

Volunteers accessing the build area will do so via the existing railway track, which is levelled with ballast and sufficiently load-bearing not to impact

2.6 SITE PHOTOS



Photo 1 – T3 (Scots pine) in relation to the low-level storage at the rear of the existing shed.



Photo 2 – Existing Signal box.



Photo 3 – Access to build area via existing track



Photo 4 – Replacement shed will be erected onto stacked blocks and pavers

2.7 TREE PROTECTION DURING BUILDING WORKS

There is no vehicle access to the build area.

The site is on sandy soil which is resistant to compaction.

All components of the shed will be walked to the build area via the existing railway. The shed will be delivered 'flat-packed' and screwed together on site. Construction will take place over two days by pedestrian operatives only.

As a lightweight build project of short duration, no Tree Protection Fencing / Temporary Ground Protection measures are necessary and are not therefore proposed, unless the Local Authority requests otherwise.

2.8 ESSENTIAL WORK PRACTICES

All storage and preparation of materials will be on existing areas of hard landscaping / parking and outside of the rooting areas of trees as shown on the Tree Protection Plan.

Materials will be walked to the build area using the existing rail track. There is no vehicle access to the build area.

There will be no open fires within the identified build site during the building works.

2.9 CONCLUSIONS

This report demonstrates that an application to redevelop land at Pinewood Miniature Railway has been fully considered in accordance with Arboricultural and Planning best practice (BS:5837 2012 Trees in Relation to Design, Demolition and Construction').

This is a low-intensity construction of a lightweight wooden shed structure which will be erected by pedestrian operatives. There will be no vehicles within the building zone and although there will be a minor encroachment into the rooting areas of four mature trees, the proposed building installation overall represents overall a low risk to trees.

The lightweight structure will be erected onto pavers or blocks placed directly onto the existing ground levels and with a void beneath to maintain gaseous exchange to tree roots. Gutters will be directed to a water-butt.

The build will take approximately two days. Temporary tree protection measures are not justified on this occasion due to the low-intensity of the build project.

Provided the steps detailed in the Arboricultural Method Statement are followed in full, the application is considered to be acceptable in arboricultural terms.

3. ARBORICULTURAL METHOD STATEMENT (AMS)

3.1 INTRODUCTION

This Arboricultural Method Statement specifies the detailed methodology that will be employed to prevent damage to the trees growing on land at Pinewood Miniature Railway during building works to construct a new replacement signal box on the site.

The correct and timely installation of tree protection measures such as tree protection fencing is critical to ensure the long-term retention of a healthy tree stock on or adjacent to the development.

This method statement will be read, approved and agreed to by all key personnel prior to the commencement of works within the site.

WARNING: FAILURE TO FOLLOW THE ARBORICULTURAL METHOD STATEMENT ONCE APPROVED CAN CAUSE IRREPARABLE HARM TO TREES AND MAY INVALIDATE YOUR PLANNING CONSENT.

3.2 SITE SUPERVISION AND MONITORING

The schedule proposed here for site supervision and monitoring is proportionate to the arboricultural issues and intensity of construction within the site and proximity to the adjacent trees.

One member of the build team will be a designated 'Tree Supervisor' and will assume responsibility for ensuring no works are undertaken on site except in complete accordance with the approved Arboricultural Method Statement.

A copy of the approved Arboricultural Method Statement and Tree Protection Plan will be available on site for reference.

3.3 TREE WORKS

No tree works are required or proposed to facilitate the building work.

3.4 FOUNDATION INSTALLATION

Foundations are to be constructed from stacked paving slabs and/or blocks without any excavation of the site.

3.5 ACCESS TO THE BUILD AREA

Access to the build area will be via the existing miniature railway track which is ballasted and sufficiently loadbearing to protect tree roots.

3.6 DEMOLITION OF SIGNAL BOX

The existing wooden signal box is to be dismantled by hand and removed from site on foot. The building is erected onto paved blocks. No excavation will be made any deeper than that of the existing structure's base.

3.7 ROOT PROTECTION AREAS

Tree Root Protection Areas are shown on the Tree Protection Plan. These are sensitive soft landscaped areas where trees may be rooting therefore, they must remain completely undisturbed for the duration of all development works.

None of the following activities are permitted within the woodland area at any time:

- a. No excavation of any description.
- b. No storage, disposal of soil, rubble or materials of any other description.
- c. No alterations to existing levels or ground conditions.
- d. No vehicular access, parking or use of any tracked or wheeled machinery of any description.
- e. No tree works, without the written consent of the Council's Tree Service.
- f. No erection of temporary structures of any description.
- g. No fires.
- h. No storage disposal handling or use of any Chemicals including cement washings.
- i. No fixtures or fittings of any description, security lighting, signage etc shall be attached to any part of a tree.
- j. No fires shall be light within 10 metres of the canopies of any tree or spread of any hedge.
- k. No chemicals, fuel, liquids/waste residues of any other description to be stored or disposed of within proximity to or drained towards/into protection areas.

3.8 GENERAL CONSIDERATIONS

Roots can be killed by pollution of the rooting area by chemicals and leaching. Loose, granular or liquid materials, including cement mix and fuel will be stored on an impermeable membrane within the identified storage areas and well away from the Trees Root Protection Areas.

Particular care will be taken in the planning of deliveries if they require wide or tall loads and plants with booms, rigs or counterweights which can cause serious and permanent damage to trees making their safe retention impossible.

There will be no open fires on site during the building works.

3.9 UNFORESEEN CIRCUMSTANCES

In the event of unforeseen circumstances whereby it is not possible to work in accordance with the Arboricultural Method Statement then advice should be sought immediately from a qualified Arboriculturist.

THERE SHALL BE NO DEVIATION FROM THIS METHOD STATEMENT WITHOUT CONSULTATION WITH A QUALIFIED ARBORICULTURIST AND / OR THE WRITTEN CONSENT OF THE LOCAL PLANNING AUTHORITY.

APPENDICES

- A. Survey Data
- B. Key
- C. Cascade Chart for Tree Quality Assessment
- D. Tree Data
- E. Tree Plans
- F. Contacts
- G. Qualifications

APPENDIX A - SURVEY DATA

- The trees were surveyed on Tuesday 2nd July 2024 from ground level only.
- The weather conditions were clear. Visibility was good.
- Heights were estimated as part of a group. Soil samples were not taken.
- The tree survey identified 17 trees growing on or adjacent to the site which were relevant to this planning application.
- Heights were estimated where part of a group. Girth and canopy spread was measured with a laser measure or estimated where trees were not accessible. Soil samples were not taken.
- The trees on site were assessed for their quality and benefits within the context of the proposed development and categorised in accordance with the recommendations in the BS:5837:2012.
- Obvious defects have been noted on the trees, however, this survey is for planning use only and does not constitute a detailed health and safety survey of the trees. Its use as such is invalid.
- Trees are dynamic living organisms subject to change, whose health and condition can be subject to significant change influenced by internal and external factors. The assessment of trees in this report is based on the condition assessed at the time of inspection and are valid for 18 months.

APPENDIX B - KEY

Ref:	T001 = Tree 1	G001 = Group 1
	A001 = Area 1	W001 = Woodland 1
Species:	Common name (Botanical name)	
Height:	Measured with a clinometer (m) where possible or estimated when part of a group	
Stem:	Stem diameter taken at 1.5m with girth tape or rule and recorded in millimeters	
Branch spread:	Paced measurements at compass points or with a laser measure.	
Crown clearance:	Existing height above ground level of canopy and / or first significant branch direction of growth in metres e.g., 2.4 (N) where relevant.	
Epics:	Lower canopy created by epicormic growth.	
Age Class:	Newly planted - 3 years following planting.	
	Young - Tree well established but with juvenile crown form	
	Young Mature - Tree in first third of usual life expectancy for species	
	Mature - Tree in second third of usual life expectancy for species	
	Over Mature - Tree in final third of usual life expectancy for species / exhibiting signs of crown retrenchment & senescence.	
	Veteran - Older than usual for species or with historical/ cultural / ecological value	
General Observations:	Made with reference to physiological condition (health, vigour) and structural condition, noting evidence of decay, structural weakness and physical defect and preliminary management recommendations.	
Estimated Remaining Contribution:	Estimated in years - less than 10, 10-20, 20-40, 40+	
BS: 5837:2012 category rating:	In accordance with the guidelines of the British Standard.	
	 Category 'A' tree (Green)  Category 'C' tree (Grey)	
	 Category 'B' tree (Blue)  Category 'U' tree – Fell (Red)	
RPA Area	BS:5837 (2012) Root Protection Area calculation in square metres	
RPA Radius	BS:5837 (2012) Root Protection Area calculation circle radius in metres. ²	

² The root protection area radius is for information only and may not be appropriate in every case. BS:5837 advises that *'the RPA for each tree should initially be plotted as a circle centered on the base of the stem. Where pre-existing site conditions or other factors indicate that rooting may have occurred asymmetrically, a polygon of equivalent area should be produced. Modifications to the shape of the RPA should reflect a soundly based arboricultural assessment of likely root distributions.'*

APPENDIX C - BS:5837 (2012) CHART FOR TREE QUALITY ASSESSMENT

CATEGORY & DEFINITION		CRITERIA (including sub-categories where appropriate)		
Trees unsuitable for retention				
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 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			
	Mainly Arboricultural Qualities	Mainly Landscape Qualities	Mainly cultural values including conservation	
Trees considered suitable 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)	
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 remedial 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 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 contribution to the wider locality.	Trees with material conservation or other cultural value.	
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 150mm.	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.	

APPENDIX D - TREE DATA

Ref.	Species	Measurements	Spread	General Observations	Retention Category	RPA	Summary
T001	Scots pine (Pinus sylvestris)	Height (m): 19 Stem Diam(mm): 420 Crown Clearance (m): 15 Life Stage: Mature Rem. Contrib.: 20+ Years	N:2.5 E:1.5 S:1.5 W:1.5	Slender high pine. Frass from wood boring insects at base.	C2	Radius: 5.0m. Area: 79 sq m.	Physiological Condition: Fair Structural Condition: Physical Defect Public Amenity Value: Moderate
T002	Scots pine (Pinus sylvestris)	Height (m): 20 Stem Diam(mm): 500 Crown Clearance (m): 15 Life Stage: Mature Rem. Contrib.: 20+ Years	N:2 E:2 S:1 W:4	High, asymmetrical crown.	B2	Radius: 6.0m. Area: 113 sq m.	Physiological Condition: Fair Structural Condition: Physical Defect Public Amenity Value: Moderate
T003	Scots pine (Pinus sylvestris)	Height (m): 20 Stem Diam(mm): 520 Crown Clearance (m): 15 Life Stage: Mature Rem. Contrib.: 20+ Years	N:1 E:3 S:1.5 W:1.5	Kinked trunk. High, asymmetrical crown. Existing signal box directly at base.	B2	Radius: 6.2m. Area: 121 sq m.	Physiological Condition: Fair Structural Condition: Fair Public Amenity Value: Moderate
T004	Common holly (Ilex aquifolium)	Height (m): 7.5 Stem Diam(mm): 300 Crown Clearance (m): 2 Life Stage: Mature Rem. Contrib.: 40+ Years	N:3.5 E:3.5 S:2 W:3	Within wood store area. Swept stem. Fair form and vitality.	C2	Radius: 3.6m. Area: 41 sq m.	Physiological Condition: Good Structural Condition: Fair Public Amenity Value: Low Inspection Limitations: Access
T005	Common holly (Ilex aquifolium)	Height (m): 7.5 Stem Diam(mm): 300 Crown Clearance (m): 2 Life Stage: Mature Rem. Contrib.: 40+ Years	N:1.5 E:3 S:3.5 W:2	Within wood store area. Swept stem. Fair form and vitality.	C2	Radius: 3.6m. Area: 41 sq m.	Physiological Condition: Good Structural Condition: Fair Public Amenity Value: Low Inspection Limitations: Access
T006	Scots pine (Pinus sylvestris)	Height (m): 20 Stem Diam(mm): 460 Crown Clearance (m): 15 Life Stage: Mature Rem. Contrib.: 20+ Years	N:1 E:3.5 S:1.5 W:1.5	Within log store area. High crown. Foliage slightly sparse.	B2	Radius: 5.5m. Area: 95 sq m.	Physiological Condition: Fair Structural Condition: Fair Public Amenity Value: Moderate
T007	Common beech (Fagus sylvatica)	Height (m): 15 Stem Diam(mm): 320 Crown Clearance (m): 2 Life Stage: Early Mature Rem. Contrib.: 40+ Years	N:2 E:5.5 S:4.5 W:4	Within wood store area. Swept stem. Dense low grow. Good vitality.	B2	Radius: 3.8m. Area: 45 sq m.	Physiological Condition: Good Structural Condition: Fair Public Amenity Value: Moderate Inspection Limitations: Access

Ref.	Species	Measurements	Spread	General Observations	Retention Category	RPA	Summary
T008	Common beech (Fagus sylvatica)	Height (m): 15 Stem Diam(mm): 290 Crown Clearance (m): 2 Life Stage: Early Mature Rem. Contrib.: 40+ Years	N:4 E:4 S:4 W:4	Within wood store area. Dense low crown. Good vitality.	B2	Radius: 3.5m. Area: 38 sq m.	Physiological Condition: Good Structural Condition: Fair Public Amenity Value: Moderate Inspection Limitations: Access
T009	Scots pine (Pinus sylvestris)	Height (m): 20 Stem Diam(mm): 450 Crown Clearance (m): 17 Life Stage: Mature Rem. Contrib.: 20+ Years	N:1.5 E:2 S:2 W:2	Within log store area. High crown.	B2	Radius: 5.4m. Area: 92 sq m.	Physiological Condition: Fair Structural Condition: Fair Public Amenity Value: Moderate
T010	Scots pine (Pinus sylvestris)	Height (m): 20 Stem Diam(mm): 400 Crown Clearance (m): 17 Life Stage: Mature Rem. Contrib.: 20+ Years	N:0 E:1.5 S:2 W:2	High, asymmetrical crown. Foliage extremely sparse.	C2	Radius: 4.8m. Area: 72 sq m.	Physiological Condition: Poor Structural Condition: Fair Public Amenity Value: Moderate
T011	Scots pine (Pinus sylvestris)	Height (m): 21 Stem Diam(mm): 550 Crown Clearance (m): 17 Life Stage: Mature Rem. Contrib.: 20+ Years	N:3 E:2 S:4 W:3.5	Store at base. Prominent wide fork in crown. Foliage slightly sparse.	B2	Radius: 6.6m. Area: 137 sq m.	Physiological Condition: Fair Structural Condition: Fair Public Amenity Value: Moderate
T012	Scots pine (Pinus sylvestris)	Height (m): 21 Stem Diam(mm): 480 Crown Clearance (m): 16 Life Stage: Mature Rem. Contrib.: 20+ Years	N:3 E:3 S:3.5 W:3	Store at base.	B2	Radius: 5.8m. Area: 106 sq m.	Physiological Condition: Fair Structural Condition: Fair Public Amenity Value: Moderate
T013	Scots pine (Pinus sylvestris)	Height (m): 19 Stem Diam(mm): 460 Crown Clearance (m): 3 Life Stage: Mature Rem. Contrib.: 20+ Years	N:1 E:2.5 S:3 W:2.5	Edge of forest group. Low asymmetrical canopy.	B2	Radius: 5.5m. Area: 95 sq m.	Physiological Condition: Good Structural Condition: Fair Public Amenity Value: Moderate
T014	Scots pine (Pinus sylvestris)	Height (m): 19 Stem Diam(mm): 600 Crown Clearance (m): 14 Life Stage: Mature Rem. Contrib.: 20+ Years	N:2.5 E:1 S:2.5 W:3	Store at base. Asymmetrical crown. Fluted lower trunk	B2	Radius: 7.2m. Area: 163 sq m.	Physiological Condition: Fair Structural Condition: Fair Public Amenity Value: Moderate
T015	Scots pine (Pinus sylvestris)	Height (m): 21 Stem Diam(mm): 580 Crown Clearance (m): 14 Life Stage: Mature Rem. Contrib.: 20+ Years	N:3.5 E:3.5 S:2 W:4	Paved area and drainage at base. Asymmetrical crown.	B2	Radius: 7.0m. Area: 154 sq m.	Physiological Condition: Fair Structural Condition: Fair Public Amenity Value: Moderate

Ref.	Species	Measurements	Spread	General Observations	Retention Category	RPA	Summary
T016	Scots pine (Pinus sylvestris)	Height (m): 20 Stem Diam(mm): 460 Crown Clearance (m): 6 Life Stage: Mature Rem. Contrib.: 20+ Years	N:1 E:2.5 S:3 W:3.5	Edge of forest group. Low asymmetrical canopy. Paved area at base.	B2	Radius: 5.5m. Area: 95 sq m.	Physiological Condition: Good Structural Condition: Fair Public Amenity Value: Moderate
T017	Scots pine (Pinus sylvestris)	Height (m): 22 Stem Diam(mm): 350 Crown Clearance (m): 18 Life Stage: Mature Rem. Contrib.: 20+ Years	N:1.5 E:1.5 S:2 W:1.5	Adjacent to log store area. Small, high crown.	B2	Radius: 4.2m. Area: 55 sq m.	Physiological Condition: Fair Structural Condition: Fair Public Amenity Value: Moderate

APPENDIX E – TREE PLANS

Attached as separate pdf documents

- Tree Protection Plan ref: [PINWOOD RAILWAY TPP 06435/2024](#)

APPENDIX F – CONTACTS

Arboricultural Consultant

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APPENDIX G - QUALIFICATIONS

This Arboricultural report has been prepared by Sarah Duckworth, Independent Arboricultural Consultant, trading as Duckworth's Arboriculture Limited.

I have over 19 years' experience working in the field of Arboriculture and for the past 16 years I have worked as a Local Authority Tree Officer both directly and independently providing contracted support. Since 2010 I have worked as a private consultant carrying out a range of Arboricultural Reports and Assessments for private clients.

I hold the Royal Forestry Society's Professional Diploma (Level 6) for which I received the Lockhart Garrett Award.

I also hold the Arboricultural Association's Technicians Certificate (with Distinction) and am a LANTRA qualified Professional Tree Inspector.

I am a Professional Member of the Arboricultural Association.