

Arboricultural Impact Assessment

Wandleys Lane
Fontwell
West Sussex

2nd March 2018



PJC ref: 4789/18-02 Rev -

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

**Prepared
by**

Peter Davies FdSc Arboriculture M.Arbor.A

Peter has a Foundation Degree in Arboriculture from the University of Brighton and is a professional member of the Arboricultural Association. He has over 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 17 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. Tree Constraints Plan and Tree Retention Plan
2. Tree Survey Schedule

1 EXECUTIVE SUMMARY

1.1 This report should be read in conjunction with arboricultural survey ref. PJC/4789/18-01.

1.2 **Site location:** Wandleys Lane extends in a south-west orientation from West Walberton Road to Fontwell Avenue in Fontwell. The site comprises approximately the top third of the road, extending between OS national grid references SU956068 to SU954067. The surrounding land use is comprised of suburban residential development on both sides at the east end of the site and farmland at the west end. Permission has been granted for the farmland to the north of the road to be developed for residential use. 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 outlined to make safety improvements to Wandleys Lane taking into consideration future developments on the farmland on both the north and south sides of the road at the west end of the site.

1.4 **Tree removals:** T23, two trees from group G28, two sections of shrub group G44, T46, T47, and two trees from group G48 will be removed to facilitate the proposed development. Two trees from group G17 are also anticipated to require removal to facilitate construction of the pedestrian access into the Dandara Ltd development, however this access shall be constructed by a third party and is only indicatively shown on the Tree Retention Plan.

1.5 **Access facilitation pruning:** Trees H6, H7, G10, H29, G48 and G49 are anticipated to require access facilitation pruning to enable the improvements to Wandleys Lane.

1.6 **Works within root protection areas:** New or improved pavements will encroach the root protection areas of trees G8, T9, G10, T11, T13, T20, G28, H29 and G50. Sympathetic construction methodology will be employed to minimise the impact on these trees so that they can be retained and make a continued contribution to the street scene.

2 INTRODUCTION

2.1 Instruction: PJC Consultancy has been instructed by Welbeck Strategic Land II LLP to provide an arboricultural impact assessment in accordance with BS5837: 2012 '*Trees in relation to design, demolition and construction – Recommendations*' for the proposed development at Wandleys Lane in Fontwell.

2.2 Objectives of report: This report has been undertaken with the following objectives:

- To identify the tree removals and pruning works that will be required as a result of the proposed development and to assess the impact of the tree works.
- To assess the potential impact the proposed construction works will have on retained trees.
- To provide recommendations for mitigation measures to reduce the impact of construction works on retained trees.

2.3 Scope of this report: This report is concerned with all significant trees and arboricultural features located within the site boundary. Additionally, trees located around the curtilage of the site have also been surveyed when they are considered likely to have the potential to impact on the development (in relation to root and crown protection or foundation design).

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 the development.
- An assessment of the impact construction works will have on retained trees and mitigation measures to be implemented.
- Tree Constraints Plan and Tree Retention Plan.
- Tree Survey Schedule including management recommendations related directly to the proposed development.

2.5 Documents and information provided: The following documents were used to aid the preparation of this report:

- Drawing ref. ENC-310516-0W6 – Topographical Survey
- West Sussex Highways Boundary Plan
- Drawing ref. 38848_5501_009 Rev B – Indicative Road Layout and Access Proposal-Do Minimum Scheme

3 ARBORICULTURAL IMPACT ASSESSMENT

3.1 **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 T23, G28, G44 (part only), T46, T47, and G48 (part only). A summary of the tree removals is shown below.

Table 1: Tree removals summary

Tree number	Species	Category	Justification for tree removal
T23	Oak	U	This tree does not conflict with the proposed improvements to Wandleys Lane. It is however a standing dead tree located on the road frontage (within highways land), and is recommended for removal on safety grounds.
G28	Cherry	C2	Two trees from this group will be removed as a result of direct conflict with the new pavement. These are heavily suppressed trees due to their location within high hedgerow H29. The loss of these two trees should have a minimal impact on the street scene or screening for the property named Woodside provided H29 is adequately protected.
G44	Cherry laurel	C1	Two sections of this unmanaged shrub group will be cleared as a result of direct conflict with both the vehicular and pedestrian access into the development on the south side of Wandleys Lane. The removal of this vegetation should have a negligible impact on the screening benefit provided by the group, and could if necessary be mitigated by replanting. The specification for replanting would be provided at the detailed design stage of development.
T46	Ash	B1/2	The proposed access road encroaches a significant portion of the root protection area of T46. 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.
T47	Ash	C1/2	T47 directly conflicts with the new road junction and the position of the road cannot be altered to accommodate the tree due to the required visibility splay and curvature of Wandleys Lane.
G48	Hazel	C2	The two trees at the west end of this group will be removed as a result of direct conflict with the new road junction or the visibility splay. The loss of two trees from this group should not have a major impact on the street scene, however there would be scope to replant further away from Wandleys Lane if desired (to be specified at the detailed design stage).

3.2 The proposed layout has been designed to allow retention of the mature trees on the northern site boundary and the better quality trees on the southern boundary which make a significant contribution to the street scene, and that could not be easily replaced in the short term due to their size and species.

3.3 The trees proposed for removal should not result in a loss of screening for any existing residential properties and should not significantly alter the sylvan character of the street scene around the new residential developments on either side of the road.

3.4 Access facilitation pruning: Trees requiring access facilitation pruning to enable the proposed construction works (based on the information currently available) comprise H6, H7, G10, H29, G48 and G49. A summary of access facilitation pruning is shown below.

Table 2: Summary of access facilitation pruning

Tree number	Species	Works required	Reason for works
H6	Cherry laurel, holly, ash	Reduce hedgerow to edge of widened pavement. This will result in a lateral reduction of up to approximately 1m.	This is to avoid direct conflict with the pavement both during the construction phase and post development.
H7	Cherry laurel	Reduce hedgerow to edge of widened pavement. This will result in a lateral reduction of up to approximately 300mm.	This is to avoid direct conflict with the pavement both during the construction phase and post development.
G10	Hazel	Crown lift or coppice stems over new footpath.	This is to avoid direct conflict with the pavement both during the construction phase and post development.
H29	Leyland cypress, cherry laurel	Reduce laterally or crown lift over pavement to create 2.5m vertical clearance.	This is to avoid direct conflict with the pavement both during the construction phase and post development.
G48	Hazel	Reduce laterally or crown lift over pavement to line of vehicular visibility splay.	To allow safe access and egress from the new vehicular access road.
G49	Field maple	Crown lift to 5m on north side.	To create suitable visibility splay for the new vehicular access point and ensure adequate clearance over Wandleys Lane to highways standards.

3.5 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) shall be discussed at the pre-commencement meeting with the project arboriculturalist and agreed with the local authority arboricultural officer. No works may be carried out on protected trees without prior permission from the local authority. Arun District Council planning department shall be consulted regarding the presence of tree preservation orders and notified of the timing of the works.

3.6 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. 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 (www.trees.org.uk) contains contact details and information on engaging a suitable contractor.

3.7 Works within root protection areas: The majority of Wandleys Lane will be maintained at its existing breadth in order avoid removing significant trees, however three localised sections of the road will be widened to 5.5m. The levels of these areas need to tie in with the existing road levels so a no-dig specification will not be feasible. As a result the widened areas have been positioned completely outside the root protection areas of existing trees.

3.8 Currently the only pavement on Wandleys Lane extends from the junction with West Walberton Road along the north side of Wandleys Lane, approximately up to the property named Larchfield. In order to allow safe pedestrian access to the new residential developments, the existing footpath will be widened and extended along the length of the site. It will initially extend further along the north side of the road up to the edge of the root protection area of T13, at which point the pavement will be moved to the south side of the road to avoid the significant trees on the north side.

3.9 Although the route of the pavement has been designed to avoid significant trees wherever possible, due to the sylvan nature of the road it is not possible to completely avoid all root protection areas. The pavement will have to encroach the root protection areas of G8, T9, G10, T11, T13, T20, G28, H29 and G50 in the areas highlighted purple on the Tree Retention Plan.

3.10 Within the root protection areas, the pavement specification must be designed to minimise the potential impact on trees by avoiding both physical damage to the roots during the construction phase, or reducing root function by damaging the rooting medium beneath the pavements.

3.11 The only two mature trees to be encroached by the new pavement will be T13 and T51 (both oaks). The encroachment into both of these root protection areas is relatively minor (particularly T13), however the pavements will cross the root protection areas at a tangent. The encroachment into the root protection areas of younger trees G8 and T11 will be greater, however as younger trees these will be slightly more resilient to changes in their environment.

3.12 For the affected tree stock to remain viable, the pavements should be constructed to the following principal specification (detailed specification to be provided by an engineer but signed off by an arboriculturalist):

- Within the root protection areas the pavements shall be constructed directly onto the existing ground level without soil stripping other than the careful removal of surface vegetation.
- The only exception to the no-dig rule will be if preliminary root investigations (undertaken using hand tools or an airspade) are undertaken that adequately demonstrate that some soil stripping is feasible without pruning significant roots. The project arboriculturalist should sign off any root investigation so they may determine what is a significant root for the adjacent tree(s).
- If necessary a layer of sharp sand (or other inert granular aggregate) may be used to fill divots to create a level surface of the pavement without soil stripping.
- Implementation of a no-dig pavement will result in the finished level of the pavement being higher than the road (which is desirable) and the surrounding un-surfaced ground. To mitigate the potential trip hazard, either clean screened top soil (to BS3882: 2015) or an inert, permeable aggregate with a layer of soil above (depending on the level difference) may be banked on the edge of the pavement. Soil should not be banked around the buttresses or buttress roots of retained treed.
- Within the root protection areas the pavements shall be constructed on a 75mm CellWeb TRP cellular confinement system filled with clean angular stone (Type 4/20mm). This will provide a permeable base for the pavements that will spread pedestrian loads to reduce compaction of the soil beneath (compacted rooting medium can have a significant detrimental impact on root function).
- Depending on the CBR% rating (to be determined at the detailed design stage), additional permeable sub-base may be needed however use of this cellular confinement system should reduce the total build up of the permeable surface.

- 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 other materials migrating through the cellular confinement system as that could otherwise impact on the porosity of the completed pavements.
- The top surface of the pavements shall also be permeable (resin bound gravel, permeable tarmac or block paving with permeable spacers and bedding aggregate) to allow continued moisture ingress and gaseous diffusion with the rooting medium. Although the pavement will be relatively narrow and moisture could naturally drain into the soil at the side of the pavement, the encroachment into the root protection areas of some of the smaller trees will be great so a permeable specification would be prudent.
- The majority of Wandleys Lane where the new pavement is going to be constructed does not have an existing kerb line, therefore a new kerb will need to be constructed to divide the new pavements from the road. Traditional kerbing requires a linear trench to be excavated to allow for a concrete footing to be installed. This should be avoided within the root protection areas as it would eliminate any chance of retaining significant shallow roots. Instead either a preliminary root investigation shall be undertaken to determine the depth/proliferation of significant roots, or kerbing with an above ground haunch and potentially metal support pins could be used.
- Other low impact edging is available such as treated timber or galvanised metal L-shaped edging. These are unlikely to be suitable for dividing the road and pavement, but could be considered for dividing the pavement from the surrounding soft landscape.

3.11 Services: Details of the routing of new or amended services resulting from the proposed improvements to Wandleys Lane are not available. Once details of the routing of new or amended services (if any) become available, prior to commencement, they 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 CONCLUSIONS

4.1 One category B tree, one category C tree, and sections of three category C groups will be removed to facilitate the proposed development. An additional category U tree will be removed on safety grounds not related to the improvements to Wandleys Lane.

4.2 The proposals for the improvements to Wandleys Lane take into account the existing tree stock. They have been designed to have the minimum possible impact on trees, with particular regard to third party specimens such as the veteran oak in the garden of 25 Wandleys Lane, and the mature specimens at the west end of the road that make a significant contribution to the character of the road and could not be replaced with trees of equal size or value for many years.

4.3 Due to abundance of existing trees along the road it will not been feasible to completely avoid all root protection areas, however the works proposed within root protection areas have been kept to a minimum, and engineered solutions to further reduce the arboricultural impacts to an acceptable level are proposed in this report.

4.4 This arboricultural impact assessment is based on the information available on the date of the report. Following the detailed design stage of the development when the detailed road/pavement specifications are produced (with further arboricultural input) and a construction management plan has been devised, an arboricultural method statement and dimensioned tree protection plan should be produced to show how retained trees will be protected whilst the improvements are constructed.

Contact details

Sussex office:

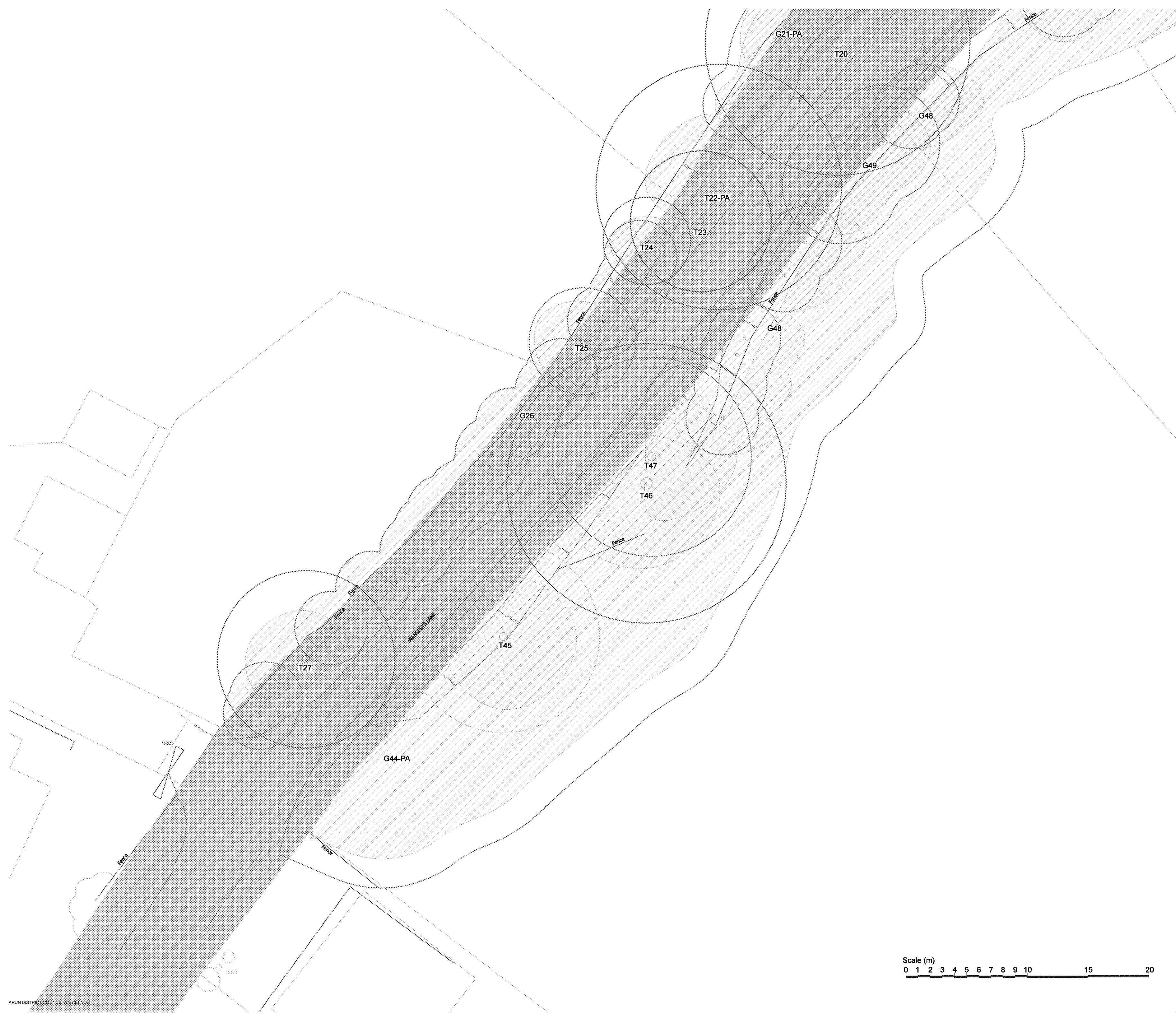
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Author: Peter Davies

Date: 2nd March 2018

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
- Extents of highways land

* 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. PJC/4789/18-01 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/4789/18/A	Rev: 01	Sheet number: 1 of 4
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Client and site:
Welbeck Strategic Land II LLP

Wandleys Lane
Fontwell
West Sussex

Drawing title: Tree Constraints Plan

Date drawn: 06/02/2018

Scale: 1:200 at A2

Drawn by: PD **Checked by:** NB



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- Key:**
- RPA for CAT A* tree
 - RPA for CAT B* tree
 - RPA for CAT C* tree
 - RPA for CAT U* tree
 - Tree canopy
 - Extents of highways land

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

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Client and site:
Welbeck Strategic Land II LLP

Wandleys Lane
Fontwell
West Sussex

Drawing title: Tree Constraints Plan

Date drawn: 06/02/2018

Scale: 1:200 at A2

Drawn by: PD

Checked by: NB



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- Key:**
- RPA for CAT A* tree
 - RPA for CAT B* tree
 - RPA for CAT C* tree
 - RPA for CAT U* tree
 - Tree canopy
 - Extents of highways land

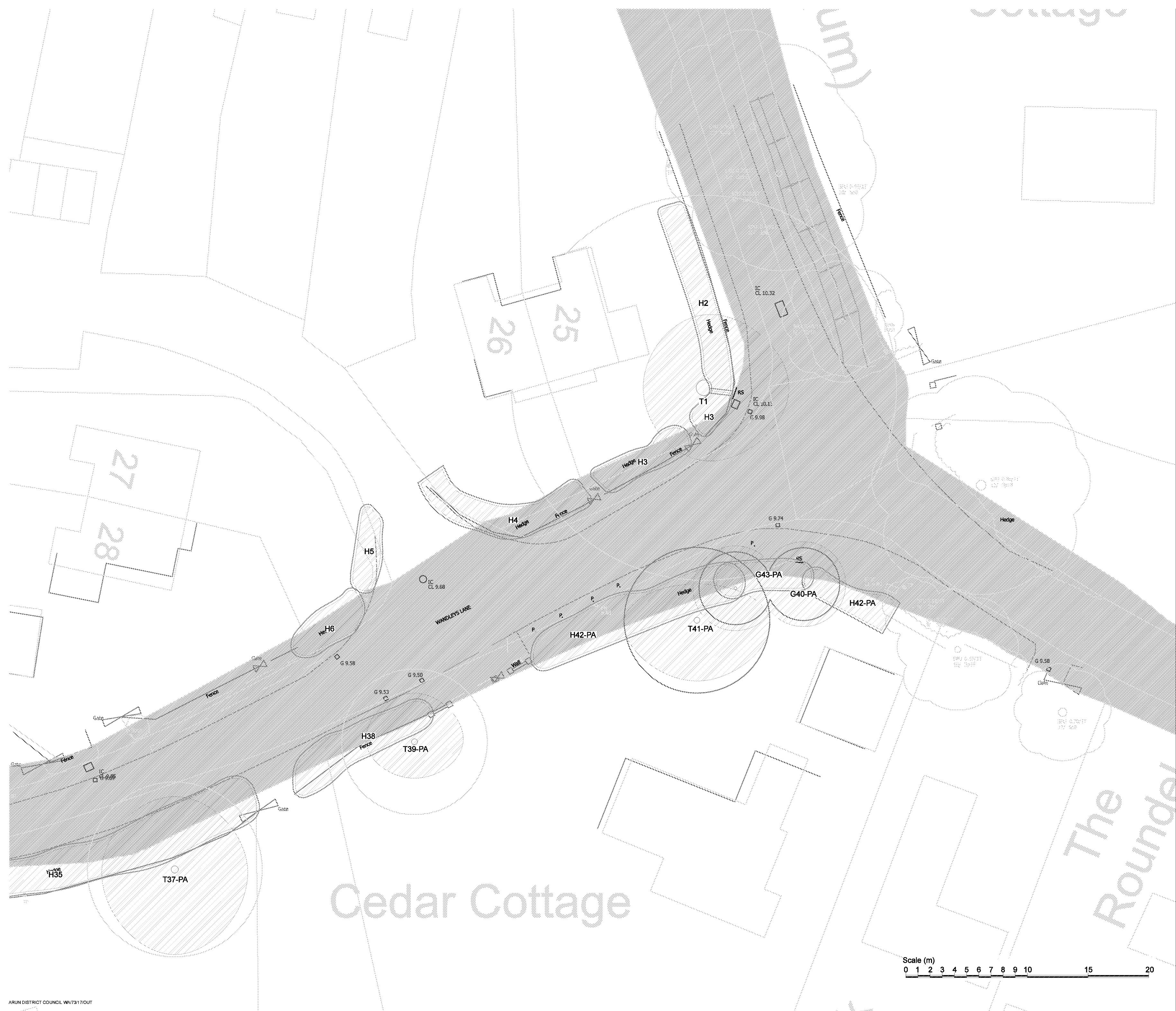
* Tree categorised in accordance with BS 5837:2012 'Trees in relation to design, demolition and construction - Recommendations'.

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Drawing no: PJC/4789/18/A	Rev: 01	Sheet number: 3 of 4
Client and site: Welbeck Strategic Land II LLP		
Wandleys Lane Fontwell West Sussex		
Drawing title: Tree Constraints Plan		
Date drawn: 06/02/2018		
Scale: 1:200 at A2		
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
 - Extents of highways land

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

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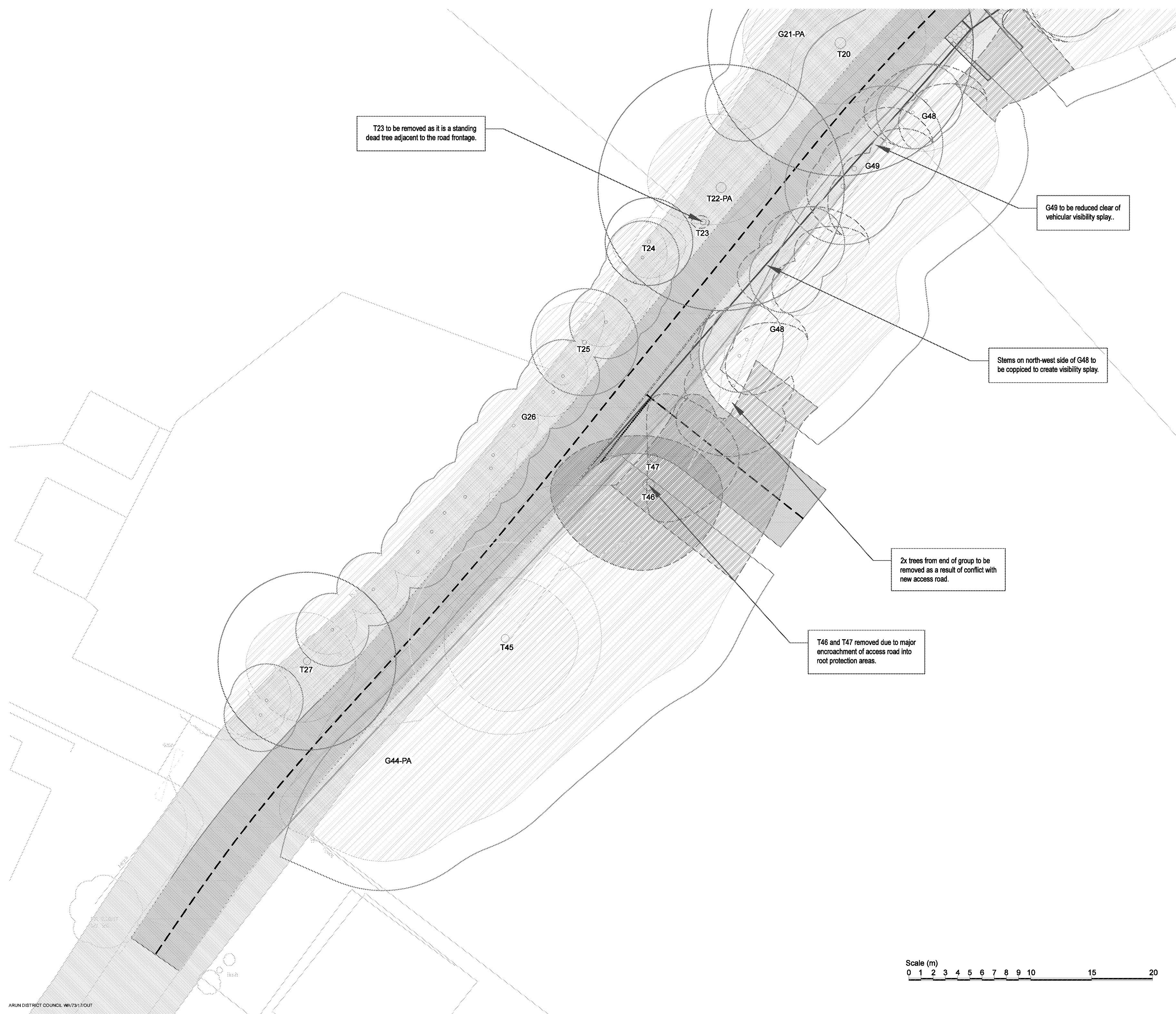
This drawing should be viewed in colour.

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

Drawing no: PJC/4789/18/A	Rev: 01	Sheet number: 4 of 4
Client and site: Welbeck Strategic Land II LLP		
Wandleys Lane Fontwell West Sussex		
Drawing title: Tree Constraints Plan		
Date drawn: 06/02/2018		
Scale: 1:200 at A2		
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
- Canopy of tree to be retained
- Canopy of CAT B* tree to be removed
- Canopy of CAT C* tree to be removed
- Canopy of CAT U* tree to be removed
- New footpath building sympathetically within RPA
- Extents of highways land

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

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Drawing no: PJC/4789/18/B			Rev: -	Sheet number: 1 of 4
Client and site: Welbeck Strategic Land II LLP				
Wandleys Lane Fontwell West Sussex				
Drawing title: Tree Retention Plan				
Date drawn: 01/03/2018				
Scale: 1:200 at A2				
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
 - Canopy of tree to be retained
 - Canopy of CAT B* tree to be removed
 - Canopy of CAT C* tree to be removed
 - Canopy of CAT U* tree to be removed
 - New footpath building sympathetically within RPA
 - Extents of highways land

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

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

Access to adjacent to development may require removal hazel coppice. Access to development to be constructed by third party.

2x trees from G28 to be removed as a result of direct conflict with new footpath. Part of H29 to be reduced clear of footpath.

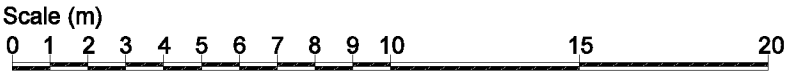
New path encroaches RPA of G28 and H29. Path should be of a no-dig specification and constructed on a CelliWeb TRP cellular confinement system installed to manufacturers specification. The path should also utilise low impact edging such as treated timber or above ground haunched edging (to engineers specification with arboricultural input).

Road widened outside RPAs of all retained trees.

New path encroaches RPA of G50 and T51 Path should be of a no-dig specification and constructed on a CelliWeb TRP cellular confinement system installed to manufacturers specification. The path should also utilise low impact edging such as treated timber or above ground haunched edging (to engineers specification with arboricultural input).

Road widened outside RPAs of all retained trees.

G49 to be reduced clear of vehicular visibility splay..



Drawing no: PJC/4789/18/B Rev: - Sheet number: 2 of 4

Client and site:
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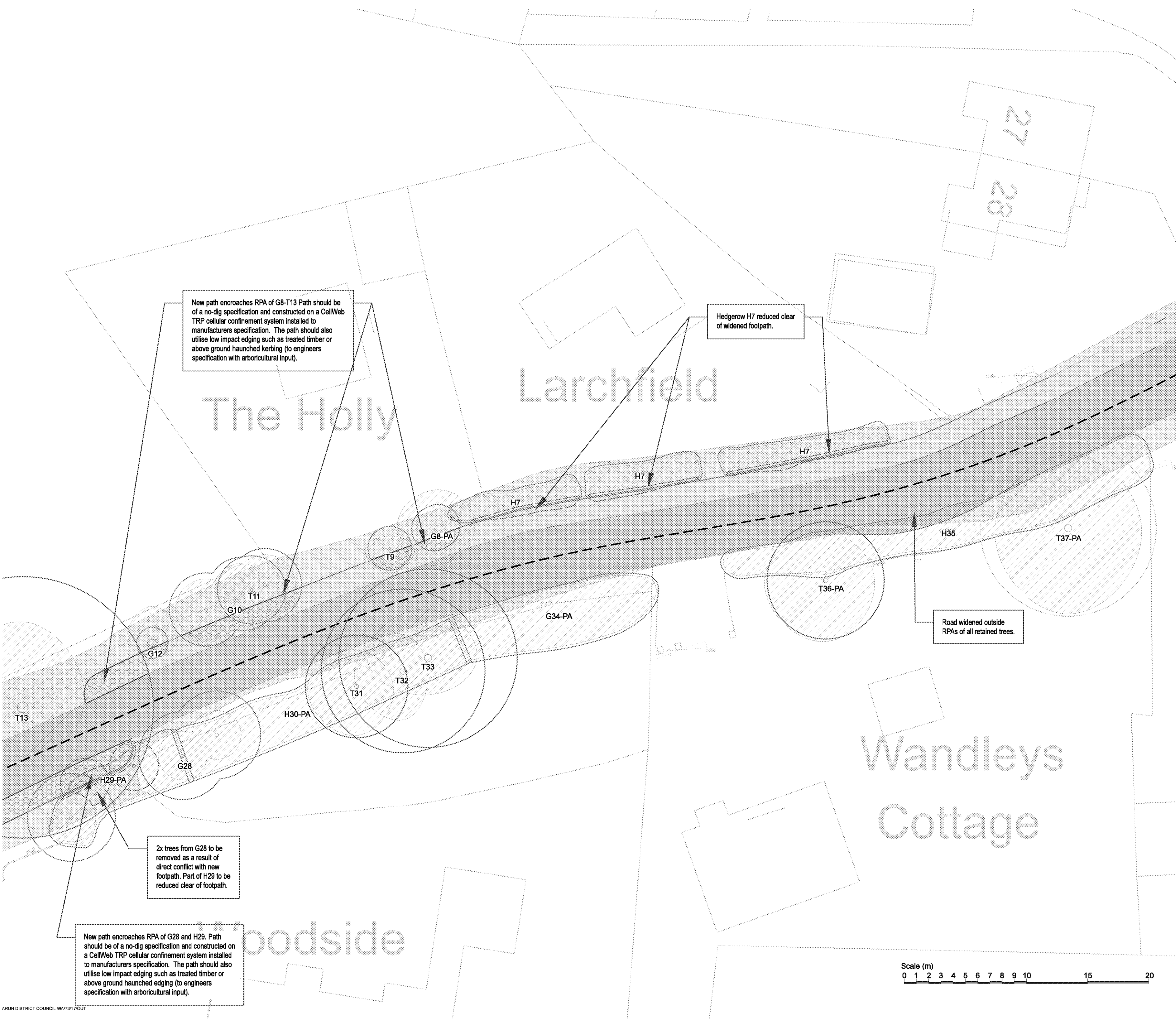
Wandleys Lane
Fontwell
West Sussex

Drawing title: Tree Retention Plan

Date drawn: 01/03/2018

Scale: 1:200 at A2

Drawn by: PD Checked by: NB



- 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
 - Canopy of tree to be retained
 - Canopy of CAT B* tree to be removed
 - Canopy of CAT C* tree to be removed
 - Canopy of CAT U* tree to be removed
 - New footpath building sympathetically within RPA
 - Extents of highways land

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

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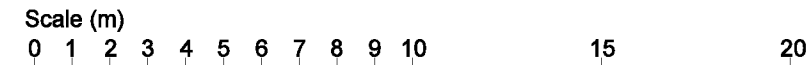
New path encroaches RPA of G8-T13 Path should be of a no-dig specification and constructed on a CellWeb TRP cellular confinement system installed to manufacturers specification. The path should also utilise low impact edging such as treated timber or above ground haunched kerbing (to engineers specification with arboricultural input).

Hedgerow H7 reduced clear of widened footpath.

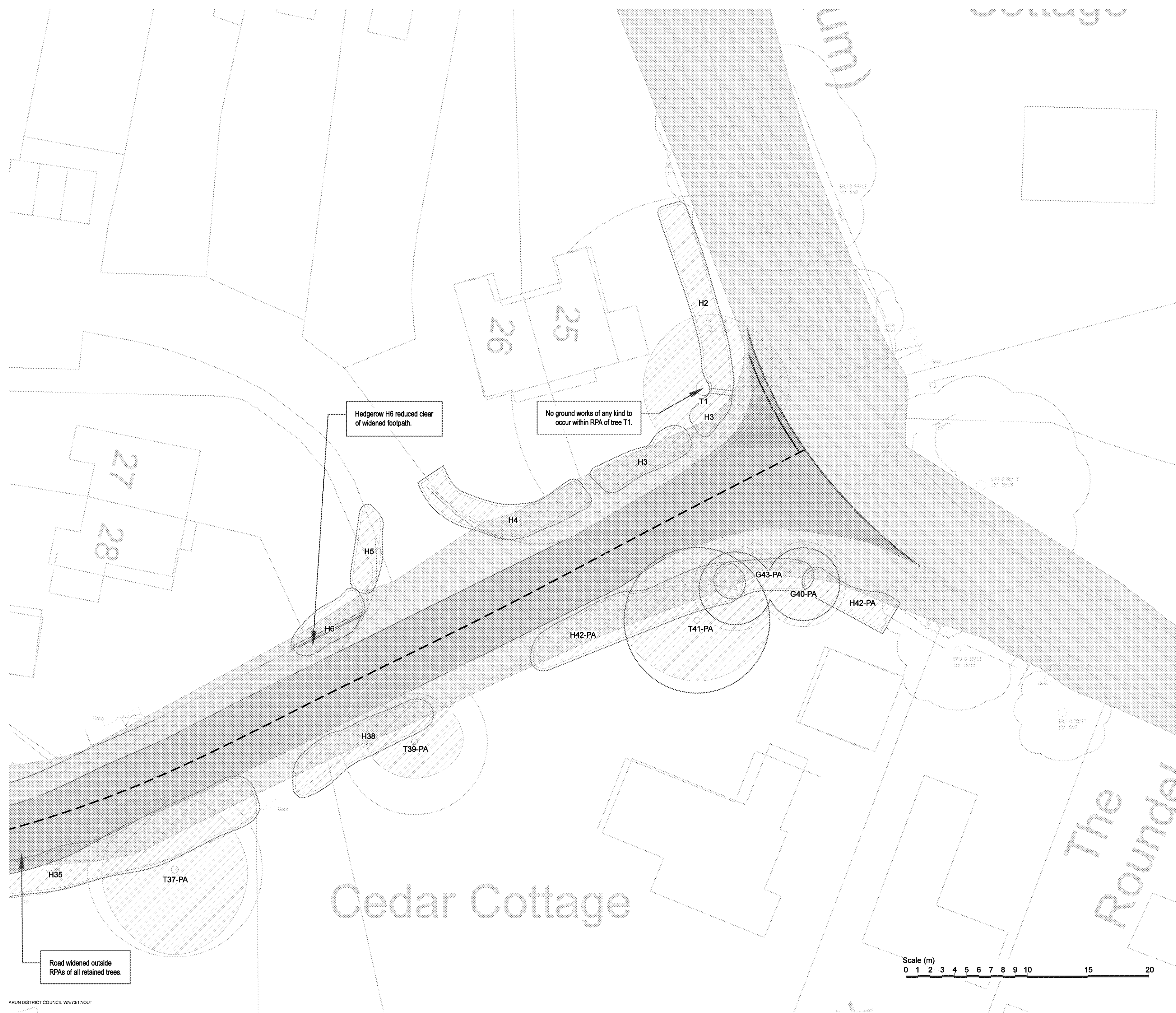
Road widened outside RPAs of all retained trees.

2x trees from G28 to be removed as a result of direct conflict with new footpath. Part of H29 to be reduced clear of footpath.

New path encroaches RPA of G28 and H29. Path should be of a no-dig specification and constructed on a CellWeb TRP cellular confinement system installed to manufacturers specification. The path should also utilise low impact edging such as treated timber or above ground haunched edging (to engineers specification with arboricultural input).



Drawing no: PJC/4789/18/B	Rev: -	Sheet number: 3 of 4
Client and site: Welbeck Strategic Land II LLP		
Wandleys Lane Fontwell West Sussex		
Drawing title: Tree Retention Plan		
Date drawn: 01/03/2018		
Scale: 1:200 at A2		
Drawn by: PD	Checked by: NB	



- 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
 - Canopy of tree to be retained
 - Canopy of CAT B* tree to be removed
 - Canopy of CAT C* tree to be removed
 - Canopy of CAT U* tree to be removed
 - New footpath building sympathetically within RPA
 - Extents of highways land

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

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Client and site:
Welbeck Strategic Land II LLP

Wandleys Lane
Fontwell
West Sussex

Drawing title: Tree Retention Plan

Date drawn: 01/03/2018

Scale: 1:200 at A2

Drawn by: PD Checked by: NB

APPENDIX 2

Tree Survey Schedule

Client: Welbeck Strategic Land II LLP

Site: Wandleys Lane, Fontwell

Survey date: 05/02/2018

Surveyor: Peter Davies

Tree Survey Schedule



Tree ref.	Species	Height (m)	Stem diameter (mm)	Branch spread (m)	Crown clearance (m)	Age class	Physiological condition	Structural condition	Comments	Management recommendation	Category grading	Root Protection Area (m ²)	Root Protection Radius (m)
T1	Pedunculate oak (Quercus robur)	19	1300 est	N: 6 E: 7 S: 6 W: 5	Crown: 4 east Branch: 4 east	Veteran	Good	Fair	Large third party tree in private garden. Only viewed from road. Large enough to be considered a veteran.	No action required.	A1/2/3	707.0	15.0 (amended on Tree Constraints Plan)
H2	Leyland cypress (Cuprocyparis leylandii)	2 average	Under 75 average	0.5 average	0 average	Semi mature	Good	Good	Third party clipped hedgerow.	No action required.	C2	2.5 average	0.9 average
H3	Cherry laurel (Prunus laurocerasus)	2 average	Under 75 average	0.5 average	0 average	Semi mature	Good	Good	Clipped hedgerow.	No action required.	C2	2.5 average	0.9 average
H4	Leyland cypress (Cuprocyparis leylandii)	2 average	Up to 100 average	0.5 average	0 average	Semi mature	Good	Fair	Part third party clipped hedgerow. Bare patches resulting from over pruning on roadside.	No action required.	C2	4.5 average	1.2 average
H5	Lonicera (Lonicera nitida)	2 average	Under 75 average	0.5 average	0 average	Semi mature	Good	Good	Third party clipped hedgerow.	No action required.	C2	2.5 average	0.9 average
H6	Mixed (cherry laurel, holly and ash)	2-5 average	Up to 100 average	0.5-2 average	0 average	Semi mature	Good	Fair	Hedgerow with trees saplings. Pruned laterally from road.	Reduce hedgerow back to line of widened pavement (approximately 1m).	C2	4.5 average	1.2 average

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Survey date: 05/02/2018

Surveyor: Peter Davies

Tree Survey Schedule



Tree ref.	Species	Height (m)	Stem diameter (mm)	Branch spread (m)	Crown clearance (m)	Age class	Physiological condition	Structural condition	Comments	Management recommendation	Category grading	Root Protection Area (m ²)	Root Protection Radius (m)
H7	Cherry laurel (Prunus laurocerasus)	2-3 average	Under 75 average	1-2 average	0 average	Semi mature	Good	Good	Clipped hedgerow.	Reduce hedgerow back to line of widened pavement (approximately 300mm).	C2	2.5 average	0.9 average
G8	2x beech (Fagus sylvatica)	8 average	Up to 150 average	3 average	3 average	Semi mature	Good	Fair	2x trees growing in close proximity resulting in slender growth habits. Canopy extends around power line.	No action required.	C2	10.2 average	1.8 average
T9	Variegated holly (Ilex aquifolium spp.)	5	150 est	N: 1 E: 2 S: 2 W: 2	Crown: 2 average Branch: 2 average	Early mature	Good	Good	Previously crown lifted. No major visible defects.	No action required.	C2	10.2	1.8
G10	3x hazel (Corylus avellana)	5-7 average	Up to 250 average	2-3 average	0-1 average	Semi mature-mature	Good	Fair	Previously coppiced hazel clumps.	Crown lift or coppice stems over new footpath.	C2	28.3 average	3.0 average
T11	Poplar (Populus spp.)	7	230	N: 2 E: 0 S: 0 W: 3	Crown: 3 west Branch: 3 west	Semi mature	Good	Fair	Narrow, upright growth habit result of suppression from adjacent hazels.	No action required.	C2	23.9	2.8
G12	Holly (Ilex aquifolium)	2-5 average	Under 75 average	N: 3 E: 2 S: 1 W: 2	Crown: 0 average Branch: 0 average	Young	Good	Fair	Multi-stemmed holly clump growing around base of dead horse chestnut stump.	No action required.	C1	2.5 average	0.9 average

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T13	Pedunculate oak (Quercus robur)	15	890 over ivy	N: 7 E: 5 S: 4 W: 6	Crown: 3 south Branch: 3 south	Mature	Good	Fair	Deadwood and minor cavities observed throughout crown. Heavily reduced from power line.	No action required.	B1/2	358.3	10.7
G14	Hazel (Corylus avellana)	3-4 average	Up to 200 average est	2-3 average	0 average	Semi mature	Good	Good	Hazel coppice on roadside verge.	No action required.	C2	18.1 average	2.4 average
T15	Lime (Tilia x europaea)	13	540	N: 6 E: 6 S: 6 W: 5	Crown: 4 south Branch: 2 south	Mature	Good	Good	Crown lightly pruned from power line, but good overall form. Minor deadwood in crown result of suppression.	No action required.	B1	131.9	6.5
T16	Sycamore (Acer pseudoplatanus)	15	330 over ivy	N: 4 E: 2 S: 2 W: 3	Crown: 2 west Branch: 3 west	Semi mature	Good	Fair	Ivy clad stem. Drawn up growth habit. No major visible defects.	Sever ivy around base.	B2	49.3	4.0
G17	Hazel (Corylus avellana)	4-6 average	Up to 300 average est	N: 3 E: 2 S: 3 W: 2	0-1 average	Mature	Good	Fair	Unmanaged hazel coppice along roadside verge. Snapped stems and deadwood present.	Access into adjacent development may require removal of 2 trees. Works to create this access to occur by third party.	C2	40.7 average	3.6 average
T18	Ash (Fraxinus excelsior)	17	800, 650 est	N: 8 E: 9 S: 7 W: 7	Crown: 0 east Branch: 3 east	Mature	Good	Fair	Dual stemmed. Ivy clad buttress and stem. Minor defects in crown. Crown lifted over power line. Large low lateral limb.	Sever ivy and clear vegetation around base.	B1/2	480.7	12.4

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T19	Pedunculate oak (Quercus robur)	15	500 over ivy	N: 5 E: 5 S: 5 W: 7	Crown: 4 south Branch: 3 west	Mature	Good	Good	Good overall condition. Lower crown suppressed by hazel and lifted over road/power line.	No action required.	B1/2	113.1	6.0
T20	Pedunculate oak (Quercus robur)	13	910 over ivy	N: 7 E: 7 S: 5 W: 8	Crown: 3 east Branch: 3 average	Mature	Good	Good	Ivy clad. Minor deadwood from suppression (some over road and power line). Crown reduced from power line.	Remove deadwood over 75mmØ or 500mm length that overhangs road.	B1/2	374.6	10.9
G21	Mixed (holly and hazel)	3-6 average	Up to 250 average est	2-3 average	0 average	Semi mature-mature	Good	Fair	Unmanaged shrubs forming informal hedgerow.	No action required.	C2	28.3 average	3.0 average
T22	Pedunculate oak (Quercus robur)	14	840 over ivy	N: 6 E: 4 S: 3 W: 6	Crown: 2 north Branch: 3 north	Mature	Good	Fair	Asymmetric crown historically reduced from road/power line. Minor deadwood from suppression.	No action required.	B1/2	319.2	10.1
T23	Pedunculate oak (Quercus robur)	8	480 over ivy	N: 0 E: 0 S: 0 W: 1	Crown: N/A Branch: 2 west	Dead	Poor	Poor	Standing dead tree on road side.	Fell to ground level.	U	104.2	5.8
T24	Pedunculate oak (Quercus robur)	12	300 est	N: 2 E: 3 S: 3 W: 3	Crown: 6 east Branch: 4 east	Early mature	Good	Fair	Drawn up growth habit due to suppression from hazel.	No action required.	B2	40.7	3.6

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Tree ref.	Species	Height (m)	Stem diameter (mm)	Branch spread (m)	Crown clearance (m)	Age class	Physiological condition	Structural condition	Comments	Management recommendation	Category grading	Root Protection Area (m ²)	Root Protection Radius (m)
T25	Pedunculate oak (Quercus robur)	12	370	N: 3 E: 1 S: 4 W: 4	Crown: 4 west Branch: 4 west	Early mature	Poor	Fair	Historically reduced from power line. Some crown dieback and minor bark necrosis on stem.	No action required.	C1	61.9	4.4
G26	Mixed (hazel dominant and holly)	6-7 average	Up to 250 average est	N: 3 E: 2 S: 2 W: 3	0-1 average	Semi-early mature	Good	Fair	Previously reduced from road. Historically but not recently topped beneath power line.	No action required.	C2	28.3 average	3.0 average
T27	Field maple (Acer campestre)	11	480, 380	N: 4 E: 4 S: 5 W: 5	Crown: 2 north Branch: 2 west	Mature	Good	Good	Dual stemmed. Crown reduced from power line. No major visible defects.	No action required.	B1/2	169.6	7.3
G28	Cherry (Prunus avium)	8-11 average	Up to 300 average est	1-2 average	5 average	Mature	Fair	Fair	Part third party trees. Crowns heavily reduced. Western 2x trees exhibit crown dieback.	Fell 2x trees to ground level as shown on Tree Retention Plan and remove stumps.	C2	40.7 average	3.6 average
H29	Mixed (Leyland cypress and cherry laurel)	4-5 average	Up to 100 average est	1-3 average	0 average	Semi mature-mature	Good	Good	Clipped hedgerow. Some bare patches from over pruning cypresses.	Reduce or crown lift hedgerow clear of new pavement (2.5m clearance required above).	C2	4.5 average	1.2 average
H30	Leyland cypress (Cuprocyparis leylandii)	2-3 average	Up to 100 average est	0.5-1 average	0 average	Semi mature	Good	Fair	Third party clipped hedgerow. Some bare patches from over pruning.	No action required.	C2	4.5 average	1.2 average

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Tree ref.	Species	Height (m)	Stem diameter (mm)	Branch spread (m)	Crown clearance (m)	Age class	Physiological condition	Structural condition	Comments	Management recommendation	Category grading	Root Protection Area (m ²)	Root Protection Radius (m)
T31	Beech (Fagus sylvatica)	13	350 est	N: 3 E: 3 S: 4 W: 4	Crown: 3 south Branch: 2 average	Mature	Good	Good	Third party tree. Crown lifted over road. No major visible defects.	No action required.	B1/2	55.4	4.2
T32	Beech (Fagus sylvatica)	13	300, 300, 300, 200 est	N: 3 E: 2 S: 4 W: 4	Crown: 4 south Branch: 4 south	Mature	Good	Fair	Third party tree. Multi-stemmed. Suppressed form.	No action required.	B2	140.2	6.7
T33	Beech (Fagus sylvatica)	14	500, 350 est	N: 4 E: 4 S: 3 W: 5	Crown: 4 north Branch: 2 west	Mature	Good	Fair	Third party tree. Dual stemmed. Crown lifted over road.	No action required.	B1/2	168.5	7.3
G34	Mixed (Leyland cypress and cherry laurel)	6-7 average	Up to 150 average est	1-3 average	0-3 average	Mature	Good	Fair	Large third party shrubs and small trees. Pruned laterally from road.	No action required.	C2	10.2 average	1.8 average
H35	Mixed (cherry laurel, holly and privet)	2-6 average	Up to 100 average est	1-3 average	0 average	Semi mature	Good	Fair	Part third party semi managed hedgerow with tree saplings.	No action required.	C2	4.5 average	1.2 average
T36	Pedunculate oak (Quercus robur)	14	400 est	N: 4 E: 4 S: 5 W: 5	Crown: 6 north Branch: 6 west	Mature	Good	Fair	Third party tree. Crown lifted over power line and road. Fence and understorey inhibit view of stem.	No action required.	B1/2	72.4	4.8

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T37	Pedunculate oak (Quercus robur)	14	600 est	N: 6 E: 6 S: 7 W: 6	Crown: 3 north Branch: 5 north	Mature	Good	Good	Third party tree. Understorey and fence inhibit view of stem. Open grown habit. Minor defects in crown.	No action required.	A1/2	162.9	7.2
H38	Mixed (spotted laurel, holly, Euonymus and cherry laurel)	2 average	Under 75 average	1-2 average	0 average	Semi mature	Good	Good	Third party clipped hedgerow.	No action required.	C2	2.5 average	0.9 average
T39	Pedunculate oak (Quercus robur)	14	500 est	N: 4 E: 4 S: 3 W: 4	Crown: 2 average Branch: 4 west	Mature	Good	Good	Third party tree. Ivy clad stem. Open grown habit. No major visible defects.	No action required.	A1/2	113.1	6.0
G40	2x yew (Taxus baccata)	7 average	250 average est	3-4 average	1-2 average	Early mature	Good	Good	Third party trees of reasonable condition.	No action required.	B1/2	28.3 average	3.0 average
T41	Pedunculate oak (Quercus robur)	15	500 est	N: 3 E: 6 S: 5 W: 6	Crown: 3 west Branch: 4 west	Over mature	Fair	Fair	Third party tree. Senescent and heavily reduced from road/power line.	No action required.	B1/2	113.1	6.0
H42	Mixed (cherry laurel and privet)	1-2 average	Under 75 average	0.5-1 average	0 average	Semi mature	Good	Good	Part third party clipped hedgerow.	No action required.	C2	2.5 average	0.9 average

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Tree ref.	Species	Height (m)	Stem diameter (mm)	Branch spread (m)	Crown clearance (m)	Age class	Physiological condition	Structural condition	Comments	Management recommendation	Category grading	Root Protection Area (m ²)	Root Protection Radius (m)
G43	Hawthorn (Crataegus monogyna)	1-4 average	Up to 100 average est	1-3 average	1-2 average	Young-semi mature	Poor	Poor	Third party shrubs. Suppressed by yews and smothered by ivy.	No action required.	C1	4.5 average	1.2 average
G44	Cherry laurel (Prunus laurocerasus)	3-6 average	Up to 200 average est	1-4 average	0 average	Early mature	Good	Fair	Broad belt of vegetation on road frontage.	Clear section to create 2x access into new development.	C1	18.1 average	2.4 average
T45	Pedunculate oak (Quercus robur)	15	420, 510	N: 5 E: 6 S: 6 W: 5	Crown: 2 average Branch: 3 south	Mature	Good	Good	Co-dominant stems from 1m. Cherry laurel inhibits inspection of crown. No major visible defects.	No action required.	A1	197.5	7.9
T46	Ash (Fraxinus excelsior)	20	660, 690	N: 4 E: 6 S: 7 W: 8	Crown: 6 west Branch: 4 west	Over mature	Good	Fair	Large tree on road frontage. Co-dominant stems from base. Previously crown lifted. Deadwood in crown.	Fell to ground level and remove stump.	B1/2	412.4	11.5
T47	Ash (Fraxinus excelsior)	15	480, 490	N: 5 E: 7 S: 5 W: 0	Crown: 8 east Branch: 6 east	Over mature	Good	Poor	Co-dominant stems from base with bark inclusion to 1m. Suppressed by T46. Decayed limb on east side over shrubs.	Fell to ground level and remove stump.	C1/2	212.8	8.2
G48	8x hazel (Corylus avellana)	6-8 average	250 average est	N: 3 E: 5 S: 3 W: 4	0-2 average	Over mature	Good	Fair	Hazel coppice on road frontage.	Remove 2x southern most trees. Reduce/coppice stems from remaining trees clear of visibility splay.	C2	28.3 average	3.0 average

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G49	3x field maple (Acer campestre)	10-12 average	400 average est	N: 3	1 average	Mature	Good	Fair	Multi-stemmed trees on road frontage. Drawn up growth habits. Ivy clad. Abundant small deadwood.	Crown lift group to 5.05m over road and visibility splay.	C2	72.4 average	4.8 average
				E: 4									
				S: 4									
				W: 3									
G50	8x hazel (Corylus avellana)	7-9 average	300 average est	N: 5	0-2 average	Over mature	Good	Fair	Hazel coppice on road frontage.	Reduce/coppice stems clear of new pavement.	C2	40.7 average	3.6 average
				E: 4									
				S: 4									
				W: 4									
T51	Pedunculate oak (Quercus robur)	16	860	N: 7	Crown: 2 south	Over mature	Fair	Good	Low branches overhanging shed deformed due to conflict with elder trees. Minor dieback on north side.	No action required.	B1/2	334.6	10.3
				E: 6									
				S: 8									
				W: 7									