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**ARBORICULTURAL IMPLICATIONS ASSESSMENT
FOR
PROPOSED 12 UNIT RESIDENTIAL REDEVELOPMENT**

AT

**ASHWOOD NURSING HOME
BURWASH COMMON
ETCHINGHAM
EAST SUSSEX
TN19 7LT**

BY

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7. COPY OF INITIAL ARBORICULTURAL REPORT PREPARED BY MR. O. ALLPRESS

1. INTRODUCTION

- 1.1 Broad Oak Tree Consultants Ltd. received instructions from Artemis Design and Build Ltd. to undertake an inspection of trees located on and immediately adjacent to the site referred to as Ashwood Nursing Home, Burwash Common, Etchingam, East Sussex, TN19 7LT. The purpose of the inspection was to produce a base inventory of the tree stock and an Arboricultural Implications Assessment of redevelopment proposals. Comment has also been requested on an arboricultural report prepared for the adjoining property, Waypost, in relation to an earlier proposed layout.
- 1.2 The proposals are for the demolition of the existing building and the construction of eight detached and semi-detached houses, together with a block of four flats, associated gardens, parking and landscaping. Details of the proposals will have been submitted by Roger Howells (Architect), M&W Architects (Architect), Elemental Design (Garden Design and Build) and others.
- 1.3 The trees were inspected on 26th February 2020 by Tim Laddiman, BSc.(Hons) M.I.C.For. M.Arbor.A., Chartered Arboriculturist and Principal Consultant of Broad Oak Tree Consultants Ltd.

2. GENERAL SITE DESCRIPTION

- 2.1 Ashwood Nursing Home occupies a long, rectangular, north/south orientated plot located on the north side of Etchingam Road. To the north of the site is Burwash Common Pavilion and Recreation Ground, whilst to the east are residential gardens. The western boundary is marked by a road.
- 2.2 The Nursing Home occupies the southern end of the site, fronting onto Etchingam Road, with an area of former gardens to the east and a tarmac parking area with access points to the north-west. The main body of the site is occupied by lawn, much of which has recently been disturbed by machinery, with maintained hedges along the western and northern boundaries. A cluster of trees occupies the north-west corner of the gardens, with a dense belt of developing trees and shrubs along the eastern boundary, both within the site and in the adjoining gardens.

3. SCOPE OF TREE SURVEY

- 3.1 All trees and shrubs of 75mm diameter or more at 1.5m above ground level were included in the survey. This included trees immediately adjacent to the site.
- 3.2 For the offsite trees estimates of location, dimensions and condition had to be made.

4. DATA COLLECTION

4.1 All trees were inspected from the ground and no climbing or specialist investigations were undertaken. Only those trees within the site boundary could be basally inspected, with the structural integrity of the trees located outside the site unconfirmed. Each tree was inspected to the requirements of Section 4.4 "Tree Survey" of BS 5837:2012 "Trees in Relation to Design, Demolition and Construction - Recommendations".

4.2 The tree survey followed the numbered sequence from G1 to T28 inclusive. Tree numbers, together with BS recommended colour coding of condition, have been added to the Tree Constraints Plan, our drawing no. J58.12/01 in Appendix 2. This drawing also includes crown spreads based on four compass points and BS calculated root protection areas.

4.3 The following categories of information were obtained for each tree. Separate detailed tree survey sheets are attached in Appendix 1, together with comprehensive explanatory sheets which cover the details of the categories listed below.

- (1) Tree reference number
- (2) Species
- (3) Height in metres
- (4) Stem count
- (5) Stem diameter or equivalent in millimetres
- (6) Branch spread in metres
- (7) Age class
- (8) Height of crown clearance in metres
- (9) Physiological condition
- (10) Estimated remaining contribution in years
- (11) Category grading
- (12) Structural condition
- (13) Preliminary management recommendations

4.4 Within the assessment of physiological condition and remaining contribution, a visual inspection of each tree was undertaken to assess the crown and stem for any weak structures, deadwood, hollows, forks or other defects that might affect its stability and safety. The base of each tree was also visually inspected, together with tapping and probing, to search for signs of root lifting, bark death or decay. Where stems were heavily ivy clad, no full assessment of structural integrity could be undertaken. Clearance of the ivy would be necessary for confirmation of tree condition.

5. RISK ASSESSMENT - INFORMATIVES

5.1 Although the potential risk to someone passing beneath a tree when the tree or part of it fails is relatively remote, the risk is present. This increases significantly in areas of consistent and regular usage on a year round basis, such as footpaths, gardens and roadways. Where static structures exist, the risks become constant and an assessment is made as to whether complete or partial failure of a tree could potentially cause physical damage to such structures.

5.2 Within the scope of any tree survey it is a fact that not all risks of stem or crown failure can be covered, particularly in relation to freak occurrences of weather when even healthy trees can suffer stem snap or windblow. There is also a well known propensity for mature trees to occasionally shed limbs for no discernible reason, even on calm days. Although relatively rare, limbs may occasionally be shed and this should be acknowledged as a risk that cannot entirely be mitigated.

6. RESULTS OF TREE INSPECTIONS

6.1 A total of 28 individual trees, small groups and hedges were inspected, ranging from under 15 years of age to circa 100 years of age. Most are of less than 40 years of age. All of the trees on and adjoining the site have been planted as part of various ongoing landscaping schemes over a number of decades.

6.2 Many of the younger trees have considerable growth potential and could easily double in their dimensions over the next few decades. Other, such as T7 Beech, have structural defects or show signs of decline (Atlas Cedar T2) which will limit their future lifespans.

6.3 Along the eastern boundaries intense inter tree competition for space has already resulted in drawn up or asymmetric crown development that will intensify as the trees continue to develop.

6.4 Of the trees inspected, the following is a breakdown of the various numbers of trees and groups in each BS category.

BS Category	Tree No.	Sub Total
A	-	-
B	6, 10, 12	3
C	G1, 2, 3, 4, G5, 8, G9, 11, 13, 14, 15, G16, 17, 18, 19, G20, 21, 22, 23, 24, 25, 26, G27, 28	24
U	7	1
	TOTAL	28

6.5 Interpretation of table

Category A Retention most desirable. Of high quality and value and in such a condition as to be able to make a substantial contribution (a minimum of 40 years is suggested).

Category B Retention desirable. Of moderate quality and value and in such a condition as to make a significant contribution (a minimum of 20 years is suggested).

Category C Could be retained – of low quality and value. Poor crown form, heavily asymmetric, large numbers of similar species/size. Currently in adequate condition to remain until new planting could be established (a minimum of 10 years is suggested) or young trees with a stem diameter below 150mm.

Category U Trees for removal. Dead/dying/dangerous trees due to structural defects, fungal decay or root plate uplift. Those in such a condition that any existing value would be lost within 10 years and which should, in the current context, be removed for reasons of sound arboricultural management.

7. BS CALCULATED ROOT PROTECTION AREAS (RPAs)

- 7.1 To provide an indication of the critical areas of root plate necessary for tree survival and longevity, BS 5837:2012 requires the calculation of RPAs for trees in the BS Categories A, B and C. Calculations are not made for Category U trees which will require removal on safety grounds within 10 years.
- 7.2 The table in Appendix 3 been calculated using the measured stem diameters and the formula as described in Section 4.6 in BS 5837:2012. These are represented as basic circles on the Tree Constraints Plan. Where buildings, walls, services and hard surfacing exist within the indicated RPAs it is likely that the architecture of root systems will have been affected. Foundations to walls and buildings can completely obstruct root development, depending on their depth and the nature of the underlying soils. In the absence of detailed site investigations the indicated RPA circles should be used for guidance only within any redevelopment proposals.

ARBORICULTURAL IMPLICATIONS ASSESSMENT

8. REDEVELOPMENT PROPOSALS

- 8.1 The proposals are for the demolition of the existing building and the construction of eight detached and semi-detached houses, together with a block of four flats, associated gardens, parking and landscaping. Details of the proposals will have been submitted by Roger Howells (Architect), M&W Architects (Architect), Elemental Design (Garden Design and Build) and others.
- 8.2 The supplied Roger Howells (Architect) "Site Layout", drawing no. 1932/12 Rev E, has been used as the base for the Broad Oak Tree Consultants Ltd. Tree Protection Plan, drawing no. J58.12/02 Rev B in Appendix 4. This indicates trees for removal and measures to protect retained trees in accordance with BS5837:2012 requirements.

9. TREES FOR REMOVAL – REDEVELOPMENT

- 9.1 Based on the supplied proposed layout plan the following trees will require removal for the residential redevelopment to proceed.

Tree No.	Species	BS Category	Comments
G1	Thorn, Privet, Cherry Laurel (part)	C	Maintained hedge. Most of length retained.
T3	Ash	C	Small, young tree.
T7	Beech	U	Small, young tree. Weak stem unions.
G9	2no. Hazel	C	Overgrown shrubs.
T11	Maple	C	Crowded, young tree. Small crown.
T13	Fruit	C	Small, heavily crowded tree.
T15	Cherry	C	Small, young tree.
T22	Ornamental Cherry	C	Small, young tree.
T23	Japanese Larch	C	Young tree. Contorted stem. Poor value.
T26	Magnolia	C	Poor location. Growing against wall.
G27	Thorn/Holly (part)	C	Maintained hedge. Most of length retained.

- 9.2 All of the above trees are BS category C or U with most being small, young trees of no visual significance. As such their removal is not a significant loss to the local landscape. BS category C and U trees should not represent a constraint to proposals, according to BS5837:2012.
- 9.3 Extensive new shrub and small tree planting is proposed within the Elemental Design's submissions to offset losses around the boundaries of the site.
- 9.4 The trees for removal for the redevelopment are indicated as such with blue dashed crown outlines on the Tree Protection Plan.

10. TREE SURGERY REQUIREMENTS

- 10.1 To provide appropriate clearances and garden space the following tree works will be required.

Tree No.	Species	Works required
G1	Various	Localised cut back on E. side.
T2	Atlas Cedar	Raise crown base to 4m above ground level. Deadwood crown.
T10	Weeping Willow	Reduce height to 8m. Crown reduce to 4m radius in all directions.
G27	Thorn, Holly	Localised cut back to N. and E.
T28	Maple	Reduce crown to E. and S. back by 1m.

- 10.2 All of the above works are within typical garden maintenance parameters, and will not adversely affect tree health. Willows, such as T10, are commonly heavily reduced and typically respond with rapid new growth.
- 10.3 All tree work will need to be carried out by a competent tree surgeon to comply with BS3998:2010 "Tree Work - Recommendations".
- 10.4 All trees recommended for felling or tree surgery works will need to be checked for the presence of bats or nesting birds prior to works commencing. Disturbance to bats or nesting birds could contravene the Wildlife and Countryside Act 1981 and result in prosecution.

11. POTENTIAL IMPACT OF PROPOSALS ON RETAINED TREES

11.1 *T2 Atlas Cedar and drive/parking*

The proposed access drive to Units 1 and 2 and the two parking bays for Unit 1 overlap with the RPA of the Cedar. A proportion of the overlap was approved in relation to the additional parking and access permissioned under Application No. RR/2005/588/P.

To avoid significant root damage it will be necessary for the new access drive and parking bays to be installed to a no dig, permeable design. This would need to be installed under the supervision of an Arboricultural Consultant.

This design and methodology will accord with Arboricultural Practice Note 12 "Through the Trees to Development" and Section 7.4 "Permanent hard surfacing within the RPA" of BS5837:2012. An example of a typical cross section and construction methodology is included in Appendix 5.

11.2 *T10 and T12 and walls/patios*

The retained trees T10 and T12 are indicated to be within the garden of Unit 2, enclosed by two rendered blockwork walls to the north and south and the rear patio. These are aligned through the outer RPAs and as such precautions will need to be taken to avoid significant root damage. To avoid the potential for root tearing associated with machine bucket excavation, all excavations within the indicated RPAs of the trees will need to be undertaken by hand tools only. Any roots encountered that cannot be retained will need to be neatly cut back using sharp secateurs/loppers.

For the patio this will need to be formed with minimal removal of the turf only by hand tools and constructed to a porous design to allow continued water penetration and gaseous exchange with the underlying soils.

12. COMMENT ON ARBORICULTURAL REPORT FOR WAYPOST

- 12.1 The report prepared by Mr. O. Allpress describes the vegetation along the boundary between Waypost and the site, the subject of this report. These comprise mainly small trees and shrubs of minimal public visibility and limited wider landscape value apart from representing a green belt along the boundary. Most are small and unfortunately exaggerated BS Category values have been assigned to most of the trees to over emphasise their value. These are out of keeping with typical BS tree surveys and may reflect owner pressure or inexperience.
- 12.2 The report raises concerns regarding root impacts or changes to hydrology without any informed basis and it has been demonstrated in this AIA report that RPAs of trees within the grounds of Waypost will not be adversely affected. As such the concerns raised are unjustified and without basis. A surface water strategy will be required for the proposals to avoid additional overland flow to the neighbour and as levels generally drop from south to north the potential for lateral cross slope flow to occur is nominal.
- 12.3 Concerns over slight RPA encroachments related to a parking bay ignore the existing disturbed nature of the ground in this area, and the existing competition for rooting space from retained trees within the development site. Any very minor theoretical encroachment would have no adverse impact on tree health, given the existing site circumstances and constraints on roots being present.
- 12.4 The summary of impacts over emphasises the amenity value of the Cedar, T25 in the Broad Oak Tree Consultants Ltd. report (T14 in the Allpress report), which is a very poorly formed specimen for the species. The footprint of Unit 6 has been pulled further from the boundary and is inside the existing approved footprint for the care home extension. The offset RPA referenced for the Cedar appears to have stopped at the pavement, not the road, which is incorrect, as root systems typically explore beneath a relatively shallow pavement build up. This artificially increases the theoretical RPA offset in to the site. The past disturbance to the ground adjoining the boundary will also have limited any root system from the Cedar that may have been present within the site.
- 12.5 The AIA has taken in to consideration the vegetation in the adjoining garden of Waypost and the layout of the proposed scheme has been revised to reduce potential impacts. Robust tree protection measures in accordance with BS5837:2012 requirements are proposed and will ensure minimal disturbance to the offsite and retained onsite trees.

13. TREE PROTECTION MEASURES – FENCING

13.1 *Location of fencing*

- 13.1.1 The Tree Protection Plan indicates the proposed location of protective fencing based on the calculated tree protection areas and space available.

13.2 ***Design of fencing***

13.2.1 The protective fencing is to be constructed of scaffold uprights driven into the ground to a minimum depth of 0.6m and at no greater than 3m spacing. Uprights to be braced with angled scaffold poles and anchors. On to the uprights weldmesh panels such as “Heras” or a similar product will be securely mounted with all weather notices attached to every 5th panel reading “Keep Out – Protected Area”. The fencing will form enclosed areas to which no access will be allowed. This design of fencing is considered appropriate to the site and scale of redevelopment proposed.

13.2.2 Examples of the fencing specification and signage required are included in Appendix 6.

13.3 ***Timing of fencing***

13.3.1 Protective fencing is to be erected prior to commencement of site works and remain in place until completion of construction. The location and suitability of the fencing can be confirmed to the local authority by an arboricultural consultant prior to commencement of construction. Any tree felling will need to be undertaken prior to fence installation to minimise risks to operatives. All tree surgeons’ vehicles will be kept outside the indicated protection zones utilising existing areas of hard standing and drive.

13.4 ***Additional precautions***

13.4.1 Potentially injurious materials such as fuels, oils, chemicals and cement will be stored at least 20m from any stem, or in a bunded storage vessel. No fires will be lit within 5m of the drip line of any retained tree. No level changes will occur, either raising or lowering within the protected areas. A list of these additional precautions are included on the Tree Protection Plan.

14. **TREE PROTECTION MEASURES – GROUND PROTECTION**

14.1 In areas within root protection zones where access around the new building footprints will be required during construction, specific ground protection measures will be required. For machinery access these should comprise interlocking, specifically designed load bearing temporary roadway plates, commonly made of steel or specialised plastics. They will minimise any risk of compaction whilst providing a running platform for machinery.

14.2 Where foot access only is required, ground protection measures should comprise a base layer of geotextile, over which 100mm of woodchip will be laid, topped by side butting scaffold boards or non-slip surfaced minimum 20mm thick plywood or other man made boards.

14.3 For the access drive and parking adjoining T2 the ground protection measures are to remain in situ until the installation works are ready to proceed. No machinery will be allowed to operate within the indicated zone.

15. SITE OPERATIONS AND MATERIALS STORAGE

- 15.1 Details of site zoning cannot be specified by an Arboriculturalist as these are commonly determined by contractors on the basis of Health & Safety Assessments. However, the robust protective fencing will define the remaining site space available for storage and operations.
- 15.2 The various areas proposed for parking and garden space will most likely be utilised for a temporary compound for office/welfare units etc, with materials typically supplied in on an “as and when needed” basis.

16. SERVICES/DRAINAGE/SOAKAWAYS

- 16.1 Any services, drainage runs and soakaways are to be kept outside indicated root protection areas wherever possible. Where excavation is necessary within tree RPAs, these should be undertaken by hand tools or air spade and to the requirements of NJUG Volume 4 “Guidelines for the Planning, Installation and Maintenance of Utility Apparatus in Proximity to Trees, supervised by an Arboricultural Consultant.

17. SUMMARY

- 17.1 The proposed residential redevelopment will require the removal of eight individual trees, one group of two trees and parts of two existing hedgerows. All are BS category C or U and relatively small and young. As such their loss would not have a significant impact on local visual amenity. Extensive new planting is proposed by others to offset proposed losses.
- 17.2 Concerns raised by the neighbouring property over potential impacts on their small trees and shrubs along the boundary are unfounded. The layout design has taken in to account potential constraints from onsite and neighbouring vegetation and minimised potential impacts in accordance with BS5837:2012 recommendations.
- 17.3 Robust tree protection measures and appropriate construction methodologies will be necessary to ensure minimal disturbance to root systems of retained trees.
- 17.4 The Tree Protection Plan can be referred to in a specifically worded condition to ensure that the retained trees are appropriately protected during the demolition and construction phases.

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APPENDIX 1

TREE SURVEY EXPLANATORY SHEET

Height	in metres (estimated where ground uneven or access restricted).
Stem count	number of stems
Stem diameter	in mm. at 1.5m. above ground level.
Branch spread	radial spread in metres at four main compass points (estimated where no access).
Age class	Young - Y Middle aged - MA Mature - M Over mature - OM Veteran - V
Height of crown clearance	in metres. Normally range of heights of outer branches above ground level, e.g. 2-4m.
Physiological condition	Good, Fair, Poor, Dead, Variable
Estimated remaining contribution	in years e.g. less than 10, 10-20, 20-40, 40+
Category grading	see attached sheet
Structural condition	comment on presence of defects, decay, crown form, past management, deadwood, other features worthy of note. N.B. If trees are ivy clad, no full structural assessment will have been possible.
Preliminary management recommendations	requirements of further investigations, works necessary to alleviate potential hazards based on current setting and levels of access. NB: Works that may be necessary in relation to development are not included here

CASCADE CHART FOR TREE QUALITY ASSESSMENT

TREES FOR REMOVAL				
Category and definition	Criteria			Identification on plan
Category U Those in such a condition that any existing value would be lost within 10 years and which should, in the current context, be removed for reasons of sound arboricultural management	<ul style="list-style-type: none"> • Trees that have a serious, irremediable, structural defect, such that their early loss is expected due to collapse, including those that will become unviable after removal of other R category trees (i.e. where, for whatever reason, the loss of companion shelter cannot be mitigated by pruning) • Trees that are dead or are showing signs of significant, immediate and irreversible overall decline. • Trees infected with pathogens of significance to the health and/or safety of other trees nearby (e.g. Dutch elm disease), or very low quality trees suppressing adjacent trees of better quality NOTE Habitat reinstatement may be appropriate (e.g. R category tree used as a bat roost: installation of bat box in nearby tree.)			DARK RED
TREES TO BE CONSIDERED FOR RETENTION				
Category and definition	Criteria - Subcategories			Identification on plan
	1. Mainly arboricultural values	2. Mainly landscape values	3. Mainly cultural values, including conservation	
Category A Those of high quality and value: in such a condition as to be able to make a substantial construction (a minimum of 40 years is suggested)	Trees that are particularly good examples of their species, especially if rare or unusual, or essential components of groups, or of formal or semi-formal arboricultural features (e.g. the dominant and/or principal trees within an avenue)	Trees, groups or woodlands which provide a definite screening or softening effect to the locality in relation to views into or out of the site, or those of particular visual importance (e.g. avenues or other arboricultural features assessed as groups)	Trees, groups or woodlands of significant conservation, historical, commemorative or other value (e.g. veteran trees or wood-pasture)	LIGHT GREEN
Category B Those of moderate quality and value: those in such a condition as to make a significant contribution (a minimum of 20 years is suggested)	Trees that might be included in the high category, but are downgraded because of impaired condition (e.g. presence of remediable defects including unsympathetic past management and minor storm damage)	Trees present in numbers, usually as groups or woodland, such that they form distinct landscape features, thereby attracting a higher collective rating than they might as individuals but which are not, individually, essential components of formal or semi-formal arboricultural features (e.g. trees of moderate quality within an avenue that includes better, A category specimens), or trees situated mainly internally to the site, therefore individually having little visual impact on the wider locality	Trees with clearly identifiable conservation or other cultural benefits	MID BLUE
Category C Those of low quality and value: currently in adequate condition to remain until new planting could be established (a minimum of 10 years is suggested), or young trees with a stem diameter below 150mm.	Trees not qualifying in higher categories	Trees present in groups or woodland, but without this conferring on them significantly greater landscape value, and/or trees offering low or only temporary screening benefit.	Trees with very limited conservation or other cultural benefits	GREY
NOTE Whilst C category trees will usually not be retained where they would impose a significant constraint on development, young trees with a stem diameter of less than 150mm should be considered for relocation				

Tree ref. no.	Species	Height (m.)	Stem Count	Stem diameter or equivalent (mm.)	Branch spread (m.)				Age class	Ht. of crown clearance (m.)	Physiological condition	Estimated remaining contribution (years)	Category grading	Structural condition and Notes	Preliminary management recommendations
					N	E	S	W							
G1	Thorn, Privet, Cherry Laurel	<2.5	Multi	<100	1	1	1	1	M	0+	Good	40+	C2	Ivy clad. Maintained hedge.	
2	Blue Atlas Cedar	16	1	570	6.5	5	4.5	5.5	MA	1.5+	Poor	10-20	C1	Thinning crown. Fine shoot dieback.	
3	Ash	8	1	210	2	2	3	3	Y	1.5+	Poor	10-20	C1	Previously crowded to E.	
4	Norway Spruce	14	1	c350	c4	4	4	4	MA	3+	Poor	10-20	C1	Crown raised. Located in adjoining land therefore no basal inspection. Excavation to E. through root system.	
G5	2no. Holly	<8	1	<200	<3	<4	<4	<2	MA	1+	Poor	10-20	C1	Excavation to N. through root system. Poor crown form. Part ivy clad.	
6	Maple	8	1	290	5	4	4	2	Y	1.4+	Good	20-40	B2		
7	Beech	7	Multi	260	2.5	4	5	4.5	Y	1+	Poor	<10	U	Three stems from under 1m with weak unions.	
8	Holly	4.5	1	c150	c2	2	2	2	Y	1.8+	Unconfirmed	20-40	C2	Ivy clad.	
G9	2no. Hazel	<7	Multi	<600	<6	<3	<5	<5.5	M	0+	Fair	20-40	C2	Densely multi stemmed near ground level. Crowded. Ivy clad.	

Tree ref. no.	Species	Height (m.)	Stem Count	Stem diameter or equivalent (mm.)	Branch spread (m.)				Age class	Ht. of crown clearance (m.)	Physiological condition	Estimated remaining contribution (years)	Category grading	Structural condition and Notes	Preliminary management recommendations
					N	E	S	W							
10	Weeping Willow	12	1	500	9	c5	6	5	MA	0+	Good	20-40	B2	Twin stemmed at 2.5m-3m. Stem lean to E.	
11	Maple	10	1	140	2.5	1.5	1.5	2.5	Y	1.5+	Fair	20-40	C2	Crowded. Drawn up.	
12	Himalayan Birch	13	Multi	370	3.5	c4	3	5	MA	2+	Fair	20-40	B2	Multi stemmed from under 1m.	
13	Fruit	5	Multi	260	2.5	1.5	4	4	M	1+	Good	20-40	C2	Heavily crowded. Three stems near ground level.	
14	Ornamental Cherry	7	Multi	190	1.5	3	1	0.5	MA	2+	Poor	10-20	C1	Multi stemmed from under 70cm. Weak unions. Drawn up crown.	
15	Cherry	5	1	160	3.5	4	4	3.5	Y	1.1+	Fair	20-40	C2	Upper crown bowed over to W.	
G16	Mixed Shrubs	<6	Multi	<150	<2	<2	<2	<2	Y/MA	0+	Variable	10-40	C2	Variable height. Located in adjoining garden therefore no basal inspection.	
17	Ornamental Cherry	7	Multi	130	1	1	1	2.5	Y	3+	Fair	10-20	C1	Crowded. Multi stemmed from under 1.1m. Grafted near ground level.	
18	Maple	9	1	260	0.5	2	4.5	4	Y	2+	Fair	20-40	C1	Crowded. Topped at circa 7m in past year.	

Tree ref. no.	Species	Height (m.)	Stem Count	Stem diameter or equivalent (mm.)	Branch spread (m.)				Age class	Ht. of crown clearance (m.)	Physiological condition	Estimated remaining contribution (years)	Category grading	Structural condition and Notes	Preliminary management recommendations
					N	E	S	W							
19	Maple	9	1	290	2	1	4.5	3.5	Y	2.5+	Fair	10-20	C1	Crowded. Topped at circa 7m in past year.	
G20	Mixed Shrubs	<5	Multi	<100	<1.5	<2	<1.5	<1	Y	0+	Good	40+	C2	Located in adjoining garden therefore no basal inspection. Variable height.	
21	Pine	10	2	c300	2.5	c3	2.5	2.5	Y	0+	Unconfirmed	20-40	C2	Twin stemmed near ground level. Located in adjoining garden therefore no basal inspection.	
22	Ornamental Cherry	5	1	120	2	0.5	2	4	Y	3+	Fair	10-20	C1	Grafted at 1m. Crowded. Leaning W. Multi stemmed from under 2m.	
23	Japanese Larch	9	1	290	4.5	1.5	0.5	4	Y	2.5+	Poor	10-20	C1	Contorted stem to N. Deadwood.	
24	Larch	9	1	c200	2.5	c3.5	3	2.5	Y	4+	Unconfirmed	20-40	C2	Upper stem bowed to E. Located in adjoining garden therefore no basal inspection.	
25	Deodar Cedar	13	1	c250	3	c4	2.5	3	Y	1.5+	Unconfirmed	20-40	C2	Slender stem. Long slender horizontal branches. Located in adjoining garden therefore no basal inspection.	

Tree ref. no.	Species	Height (m.)	Stem Count	Stem diameter or equivalent (mm.)	Branch spread (m.)				Age class	Ht. of crown clearance (m.)	Physiological condition	Estimated remaining contribution (years)	Category grading	Structural condition and Notes	Preliminary management recommendations
					N	E	S	W							
26	Magnolia	6	Multi	160	0	2	2.5	2.5	M	0+	Good	20-40	C2	Three stems near ground level. Growing against wall.	
G27	Thorn, Holly	<2	Multi	<80	<1	<1	<1	<1	M	0+	Fair	20-40	C2	Maintained hedge.	
28	Maple	5	1	170	2	3.5	3.5	2	Y	1+	Fair	20-40	C2	Multi stemmed at 1.8m. Slight lean to E. Torn limbs to S.	

APPENDIX 2

TREE CONSTRAINTS PLAN

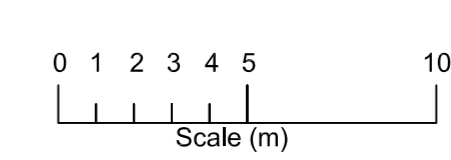
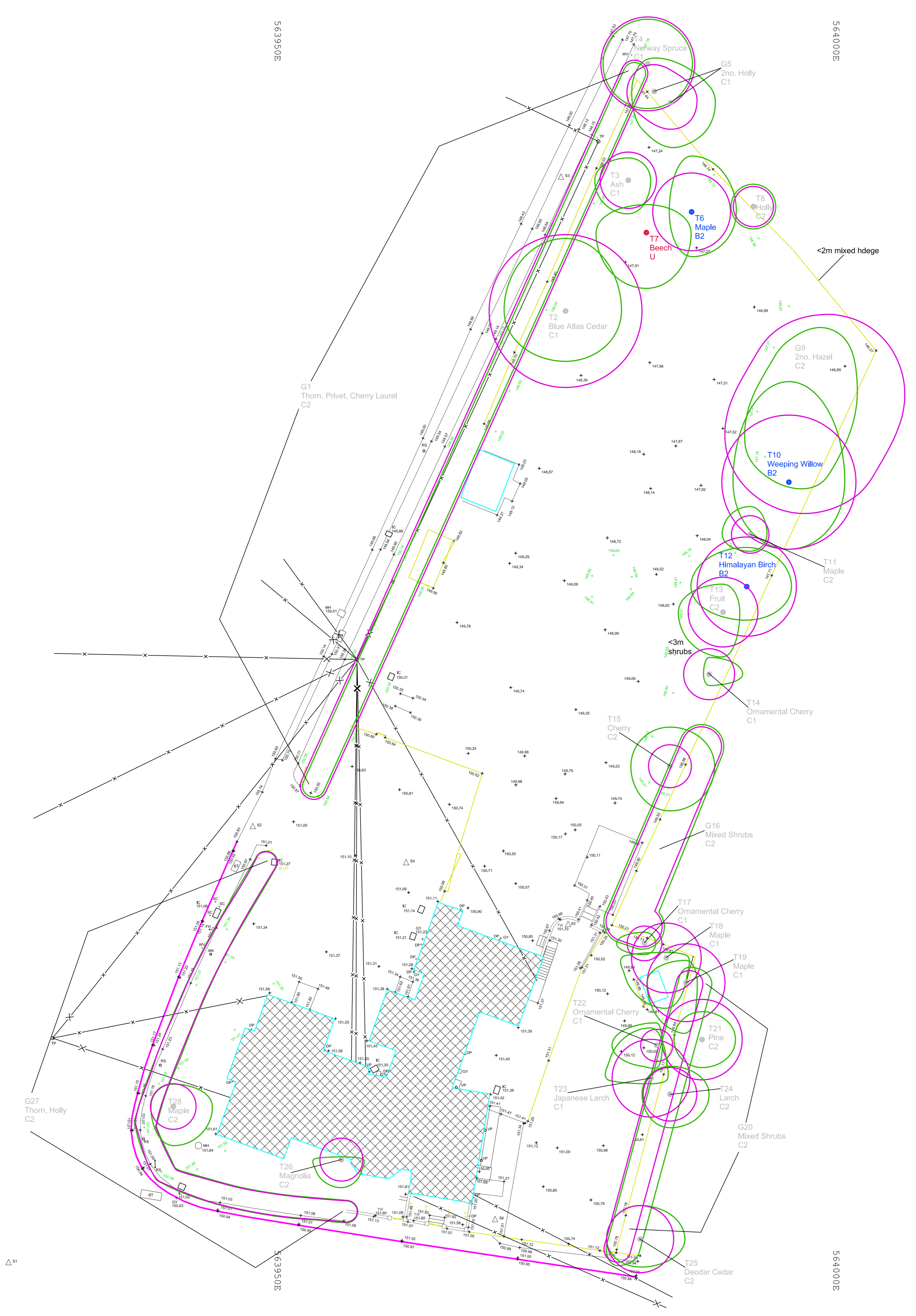
G1 - T28 Tree numbers

BS Category of Condition

- 0 BS Condition A
- T6 BS Condition B
- T2 BS Condition C
- T7 BS Condition U

- Crown spread
- BS Calculated root protection areas

The root protection areas have been calculated using the measured stem diameters and the formula as described in Section 4.6 in BS5837:2012. These are represented as basic circles on the Tree Constraints Plan. Where buildings, walls, services and hard surfacing exist within the indicated RPA's, it is likely that the architecture of root systems will have been affected. Foundations to walls and buildings can completely obstruct root development, depending on their depth and the nature of the underlying soils. In the absence of detailed site investigations, the indicated RPA circles should be used for guidance only within any redevelopment proposals.



APPENDIX 3

TABLE OF BS CALCULATED ROOT PROTECTION AREAS (RPAs)
 AT
 ASHWOOD NURSING HOME, BURWASH COMMON, ETCHINGHAM, EAST SUSSEX, TN19 7LT

Tree no.	Species	BS Category	Stem diameter or calculated equivalent (mm.)	BS calc. radial equiv. root protection area (m.)	BS calc. total RPA (m ²)
G1	Thorn, Privet, Cherry Laurel	C2	<100	<1.2	<5
2	Blue Atlas Cedar	C1	570	6.8	145
3	Ash	C1	210	2.5	20
4	Norway Spruce	C1	c.350	c.4.2	c.55
G5	2no. Holly	C1	<200	<2.4	<18
6	Maple	B2	290	3.5	38
7	Beech	U	-	-	-
8	Holly	C2	c.150	c.1.8	c.10
G9	2no. Hazel	C2	<600	<7.2	<163
10	Weeping Willow	B2	500	6	113
11	Maple	C2	140	1.7	9
12	Himalayan Birch	B2	370	4.4	61
13	Fruit	C2	260	3.1	30
14	Ornamental Cherry	C1	190	2.3	17
15	Cherry	C2	160	1.9	11
G16	Mixed Shrubs	C2	<150	<1.8	<10
17	Ornamental Cherry	C1	130	1.6	8
18	Maple	C1	260	3.1	30
19	Maple	C1	290	3.5	38
G20	Mixed Shrubs	C2	<100	<1.2	<5
21	Pine	C2	c.300	c.3.6	c.41
22	Ornamental Cherry	C1	120	1.4	6
23	Japanese Larch	C1	290	3.5	38
24	Larch	C2	c.200	c.2.4	c.18
25	Deodar Cedar	C2	c.250	c.3.6	c.28
26	Magnolia	C2	160	1.9	11
G27	Thorn, Holly	C2	<80	<1	<3
28	Maple	C2	170	2	13

APPENDIX 4

TREE PROTECTION PLAN

G1 - T28 Tree numbers

BS Category of Condition

- 0 BS Condition A
- T6 BS Condition B
- T2 BS Condition C
- T7 BS Condition U

- Crown spread
- BS Calculated root protection areas
- Tree to be removed for safety/short lifespan
- Tree to be removed for development
- Protective fencing location
- Ground protection

TREE PROTECTION INFORMATION

Protective fencing and ground protection measures to be installed at locations specified prior to commencement of any demolition works.

Protective fencing to comprise scaffold uprights driven into the ground to 60cm, depth at no more than 3m, spacing. Upright to be braced within high usage/construction/demolition areas. Weldmesh panels to be securely fixed to uprights to produce a continuous barrier. Waterproof signs to be attached to every 5th panel in accordance with fig. 2 and section 6 Specifications of BS5837:2012.

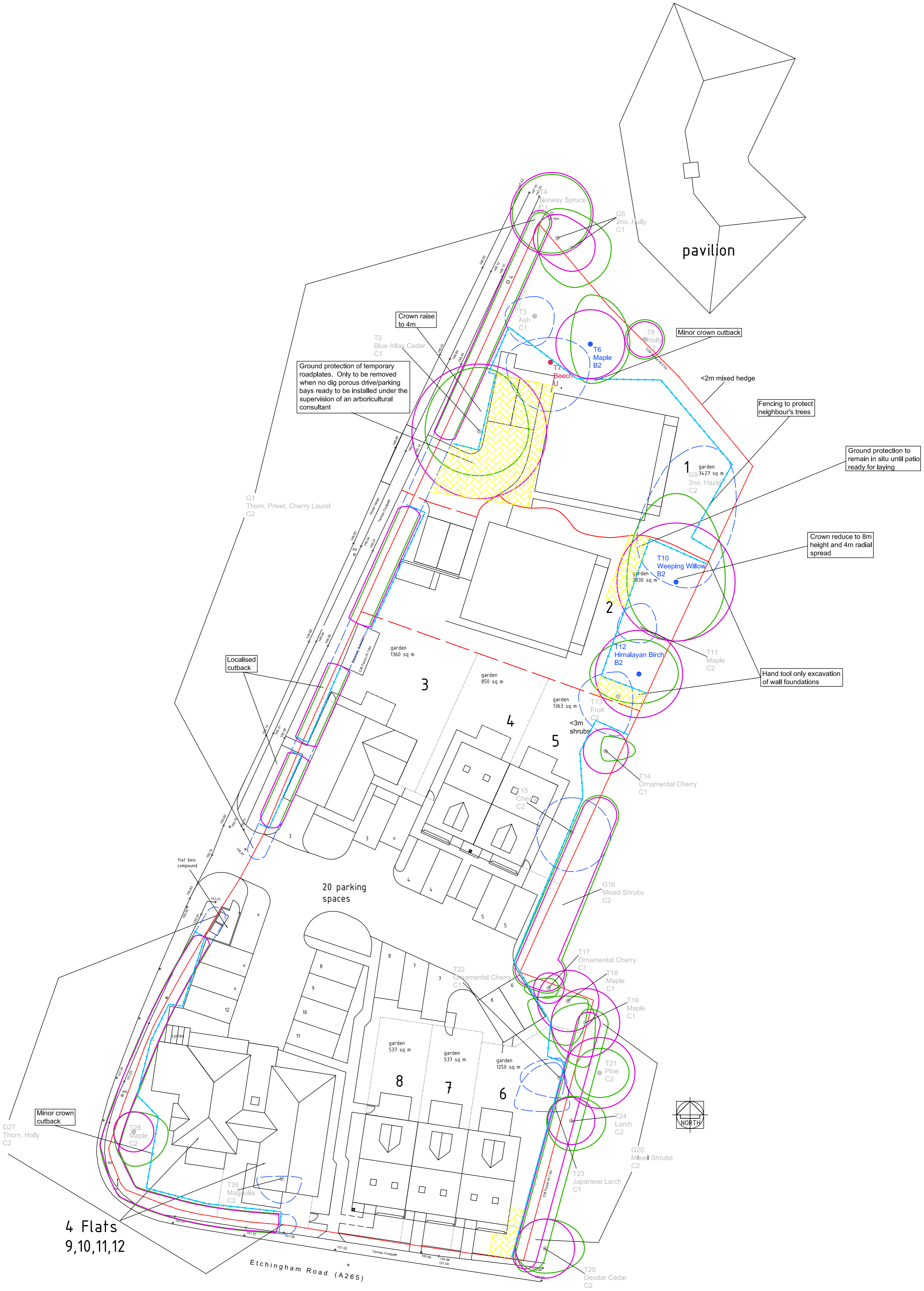
Ground protection measures to comprise a single thickness of side butting scaffold boards over a 100mm, compressible layer laid onto a geotextile.

Buildings in proximity to protective fencing areas to be demolished by machinery pulling walls inwards onto the building footprint.

The fenced protection zones around retained trees, hedges and shrubbery are to be regarded as sacrosanct and none of the following are to occur within these areas:

- Storage or disposal of any soil, building materials, machinery, fuel or waste residues of any description.
- Siting of any temporary structures of any description including site offices/sales buildings, temporary car parking facilities, porta-loos, storage compounds or temporary hard standing areas.
- Excavations, soil/turf stripping, raising/lowering of existing levels or alterations to the existing natural surfaces/ground conditions of any other description.
- Location of temporary drainage, water supplies or any other temporary underground services.
- No use, movement or parking of any machinery or vehicles of any description.
- Additionally, no fires shall be lit within 20m, of the trunks of any trees or the centre line of any hedgerow to be retained.

All services to be installed to the requirements of NUJG Volume 4 "Guidelines for the Planning, Installation and Maintenance of Utility Apparatus in Proximity to Trees". Any runs within retained tree root protection areas to either be bored/moled or any hand excavation to be supervised by the Arboricultural Consultant



APPENDIX 5



Broad Oak Tree Consultants Limited

Laurel House, Burwash Road, Broad Oak, Heathfield, East Sussex TN21 8SS
Tel: 01435 862444 Email: broadoaktrees@btconnect.com

ARBORICULTURAL METHOD STATEMENT FOR THE CONSTRUCTION OF “NO DIG” LOAD BEARING SURFACES WITHIN TREE ROOT PROTECTION AREAS

GENERAL

This document sets out the methodology for the construction of load bearing surfaces within tree root protection areas where excavation is not to occur, in order to minimise damage to underlying tree roots.

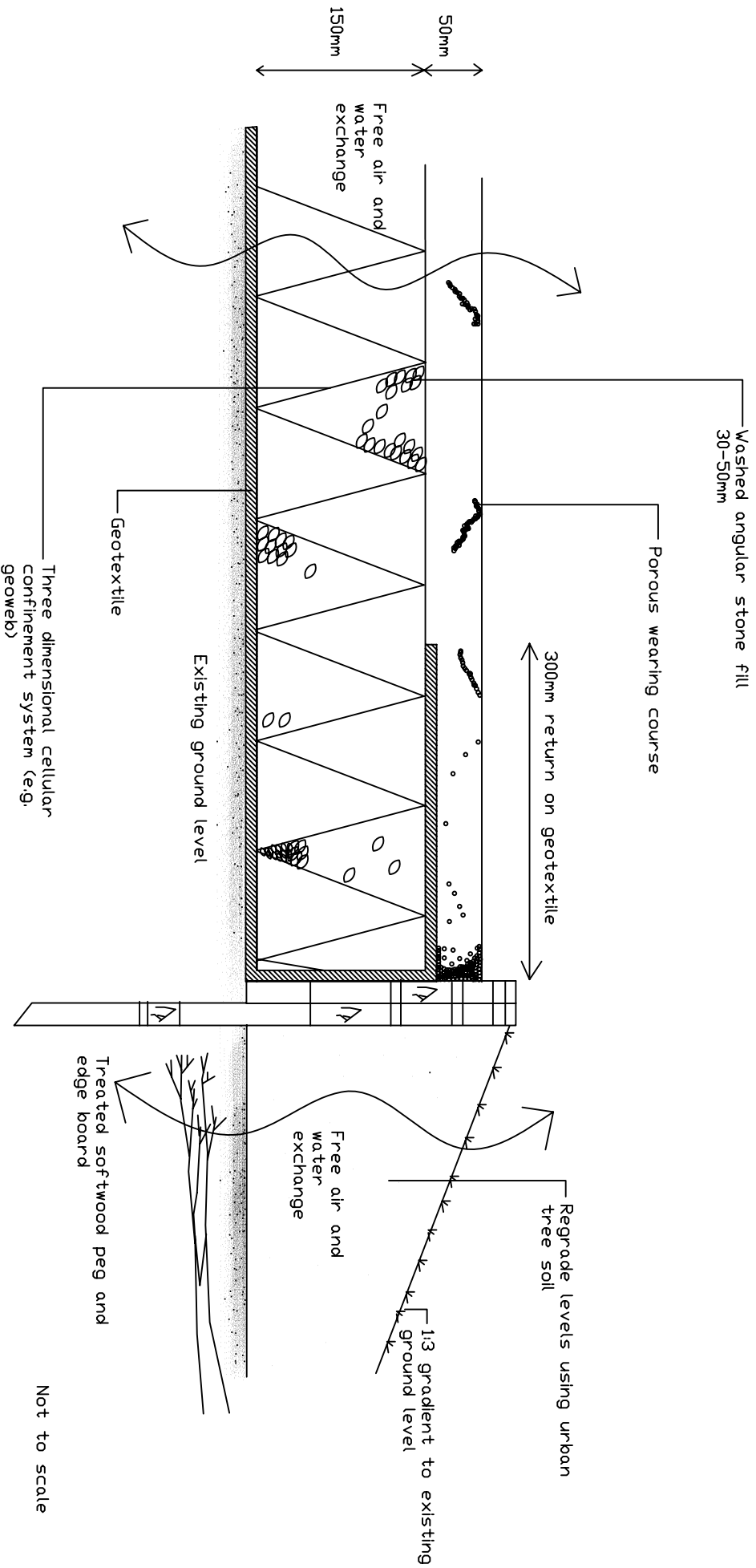
The following information is taken from manufacturers supplied information, relevant sections of BS5837:2012 “Trees in Relation to Design, Demolition and Construction – Recommendations” and Arboricultural Practice Note 12 “Through the Trees to Development”.

SITE PREPARATION AND CONSTRUCTION

- Loose organic matter and/or turf to be removed using hand tools only.
- Lay directly onto existing ground level a geotextile layer, such as G4 Geotextile produced by Cooper Clarke Group Ltd., covering the area of ground within the calculated root protection area.
- Expand out and pin in place a 150mm depth three dimensional cellular confinement system, such as Geoweb or similar product.
- Infill expanded cells working outwards from existing surfacing. Infill materials to comprise washed angular stone of 30mm-50mm size.
- Peg and board edges of construction with appropriate dimension treated softwood or kerbing with haunching set on the existing ground level.
- Lay porous wearing layer onto infilled cells, working from the existing surfacing.
- Regrade from finished levels towards tree stems using urban tree soil or good quality top soil moved into position by wheelbarrow only on bare ground or to be tipped by dumper access across the finished surfacing only.
- No machinery is to pass over the unprotected ground. Machinery can only utilise the drive once the cells have been filled.

The attached drawing provides a visual reference to the proposed make up of the “no dig” construction.

DESIGN FOR PERMEABLE LOAD BEARING AND DIG SURFACING FOR DRIVES AND PARKING BAYS



APPENDIX 6

EXAMPLE OF FENCING SIGNAGE



BS5837:2012: FENCING SPECIFICATIONS

Figure 2 Default specification for protective barrier

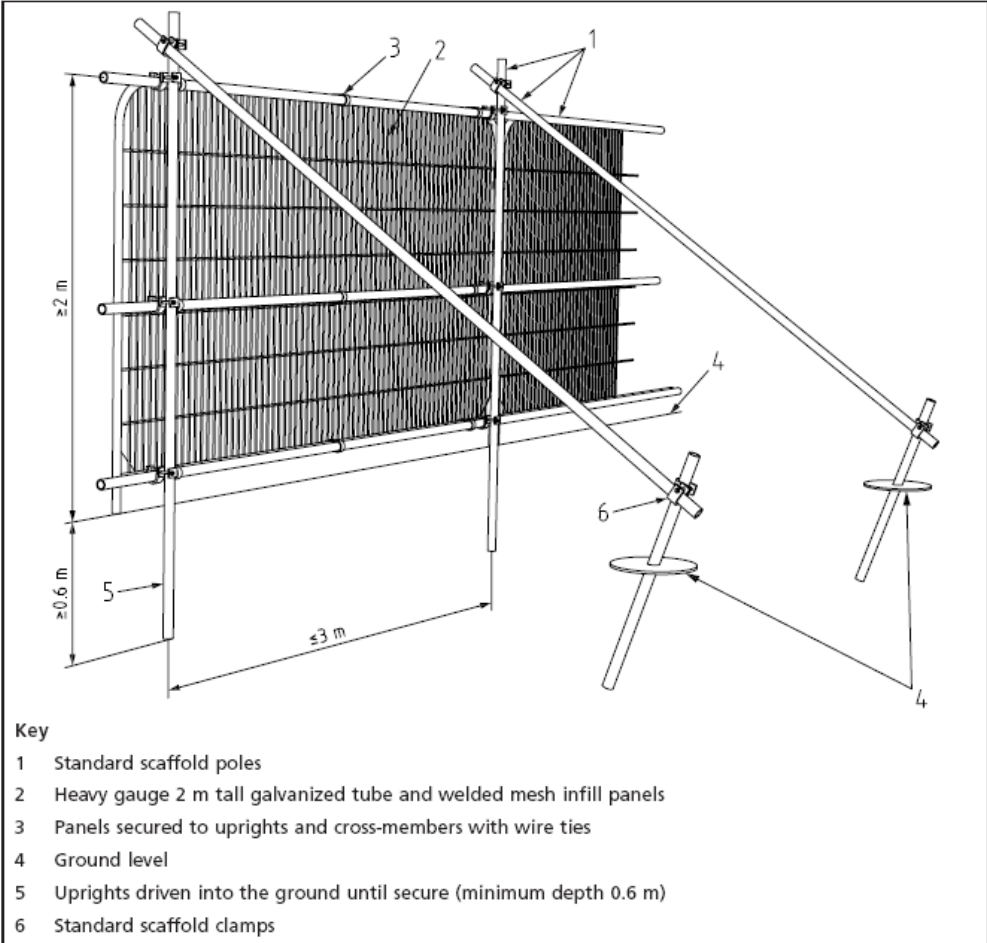
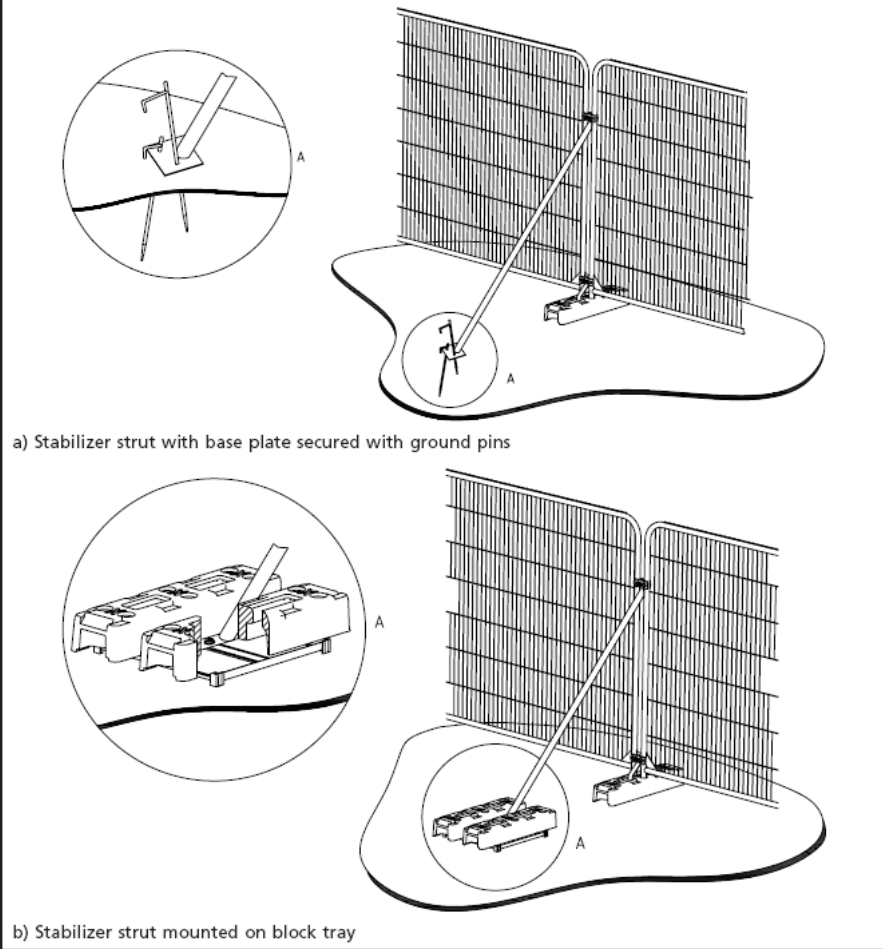


Figure 3 Examples of above-ground stabilizing systems



APPENDIX 7



**Initial Arboricultural Report in accordance with BS 5837: 2012 *Trees*
in relation to design, demolition and construction –
*Recommendations***

Project name:	Waypost, Heathfield Road, Burwash Common, Etchingham.		
Project Ref:	1977	Date of report:	21 August 2020
Written by:	Owen Allpress <i>Bsc (Hons) Arb</i> Working in the Arboricultural sector for over a decade I have achieved both an FdSc and a BSc (Hons) in arboriculture, am a LANTRA certified Professional Tree Inspector and a professional member of the Arboricultural Association. Starting out working as an arborist, I progressed into a management role running a large and successful tree surgery. I later took a consultant position within a large and established consultancy in the south east before becoming an independent consultant.		



Contents:

1.0 – Introduction and Scope of Survey

2.0 – Initial Tree Survey Methodology

3.0 – Site Summary and Survey Findings

4.0 – Feasibility Considerations and Arboricultural Impact Assessment

5.0 – Conclusion

Appendices

Appendix 1: Tree Constraints Plan

Appendix 2: Tree Survey Schedule

Appendix 3: Cascade Chart for Tree Quality Assessment

Appendix 4: Formula Used for RPA Calculation



1.0 Introduction and Scope of Survey

1.1 Instruction: I have been instructed by G. Bruce to provide an Initial Arboricultural Assessment of trees at Waypost. The assessment was limited to western boundary trees with the adjacent plot proposed for development.

1.2 This report: The purpose of this report is to provide a record of the condition and classification of all relevant trees at the western boundary of Waypost in order to build a detailed understanding for the client of the potential implications of the neighbouring development.

1.3 Scope: This report is unique in the sense that no development is proposed within the site and that its purpose is to detail boundary trees and the likely implications that may need to be considered by the local planning authority as part of the application currently pending for the neighbouring plot. It is a requirement of BS5837:2012 to consider the impact of development both on trees that are present on the site to be developed and on third party land.

Extract from Section 4 Feasibility: Surveys and Preliminary Constraints, BS5837:2012.

“4.4.1.1 A tree survey should be undertaken by an arboriculturist to record information about the trees on or adjacent to a site. The results of the tree survey, including material constraints arising from existing trees that merit retention, should be used (along with any other relevant baseline data) to inform feasibility studies and design options. For this reason, the tree survey should be completed and made available to designers prior to and/or independently of any specific proposals for development.”



1.4 This report is concerned primarily with trees and relevant vegetation within the western boundary, a number of trees are present close to the boundary within the neighbouring development area. These have not been included in this report. It is understood that an arboricultural assessment of the development plot has occurred and the impact to trees on this site are being considered however, it is unclear if consideration has been made as to the impact of development on trees adjacent at my clients property Waypost.

1.5 This report primarily aims to:

- Identify larger trees that may require consideration as part of the development of the neighbouring site.
- Highlight any additional consecrations that may need to be made by developers due to levels, run off and possible peripheral impacts that may jeopardise the rare plant collection present within the gardens of Waypost.



2.0 Initial Tree Survey Methodology

2.1 Data Recorded: Trees at the site have been assessed and data recorded in accordance with tree requirements set out within BS5837: 2012. The following data was collected from each tree while at the site.

REF: This is a sequential tree reference number beginning with a letter to define individual trees, (T), tree groups, (G), hedges, (H) and Woodlands, (W). It is used to locate and refer to trees throughout the remainder of this report including subsequent reports at the same site.

SPECIES: Tree species recorded in the following format, "Common name, (*Scientific name*)". Scientific names are italicised and placed within parenthesis.

HEIGHT: Tree height recorded to the nearest meter.

DBH: Diameter at Breast Height, recorded at the appropriate location along the stem dependant on tree form, (1.5m from ground level).

CROWN SPREAD: Crown spread of the tree recorded to the nearest meter, using four cardinal points as a reference measured with a laser where possible estimated in the instance of third party trees.

AGE CLASS: Age classification. This is a broad description used to detail approximate age. Age class is specific to tree species and their individual growth habit.

CONDITION SUMMARY: Details of the tree's overall condition in order to qualify its classification and provide additional notes on condition.

PRELIMINARY MANAGEMENT ACTION: Management recommendations that are recommended to be carried out regardless of the development proposal. These are based on current site use and setting and may include trees with obvious defects that should be addressed regardless of the future of the site.

CATEGORY GRADING: Category grading according BS5837: 2012 see Appendix 4

ROOT PROTECTION RADIUS: This measurement may be useful for designers to plot RPAs during early stages of the proposal's design or at a later stage to ascertain the dimensions of the root protection area for each tree prior to construction.

2.2 What is a root protection area? A root protection area in the context of this report is an area calculated to be the optimum minimum rooting area required by the tree in order to remain viable. This area does not necessarily contain roots however should be thought of as an allotment of space to permit future growth to sustain the tree post construction.

2.3 Root protection areas for each tree recorded are illustrated within the Tree Protection Plan within appendix 1.



3.0 Site Summary and Survey Findings

3.1 Site survey: The site was visited to carry out a visual tree inspection and record the required data on 4th Aug 2020. The weather conditions at the time were dry and bright.

3.2 Site layout: Waypost is situated to the north of Heathfield Road, Burwash Common in East Sussex. The plot is south of local public open space, one plot east of the junction with an unnamed road north to Stonegate. The site is, in its entirety, a precisely laid out and landscaped collection of rare, unique and unusual plants. Structures at the site remain largely unchanged from what is presumed to be original dwelling dimensions. The addition of a number of outbuildings has occurred however presents little relevance to the scope of this report.



Image 1: Site location. Red line indicates approximate property boundaries, survey area was limited to the western boundary.

3.3 Statutory tree protection: Rother District Councils' online mapping system was accessed on 19th August 2020 to ascertain the presence of tree related restrictions. At the time of checking, no TPO affects the site and the site is not within a conservation area. Client and contractors are required to re-check the status of any trees subject to tree works prior to carrying out work as this information is subject to change.

3.4 Rare tree and plant collection: The site in its entirety is home to a collection of rare and unusual trees and plants. Few, if any, native tree species occupy the garden and each and every single plant has been selected, sourced, (or grown from seed), and planted by the owners representing a herculean investment both in time and money. The gardens represent far more than simply a physical asset or 'hobby gardening' and must be considered a professionally executed plant collection, likely unique in a private setting. The gardens have matured over the past 20 years to form a unique and unusual private space. It is not an understatement to emphasise the investment that the gardens represent, which by comparison likely approaches that of the value of the property. The gardens also represent what could be considered a life's work and represents significant emotional and sentimental value. Many of the trees that were



included in the survey possess root protection areas, (BS5837:2012) that extend beyond the boundary into the neighbouring plot. The potential implication of this in relation to the proposed development are explored in the following sections. Detail of the tree recorded as part of this assessment is available in appendix 2 and illustrated in the tree constraints plan in appendix 1.

3.5 Detailed information regarding each tree is available in appendix 2 Tree Survey Schedule. This document details each tree recorded that is of a size to warrant inclusion from a BS5837:2012, perspective.

3.6 Limitations: Drawings accompanying this report were created based on OS Mastermap data. No topographical survey was carried out and stem positions were manually achieved by triangulating from boundary features and fixed reference points, (such as garages and outbuildings). A level of error in their positioning must be considered possible however it is not thought that, in relation to proximity to the boundary, error is such that a reliable assessment of the potential impact cannot be made.

3.7 In order to provide a systematic and robust approach to data collection and presentation, trees at the site were surveyed in accordance with the recommendations within *BS5837 2012 Trees in Relation to Design Demolition and Construction*. See appendix 4 for Tree Categorisation Criteria (From BS5837).



4.0 Feasibility Considerations and Arboricultural Impact Assessment

4.1 Current site situation: The gardens of Waypost occupy land that gradually decreases in elevation west to east. The neighbouring development plot is located on marginally higher ground. Extant vegetation including grass at the neighbouring site although mostly cleared likely presents a level of surface water attenuation with regard to rainwater runoff. A group of mature trees toward the rear boundary of the plot at the boundary with Waypost provide some screening and are illustrated as being retained as part of the proposed neighbouring development.

4.2 Potential for damage due to construction: It is my opinion that given the size of trees at the Waypost, a moderate to low potential exists to trees at the boundary for physical damage to roots. Likely a greater consideration may be that any drastic changes to ground level hold potential to impact ground water availability to trees at Waypost. It is not known at this stage what if any levels changes are set to occur within the development plot however excavation that halts the natural permeation of ground water into gardens at Waypost presents a moderate threat of increased seasonable water availability potentially impacting on much of the boundary vegetation. Rain water runoff that occurs rapidly, un-arrested by vegetation may also present a risk of bogging and the creation of anaerobic soil conditions that might suffocate roots impacting tree vitality. Shading and increased pressure to prune are also of some concern. This appears to only be an issue at Plot 7 where proposed new properties are in very close proximity to boundaries.

4.3 Drawings in appendix 1 illustrate the proposed development in the content of larger trees and vegetation at Waypost. Below is a summary of the potential impacts that appear to be occurring as a result of proposed development.

4.4 Summary of potential impacts:

- Several small encroachments are set to occur to boundary trees within Waypost from new surfaces adjacent Unit 7. Depths and dimensions for surface type are not known however it is possible that root growth from trees is present within the development area. These encroachments are small and unlikely to present a significant issue to trees and vegetation however the creation of surfaces in such proximity may result in their future disruption or damage from regeneration of root growth, particularly if damaged during construction.
- The establishment of foundations for properties may affect the availability and/or permeation of groundwater.



- Potential for root damage from excavation both at site clearance stage and landscape stage exists at proposed planting beds adjacent T7, T8 & T9.
- T14 possesses an amended RPA given the likely constraint the presence of public highway will have had on root growth. As a result, the RPA occupies a larger area for the proposed front garden of Unit 7. No excavation scraping or levels changes beyond existing should occur in this area without consideration for the potential impact to the tree. Any works that are proposed in this area but not known at this stage will require further arboricultural input. T14 represents significant amenity value both at the time of survey and in the future, which is likely to increase exponentially as it matures.

4.5 BS5837: 2012 stipulates that in order to successfully consider the material constraint trees present to the site and subsequent development, an Arboricultural Impact Assessment, (AIA) should be produced. Development of the adjacent plot appears to have considered trees within the site however it is unclear if any detail is included with regard to potential impact to trees located on adjacent land for which a requirement is made within BS5837.

4.6 Efforts should be made by the client/architect or developer to consider the material constraints the trees provide. This includes consideration to avoiding potentially drastic changes to ground water availability at gardens at Waypost. Run off and waste water management must also be considered during the construction phase as the likely inevitable removal of top soil required as part of the construction phase will remove any attenuation of ground water run off which may bog gardens during winter months.

4.7 No information regarding services for the neighbouring development have been reviewed as part of this report. It is thought that significant scope exists to deliver services to the site without impacting vegetation at Waypost as these will most feasibly be delved from the unnamed road existing Heathfield Road(north).



5.0 Conclusion

5.1 By way of conclusion the following statements can be made about the proposed new development, based on designs available for consideration. Owners or developers of the adjacent plot should be made aware of these points:

- It is noted that a professional assessment of trees has occurred at the neighbouring development, (no document review has been made as part of this assessment), however it is not clear if trees and vegetation at Waypost have been considered by developers as is required by BS5837:2012.
- Potential exists for root damage to a number of larger trees at the boundary, although not extreme in nature the magnified value of the gardens at Waypost present a heightened sense of concern which should be respected.
- Unit 7 appears to be in close proximity to the western boundary of Waypost. The proximity of the physical structures may present pressure to prune trees in the future and its foundations may disrupt ground water permeation and availability to the plant collection at this location.
- Paved side access of unit 7 is located immediately adjacent the boundary of Waypost. Potential for root damage at construction stage along with future surface disruption by root growth is plausible and should be considered. Ideally some form of buffer should be made between the boundary to alleviate potential for root damage and future surface disruption.
- T14 is a high value tree whose RPA, to a greater extent, is within the proposed gardens of unit 7. Protection measures must be deployed conforming to BS5837:2012. No scraping or excavation should occur within the RPA of this tree. Levels increases may be possible but not without arboricultural input. The value of root area in gardens is magnified by the proximity to main road where few if any roots are likely to be present. Root damage within the gardens of unit 7 also may likely increase potential for tree failure, (proximity to main road).
- Construction of parking spaces north of unit 7 are in close proximity to RPAs of trees at Waypost. Tree protection measures should be in place and no levels changes should occur in the RPAs of these trees without arboricultural involvement.
- Self-build plots present little if any impact to boundary vegetation at Waypost however as individual details of these development are subject to further application and approval each of the builds must present details arboricultural information at the time of their planning



submission in order to ensure assessment of impact occurs to trees at and adjacent to the site.

Contact details:

Author: O. Allpress

Phone: 07427084984

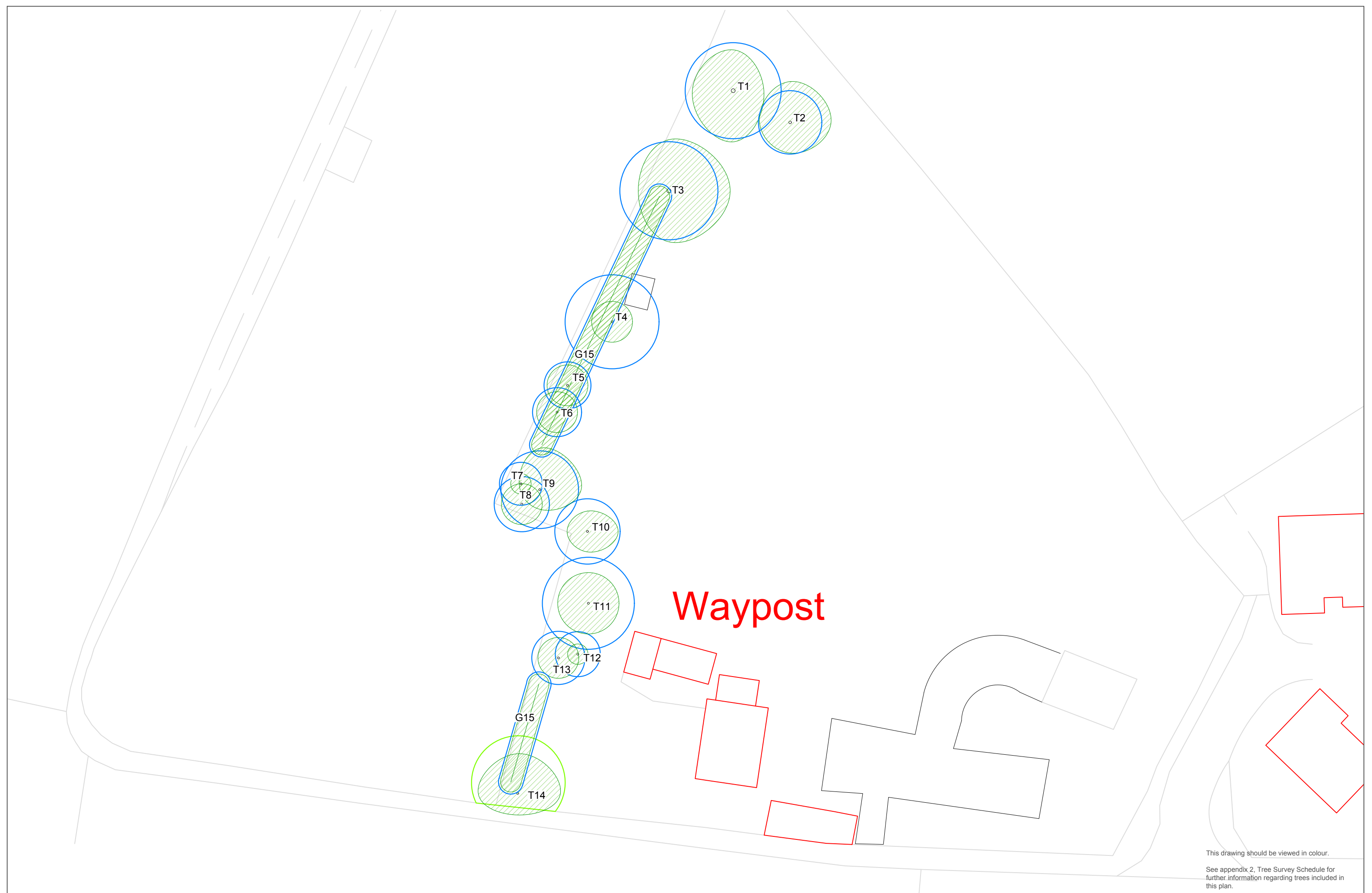
Email: owen@owenallpress.com

Web: www.owenallpress.com

Project Ref:	1977	Date:	21 August 2020
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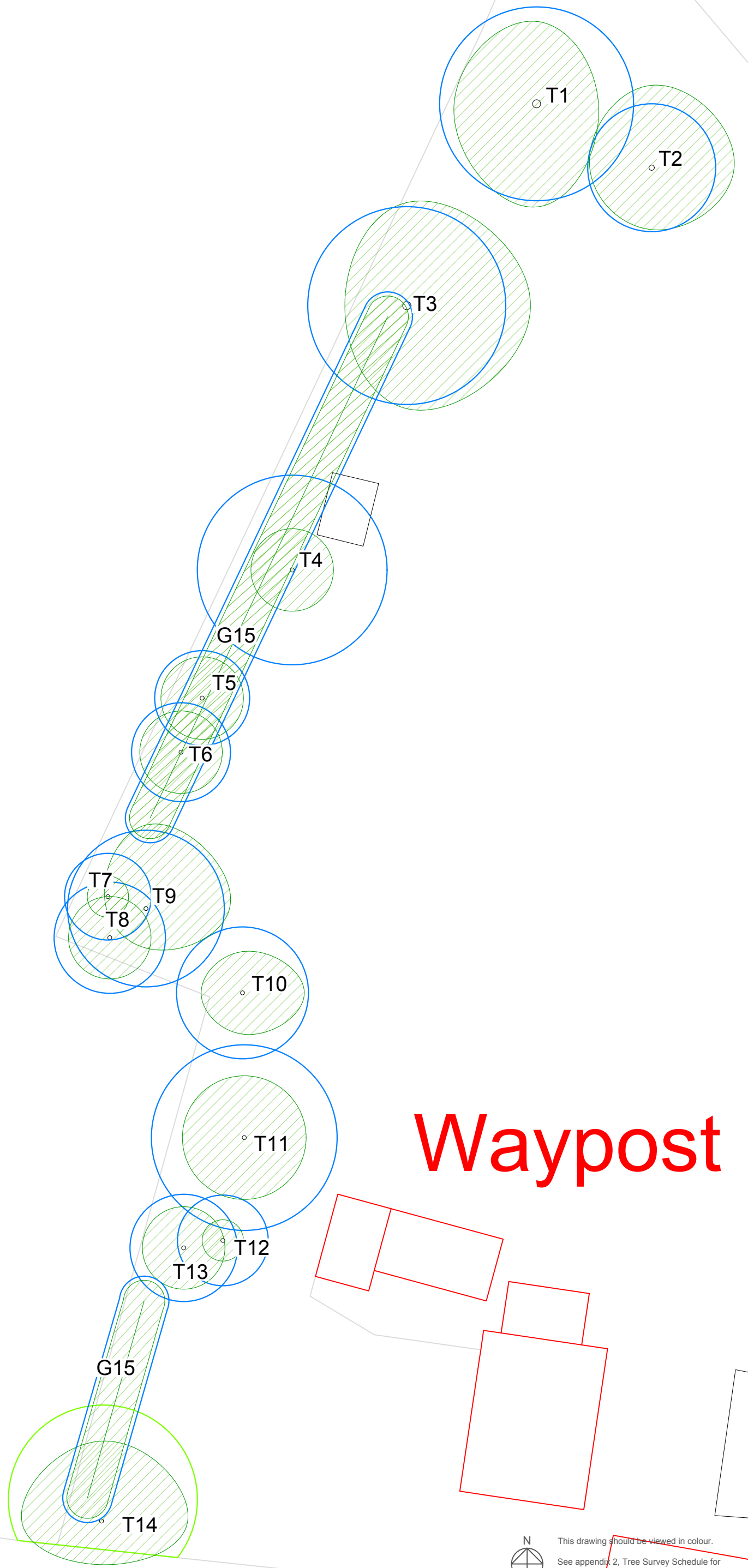
Appendix 1 - Tree Constraints Plan



Waypost

This drawing should be viewed in colour.
 See appendix 2, Tree Survey Schedule for further information regarding trees included in this plan.

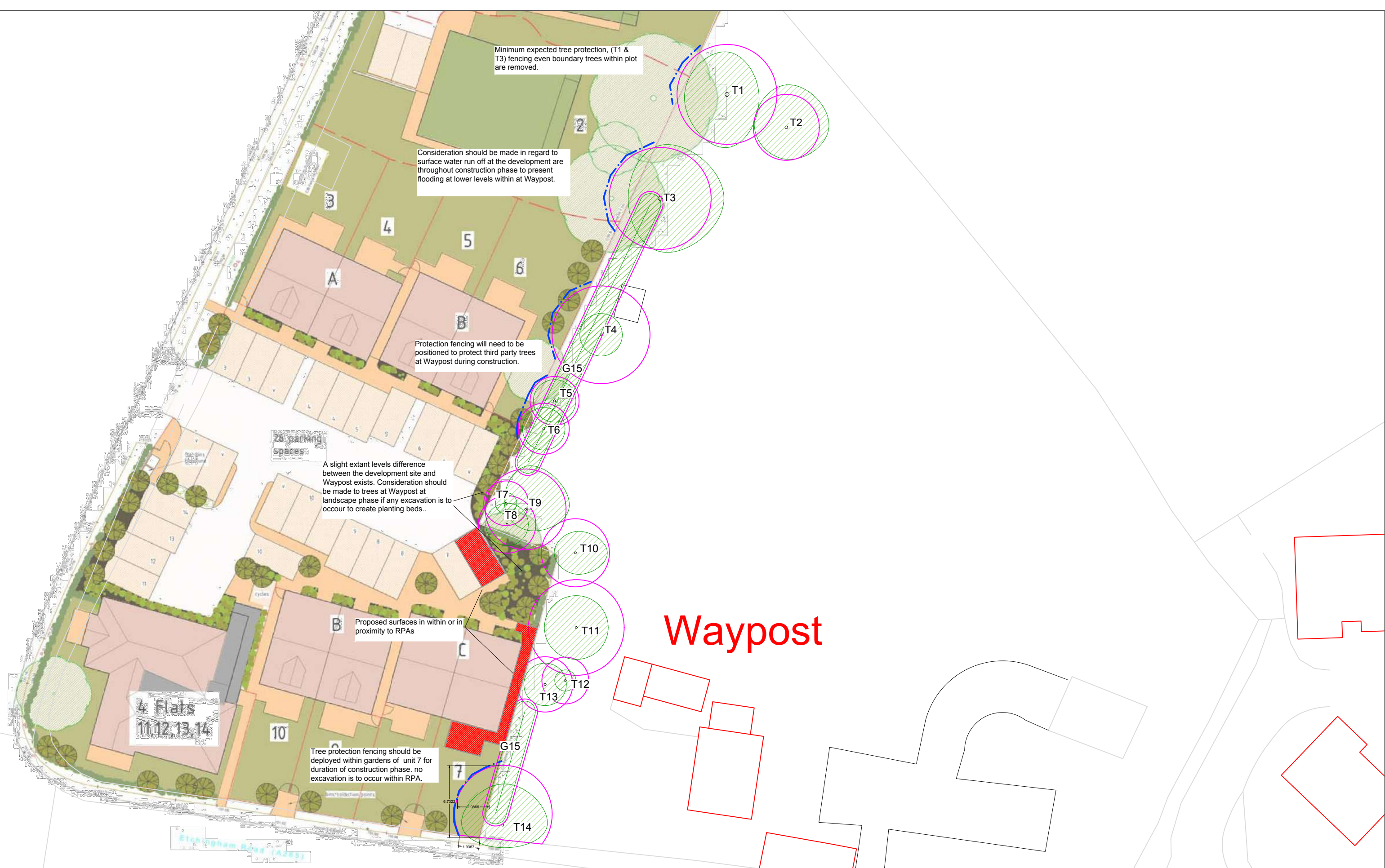




Waypost



This drawing should be viewed in colour.
See appendix 2, Tree Survey Schedule for further information regarding trees included in this plan.



This drawing should be viewed in colour.
 See appendix 2, Tree Survey Schedule for further information regarding trees included in this plan.



Minimum expected tree protection, (T1 & T3) fencing even boundary trees within plot are removed.

Consideration should be made in regard to surface water run off at the development are throughout construction phase to present flooding at lower levels within at Waypost.

Protection fencing will need to be positioned to protect third party trees at Waypost during construction.

A slight extant levels difference between the development site and Waypost exists. Consideration should be made to trees at Waypost at landscape phase if any excavation is to occur to create planting beds..

Proposed surfaces in within or in proximity to RPAs

Tree protection fencing should be deployed within gardens of unit 7 for duration of construction phase. no excavation is to occur within RPA.

Waypost



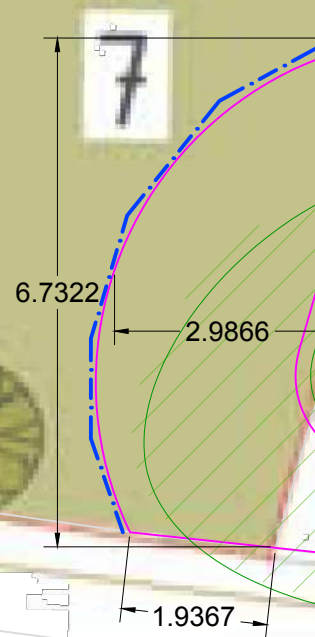
This drawing should be viewed in colour.

See appendix 2, Tree Survey Schedule for further information regarding trees included in this plan.

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Tree protection fencing should be deployed within gardens of unit 7 for duration of construction phase. no excavation is to occur within RPA.





This drawing should be viewed in colour.
See appendix 2, Tree Survey Schedule for further information regarding trees included in this plan.





Appendix 2 - Tree Survey Schedule

Ref	Species	Est height (m)	DBH (mm)	Crown spread (m)				Age class	Condition summary	Preliminary management action	Category grading	Root Protection Radius (m)
Client: Ms. Bruce Site address: Waypost, A267, Burwash Cmn. Survey Date: 4th August 2020 Surveyor: O.Allpress												
Tree Survey Schedule												
Ref	Species	Est height (m)	DBH (mm)	N	E	S	W	Age class	Condition summary	Preliminary management action	Category grading	Root Protection Radius (m)
T1	Platycarya, (<i>Platycarya strobilacea</i>)	8	390	4	3	5	4	Mature	Part of plant collection. Mature specimen. Small basal cavity at old pruning wound. Probed to 8cm sound wood within. Slight reduction in vitality indicated by tip dieback.	None at time of survey	B3	4.7
T2	White mulberry, (<i>Morus alba</i>)	6	260	4	4	3	3	Semi-mature	Young specimen of morus, very long lived spp. Slight shading from adjacent trees.	None at time of survey	B3	3.1
T3	Caucasian wingnut, (<i>Pterocarya fraxinifolia</i>)	9	400	5	6	5	3	Semi-mature	Surface roots evident in lawn. Young tree, good vigour. Crown suppression from neighbouring trees.	None at time of survey	B3	4.8
T4	Caucasian elm, (<i>Zelkova carpinifolia</i>)	3	380	2 Avg				Mature	Regularly pruned. Top removed to create tree house platform.	None at time of survey	B3	4.6
T5	Lily of the valley tree, (<i>Pataguau crinodendron</i>)	5	190	2 Avg				Mature	Dimensions avg. part of a collection of rare plants set 1m approx. from boundary.	None at time of survey	B3	2.3
T6	Kapuka, (<i>Griselinia littoralis</i>)	5	200	2 Avg				Mature	Dimensions avg. part of a collection of rare plants set 1m approx. from boundary.	None at time of survey	B3	2.4
T7	winter's bark, (<i>Drimys winterii</i>)	5	173	1 Avg				Mature	Dimensions avg. part of a collection of rare plants set 1m approx. from boundary.	None at time of survey	B3	2.1
T8	Kapuka, (<i>Griselinia littoralis</i>)	5	224	2 Avg				Mature	Set at corner of boundary.	None at time of survey	B3	2.7

Client:	Ms. Bruce		Tree Survey Schedule				 Owen Allpress BSc (Hons) Arb Independent Arboricultural Consultant					
Site address:	Waypost, A267, Burwash Cmn.											
Survey Date:	4th August 2020											
Surveyor:	O.Allpress											
Ref	Species	Est height (m)	DBH (mm)	Crown spread (m)				Age class	Condition summary	Preliminary management action	Category grading	Root Protection Radius (m)
T9	Holm oak, <i>(Quercus ilex)</i>	5	320	N	E	S	W	Semi-mature	Set at dog leg boundary.	None at time of survey	B3	3.8
			@30cm	4	4	2	2					
T10	Podocarp, <i>(Podocarpus spp)</i>	5	270	N	E	S	W	Semi-mature	Tethered to two third-party trees for stability. Presume historic shift in root plate. Moderate inclusion at 2.1m	None at time of survey	B3	3.2
				2	3	2	2					
T11	Montezuma pine, <i>(Pinus montezumaei)</i>	7	372	N	E	S	W	Mature	Mature ornamental pine. Dual stem. Good vitality. Good overall form.	None at time of survey	B3	4.5
			ms	3	3	3	3					
T12	Strawberry tree, <i>(Arbutus unedo)</i>	3	180	N	E	S	W	Mature	Dimensions avg. part of a collection of rare plants set 1m approx. from boundary.	None at time of survey	B3	2.2
				1 Avg								
T13	Larch, <i>(Larix spp)</i>	4	220	N	E	S	W	Semi-mature	Dimensions avg. part of a collection of rare plants set 1m approx. from boundary.	None at time of survey	B3	2.6
				2 Avg								
T14	Deodar cedar, <i>(Cedrus deodara)</i>	6	340	N	E	S	W	Semi-mature	Amenity value, set at road frontage.	None at time of survey	A/B1	4.1
				4	4	2	3					
G15	Mixed ornamental	3	101	N	E	S	W	Semi-mature	Grouped smaller examples from plant collection all individually of merit and value. Grouped due to smaller size.	None at time of survey	B2	1.2
			Avg est	1 Avg								



Appendix 3 – Cascade Chart for Tree Quality Assessment.

BS5837:2012 Table 1 – Cascade chart for tree quality assessment

Category and definition	Criteria (including subcategories where appropriate)		
Trees unsuitable for retention (see Note)			
Category U Those in such a condition that they cannot realistically be retained as living trees in the context of the current land use for longer than 10 years	<ul style="list-style-type: none"> • Trees that have a serious, irremediable, structural defect, such that their early loss is expected due to collapse, including those that will become unviable after removal of other category U trees (e.g. where, for whatever reason, the loss of companion shelter cannot be mitigated by pruning) • Trees that are dead or are showing signs of significant, immediate, and irreversible overall decline • Trees infected with pathogens of significance to the health and/or safety of other trees nearby, or very low quality trees suppressing adjacent trees of better quality <p><i>NOTE Category U trees can have existing or potential conservation value which it might be desirable to preserve; see [BS5837:2012] 4.5.7.</i></p>		
	1 Mainly arboricultural qualities	2 Mainly landscape qualities	3 Mainly cultural values, including conservation
Trees to be considered for retention			
Category A Trees of high quality with an estimated remaining life expectancy of at least 40 years	Trees that are particularly good examples of their species, especially if rare or unusual; or those that are essential components of groups or formal or semi-formal arboricultural features (e.g. the dominant and/or principal trees within an avenue)	Trees, groups or woodlands of particular visual importance as arboricultural and/or landscape features	Trees, groups or woodlands of significant conservation, historical, commemorative or other value (e.g. veteran trees or wood-pasture)
Category B Trees of moderate quality with an estimated remaining life expectancy of at least 20 years	Trees that might be included in category A, but are downgraded because of impaired condition (e.g. presence of significant though remediable defects, including unsympathetic past management and storm damage), such that they are unlikely to be suitable for retention for beyond 40 years; or trees lacking the special quality necessary to merit the category A designation	Trees present in numbers, usually growing as groups or woodlands, such that they attract a higher collective rating than they might as individuals; or trees occurring as collectives but situated so as to make little visual contribution to the wider locality	Trees with material conservation or other cultural value
Category C Trees of low quality with an estimated remaining life expectancy of at least 10 years, or young trees with a stem diameter below 150 mm	Unremarkable trees of very limited merit or such impaired condition that they do not qualify in higher categories	Trees present in groups or woodlands, but without this conferring on them significantly greater collective landscape value; and/or trees offering low or only temporary/transient landscape benefits	Trees with no material conservation or other cultural value



Appendix 4 – Formula Used for RPA Calculation.

Tree type	Formula used. (Taken form BS5837: 2012)
Single Stem	$\text{RPA(m}^2\text{)} = \frac{(\text{stem diameter (mm) @ 1.5 m x 12})^2 \times 3.142}{1000}$
Up to five stems	$\sqrt{(\text{stem diameter 1})^2 + (\text{stem diameter 2})^2 \dots + (\text{stem diameter 5})^2}$
Trees with more than five stems	$\sqrt{(\text{mean stem diameter})^2 \times \text{number of stems}}$