

Arboricultural Impact Assessment

Land east of Wandleys Lane
Walberton
West Sussex
BN18 0QR

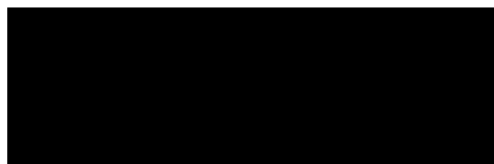
3rd October 2017



PJC ref: 4419/17-02 Rev2

This report has been prepared by
PJC Consultancy Ltd
on behalf of
Welbeck Land

Prepared by	Peter Davies FdSc Arboriculture M.Arbor.A Peter has a Foundation Degree in Arboriculture and is a professional member of the Arboricultural Association. He has ten years experience in the arboricultural industry, originally working as a groundsman and feller, and progressing into consultancy. He is a Lantra accredited professional tree inspector.
Checked by	Nick Betts HND For M.Arbor.A Nick has attained an HND in forestry management and is a professional member of both the Arboricultural Association and the Consulting Arborists Society. He has worked in the arboricultural and forestry industries for 14 years. He started his career as a forestry worker before qualifying as a tree surgeon, working in both the private and commercial sectors. He has been a practising consultant since 2004. He is a Lantra accredited professional tree inspector.



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1 EXECUTIVE SUMMARY

1.1 This report should be read in conjunction with arboricultural survey ref. PJC/4419/17-01 and arboricultural method statement ref. PJC/4419/17-03.

1.2 **Site location:** The site is situated to the south-west of Wandleys Lane in Walberton, West Sussex. It has a central OS national grid reference of SU956066. The surrounding land use is comprised residential properties on Wandleys Lane and West Walberton Lane to the north and east, Wandleys Copse to the south-east and Woodfield Farm to the south-west. The location of the site within its environs is shown in figure 1.



Figure 1: Location of Site and Environs

1.3 **Proposal:** A proposal has been created for an Outline Planning Application for up to 157no. residential dwellings including 30% affordable, landscaping, open space and access provision. (All matters reserved apart from access).

1.4 **Tree removals:** Trees G51 (part), T53, T54, G55 (part) and G56 will be removed to facilitate the proposed development.

1.5 **Access facilitation pruning:** Groups G51, G55, G57 and T58 are anticipated to require access facilitation pruning to enable the proposed construction works.

1.6 **Works within root protection areas:** New hard standing footpaths will be constructed within the root protection areas of T38, T39, G51, G55, G57 and T58.

2 INTRODUCTION

2.1 **Instruction:** PJC Consultancy has been instructed by Welbeck Land to provide an arboricultural impact assessment for a proposed residential development on land east of Wandleys Lane in Walberton.

2.2 **Brief:** PJC Consultancy has been commissioned to compile an arboricultural impact assessment written in accordance with guidelines set out in BS5837: 2012 '*Trees in relation to design, demolition and construction – Recommendations*'.

2.3 **Scope of this report:** This report is concerned with all significant trees located within the site boundary and those located around the curtilage of the site with the potential to impact or be impacted by the proposed construction works.

2.4 **Contents of report:** This report includes the following:

- A schedule of trees to be retained/removed.
- A schedule of access facilitation pruning required for development.
- An assessment of the impact construction works will have on retained trees and mitigation measures to be implemented.
- An assessment of post development pressures on trees.
- Recommendations for post development arboricultural management.
- Tree Constraints Plan and Tree Retention Plan.

2.5 **Documents and information provided:** The following documents were provided by the client to produce this report:

- OS Site Location Plan
- Drawing ref. 17/071/100-500 – Topographical Survey
- Drawing ref. 6462-01 Rev D – Indicative Site Layout
- Drawing ref. 6462-02 Rev A – Site Location Plan
- Drawing ref. 6462-03 Rev A – Block Plan
- Drawing ref. 6462-10 – Street Scenes
- Drawing ref. 6462-11 – Indicative Site Sections

3 INITIAL TREE SURVEY SUMMARY

3.1 Site visit: A site visit was carried out on 12th April 2017. The weather conditions at the time were fine and dry. The visibility was adequate for visual tree inspection from ground level. The initial survey assessed the trees in the context of the existing land use, not in consideration of development proposals.

3.2 Survey methodology: Explanations for the measurements and information collected for each tree are described in arboricultural report ref. PJC/4419/17-01.

3.3 Site layout: The site comprises a large grass field used as animal pasture. The site is accessed via Wandleys Lane on the north-eastern boundary adjacent to a small number of agricultural storage buildings. A belt of trees is located along Wandleys Lane with further trees located along the northern, eastern and southern boundaries, most of which are situated on third party land. The most prominent arboricultural feature at the site is Wandleys Copse, located outside the southern boundary, which is designated ancient semi-natural woodland.

3.4 Tree categorisation summary: A total of forty-five trees, thirteen tree/shrub groups, one hedgerow and one woodland block were surveyed and recorded in the Tree Survey Schedule in Appendix 2. Information and measurements for each tree or group can be viewed in the Tree Survey Schedule.

Table 1: Tree categorisation summary

Categorisation	Individual tree	Tree group	Hedgerow	Woodland
A	8	-	-	1
B	25	2	-	-
C	10	11	1	-
U	2	-	-	-
Total	45	13	1	1

3.5 Statutory tree protection: Arun District Councils online mapping service was used on 21st April 2017 to establish restrictions to tree works at the site. It showed the site is not located within a Conservation Area, however tree preservation orders (TPO) affect trees located within the properties named The Pine and Chilterns to the east of the site, as well as Wandleys Cottage and Woodlea Cottage to the north of the site. No information was available regarding the specific trees in these properties that are covered by the TPOs. The online map also shows TPO/WA/2/14 as protecting the land to the north-west of Wandleys Lane and the agricultural storage buildings within the site, however the TPO Plan only identifies trees located on the opposite site of Wandleys Lane and not those surveyed for this report.

3.6 Any persons proposing to undertake tree works on this site must check the status of the trees with the local authority, and gain necessary consent before works are undertaken. Financial penalties and/or criminal proceedings can result if tree works are carried out on a protected tree without consent. The entirety of the tree is protected, both above and below ground.

4 ARBORICULTURAL IMPACT ASSESSMENT

4.1 Tree removals: Trees to be removed for the proposed development are shown with dashed outlines on the Tree Retention Plan in Appendix 1 and are shaded to indicate their BS5837 tree category. These comprise G51 (part), T53, T54, G55 (part) and G56. A summary of tree removals is shown below.

Table 2: Summary of tree removals:

Tree number	Species	Category	Justification
G51	Cherry laurel	C1	Two sections of this group will be removed as a result of direct conflict with the proposed primary and secondary access points into the site. The removal of these two sections of the group is not anticipated to significantly reduce the overall screening benefit provided by the group.
T53	Ash	B1/2	The proposed access road encroaches a significant portion of the root protection area of T53. Due to the topography of the site the road cannot be of a no-dig design and the position of the road cannot be altered to accommodate the tree due to the required visibility splay and curvature of Wandleys Lane.
T54	Ash	C1/2	T54 directly conflicts with the primary access road and the position of the road cannot be altered to accommodate the tree due to the required visibility splay and curvature of Wandleys Lane.
G55	Hazel	C2	Part of this group (as shown on the Tree Retention Plan) needs to be removed to create an adequate visibility splay for the primary site access, and to allow free movement along the new pavement on Wandleys Lane. The landscape impact of removing this line of hazel will be reduced by the retention of the adjacent section of G51, however there may be potential to plant native under-storey species such as holly, hawthorn or hazel slightly further back from the road.
G56	Hazel	C2	G56 needs to be removed for the new visibility splay and also as a result of direct access along the proposed new pavement. The landscape impact of removing this line of hazel will be reduced by the retention of the adjacent section of G51, however there may be potential to plant native under-storey species such as holly, hawthorn or hazel slightly further back from the road.

4.2 The Illustrative Landscape Masterplan includes extensive soft landscaping including individual trees located in open space where they can mature without space restrictions, and extensive tree and shrub planting which should increase the total tree cover at the site despite the above removals.

4.3 Access facilitation pruning: Trees requiring access facilitation pruning to enable the proposed construction works (based on the information currently available) comprise G51, G55 and G57. A summary of access facilitation pruning is shown below.

Table 3: Summary of access facilitation pruning:

Tree number	Species	Works required	Reason for works
G51	Cherry laurel	Reduce crowns on both sides of the primary site entrance to create an adequate visibility splay.	To allow safe access and egress from the site during the construction phase and post development.
G55	Hazel	Reduce crowns or coppice individual stems back 1m clear of the new pavement on Wandleys Lane.	To allow free movement along the pavement during the construction phase and post development.
G57	Hazel	Reduce crowns or coppice individual stems back 1m clear of the new pavement on Wandleys Lane.	To allow free movement along the pavement during the construction phase and post development.
T58	Oak	Remove lowest limb overhanging existing storage shed.	To create suitable clearance for demolition operations.

4.4 Any requirements for access facilitation pruning that cannot be predicted at this stage in the design process (e.g. for contractor compound or movement of large or specialist plant machinery) should be discussed at the pre-commencement meeting with the project arboriculturalist and agreed with the local authority arboricultural officer.

4.5 In addition to the above, recommendations for a number of tree works not directly related to the proposed construction works are suggested for the third party trees on the edge of Wandleys Copse. These works are based on grounds of sound arboricultural management and are listed in the management recommendation column of the Tree Survey Schedule. They would require permission of the land owner and are not required to facilitate the proposed development. All tree pruning including the access facilitation pruning should be carried out in accordance with BS3998: 2010 '*Tree works – recommendations*'.

4.6 Works within root protection areas: All proposed buildings will be located outside the root protection areas of retained trees, therefore use of specialist foundations for root protection is not deemed necessary. NHBC guidelines on foundation depth in proximity to trees must still be followed. This will be determined by an engineer but should be guided by information in this report and appropriate sampling to determine soil profiles at the site.

4.7 An existing agricultural storage building will be demolished from within the root protection area of tree T58 and replaced with soft landscape. Provided the methodology described in the arboricultural method statement is adhered to, this should be achievable without having a negative impact on the tree.

4.8 The new pavement extending east from the primary site entrance on Wandleys Lane will encroach the root protection areas of G51, G55, G57 and T58. The detailed specification for the pavement is to be confirmed on the date of this report.

4.9 The soil stripping required to install the pavement should be minimal as the ground slopes down from the road towards the trees, however use of a cellular confinement system such as CellWeb TRP may help reduce the depth of excavation. The detailed specification for the pavement including levels shall be reviewed by the project arboriculturalist before implementation to ensure it minimises any impact on the trees.

4.10 The soil stripping required to install the pavement shall occur under arboricultural supervision and as described in the arboricultural method statement in order to minimise any potential damage to tree roots. The breadth of the pavement will be 1.8m, which is relatively wide in comparison to the root protection areas of the retained hazel. As such it is also recommended that either the pavement has a permeable surface and sub-base, or the surface is slightly angled to direct surface water runoff towards the exposed soil surrounding the trees. The height of the kerb adjacent to Wandleys Lane should be sufficient to avoid excessive gitting of Wandleys Lane leeching into the rooting medium and causing salt damage.

4.11 When taking into account the existing levels adjacent to Wandleys Lane, it is likely that the finished level of the pavement will be higher than the surrounding unsurfaced ground. To mitigate this, topsoil may be banked along the edge of the pavement. If the level increase is expected to be greater than 150mm, a layer of inert, granular aggregate shall be used as a base to avoid inhibiting gaseous diffusion or moisture ingress to the existing rooting medium. Care shall be taken to avoid banking soil around the buttresses or buttress roots of retained trees.

4.12 A new hard standing footpath will be constructed behind plot 35 to allow access to the rear garden of plot 36. This path will encroach the root protection areas of third party oaks T38 and T39, both of which are good quality specimens worthy of special protection. As such the path shall be constructed to the following principal specification (the detailed specification is to be confirmed on the date of this report):

- Within the root protection areas, the path shall be constructed directly onto the existing ground level without soil stripping (unless undertaken under the supervision of the project arboriculturalist). A layer of inert granular aggregate may be used to fill divots to create a level work surface if required.
- Within the root protection areas, the path shall be constructed on a CellWeb TRP cellular confinement system (75mm) filled with clean angular stone (Type 4/20mm). This will provide a permeable base for the path that will reduce post development compaction of the soil beneath (compacted rooting medium can have a significant detrimental impact on root function).
- The cellular confinement system shall be installed directly onto a TreeTex Geotextile membrane. A second membrane shall be installed above the cellular confinement system as well. These membranes will prevent the migration of soil, construction debris and the bedding layer for the top surface through the cellular confinement system as that would otherwise reduce the porosity of the path.

- The top surface shall be permeable (permeable asphalt, resin bound gravel or block paving with permeable spacers and bedding aggregate) to allow continued moisture ingress and gaseous diffusion with the rooting medium.
- Traditional kerbing requires trenching to install so will not be suitable for use within these root protection areas. As an alternative, haunched kerbing, treated timber edging, galvanised metal edging or no fixed edging shall be used.

4.13 Services: Details of the routing of services for the proposed development are not currently available. Once details of the routing of new services become available, prior to commencement, these shall be reviewed by the project arboriculturalist. The arboriculturalist shall then confirm to the local authority arboricultural officer either that no works will be carried out within root protection areas, or provide details of the methodology required to ensure the works are carried out in accordance with NJUG10 '*Guidelines for the planning, installation and maintenance of utilities in proximity to trees*' and BS5837: 2012.

4.14 Post development tree pressures and management: Much of the pre-development pruning works relate to creating the visibility splay and allowing free access along the new pavement on Wandleys Lane. Post development these works are anticipated to be repeated on a cyclical basis to allow free and safe movement of vehicles and pedestrians along Wandleys Lane.

4.15 The 15m ancient woodland buffer has been observed adjacent to Wandleys Copse. Although of high amenity and ecological value, many of the trees on the edge of the woodland are of poor condition or sub-optimal form. All of the trees in Wandleys Copse are located outside the site boundary so the duty of care to ensure their reasonable safety will be the responsibility of the trees owner. By observing the 15m buffer, constructing a road between the buffer and the closest line of houses and by appropriate soft landscaping, the proposed layout seeks to avoid increasing the frequency of land use within the target areas of these third party trees, which should therefore reduce pressures to undertake post development tree works or tree removals on safety grounds.

4.16 Several third party trees surrounding the site will overhang new private garden areas. Many of these trees have previously been reduced by the tree owners (notably T28, T29, T33 and T47) resulting in crown spreads that are biased over the site. The proposed layout seeks to prevent the same actions occurring as a result of the proposed development by avoiding positioning new houses close to trees (to prevent fear of branch fall etc), and by providing the largest gardens adjacent to the best quality trees or where tree canopies overhang by the greatest distance (e.g. plots 31-34, 46).

4.17 It is not anticipated that any of the proposed plots (houses or private gardens) will be over shaded by retained trees. Regular post development pruning works or additional tree removals to facilitate adequate levels of natural light are therefore not expected as a result of the proposed development.

5 CONCLUSIONS

5.1 Trees requiring removal to facilitate the proposed development comprise G51 (part), T53, T54, G55 (part) and G56 (one tree categorised as B, and one tree, one group and sections of two further groups categorised as C). The removal of these trees is not anticipated to have a significant detrimental landscape impact and replacement trees will be planted in sustainable locations within the development boundary.

5.2 The proposed site layout involves construction of hard standing footpaths within the root protection areas of retained trees. Due to the condition and/or amenity value of these trees, sympathetic construction methodology described in this report and the arboricultural method statement will be employed to allow their retention and continued contribution to the site.

5.3 Based on the above assessment, trees recommended for retention in this report can be protected during the proposed construction works and successfully integrated into the site post development.

6 OTHER CONSIDERATIONS

6.1 Trees should be checked for protected species before works are undertaken. It is against the law to disturb bats or their roosts under the Conservation of Habitat and Species Regulations. Nesting birds are protected by the Wildlife and Countryside Act. If protected species are discovered, Natural England should be contacted for advice.

6.2 The tree works contractors should carry out all tree works to BS3998: 2010 '*Tree works – recommendations*', as modified by research that is more recent. They should also carry relevant, adequate and up to date insurance.

6.3 It is also recommended that all tree works be carried out by an Arboricultural Association approved contractor. Approved contractors are expected to work to industry best standards, and the Arboricultural Association website contains contact details and information on engaging a suitable contractor.

6.4 The trees at this site were assessed for their condition and safety in relation to the average range of weather conditions that the region experiences. Any weather events that exceed the average norm cannot be predicted, and so their effects are not considered within this report.

6.5 The views and opinions contained within this report are entirely those of the author.

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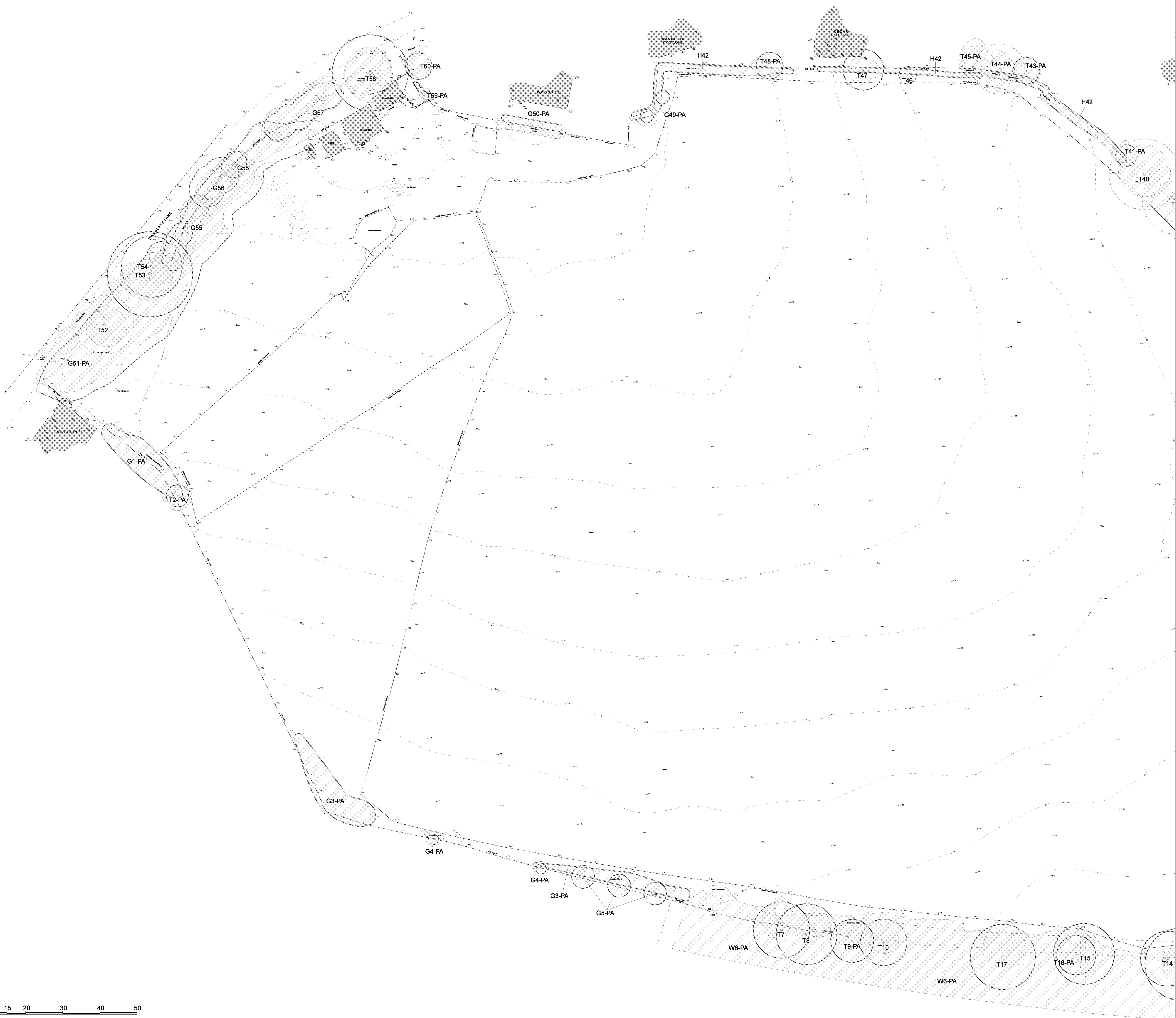


Author: Peter Davies

Date: 3rd October 2017

APPENDIX 1

Tree Constraints Plan and Tree Retention Plan



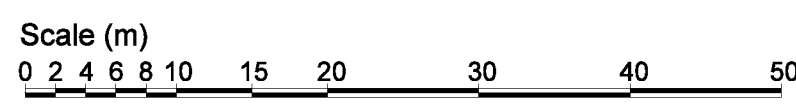
- Key:**
- RPA for CAT A* tree
 - RPA for CAT B* tree
 - RPA for CAT C* tree
 - RPA for CAT U* tree
 - Tree canopy

** Tree categorised in accordance with BS 5837:2012 'Trees in relation to design, demolition and construction - Recommendations'.*

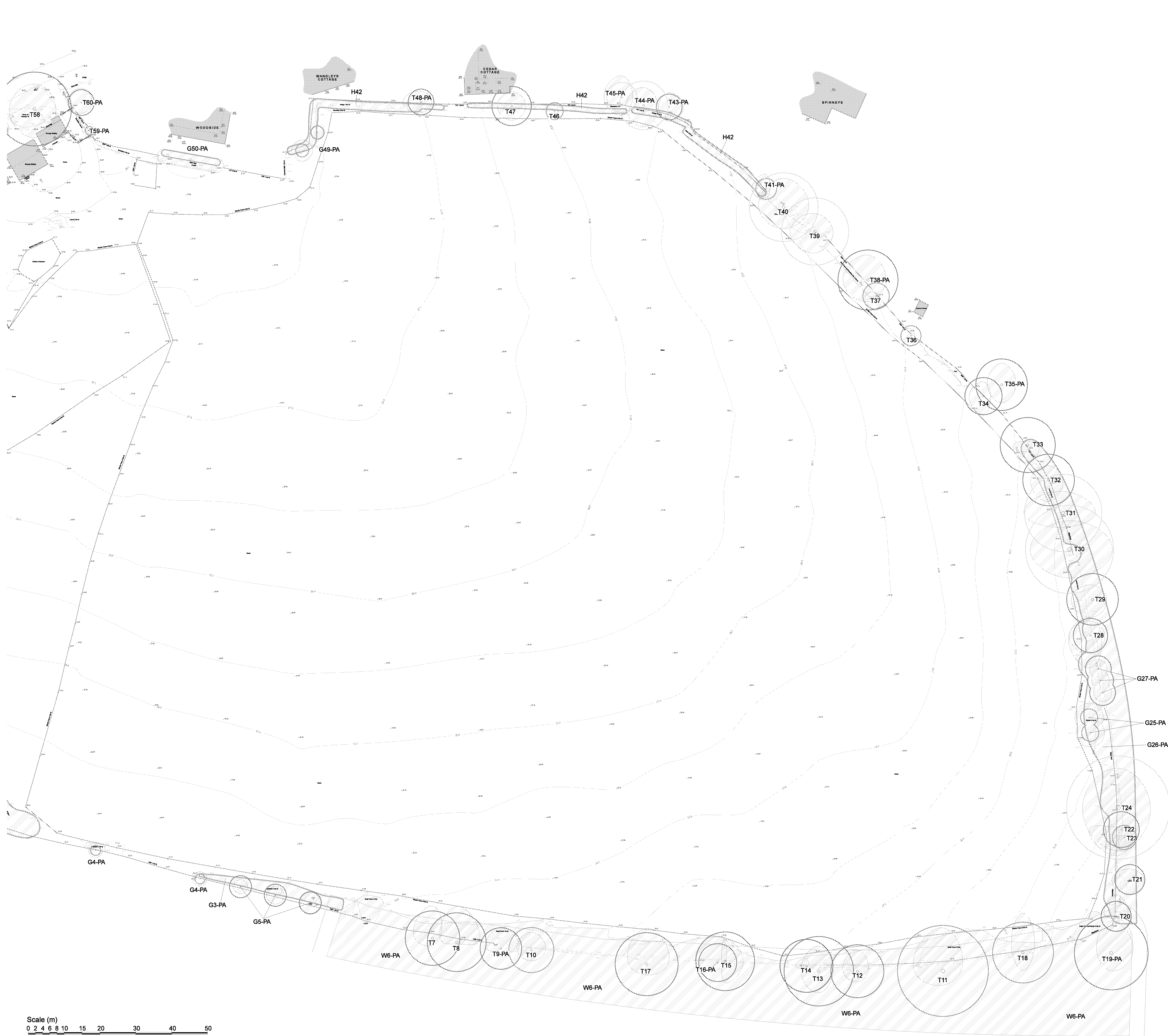
Appendix 2, (Tree Survey Schedule) contained within the arboricultural report ref. no. PJC/4419/17-01 contains further information for each tree.

This drawing should be viewed in colour.

Tree numbers suffixed with PA indicate the tree position is approximate.



Drawing no: PJC/4419/17/A	Rev: -	Sheet number: 1 of 2
Client and site: Welbeck Land		
Land east of Wandleys Lane Walberton West Sussex		
Drawing title: Tree Constraints Plan		
Date drawn: 26/04/2017		
Scale: 1:500 at A1		
Drawn by: PD	Checked by: NB	



Key:

- RPA for CAT A* tree
- RPA for CAT B* tree
- RPA for CAT C* tree
- RPA for CAT U* tree
- Tree canopy

*** Tree categorised in accordance with BS 5837:2012 'Trees in relation to design, demolition and construction - Recommendations':**

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Drawing no: PJC/4419/17/A Rev: - Sheet number: 2 of 2

Client and site:
Welbeck Land

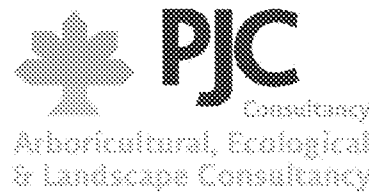
Land east of Wandleys Lane
Walberton
West Sussex

Drawing title: Tree Constraints Plan

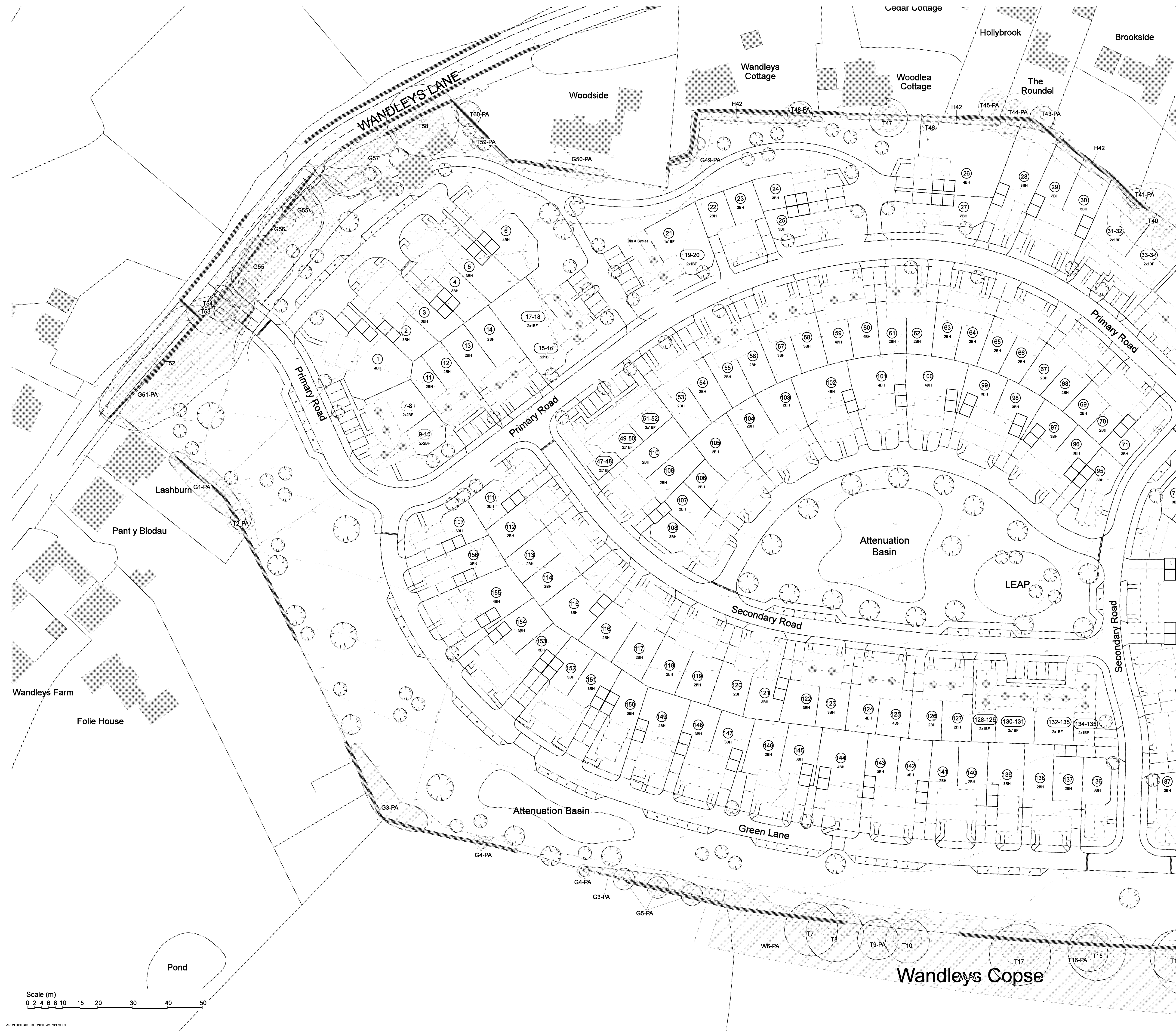
Date drawn: 26/04/2017

Scale: 1:500 at A1

Drawn by: PD Checked by: NB



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Key:

- RPA for CAT A* tree to be retained
- RPA for CAT B* tree to be retained
- RPA for CAT C* tree to be retained
- RPA for CAT U* tree to be retained
- Canopy of tree to be retained
- Canopy of CAT B* tree to be removed
- Canopy of CAT C* tree to be removed

*** Tree categorised in accordance with BS 5837:2012 'Trees in relation to design, demolition and construction - Recommendations'.**

Appendix 2, (Tree Survey Schedule) contained within the arboricultural report ref. no. PJC/4419/17-02 contains further information for each tree.

This drawing should be viewed in colour.

Tree numbers suffixed with PA indicate the tree position is approximate.

Drawing no: PJC/4419/17/B Rev: 01 Sheet number: 1 of 2

Client and site:
Welbeck Land

Land east of Wandleys Lane
Walberton
West Sussex

Drawing title: Tree Retention Plan

Date drawn: 03/10/2017

Scale: 1:500 at A1

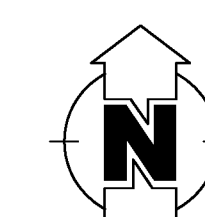
Drawn by: PD

Checked by: NB

Scale (m)
0 2 4 6 8 10 15 20 30 40 50

Pond

Wandleys Copse



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