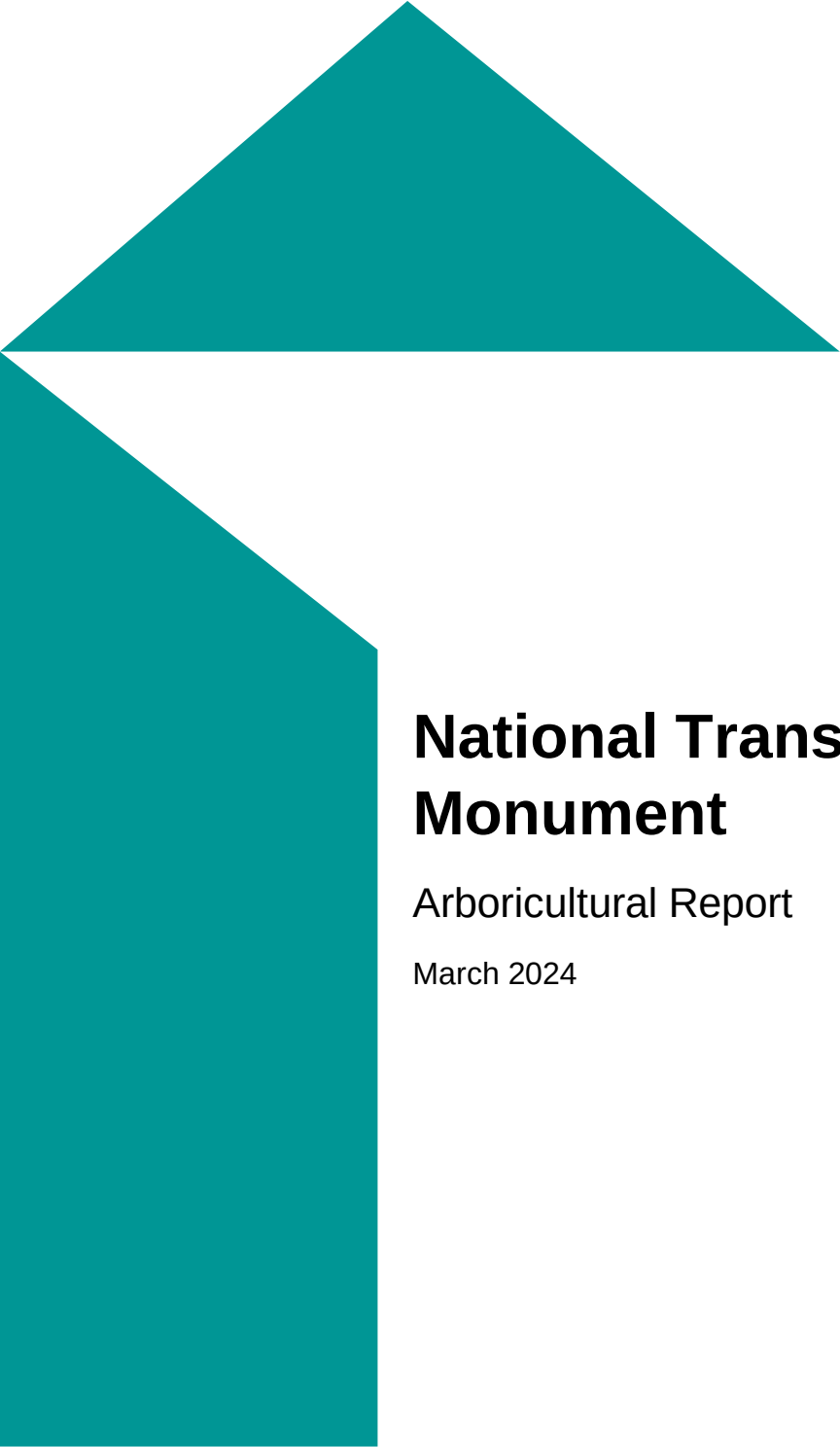


A large teal graphic on the left side of the page, consisting of a triangle at the top and a rectangle below it, with a diagonal cutout in the upper right corner of the rectangle.

National Transgender Monument

Arboricultural Report

March 2024

This page left intentionally blank for pagination.

Mott MacDonald
7th Floor
26 Whitehall Road
Leeds LS12 1BE
United Kingdom

T +44 (0)113 394 6700
mottmac.com

Sparkle: The National
Transgender Charity
83 Ducie Street
Manchester
M1 2JQ

National Transgender Monument

Arboricultural Report

March 2024

Issue and Revision Record

Revision	Date	Originator	Checker	Approver	Description
A	29/02/24	L Brooker	R Lennon	J Sothcott	First version.
B	08/03/24	L Brooker	R Lennon	J Sothcott	Updated following design amendments.

Document reference: B |100HRETEX-MMD-00-XX-RP-TM-0001

Information class: Standard

This document is issued for the party which commissioned it and for specific purposes connected with the above-captioned project only. It should not be relied upon by any other party or used for any other purpose.

We accept no responsibility for the consequences of this document being relied upon by any other party, or being used for any other purpose, or containing any error or omission which is due to an error or omission in data supplied to us by other parties.

This document contains confidential information and proprietary intellectual property. It should not be shown to other parties without consent from us and from the party which commissioned it.

Contents

Executive summary	1
1 Introduction	2
1.1 Scheme background	2
1.2 Scheme location	2
1.3 Purpose of Arboricultural Report	2
1.4 Tree assessment methodology	2
1.5 Limitations of the survey	4
2 Summary of existing trees	5
2.1 Tree Preservation Orders and Conservation Areas	5
2.2 Ancient woodland	5
2.3 Ancient, veteran, and notable trees	6
2.4 Existing tree quality and coverage	6
3 Risks to trees	7
3.1 Root Protection Areas – background information	7
3.2 Risks to trees from construction activity	7
3.3 Trees and wildlife	8
4 Arboricultural Impact Assessment	9
4.1 The Scheme	9
4.2 Recommended actions	9
4.3 Tree pruning	10
4.4 Works within RPAs	11
5 Arboricultural Method Statement	12
5.1 Works within RPAs	12
5.2 Ground protection measures	12
5.3 Tree work – pruning	13
5.4 Excavation within RPAs	13
5.5 Arboricultural inspection and supervision	14
5.6 Sequence of activities	14
5.7 Responsibilities	14
Appendices	16
A. Drawings	17

A.1	Tree Constraints Plan (100HRETEX-MMD-00-XX-DR-TM-0001)	17
A.2	Tree Protection Plan (100HRETEX-MMD-00-XX-DR-TM-0002)	17
B.	Key to Tree Survey Schedule	18
C.	BS 5837:2012 Cascade Chart for Tree Quality Assessment	19
D.	Tree Survey Schedule	20
E.	Designations	22
F.	Tree Protection Measures	24

Tables

Table 1.1:	Life stage categories	2
Table 1.2:	BS 5837:2012 Tree quality assessment tree retention categories.	3
Table 2.1:	National Transgender Monument summary of assigned BS 5837:2012 categories.	6
Table 4.1:	National Transgender Monument summary of recommended actions.	9

Figures

Figure 2.1:	Whitworth Street CA boundary (red line) and the area of interest within the CA (burgundy line).	5
-------------	---	---

Tables – Appendices

Table B.1:	Key to Tree Survey Schedule.	18
Table C.2:	BS5837:2012 Cascade chart for Tree Quality Assessment.	19
Table D.3:	National Transgender Monument Tree Survey Schedule.	20

Figures – Appendices

Figure E.1:	Email from MCC confirming no TPOs are found within or adjacent to the site, and that the site falls within a CA (Whitworth Street).	22
Figure E.2:	Screenshot showing no ancient woodlands (including ASNW and PAWS) within or directly adjacent to the area of interest (centre of image).	23
Figure E.3:	Screenshot showing no ancient, veteran, or notable trees present within or directly adjacent to the area of interest (centre of image, located at crosshairs).	23

Figure F.6: Extract from BS 5837:2012 Ground Protection during Demolition and Construction.

24

Executive summary

Mott MacDonald has been commissioned by Sparkle: The National Transgender Charity to conduct an arboricultural survey to support delivery of the installation of a new National Transgender Monument at Sackville Gardens, Manchester.

The Site is situated at Sackville Gardens, Manchester, M1 3WA, and is bordered by Manchester College's Shena Simon Campus, Whitworth Street, the Rochdale Canal, and Canal Street.

This report is designed to support the detailed design and construction stages of this Scheme in relation to minimising or avoiding impact on existing trees. Comment is provided on the general quality of the trees on the Site, but this report is not, nor should be taken to be, a full or thorough assessment of the health and safety of trees on or adjacent to the site.

A total of 28 individual trees and three tree groups were identified within the vicinity of the proposed Scheme as part of the survey undertaken on 21 February 2024 by a Mott MacDonald Arboriculturist, and the following provides a summary of their quality as assessed in accordance with *BS 5837:2012*:

- Category A (i.e. trees of high quality): no trees;
- Category B (i.e. trees of moderate quality): 23 individual trees and two tree groups;
- Category C (i.e. trees of low quality): five individual trees and one tree group; and,
- Category U (i.e. trees recommended for removal for arboricultural reasons): no trees.

The Site falls within the administrative boundaries of Manchester City Council. Desk studies confirmed there are no Tree Preservation Orders, Ancient Woodland, or ancient, veteran or notable trees present within or adjacent to the Site. The Site does however sit within the Whitworth Street Conservation Area.

No trees have been identified for removal. Six individual trees (Trees 12, 13, 14, 15, 16 and 18) have been identified as requiring the installation of protection measures to facilitate construction, including trunk and root protection in the form of plywood boxing and ground protection measures in accordance with *BS 5837:2012*. All remaining trees on site are identified as being a suitable distance from the planned works to not require the installation of protection measures.

The installation of the foundation slab will encroach slightly (less than 5% of total RPA) into the RPA of one tree (Tree 13). The recommendations set out in Section 5.4 must be followed during installation of the foundation slab to minimise any impact on these trees.

Three trees (12, 13 and 14) have also been identified as potentially requiring pruning to facilitate access to the site of the new monument during construction.

1 Introduction

1.1 Scheme background

Mott MacDonald has been commissioned by Sparkle: The National Transgender Charity to conduct an arboricultural survey to support delivery of the installation of a new National Transgender Monument at Sackville Gardens, Manchester ('the Scheme').

1.2 Scheme location

The new Monument will be situated at Sackville Gardens, Manchester, M1 3WA, which is bordered by Manchester College's Shena Simon Campus, Whitworth Street, the Rochdale Canal, and Canal Street ('the Site'). The new Monument location will be in the northern corner of the gardens, adjacent to the 'Tree of Life'.

1.3 Purpose of Arboricultural Report

This report is designed to support the detailed design and construction stages of this Scheme in relation to minimising or avoiding impact on existing trees.

1.4 Tree assessment methodology

The tree survey was carried out by a qualified Mott MacDonald Arboriculturist (21 February 2024) to assess the quality and value of the principal trees within or adjacent to the Scheme footprint.

The survey was undertaken in accordance with the guidelines set out in *BS 5837:2012 Trees in relation to design, demolition, and construction – Recommendations*¹. The tree data contained within the Tree Survey Schedule (**Appendix D**) was recorded by visual survey from ground level and no invasive tree inspection measures were employed.

The survey process categorises the trees on site, selects those appropriate for retention and reviews the options for incorporating these trees within the developed landscape. The categorisation of trees where removal is unavoidable can then be used to assess appropriate mitigation measures.

The full Tree Survey Schedule, categorisation of the trees in their existing context and Root Protection Areas are stated in **Appendix D** (to be read in conjunction with the Key to Tree Survey Schedule, **Appendix B**, and BS 5837:2012 Cascade chart for Tree Quality Assessment, **Appendix C**).

In accordance with *BS 5837:2012*, the following information was recorded for each tree:

- Sequential reference number (recorded on the tree constraints plan);
- Species listed by common name and scientific name;
- Life stage recorded as per **Table 1.1**.

Table 1.1: Life stage categories

Abbreviation	Life Stage	Description
Y	Young	Trees within 1 st quarter of their life expectancy

¹ British Standard (2012) BS 5837:2012 Trees in Relation to design, demolition and construction – Recommendations; ISBN 978 0 580 69917 7.

Abbreviation	Life Stage	Description
SM	Semi-mature	Trees within 2 nd quarter of their life expectancy
EM	Early mature	Trees within 3 rd quarter of their life expectancy
M	Mature	Trees aged within final quarter of their life expectancy
OM	Over Mature	Over-mature – declining or moribund trees of low vigour
V	Veteran	Specimens exhibiting features of biological, cultural, or aesthetic value that are characteristic of, but not exclusive to, individuals surviving beyond the typical age range for the species concerned

Source: Mott MacDonald, 2024.

- Height (metres);
- Crown spread (metres), taken as a minimum at the four cardinal points, to derive an accurate representation of the crown (plotted on the tree drawings contained in Appendix A);
- Existing height (metres) above ground level of:
 - First significant branch; and
 - Canopy
- Stem diameter (millimetres) in accordance with *Annex C* of *BS 5837:2012*. The stem diameters of single stemmed trees were measured at 1.5 metres above ground level and multi-stemmed trees measured in accordance with *Annex C*;
- The Root Protection Area (RPA) calculated in accordance with *Section 4.6* of *BS 5837:2012*. The two measurements provided are a 'Root Protection Radius (m)' (circle centred on the base of the stem) and an overall 'root protection area (m²)';
- General observations, particularly of structural and/or physiological condition (e.g., the presence of any decay and physical defect), and/or preliminary management recommendations;
- Estimated remaining contribution, in years (<10, 10 +, 20+, 40+); and,
- Retention category recorded as A, B, C or U in accordance with *BS 5837:2012* Cascade chart for Tree Quality Assessment (see **Table 1.2** and **Appendix C**) to be recorded on the Tree Constraints Plan and Tree Protection Plan (**Appendix A**). This gives an indication as to each tree's arboricultural, landscape and cultural value and significance as well as its suitability for retention in the context of the proposed development of the site. These sub-categories (1 – Arboricultural values; 2 – Landscape values and 3 – Cultural values, including conservation) are included where considered necessary to clarify why a tree has been assigned to a particular retention category.

Table 1.2: BS 5837:2012 Tree quality assessment tree retention categories.

Category	Description
Category A	Trees of high quality and value whose retention is most desirable (suggested minimum contribution 40 years)
Category B	Trees of moderate quality and value whose retention is desirable if practicable (suggested minimum contribution 20 years)
Category C	Trees of low quality and value or limited long-term potential, which could be retained if not in conflict with development proposals or young trees with a stem diameter of less than 150mm (suggested minimum contribution 10 years)
Category U	Trees requiring removal irrespective of any development proposals due to significant structural defects, irreversible decline or with a very short-term life expectancy of less than 10 years

Source: BS 5837:2012 Trees in Relation to design, demolition and construction – Recommendations, 2012.

1.5 Limitations of the survey

This report provides comment on the general quality of the trees on the Site and is not, nor should be taken to be, a full or thorough assessment of the health and safety of trees on or adjacent to the site. It is recommended that a full tree survey should be undertaken on a regular basis to satisfy health and safety requirements.

A topographical layer² depicting the accurate locations of the trees impacted by the proposed scheme was available for the trees on site, and therefore the locations of trees identified during this survey have been plotted against the topographical layer provided and cross-referenced against existing site features.

Distances were recorded using a standard metric tape measure where appropriate, and stem diameter was recorded using a diameter tape. Tree height was estimated to the nearest metre.

Previous management and/or surveys in relation to the health and safety of trees on this site have not been taken into account as part of this report.

Trees are living organisms whose health, condition and structure can change over time. The contents of this report are valid for a period of one year from the date of issue.

² Central Alliance/RSK (2023) Sackville Gardens_P_RevB.

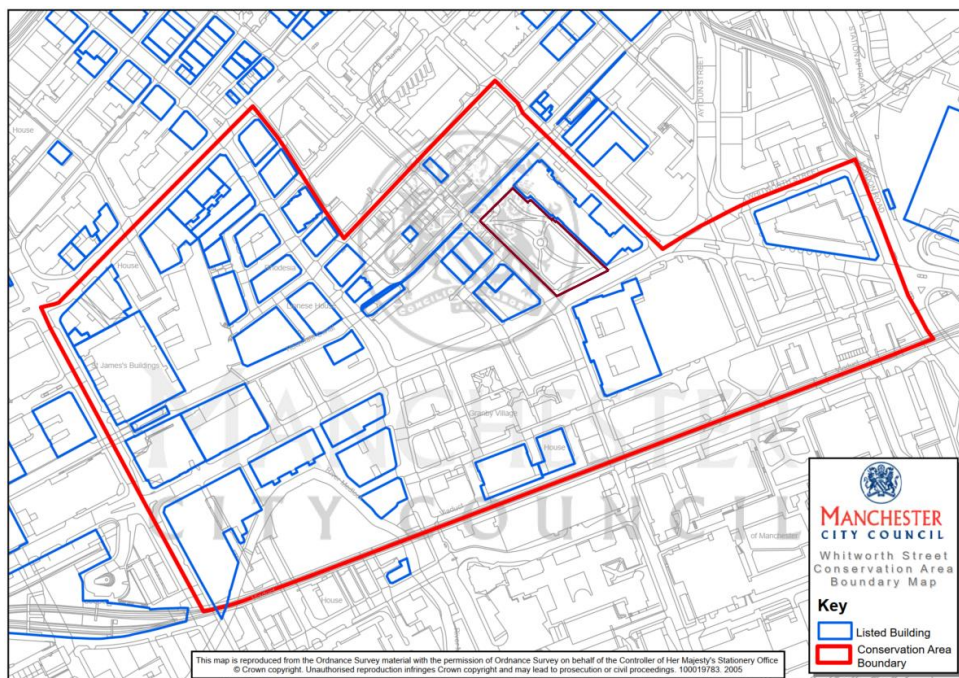
2 Summary of existing trees

2.1 Tree Preservation Orders and Conservation Areas

The primary measures which provide statutory protection to trees are Tree Preservation Orders (TPOs) and Conservation Area (CA) status. Where present, these measures determine that either notification to the Local Planning Authority (LPA) for CA designations or consent from the LPA for TPO designations is required for any works that may affect trees or tree groups.

The Site falls within the administrative boundaries of Manchester City Council (MCC). The MCC Information, Delivery and Support Team confirmed on 19 February 2024 that no trees within the Site boundary are protected by a TPO (**Appendix E**). It was also confirmed that the Site falls within the Whitworth Street CA (**Figure 2.1, Appendix E**), and therefore any works required to trees on Site will require permission from Manchester City Council.

Figure 2.1: Whitworth Street CA boundary (red line) and the area of interest within the CA (burgundy line).



Source: Manchester City Council, 2024.

2.2 Ancient woodland

Ancient Woodland (AW) is defined as land that is currently wooded and has been continually wooded, at least since 1600 (England and Wales), and is an irreplaceable resource of high nature conservation and landscape value.

Ancient Semi Natural Woodland (ASNW), Plantations on Ancient Woodland Sites (PAWS) and veteran trees are afforded the same protection by means of the planning system, in particular paragraph 186 (c) of the National Planning Policy Framework³ which states:

³ National Planning Policy Framework (2012), paragraph 186 (c).

When determining planning applications, local planning authorities should apply the following principles: c) development resulting in the loss or deterioration of irreplaceable habitats (such as ancient woodland and ancient or veteran trees) should be refused, unless there are wholly exceptional reasons⁶³ and a suitable compensation strategy exists;

⁶³ For example, infrastructure projects (including nationally significant infrastructure projects, orders under the Transport and Works Act and hybrid bills), where the public benefit would clearly outweigh the loss or deterioration of habitat.

A review of the MAGIC website Magic Map Application⁴ (**Appendix E**) has confirmed there are no woodlands in or adjacent to the Site that are designated areas of Ancient Woodland, ASNW, or PAWS.

2.3 Ancient, veteran, and notable trees

A check has been undertaken using the Woodland Trust’s Ancient Tree Inventory⁵ (**Appendix E**) and has confirmed that there are no ancient, veteran, or notable trees recorded on or adjacent to the Site, nor were any identified during the survey.

2.4 Existing tree quality and coverage

A total of 28 individual trees and three tree groups were identified within or adjacent to the Site during the survey. Refer to **Table 2.1** for a summary of the assigned BS 5837:2012 categories.

Species present include a range of native and ornamental species, such as cherry (*Prunus spp.*), common beech (*Fagus sylvatica*), London plane (*Platanus x acerifolia*), pine (*Pinus spp.*) and Norway maple (*Acer platanoides*).

The tree coverage on Site can be characterised by young to mature individual specimen trees contributing to structural diversity and ornamental interest within a public garden setting, with tree groups bordering the perimeter to provide a degree of screening from surrounding buildings and roads. The trees on Site contribute to the provision of a desirable green space within an urban environment.

All trees and tree groups have been assessed with a sub-category of both ‘1’ and ‘2’ to identify that they have arboricultural and landscape value within their current setting, respectively. A full breakdown of tree retention categories and sub-categories in line with the BS 5837:2012 Tree Assessment Quality criteria can be found in **Appendix C**.

Table 2.1: National Transgender Monument summary of assigned BS 5837:2012 categories.

Tree Category	Description	Total Number surveyed
Category A	Trees or groups of high quality	0 trees
Category B	Trees or groups of moderate quality	23 individual trees and 2 tree groups
Category C	Trees or groups of low quality	5 individual trees and 1 tree group
Category U	Trees recommended for removal irrespective of the proposed Scheme	0 trees

Source: Mott MacDonald, 2024 / BS 5837:2012 Trees in Relation to design, demolition and construction – Recommendations, 2012.

⁴ Defra (2024) Magic Map.
⁵ Woodland Trust (2024) Ancient Tree Inventory.

3 Risks to trees

3.1 Root Protection Areas – background information

Working anywhere in the vicinity of trees is likely to cause some root damage because in the order of 80% of the roots of any tree will occur within the upper 600mm of the soil. Roots will spread out for a considerable distance from a tree and may be encountered at a distance beyond the canopy spread of a tree.

Where construction activities are proposed within the rooting zone of trees, the potential for significant damage exists. Table 2 of *BS 5837:2012* prescribes a methodology for the calculation of an RPA.

The RPA represents the minimum area that should be retained undisturbed around a tree or trees for the avoidance of an unacceptable degree of root disturbance. The required RPA of a tree is calculated, and typically plotted as a circle (or where appropriate as a square of equivalent area) to determine constraints or the location of protective fencing. In certain circumstances the actual shape of this area may then be adjusted to take account of local topography or any existing site features that may serve as restrictions to 'normal' root development.

The RPA dimensions are stated in the Tree Survey Schedule (**Appendix D**).

3.2 Risks to trees from construction activity

Trees can be easily damaged by construction processes, with both the tree roots and the main structure of a tree susceptible to a range of impacts. Root damage can affect the anchorage and stability of the tree, as well as preventing or inhibiting the absorption of water and nutrients. Damage to the trunk and branches leaves the tree more exposed to disease and decay.

Activities that can cause damage to tree roots include:

- Trenches;
- Alterations in soil level;
- Non-porous surfaces;
- Compaction of soil;
- Changes in soil hydrology;
- Root exposure;
- Soil pollution (i.e. oil spill, incorrect application of herbicide and/or other chemicals); and,
- Fires.

Activities that can cause damage to tree stems include:

- Pressure from materials stored against trunks;
- Physical impact from plant and equipment;
- Incorrect pruning;
- Exposure of bark or leaves to chemicals; and,
- Damage to bark from mowers and strimmers.

Any works associated with this Scheme that could affect the existing trees as described above must be discussed and approved by a qualified arboriculturist prior to commencement.

3.3 Trees and wildlife

Trees provide valuable habitat for a wide range of species. European protected species such as bats (*Chiropter* spp.), dormice (*Muscardinus avellanarius*) and great crested newts (*Triturus cristatus*) are protected under the Wildlife and Countryside Act 1981 (as amended) and the Conservation of Habitats and Species Regulations 2017. Other species that may be affected by tree works include breeding birds, badgers and reptiles which are protected under the Wildlife and Countryside Act 1981 (as amended). Careful consideration should be given to the design of this Scheme and the timing of any associated tree works to avoid impacting protected species.

Where there is evidence that bats, birds or other protected species are present, the advice of a suitably qualified ecologist should be sought. If tree works are carried out during the bird nesting season (March to August inclusive), trees would need to be inspected by a qualified ecologist within the 24-hour period prior to the commencement works.

4 Arboricultural Impact Assessment

4.1 The Scheme

The new Monument will involve the installation of a raft foundation slab of 200mm depth, with protruding pegs or anchor bolts onto which the concreted based sculpture will be lowered. This foundation slab will not extend beyond the footprint of the design detailed in the Tree Protection Plan (**Appendix A**). The sculpture will be lifted into place using a light digger. Vehicular access to site will be along the footpath via the entrance off Whitworth Street (B6469).

The recommended actions (**Section 4.2**) have accounted for access to site, and for suitable working room to allow for the installation and excavation of the foundation slab and installation of the sculpture. Any changes to the Scheme design will require updates to this Arboricultural Impact Assessment and the Arboricultural Method Statement (**Section 5**).

4.2 Recommended actions

The construction of this Scheme must be undertaken in accordance with the following recommendations (**Table 4.1**) and the Tree Protection Plan (**Appendix A**) to enable integration between with the Scheme and the existing tree constraints on the Site. Definitions for the retention categories are given in **Appendix C**.

Table 4.1: National Transgender Monument summary of recommended actions.

Tree Ref.	Species	Life Stage	Retention Category	TPO/CA	Recommended actions
1	Rowan	Semi-mature	B1/2	CA – Whitworth Street	Retain – no action required.
2	Red oak	Early mature	B1/2	CA – Whitworth Street	Retain – no action required.
3	Cherry spp.	Semi-mature	B1/2	CA – Whitworth Street	Retain – no action required.
4	Common ash	Mature	B1/2	CA – Whitworth Street	Retain – no action required.
5	Hawthorn	Mature	B1/2	CA – Whitworth Street	Retain – no action required.
6	Cherry spp.	Semi-mature	B1/2	CA – Whitworth Street	Retain – no action required.
7	Common beech	Semi-mature	B1/2	CA – Whitworth Street	Retain – no action required.
8	Common beech	Semi-mature	B1/2	CA – Whitworth Street	Retain – no action required.
9	Cotoneaster	Early mature	C1/2	CA – Whitworth Street	Retain – no action required.
10	Cherry spp.	Semi-mature	C1/2	CA – Whitworth Street	Retain – no action required.
11	Cherry spp.	Mature	B1/2	CA – Whitworth Street	Retain – no action required.
12	Cherry spp.	Semi-mature	C1/2	CA – Whitworth Street	Retain – Protect trunk with plywood boxing (refer to Section 5.1) and protect RPA with ground protection measures (refer to Section 5.2). Prune for no greater than 3m vertical clearance if additional access is required (Section 5.3).
13	Cherry spp.	Semi-mature	B1/2	CA – Whitworth Street	Retain – Protect trunk with plywood boxing (refer to Section 5.1) and protect RPA with ground protection measures (refer to Section 5.2). Minor incursion (<5% of total RPA) required within the RPA to install the foundation slab – carry out excavations in line with Section 5.4. Prune southern crown back

Tree Ref.	Species	Life Stage	Retention Category	TPO/CA	Recommended actions
					to suitable growing points by no more than 1m to provide additional clearance for Scheme installation if required. Prune for no greater than 3m vertical clearance if additional access is required (Section 5.3).
14	Cherry spp.	Early mature	B1/2	CA – Whitworth Street	Retain – Protect trunk with plywood boxing (refer to Section 5.1) and protect RPA with ground protection measures (refer to Section 5.2). Prune southern crown back by no more than 3m and eastern crown back by no more than 2m to suitable growing points to provide additional clearance for Scheme installation if required. Prune for no greater than 4m vertical clearance if additional access is required (Section 5.3).
15	Maidenhair tree	Semi-mature	B1/2	CA – Whitworth Street	Retain – Protect trunk with plywood boxing (refer to Section 5.1) and protect RPA with ground protection measures (refer to Section 5.2).
16	Cherry spp.	Semi-mature	B1/2	CA – Whitworth Street	Retain – Protect trunk with plywood boxing (refer to Section 5.1) and protect RPA with ground protection measures (refer to Section 5.2).
17	Common ash	Semi-mature	B1/2	CA – Whitworth Street	Retain – no action required.
18	Giant Sequoia	Young	C1/2	CA – Whitworth Street	Retain – Protect RPA with ground protection measures (refer to Section 5.2).
19	Wild cherry	Semi-mature	B1/2	CA – Whitworth Street	Retain – no action required.
20	Magnolia	Semi-mature	B1/2	CA – Whitworth Street	Retain – no action required.
21	Cherry spp.	Early mature	B1/2	CA – Whitworth Street	Retain – no action required.
22	Rowan	Early mature	B1/2	CA – Whitworth Street	Retain – no action required.
23	Wild cherry	Early mature	B1/2	CA – Whitworth Street	Retain – no action required.
24	Norway maple	Early mature	B1/2	CA – Whitworth Street	Retain – no action required.
25	Cherry spp.	Semi-mature	B1/2	CA – Whitworth Street	Retain – no action required.
26	Pine spp.	Early mature	B1/2	CA – Whitworth Street	Retain – no action required.
27	Pine spp.	Early mature	B1/2	CA – Whitworth Street	Retain – no action required.
28	Norway maple	Semi-mature	C1/2	CA – Whitworth Street	Retain – no action required.
G1	London plane	Early mature	B1/2	CA – Whitworth Street	Retain – no action required.
G2	London plane	Early mature	B1/2	CA – Whitworth Street	Retain – no action required.
G3	Mixed broadleaved	Semi-mature	C1/2	CA – Whitworth Street	Retain – no action required.

Source: Mott MacDonald, 2024 / BS 5837:2012 Trees in Relation to design, demolition and construction – Recommendations, 2012.

4.3 Tree pruning

Trees 12, 13 and 14 may require pruning if access is required under their existing canopies. Construction works should aim to remain outside of the canopy and RPA areas of these trees in the first instance. However, if access under the canopy is required, the branches should be crown lifted and pruned back to appropriate growing points as specified for each tree in **Table 4.1**. The

recommendations in **Section 5.3** should also be followed. All pruning works should be in accordance with *BS3998:2010 Tree Work – Recommendations*⁶.

4.4 Works within RPAs

Most works will remain outside of the RPAs of trees on site, however the installation of the foundation slab will encroach slightly into the RPA of one tree (**Tree 13**). Damaging roots within the RPA through excavation and the pouring of concrete can cause issues with stability, nutrient and water uptake, and gaseous exchange, however as the extent of encroachment is minimal (less than 5% of the total RPA), the impact on this tree is likely to be negligible. The recommendations for excavations within RPAs set out in **Section 5.4** must be followed during installation of the foundation slab to minimise any impact on these trees.

Tree 13 must also be inspected by an arboriculturist following completion of the works to identify any issues with tolerance to the change in site conditions.

⁶ British Standard BS3998:2010 Tree Work – Recommendations, December 2010 - ISBN 978 0 580 53777 6

5 Arboricultural Method Statement

5.1 Works within RPAs

The above and below ground structures of trees are typically protected by tree protection barriers during construction to create a 'Construction Exclusion Zone' (CEZ) for the duration of the works.

Where works are required within an RPA but due to the proximity of construction works it is not feasible to install robust protective barriers e.g. welded mesh panels to protect the trees and enable movement of workers and construction plant, the following recommendation must be adhered to in order to protect the above ground structure of the trees:

- The trunk of each tree must be wrapped in compressible foam.
- Once wrapped in compressible foam, a plywood box is to be installed (18mm thickness, to a minimum height of 1.8m) enclosing each tree (360 degrees) from the construction working area. Note: no boxes are to be attached to the trunk of the trees).
- The top of the boxing must be netted with an appropriate small gauge mesh to prevent access from birds between the trunk and the plywood box.
- Signage to be displayed on protected trees (affix to boxing and not trunk) stating that materials must not be stored against them.
- All equipment and building materials shall be located outside of the RPA on existing hardstanding when not in use.
- Excavated material and debris created from construction works are to be removed from site and not stockpiled.
- Works to be carried out with hand tools only.

Due to the nature of this Scheme, the installation of tree protection barriers will not be appropriate due to the available working room around the site of the new Monument. In order to allow for suitable working room during construction, the above measures should be followed for **Trees 12, 13, 14, 15 and 16**, as indicated within the Tree Protection Plan (**Appendix A**).

5.2 Ground protection measures

During construction, where pedestrian and vehicular tracking is required through the RPAs of any trees, the following recommendations should be adhered to in order to prevent adverse effects to the RPA:

- To minimise compaction, ensure that a suitable load-spreading surface in accordance with *BS5837 2012* is always in place.
- Where only pedestrian traffic will occur, the ground protection measures shall be as simple as timber boards, or planks installed directly onto a geotextile fabric on the ground. The ground should first be made even by raking, or by adding a few centimetres of sand or woodchip.
- The below recommendations are cited from *BS5837:2012*:
 - "Where only light machinery is to operate (e.g., barrows, trolleys, or occasional cars), thick wooden boards or scaffold planks should also suffice, though at least compressible woodchip will need to be installed first to help spread the load."
 - "For wheeled or tracked construction traffic exceeding 2 t gross weight, an alternative system (e.g. proprietary systems or pre-cast reinforced concrete slabs) to an engineering specification designed in conjunction with arboricultural advice, to accommodate the likely loading to which it will be subjected, will be required."

- “The ground protection measures shall be approved by the scheme Arboriculturist and installed before commencement of construction activities and before the arrival of plant machinery or materials. They shall remain in place until all construction activity is complete or until they are due to be replaced with a new hard surface.”

Due to the location of the proposed Scheme and potential plant/vehicle and pedestrian access required at this location, trees that will require ground protection measures include **Trees 12, 13, 14, 15, 16** and **18**, as indicated within the Tree Protection Plan (**Appendix A**). The existing hardstanding surfaces within RPAs on site must also remain in-situ, as this is providing a root protection function.

5.3 Tree work – pruning

Pruning works have been identified as potentially being required for **Trees 12, 13** and **14** to facilitate access to the Site during construction, as follows:

- Tree 12: Prune for no greater than 3m vertical clearance.
- Tree 13: Prune southern crown back to suitable growing points by no more than 1m; Prune for no greater than 3m vertical clearance.
- Tree 14: Prune southern crown back by no more than 3m and eastern crown back by no more than 2m to suitable growing points; Prune for no greater than 4m vertical clearance.

If it is determined that sufficient access beneath the canopies of these trees already exists to allow for construction to be undertaken without causing damage to these trees, the above pruning operations do not need to be implemented.

No other pruning work to facilitate construction has been identified. However, if any additional requirements for pruning work are identified during the construction stage of this project, a tree work specification must be produced by a qualified arboriculturist prior to any works being undertaken.

As the Site is within a Conservation Area (**Section 2.1**), permission must be obtained from Manchester City Council prior to any tree works being undertaken. All tree work associated with this Scheme must be carried out in accordance with *BS 3998:2010 Tree Work – Recommendations*⁶.

5.4 Excavation within RPAs

The foundation of the Scheme design encroaches slightly into the RPA of **Tree 13**. To minimise the impact of the operations associated with the installation of the foundation slab, the following recommendations must be adhered to when working with the RPA:

- The ground protection measures must be removed only when construction in this area is due to commence and only to the extent required to expose enough of the RPA to carry out the works.
- Any necessary excavation within the RPA must be carried out using hand tools to avoid direct damage to the protective bark of tree roots. It may be possible in some instances to use specialised equipment such as high air pressure machinery to excavate the soil with minimal disturbance to roots.
- Exposed roots must be wrapped in dry, clean Hessian sacking to prevent desiccation and to protect from rapid temperature changes. In warmer weather, the sacking should be kept moist by regular watering. Sacking should be removed before backfilling.
- Roots less than 25mm diameter may be pruned back, preferably to a growing point. A sharp cutting tool such as bypass secateurs or a handsaw should be used to leave the smallest wound possible. Roots greater than 25mm in diameter should be retained wherever possible

as should large bundles of roots less than 25mm in diameter. Should roots greater than 25mm be encountered the Scheme arboriculturist should be notified and consulted.

- Root pruning should be carried out under the supervision of an arboriculturist to ensure that only roots necessary to facilitate the development will be removed to limit the impact on the retained trees.
- Backfilling of any excavation should be carried out by hand to avoid direct root damage by excessive compaction and should include, where possible, the replacement of inert granular material mixed with sharp sand (not builder's sand) around retained roots.
- During the pouring of concrete foundations any remaining exposed roots must be protected from concrete to mitigate against chemical burns.
- Soil levels around the base of retained trees are to be maintained as existing.

5.5 Arboricultural inspection and supervision

An arboriculturist must inspect and sign off the alignment of ground protection measures following installation and prior to commencement of any construction work.

Arboricultural supervision is recommended during any works within the RPA of retained trees on site. It should be noted that even with supervised works, retention of all trees on site is not guaranteed.

On completion of the Scheme, an arboriculturist must look for signs of intolerance to the change in conditions, the effect of the development and any accidental damage to retained trees (particularly Tree 13), to identify the need for further tree works in addition to those originally specified at the outset of the project.

5.6 Sequence of activities

To ensure adequate protection for the trees, the following order of activities should be followed:

- The Site Agent/Manager must be provided with a copy of this report and the Tree Protection Plan prior to the commencement of any site clearance or construction works;
- Undertake tree works (as appropriate, and subject to such ownership and consents as may be appropriate);
- Inform the Scheme arboriculturist of the date that ground protection is to be installed;
- Install ground protection in accordance with this report and directions given by the Scheme arboriculturist on site;
- Brief all site operatives, visitors, and sub-contractors on the presence of tree ground protection, and the need to ensure that all operations remain wholly outside the protected areas as part of site induction procedures;
- Implement the main site operations associated with the demolition and construction phase; and,
- Removal of ground protection (only once all site operations have ceased).

5.7 Responsibilities

The Site Agent or Manager will be responsible for the day-to-day prevention and exclusion of all actions and operations near protected trees that are likely to cause damage to retained or protected trees, such as the use of cranes and excavators, transportation of equipment or hot works (**Section 3.2**).

The Contractor will be responsible for ensuring that any conditions attached to planning consent are always adhered to and that a monitoring regime regarding tree protection is adopted on the Site.

The Contractor will be responsible for contacting the Scheme arboriculturist any time issues relating to the trees on site are raised.

The Contractor will be responsible for ensuring that protected species are considered during any tree works and that the timing of tree works are carefully considered (**Section 3.3**).

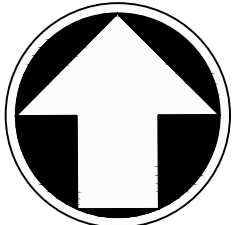
Appendices

A.	Drawings	17
B.	Key to Tree Survey Schedule	18
C.	BS 5837:2012 Cascade Chart for Tree Quality Assessment	19
D.	Tree Survey Schedule	20
E.	Designations	22
F.	Tree Protection Measures	24

A. Drawings

A.1 Tree Constraints Plan (100HRETEX-MMD-00-XX-DR-TM-0001)

A.2 Tree Protection Plan (100HRETEX-MMD-00-XX-DR-TM-0002)



- Notes
- All dimensions are in millimetres unless otherwise stated.
 - Do not scale any items or information from this drawing.
 - To be read in conjunction with the National Transgender Monument Arboricultural Report ref:100HRETEX-MMD-00-XX-RP-TM-0001 (March 2024).

Key to symbols

- 2/G2 Tree/Tree Group Reference
- Approximate extent of canopy
- Tree Root Protection Area (RPA)

Individual Trees

- No Category
- Category A Trees
- Category B Trees
- Category C Trees
- Category U Trees recommended for removal for reasons of sound arboricultural management

Tree Groups

- Category A Trees
- Category B Trees
- Category C Trees
- Category U Trees recommended for removal for reasons of sound arboricultural management

P1	23/02/2024	DL	First Issue	RL	JS
Rev	Date	Drawn	Description	Ch'k'd	App'd

M

MOTT
MACDONALD

Spring Bank House
33 Stamford Street
Altrincham
WA14 1ES
United Kingdom
T +44 (0)161 926 4000
F +44 (0)161 926 4100
W www.mottmac.com

Client

Sparkle:
The National Transgender Charity

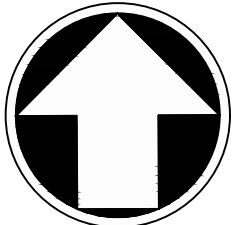
Title

National Transgender Monument
Tree Constraints Plan

Designed	L Brooker	LB	Eng check		
Drawn	D Lee	DL	Coordination	L Brooker	LB
Dwg check	R Lennon	RL	Approved	J Sothcott	JS
Scale at A1	1:200	Status	PRE	Rev	P1
				Security	STD

Drawing Number

100HRETEX-MMD-00-XX-DR-TM-0001



- Notes
- All dimensions are in millimetres unless otherwise stated.
 - Do not scale any items or information from this drawing.
 - To be read in conjunction with the National Transgender Monument Arboricultural Report ref:100HRETEX-MMD-00-XX-RP-TM-0001 (March 2024).

Key to symbols

- 2/G2 Tree/Tree Group Reference
- Approximate extent of canopy
- Tree Root Protection Area (RPA)
- Tree to be pruned
- Ground Protection Measures
- Tree trunk to be protected by plywood box during construction

Individual Trees

- No Category
- Category A Trees
- Category B Trees
- Category C Trees
- Category U Trees recommended for removal for reasons of sound arboricultural management

Tree Groups

- Category A Trees
- Category B Trees
- Category C Trees
- Category U Trees recommended for removal for reasons of sound arboricultural management
- Design

P2	08/03/2024	DL	Design revised	RL	JS
P1	28/02/2024	DL	First Issue	RL	JS
Rev	Date	Drawn	Description	Ch'k'd	App'd

M

MOTT
MACDONALD

Spring Bank House
33 Stamford Street
Altrincham
WA14 1ES
United Kingdom
T +44 (0)161 926 4000
F +44 (0)161 926 4100
W www.mottmac.com

Client

Sparkle:
The National Transgender Charity

Title

National Transgender Monument
Tree Protection Plan

Designed	L Brooker	LB	Eng check		
Drawn	D Lee	DL	Coordination	L Brooker	LB
Dwg check	R Lennon	RL	Approved	J Sothcott	JS
Scale at A1	Status	Rev	Security		
1:200	PRE	P2	STD		

Drawing Number

100HRETEX-MMD-00-XX-DR-TM-0002

B. Key to Tree Survey Schedule

Table B.1: Key to Tree Survey Schedule.

Tree Referencing	Individual Trees: Number Grouped Trees: G (+number) Hedgerows: H (+number) Woodlands: W (+number)	
Species	Botanical Name: conforming to the <u>International Code of Nomenclature for algae, fungi, and plants</u> (ICN). For universal plant recognition. Common Name: commonly used names usually on a local and national scale.	
Life Stage	Young Usually <15 years old. Semi-mature Significant growth expected, approximately one third of life expectancy complete. Early-mature Full height achieved with further significant growth possible, up to two thirds of life expectancy complete. Mature Full height has been achieved with possible spreading of the canopy, usually past two thirds of overall life expectancy. Over-mature A tree declining due to age as indicated by deterioration in the health and condition of its crown and trunk. Veteran Usually a tree of significant age with characteristics that give additional cultural, landscape and conservation benefits, Dead Dead.	
Tree Height	The vertical distance between the base of the tree (where soil and buttress meet) and the tip of the highest branch on the tree.	
Crown Spread	Measurements taken from all four cardinal points (north, south, east, west) in metres.	
Crown Height	Measured from ground level to the height at which the first branch can be found and where the main crown begins.	
No. of Stems	The number of stems within a tree or group of trees used to calculate its Root Protection Area (RPA).	
Stem Diameter	Stem diameter is measured in mm at 1.5m above ground level, in accordance with <i>Annex C of BS 5837:2012</i> .	
Root Protection Area (RPA)	Layout design tool indicating the minimum area around a tree deemed to contain sufficient roots and rooting volume to maintain the tree's viability, and where the protection of the roots and soil structure is treated as a priority (as defined by <i>BS5837:2012 Trees in relation to design, demolition and construction – Recommendations</i>).	
Crown, Stem and Basal Condition	Good Usually healthy with no symptoms of poor health or disease. Fair Exhibiting signs of poor health or minor disease infections that are not considered to be hazardous. Poor Disease present in considerable quantities or with very poor physiological vigour. Very Poor Tree is in a moribund state in extremely poor condition, usually with little chance of recovery.	
General Physical Condition	Good A tree with no significant structural defects. Fair Minor defects may have been observed but are not considered to be immediately hazardous. Poor Significant defects found. Tree requires monitoring or remedial works. Very Poor Major defects that require immediate remedial work or the removal of the tree.	
Retention Category	Please refer to Appendix C - Cascade Chart for Tree Quality Assessment.	
Life Expectancy	The estimated number of years before the tree may require removal should no unexpected mechanical or environmental impacts occur to the tree.	
Comments	Notes are made to inform of any possible defects, peculiarities or points of interest that may relate to the trees position, physiology, safety and possible effects on developments.	

Source: Mott MacDonald, 2024.

C. BS 5837:2012 Cascade Chart for Tree Quality Assessment

Table C.2: BS5837:2012 Cascade chart for Tree Quality Assessment.

Category and definition	Criteria (including subcategories where appropriate)		
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.	1. 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). 2. Trees that are dead or are showing signs of significant, immediate, and irreversible overall decline. 3. 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. 4. Note: Where trees would otherwise be categorized as U, but have identifiable conservation, heritage or landscape value, even though only for the short term, they may be upgraded, although they might be suitable for retention only where issues concerning their safety can be appropriately managed.		
	1. Mainly arboricultural reason.	2. Mainly landscape qualities	3. Mainly cultural values, Including conservation
Trees to be considered for retention:			
Category A Trees of a high quality, with an estimated life of 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 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.
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.

Source: BS 5837:2012 - Trees in Relation to Design, Demolition and Construction to Construction – Recommendations, 2012.

D. Tree Survey Schedule

Table D.3: National Transgender Monument Tree Survey Schedule.

Notes for Table D.3: ADB – Ash dieback (av.) – Average stem diameter and/or Root Protection Area for a group of trees.																						
---	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Tree Ref.	Species	Life Stage	Height (m)	Crown Spread (m)				Crown Height (m)					No. Stems or Trees	Stem Diameter (mm)	RPA (m)	Condition				Retention Category	Life expectancy (years)	Comments
				N	E	S	W	1st branch (m)	N	E	S	W				Crown	Stem	Basal Area	General Physical			
1	Rowan	Semi-mature	7.5	3	3	3	3	2.5W	3	3	3	3	1	300	3.6	Good	Fair	Good	Good	B1/2	40+	Situated 1.5m from the footpath. The lower branches on the western side of the crown have been pruned.
2	Red oak	Early mature	19	8	7	7	6	2.5S	3	3	2.5	3	1	665	8	Good	Good	Fair	Good	B1/2	40+	Well established tree providing significant amenity value to the area. One of the largest trees in the garden.
3	Cherry spp.	Semi-mature	4.5	3.5	3	2	4	2N	2	2	2.5	2	1	235	2.8	Good	Good	Good	Good	B1/2	40+	U-shaped union between the co-dominant stems which form at 2m. Good amenity specimen.
4	Common ash	Mature	20	9	8	9	9	5N	4	5	5	4	1	955	11.5	Good	Fair	Good	Fair	B1/2	20+	The largest tree in the garden and of a considerable size and presence. Reduced from category A due to several large branches having been removed on the southern side, thus reducing the overall amenity value of the tree. No obvious signs of ADB, however, it is difficult to determine disease presence in winter.
5	Hawthorn	Mature	6.5	2	2.5	2	2	3S	3	3	2.5	2.5	1	320	3.8	Fair	Fair	Fair	Fair	B1/2	20+	Heavily pruned lower limbs right back to the stem. The remaining crown appears to be in good physiological condition.
6	Cherry spp.	Semi-mature	7	2.5	2	2.5	2.5	2S	2.5	2.5	2	2.5	1	260	3.1	Fair	Fair	Fair	Fair	B1/2	20+	Cankers on the stem.
7	Common beech	Semi-mature	13	2	3.5	4	2	3S	5	3.5	3	3.5	1	385	4.6	Fair	Fair	Good	Good	B1/2	40+	Tight V-shaped union between the co-dominant stems which form at 2.5m. Large bird nest in the upper crown.
8	Common beech	Semi-mature	14	2	2	7	5	3W	4	3	3	3	1	395	4.7	Good	Good	Good	Good	B1/2	40+	Bird box on the lower stem at approximately 2.5m. Asymmetrical crown due to the building in close proximity to the north. Good form and condition nonetheless.
9	Cotoneaster	Early mature	4	1	1.5	5	3	3S	2	2	2	2	1	220	2.6	Fair	Fair	Fair	Fair	C1/2	10+	
10	Cherry spp.	Semi-mature	8	1.5	1.5	3	2	3S	4	4	3	3	1	230	2.8	Good	Fair	Good	Good	C1/2	40+	
11	Cherry spp.	Mature	14	1	4	6	4	4W	12	5	3.5	4	1	550	6.6	Good	Good	Good	Good	B1/2	40+	Well established tree with an asymmetrical crown formation as a result of growing in close proximity to the building north.
12	Cherry spp.	Semi-mature	5	2	3	6	2	3N	2.5	2.5	2.5	2.5	1	220	2.6	Fair	Fair	Fair	Fair	C1/2	20+	
13	Cherry spp.	Semi-mature	5	2	3	3.5	2.5	3N	3	3	2.5	2.5	1	275	3.3	Fair	Fair	Good	Good	B1/2	40+	
14	Cherry spp.	Early mature	8	1	3	8	6	2S	3	3	2.5	2.5	1	360	4.3	Fair	Good	Fair	Good	B1/2	20+	The base of the tree has a considerable lean south and all the crown is weighted that way. A large buttress root has formed on the northern side to compensate for this.
15	Maidenhair tree	Semi-mature	10	3	3	3	3	2S	2	2	2	2	1	200	2.4	Good	Good	Good	Good	B1/2	40+	Species: Gingko/Maidenhair. An excellent amenity species selection for an area such as this. Appears to be in good physiological condition and has a symmetrical form.
16	Cherry spp.	Semi-mature	4	3	3	3.5	2.5	3N	3	3	3	2	1	230	2.8	Fair	Good	Good	Good	B1/2	40+	Symmetrical crown.
17	Common ash	Semi-mature	12	1	4	4	3	2.5E	2	2	2	2	1	255	3.1	Good	Good	Good	Good	B1/2	40+	
18	Giant Sequoia	Young	6	1	1	1	1	0.5S	0.5	0.5	0.5	0.5	1	120	1.4	Good	Good	Good	Good	C1/2	40+	Giant Sequoia. Young but potential to become an excellent feature.
19	Wild cherry	Semi-mature	8	3	4	6	2	2S	3	2	2	3	1	380	4.6	Good	Fair	Fair	Good	B1/2	40+	Typical crown form for its species.
20	Magnolia	Semi-mature	6	3	2	2	3.5	2W	2	2	2	2	1	240	2.9	Good	Good	Good	Good	B1/2	40+	Adjacent to the boundary fence. Good form and an excellent amenity specimen for this location.

Tree Ref.	Species	Life Stage	Height (m)	Crown Spread (m)				Crown Height (m)					No. Stems or Trees	Stem Diameter (mm)	RPA (m)	Condition				Retention Category	Life expectancy (years)	Comments
				N	E	S	W	1st branch (m)	N	E	S	W				Crown	Stem	Basal Area	General Physical			
21	Cherry spp.	Early mature	10	5	5	5	5	2.5W	2	2.5	2	2.5	1	650	7.8	Fair	Good	Fair	Good	B1/2	40+	An interesting form and an excellent species for this location. Several fungal brackets at the base (likely Ganoderma spp.). The base and lower stem has formed a bottle butt likely in response to the fungus.
22	Rowan	Early mature	9	2.5	3	3	2.5	3S	3	3	3	2.5	1	350	4.2	Good	Good	Good	Good	B1/2	40+	
23	Wild cherry	Early mature	6	4	1	5	5	1.5N	2.5	3	2	2	1	410	4.9	Good	Good	Fair	Good	B1/2	40+	Situated in the centre of the footpath.
24	Norway maple	Early mature	16	5.5	6	5	5	2.5W	3	3	3	3	1	485	5.8	Good	Good	Good	Good	B1/2	40+	Great form and good amenity value.
25	Cherry spp.	Semi-mature	6	3	3	3	3	1.5S	2	2	2	2	1	380	4.6	Good	Good	Good	Good	B1/2	40+	Situated 1.5m from the footpath.
26	Pine spp.	Early mature	10	3	2.5	3	5	2N	3	2.5	3	3	1	410	4.9	Fair	Good	Fair	Good	B1/2	40+	Situated 0.5m from the footpath and the retaining wall.
27	Pine spp.	Early mature	15	5	4	4.5	4	4E	3	3	3	3	1	650	7.8	Good	Good	Good	Good	B1/2	40+	An excellent form and well-established tree situated 0.5m from the footpath.
28	Norway maple	Semi-mature	10	2.5	2.5	2.5	2.5	2.5N	2.5	2.5	2.5	2.5	1	320	3.8	Good	Good	Good	Good	C1/2	40+	
G1	London plane	Early mature	17	5	4	5	4	3S	4	4	4	4	7 trees	550 (av.)	6.6 (av.)	Good	Good	Good	Good	B1/2	40+	A linear group of London plane adjacent to the footpath. An excellent amenity feature.
G2	London plane	Early mature	17	4	5	4	5	3E	4	4	4	4		550 (av.)	6.6 (av.)	Good	Good	Good	Good	B1/2	40+	A linear group of London plane adjacent to the footpath. An excellent amenity feature.
G3	Mixed broadleaved	Semi-mature	7	2	2	2	2	1S	1	1	1	1		15 trees	200 (av.)	2.4 (av.)	Good	Good	Good	Good	C1/2	40+

Source: Mott MacDonald, 2024.

E. Designations

Figure E.1: Email from MCC confirming no TPOs are found within or adjacent to the site, and that the site falls within a CA (Whitworth Street).

Good Afternoon,

Thank you for your email.

The property/land is within Whitworth Street Conservation Area 1985 so planning permission is required for any work to the trees. You can apply at www.planningportal.co.uk. There is no fee for the application. For information, there is no Tree Preservation Order that affects the property/land.

Kind Regards,

Danica

Information, Delivery & Support Team

Planning, Building Control & Licensing

Growth & Development Directorate

Postal address: Manchester City Council, P O Box 532, Town Hall, Manchester M60 2LA

Location address: Level 6 Town Hall Extension, Manchester M2 5DB

Tel: 0161 234 4516

Source: Manchester City Council, 2024.

Figure E.2: Screenshot showing no ancient woodlands (including ASNW and PAWS) within or directly adjacent to the area of interest (centre of image).



Source: Defra Magic Map, 2024.

Figure E.3: Screenshot showing no ancient, veteran, or notable trees present within or directly adjacent to the area of interest (centre of image, located at crosshairs).



Source: Woodland Trust Ancient Tree Inventory, 2024.

F. Tree Protection Measures

Figures F.6 provides a written specification of the ground protection measures, as recommended in BS 5837:2012.

Figure F.4: Extract from BS 5837:2012 Ground Protection during Demolition and Construction.

6.2.3.2 Where the set-back of the tree protection barrier would expose unmade ground to construction damage, new temporary ground protection should be installed as part of the implementation of physical tree protection measures prior to work starting on site.

6.2.3.3 New temporary ground protection should be capable of supporting any traffic entering or using the site without being distorted or causing compaction of underlying soil.

NOTE The ground protection might comprise one of the following:

- a) for pedestrian movements only, a single thickness of scaffold boards placed either on top of a driven scaffold frame, so as to form a suspended walkway, or on top of a compression-resistant layer (e.g. 100 mm depth of woodchip), laid onto a geotextile membrane;*
- b) for pedestrian-operated plant up to a gross weight of 2 t, proprietary, inter-linked ground protection boards placed on top of a compression-resistant layer (e.g. 150 mm depth of woodchip), laid onto a geotextile membrane;*
- c) for wheeled or tracked construction traffic exceeding 2 t gross weight, an alternative system (e.g. proprietary systems or pre-cast reinforced concrete slabs) to an engineering specification designed in conjunction with arboricultural advice, to accommodate the likely loading to which it will be subjected.*

6.2.3.4 The locations of and design for temporary ground protection should be shown on the tree protection plan and detailed within the arboricultural method statement (see 6.1).

6.2.3.5 In all cases, the objective should be to avoid compaction of the soil, which can arise from the single passage of a heavy vehicle, especially in wet conditions, so that tree root functions remain unimpaired.

Source: BS 5837:2012 - Trees in Relation to Design, Demolition and Construction to Construction – Recommendations, 2012.

