



**TREE SURVEY,  
ARBORICULTURAL IMPACT ASSESSMENT,  
TREE PROTECTION PLAN &  
ARBORICULTURAL METHOD STATEMENT  
Rev:2,**

with regard to proposed development at:

**Land Adjacent to 46 & 47 Cygnus Gardens,  
Dibden, SO45 5UH,**

for:

**Mr David Carr.**

Job no. MJC-19-0189

15<sup>th</sup> August 2022.

**Mark Carter**

*FICFor. MRICS M.Arbor.A Dip. Arb. (RFS),*

Managing Director,

MJC Tree Services Limited,

39 School Road,

West Wellow,

ROMSEY,

Hampshire,

SO51 6AR.

(01794) 322 712.

[mjc@mjctreeservices.co.uk](mailto:mjc@mjctreeservices.co.uk)



## **Contents**

Instruction	1.0
Qualifications & Caveats	2.0
Introduction	3.0
Summary	4.0
Tree Constraints Plan	5.0
Tree Survey Schedule	6.0
Arboricultural Impact Assessment Plan	7.0
Tree Protection Plan & Arboricultural Method Statement	8.0
Tree Protection Barrier Sign	9.0
References	10.0

## 1.0 Instruction

1.1 MJC Tree Services Limited have been instructed by Sanders Design Services, acting on behalf of Mr David Car, as follows:

***“Re: Development Site Tree Survey & Reports in Accordance With BS5837:2012 at 46 Cygnus Gardens, Dibden, SO45 5UH.***

*To visit the above site and carry out the following works:*

- *To carry out a ground level and visual survey of trees on and adjacent to the site that are identified for survey and assessment under the criterion given in British Standard 5837:2012 ‘Trees in Relation to Design, demolition and Construction – Recommendations’ (BS5837:2012):*
- *To draw up a Tree Constraints Plan and tree survey schedule in accordance with BS5837:2012, using as a base plan the supplied topographical survey plan:*
- *To discuss the proposed development of the site with the design team and, if necessary, the Local Planning Authority in the light of the identified tree constraints with a view to arriving at a proposed layout and design that is acceptable in arboricultural planning terms:*
- *To write a few brief paragraphs in support of a pre-application process for the proposed development:-*
- *To supply the completed report in an electronic format as a .PDF file, with the plans available as .dwg (AutoCAD) files.”*

And:

*“In response to specific additional instruction from yourself, to carry out the following works:*

- *To draw up an Arboricultural Implications Assessment for the proposed development, using the tree constraints information for reference and the finalised proposed site layout plan (including all access and service plan details) that will need to be supplied, via email, as a .dwg file to the above office before the report can be completed:*
- *To draw up a Tree Protection Plan and Arboricultural Method Statement for the proposed development. To discuss the content of the Statement with the design team and site contractor(s) as necessary to arrive at a workable solution to the tree protection requirements of the site:*
- *To combine these elements into a single report:*
- *To supply the completed report in an electronic format as a .PDF file, with the plans available as .dwg (AutoCAD) files.”*

## 2.0 Qualifications and Caveats

2.1 The author of this report is a:

- Fellow of the Institute of Chartered Foresters:
- Chartered Arboriculturist:
- Chartered Surveyor:
- Registered Consultant of the Institute of Chartered Foresters.
- Professional Member of the Arboricultural Association:

He also holds the Royal Forestry Society’s Professional Diploma in Arboriculture and has over 27 years experience in UK arboriculture. A full CV and CPD record are available as a .pdf file upon request to the above office.

- 2.2 The tree survey was preliminary in nature and was carried out from ground level using visual techniques only. No trees were climbed or internally investigated. Should a more detailed inspection be required then this will be highlighted in the recommendations.
- 2.3 Trees are living organisms whose health and condition can change rapidly. The health, condition and safety of trees in high use areas should be checked on a regular basis, preferably at least once every eighteen months. The conclusions and recommendations in this report are based only on the observations made by the author during the tree survey.
- 2.4 This report is for the sole use of the above named client and refers only to those trees identified within. It may not be reproduced in whole or in part, or sold, lent, hired out or divulged to any third party not directly involved in the subject matter, without our consent. Use by any other person(s) in attempting to apply its contents for any purpose other than stated in this report renders the report invalid for that purpose.
- 2.5 This report is supplied subject to our terms and conditions in force at the time of our instruction by the client.

### **3.0 Introduction**

- 3.1 This report is presented largely in the form of annotated plans with a tree survey schedule that are intended to be read in the sequence they are presented, cross referencing as instructed in the annotations.
- 3.1.1 The reason for this graphical form of presentation is to make its interpretation easier by the greater design team and the demolition/construction team. These teams work in a graphical environment, and if the arboricultural reports involved in the design and demolition/construction processes are to be easily interpreted by these teams they must also be presented in a graphical environment. To do otherwise would create an unhelpful disconnect between the arboricultural information and the design and demolition/construction teams. It also allows the report and the proposed development to be assessed on site by officers of the Local Planning Authority (LPA) whilst referencing a small number of single page documents, thereby avoiding the need to keep flicking backwards and forwards through a written report whilst holding open a large site plan.
- 3.1.2 The layout and order of the plans and schedule are intended to illustrate a logical progression from the existing site (Tree Survey Plan and Tree Survey Schedule), through the proposed development, its impact on the trees in terms of tree losses, the establishment of conflicts with the retained trees and how these conflicts will be resolved in principle (Arboricultural Impact Assessment), to the specific tree protection measures and methodologies required (Tree Protection Plan & Arboricultural Method Statement).

3.2 The tree works recommended on the schedule are based on the current context of the site, they are not works required as a result of any proposed development. This is to comply with section 4.4.1.1 of BS5837:2012 that states "...the tree survey should be completed and made available to designers prior to and/or independently of any specific proposals for the development". The tree works required as a result of the proposed development are detailed in the Arboricultural Impact Assessment plan.

#### **4.0 Summary**

4.1 It is proposed to construct two semi-detached dwellings on site with two additional parking bays, as illustrated in the Arboricultural Impact Assessment plan.

4.2 There are no substantive arboricultural reasons for the Local Planning Authority (LPA) to object to the proposed development, providing the tree protection measures suggested in the Arboricultural Impact Assessment plan and detailed in the Tree Protection Plan & Arboricultural Method Statement are undertaken. In order to ensure that these measures take place, it is likely that, if the LPA grant planning permission for the proposed development, they will make that permission conditional of the following:

- Adherence to the Tree Protection Plan & Arboricultural Method Statement ref. MJC-19-0189-03 rev:1 (see enclosed Tree Protection Plan & Arboricultural Method Statement):
- The pre-commencement drawing up and approval of an underground service plan that avoids the RPA of retained trees.

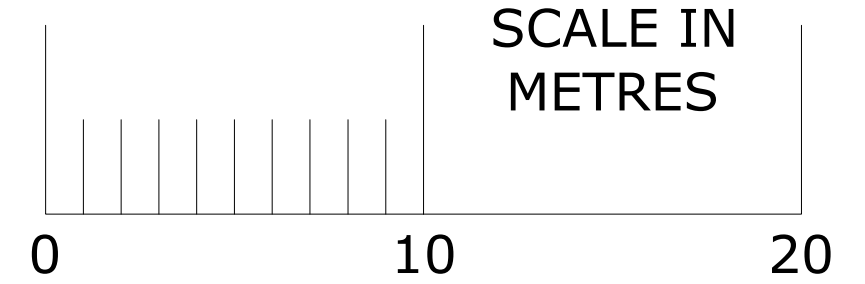
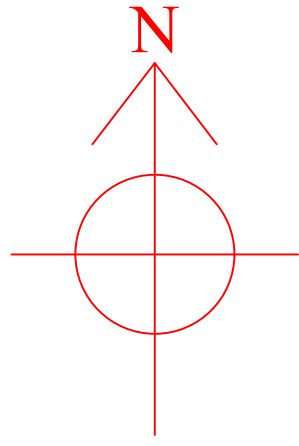
4.2.1 The use of these conditions is reasonable, necessary and commonplace. Therefore, the required use of these conditions should not form a legitimate reason for the LPA to object to the proposed development.

**Mark Carter**

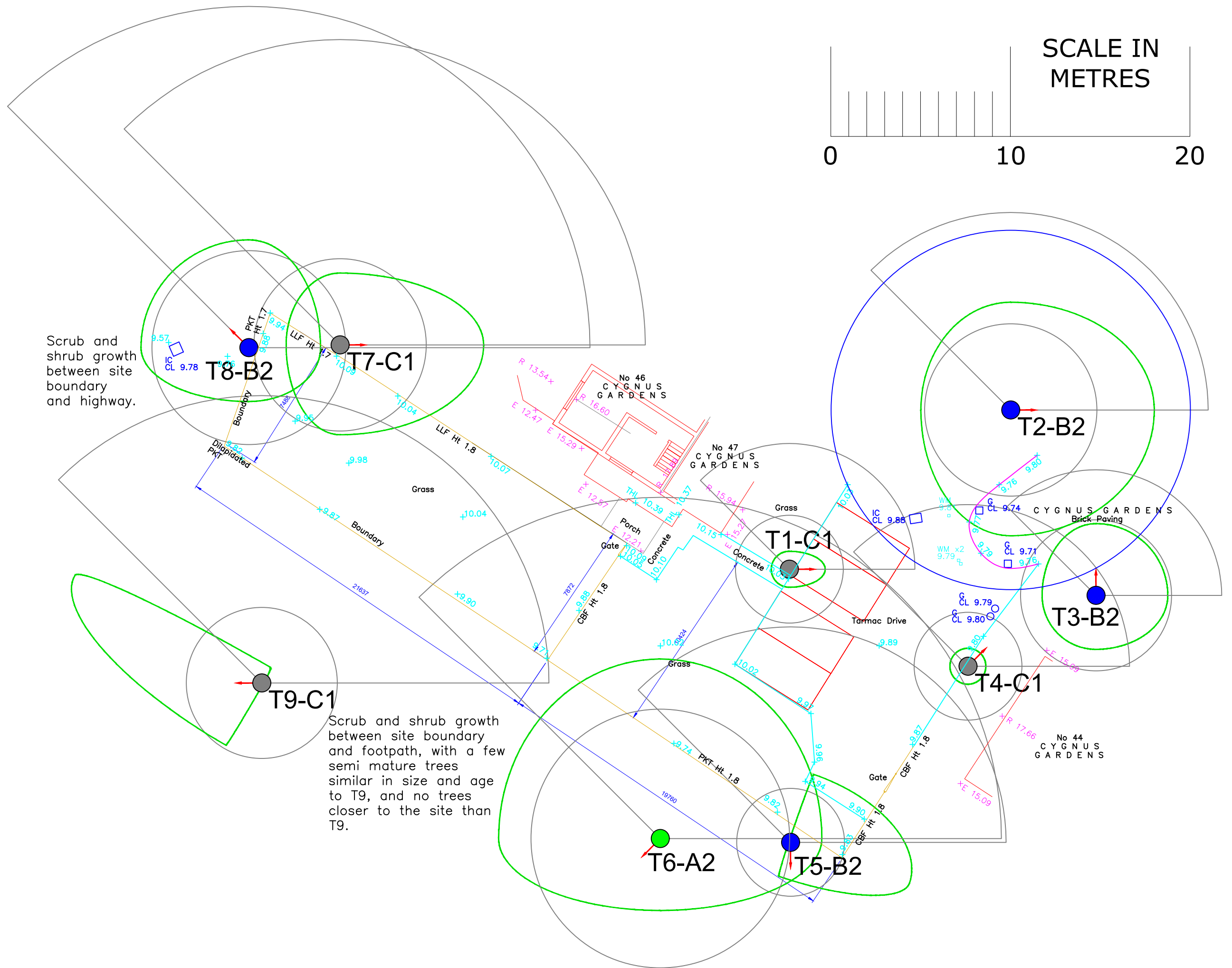
*FICFor. MRICS M.Arbor.A Dip.Arb(RFS)*

**© 2022 MJC Tree Services Limited**

## 5.0 Tree Constraints Plan



Scrub and shrub growth between site boundary and highway.



Scrub and shrub growth between site boundary and footpath, with a few semi mature trees similar in size and age to T9, and no trees closer to the site than T9.

**MJC TREE SERVICES LIMITED**

Site:  
Land adj. to 46 & 47  
Cygnus Gardens, Dibden,  
SO45 5UH.

**TREE CONSTRAINTS PLAN**

Plan no. MJC-19-0189-01  
rev:0

This is based on the  
Sanders Design Services  
drawing no. dc sht3,  
amended by MJC on  
07/04/2022.

This plan was produced in  
colour. A monochrome  
version must not be relied  
upon.

**KEY**

- Category U tree or group and ref' no'
- Category A tree or group and ref' no'
- Category B tree or group and ref' no'
- Category C tree or group and ref' no'
- Crown spread of surveyed trees
- Estimated mature crown spread for trees with significant potential for future growth
- Indicative root protection area (RPA)
- Direction of lowest significant branch, length of arrow indicates height i.e. the longer the arrow the higher the branch
- Areas of potentially significant shade constraint for A, B & C grade trees and groups, based on surveyed heights

SCALE  
1:200 © A2

Tree Constraints Plan Notes

1.0 Introduction

- 1.1 The tree survey was carried out on the 7th April 2022.
- 1.2 The survey was carried out in accordance with British Standard 5837:2012 'Trees in relation to design, demolition and construction – Recommendations' (BS5837:2012).
- 1.3 The survey was carried out from ground level using visual techniques only. No trees were climbed or internally investigated. Should a more detailed inspection be considered necessary then this will be highlighted in the recommendations section of the tree survey schedule.
- 1.4 The tree works recommended on the schedule are based on the current context of the site, they are not works required as a result of any proposed development. This is to comply with section 4.4.1.1 of BS5837:2012 that states "...the tree survey should be completed and made available to designers prior to and/or independently of any specific proposals for the development". Any tree works required as a result of the proposed development will be listed separately in the Arboricultural Impact Assessment plan (AIA).

2.0 The Trees

- 2.1 The details of the individual tree survey are provided on the following tree survey schedule.
- 2.2 The tree constraints have been calculated and are illustrated in accordance with BS5837:2012.
- 2.3 One tree, no. T1, was omitted from the supplied site plan, and the position of this tree has been estimated by eye while the author was on site. This issue is noted in the tree survey schedule. If the position of this tree becomes critical to any proposed development of the site, its position should be confirmed by a competent land surveyor and this plan adjusted accordingly.

2.4 Root Protection Areas (RPA)

- 2.4.1 The indicative and circular RPA of the surveyed trees has been derived by using the calculation provided at section 4.6.1 of BS5837:2012 and are illustrated either by a grey circle in this plan, or as an amalgamated RPA for groups and/or woodlands.
- 2.4.2 Section 4.6.2 of BS5837:2012 states "Where pre-existing site conditions or other factors indicate that rooting has occurred asymmetrically, a polygon of equivalent area should be produced. Modifications to the shape of the RPA should reflect a soundly based arboricultural assessment of likely root distribution."
- 2.4.3 It was not considered likely that any of the pre-existing site conditions within the RPA of the surveyed trees had caused significant asymmetric rooting. Therefore, no modification of the RPA has been made.

2.5 The areas of potentially significant shade illustrated in this plan have been derived following the guidance provided at section 5.2.2 Note 1 of BS5837:2012. This area does not indicate an area where development may not take place, it merely indicates an area where tree shade may have an adverse impact on a proposed development if that part of the development has a need for high levels of direct and natural light e.g. patios and living room windows, and it may also reduce useable amenity space in gardens.

2.6 One of the surveyed trees, no. T2, was considered to have significant potential for future growth. The potential and estimated mature crown spread of this tree illustrated by a blue crown spread margin in this plan.

2.7 The online mapping system provided by the Local Planning Authority (LPA) was consulted on the 7th April 2022 in order to check on the protected status of the surveyed trees. This check indicated the following.

- 2.7.1 Tree nos. T2 and T3 are protected by Tree Preservation Order no. TPO/0081/00, therefore no works may be carried out on these trees without first obtaining written permission from the LPA, unless those works fall under a very limited number of exemptions written into the regulations.
- 2.7.2 The site is not in a Conservation Order.

2.8 The online Multi Agency Graphical Information for the Countryside (MAGIC) mapping system provided by DEFRA was consulted on the 7th April 2022 in order to check whether any ancient woodlands were present on or close to the site. This check indicated that no ancient woodlands were present on or close to the site.

2.9 The tree survey has not identified any ancient and/or veteran trees on or close to the site.

3.0 The Site

- 3.1 The site comprised a broadly level area of ground to the south west of 46 & 47 Cygnus Gardens.
- 3.2 Surrounding land use was as follows; to the north and east was residential development; to the south was an area of scrub and shrub growth with occasional trees and a public footpath beyond; to the west was an area of scrub and shrub growth with the public highway beyond.
- 3.3 An online check with the British Geological Survey's Geology of Britain Viewer was made on 7th April 2022.
  - 3.3.1 This check indicated that the soils on site were likely to be made up of the following:
    - Bedrock Geology: Chama Sand Formation – Sand, silt and clay.
    - Superficial deposits: None recorded.
  - 3.3.2 These types of soils are unlikely to be subject to significant and persistent volumetric changes in response to moisture content. Therefore, the risk of tree root related subsidence on this site is likely to be low.
  - 3.3.3 The local topsoil will be prone to rapid compaction to the point that tree root growth is impeded. In areas where the existing soil structure needs to be protected i.e. in the RPA of retained trees or proposed new tree and shrub planting areas, the soil must be protected from demolition and construction activities and traffic by either tree protection barriers or adequate temporary ground protection.

## **6.0 Tree Survey Schedule**



## TREE SURVEY SCHEDULE

### Key:

- **Ht** = Height estimated in metres.
- **Stem Diam** = Stem or trunk diameter, measured and calculated in accordance with Annex C and section 4.6 of BS5837:2012.
  - **oi** = Measurement taken over ivy, which is likely to produce an exaggerated figure;
  - **cmb** = combined stem diameter value for multi stem trees.
- **Crown Spread** = Crown spread to the cardinal points in metres, measured by pacing.
- **1<sup>st</sup> significant branch ht' & direction** = First significant branch height in metres and direction of growth e.g. N = North.
- **Crown base ht'** = Minimum distance between surrounding ground level at the trunk base and the base of the main crown, estimated by eye in metres.
- **Life stage** is chosen from the four following categories;
  - Y = Young;
  - SM = Semi mature;
  - EM = Early mature;
  - M = Mature;
  - OM = Over Mature.
- **General observations** = Particularly of structural and/or physiological condition, significant features and defects, and the effect these may have on the health, stability and safe retention of the tree.
- **Preliminary management recommendations** = any significant works identified as necessary in the current context, irrespective of any proposed development of the site.
- **Rem' cont'** = an estimate, in years, of the remaining period over which the tree can be retained at an acceptable level of risk whilst still providing significant amenity benefits with no significant management intervention.
- **Reten' Cat'** = Desirability for retention category. Refers to BS5837:2012 which categorises trees on development sites into one of four categories – A, B, C or U, A being very good and U meaning that felling is appropriate regardless of any proposals. The suffix 1, 2 or 3 refers to a subcategory relating to tree, landscape or cultural/ecological values respectively.
- **agl** = Above ground level
- **#** = Estimated dimension.
- **typ** = Typical dimension where several are present.
- **n/a** = Not applicable.
- **n/k** = Not known.

Ref no	Species	Ht (m)	Stem diam (mm)	No. of stems	Crown spread (m)				1 <sup>st</sup> sig' branch ht' (m)	Direc- tion of 1 <sup>st</sup> sig branch	Crown base ht' (m)	Life stage	General observations	Preliminary management recommendations	Rem' cont' (years)	Reten' Cat
					N	E	S	W								
T1	Lawson Cypress cultivar	7#	250# @ base	1#	1#	2#	1#	1#	0.1#	E#	0.6#	EM#	<ul style="list-style-type: none"> <li>• The tree was not plotted on the supplied topographical survey plan and its position was estimated by eye whilst on site. If the position of this tree becomes critical to any proposed development of the site, the position of this tree should be confirmed by a competent land surveyor and this report amended accordingly.</li> </ul> (Contd)	<ul style="list-style-type: none"> <li>• No works currently identified as the tree is offsite and beyond the responsibility and control of my client.</li> <li>• RPA: radius = 3.0 metres; area = 28 square metres.</li> </ul>	10+#	C1#

Ref no	Species	Ht (m)	Stem diam (mm)	No. of stems	Crown spread (m)				1 <sup>st</sup> sig' branch ht' (m)	Direc- tion of 1 <sup>st</sup> sig branch	Crown base ht' (m)	Life stage	General observations	Preliminary management recommendations	Rem' cont' (years)	Reten' Cat
					N	E	S	W								
T1	Lawson Cypress (Contd)												(Contd) <ul style="list-style-type: none"> <li>The tree was offsite and inaccessible therefore all assessments and measurements used were estimates made from a distance.</li> <li>The tree was an attractive front garden feature. However, it was multi stemmed from just above ground level hence the basal stem diameter was used to calculate the root protection area.</li> <li>Numerous weak forks were present between the multiple stems and one branch on the eastern side was already beginning to peel out as a result of partial failure of one of these forks. Therefore, the long-term retention of this tree was not anticipated.</li> </ul>			
T2	Sycamore	11#	400#	1	6#	8#	7#	5#	0.2#	E#	2#	EM#	<ul style="list-style-type: none"> <li><b>This tree is protected by Tree Preservation Order no. TPO/0081/00.</b></li> <li>The tree was offsite and inaccessible therefore all assessments and measurements used were estimates made from a distance.</li> <li>The tree was an attractive roadside feature of some public visual amenity value.</li> <li>Given the proximity of the tree to the nearby houses and its potential for future growth, its very long-term retention was not anticipated.</li> </ul>	<ul style="list-style-type: none"> <li>No works currently identified as the tree is offsite and beyond the responsibility and control of my client.</li> <li>RPA: radius = 4.8 metres; area = 72 square metres.</li> </ul>	20+#	B2#

Ref no	Species	Ht (m)	Stem diam (mm)	No. of stems	Crown spread (m)				1 <sup>st</sup> sig' branch ht' (m)	Direc- tion of 1 <sup>st</sup> sig branch	Crown base ht' (m)	Life stage	General observations	Preliminary management recommendations	Rem' cont' (years)	Reten' Cat
					N	E	S	W								
T3	Flowering Cherry	7#	350#	1	4#	4#	3#	3#	1.6#	N#	2.8#	EM#	<ul style="list-style-type: none"> <li>• This tree is protected by Tree Preservation Order no. TPO/0081/00.</li> <li>• The tree was offsite and inaccessible therefore all assessments and measurements used were estimates made from a distance.</li> <li>• The tree was an attractive front garden and roadside feature.</li> <li>• However, the crown had been significantly reduced in the past indicating that it may be attempting to outgrow the space available to it.</li> <li>• Given its proximity to the nearby building, and its potential for future growth, the very long-term retention of this tree was not anticipated.</li> </ul>	<ul style="list-style-type: none"> <li>• No works currently identified as the tree is offsite and beyond the responsibility and control of my client.</li> <li>• RPA: radius = 4.2 metres; area = 55 square metres.</li> </ul>	20+#	B2#
T4	Lawson Cypress cultivar	9#	250# @ 500 mm agl	1	1#	1#	1#	1#	1#	NE#	1.5#	EM#	<ul style="list-style-type: none"> <li>• The tree was offsite and inaccessible therefore all assessments and measurements used were estimates made from a distance.</li> <li>• The tree was an attractive side garden feature that was visible from the public highway, therefore it was of some public visual amenity value.</li> <li>• However, it was growing very close to the nearby building and the tree was multi stemmed with potentially weak forks developing between the stems. This combination of proximity to a building and the presence of weak forks makes the long-term retention of this tree unlikely.</li> </ul>	<ul style="list-style-type: none"> <li>• No works currently identified as the tree is offsite and beyond the responsibility and control of my client.</li> <li>• RPA: radius = 3.0 metres; area = 28 square metres.</li> </ul>	10+	C1

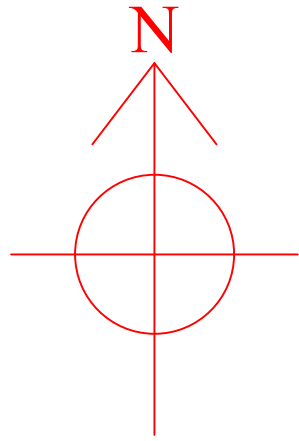
Ref no	Species	Ht (m)	Stem diam (mm)	No. of stems	Crown spread (m)				1 <sup>st</sup> sig' branch ht' (m)	Direc- tion of 1 <sup>st</sup> sig branch	Crown base ht' (m)	Life stage	General observations	Preliminary management recommendations	Rem' cont' (years)	Reten' Cat
					N	E	S	W								
T5	Silver Birch	12#	250#	1	4#	7#	2#	0#	6#	S#	5#	SM#	<ul style="list-style-type: none"> <li>The tree was offsite and inaccessible therefore all assessments and measurements used were estimates made from a distance.</li> <li>The crown was significantly asymmetric to the south east as a result of competition for light and space with the nearby and much larger common Oak.</li> <li>The tree made a contribution to boundary screening.</li> </ul>	<ul style="list-style-type: none"> <li>No works currently identified as the tree is offsite and beyond the responsibility and control of my client.</li> <li>RPA: radius = 3.0 metres; area = 28 square metres.</li> </ul>	20+#	B2#
T6	Common Oak	19#	600#	1	10 #	9#	4#	9#	1#	SW#	3#	EM#	<ul style="list-style-type: none"> <li>The tree was offsite and inaccessible therefore all assessments and measurements used were estimates made from a distance.</li> <li>The tree was a prominent boundary feature that provided valuable boundary screening between the site and the nearby public footpath.</li> <li>Given the size of the tree, it was visible from several public vantage points and was considered to be of significant public visual amenity value as a result.</li> </ul>	<ul style="list-style-type: none"> <li>No works currently identified as the tree is offsite and beyond the responsibility and control of my client.</li> <li>RPA: radius = 7.2 metres; area = 163 square metres.</li> </ul>	40+#	A2#

Ref no	Species	Ht (m)	Stem diam (mm)	No. of stems	Crown spread (m)				1 <sup>st</sup> sig' branch ht' (m)	Direc- tion of 1 <sup>st</sup> sig branch	Crown base ht' (m)	Life stage	General observations	Preliminary management recommendations	Rem' cont' (years)	Reten' Cat
					N	E	S	W								
T7	Leyland Cypress	17#	400#	1	4#	8#	5#	3#	1.5#	E#	4#	EM#	<ul style="list-style-type: none"> <li>The tree was offsite and inaccessible therefore all assessments and measurements used were estimates made from a distance.</li> <li>The crown was heavily asymmetric to the south east most likely as a result of past competition for light and space with nearby trees, some of which may have been relatively recently felled.</li> <li>The crown branch form was poor with multiple competing leaders and potentially weak forks developing between those leaders.</li> <li>The lowest first order branch on the south eastern side of the trunk was upswept and had experienced hazard beam type failure (Mattheck and Breloer 1994).</li> <li>Given the poor structural condition of the tree, its long-term retention was not anticipated.</li> </ul>	<ul style="list-style-type: none"> <li>No works currently identified as the tree is offsite and beyond the responsibility and control of my client.</li> <li>RPA: radius = 4.8 metres; area = 72 square metres.</li> </ul>	10+	C1
T8	Ash	19	450	1	6#	4	3	6	7	NW	5	EM	<ul style="list-style-type: none"> <li>The tree contributed to boundary screening and was visible from the public highway, therefore it was of some public visual amenity value.</li> <li>The tree leant and the crown was asymmetric to the north.</li> <li>Lower branches on the eastern and south eastern side had been recently lopped, leaving unsightly branch stubs.</li> <li>It was considered likely that this tree would succumb to Chalara Ash Dieback, an invariably fatal disease caused by the fungus, <i>Hymenoscyphus fraxineus</i>. Therefore, the very long-term survival of this tree was not anticipated.</li> </ul>	<ul style="list-style-type: none"> <li>Remove unsightly branch stubs.</li> <li>Monitor and assess condition at 6-monthly intervals, especially crown vitality and any symptoms of Chalara Ash Dieback.</li> <li>If significant symptoms of Chalara Ash Dieback are identified, fell the tree for reasons of health and safety, given its proximity to the public highway.</li> <li>RPA: radius = 5.4 metres; area = 92 square metres.</li> </ul>	20+	B2

Ref no	Species	Ht (m)	Stem diam (mm)	No. of stems	Crown spread (m)				1 <sup>st</sup> sig' branch ht' (m)	Direc- tion of 1 <sup>st</sup> sig branch	Crown base ht' (m)	Life stage	General observations	Preliminary management recommendations	Rem' cont' (years)	Reten' Cat
					N	E	S	W								
T9	Ash	16#	350#	1	1#	0#	4#	12#	5#	W#	5#	SM#	<ul style="list-style-type: none"> <li>The tree was offsite and inaccessible therefore all assessments and measurements used were estimates made from a distance.</li> <li>The tree leant significantly to the north west and the lower trunk was contorted indicating more than one occasion of the tree being partially windthrown.</li> <li>Given the proximity of the tree to the public highway and its precipitous lean towards the public highway, its long-term retention was not anticipated.</li> </ul>	<ul style="list-style-type: none"> <li>No works currently identified as the tree is offsite and beyond the responsibility and control of my client.</li> <li>RPA: radius = 4.2 metres; area = 55 square metres.</li> </ul>	10+#	C1#

## **7.0 Arboricultural Impact Assessment Plan**





SCALE IN METRES

0 10 20

Scrub and shrub growth between site boundary and highway.

Scrub and shrub growth between site boundary and footpath, with a few semi mature trees similar in size and age to T9, and no trees closer to the site than T9.

### MJC TREE SERVICES LIMITED

Site:  
Land adj. to 46 & 47  
Cygnus Gardens, Dibden,  
SO45 5UH.

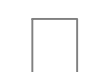
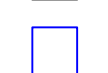
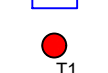
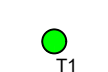
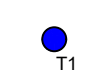
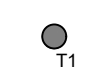

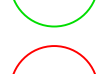
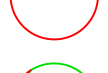
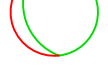



#### ARBORICULTURAL IMPACT ASSESSMENT PLAN

Plan no. MJC-19-0189-02  
rev:1

This is based on the  
Sanders Design Services  
drawing no. dc sht2,  
amended by MJC on  
29/07/2022.

This plan was produced in  
colour. A monochrome  
version must not be relied  
upon.

#### KEY

-  Existing site layout in grey
-  Proposed site layout in colour
-  Category U tree or group and ref' no'
-  Category A tree or group and ref' no'
-  Category B tree or group and ref' no'
-  Category C tree or group and ref' no'
-  Crown spread of surveyed trees to be retained
-  Crown spread of surveyed trees to be removed
-  Tree no. T7 to be crown reduced i.e. the red crown margin indicates the crown to be reduced, and the green crown margin indicates the crown to be retained after the crown reduction works are completed
-  Estimated mature crown spread for trees with significant potential for future growth
-  Indicative root protection area (RPA)
-  Direction of lowest significant branch, length of arrow indicates height i.e. the longer the arrow the higher the branch
-  Areas of potentially significant shade constraint for A, B & C grade trees and groups, based on surveyed heights

SCALE  
1:200 @ A2

#### Arboricultural Impact Assessment

##### 1.0 Introduction

- 1.1 It is proposed to construct one detached dwelling on site with two additional parking bays, as illustrated in this plan.
- 1.2 In this plan, the proposed development layout is illustrated in blue.
- 1.3 In order to provide context with the existing site, and highlight the proposed development, the existing site layout plan is also illustrated in pale grey in this plan.
- 1.4 The trees, their constraints, and areas where specific tree protection measures are required, are illustrated in accordance with the key.

##### 2.0 Tree Works.

- 2.1 The proposed development requires the removal of tree no. T1 as a result of encroachment into the root protection area by the proposed parking bays, and the crown reduction of tree no. T7 in order to accommodate one of the proposed dwellings. In this plan, tree no. T1 is illustrated with a complete red crown margin, and tree no. T7 is illustrated with a partial red crown margin indicating the crown to be reduced, and a complete green crown margin indicating the crown to be retained after the crown reduction works are completed. These tree works are considered acceptable in arboricultural planning terms for the following reasons.
  - 2.1.1 These trees are both 'C' grade with regard to their quality assessment as defined in Table 1 of BS5837:2012. BS5837:2012 describes such trees as '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'. Such trees cannot be considered to be of high public amenity value as individuals, and they lack the quality and value necessary for them to form a significant material constraint on any proposed development of the site. Therefore, the requirement to remove or crown reduce 'C' grade trees as a result of the proposed development is unlikely to form a significant reason for the Local Planning Authority (LPA) to object to the proposed development.
  - 2.1.2 Tree no. T1 is off site and beyond the control of my client. As such, it cannot be assumed that the owner of this tree will give their consent to have the tree removed. However, if the owner of the tree does not give permission to remove the tree, this will not prevent the proposed development from proceeding as my client has the common law right to cut back overgrowth from their neighbour's trees, including roots, as far as the boundary line if desired, without requiring the permission of the tree's owner to do so. Therefore, if the owner of T1 does not give their permission to remove the tree, my client will prune the roots of T1 back to the edge of the parking bay.
  - 2.1.3 Tree no. T7 is offsite and beyond the control of my client. As such, it cannot be assumed that the owner of this tree will give their consent to have the tree crown reduced. However, if the owner of the tree does not give permission to crown reduce the tree, this will not prevent the proposed development from proceeding as my client has the common law right to cut back overgrowth from their neighbour's trees as far as the boundary line if desired, without requiring the permission of the tree's owner to do so. Therefore, if the owner of T7 does not give their permission to crown reduce T7, my client will crown reduce the tree back to the boundary line.

##### 3.0 Root Protection Areas (RPA).

- 3.1 The proposed dwellings and parking bays have avoided the RPA of all the retained trees. Therefore, the proposed dwellings and parking bays will not have any direct impact on the RPA of the retained trees.
- 3.2 The proposed access drive and turning head just encroaches over the peripheral RPA of tree no. T6, and this encroachment will result in the loss of less than 4.4 square metres of the total RPA for T6. The loss of such a small area of RPA is considered acceptable because the tree has access to additional soil rooting volume off site that will more than compensate for this loss.
- 3.3 Construction access and general activities have the potential to encroach over the RPA of retained trees. Therefore, these RPA will need to be protected by tree protection barriers, and the construction activities managed, as set out in the enclosed Tree Protection Plan & Arboricultural Method Statement.
- 3.4 No underground service or drain plan has been supplied, however, it is considered that sufficient space exists across the site that is not restricted by the RPA of retained trees for these to be routed around, and therefore avoid conflict with, the RPA. The LPA have the power to ensure this occurs by granting permission subject to a condition requiring the pre-commencement submission and approval of an underground service and drain plan.
- 3.5 The above tree protection measures will restrict the arboricultural impact of the proposed development to an acceptable level. The LPA can ensure that these tree protection measures are carried out by granting planning permission for the proposed development subject to planning conditions requiring compliance with the enclosed Tree Protection Plan & Arboricultural Method Statement.

##### 4.0 Future Pressures to Unreasonably Prune or Fell Retained Trees

- 4.1 The inappropriate retention of trees within a new development can lead to future conflicts between the residents of the new development and the trees, thereby creating future pressures to unreasonably prune or fell trees that had been retained in the design and development process. Section 5.3.4 d) of BS5837:2012 requires this issue to be considered and avoided at the design stage of a proposed development. In order to comply with this requirement the following considerations have been made.
  - 4.2 Crown proximity.
    - 4.2.1 The proposed dwelling is 1 metre away from the crown of tree no. T7, and this could result in the creation of feelings of overbearance and dominance in the minds of future residents of the dwelling. This juxtaposition of tree and development could create a degree of conflict between the future residents and the tree, resulting in future pressures to unreasonably prune or fell the tree. However, T7 is a 'C' grade tree in poor condition that is already beginning to show signs of crown break up in the form of hazard beam fracture in the lower branch (see Tree Survey Schedule for details). Therefore, the tree is very unlikely to be retained in the long term, and any such conflict will be short lived and completely resolved by the removal of the tree in a relatively short time.

4.2.2 With the exception of tree no. T7, the proposed development layout has maintained a minimum clearance between the dwellings and the crown edge of retained trees of 4.9 metres. This is considered sufficient to avoid the crowns coming into contact with the fabric of the dwellings, even when the trees are swaying in a storm event. Therefore, the proposed development has avoided placing dwellings so close to the existing crown spreads of retained trees that legitimate feelings of overbearance and dominance will be created in the minds of future residents, and crown proximity should not create any legitimate pressures to unreasonably prune or fell the retained trees in the future.

4.2.2 Some of the retained trees have potential for future crown growth that will increase their crown spread and bring their crown edges closer to the proposed dwellings. However, it is considered that this future growth will not bring any crown edge any closer than 4.9 metres away from the fabric of the proposed dwellings. Therefore, the proposed development has avoided placing dwellings so close to the potential future crown spreads of retained trees that legitimate feelings of overbearance and dominance will be created in the minds of future residents, and potential future crown proximity should not create any legitimate pressures to unreasonably prune or fell the retained trees in the future.

4.2.3 Parts of the proposed gardens are overhung by existing and potential future crown spreads. However, large areas of these gardens are not overhung, and it is considered that adequate useable amenity space that is not overhung is provided in the proposed gardens. Therefore, crown overhang of the gardens should not create any legitimate pressures to unreasonably prune or fell the retained trees in the future.

##### 4.3 Tree shade.

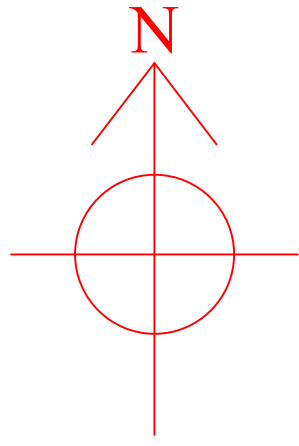
- 4.3.1 At the layout design stage, the indicative shade segment suggested at section 5.2.2 Note 1 of BS5837:2012 was used to assess the impact of shade on the proposed gardens and dwellings.
- 4.3.2 This assessment indicated that the proposed gardens would experience a degree of transitory shade cast by tree nos. T6 and T9. However, it was considered that the impact of this shade on the usable amenity space of the proposed gardens and the living conditions within the proposed dwellings at any given time was not unacceptable given its transitory nature and the fact that the shadows cast by both trees would never combine i.e. when the dwelling is being shaded by T6, it cannot be shaded by T9, and vice versa.
- 4.3.3 It is worth noting that the trees casting this shade are deciduous and will shed their leaves in autumn, thereby allowing more light to pass through their crowns during the winter months when the sun is at its lowest in the sky. This fact will increase the direct light levels reaching the plots during the winter months.
  - 4.3.3.1 The Building Research Establishment (BRE) have published figures on the transparency of different species of trees to light (i.e. how much sunlight light passes through them). As an extreme example, i.e. the species that cast the most dense shade, the BRE states that an Common Oak in full leaf (summer) will still allow 20% of the sunlight through its crown, and when bare branched (winter) this rises to 80%. Therefore, even in the areas shaded by the trees, at least 20% of the sunlight will reach the ground in summer and 80% will reach the ground in the winter, and invariably these figures will be higher as the shade casting trees are not all Common Oaks.
  - 4.3.3.2 The BRE's assertion regarding the transparency of tree crowns is supported by BS8206 part 2: 2008 'Lighting for Buildings' which states: "Although shading by trees is an attractive alternative to the use of blinds, exclusive reliance on foliage to shade fenestration is unlikely to be satisfactory for working interiors. Furthermore, a tree in leaf will diminish the light available from the sky obscured to between 0.1 and 0.3 of the unobstructed value. In winter the bare branches of a deciduous tree are likely to reduce the skylight to between 0.5 and 0.8 of the unobstructed value from the part of the sky enclosed within the tree's outline. These values are approximate only. They vary with the species and with different members of the same species. They vary also with the path length of the light through the foliage and therefore, in multiple planting, with the depth and composition of the stand."
  - 4.3.4 It is also important to avoid over stating the impact of tree shade on natural light levels in gardens. The shade cast by trees impacts only on direct sunlight. Considering only direct sunlight when assessing the natural light levels makes no allowance for diffused natural light. Diffused natural light will still be reaching the ground in the areas shaded by trees as it is derived equally from all parts of the sky, and this source makes up 50% of the natural light reaching the ground in southern England (reference: 'Trees, Daylight and Buildings' by Rodney Helliwell, published in the Arboricultural Journal, Volume 30, Number 4, March 2008). Therefore, significant levels of natural light will still be available in the proposed gardens and proposed dwellings, even when they are shaded by the trees.
  - 4.3.5 Taking into consideration the above, the proposed development layout is not impacted to an unacceptable level by tree shade, and this issue will not result in any legitimate pressures to unreasonably prune or fell the retained trees in the future.

##### 5.0 Summary.

- 5.1 There are no substantive arboricultural reasons for the Local Planning Authority (LPA) to object to the proposed development, providing the tree protection measures suggested above and detailed in the enclosed Tree Protection Plan & Arboricultural Method Statement are undertaken. In order to ensure that these measures take place, it is likely that, if the LPA grant planning permission for the proposed development, they will make that permission conditional of the following:
  - 5.1.1 Adherence to the Tree Protection Plan & Arboricultural Method Statement ref. MJC-19-0189-03 rev:1 (see enclosed Tree Protection Plan & Arboricultural Method Statement);
  - 5.1.2 The pre-commencement drawing up and approval of an underground service and drain plan that avoids the RPA of retained trees.
- 5.2 The use of these conditions is reasonable, necessary and commonplace. Therefore, the required use of these conditions should not form a legitimate reason for the LPA to object to the proposed development.



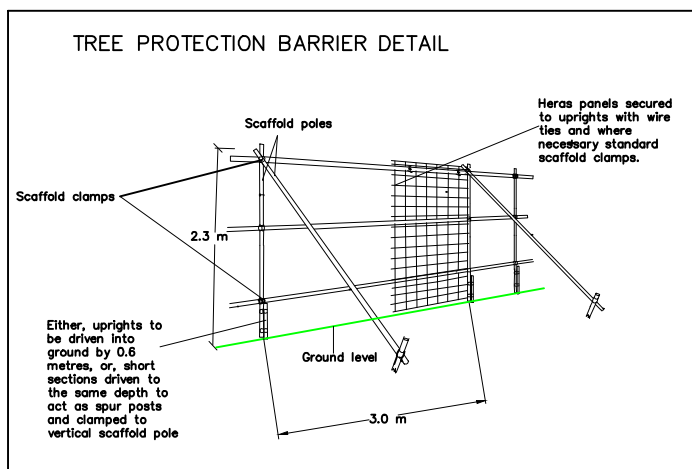
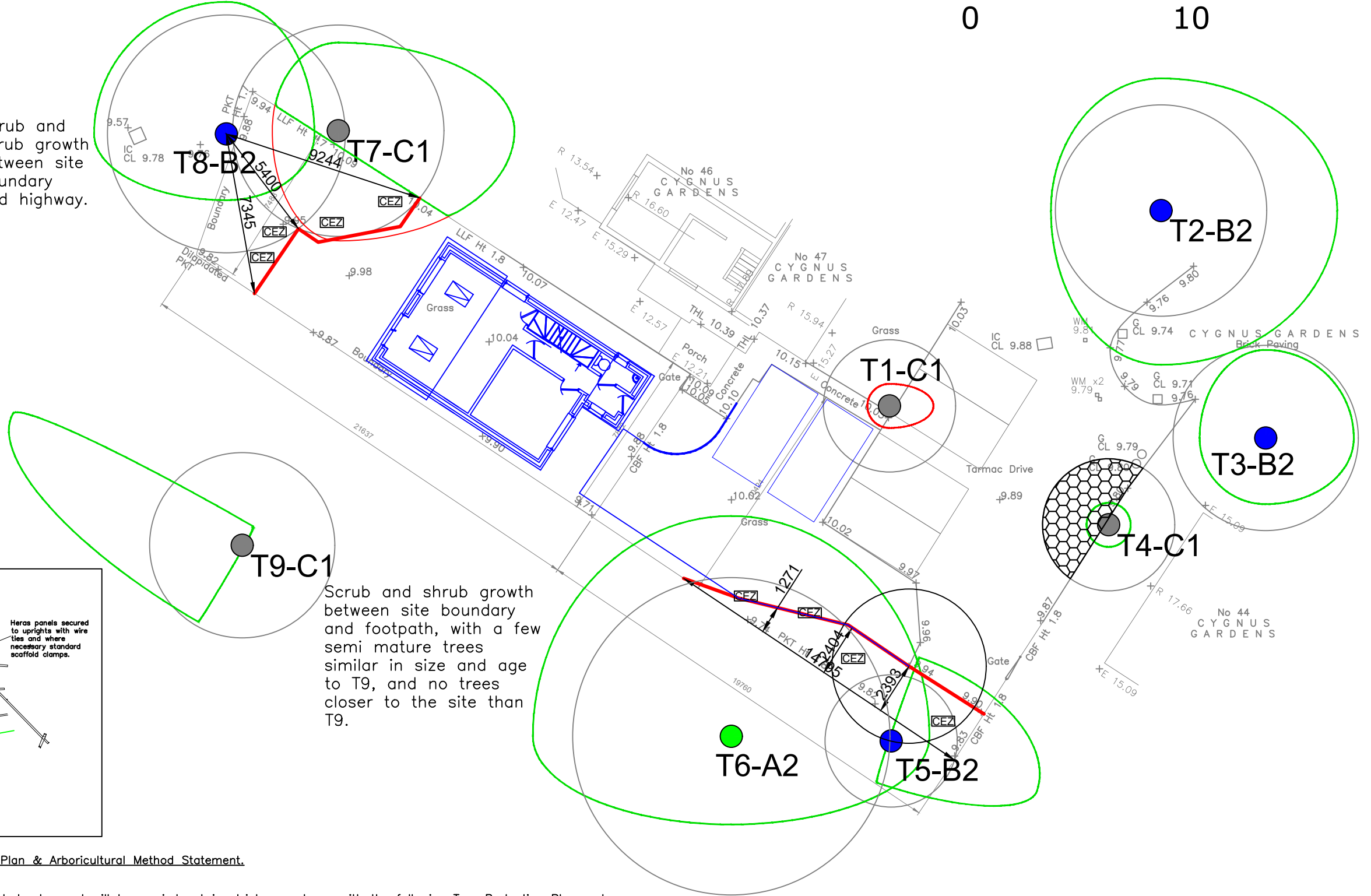
## **8.0 Tree Protection Plan & Arboricultural Method Statement**



SCALE IN METRES

0 10 20

Scrub and shrub growth between site boundary and highway.



**MJC TREE SERVICES LIMITED**

Site:  
Land adj. to 46 & 47  
Cygnus Gardens, Dibden,  
SO45 5UH.

**TREE PROTECTION PLAN &  
ARBORICULTURAL METHOD  
STATEMENT**

Plan no. MJC-19-0189-03  
rev:1

This is based on the  
Sanders Design Services  
drawing no. dc sh2,  
amended by MJC on  
29/07/2022.

This plan was produced in  
colour. A monochrome  
version must not be relied  
upon.

**KEY**

- Existing site layout in grey
- Proposed site layout in colour
- Category U tree or group and ref' no'
- Category A tree or group and ref' no'
- Category B tree or group and ref' no'
- Category C tree or group and ref' no'
- Crown spread of surveyed trees to be retained
- Crown spread of surveyed trees to be removed
- Tree no. T7 to be crown reduced i.e. the red crown margin indicates the crown to be reduced, and the green crown margin indicates the crown to be retained after the crown reduction works are completed
- Indicative root protection area (RPA)
- Tree protection barriers: dimensions in mm
- Construction exclusion zone (CEZ)
- Existing hard surface retention areas

SCALE  
1:200 © A2

**Tree Protection Plan & Arboricultural Method Statement.**

1.0 The proposed development will be carried out in strict accordance with the following Tree Protection Plan and Arboricultural Method Statement, and in the following sequence of events. This plan and statement will cover the following heads of terms, see separate notes below for the specific tree protection measures and methodologies for each head of terms:

- 1.0.1 Appointment of the responsible person:
- 1.0.2 Agreement of the arboricultural monitoring timetable:
- 1.0.3 Distribution of Tree Protection Plan and Arboricultural Method Statement:
- 1.0.4 General measures, including access, storage of materials etc.:
- 1.0.5 Tree works:
- 1.0.6 Tree protection barrier erection:
- 1.0.7 Underground service installations:
- 1.0.8 Fencing works in the RPA of retained trees:
- 1.0.9 Soft landscaping in the RPA of retained trees.

**1.1 Appointment of the responsible person.**

1.1.1 Before any site works, including site clearance, take place, a person will be made responsible for the correct and full implementation of the plan and statement (the responsible person). The responsible person will typically be the project manager or site manager, but whoever is appointed they will be responsible for the full and correct implementation of this plan and statement, and will be deemed liable for any failure to correctly and fully implement this plan.

1.1.2 When appointed, the responsible person will inform the Local Planning Authority and the project Arboriculturist of their appointment and will supply both with a full set of contact details.

**1.2 Agreement of the arboricultural monitoring timetable.**

1.2.1 If specifically requested by the Local Planning Authority, before any site works, including site clearance, take place, a site meeting will be held with the responsible person, the site/project manager, the Local Planning Authority's Tree Officer and the project Arboriculturist. The purpose of this meeting will be to confirm the tree protection measures required by the Tree Protection Plan & Arboricultural Method Statement, a timetable of ongoing site monitoring and reporting to be carried out by the project Arboriculturist.

1.2.2 Further arboricultural monitoring and reporting will be carried out by the project Arboriculturist in accordance with the timetable agreed at the above meeting.

1.2.3 A brief letter report will be produced by the project Arboriculturist following each site visit and a copy of this letter supplied to the responsible person and the Local Planning Authority's tree officer.

**1.3 Distribution of tree protection plan and arboricultural method statement.**

1.3.1 It is the responsibility of the responsible person to ensure that all staff and contractors working on the development are aware of and abide by this Tree Protection Plan & Arboricultural Method Statement.

1.3.2 A scale copy of this plan will be attached to the site office notice board. Copies of this plan will always be available for taking out on site as necessary.

1.3.3 Reference to this Tree Protection Plan & Arboricultural Method Statement will form part of the standard induction briefing for all personnel coming onto site.

**1.4 General measures, including access, storage of materials etc..**

1.4.1 The following measures and restrictions will apply at all times.

1.4.2 No construction vehicles, materials or equipment, other than only those necessary for the erection of the tree protection barriers, will be permitted onto the site until the tree works are completed and the tree protection barriers have been erected.

1.4.3 All construction traffic access will be via the existing entrance off Cygnus Gardens.

1.4.4 The existing hard surface in the 'Existing hard surface retention area', illustrated in this plan with black hexagonal hatching, will be retained intact and unexcavated throughout the construction works in order to protect the underlying root protection area of tree no. T4.

1.4.5 When any large and/or tall and/or jibbed vehicles/equipment are operating or manoeuvring close to the crowns of trees to be retained, a specific banksman will be appointed to supervise the movement and ensure that no damage is caused to the crowns of these trees through impact.

1.4.6 All activities usually carried out in the compound area, e.g. the storage of materials and equipment, the mixing of concrete and mortar, the sitting of rest cabins and the site office etc., will take place outside the construction exclusion zones (CEZ) created by the tree protection barriers and the 'Existing hard surface retention area'.

1.4.7 Any facilities for the storage of oils, fuels or chemicals shall be located outside the construction exclusion zones (CEZ) created by the tree protection barriers and the 'Existing hard surface retention area', in tanks on impervious bases and surrounded by impervious bund walls. The volume of the bund compound shall be at least equivalent to the capacity of the tank plus 10%. If there is a multiple tankage, the compound shall be at least equivalent to the capacity of the largest tank, or the combined capacity of interconnected tanks, plus 10%. All filling points, vents, gauges and sight glasses shall be located within the bund. The drainage system of the bund shall be sealed with no discharge to any watercourse, land or underground strata. Associated pipe-work shall be located above ground and protected from accidental damage. All filling points and tank overflow pipe outlets shall be detailed to discharge downwards into the bund.

1.4.9 All underground services and drains will be carefully routed so as to avoid crossing the RPA of all the retained trees.

1.4.10 No fires will be permitted on site.

**1.5 Tree Works.**

1.5.1 Before any construction works commence, and before any construction vehicles, equipment and materials are delivered to site, the following tree works will be carried out.

1.5.1.1 Fell tree no. T1. N.B. this tree can only be felled if its owner has given their written permission for it to be felled. If this permission is not given, the tree must be retained and its root pruned during the construction of the nearby parking bay.

1.5.1.2 Crown reduce tree no. T7 as illustrated in this plan i.e. T7 is illustrated with a partial red crown margin indicating the crown to be reduced, and a complete green crown margin indicating the crown to be retained after the crown reduction works are completed.

**1.5.3 All tree works will be carried out in accordance with the following stipulations.**

- 1.5.3.1 All tree works will be carried out in accordance with BS3998:2010 wherever that Standard is applicable.
- 1.5.3.2 All works will be carried out in accordance with all applicable health & safety and environmental protection legislation, and common law right and common law duty of care.
- 1.5.3.3 All tree works will be carried out in such a way that no unintended collateral harm is caused to trees to be retained.
- 1.5.3.4 All arisings will be disposed of in an approved manner and off site unless otherwise instructed by the client or site manager.
- 1.5.3.5 If tree no. T1 is felled, the resulting stump will either be cut off close to ground level or ground out to 150mm below ground level, as determined by the tree's owner.

**1.6 Tree protection barrier erection**

1.6.1 After the tree works are completed, and before any construction works commence, and before any construction vehicles, equipment and materials, other than only those necessary for the erection of the tree protection barriers, are delivered to site, the tree protection barriers will be erected at the positions illustrated in this plan.

1.6.2 This barrier will either comply with the recommendations in BS5837:2012 i.e. as a first choice the barrier design illustrated in this plan will be used. Where this design of barrier is not feasible the barrier will comply with the following specification.

- 1.6.2.1 The barrier will comprise a minimum 2m tall welded mesh fence panels on rubber or concrete feet secured with ground pins.
- 1.6.2.2 The fence panels should be joined together using a minimum of two anti-tamper couplers, installed so that they can only be removed from inside the fence.
- 1.6.2.3 The distance between the fence couplers should be at least 1m and should be uniform throughout the fence.
- 1.6.2.4 The panels should be supported on the inner side by stabilizer struts, which should normally be attached to a base plate secured with ground pins.
- 1.6.2.5 Where the fencing is to be erected on retained hard surfacing or it is otherwise unfeasible to use ground pins, e.g. due to the presence of underground services, the stabilizer struts should be mounted on a block tray.
- 1.6.3 The barrier will have an A3 size informative/warning notice attached on the construction site side, at approximately 1.6 metres above ground level, and at no more than 6 metre intervals. An example of a suitable notice follows this plan.
- 1.6.4 No construction access whatsoever will be permitted in the construction exclusion zones formed by the tree protection barriers.
- 1.6.5 The tree protection barriers will be retained in place and intact until all construction activities have been completed and all construction materials, equipment and vehicles have been removed from the site.

**1.7 Underground service installation.**

1.7.1 All underground services and drains will be carefully routed so as to avoid crossing the RPA of all the retained trees.

**1.8 Fencing works in the RPA of retained trees.**

1.8.1 Where fences are to be erected in the RPA of retained trees they will be installed as follows.

- 1.8.1.1 The fences will be erected as part of the post construction soft landscaping works.
- 1.8.1.2 Post holes will be excavated by hand. If a significant root is encountered i.e. a root over 25mm in diameter, the post hole must be re-positioned so that it avoids the root.
- 1.8.1.3 Any roots encountered that are less than 25mm in diameter will be carefully cut back to the edge of the excavation using either a sharp pruning saw or a sharp pair of loppers.
- 1.8.1.4 The post can be secured with either rammed earth or concrete. If concrete is to be used, the post hole must first be lined with an impermeable and continuous membrane to prevent the leaching of toxic compounds into the root zone.
- 1.8.1.5 Mechanical augers and excavators will not be used within the RPA's.
- 1.8.1.6 No vehicular access across the RPA will be permitted as part of these works beyond the existing or new hard surfaces.

**1.9 Soft landscaping in the RPA of retained trees.**

- 1.9.1 Where soft landscaping works are to be carried out in the RPA of retained trees, they will be carried out as follows.
  - 1.9.1.1 The soft landscaping works will be carried out as part of the post construction soft landscaping works.
  - 1.9.1.2 Excavations for landscaping works within the RPA will be carefully carried out with hand tools only, and with no cultivations below 300mm. If significant roots are encountered i.e. roots over 25mm in diameter, these will be dug around and left undamaged.
  - 1.9.1.3 Powered cultivators will not be used in the RPA.
  - 1.9.1.4 No vehicular access across the root protection areas will be permitted as part of these works beyond the existing or new hard surfaces.

## **9.0 Tree Protection Barrier Sign**



**PROTECTIVE FENCING. THIS FENCING MUST BE MAINTAINED IN ACCORDANCE WITH THE APPROVED PLANS AND DRAWINGS FOR THIS DEVELOPMENT.**



**TREE PROTECTION AREA  
KEEP OUT !**  
(TOWN & COUNTRY PLANNING ACT 1990)  
**TREES ENCLOSED BY THIS FENCE ARE PROTECTED BY PLANNING CONDITIONS AND/OR ARE THE SUBJECTS OF A TREE PRESERVATION ORDER.  
CONTRAVENTION OF A TREE PRESERVATION ORDER MAY LEAD TO CRIMINAL PROSECUTION**  
**ANY INCURSION INTO THE PROTECTED AREA MUST BE WITH THE WRITTEN PERMISSION OF THE LOCAL PLANNING AUTHORITY**

## 10.0 References

- Mattheck & Breloer = 1994      Mattheck, C., Breloer, H. (1994) *The Body Language of Trees: A Handbook for Failure Analysis*. In: Department of the Environment; Lonsdale, D. (Ed) *Research for Amenity Trees*. HMSO, England. pp52-57.
- BS5837:2012      =      British Standard 5837:2012 'Trees in relation to design, demolition and construction – Recommendations'.
- BS3998:2010      =      British Standard 3998:2010 'Tree work – Recommendations'.