

Tree Survey BS5837:2012

Land at Winston Road, Manchester, M9 4FZ

One Manchester

Revision A – January 2024



ecology

QUALITY ASSURANCE

REPORT TYPE	SITE NAME	REVISION
Tree Survey BS5837:2012	Land at Winston Road, Manchester M9 4FZ	A

CLIENT	COMMISSION DATE
One Manchester	December 2023

	NAME	QUALIFICATIONS	DATE
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REVISION HISTORY			
REVISION	DATE	AUTHOR	DESCRIPTION
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A INTRODUCTION

A.1 Background to Survey

- 1 In December 2023 LM Ecology was commissioned by One Manchester to carry out a tree survey BS5837:2012 at the location detailed in Table 1 below. The principal author of this report is Elizabeth McBride BSc (Hons).

Table 1. Site details

SITE ADDRESS	GRID REFERENCE
Land at Winston Road, Manchester M9 4FZ	SD8676802114

- 2 The survey has been commissioned to support a planning application to construct 14 dwellings, consisting of four houses and 10 flats, along with associated gardens and parking.
- 3 LM Ecology has been provided with the plans as shown within Table 2 below.

Table 2. Pre-existing Information

TYPE	ITEM TITLE / REFERENCE	PRODUCED BY	DATE PRODUCED
Plan	Proposed Site Plan – Drawing no. 105 Rev 14	BTP Architects	15/06/2021 (updated 18/09/2023)

A.2 Site Location and General Description

- 4 The site consists of three areas of amenity grassland to the west of Winston Road within a residential area of Manchester. The grasslands are separated by hardstanding paths. There is housing to the west, with further greenspace to the north, east and south.
- 5 The site supports nine trees and a small hawthorn shrub.

B SURVEY DETAILS AND LIMITATIONS

- 6 The fieldwork was carried out on 9th January 2024 by Elizabeth McBride, assisted by Louisa Molloy. Elizabeth has a degree in Environmental Science and a Level 4 Diploma in Arboriculture. She has worked as an ecologist since 2006.
- 7 The survey was undertaken in accordance with BS 5837:2012 Trees in relation to Design, Demolition and Construction – Recommendations.
- 8 Tree locations were taken from the topographical plan provided and the trees were surveyed visually from the ground.
- 9 Please note this report represents a BS5837 tree survey and should not be accepted as a tree safety inspection report.
- 10 Details of the trees present can be found in Table 3. The tree locations, canopy size, retention category and root protection areas are shown on the Tree Constraints Plan in Appendix F.1. Photographs are included in Appendix F.2.
- 11 Trees within close proximity to each other and of similar age and species have been surveyed in groups, as defined in BS 5837.
- 12 Saplings and shrubs were deemed insignificant and omitted from the survey.
- 13 Root protection areas were calculated from stem diameter.
- 14 Some trees develop multiple stems either from ground level or close to the ground. Where possible for these trees the average stem diameter is calculated and the number of stems recorded. A calculation can then be carried out to estimate the root protection area.

C RESULTS

C.1 Tree Data

15 See Table 3 and accompanying Tree Constraints plans in Appendix F.1. Photographs are included in Appendix F.2.

Table 3: Tree data

Tree reference	Species	Life stage	Estimated height (metres)	Estimated crown height (metres)	Estimated crown spread (metres) W N E S	Stem diameter (mm)	Physiological condition	Structural condition	Observations	Estimated remaining contribution (years)	Retention category
T1	Sycamore <i>Acer pseudoplatanus</i>	EM	16	3	4 4 4 5	507	Fair	Poor	Large tree with a significant area of rot at the base of the stem, extending through stem and potentially upwards. Branch loss on east side at approx. 4m has resulted in a shallow cavity. Within close proximity to T2. Potential for tree to fail means it is unsuitable for retention.	<10	U
T2	Sycamore <i>Acer pseudoplatanus</i>	EM	16	4	6 5 4 5	542	Fair	Fair	Large tree within close proximity to T1. Long narrow cavity on west side of stem extending upwards. Bark damage and two further shallow cavities on north side of stem.	10+	C1
T3	London plane <i>Platanus × acerifolia</i>	EM	15	1.5	6 9 9 7	603	Good	Fair	An off-site tree. Located very close to the eastern boundary. Large tree growing very close to a telegraph pole. Small area of bark damage on south side at 1m – occluded. Uplifting of adjacent pavement due to root system.	20+	B1
T4	Hawthorn <i>Crataegus monogyna</i>	SM	7	1	3 3 3 3	213	Good	Fair	An off-site tree. Located very close to the eastern boundary. Small slim tree, stunted due to proximity to T3. Some damage at stem base.	20+	C1
T5	Ash <i>Fraxinus excelsior</i>	EM	13	1.5	4 4 4 4	6 stems Av. 505	Fair	Poor	An off-site tree. Located very close to the eastern boundary. Multiple stemmed ash – likely self-seeded. One of stems has tight V union at base – higher risk of failure. Damage to two stems extending approx. 0.5-2m. Some deadwood in canopy – possible sign of infection by ash dieback.	10+	C1
T6	Rowan <i>Sorbus aucuparia</i>	SM	10	2	2 3 3 2	285	Fair	Fair	Damage at stem base and minor cavity at approx. 1m. Tight union at approx. 1.5m resulting in 2 small cavities.	10+	C1
T7	Rowan <i>Sorbus aucuparia</i>	SM	10	2	2 2 2 3	235	Poor	Fair	Significant damage to stem at approx. 0-2m and extending up one limb – possible decay associated with damage. Resulted in sparse canopy and deadwood. Recommend removal and replacement.	10+	C1
T8	Cherry <i>Prunus avium</i>	SM	11	1.5	4 4 5 4	315	Fair	Fair	Damage to stem in multiple locations. Close to adjacent house.	20+	C1

T9	Cherry <i>Prunus avium</i>	SM	8	2	4 4 3 3	271	Fair	Fair	Small tree. Relatively sparse canopy – potential minor deadwood.	20+	C1
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Key to Table 3

Life stage

Y	Young – in first quarter of life
SM	Semi-mature – in second quarter of life
EM	Early mature – in third quarter of life
M	Mature – in final quarter of life
OM	Over mature – in natural decline

Height

The height of the tree in metres from the stem base - estimated using a clinometer.

Crown height

The average height in metres of the crown – estimated using a clinometer.

Crown spread

Measured from the centre of the stem base to the tips of the branches in all 4 cardinal points

Stem diameter

The diameter of the stem measured at 1.5m from the base

Physiological condition

Good – Healthy and in good vigour

Fair – Vigour of tree is impaired

Poor – Vigour of tree is extremely low

Structural condition

Good – No obvious defects

Fair – Slightly compromised with minor structural defects

Poor – Significantly compromised with major structural defects

Estimated remaining contribution

An indication of the number of years before removal of the tree may be required

Categories: < 10 less than 10 years

10+

20+

40+

Retention Category

A – Trees of high quality – marked green on the plan

Further subdivided as follows:

A1 – Trees that are particularly good examples of their species or essential components of groups

A2 – Trees, groups or woodlands of particular visual importance as arboricultural and/or landscape features

A3 – Trees, groups or woodlands of significant conservation, historical or commemorative value

B – Trees of moderate quality – marked blue on the plan

Further subdivided as follows:

B1 – Trees that have been downgraded from A because of impaired condition or trees lacking in the special quality necessary to merit the category A designation

B2 – Trees present in numbers that attract a higher collective rating than as individuals

B3 – Trees with material conservation or other cultural value

C – Trees of low quality – marked grey on the plan

Includes all young trees with a stem diameter below 150mm.

Further subdivided as follows:

C1 – Unremarkable trees of limited merit or impaired condition

C2 – Trees in groups or woodlands with limited collective landscape value

C3 – Trees with low material conservation or cultural value

U – Trees unsuitable for retention - marked red on the plan

These trees are in such a condition that they cannot be realistically retained for longer than 10 years e.g. due to serious structural defects, disease, or death

C.2 Root Protection Areas

16 The root protection radius for each tree is shown below in Table 4.

Table 4: Root protection area and root protection radius

Tree Number	RPA (m ²)	RPA Radius (m)
T1	N/A	N/A
T2	137	6.6
T3	177	7.5
T4	23	2.7
T5	124	6.3
T6	41	3.6
T7	28	3.0
T8	48	3.9
T9	34	3.3

C.3 Legal Status

17 Manchester City Council planning office confirmed by email on 22nd January 2024 that there are no Tree Preservation Orders (TPO) covering the site or adjacent land and the site is not located within a Conservation Area.

C.4 Summary of Results and Discussion

18 The tree survey revealed a total of nine individual trees within the site. One tree was identified as retention category B (moderate quality), seven trees were identified as retention category C (low quality) and one tree was found to be unsuitable for retention. This information is summarised in Table 5 below.

19 Although they are well established, tall trees, both T1 and T2 include defects which have impacted their condition. T1 has been identified as unsuitable for retention due to a significant area of decay at the base, which has potential to extend up the stem and increases the risk of the tree failing. T2 has been identified as a low quality tree due to defects which have potential to impact on the overall health and lifespan of the tree.

20 Trees T3 to T5 are located outside the site, less than 1m from the eastern boundary. T3 is the only category B tree included in the survey. It is a London plane with a large dense canopy. Tree T4 is a small stunted hawthorn tree and T5 is a multi-stemmed ash with poor structure. A small hawthorn shrub is located to the south of T5.

21 Trees T6 to T9 are located in the southern section of grassland. They are relatively small trees of rowan and cherry. T6, T7 and T8 all have significant defects.

Table 5: Summary of Tree Categories

	Tree	Total
Category A Trees/Groups of high quality		0
Category B Trees/Groups of moderate quality	T3	1
Category C Trees/Groups of low quality	T2, T4, T5, T6, T7, T8, T9	7
Category U Trees/Groups unsuitable for retention	T1	1

D ARBORICULTURAL IMPACT ASSESSMENT

D.1 Proposed Development

- 22 The proposals for the site include the construction of 14 dwellings, consisting of four houses and 10 flats, along with associated gardens and parking.

D.2 Impact Assessment

- 23 The proposed site layout plan does not show any of the on-site trees as being retained (T1, T2, T6, T7, T8, T9).
- 24 Whilst in theory, the current proposed layout of the site would allow T2 to be retained as it would be within a rear garden; it is not considered to be a suitable tree for a small garden such as those planned for the development. Due to its size and defects, it is recommended that T2 is not retained and replacement planting of more suitable tree species is included in the proposals.
- 25 Due to the close proximity to the site boundary, the Root Protection Area (RPA) of T3, T4 and T5 are all significantly impacted by the proposals and it is recommended that they are removed and replacement planting is carried out elsewhere on site.
- 26 T4 and T5 are both low quality trees and the impact of their loss is considered to be negligible. T3 is a category B tree, which is relatively large and appears in good health. It would be difficult to retain this tree due to its close proximity to the development area and the significant incursion into the RPA. T3 is adjacent to the south end of Winston Road, meaning approximately 38% of its RPA already consists of hardstanding and this would increase with the addition of hardstanding paths shown in the proposals. The tree has a large dense canopy and therefore the negative impact related to shading of the front gardens should be considered, along with the potential for the canopy to reduce light levels reaching the flats. The loss of T3 is considered to have a minor impact on the tree resource of the local area and therefore replacement planting is recommended.
- 27 Many of the trees at the site have structural defects or impaired health. The development provides an opportunity to improve the tree resource of the site by replacement planting of healthy trees of suitable species.

D.3 Mitigation Proposals

- 28 As none of the trees are to be retained, no tree protection measures are required.
- 29 A minimum of two new trees should be planted to mitigate the loss of the category B tree. Although all other trees are category C or U, the importance of urban trees should not be underestimated and it is therefore recommended that the trees are replaced on site.

- 30 The layout plan currently shows seven new trees are to be included in the development. It is recommended that any new trees consist of native species or species with known wildlife value. Examples include rowan, cherry, apple, hazel, bird cherry and hawthorn.

E REFERENCES

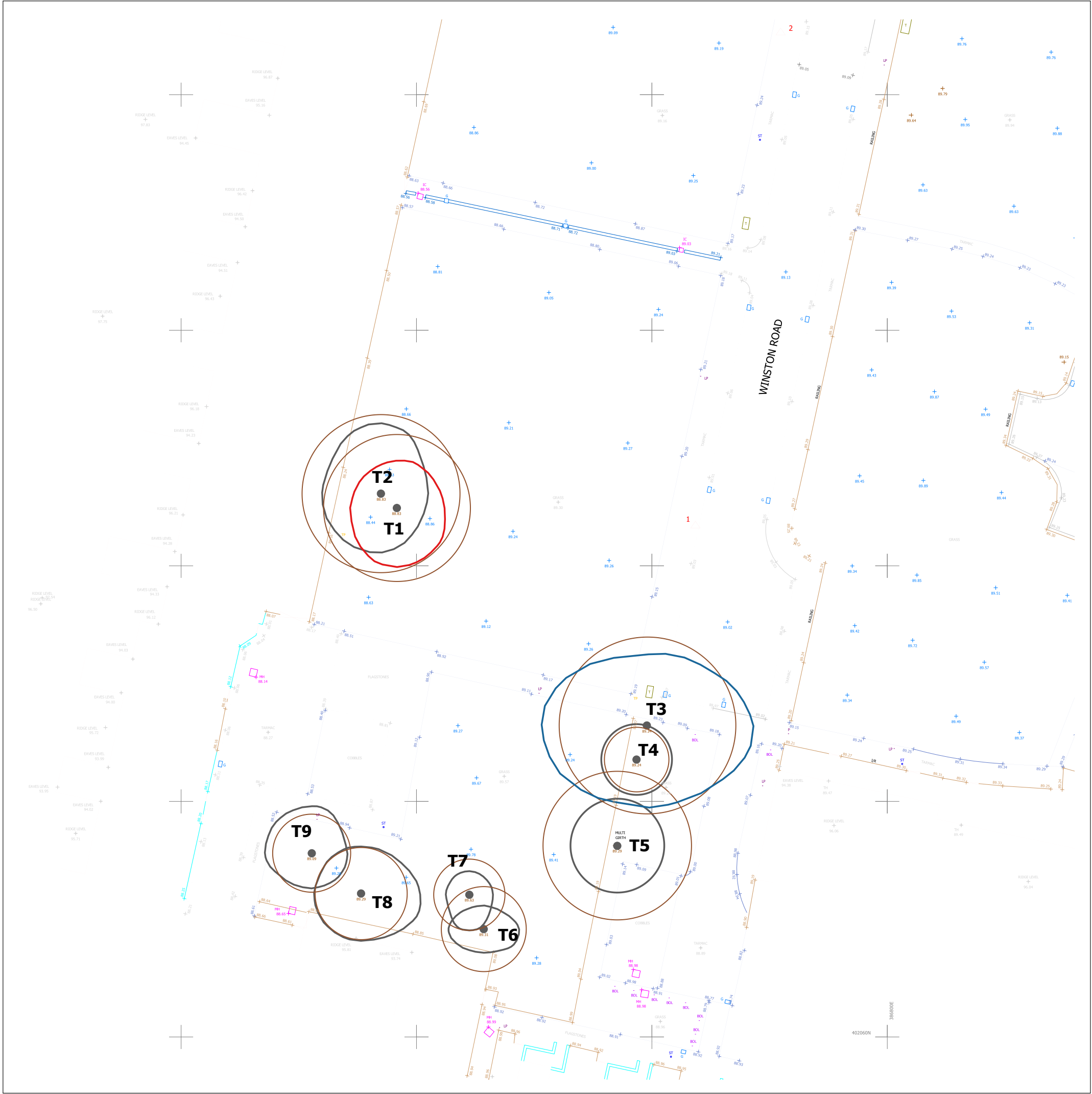
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Legend

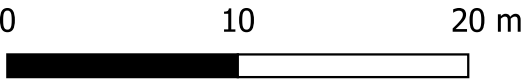
- Tree Location
- Root Protection Area (RPA)

Retention Categories

- Category B Tree - Canopy Spread
- Category C Tree - Canopy Spread
- Category U Tree - Canopy Spread

Based on topographical data

Project	Land at Winston Road, Manchester M9 4FZ
Title	F.1 Tree Constraints Plan
Client	One Manchester
Date	January 2024
Ref	[LM0118]F.1[REV A]TCP



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F.2 Photographs

Photographs taken during the site visit.



Photograph 1: Trees T1 & T2



Photograph 2: Rot at the base of T1



Photograph 3: Tree T2 cavity



Photograph 4: Further cavities in T2



Photograph 5: T3, T4 & T5



Photograph 6: T3 & T4



Photograph 7: Tree T5 – multi-stemmed ash



Photograph 8: T6 & T7



Photograph 9: Tree T7



Photograph 10: T8 & T9