



Arboricultural Report

11 LANGBROOK CLOSE
LANGSTONE
HAMPSHIRE
PO9 1RS

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Arboricultural Report

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1.0 INTRODUCTION

- 1.1 This report was instructed by Mr. Curnow of Thorns-Young on behalf of their clients. The report details all trees over 75mm at 1.5m above ground level that are relevant to the siting of the proposed development at 11 Langbrook Close, Langstone, Hampshire. The position of the trees on the site is illustrated at **Appendix 1** on the site plan.
- 1.2 The existing tree stock has been identified and graded in line with the current British Standard BS 5837 2012: Trees in Relation to Design, Demolition and Construction-Recommendations to enable informed decisions to be made regarding tree retention. The report also details methods of construction to be implemented to safeguard the retained trees.
- 1.3 This report details the constraints placed on the proposed development from the rooting area of the trees below ground and above ground by their size and position.
- 1.4 This report will therefore inform the planning process for the proposed development to minimise any negative impact on the existing tree stock and ensure that retained trees shall be in harmony with the proposed development enabling their long-term retention.

2.0 SITE VISIT

- 2.1 The site visit was undertaken on 8th September 2020. The trees were surveyed visually, externally and from ground level only. No samples or internal decay detection readings were taken for further analysis. All dimensions have been measured unless stated otherwise. Weather conditions at the time of the survey were overcast with strong gusts.

3.0 SITE DESCRIPTION

- 3.1 The site is located in a residential area within the Langstone part of Havant Borough. The site comprises a detached property, with detached carport within a sizeable garden. There is a large driveway at the front, the rear garden comprises lawn, a large shed, Chicken coop. There is a river running along the north east boundary.

4.0 TREE SURVEY DATA

- 4.1 In accordance with British Standard BS 5837 2012: Trees in Relation to Design, Demolition and Construction - Recommendations, the characteristics of trees over 75mm stem diameter measured at 1.5m above ground level (or immediately above root flare if multi-stemmed) have been recorded. The following tree data tables should be read in conjunction with the annotated site plan shown at **Appendix 1** and the legend after the tables.

Tree Number and Species	Height (m)	DBH (mm)	Branch Spread (m)				Existing Height Above Ground Level of Canopy and 1 st Significant Branch (m)	Age Class	Estimated Remaining Contribution (Years) & Physiological Condition	Comments	BS Category & Tree Work Necessary for Development	RPA (m ²)	RPA (m)
			N	S	E	W							
T1 Cypress <i>Cupressus</i> sp.	10	250	1.5	1.5	1.5	1.5	0 N/A	SM	20 Good	Sound base and lower stem. Form typical of species. Small patches of necrotic leaves.	B2 Remove	28	3
T2 Cypress <i>Cupressus</i> sp.	9	350	2	2	2	2	0 N/A	SM	20 Fair	Sound base and lower stem. Form typical of species. Small patches of necrotic leaves.	B2 Remove	55	4.2
T3 Cypress <i>Cupressus</i> sp.	9	200	2	2	2	2	0 N/A	SM	20 Good	Sound base and lower stem. Form typical of species. Small patches of necrotic leaves.	B2 Remove	18	2.4

Tree Number and Species	Height (m)	DBH (mm)	Branch Spread (m)				Existing Height Above Ground Level of Canopy and 1 st Significant Branch (m)	Age Class	Estimated Remaining Contribution (Years) & Physiological Condition	Comments	BS Category & Tree Work Necessary for Development	RPA (m ²)	RPA (m)
			N	S	E	W							
T4 Willow <i>Salix</i> sp.	16	750	7.5	5	7	7*	1.5 2 Southeast	M	20 Fair	On river bank in Chicken coop. Sound base and lower stem. Stem bifurcates at 2.5m, east stem bifurcates again at 3.5m. Small areas of die back within north and south of the crown. Birds nest in crown at 7m. Previous management resulting in significant regrowth from old pruning points.	C2 Crown clean and reduce re-growth back to old pruning points Retain and protect	255	9
T5 Willow <i>Salix</i> sp.	16	720	5	5	5	5*	0.5 1.5 Northeast	M	20 Fair	On river bank in Chicken coop. Sound base and lower stem. Large hazard beam in branch at 2m east. End of branch removed historically. Large storm damaged limbs in crown. Area of dieback in south of crown. Previous past management resulting in old pruning stubs and significant regrowth from old pruning points. Bird box at 2m.	B2 Crown clean and reduce re-growth back to old pruning points Retain and protect	238	8.7

Tree Number and Species	Height (m)	DBH (mm)	Branch Spread (m)				Existing Height Above Ground Level of Canopy and 1 st Significant Branch (m)	Age Class	Estimated Remaining Contribution (Years) & Physiological Condition	Comments	BS Category & Tree Work Necessary for Development	RPA (m ²)	RPA (m)
			N	S	E	W							
TG1 Cypress <i>Cupressus</i> sp.	14	670	10		12		0 1.5 Northeast	M	40+ Good	On river bank behind shed. Sound bases and lower stems. One tree has a secondary limb at 0.2m east. Both trees have included unions sound at the time of inspection. Previous past management old pruning stubs.	A2 Retain and protect	206	8.1

Key to Terms

- Identification numbers have been used and correspond to the site plan shown at **Appendix 1**.
- Vegetation type has been categorized as one of the following: Tree (T), Hedge (H), Shrub (S), Group (G), Stump (ST)
- Species are listed by common and botanical name where appropriate.
- Where possible, measurements have been made in accordance with the conventions detailed below. Where this was not possible, due to site conditions or the vegetation being in third party ownership, dimensions have been estimated. * Indicates estimated measurement.
- Height has been recorded to the nearest half metre.
- Stem diameter has been measured at 1.5m and recorded in millimetres, except where forking or swelling has meant that this is not possible, stem diameter has then been recorded at the narrowest point below these features. Multi-stemmed trees have had individual stems measured at 1.5m. Where this was not possible the actual height where the diameter was measured is recorded. G.L. = Ground Level.
- Crown spread has been recorded to the nearest half metre. Rounded up for dimensions up to 10m and the nearest whole metre for dimensions over 10m.
- Age class has been recorded as follows:

Y	Young recently planted or establishing tree that could be transplanted without specialist equipment, i.e. up to 12-14cms-stem girth.
S/M	Semi mature. An established tree but one that has not reached its potential ultimate height and has significant growth potential.
E/M	Early mature. A tree reaching its ultimate potential height, whose growth rate is slowing down but will increase in stem diameter and crown spread, and has a safe life expectancy.
M	Mature. A mature specimen with limited potential for any significant increase in size but with a reasonable safe life expectancy.
O/M	Over mature. A senescent or moribund specimen with a limited safe life expectancy. Possibly also containing significant structural defects with attendant safety and/or duty of care implications.
- Physiological Condition has been recorded as Good, Fair or Poor.
- Recommendations for tree management have been based on current Arboricultural Best Practice as set out by the Arboricultural profession and all relevant publications.

5.0 TREE QUALITY ASSESSMENT

- 5.1 The trees have been categorized according to BS5837: 2012 as a guide to their condition and value in terms of visual amenity.
- 5.2 The trees are coloured on the plan attached at **Appendix 1** and the colours are explained in the key of the plan.

6.0 ROOT PROTECTION AREAS

- 6.1 In accordance with BS5837: 2012, the root protection area (RPA) of the trees has been calculated and is shown in the tree data tables and, on the plan, attached at **Appendix 2**.

7.0 LEGAL CONSTRAINTS

- 7.1 Havant Borough Councils mapping system shows that the trees are not subjects of a Tree Preservation Order and the site is not within a Conservation Area. This should be confirmed in writing prior to undertaking any tree works recommended in this report.

8.0 ARBORICULTURAL IMPLICATIONS ASSESSMENT

8.1 Description of Proposed Development

It is proposed to add a 10m x 6m single storey extension to the rear of the property joined to the original bungalow at the north corner.

8.2 Drawings Used

A block plan showing the existing and proposed site layout was provided at the time of survey, scale 1: 500 at A4. This has been used to prepare the Tree Quality Assessment Plan (**Appendix 1**), the Root Protection Area Plan (**Appendix 2**) and the Tree Protection Plan (**Appendix 3**).

8.3 Direct Loss of Trees

The proposal will require the removal of T1 Cypress, T2 Cypress and T3 Cypress. Remedial works to the Weeping Willow T4 and T5 is to be undertaken on the grounds of safety.

8.4 Position of Trees in Relation to Proposed Development

It is not considered that the proposal will increase future pressure to fell the retained trees.

8.5 Protective Barriers and Ground Protection

Protective Barriers

Protective barriers in accordance with Figure 2 of BS 5837: 2012 (**Appendix 4**) should be erected around the trees to be retained. The fencing is to be supported with an appropriate stabilizing system (**Appendix 5**). Where possible, the positions of these fences should be based on a distance equivalent to the radius of each tree's RPA. All site personnel shall be made aware of the importance of root protection areas and shall ensure that they are properly maintained at all times. Once established the fencing will define the boundary of the Construction Exclusion Zone (CEZ).

Once erected all weather signage should be displayed stating 'Construction Exclusion Zone'.

No development works shall commence within the CEZ until written confirmation has been obtained from the Local Planning Authority. The project Arboriculturalist shall supervise all work within the RPAs.

Ground Protection

This will comprise of 150mm woodchip laid upon a geotextile membrane with scaffold boards or plywood sheeting on top.

8.6 Changes in Ground Surface within RPAs

The proposal will impact a small area of the RPA's of the trees within TG1 Monterey Cypress in terms of footings and footprint. This is approximately 10% of the total RPA of either tree and is not considered to be detrimental to the tree's stability or health and longevity.

8.7 Changes in Ground Level within the RPA

There are no proposed changes of ground level within the RPA's of the retained trees with the exception of the proposed footings within the RPA's of TG1 Monterey Cypress. These will be excavated under Arboricultural supervision using hand tools only. The results will inform foundation design and will be submitted to the Tree Officer for approval.

8.8 Services

No overhead services are proposed.

No underground services are to be installed within the RPA's of any retained tree.

8.12 Access for Machinery and Site Storage

There is ample space for storage of machinery and materials outside of the RPA's of the retained trees.

9.0 CONCLUSIONS

- 9.1 The trees are of good and moderate quality providing a significant contribution to the visual amenity of the locale.
- 9.2 The establishment of the protective barriers and ground protection should be supervised by the Project Arboriculturalist and confirmation of adherence with the Arboricultural Method Statement and Tree Protection Plan should be made to the Local Authority Tree Officer before any development starts.
- 9.3 The exploratory excavations will ensure foundation design is not detrimental to the stability or health of the trees within TG1 Monterey Cypress.
- 9.4 Given these conclusions the following section 'Arboricultural Method Statement' details the recommendations/methodology for the construction of the proposed works in terms of the effect on trees on the site.

Details within this AIA are considered correct at the time of writing but modifications may need to be made as more information becomes available.

Important Notes

The comments made with regard to the health and stability of the trees within this report were correct at the time of inspection. It should be recognized that trees are dynamic structures that can never be completely predictable and may become unstable or partially unstable even in average weather conditions. Changes can occur not only to environmental triggers but also in response to biological or mechanical events.

Inspection Caveats

The inspection was carried out from ground level. Binoculars were used to observe features higher in the canopies.

Foliage, extension growth and/or bud proliferation were assessed visually.

No soil or tissue samples were taken during this inspection.

No invasive diagnostic equipment was used to detect decay.

A nylon hammer was used to test for possible decay and dead or loose bark around the lower stems and bases of the trees.

Ivy has been removed during the inspection process only where reasonable and practicable. Where this has not been possible it has been noted as a recommendation to be removed to allow detailed re-inspection.

No tree is ever absolutely safe due to the unpredictable laws and forces of nature.

ARBORICULTURAL METHOD STATEMENT**1.0 CONTACT DETAILS**

Architect	Chris Curnow	Thorns Young Ltd 232 London Road, North End, Portsmouth, Hampshire, PO2 9JQ 02392 672883 chris.curnow@thornsyoungh.co.uk
Arboricultural Consultant	Sarah Johnston	Johnston Tree Consultancy 16 Manor Close, Wickham, Hampshire, PO17 5BZ 07814 403146 johnstontreeconsultancy@gmail.com
Local Authority Case Officer	Unknown at present	Havant Borough Council Planning Department Public Service Plaza, Havant, Hampshire, PO9 2AX 023 9244 6019 planning.development@havant.gov.uk
Local Authority Tree Officer	Unknown at present	Havant Borough Council Tree Department Public Service Plaza, Havant, Hampshire, PO9 2AX 023 9244 6019 treeofficer@havant.gov.uk

2.0 INTRODUCTION

- 2.1 This Arboricultural Method Statement (AMS) has been produced in line with BS 5837 2012: Trees in relation to design, demolition and construction-Recommendations to aid the successful retention of trees at 11 Langbrook Close. No development shall take place on the site until this document has been submitted to and approved in writing by Havant Borough Council.
- 2.2 This document sets out the methodology for all proposed works that affect trees on and adjacent to the site. Compliance with this method statement will be a requirement of all relevant contracts associated with the development proposals. Copies of this document will be available on site for inspection.
- 2.3 For details of trees to be retained and location and types of special protection methods, reference should be made to the Tree Protection Plan (TPP). A copy of which should be displayed prominently on site.

3.0 PHASING OF DEVELOPMENT

3.1 Phase 1 – Pre-Development Phase

Tree Work

Tree work is to be carried out in line BS 3998:2010 Tree work - Recommendations. This should be undertaken prior to any construction work. Trees T1, T2 and T3 Cypress are to be removed. T4 and T5 Weeping Willow will have works undertaken for health and safety reasons.

Protective Barriers

Tree protection measures to be installed under the supervision of the retained Arboriculturalist for all the trees in accordance with the Tree Protection Plan **Appendix 3**.

The protective barriers erected will be in accordance with Figures 2 and 3 of BS 5837:2012 (**Appendix 4 and 5**) and will form the boundary of the construction exclusion zone (CEZ). Where feasible, the positions of the fencing will be based on a distance equivalent to the radius of each tree's RPA. Once erected all weather signage should be displayed stating 'Tree Protection Area Keep Out'.

Ground Protection

This will comprise of 150mm woodchip laid upon a geotextile membrane with scaffold boards or plywood sheeting on top.

Exploratory Excavations

These will be excavated under supervision using hand tools only to a depth of 600mm to establish the rooting pattern of trees within TG1 to inform foundation design.

3.2 Phase 2 – Construction Phase

Protective Barriers

Once established the protective barriers are not to be moved without written consent from Havant Borough Council.

4.0 GENERAL ARBORICULTURAL CONSIDERATIONS

- 4.1 Protective barriers must be regarded as sacrosanct, and must only be moved under direct supervision of the LPA or named Arboriculturalist to enable the undertaking of works within the RPAs of trees, as set out in this AMS, and approved in writing by the LPA. It is of paramount importance the fencing is repositioned correctly after any agreed operations.
- 4.2 No materials, chemicals, machinery or vehicles must be stored within the RPAs as defined on the TPP and identified on site by protective fencing and aboveground root protection.
- 4.3 Ground protection must not be lifted or removed without prior consultation with the LPA or named Arboriculturalist.
- 4.4 Damage caused to protective fencing or ground protection must be reported to the site supervisor and the named Arboriculturalist to ensure appropriate repair.
- 4.5 Any damage to retained trees must be reported without delay to the site supervisor, the LPA and the named Arboriculturalist so appropriate remedial work can take place without delay.
- 4.6 No materials that are likely to have an adverse effect on tree health such as oil, bitumen or cement will be stored or discharged within 5 metres of the trunk of the retained trees or any other trees on the site.
- 4.7 No fires will be lit on site.
- 4.8 Notice boards, telephone cables or any other signage or services are not to be attached to any part of the retained trees.

5.0 SUPERVISION AND MONITORING

5.1 The project Arboriculturalist shall be responsible for monitoring/supervising the following works.

- Establishment of protective barriers and ground protection.
- Exploratory excavations.

5.2 The project Arboricultural Consultant will be responsible for periodical monitoring and will inspect the protective fencing to ensure the CEZ is intact and monitor any works necessary within the exclusion zone. A record of site visits will be maintained for inspection on site and copies forwarded to the agent and planning authority when requested.

Please note this AMS is not a contract. The retention and services of a project Arboriculturist for supervision and monitoring must be agreed prior to commencement of construction operations.

CREDENTIALS OF THE AUTHOR

Sarah Johnston M. Arbor. A., B.Sc. Arboriculture has worked in the Arboricultural profession for thirteen years. Her experience has been gained from undertaking practical tree work as well as working as an Arboricultural Surveyor and Tree Officer for Eastleigh and Havant Borough Councils respectively. In addition Sarah worked as a consultant for Marishal Thompson for two years from 2005 when she became self-employed. Sarah is a Professional Member of the Arboricultural Association and holds Professional Indemnity Insurance cover trading as Johnston Tree Consultancy.

