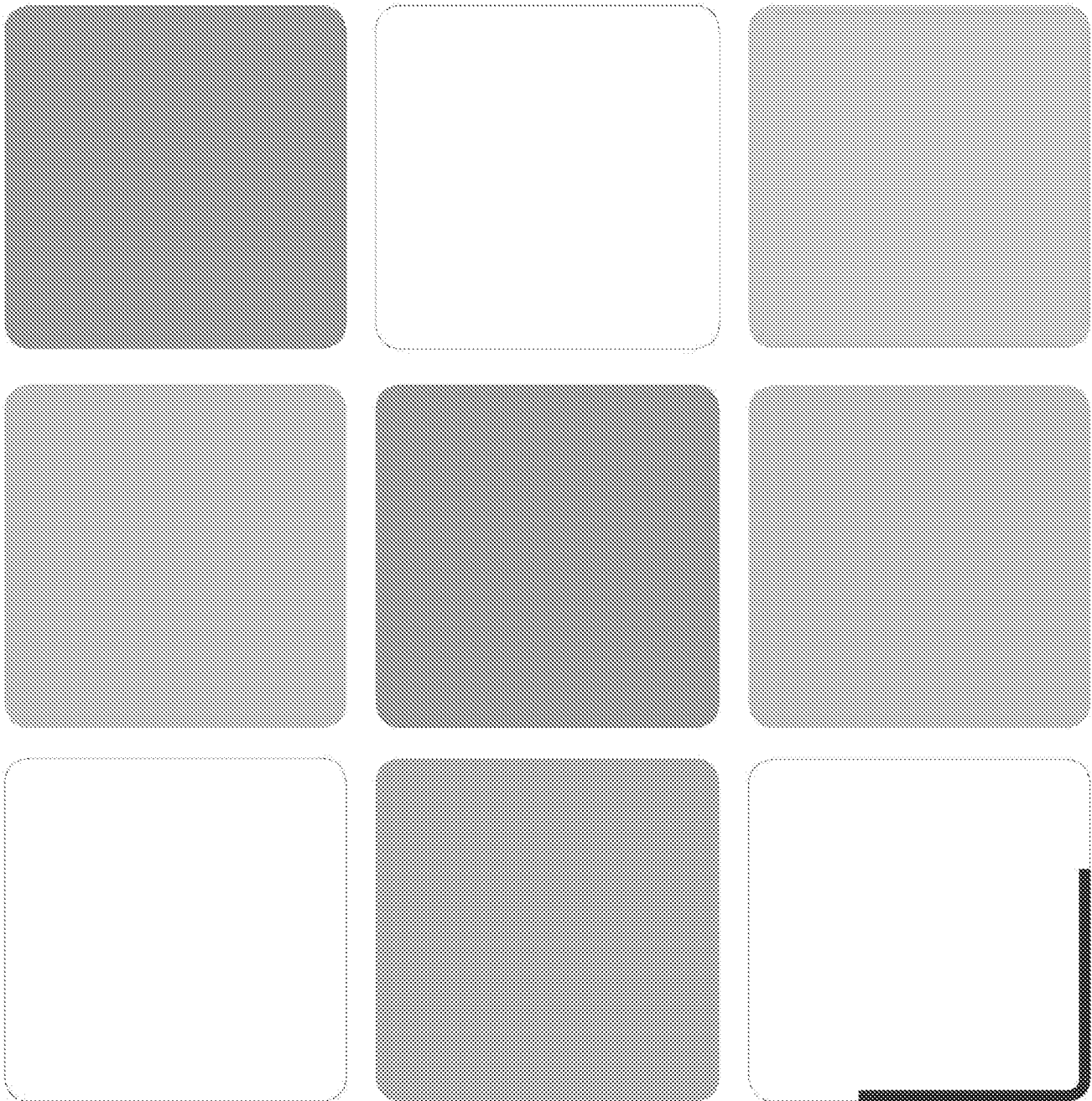




Land off Nyton Nurseries
Westergate
Tree Survey Report



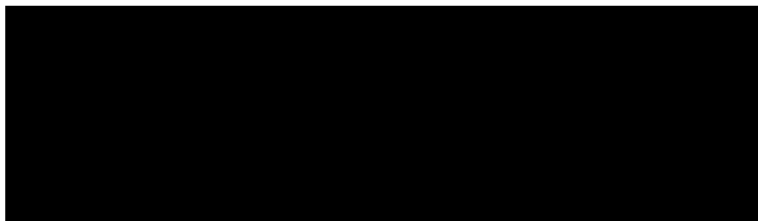


20th July 2017

Our Ref: JSL2869_770

RPS

Lakesbury House
Hiltingbury Road
Chandlers Ford
Hampshire
S053 5SS



QUALITY MANAGEMENT

Prepared by:	Jake Bailey
Authorised by:	Chris Chambers
Date:	July 2017
Project Number/Document Reference:	JSL2869_770
Status:	For Planning

COPYRIGHT © RPS

The material presented in this report is confidential. This report has been prepared for the exclusive use of Taylor Wimpey Southern Counties and shall not be distributed or made available to any other company or person without the knowledge and written consent of RPS or Hampshire County Council.

CONTENTS

1	INTRODUCTION	5
2	SITE INFORMATION	6
3	SURVEY METHODOLOGY	7
4	APPRAISAL AND RECOMENDATIONS	9
5	REFERENCES	13

APPENDICES:

TREE SURVEY SCHEDULE JSL2691_750

TREE SURVEY DRAWINGS JSL2691_700

SITE PHOTOGRAPHS

ARBORICULTURAL GLOSSARY

ARUN DISTRICT COUNCIL TPO/AL/1/13

1 INTRODUCTION

- 1.1 This tree survey report was commissioned by Taylor Wimpey Southern Counties. A tree survey was undertaken on the 24th of June 2017. The weather conditions varied from overcast to sunny but generally visibility was good.
- 1.2 This Tree Survey Report is a qualitative survey of the existing trees bordering and within a parcel of land to the north of Nyton Road in Westergate, Chichester.
- 1.3 The purpose of the survey is to assess the landscape and visual amenity value of the existing trees and to identify the constraints associated with the trees prior to any potential redevelopment of the site. An assessment of the quality of the trees has been made, with reference to the categories and sub-categories listed within Table 1 - BS5837:2012¹.

2 SITE INFORMATION

- 2.1 The survey covered an area of land to the north of Nyton Road, Westergate, PO20 3UW. The survey site is centred on OS grid reference SU941057 and national grid field no. SU 9405 1673. Vehicular access is to the south- east via a lane off Fontwell Avenue or to the south-west via a lane off Nyton Road.
- 2.2 Westergate is located in south-east Sussex in the south- east of England. The city of Chichester lies approximately 4.5 miles to the west. The soilscape of the area that the survey site is within typically consists of ‘freely draining, slightly acid, loamy soils’².
- 2.3 The survey site comprises fields used as pasture land to the east and north. The south-west of the site pertains to an area formerly used as a nursery and the greenhouse is still in place. The northern boundaries of the site are abutted by further pasture land and a vehicle salvage yard at the north-east corner. Fontwell Avenue (A29) borders the south-west corner of the survey site, whilst the rear gardens of properties pertaining to Barnett Close and Nyton Road lie on the southern border. An area of dense vegetation pertaining to ‘Jacaranda’ is also located in the south-west corner of the survey area. The rear of properties pertaining to Northfields Lane and Northfields Lane itself abut the western border of the survey area.

3 SURVEY METHODOLOGY

- 3.1 This report was authorised by Chris Chambers, a Chartered Forester, Chartered Landscape Architect And Senior Arborist of RPS Group.
- 3.2 The report and survey were carried out in general accordance with the requirements set out in BS 5837:2012 "Trees in Relation to Design, Demolition and Construction – Recommendations".
- 3.3 The tree survey involved a visual inspection from the ground of individual specimens and groups of trees in order to record their amenity value, management recommendations and dimensions. Where observed, the general condition of all the trees has been noted. The survey does not constitute a full arboricultural condition assessment involving the detailed inspection of trees in relation to their structural condition, decay, and any other physical and pathogenic defects.
- 3.4 The locations of the trees were based upon topographic survey (476-1012-T 01/02) produced by Wilmac Geomatics in October 2012.
- 3.5 The survey assesses individual trees and groups of trees for quality and benefits within the context of proposed development. The quality of each tree or group of trees has been recorded by allocating it to one of four categories as described in table 3.1. These categories have been differentiated on the tree survey plan (JSL2869_700, Appendix 2) by colours.
- 3.6 The survey information was recorded on the attached schedule (Appendix 1) in general accordance with the guidance contained within Section 4 of BS 5837:2012 "Trees in Relation to Design, Demolition and Construction - Recommendations".
- 3.7 The information recorded is detailed in Table 3.1.

Table 3.1 Tree characteristics recorded during survey

Tree Ref No:	Sequential reference number of trees or groups of trees. Avenues, woodlands and hedgerows were also recorded on the tree survey plan. # - denotes inaccessible trees (best estimates are made about the location, physical dimensions and characteristics.)
Species	Species listed by common name, with scientific names (<i>italic lettering</i>).
Height (m)	Estimated height of canopy to nearest metre.
Branch Spread	branch spread, taken as a minimum at the four cardinal points, to derive an accurate representation of the crown
Stem diameter @ 1.5 m (m)	Measured diameter of trunk at 1.5 m above ground level in metres unless otherwise indicated, multi-stemmed trees being measured in accordance with Annex C: BS5837
Existing height above ground level	To inform on ground clearance, crown/stem ratio and shading the estimated height of the first significant branch and direction of growth and canopy above ground level.
Stem No.	Number of stems (if necessary) of individual tree.

Life Stage	Expressed as:-	Y (Young) SM (Semi-mature) EM (Early-mature) M (Mature)	OM (Over-mature) V (Veteran) D (Dead)
Structural/ Physiological Condition	Apparent condition expressed as the following categories, based upon a brief visual inspection from the ground only:-		Good Fair Poor Dead
Comments / Management Recommendations	General observations, particularly of structural and/or physiological condition (e.g. the presence of any decay and physical defect), and/or preliminary management recommendations and potential for wildlife habitats (not exhaustive).		
Estimated remaining contribution (years)	Estimated remaining contribution, in years (<10, 10+,20+,40+)		
Tree Quality Assessment Value: <u>Category</u>	Criteria grading with regards to Table 1: BS 5837:2012, expressed as:-	A (Trees/Vegetation of high quality and value) B (Trees/Vegetation of moderate quality and value) C (Trees/Vegetation of low quality and value) 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)	
	* Category U trees can have existing or potential conservation value which might be desirable to preserve.		
Tree Quality Assessment Value: <u>Sub - Category</u>	Criteria grading with regards to Table 1: BS 5837:2012, expressed as:-	1 (Trees with mainly <i>arboricultural</i> value) 2 (Trees with mainly <i>landscape</i> value) 3 (Trees with mainly <i>cultural / conservation</i> value)	

3.8 It is recommended that ongoing arboricultural assessments are undertaken in order to assess the full health and safety of all trees which may possess structural or pathogenic conditions.

3.9 A glossary of arboricultural terms is included in Appendix 4.

Limitations

3.10 The findings of this survey are not valid following adverse or unpredictable weather conditions or for any failure due to 'force majeure' or unpredictable events.

3.11 Trees were not climbed or inspected below ground level and inaccessible trees will have best estimates made about the location, physical dimensions and characteristics.

3.12 Trees and woody vegetation were not assessed for their potential impact upon future construction issues such as foundation designs (r.e.: NHBC chapter 4.2³). Whilst this report may assist in assessing likely future impacts, it should not be classed as a comprehensive vegetation survey in relation to impact upon future designs.

4 APPRAISAL AND RECOMENDATIONS

Generally

- 4.1 The tree cover on site could be broadly divided into 4 main categories; Ornamental planting and dense self-sown native species pertaining to the former nursery and 'Jacaranda' in the south-west of the site, generally of moderate to low quality; linear groups of trees established as screening rows/ shelter belts, comprising ash, poplar and spruce; the high quality mature to veteran age class oak trees which were of prominent visual amenity on the site; and the low quality, pioneer species trees established at field boundaries or as remnant hedgerows.
- 4.2 The majority of the surveyed tree stock was of low quality, where loss could be easily mitigated and/ or replaced. However, a few notable exceptions were of moderate and high quality and efforts should be made to design around these in any potential re-development of the site, particularly the category A trees. Of the 60 trees, 18 tree groups and 4 hedgerows identified in the survey, the tree stock was classified in the following quantities of the BS5837:2012 tree grading criteria;
- 3 of category A (High quality);
 - 9 of category B (moderate quality);
 - 67 of category C (low quality);
 - and 4 of category U (unsuitable for retention).
- 4.3 Generally, trees were in a condition consistent with expectations for age/ management/ species. Much of the low quality category C tree stock comprised pioneer species such as elder, hawthorn and goat willow; species with typically short lifespans, consequently many such trees were approaching the end of their useful lifetime and were in a structurally poor condition (accordingly these were classified as having less than 10 years estimated remaining contribution and therefore merited a category U).

Notable Surveyed Trees and Management Recommendations

- 4.4 There were 3 BS5837 category A trees identified in the survey. T49, T50 and T51 were all pedunculate oaks with high amenity value and a significant estimated remaining contribution of over 40 years (figs. 1a & 1b, appendix 3). T50 in particular exhibited veteran characteristics of high cultural value (fig 1c, appendix 3). Such trees would offer instant maturity and high landscape value to any built environment and it is recommended the physical constraints of these trees is considered in the design phase of any potential re-development and efforts are made to retain them in such a scheme. See paragraph 4.14 and 4.15 for planning considerations associated with mature trees.
- 4.5 It was apparent during the survey that T12 x45, the line of early- mature ash trees dividing the former nursery site from the rest of the survey site, have not been actively managed since they were planted. Consequently several possess structural defects such as included bark unions (fig. 2a and 2b) and hazard beams (fig 2c), as well as some pathogenic conditions such as bacterial canker (*Pseudomonas savastanoi* pv. *fraxini*, fig. 2d). A full hazard evaluation survey is beyond

the scope of this survey but in the event of increased pedestrian traffic within the context of potential site development, it is recommended such a survey is undertaken and risk abatement is carried out as necessary.

- 4.6 Likewise, it was beyond the scope of the survey to undertake a detailed hazard evaluation of the poplar trees within the shelterbelt at the north- west of the site, G16. Generally the northern row of the double row of trees comprised better quality trees. Some rot pockets were noted on the stems of some of the trees and as with T12 x45, it is recommended a hazard evaluation survey is undertaken and risk abatement is carried out on the trees as necessary in the context of site development and increased pedestrian traffic.
- 4.7 To the south of the greenhouse was an area of dense, overgrown vegetation (G3-G5, fig. 3 appendix 3) and consequently it was not possible to access the area and undertake a detailed inspection of the trees within. However, the composition was generally of native pioneer species with limited amenity value (BS5837 category C).
- 4.8 Three ash trees at the southern border of the site overhung the car park of the neighbouring veterinary practice. T20 showed symptoms of bacterial canker (fig. 4 appendix 3); it is recommended the tree is further monitored for signs of structural decline, should such decline be noted then remedial tree surgery is recommended as a matter of urgency. T21 is protected by TPO/AL/1/13 and was in apparent good condition. T22 was a multi-stemmed tree and had a large stem cavity in the plane of lean of one the stems, towards the veterinary practice (fig. 5a and 5b, appendix 3). The stem has a large end weight and it is recommended this stem is reduced to reduce the risk of failure.

Planning considerations & Tree Preservation Orders

- 4.9 New tree planting opportunities should be considered as part of any potential redevelopment; this will help to broaden the age diversity and arboricultural interest of the tree cover within the area. Sufficient space should be provided for species with significant stature to grow out into maturity.
- 4.10 A desktop investigation into the planning constraints on this site using the Arun District Council GIS web map⁴ confirmed that there is a Tree Preservation Order in place at the south- west corner of the site. TPO/AL/1/13 was served by Arun District Council in 2013. The TPO protects trees T21 and T15 (T1 and T2 in the TPO schedule). The TPO schedule and map are attached at appendix 5.
- 4.11 Trees covered by a Tree Preservation Order are protected under the Town and Country Planning Act 1990 (Trees Regulation 2012) and the local authority must be consulted and permission sought for any works that may affect them.
- 4.12 Under the UK planning system, local authorities have a statutory duty to consider the protection and planting of trees when granting planning permission for proposed development. The potential effect of development on trees, whether statutorily protected (e.g. by a tree preservation order or by their inclusion within a conservation area) or not, is a material consideration that is taken into account in dealing with planning applications.
- 4.13 Trees can offer many benefits, including the provision of visual amenity, softening or complementing the effect of the built environment, and adding maturity to new developments by

making places more comfortable in tangible ways e.g. contributing screening and shade, reducing wind speed and turbulence, intercepting snow and rainfall, and reducing glare.

- 4.14 Although no significant structural faults were identified on T49, T50 or T51, large mature oaks usually contain deadwood which is liable to drop. Deadwood is a valuable ecological habitat and retention should be encouraged⁵. Although oak deadwood generally takes a long time to decay⁵, consideration should be given to how the area within its crown spread is used.
- 4.15 Particular care is needed regarding the retention of large, mature trees which become enclosed within the new development (e.g. T49, T50 and T51). Where such trees are retained, adequate space should be allowed for their long-term physical retention and future maintenance.

Design and Site Layout Considerations

- 4.16 A tree constraints plan defines the Root Protection Area (RPA) for each tree shown as a circle. This area may be adjusted should physical constraints or topographical features limit root activity in a particular area, however the total area should remain the same. Prior to any adjustment of the tree's RPA zones the changes should be assessed by an arboriculturalist. During any site planning exercises the current and future growth potential of the trees should be considered.
- 4.17 The RPA for single stem trees broadly equates to a radius 12 times the stem diameter of the tree at 1.5m above ground level or the extent of canopy spread, whichever is the greater. For multi-stemmed, low branching trees or those with trunks with an irregular girth the point of stem diameter measurement is adjusted in consideration of these factors and in accordance with the illustrations in BS5837:2012 (Annex C).
- 4.18 The RPA should become an exclusion zone during construction works and for any development. It should be fenced-off and protected in accordance with BS5837:2012. The canopy is likewise susceptible to damage during construction work and requires similar protection.
- 4.19 No activities that result in excavations, changes in level or soil compaction should take place within the RPA of any retained trees, especially older mature trees. This would include the storage of materials, any construction work, trafficking by vehicles or even excessive trafficking by pedestrians.
- 4.20 If some form of construction has to take place within the RPA then certain measures need to be adopted to avoid disturbance or damage to the roots and to maintain moisture infiltration and gaseous diffusion into the soil.
- 4.21 Services likewise should be routed outside the existing or potential root zone of trees. Where it is unavoidable, then certain measures should be employed to avoid damage to the trees larger roots.
- 4.22 The location and siting of new facilities near trees should consider the potential impact on and conflict with both tree roots and canopy. This should take into account the ultimate size of existing young and middle-aged trees at maturity. Conversely the impact of the tree on the activities should also be considered with regard to obstruction, shading, leaf fall and root action. These are problems that can be managed provided sufficient space is allowed for.

Trees and Management of Health and Safety

- 4.23 It is recommended that a programme of periodic arboricultural assessments be undertaken in order to regularly assess the full health and safety of all trees both in full leaf and bare stemmed. The assessments should prioritise areas based on levels of access and presence of target (i.e. exposure of people to hazard) and accord with arboricultural advice, taking account of relevant factors (where known) that affect safety such as the age class, condition, size and species of the trees.

5 REFERENCES

- ¹ British Standards Institute. *British Standard (BS5837) Trees in Relation to Design, Demolition and Construction - Recommendations*. 2012.
- ² DEFRA. 'Magic Map Application'. www.magic.gov.uk. Accessed 3rd July 2017.
- ³ NHBC. 'Chapter 4.2- Building Near Trees'. *NHBC Standards 2016*. 2016.
- ⁴ Arun District Council 'Arun District Council Maps' www.arun.gov.uk. Accessed 3rd July 2017
- ⁵ Humphrey, J *et al.* *Life in the Deadwood- A Guide to Managing Deadwood in Forestry Commission Forests*. 2002.

APPENDIX 1

Tree Survey Schedules JSL2869_750

Tree Survey Schedule

Site Land off Nyton Nurseries, Westergate
 Project schedule ref: JSL2869_750
 Drawing reference: JSL2869_700
 Survey date: 04/07/2017

Surveyor: Jake Bailey
 Status: For Planning
 Revision: .
 Notes: (Weather) Bright & Clear



Ref. no.	Species	Height (m)	Crown spread (m)				Stem dia. (m)	Stem no. at 1.5m	Height of crown clearance (m)	Dir/height	Age class	Structural Physiological condition	General observations Management recommendations	Estimated remaining contribution (years)	Tree Quality Category (BS5837)
			N	E	S	W									
1	Crataegus monogyna Common Hawthorn	6.0	2.5	2.0	2.5	1.0	0.19 0.24 0.15	3.00	1.50	NW	EM	Fair/Good	Asymmetric crown, vigorous, multi-stemmed with included growth. Generally scrappy form.	20+	C1/2
2	Acer pseudoplatanus Sycamore	6.0	1.5	1.5	1.5	1.5	0.07 0.08	2.00	1.50	-	Y	Fair/Good	Bifurcates at ground level, co-dominant stems. Typically vigorous.	30+	C2
3	Crataegus monogyna, Sambucus nigra Common Hawthorn, Elder	6.0	4.0	4.0	4.0	2.0	combined est 0.45	9.00	1.00	-	SM/E M	Fair/Good	Elder and Hawthorn established so close together crown was surveyed as a combination of both. Scrappy form. Detailed inspection of stems prevented by dense vegetation.	15+	C2
4	Crataegus monogyna Common Hawthorn	7.0	4.0	3.5	3.5	2.0	0.27 0.48	2.00	1.50	-	OM	Poor/Poor	Bifurcates at ground level. Epicormic regrowth forms much of vertical scaffold limbs on northern stem. Multiple limbs have fused at main stem. Internal and external decay noted. Limited useful life expectancy.	<10	U
5	Crataegus monogyna, Sambucus nigra Common Hawthorn, Elder	4.5	2.5	3.0	2.5	1.0	combined est 0.30	4.00	1.00	-	M	Fair/Good	2 trees established adjacent to one another and surveyed together. Scrappy form.	15+	C2
6#	Sambucus nigra Elder	4.0	2.5	2.0	2.5	2.0	0.10 0.12 0.24	3.00	2.00	-	M	Fair	Off site tree, canopy extends onto site. Dead wood limbs from pruning wounds and die back in crown, limited amenity.	10-20	C2
7	Crataegus monogyna, Sambucus nigra Common Hawthorn, Elder	4.0	2.0	2.5	3.5	1.5	est 0.20	-	0.50	NW	EM	Fair	Unable to determine which side of boundary stem is on. Stem inspection prevented by dense vegetation. Two trees surveyed together. Scrappy form.	10+	C2
8#	Crataegus monogyna Common Hawthorn	7.5	1.0	3.5	4.0	3.5	combined est 0.35	M	1.50	NW	EM	Fair	Living stem is located off site. 2 dead stems are on site, one is heavily lvy cloaked. Recommend dead stems pollarded to safe height (approximately 2m).	10+	C2
9#	Crataegus monogyna Common Hawthorn	8.0	2.0	4.5	5.5	5.5	0.20 0.27 0.15	4.00	1.00	W	EM	Poor/Good	On site tree, not on topo survey. Hazard beams and external decay noted. Poor form. Asymmetric crown.	10-20	U
10#	Malus domestica Apple	6.0	1.5	3.0	2.0	3.5	0.15 0.20	2.00	1.50	W	EM	Fair/Good	Minor bark wounds. Vigorous. Asymmetric crown form. Off site tree, not on topo survey.	15+	C2

Note: This survey is based on a brief visual inspection from the ground.
 It is not intended as a full arboricultural inspection.

- Indicates estimated / offsite tree

Tree Survey Schedule

Site Land off Nyton Nurseries, Westergate
 Project schedule ref: JSL2869_750
 Drawing reference: JSL2869_700
 Survey date: 04/07/2017

Surveyor: Jake Bailey
 Status: For Planning
 Revision: .
 Notes: (Weather) Bright & Clear



Ref. no.	Species	Height (m)	Crown spread (m)				Stem dia. (m)	Stem no. at 1.5m	Height of crown clearance (m)	Dir/height	Age class	Structural Physiological condition	General observations Management recommendations	Estimated remaining contribution (years)	Tree Quality Category (BS5837)
			N	E	S	W									
11#	Quercus robur Pedunculate Oak	14.0	5.5	7.0	7.0	5.0	est 0.50	1.00	1.50	NW	EM	Fair/Good	Off site tree, not on original topo. Minor dead wood in lower crown. Included branch union noted in lower crown, monitor in future inspections.	25+	B2
12	x45 Fraxinus excelsior Common Ash	16.0	1.5	5.0	1.5	5.0	0.30	1.00	1.5/2.5	W/E	EM		Avenue of Ash trees planted at approximately 2.5m intervals. Not all trees are on topo survey. Vigorous. Value lies in group value. Trees would benefit from active management. Ivy should be severed where present. Several trees have included unions whilst others have signs of bacterial canker and hazard beam. A full condition assessment is beyond the scope of this survey but one is recommended.	10-20 20+	B2
13#	x2 Salix caprea Goat Willow	7.0	2.5	2.0	2.0	2.0	combined est <0.30	M	1.50	-	SM	Fair/Good	Vigorous pioneer vegetation. Dense vegetation prevented detailed inspection.	15+	C2
14#	x22 Picea abies Norway spruce	13.0	3.0	1.5	3.0	1.5	<0.25	1.00	1.50	NW	SM/E M	Fair	Trees would benefit from active management. Sporadic spacing. Group value higher than individual. Some trees require Ivy severed. Dense vegetation prevented detailed inspection.	20+	C2
15 TPO	Quercus ilex Holm Oak	9.0	4.5	6.5	4.0	5.5	0.60	1.00	2.00	NW	M	Good	Tree has had crown lifting works undertaken relatively recently. Vigorous if asymmetric crown.	30+	B2
16	Dead	7.0	2.0	2.0	1.0	2.0	0.24	1.00	2.00	NW	-	Dead	Tree has died, unable to ID.	<5	U
17	Fraxinus excelsior Common Ash	13.0	5.0	1.5	0.0	3.5	0.25	1.00	3.00	NW	EM	Fair/Good	Stem off kilter (phototropism) with bias to north west. Crown lacks central leader. Large split on north side of stem.	20+	C1/2
18#	Fraxinus excelsior Common Ash	13.0	4.0	4.0	4.0	5.5	0.21 0.20	2.00	3.00	E	EM	Fair	Bifurcates at ground level. Northern stem shows symptoms of bacterial canker and dead wood/die back, recommend reduction.	15+	C1/2
19	Fraxinus excelsior Common Ash	13.0	4.0	5.0	3.5	5.0	0.20 0.20 0.25	3.00	2.50	NW	EM	Fair/Good	Triple stemmed at ground level, unable to undertake detailed inspection due to dense vegetation. Vigorous crown.	20+	B2
20	Fraxinus excelsior Common Ash	13.0	6.5	5.5	3.5	5.5	0.32 0.18 0.16 0.26	4.00	2.00	N	EM	Fair	Multiple stems at ground level, lacks central leader. Signs of bacterial canker. Root girdling noted. Ivy on stem.	15+	C2

Note: This survey is based on a brief visual inspection from the ground.
 It is not intended as a full arboricultural inspection.

- Indicates estimated / offsite tree

Tree Survey Schedule

Site Land off Nyton Nurseries, Westergate
 Project schedule ref: JSL2869_750
 Drawing reference: JSL2869_700
 Survey date: 04/07/2017

Surveyor: Jake Bailey
 Status: For Planning
 Revision: .
 Notes: (Weather) Bright & Clear



Ref. no.	Species	Height (m)	Crown spread (m)				Stem dia. (m)	Stem no. at 1.5m	Height of crown clearance (m)	Dir/height	Age class	Structural Physiological condition	General observations Management recommendations	Estimated remaining contribution (years)	Tree Quality Category (BS5837)
			N	E	S	W									
21 TPO	Fraxinus excelsior Common Ash	12.5	7.0	3.0	5.5	5.5	0.45	1.00	2.00	N	EM	Good	Relatively recently crown lifted on south side of stem. Vigorous. Ivy treated.	25+	B2
22	Fraxinus excelsior Common Ash	10.0	6.0	5.0	5.0	5.0	0.22 0.14 0.17 0.18 0.22	5.00	2.00	N	EM	Fair/Good	Multiple stems, fused in places. Southernmost stem previously removed, remaining southernmost stem has large stem cavity on south side, potential structural weakness (overhangs vet nary practice), further monitor, may need reduction.	15+	C2
23	Acer pseudoplatanus Sycamore	13.0	0.5	2.5	4.5	3.0	0.20 0.16	2.00	2.00	S	SM	Fair/Good	Bifurcates at approximately 1m, included growth at union and stems beginning to fuse further up. Suppressed form.	15+	C2
24	Acer pseudoplatanus Sycamore	14.5	1.5	4.5	3.5	5.5	0.23 0.23 0.20 0.19 0.28	4.00	4.00	E	EM	Fair/Good	Multiple stems at approximately 1m. Ivy cloaked stem. Typically vigorous.	20+	C2
25	Acer pseudoplatanus Sycamore	14.5	3.5	3.5	1.0	4.5	0.14 0.14 0.16	5.00	4.00	E	EM	Fair/Good	Multi-stemmed stand, Ivy and epicormic growth prevented detailed inspection. Typically vigorous.	20+	C2
26#	Picea abies Norway spruce	5.0	1.5	1.5	1.0	1.5	0.10	1.00	0.00	-	Y	Good	Young tree. Strong central leader, suppressed to south.	15+	C2
27	Acer pseudoplatanus Sycamore	12.5	6.0	4.0	4.0	2.0	est 0.20 0.15 0.10 0.25	4.00	2.00	S	SM	Fair/Good	Multi stemmed stand in neighbouring property. Unable to inspect stems in detail. Typically vigorous.	20+	C2
28	Eucalyptus gunnii Cedar gum	8.0	4.5	2.0	5.0	3.0	0.28	1.00	2.00	S	EM	Fair/Good	Previously pollarded. South crown overhangs road.	10+	C2
29		8.0	1.5	1.0	5.0	1.5	0.20	1.00	2.00	S	SM	Poor/Good	Previously pollarded. Stem in poor condition, likely due to pollarding.	10-20	C2
30	Eucalyptus gunnii Cedar gum	14.5	2.5	1.5	1.5	1.5	0.27	1.00	3.50	N	EM	Fair/Good	Narrow crown. Vigorous. Irregular branch attachments in crown.	15+	C2
0	Eucalyptus gunnii Cedar gum	13.5	3.5	3.5	3.5	3.0	0.26	1.00	1.50	S	EM	Fair/Good	Central leader appears to have been pruned/lost. Hazard beam noted on moderate limb.	15+	C2

Note: This survey is based on a brief visual inspection from the ground.
 It is not intended as a full arboricultural inspection.

- Indicates estimated / offsite tree

Tree Survey Schedule

Site Land off Nyton Nurseries, Westergate
 Project schedule ref: JSL2869_750
 Drawing reference: JSL2869_700
 Survey date: 04/07/2017

Surveyor: Jake Bailey
 Status: For Planning
 Revision: .
 Notes: (Weather) Bright & Clear



Ref. no.	Species	Height (m)	Crown spread (m)				Stem dia. (m)	Stem no. at 1.5m	Height of crown clearance (m)	Dir/height	Age class	Structural Physiological condition	General observations Management recommendations	Estimated remaining contribution (years)	Tree Quality Category (BS5837)
			N	E	S	W									
31	Eucalyptus gunnii Cedar gum	13.5	1.5	2.5	1.5	1.0	0.20	1.00	1.50	S	SM	Fair/Good	Narrow crown, bifurcates at approximately 5m, included growth at union.	15+	C2
32	Eucalyptus gunnii Cedar gum	13.0	3.0	3.5	1.5	0.5	0.18	1.00	4.00	N	SM	Fair	stem off kilter. Asymmetric crown. Die back in lower crown.	15+	C2
33	Eucalyptus gunnii Cedar gum	13.0	3.0	3.5	1.5	0.5	0.18	1.00	4.00	N	SM	Fair	stem off kilter. Asymmetric crown. Die back in lower crown.	15+	C2
34	Pittosporum sp. Pittosporum	9.0	4.5	2.5	2.5	4.0	0.24 0.16 0.20 0.15	4.00	2.00	N	M	Fair/Good	Ivy prevented detailed inspection of stem, recommend Ivy removal. Large size for species. Vigorous.	20+	B1/2
35	Pittosporum sp. Pittosporum	9.0	1.5	3.5	4.0	4.0	0.22 0.30 0.25	3.00	1.50	W	M	Fair	Minor crown die back. Detailed inspection prevented by dense foliage, large size for species.	15+	B1/2
36#	Sambucus nigra Elder	8.5	3.0	2.0	2.0	4.0	0.15 0.22 0.15 0.16 0.12	5.00	2.00	W	OM	Poor	Tree is in decline. Die back and dead wood present.	<10	U
37#	Sambucus nigra Elder	5.5	2.5	2.5	2.5	3.0	combined est 0.45	M	1.75	-	OM	Fair	Extensive Ivy coverage, prevented detailed inspection of stems. Die back in crown noted. Limited life expectancy.	10-20	C2
38	Fraxinus excelsior Common Ash	8.5	2.5	3.0	1.5	2.0	0.28	1.00	2.00	N	EM	Fair	Bifurcates at approximately 1.6m, included growth at union. Compressive stress symptoms at union, Minor die back in crown.	20+	C2
39#	Sambucus nigra Elder	5.0	2.0	2.5	2.0	2.0	est combined 0.25	M	1.50	N	M	Fair/Good	Dense Ivy prevented inspection of stem. Scrappy pioneer vegetation.	10+	C2
40	x3 Picea abies Norway spruce	max 15	2.0	2.0	2.0	2.0	est 0.20	1.00	-	-	SM	Good	Unable to undertake detailed inspection due to dense vegetation preventing access. Typically vigorous crowns.	20+	C2
41	x4 Eucalyptus sp. Gum tree	12.5	2.0	3.0	3.0	2.0	max 0.38	1.00	1.50	E	EM	Good	Off site plantings in neighbouring garden, vigorous.	20+	C2

Note: This survey is based on a brief visual inspection from the ground.
 It is not intended as a full arboricultural inspection.

- Indicates estimated / offsite tree

Tree Survey Schedule

Site Land off Nyton Nurseries, Westergate
 Project schedule ref: JSL2869_750
 Drawing reference: JSL2869_700
 Survey date: 04/07/2017

Surveyor: Jake Bailey
 Status: For Planning
 Revision: .
 Notes: (Weather) Bright & Clear



Ref. no.	Species	Height (m)	Crown spread (m)				Stem dia. (m)	Stem no. at 1.5m	Height of crown clearance (m)	Dir/ height	Age class	Structural Physiological condition	General observations Management recommendations	Estimated remaining contribution (years)	Tree Quality Category (BS5837)
			N	E	S	W									
42	Eucalyptus sp. Gum tree	10.5	3.0	3.0	5.0	5.0	0.29	1.00	2.00	S	EM	Fair/Good	Pruning wounds to lower stem, dead wood fungus present; may affect lateral branch attachment in future.	20+	C2
43	Eucalyptus sp. Gum tree	11.0	3.5	4.0	3.5	5.5	0.20	1.00	1.50	E	SM	Fair/Good	Asymmetric form and stem off-kilter, included branch union. Rot pockets.	20+	C2
44	Eucalyptus sp. Gum tree	12.0	2.5	3.0	0.5	5.0	0.27	1.00	1.00	W	EM	Fair	Bifurcated crown at approximately 3m, included growth at union. Minor dead wood and die back.	20+	C2
45	Eucalyptus sp. Gum tree	12.0	2.0	1.5	1.5	2.5	0.24	1.00	6+	-	EM	Fair/Good	Lacks central leader, included growth at unions. Narrow crown, shade avoidance type growth.	20+	C2
46	Eucalyptus sp. Gum tree	12.0	2.0	2.5	1.5	3.0	0.20 0.11	1.00	2.00	W	SM	Fair/Good	Crown lacks central leader. Typically vigorous.	20+	C2
47	Eucalyptus sp. Gum tree	12.0	2.0	2.0	2.0	2.0	0.22	1.00	6+	-	SM	Fair/Good	Narrow crown, shade avoidance response type growth, signs of compressive stress at main union.	20+	C2
48	Eucalyptus sp. Gum tree	12.0	2.5	1.5	1.5	2.0	0.29	1.00	5.00	W	EM	Fair	Central leader previously broken out.	20+	C2
49	Quercus robur Pedunculate Oak	18.0	9.0	7.5	7.0	7.0	0.90	1.00	2.00	N	M	Good	Bark wounds noted on west stem, part occluded. Otherwise a fine tree, prominent landscape amenity.	40+	A2
50	Quercus robur Pedunculate Oak	15.5	7.5	9.5	10.5	8.0	1.20	1.00	1.75	-	V	Good	Tree has veteran qualities and appears to have retrenched somewhat. Highest amenity tree on site.	40+	A2/3
51	Quercus robur Pedunculate Oak	17.0	10.5	8.5	8.5	8.5	ave 1.2	1.00	1.50	NW	M	Good	Irregular shaped bole, diameter taken as average of 2 measurements. Formed of 2 main trunks, fused. High amenity and landscape presence.	40+	A2
52	Fraxinus excelsior Common Ash	10.0	4.0	4.0	4.0	2.5	0.27 0.15	2.00	1.00	-	EM	Fair/Good	Cluttered main union with included growth present. Vigorous crown, some die back noted.	20+	C2

Note: This survey is based on a brief visual inspection from the ground.
 It is not intended as a full arboricultural inspection.

- Indicates estimated / offsite tree

Tree Survey Schedule

Site Land off Nyton Nurseries, Westergate
 Project schedule ref: JSL2869_750
 Drawing reference: JSL2869_700
 Survey date: 04/07/2017

Surveyor: Jake Bailey
 Status: For Planning
 Revision: .
 Notes: (Weather) Bright & Clear



Ref. no.	Species	Height (m)	Crown spread (m)				Stem dia. (m)	Stem no. at 1.5m	Height of crown clearance (m)	Dir/height	Age class	Structural Physiological condition	General observations Management recommendations	Estimated remaining contribution (years)	Tree Quality Category (BS5837)
			N	E	S	W									
53	Acer pseudoplatanus Sycamore	11.0	5.5	6.0	4.0	4.0	combined 0.40	4.00	1.50	S	EM	Fair/Good	Tree at boundary of garden.	25+	C2
54	Crataegus monogyna Common Hawthorn	8.0	3.0	1.5	3.0	2.0	combined est 0.50	5.00	2.00	-	EM	Fair/Good	Multistemmed at ground level, scrappy form but vigorous.	25+	C2
55	Aesculus hippocastanum Horse Chestnut	7.0	2.5	0.5	4.5	3.0	0.20 0.12	2.00	1.50	N	SM	Fair	Bifurcates at approximately 1m, included growth noted. Crown suppressed to the east.	15+	C2
56	Acer campestre Field Maple	17.0	6.0	8.0	8.0	6.0	0.62	1.00	3.00	E	M	Good	Large size for species. Good form, vigorous.	20+	B2
57	Acer pseudoplatanus Sycamore	15.0	6.0	7.0	5.0	4.0	0.37 0.42	2.00	2.00	E	EM	Fair/Good	Typically vigorous. Bifurcates at approximately 1m, included growth present.	25+	C2
58	Quercus robur Pedunculate Oak	6.0	1.5	3.0	1.5	3.0	0.18 0.15	2.00	1.00	E	SM	Fair	Bark damage to exposed roots noted. Crown bias east and west, mechanically pruned to north and south.	20+	C2
59	Crataegus monogyna Common Hawthorn	7.0	2.0	4.5	2.0	4.5	combined 0.45	5.00	5.00	-	M	Fair	Mechanically pruned to north and south, bias to east and west. Part of remnant hedgerow.	15+	C2
60	Crataegus monogyna Common Hawthorn	6.0	1.0	3.0	1.0	3.0	combined 0.30	2.00	4.00	-	M	Fair	Mechanically pruned to north and south, bias to east and west. Part of remnant hedgerow.	15+	C2
G1	Chamaecyparis lawsoniana, Pyrus domestica, Cupressus x leylandii, Prunus laurocerasus Lawson Cypress, Pear, Leyland Cypress, Cherry Laurel	ave 4	as shown				-	-	-	-	-	Good	Typical ornamental garden vegetation. Screens neighbouring properties, mainly evergreen.	20+	C2
G2	Sambucus nigra Elder	5.0	as shown				ave 0.30	M	1.00	-	M	Fair	Scrappy group of Elder. Limited amenity and useful life expectancy.	10-20	C2
G3	Salix caprea, Buddleja davidii, Sambucus nigra Goat Willow, Butterfly Bush, Elder	max 11	as shown				-	-	-	-	-	Fair/Good	Large area of impenetrable pioneer vegetation, unable to survey trees within but nothing of material constraint.	20+	C2

Note: This survey is based on a brief visual inspection from the ground.
 It is not intended as a full arboricultural inspection.

- Indicates estimated / offsite tree

Tree Survey Schedule

Site Land off Nyton Nurseries, Westergate
 Project schedule ref: JSL2869_750
 Drawing reference: JSL2869_700
 Survey date: 04/07/2017

Surveyor: Jake Bailey
 Status: For Planning
 Revision: .
 Notes: (Weather) Bright & Clear



Ref. no.	Species	Height (m)	Crown spread (m)				Stem dia. (m)	Stem no. at 1.5m	Height of crown clearance (m)	Dir/height	Age class	Structural Physiological condition	General observations Management recommendations	Estimated remaining contribution (years)	Tree Quality Category (BS5837)
			N	E	S	W									
G4	Acer pseudoplatanus, Fraxinus excelsior Sycamore, Common Ash	14.0	as shown				<0.35	-	2.00	N	EM	Fair/Good	Unable to undertake detailed inspection due to dense vegetation preventing access. Typically vigorous crown.	20+	C2
G5	Sambucus nigra, Crataegus monogyna, Salix caprea, Ilex aquifolium Elder, Common Hawthorn, Goat Willow, Common Holly	ave 5	as shown				<0.20	M	0.00	-	SM	Fair/Good	Vigorous pioneer vegetation, limited amenity.	15+	C2
G6	Crataegus monogyna Common Hawthorn	10.0	as shown				<0.20	-	2.00	-	EM	Fair/Good	Off site trees. Vigorous. Previously pruned for easement of overhead cables. Ivy on stems.	20+	C2
G7	Fraxinus excelsior Common Ash	ave 8	3.0	3.0	3.0	3.0	<0.25	1.00	1.00	-	SM	Fair	Self sown pioneer Ash. Scrappy condition with included growth at unions.	15+	C2
G8	Ilex aquifolium Common Holly	8.0	as shown				-	-	0.00	-	SM	Fair/Good	Unable to inspect stems due to dense vegetation restricting access. Vigorous and screens garden.	20+	C2
G9	Cupressocyparis leylandii Leyland Cypress	11.0	as shown				<0.30	-	-	-	SM	Good	Leyland Cypress screen.	15+	C2
G10	Corylus avellana, Acer campestre, Acer pseudoplatanus Common Hazel, Field Maple, Sycamore	max 12	as shown				-	-	-	-	SM EM	Fair/Good	Unable to inspect in detail due to dense vegetation. Vigorous pioneer species, limited amenity.	10+	C2
G11	Acer pseudoplatanus, Fraxinus excelsior Sycamore, Common Ash	max 14	as shown				-	-	-	-	EM	Fair/Good	Unable to inspect in detail due to dense vegetation. Screens road, mixed group, scrappy form.	15+	C2
G12	Fraxinus excelsior, Acer pseudoplatanus Common Ash, Sycamore	ave 16	as shown				ave combined est 0.90	3.50	1.50	N	EM	Fair/Good	Beyond fence line. Multistemmed trees, vigorous but scrappy form.	25+	C2
G13	Corylus avellana Common hazel	7.0	as shown				combined <0.30	M	0.00	-	EM	Good	Multistemmed coppice stands of Hazel.	20+	C2
G14	Acer pseudoplatanus Sycamore	15.0	as shown				combined est <0.75	2.00	4.00	E	EM	Fair/Good	Linear belt of multi-stemmed trees, unable to inspect stems in detail.	20+	C2

Note: This survey is based on a brief visual inspection from the ground.
 It is not intended as a full arboricultural inspection.

- Indicates estimated / offsite tree

Tree Survey Schedule

Site Land off Nyton Nurseries, Westergate
 Project schedule ref: JSL2869_750
 Drawing reference: JSL2869_700
 Survey date: 04/07/2017

Surveyor: Jake Bailey
 Status: For Planning
 Revision: .
 Notes: (Weather) Bright & Clear



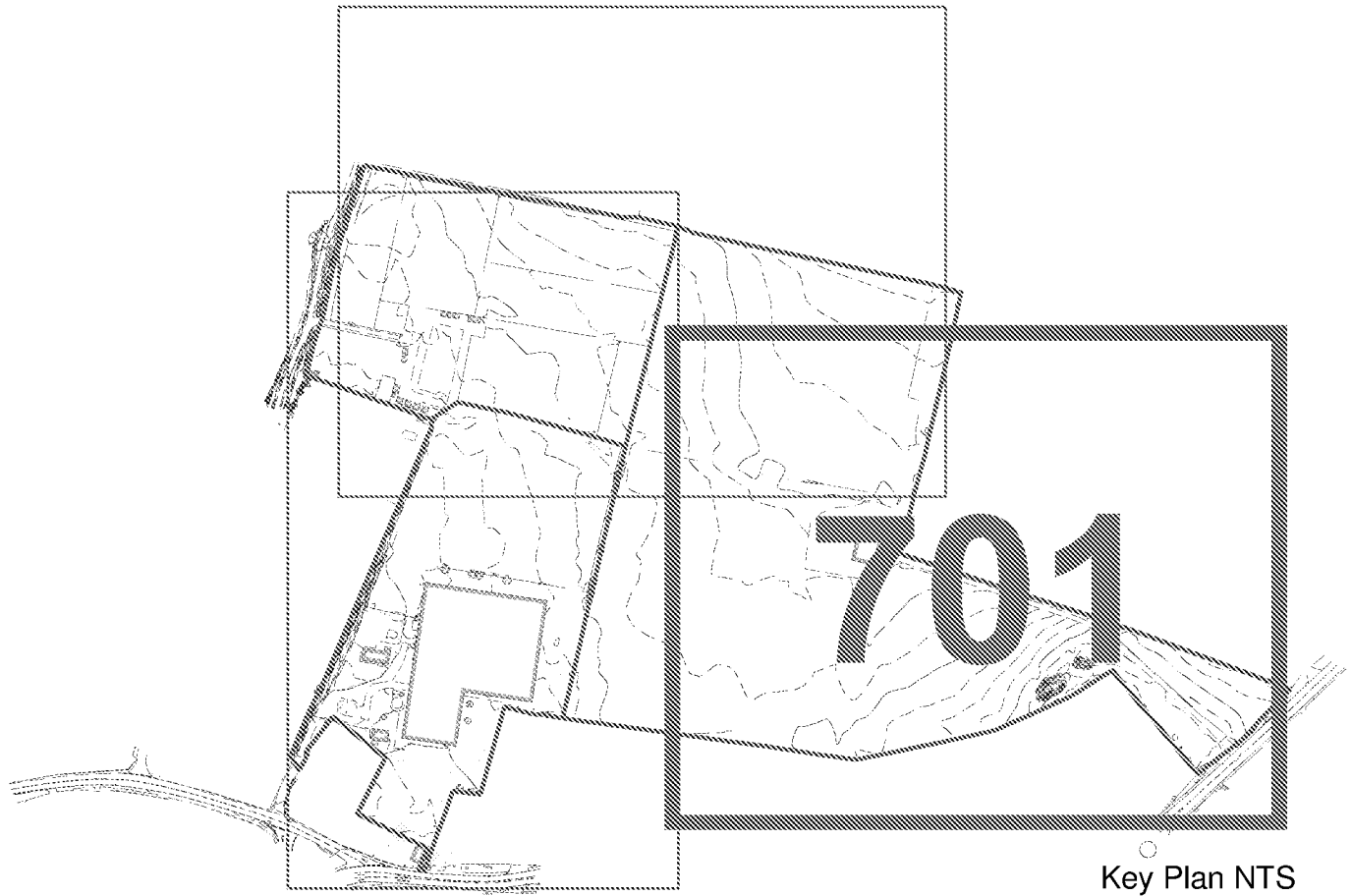
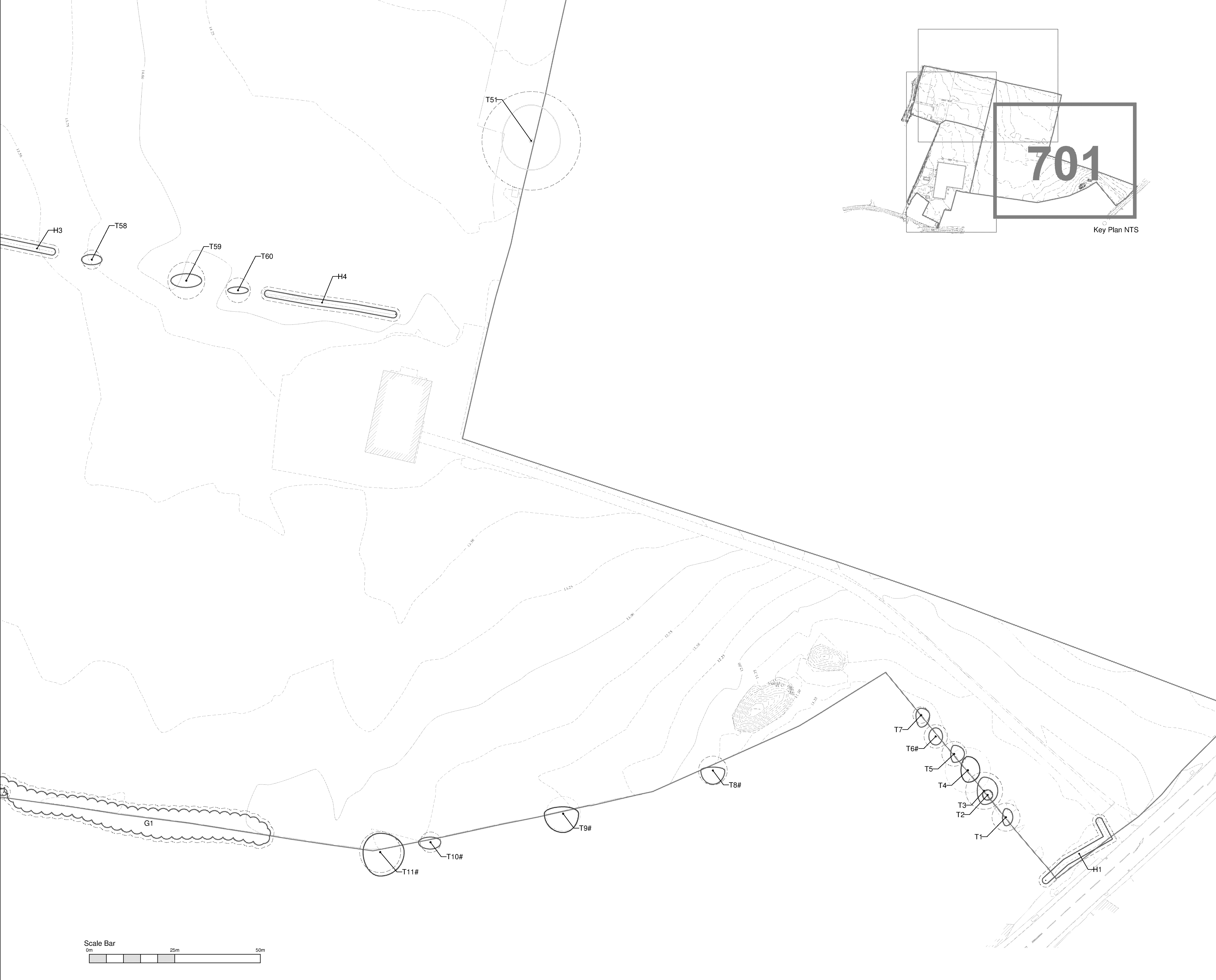
Ref. no.	Species	Height (m)	Crown spread (m)				Stem dia. (m)	Stem no. at 1.5m	Height of crown clearance (m)	Dir/height	Age class	Structural Physiological condition	General observations Management recommendations	Estimated remaining contribution (years)	Tree Quality Category (BS5837)
			N	E	S	W									
G15	Crataegus monogyna, Prunus spinosa, Acer campestre Common Hawthorn, Blackthorn, Field Maple	max 5	as shown				<0.25	M	0.00	-	EM	Fair/Good	Multistemmed trees, scrappy form and intertwined crowns. Limited amenity.	15+	C2
G16	Populus balsamifera Balsam Poplar	ave 25	as shown				<0.50	-	-	-	EM	Fair	Double row of shelter belt trees in a continuous line. Larger trees are to the north. Generally in fair condition and companion shelter present. Some trees with dead wood and rot pockets. Would benefit from active management and full condition survey recommended as species typically weak timbered.	20+	B2
G17	Fraxinus excelsior, Corylus avellana, Sambucus nigra, Crataegus monogyna Common Ash, Common Hazel, Elder, Common Hawthorn	ave 5	as shown				<0.10	-	-	-	Y SM	Good	Dense area of young trees. Screens fields beyond, diverse native pioneer mix. No trees of notable stature.	25+	C2
G18	Sambucus nigra, Prunus spinosa Elder, Blackthorn	ave 5	as shown				<0.15	-	-	-	Y SM	Good	Dense area of pioneer species. Limited value.	20+	C2
H1	Fagus sylvatica Common Beech	2.0	as shown				-	-	-	-	SM	Good	Vigorous Beech hedge managed at approximately 2m. Provides screening of road.	20+	C2
H2	Ligustrum vulgare Wild Privet	3.0	as shown				-	-	-	-	-	Good	Dense garden hedge. Evergreen screen.	20+	C2
H3	Crataegus monogyna, Sambucus nigra Common Hawthorn, Elder	7.0	as shown				<0.35	-	-	-	M	Fair/Good	Remnant hedgerow comprising mature Hawthorn and Elder. Crown lifted on north and south sides.	15+	C2
H4	Crataegus monogyna Common Hawthorn	7.0	as shown				-	-	0.50	-	M	Fair	Mechanically pruned to north and south, bias to east and west. Part of remnant hedgerow.	20+	C2

Note: This survey is based on a brief visual inspection from the ground.
 It is not intended as a full arboricultural inspection.

- Indicates estimated / offsite tree

APPENDIX 2

Tree Survey Drawing JSL2869_701-703



© 2016 RPS Group

Notes

1. This drawing has been prepared in accordance with the scope of RPS's appointment with its client and is subject to the terms and conditions of that appointment. RPS accepts no liability for any use of this document other than by its client and only for the purposes for which it was prepared and provided.
2. If received electronically it is the recipients responsibility to print to correct scale. Only written dimensions should be used.
3. Where applicable Ordnance Survey (c) Crown Copyright 2016 All rights reserved. Licence number 0100031673

Key

- Application site boundary.
- Tree with numbered reference. Canopy spread and BS5837:2012 tree quality category as shown below.
- Tree (in off-site or estimated location) with numbered reference. Canopy spread and BS5837:2012 tree quality category.
- Vegetation group with numbered reference. Canopy extents and BS5837:2012 tree quality category as shown below.
- Hedge with numbered reference. Width and BS5837:2012 tree quality category as shown below.

BS 5837:2012 Tree Quality Categories - Table 1

- Category A - High quality
- Category B - Moderate quality
- Category C - Low quality
- Category U - Unsuitable for retention

- Tree protected by Tree Preservation Order AL/1/13 served by Arun District Council in 2013. Bracketed number reference relates to the TPO Schedule.
- Root protection area (RPA). Calculated in accordance with Section 4.6 - BS5837:2012

NOTES:

- Refer to RPS Tree Survey Report & Schedule for further details.
- Survey based on a visual inspection from the ground and is not intended as a full arboricultural inspection.
- Plan produced in accordance with recommendations set out in BS 5837:2012 - 'Trees in Relation to design, demolition and construction'.
- Due to the legal protection afforded to breeding birds vegetation removal should not take place during the bird nesting period; generally, although not restricted to, March - August inclusive.
- Survey based upon topographic survey produced by Wimax Geomatics Ltd. in Shrewsbury, October 2012.

Rev	Description	Date	Initial	Checked

Lakesbury House, Hittingbury Road, Chandlers Ford, Hampshire SO53 5SS
T: 02380 810 440 E: rpssao@rpsgroup.com F: 02380 810 449

Client **Taylor Wimpey Southern Counties**

Project **Land at Nyton Nurseries Westergate**

Title **Tree Survey Drawing Sheet 1 of 3**

Status	Drawn By	PM/Checked by
For Planning	JB/ JMB	CC
Job Ref	Scale @ A1	Date Created
2869	1:500	07/07/2017
Drawing Number	Rev	
701	-	

rpsgroup.com/uk



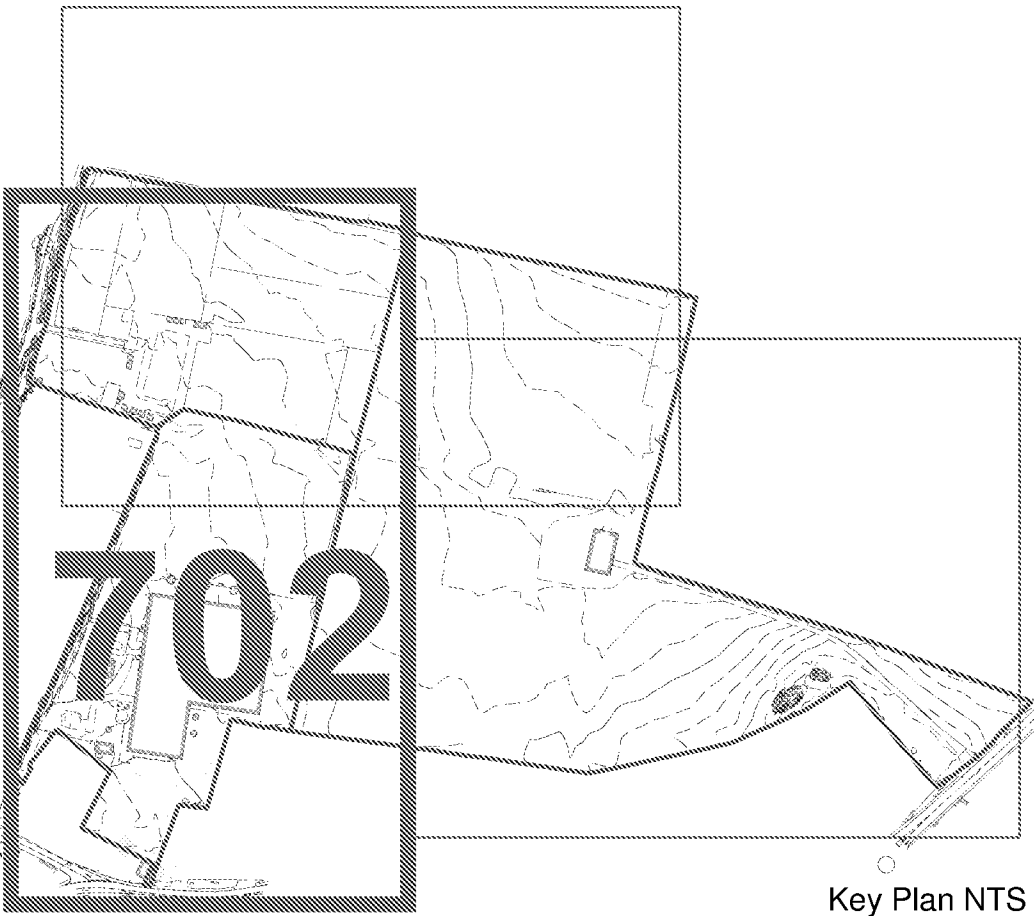
© 2017 RPS Group
Notes
1. This drawing has been prepared in accordance with the scope of RPS's appointment with its client and is subject to the terms and conditions of that appointment. RPS accepts no liability for any use of this document other than by its client and only for the purposes for which it was prepared and provided.
2. If received electronically it is the recipient's responsibility to print to correct scale. Only written dimensions should be used.
3. Where applicable Ordnance Survey (c) Crown Copyright 2017
All rights reserved. Licence number 0100031673



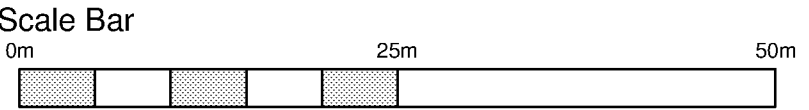
Key

- Application site boundary.
- Tree with numbered reference. Canopy spread and BS5837:2012 tree quality category as shown below.
- Tree (in off-site or estimated location) with numbered reference. Canopy spread and BS5837:2012 tree quality category.
- Vegetation group with numbered reference. Canopy extent and BS5837:2012 tree quality category as shown below.
- Hedge with numbered reference. Width and BS5837:2012 tree quality category as shown below.
- BS 5837:2012 Tree Quality Categories - Table 1
 - Category A - High quality
 - Category B - Moderate quality
 - Category C - Low quality
 - Category U - Unsuitable for retention
- Tree protected by Tree Preservation Order AL1113 served by Arun District Council in 2013. Bracketed number reference relates to the TPO Schedule.
- Root protection area (RPA) Calculated in accordance with Section 4.6 - BS5837:2012

- NOTES:
- Refer to RPS Tree Survey Report & Schedule for further details.
 - Survey based on a visual inspection from the ground and is not intended as a full arboricultural inspection.
 - Plan produced in accordance with recommendations set out in BS 5837:2012 - 'Trees in Relation to design, demolition and construction'.
 - Due to the legal protection afforded to breeding birds, vegetation removal should not take place during the bird nesting period, generally, although not restricted to, March - August inclusive.
 - Survey based upon topographic survey produced by Wilmac Geomatics Ltd. in Shrewsbury, October 2012.



Key Plan NTS



Rev	Description	Date	Initial	Checked



Lakesbury House, Hillingbury Road, Chandlers Ford, Hampshire, SO53 5SS
T: 02380 810 440 E: rps@rpsgroup.com F: 02380 810 449

Client **Taylor Wimpey Southern Counties**

Project **Land at Nyton Nurseries Westergate**

Title **Tree Survey Drawing Sheet 2 of 3**

Status **For Planning** Drawn By **JB/ JMB** PMI/Checked by **CC**

Job Ref **JSL2869** Scale @ A1 **1:500** Date Created **07/07/2017**

Drawing Number **702** Rev **-**



© 2016 RPS Group

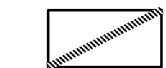
Notes

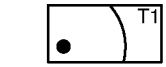
1. This drawing has been prepared in accordance with the scope of RPS's appointment with its client and is subject to the terms and conditions of that appointment. RPS accepts no liability for any use of this document other than by its client and only for the purposes for which it was prepared and provided.

2. If received electronically it is the recipients responsibility to print to correct scale. Only written dimensions should be used.

3. Where applicable Ordnance Survey (c) Crown Copyright 2016
All rights reserved. Licence number 0100031673

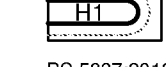
Key

 Application site boundary.

 Tree with numbered reference.
Canopy spread and BS5837:2012 tree quality category as shown below.

 Tree (in off-site or estimated location) with numbered reference. Canopy spread and BS5837:2012 tree quality category.

 Vegetation group with numbered reference. Canopy extents and BS5837:2012 tree quality category as shown below.

 Hedge with numbered reference. Width and BS5837:2012 tree quality category as shown below.

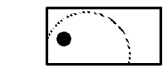
BS 5837:2012 Tree Quality Categories - Table 1

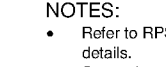
 Category A - High quality

 Category B - Moderate quality

 Category C - Low quality

 Category U - Unsuitable for retention

 Tree protected by Tree Preservation Order AL/1/13 served by Arun District Council in 2013. Bracketed number reference relates to the TPO Schedule.

 Root protection area (RPA). Calculated in accordance with Section 4.6 - BS5837:2012

NOTES:

- Refer to RPS Tree Survey Report & Schedule for further details.
- Survey based on a visual inspection from the ground and is not intended as a full arboricultural inspection.
- Plan produced in accordance with recommendations set out in BS 5837:2012 - 'Trees in Relation to design, demolition and construction'.
- Due to the legal protection afforded to breeding birds vegetation removal should not take place during the bird nesting period; generally, although not restricted to, March - August inclusive.
- Survey based upon topographic survey produced by Wimax Geomatics Ltd. in Shrewsbury, October 2012.



Rev	Description	Date	Initial	Checked
-----	-------------	------	---------	---------

RPS

Lakesbury House, Hillingbury Road, Chandlers Ford, Hampshire SO53 5SS
T: 02380 810 440 E: rpsso@rpsgroup.com F: 02380 810 449

Client **Taylor Wimpey Southern Counties**

Project **Land at Nyton Nurseries Westergate**

Title **Tree Survey Drawing Sheet 3 of 3**

Status **For Planning** Drawn By **JB/ JMB** PM/Checked by **CC**

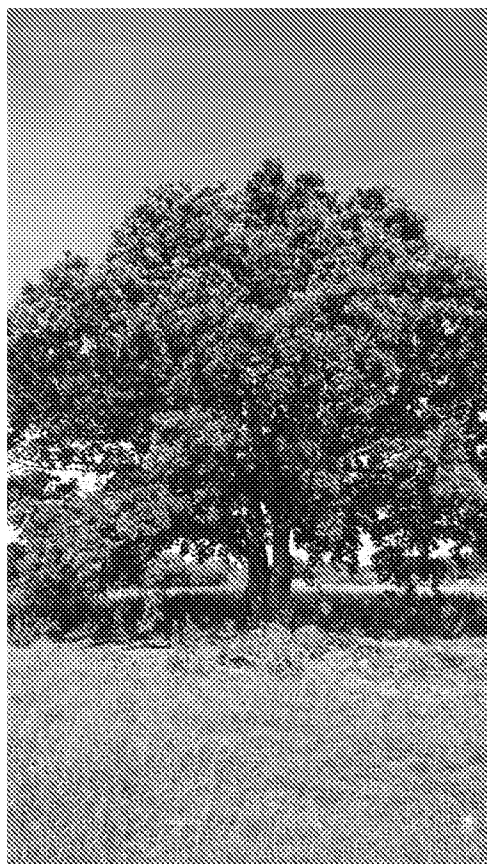
Job Ref **2869** Scale @ **A1 1:500** Date Created **07/07/2017**

Drawing Number **703** Rev **-**

rpsgroup.com/uk

APPENDIX 3

Site photographs



Figures 1a (top, T49 and T50), 1b (bottom left, T51) T49, T50 and T51 were high quality BS5837 category A oak trees with high amenity value.

Figure 1c (bottom right). T50 was the highest amenity tree on site and exhibited veteran characteristics.

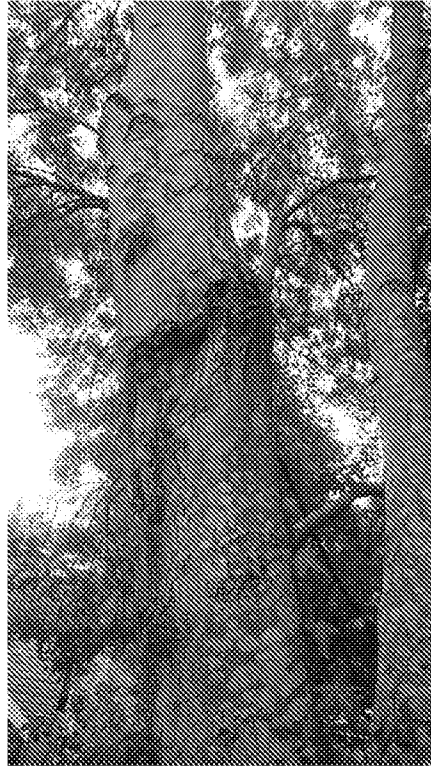


Figures 2a (top left) and 2b (top right). Included growth unions were present on several trees within T12 x45.
 Figure 2c (bottom left). A hazard beam was also noted on a major limb on one of the trees within T12 x45.
 Figure 2d (bottom right). Bacterial canker (*P. savastanoi pv. fraxini*) was present on some trees within T12 x45, causing cankers and vertical splits.



Figure 3 (top). G3- G5 comprised an area of dense pioneer vegetation. Access was limited and therefore it was not possible to undertake a detailed survey of the area, however the trees within were of low quality pertaining to a category C2 of the BS5837 tree grading criteria.

Figure 4 (bottom). T20 showed symptoms of bacterial canker (*P. savastanoi pv. fraxini*) and its structural condition should be further monitored.



Figures 5a (top) and 5b (bottom). T22 had multiple stems and one had a stem cavity in the plane of its lean, a potential structural weakness. The stem was also leaning towards the veterinary practice, pictured in 5b. The stem also had a heavy crown weight which was biased towards the veterinary practice. It is recommended the stem is reduced.

APPENDIX 4

Arboricultural Glossary

Age-class - A general classification of the tree into either - young, semi-mature, early mature, mature, over-mature, or veteran.

Apical Bud/Shoot – The apical bud, also known as the leading shoot, is responsible for shoot extension and is dominant.

Apical Dominance – A singular, leading shoot remains dominant.

Arboreal - In connection with, or in relation to, trees.

Arboriculturalist – Person who has, through relevant education, training and experience, gained recognised qualifications and expertise in the field of trees in relation to construction.

Arboricultural Implications Assessment (AIA) – Study, undertaken by an arboriculturalist, to identify, evaluate and possibly mitigate the extent of direct and indirect impacts on existing trees that may arise as a result of the implementation of any site layout proposal.

Arboricultural Method Statement (AMS) – Methodology for the implementation of any aspect of development that has the potential to result in the loss of or damage to a tree. Note The AMS is likely to include details of an on-site tree protection monitoring regime.

Asymmetric crown- Crowns that have a morphological bias in a particular direction. This can give the tree an aesthetically unfavourable appearance, but can also subject the tree to uneven wind- loading forces and potentially result in failure.

Basal – Referring to the bottom part of a tree's stem.

Basifugal mortality – A natural process seen in trees in an advanced life stage whereby the trees extremities die back and the inner crown expresses new growth, in order to conserve energy reserves.

Bifurcated - A growth characteristic, where two stems of similar size grow from the same point. Can create an inherent weakness.

Branch union/junction - The point at which a branch joins a larger stem. Can be a point of weakness, especially in certain species.

Brown Rot- Decay caused by certain species of fungus which results in the affected wood becoming brittle and liable to suddenly 'break out', especially if in key structural areas.

Buttress flares – Extensions of the basal stem of a tree that provide additional structural support. See reaction wood.

Bifurcated- A growth characteristic, where two or more stems of similar size grow from the same point. Can create an inherent weakness.

Cable braces – Cable braces used to support the crown of a tree, reduce impacts caused by wind- throw oscillation.

Canker – A clearly defined area of dead and sunken or malformed bark, caused by bacteria or fungi. Can have a bearing on structural integrity of infected limb(s) depending on size and location.

Central leader- See apical dominance.

Chlorosis- yellowing of leaves which can be caused by a range of factors, often an indicator of nutrient deficiency.

Compaction - The compressing & hardening of soil around tree root systems, due to vehicular/pedestrian use etc. Loss of pore space between soil granules limits water movement and gaseous exchange, and inhibits root growth.

Companion shelter- Shelter provided by neighbouring trees in groups to one another, factors such as wind throw are reduced due to supporting branches and interlocking root systems. Removing individual trees on the peripheries of such groups can expose neighbouring trees to environmental factors they have not previously been subjected to and can lead to individual failure.

Competent person – Person who has training and experience relevant to the matter being addressed and an understanding of the requirements of the particular task being approached

Note 1 A competent person understands the hazards and the methods to be implemented to eliminate or reduce the risks that can arise. For example, when on site, a competent person is able to recognise at all times whether it is safe to proceed.

Note 2 A competent person is able to advise on the best means by which the recommendations of this British Standard may be implemented.

Condition – Assessment based on a visual and professional view giving consideration to many factors such as tree health, structural integrity and suitability of its position.

Conservation dead- wooding- Removal of deadwood using ‘coronet cuts’ that mimic the way a branch would naturally break off, maximising deadwood habitat availability for invertebrates.

Coppice - The method of managing trees by cutting the stems at between 1.0 inch and 1.0 foot from the ground level on a regular cycle, the cut stumps of the trees or shrubs are allowed to re-grow many new stems.

Crown spread - Gives distances between extreme limits of the crown and the stem, usually along the four compass points. Helps to show crown symmetry.

Crown Reduction – The removal of branch ends to reduce the extreme limits of a trees branch spread and height.

Crown Thin – The removal of selected branches within the crown to thin the internal branch structure.

D.B.H. - 'Diameter at Breast Height', an industry standard to gauge tree stem size and development. Within arboriculture, breast height is taken to be 1.5m above ground level.

Dieback - The reduction in crown vigour and extension growth progressing to death of distal parts; often associated with decline.

Epicormic growth - New growth from dormant buds that can often form tenuous attachments. Although some species readily form such shoots, it can be an indication of stress.

Form - A general assessment of the shape and position of the tree within its environment.

Hanger – Term used to describe a branch that has become detached and is being supported by other branches. Can be a hazard to persons and property below.

Hazard Beam – After the loss of a distal part, a limb concentrates growth upwards creating adverse end weights that can render the limb susceptible to failure. .

Included bark – Growth characteristic usually caused when two or more stems/branches growing in close proximity 'fuse' together entrapping the bark from when the parts were separate in the middle, creating a structural weakness.

Invertebrate tower – Pollarding of a (usually dead) tree to a safe height that leaves part of the main stem as a deadwood habitat for invertebrate species.

Occlusion/Occluded – Normally used to describe the overgrowth of a wound. Also, immovable foreign objects in contact with a tree part can become encased or 'occluded' by the tree as it grows incrementally.

Pathogen - An agent that causes disease, especially a living microorganism such as a bacterium or fungus.

Phototropic growth – Growth responding to a light stimulus i.e. the sun. This can influence the form of a tree, particularly where other factors e.g. buildings or other trees, affect the amount/ direction light is received.

Pollard – The removal and subsequent regular re-removal of the crown of a tree above animal browsing height. Can be an effective method of controlling the size of trees in urban areas. This is ideally begun in the trees early stages and maintained throughout its life.

Reaction wood - Essentially additional wood laid down by the tree to compensate for structural defects such as cavities.

Rhizosphere - The rhizosphere is the narrow region of soil that is directly influenced by root secretions and associated soil microorganisms. In particular, mycorrhizal fungi form a symbiotic relationship with trees and assist in the assimilation of phosphates essential to the trees health.

Ring barking/Girdling – the removal of bark around the entire circumference of a stem or branch, causing the death of all distal parts.

Root Protection Area (RPA) – Layout design tool indicating the area surrounding a tree that contains sufficient rooting volume to ensure the survival of the tree, shown in plan form in m².

Scaffold limbs - The main structural branches within the crown.

Tree protection plan – scale drawing prepared by an arboriculturalist showing the finalised layout proposals, tree retention and tree and landscape protection measures detailed within the arboricultural method statement (AMS), which can be shown graphically.

U.L.E – ‘Useful Life Expectancy’ is an estimate based on currently known factors of the possible remaining life of the tree as an asset. AKA ‘Estimated remaining contribution’.

Veteran tree – Tree that, by recognised criteria, shows features of biological, cultural or aesthetic value that are characteristic of, but not exclusive to, individuals surviving beyond the typical age range for the species concerned.

Vigour - A general classification, as to the present and future potential growth and development of a tree. A comment regarding the health status of the tree specific to its species.

White Rot - A type of decay caused by certain species of fungi which results in the affected wood becoming flexible with little compressive strength.

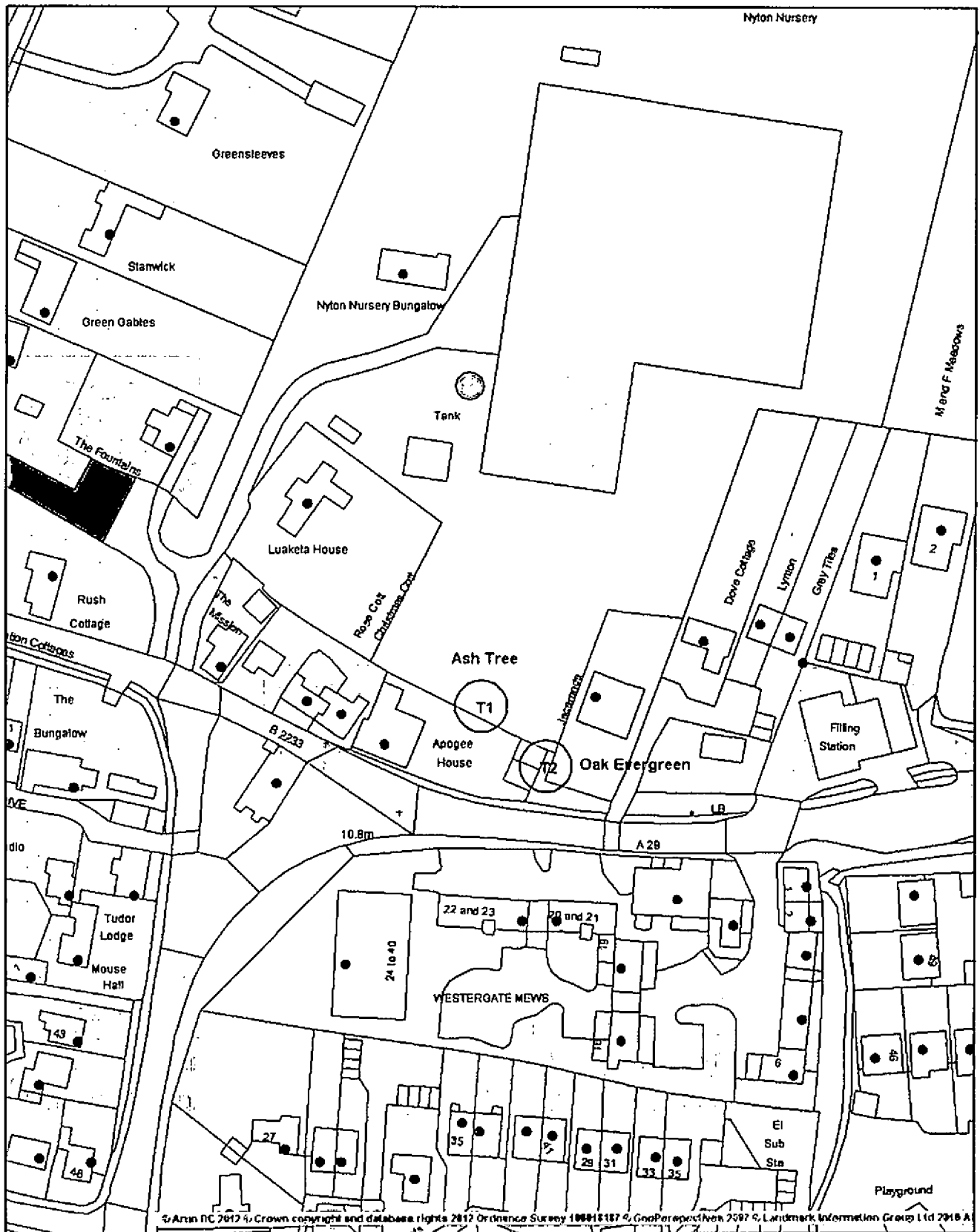
APPENDIX 5

Arun District Council Tree Preservation Order AL/1/13

Map and Schedule

TPO/AL/1/13

TPO APOGEE CORPORATION LTD APOGEE HOUSE NYTON ROAD WESTERGA



© Arun DC 2012. Crown copyright and database rights 2012 Ordnance Survey 100018487. GeoPerceptives 2597. Landmark Information Group Ltd 2018. All rights reserved.



ARUN
DISTRICT COUNCIL

Based on the Ordnance Survey mapping with the permission of the Controller of Her Majesty's Stationery Office © Crown Copyright. Unauthorised reproduction infringes Crown Copyright and may lead to prosecution or civil proceedings.
Arun District Council 100018487.

Scale 1/1250

Date 20/5/2013

Centre = 493969 E 105623 N

SCHEDULE 1**SPECIFICATION OF TREES****Trees specified individually**
(encircled in black on the map)

<i>Reference on Map</i>	<i>Description</i>	<i>Situation*</i>
T1	Ash Tree	
T2	Evergreen Oak	

Trees specified by reference area
(within a dotted black line on the map)

<i>Reference on Map</i>	<i>Description</i>	<i>Situation*</i>
-------------------------	--------------------	-------------------

Groups of Trees
(within a broken black line on the map)

<i>Reference on Map</i>	<i>Description</i>	<i>Situation*</i>
-------------------------	--------------------	-------------------

Woodlands
(within a continuous black line on the map)

<i>Reference on Map</i>	<i>Description</i>	<i>Situation*</i>
-------------------------	--------------------	-------------------

**Complete if necessary to specify more precisely the position of the trees.*

Primary Address
Owner/Occupier, Apogee Corporation Ltd, Apogee House, Nyton Road, Westergate, West Sussex, PO20 3UN
Owner/Occupier, Jacaranda, Nyton Road, Westergate, West Sussex, PO20 3UN
Secondary Addresses
Church Commissioners for England, Church House, Great Smith Street, London SW1P 3AZ
Jason Patrick Collins and Barry Trevor Ferdinand, Apogee House, 8 Willow Lane Business Park, willow Lane, Mitcham, Surrey, CR4 4NA
Jason Patrick Collins and Barry Trevor Ferdinand, The Old Town Hall, Wimbledon, London, SW19 8YA
Anthony Michael Olliff and Paula Caryn Olliff, Jacaranda, Nyton Road, Westergate, West Sussex, PO20 3UN