

ARBORICULTURAL IMPACT ASSESSMENT AND METHOD STATEMENT

62 Bridge Way, TW2 7JJ

Report by

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On the instructions of Lorraine Manson

19th July 2021

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1 Report summary

- 1.1.1 This report has been prepared to accompany the planning application for the site at 62 Bridge Way, TW2 7JJ.
- 1.1.2 T6, T9, T10, T14, T15, T16, T17, T18 and a section of T2 require removal to facilitate proposed development and the landscape scheme.
- 1.1.3 The tree group T3 was identified as unsuitable for retention and such the trees require removal.
- 1.1.4 All retained trees will require tree protection barriers around the RPAs.
- 1.1.5 Provided precautions to protect the identified trees are specified and implemented through the measures included in this report; the development proposal will have a little or negligible impact on the retained trees or their wider contribution to an area amenity and character if the methods detailed in this report will be followed.

2 Introduction and report background

2.1 Instruction

- 2.1.1 I have been instructed by Loraine Manson to carry out a tree survey and produce the Arboricultural report in support of a planning application for the site at 62 Bridge Way, TW2 7JJ.
- 2.1.2 The purpose of the survey is to cover trees within the site boundary and its immediate curtilage to assess the impact of the development on trees and the impact of retained trees on the development. The Section 5 Arboricultural Method Statement (Section 5 of this report) specifies the principles, which need to be adopted during the demolition and construction of the development. Although any specific activities proposed in RPAs may require agreement by LPA if requested in the reserved matters stage. The report produced on the survey data allows the Local Planning Authority (LPA) to assess information about trees as part of the planning submission following principles of British Standard BS5837:2012 Trees in relation to design, demolition and construction – Recommendations.

2.2 Methodology

- 2.2.1 The methodology of Visual Tree Assessment (VTA), described by Mattheck (2007), was followed. The survey covers trees with a trunk diameter of 75mm or above and any significant vegetation on the development site.
- 2.2.2 The best intentions were made to produce accurate measurements; however, some dimensions were estimated due to the limitation of the access, dense undergrowth e.g.
- 2.2.3 Data collected for each tree includes the following information:
- Sequential reference number, i.e. T1, T2, T3 etc.
 - Species (Botanical Name in Latin)
 - Height (in meters).
 - Stem diameter recorded in mm
 - Branch Spread, recorded in meters at the extents of the 4 Cardinal Points, i.e. North, East, South & West.
 - Ground clearance, representing a level of first significant branching or canopy

- Life stage: Y – Young, SM – Semi Mature, M – Mature
- Condition comment: structural and/or physiological condition.
- Overall condition: Good, Moderate, Poor, In decline
- Estimated remaining contribution: >10 years, 10 + years, 20 + years, 30+ years, 40 + years.
- BS 5837:2012 Category 'U' or 'A' to 'C' grading with the subcategory 1, 2 or 3
- Tree Work recommendations in the context of the site current use, during the development and after the development.

2.2.4 Trees were categorized into 'A', 'B', 'C' and 'U' category graded in the guidance of BS5837: 2012.

- Category **A** – trees of high quality and value, with an estimated life expectancy of at least 40 years.
- Category **B** – trees of moderate quality and value. An estimated life expectancy of at least 20 years.
- Category **C** – trees of lower quality and value. An estimated life expectancy of at least 10 years, and with a stem diameter of up to 150mm measured at 1.5m from ground level.
- Category **U** – dead, dying or unsuitable for retention. Life expectancy of less than 10 years

2.3 Limitation

2.3.1 The survey was undertaken from the ground level using basic tools without detailed investigations. The data collected can be found in the tree schedule in Appendix 2.

2.3.2 The tree condition can rapidly change due to unpredictable factors, such as climatic and manmade events. The risk assessment is based on the factors apparent at the time of the site visit. The re-inspection of trees for health and safety condition should be made on an annual basis.

2.3.3 The soil assessment has not been conducted and detailed soil analysis should be undertaken, or data about the soil assessment should be provided.

3 The site visit and observations

3.1 The site

3.1.1 A site visit was conducted on 24th June 2021 to carry out the survey.

3.2 Tree population summary

3.2.1 The tree survey identified total of 18 individual trees graded in accordance with BS5837:2012 (Table1).

Retention Category	No. trees
B	2
C	70
U	2
<hr/>	
Total	74

Table 1 Survey retention category summary

3.2.2 All trees data are summarized in Appendix 2 and the Tree Protection Plan indicating trees location in Appendix 3.

4 Arboricultural impact statement

4.1 The proposal

4.1.1 The latest proposal seeks development of rear extension, outbuilding and associated infrastructure (Figure 1).



Figure 1 Proposed design scheme

4.2 Tree works

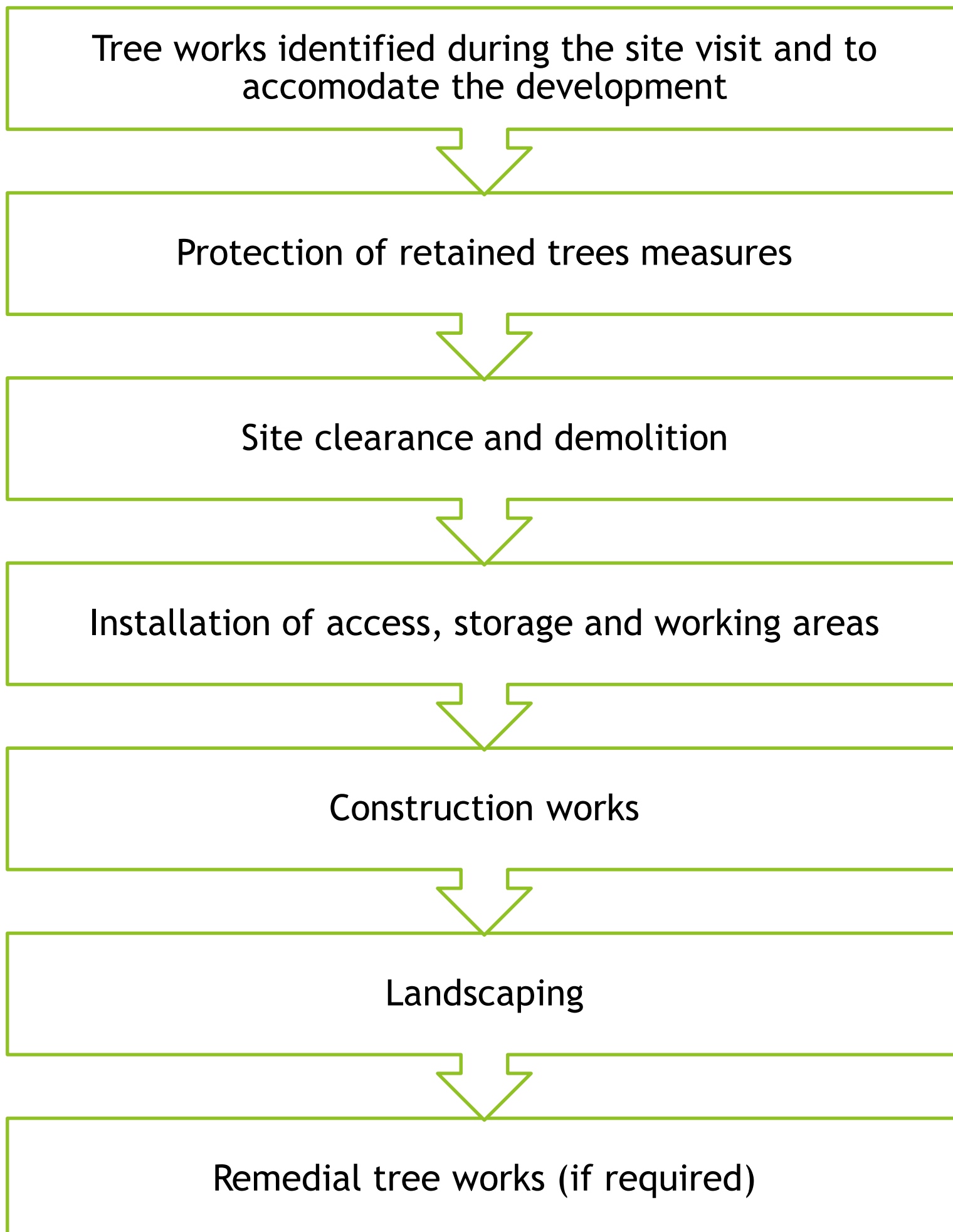
4.2.1 T6, T9, T10, T14, T15, T16, T17, T18 and a section of T2 will require removal in order to facilitate proposed development and associated landscape scheme.

4.2.2 T3 was identified as unsuitable for retention as the trees are dead.

4.3 Tree protection measures

4.3.1 All retained trees require the installation of protective barrier fencing as per the specification of BS5837:2012, barrier type default specification is detailed in section 6.2. .

5 Sequence of works



6 Arboricultural method statement

6.1 Tree Protection Plan

6.1.1 The attached plan (at Appendix 4) is based on the provided information and reflects the measurements and site boundaries. The plan is only relevant for dealing with tree issues. Trees to be retained have coloured centres and outlines, whilst trees removed have dashed hatching.

- The protection barriers placement is shown by dashed line.
- The purple hatching indicates areas of ground protection within RPA.
- The orange hatching indicates areas of specialist construction methods within RPA such as pile and beam foundation, micro drilling, changes of levels e.g. (as per related sections of the report and annotation on the TPP)
- The yellow hatching indicates areas of Construction Exclusion Zone (CEZ), and such any construction activity must be avoided within the zone.

6.2 Tree protection

6.2.1 Tree protection barriers location is indicated in the Tree Protection Plan (TPP). The barriers must be clearly marked by all-weather signs “Keep Out”(Figure 5) (Figure 4 and Figure 5 BS5837: 2012 default specification for barriers type).

6.2.2 The barriers shall be minimum of 2m high with vertical and horizontal scaffold frameworks. The vertical tubes should be spaced at least 3 m interval and driven securely into the ground. The welded mesh should be securely fixed on the framework. (Figure 4)

Figure 2 Default specification for protective barrier

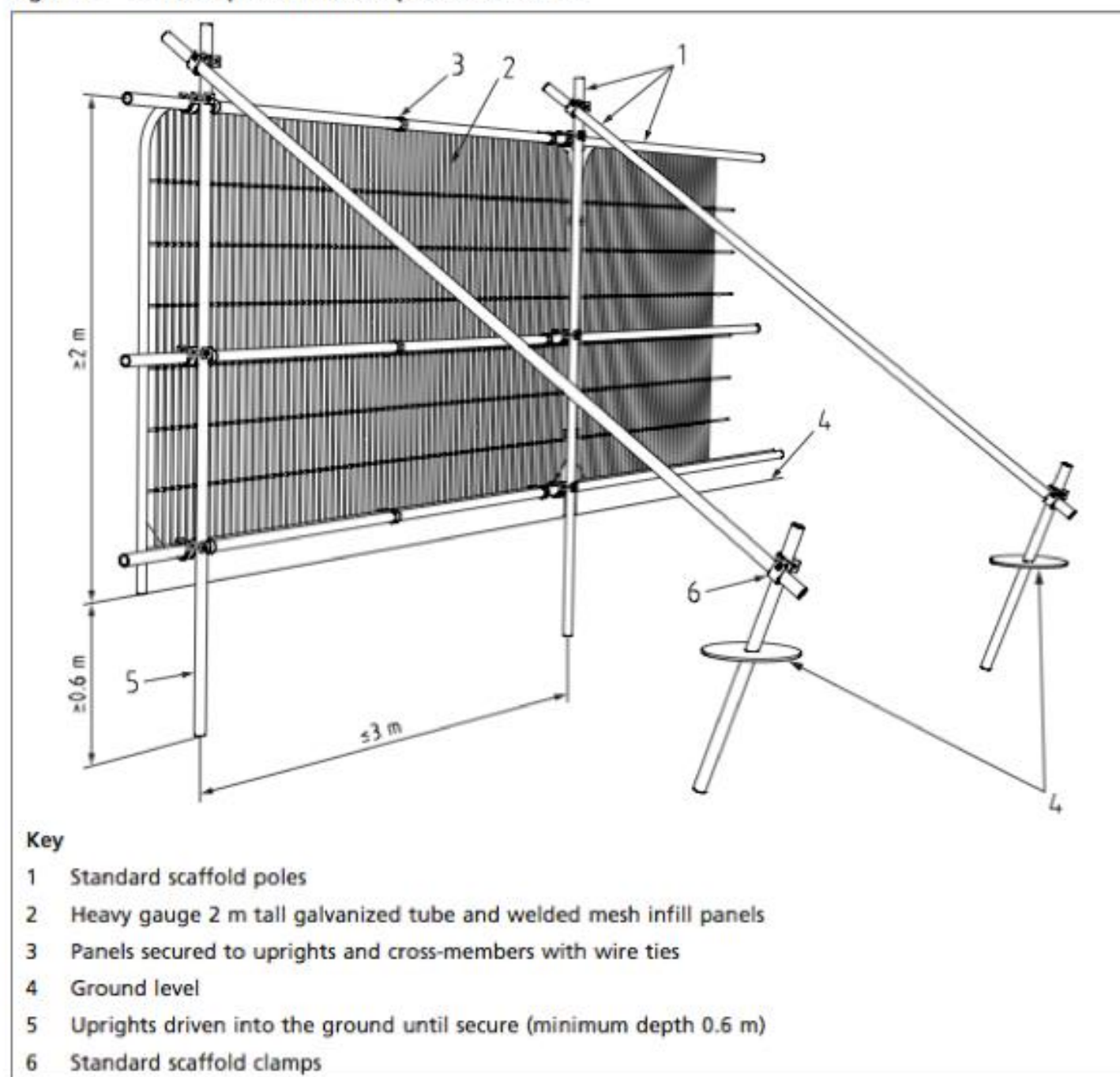


Figure 4 BS5837: 2012 default specification for barriers type



Figure 5 All weather protective sign example

6.3 Tree works

Tree number	Tree species	Retention Category	Proposed works	Reason
T002	Leyland Cypress x17 (Cupressocyparis leylandii X) Laurel Cherry (Prunus laurocerasus)	C2,3	Section of approx. 38m2 removal	In order to accommodate the development
T003	Leyland Cypress x2 (Cupressocyparis leylandii X)	U	Removal	Due to condition

T006	Leyland Cypress (<i>Cupressocyparis leylandii</i> X)	C1,3	Removal	In order to facilitate new landscape scheme
T009	Privet x13 (<i>Ligustrum vulgare</i>)	C2,3	Removal	In order to facilitate new landscape scheme
T010	Cabbage palm (<i>Cordyline australis</i>)	C1,3	Removal	In order to facilitate new landscape scheme
T014	Cabbage palm (<i>Cordyline australis</i>)	C1,3	Removal	In order to facilitate new landscape scheme

T015	Cabbage palm (Cordyline australis)	C1,3	Removal	In order to facilitate new landscape scheme
T016	Cabbage palm (Cordyline australis)	C1,3	Removal	In order to facilitate new landscape scheme
T017	Cabbage palm (Cordyline australis)	C1,3	Removal	In order to facilitate new landscape scheme
T018	Cabbage palm (Cordyline australis)	C1,3	Removal	In order to facilitate new landscape scheme

6.3.1 The tree works should be carried out in line with current British Standard BS3998:2010. It is recommended that works are undertaken by the Arboricultural Association approved contractor. A contractor must ensure that all necessary consents have been received from LPA and follow current industry standards and best practice. To minimize damage to retained trees, stumps, shrubs and other vegetation must be removed by hand or using specialized stump grinding machinery. The poisoning of stumps if required must be carried out by trained and qualified operatives.

6.4 Site set-up, storage and material mixing

6.4.1 Space must be allowed outside of RPAs for site machinery and material storage.

6.4.2 The material must be stored outside the RPAs, which also applies to cement mixing and washing points. The runoff the potential of the contaminants must be considered to avoid incursion to the RPA of retained trees, refer to TPP (appendix 3).

6.5 Site monitoring and supervision

6.5.1 The Project Arboricultural Consultant (PAC) shall attend site prior to the commencement of the development to ensure a satisfactory level of protective fencing and ground protection; ground level alternations; construction of walls, installation of new surfaces within RPAs of retained trees and at least every month during the development works. Where agreed with the L.A. it may be acceptable to supply photographs of the fencing to avoid the necessity for a site visit.

Site visit	Attendees	Timing	Reason
Pre-Commencement Meeting	Site manager, Project Arborist and LPA Arboricultural officer	After completion of the tree works and installation of the tree protective measures. Prior any further actions are not permitted, such as demolition or soil excavation unless agreed in	Check if a tree protection measures satisfy methodology detailed in AMS and LPA expectations. Additional action required for the protection of the trees and comments to the development

		written with LPA.	
Regular site monitoring and reporting	Project Arborist and Site manager	Regular site monitoring of the tree protection measures and in event of unexpected issues during the development. The pictures of the site will be provided every two weeks ¹	To mitigate any potential issues raised during the development, control of protective measures maintenance and monitor site activity which could cause a damage to the retained trees
Post Construction Meeting	Site manager, Project Arborist and LPA Arboricultural officer	After construction completion. Prior to the dismantle of tree protection measures and landscape work.	Check the condition of the retained trees and explain further restrictions if applicable.

6.5.2 All Site monitoring or supervision shall be followed by a report submission with an annotated photographic record and textual commentary on all matters of tree protection to the Local Authority, which by act or omission are in breach of the Arboricultural Method Statement. The initial site visit confirming placement of satisfactory tree protection shall be notified to LA within 5 working days prior to the commencement of the development.

¹ LPA may specify different frequency and report requirements. Pictures of the protective measures and site set up provided by a site manager may be acceptable by LPA to lower unnecessary site visits.

7 Conclusion and recommendations

- 7.1.1 This report has been prepared to accompany the planning application for the site at 62 Bridge Way, TW2 7JJ.
- 7.1.2 T6, T9, T10, T14, T15, T16, T17, T18 and a section of T2 require removal to facilitate proposed development and the landscape scheme.
- 7.1.3 The tree group T3 was identified as unsuitable for retention and such the trees require removal.
- 7.1.4 All retained trees will require tree protection barriers around the RPAs.
- 7.1.5 Provided precautions to protect the identified trees are specified and implemented through the measures included in this report; the development proposal will have little or negligible impact on the retained trees or their wider contribution to an area amenity and character if the methods detailed in this report will be followed.
- 7.1.6 The impact on retained trees will be negligible, and the scheme should be achievable in Arboricultural terms if the methods outlined in this report are followed.

Appendix 1 – References and Copyright


1. British Geological Survey (2014).
<http://mapapps.bgs.ac.uk/geologyofbritain/home.html>. BGS, Keyworth, Nottingham.
2. G. Mercer, A. Reeves & D. O'Callaghan. 'The Relationship between Trees, Distance to Buildings and Subsidence Events on Shrinkable Clay Soil' AB Academic Publishers 2011. Arboricultural Journal, 33, 229-245.
3. BSI (2010) BS 3998:2010 'Tree Work – Recommendations'. British Standards Institute
4. BSI (2014) BS8545: Trees from nursery to independence in the landscape: Recommendations. British Standards Institute
5. BSI (2012) BS5837: Trees in Relation to Design, Development and Construction: Recommendations. British Standards Institute
6. BSI (2014) BS8545: Trees from nursery to independence in the landscape: Recommendations. British Standards Institute
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8. The National Archives (2017) Town and Country planning act, 1990, <http://www.legislation.gov.uk/ukpga/1990/8/contents>; Accessed 20.02.2017
9. Trees and design action group (2014) Trees in a hard landscape: Guide for delivery
10. Department for Communities and Local Government (2014) Tree Preservation Orders and trees in conservation areas.

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Appendix 2: Tree Schedule



Date: 05/07/2021


Ref	Species	Full Structure	Measurements	Spread	General Observations	Retention Category	RPA	Measurements2	Photo
T001	Norway Maple (Acer platanoides)	Tree	Height (m): 13 Stem Diam (mm): 600 Spread (m): 8N, 8E, 8S, 8W Crown Clearance (m): 2 Lowest Branch (m): 2 Life Stage: Early Mature Rem. Contrib.: 30+ Years	N:8 E:8 S:8 W:8	On the neighbouring property behind perimeter fence, data and location estimated	B1	Radius: 7.2m. Area: 163 sq m.	Other Reference: Distance1: Distance2: Physiological Cond: Good Structural Cond: Good	No Photo.
T002	Leyland Cypress x17 (Cupressocyparis leylandii X) Laurel Cherry (Prunus laurocerasus)	Group 18 trees	Height (m): 10 18 stems, avg.(mm): 200 Spread (m): 4N, 4E, 4S, 4W Crown Clearance (m): 0 Lowest Branch (m): 0 Life Stage: Semi Mature Rem. Contrib.: 20+ Years	N:4 E:4 S:4 W:4	Screening plantation, previously topped, few dead trees	C2,3	Area: 111 sq m.	Other Reference: Distance1: Distance2: Physiological Cond: Fair Structural Cond: Fair	
T003	Leyland Cypress x2 (Cupressocyparis leylandii X)	Group 2 trees	Height (m): 8 2 stems, avg.(mm): 150 Spread (m): 2N, 2E, 2S, 2W Crown Clearance (m): 2 Lowest Branch (m): 2 Life Stage: Dead	N:2 E:2 S:2 W:2	Dead trees	U	None - due to Retention Category of U.	Other Reference: Distance1: Distance2: Physiological Cond: Dead Structural Cond: Poor	
T004	Common Ash (Fraxinus excelsior)	Tree	Height (m): 11 Stem Diam (mm): 300 Spread (m): 4N, 4E, 2S, 4W Crown Clearance (m): 2 Lowest Branch (m): 2 Life Stage: Early Mature Rem. Contrib.: 30+ Years	N:4 E:4 S:2 W:4	On the neighbouring property behind perimeter fence, data and location estimated, suppressed crown	C1,3	Radius: 3.6m. Area: 41 sq m.	Other Reference: Distance1: Distance2: Physiological Cond: Good Structural Cond: Good	

T005	Pedunculata Oak (Quercus robur)	Tree	Height (m): 12 Stem Diam (mm): 500 Spread (m): 3N, 6E, 6.5S, 6.5W Crown Clearance (m): 2 Lowest Branch (m): 2(N) Life Stage: Early Mature Rem. Contrib.: 40+ Years	N:3 E:6 S:6.5 W:6.5	On the neighbouring property behind perimeter fence, data and location estimated, suppressed crown	B1,3	Radius: 6.0m. Area: 113 sq m.	Other Reference: Distance1: Distance2: Physiological Cond: Good Structural Cond: Good	No Photo.
T006	Leyland Cypress (Cupressocyparis leylandii X)	Tree	Height (m): 10 Stem Diam (mm): 250 Spread (m): 4N, 4E, 4S, 2W Crown Clearance (m): 2 Lowest Branch (m): 2(N) Life Stage: Early Mature Rem. Contrib.: 20+ Years	N:4 E:4 S:4 W:2	Topped in past, ivy on the stem	C1,3	Radius: 3.0m. Area: 28 sq m.	Other Reference: Distance1: Distance2: Physiological Cond: Fair Structural Cond: Fair	
T007	Leyland Cypress x18 (Cupressocyparis leylandii X)	Group 18 trees	Height (m): 10 18 stems, avg.(mm): 200 Spread (m): 3N, 3E, 3S, 3W Crown Clearance (m): 0 Lowest Branch (m): 0 Life Stage: Early Mature Rem. Contrib.: 20+ Years	N:3 E:3 S:3 W:3	Topped in past, screening plantations	C2,3	Area: 40 sq m.	Other Reference: Distance1: Distance2: Physiological Cond: Fair Structural Cond: Fair	
T008	Leyland Cypress x5 (Cupressocyparis leylandii X)	Group 5 trees	Height (m): 10 5 stems, avg.(mm): 200 Spread (m): 3N, 3E, 3S, 3W Crown Clearance (m): 0 Lowest Branch (m): 0 Life Stage: Early Mature Rem. Contrib.: 20+ Years	N:3 E:3 S:3 W:3	Topped in past, screening plantations, broken branches	C2,3	Area: same as Group - 11 sq m.	Other Reference: Distance1: Distance2: Physiological Cond: Fair Structural Cond: Fair	
T009	Privet x13 (Ligustrum vulgare)	Group 13 trees	Height (m): 2 13 stems, avg.(mm): 80 Spread (m): 3N, 3E, 3S, 3W Crown Clearance (m): 0 Lowest Branch (m): 0 Life Stage: Early Mature Rem. Contrib.: 20+ Years	N:3 E:3 S:3 W:3	Formally maintained hedgerow	C3	Area: 16 sq m.	Other Reference: Distance1: Distance2: Physiological Cond: Good Structural Cond: Good	



T010	Cabbage palm (Cordyline australis)	Tree 6 stems	Height (m): 4 6 stems, diam(mm): 80, 80, 80, 80, 60, 90 Spread (m): 2N, 2E, 2S, 2W Crown Clearance (m): 2 Lowest Branch (m): 2 Life Stage: Early Mature Rem. Contrib.: 20+ Years	N:2 E:2 S:2 W:2	Multistem	C1,3	Radius: 2.3m. Area: 17 sq m.	Other Reference: Distance1: Distance2: Physiological Cond: Good Structural Cond: Good	
T011	Wild Cherry (Prunus avium)	Tree 4 stems	Height (m): 6 4 stems, diam(mm): 70, 70, 70, 70 Spread (m): 2.5N, 2.5E, 2.5S, 2.5W Crown Clearance (m): 2 Lowest Branch (m): 2 Life Stage: Young Rem. Contrib.: 20+ Years	N:2.5 E:2.5 S:2.5 W:2.5	Base obscured by hedgerow, data estimated	C3	Radius: 1.7m. Area: 9 sq m.	Other Reference: Distance1: Distance2: Physiological Cond: Good Structural Cond: Good	
T012	Mixed Species Group (Group, mixed species)	Group	Height (m): 2 Stem Diam (mm): 70 Spread (m): 2N, 2E, 2S, 2W Crown Clearance (m): 0 Lowest Branch (m): 0 Life Stage: Early Mature Rem. Contrib.: 20+ Years	N:2 E:2 S:2 W:2	Ornamental shrubbery on the boundary line	C3	Area: 18 sq m.	Other Reference: Distance1: Distance2: Physiological Cond: Good Structural Cond: Good	
T013	Wild Cherry (Prunus avium)	Tree	Height (m): 6 Stem Diam (mm): 80 Spread (m): 2N, 2E, 2S, 2W Crown Clearance (m): 2 Lowest Branch (m): 2 Life Stage: Young Rem. Contrib.: 20+ Years	N:2 E:2 S:2 W:2	Base obscured by hedgerow, data estimated	C3	Radius: 1.0m. Area: 3 sq m.	Other Reference: Distance1: Distance2: Physiological Cond: Good Structural Cond: Good	No Photo.

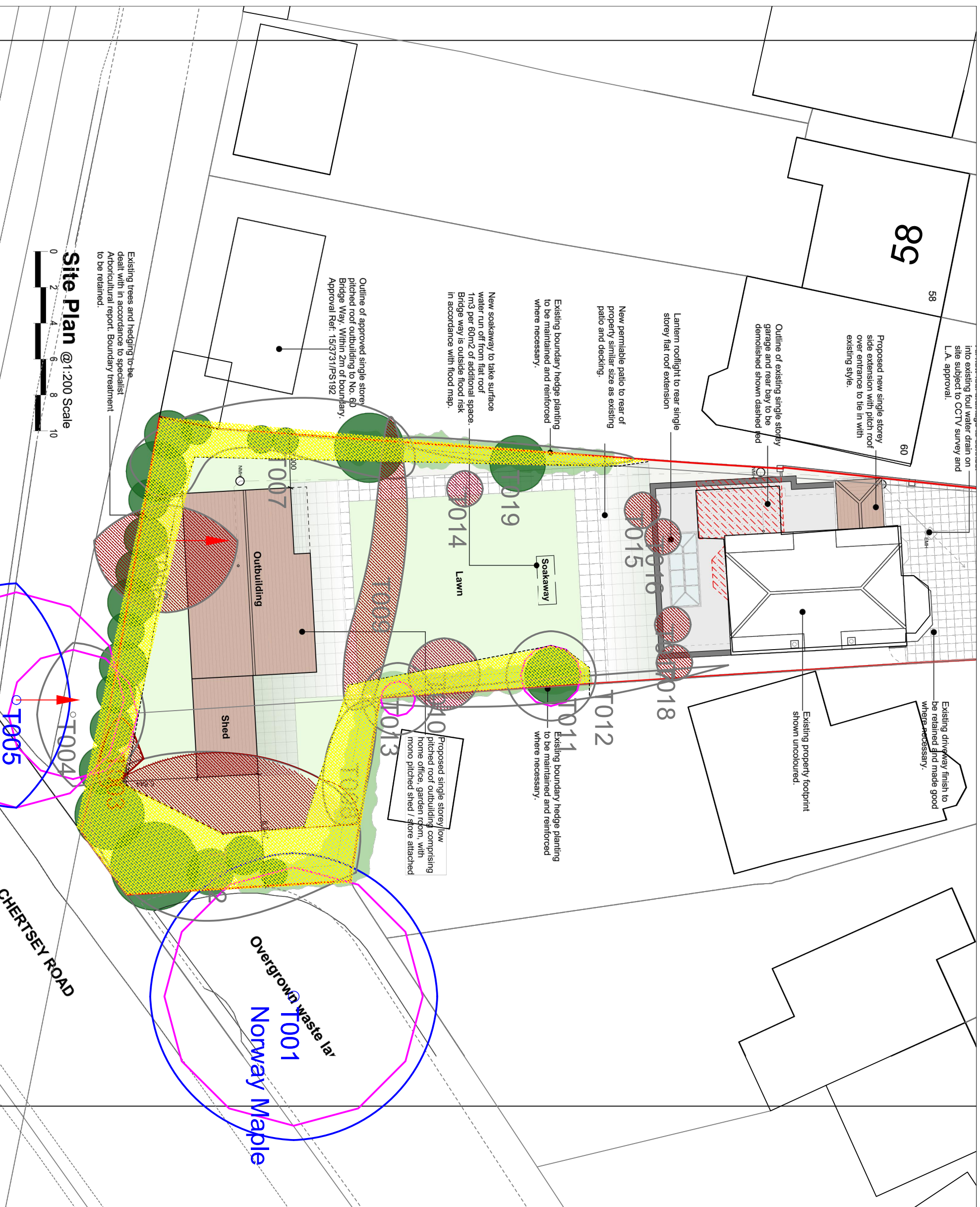
T014	Cabbage palm (Cordyline australis)	Tree 6 stems	Height (m): 2 6 stems, diam(mm): 80, 80, 80, 80, 60, 90 Spread (m): 1N, 1E, 1S, 1W Crown Clearance (m): 1 Lowest Branch (m): 1 Life Stage: Early Mature Rem. Contrib.: 20+ Years	N:1 E:1 S:1 W:1	Multistem	C1,3	Radius: 2.3m. Area: 17 sq m.	Other Reference: Distance1: Distance2: Physiological Cond: Good Structural Cond: Good	
T015	Cabbage palm (Cordyline australis)	Tree	Height (m): 2 Stem Diam (mm): 70 Spread (m): 1N, 1E, 1S, 1W Crown Clearance (m): 1 Lowest Branch (m): 1 Life Stage: Early Mature Rem. Contrib.: 20+ Years	N:1 E:1 S:1 W:1	Multistem	C1,3	Radius: 0.8m. Area: 2 sq m.	Other Reference: Distance1: Distance2: Physiological Cond: Good Structural Cond: Good	
T016	Cabbage palm (Cordyline australis)	Tree	Height (m): 2 Stem Diam (mm): 70 Spread (m): 1N, 1E, 1S, 1W Crown Clearance (m): 1 Lowest Branch (m): 1 Life Stage: Early Mature Rem. Contrib.: 20+ Years	N:1 E:1 S:1 W:1	Multistem	C1,3	Radius: 0.8m. Area: 2 sq m.	Other Reference: Distance1: Distance2: Physiological Cond: Good Structural Cond: Good	No Photo.
T017	Cabbage palm (Cordyline australis)	Tree	Height (m): 2 Stem Diam (mm): 70 Spread (m): 1N, 1E, 1S, 1W Crown Clearance (m): 1 Lowest Branch (m): 1 Life Stage: Early Mature Rem. Contrib.: 20+ Years	N:1 E:1 S:1 W:1	Multistem	C1,3	Radius: 0.8m. Area: 2 sq m.	Other Reference: Distance1: Distance2: Physiological Cond: Good Structural Cond: Good	No Photo.
T018	Cabbage palm (Cordyline australis)	Tree	Height (m): 2 Stem Diam (mm): 70 Spread (m): 1N, 1E, 1S, 1W Crown Clearance (m): 1 Lowest Branch (m): 1 Life Stage: Early Mature Rem. Contrib.: 20+ Years	N:1 E:1 S:1 W:1	Multistem	C1,3	Radius: 0.8m. Area: 2 sq m.	Other Reference: Distance1: Distance2: Physiological Cond: Good Structural Cond: Good	No Photo.

T019	Mixed Species Group x5 (Group, mixed species)	Group 5 trees	Height (m): 2 5 stems, avg.(mm): 100 Spread (m): 2N, 2E, 2S, 2W Crown Clearance (m): 0 Lowest Branch (m): 0 Life Stage: Early Mature Rem. Contrib.: 20+ Years	N:2 E:2 S:2 W:2	Screening hedgerow	C2,3	Area: 11 sq m.	Other Reference: Distance1: Distance2: Physiological Cond: Good Structural Cond: Good	
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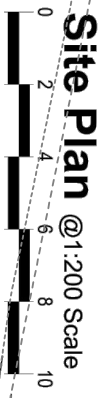


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Appendix 3: Tree protection plan



Existing trees and hedging to be dealt with in accordance to specialist Arboricultural report. Boundary treatment to be retained.



Site
69 Bridge Way Whittin, TW2 7JU

Client
Loraine Manson

Drawing title
Tree Survey & Protection Plan

Drawing No.	Scale	Date
1 of 1	1:250@A3	16.07.2021

Key

- Category A – trees of high quality and value
- Category B – trees of moderate quality and value
- Category C – trees of low quality and value
- Category U – trees of unavailability for retention
- Group of trees / hedgerows
- Root protection area
- Trees to be removed
- Tree protective barriers
- Ground Root Protection
- Specialist Construction Methods
- Construction Exclusion Zone

