



# FORMER NESTLE FACTORY, HAYES

ARBORICULTURAL IMPACT ASSESSMENTS

MAY 2017

BARRATT  
— LONDON —

SEGRO

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TALA  
The Arboricultural Association



The site at the Former Nestlé Factory, Nestles Avenue, Hayes has been subject to 2no. Arboricultural Impact Assessments to inform the design of, and accompany a planning application for proposed redevelopment of the site.

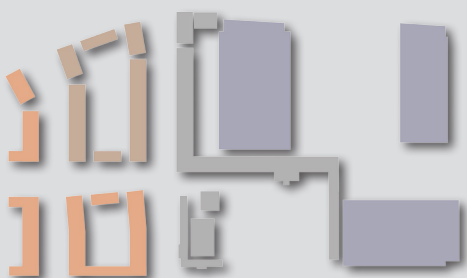
The proposals for the site comprise: Part-demolition of existing factory buildings, associated structures and redevelopment to provide to provide to 1,381 dwellings (Use Class C3), office, retail, community and leisure uses (Use Classes A1/A3/A4/B1/B8/D1/D2) 22,663 sqm (GEA) of commercial floorspace (Use Classes B1c/B2/B8 and Data Centre (sui generis)), amenity and playspace, allotments, landscaping, access, service yards, associated car parking and other engineering works.

The site has been divided into two separate parcels: The residential proposals have been developed by Barratt London, and are sited within the western area of the site, and; the industrial element of the proposed development is focussed on the eastern area of the site and has been developed by SEGRO PLC.

Aspect Arboriculture was commissioned by Barratt London to undertake a tree survey of the residential parcel of the site and subsequently produce an Arboricultural Impact Assessment to accompany the application. Similarly Terry Anderson Landscape Architects were appointed by SEGRO PLC. to carry out a tree survey, and produce an Arboricultural Impact Assessment on the industrial parcel.

Following appointment, arboricultural surveys have been carried out on both parcels, following the guiding principles of BS5837:2012, to provide a record of the trees present and to inform proposals for redevelopment. The survey on the residential parcel was undertaken during April 2016 and revisited during January 2017, and the industrial parcel was carried out in October 2014 and reviewed in March 2017.

Existing trees within survey of the residential parcel area can be defined by reference to 128no. individual trees, 8no. groups of trees and 2no. hedgerows. Within the commercial parcel area, a total of 31no. individual trees and 8no. groups of trees were surveyed.



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## Arboricultural Impact

Aspect have assessed the arboricultural impact of the proposed residential development, and Terry Anderson Landscape Architects have assessed the arboricultural input of the industrial development, in summary:

The current residential proposals necessitate the removal of 87no. individual trees and 6no. groups of trees. The proposed layout has been revised a number of times during design to reduce development pressure on the site's boundaries and the key group of trees either side of the existing vehicular access. As a result of this, the tree cover to be removed is limited to moderate (6no. components) and low quality components only.

The industrial development proposals identify 19 trees to be removed from a total of 50 existing trees and a group of Hornbeams. Trees to be removed are classified as low quality with the exception of one tree of moderate quality. All the trees along the Nestles Avenue boundary opposite the residential area have been conserved.

## Conclusions

By design, the residential proposals accommodate the high quality tree cover, and the majority of the moderate quality trees considered to be important to the future amenity of the site and in facilitating the proposal's integration within the wider setting. The removal of 6no. moderate quality trees, has been unavoidable within a viable layout, and to reduce development pressure on key areas of significant trees, and will be mitigated by a proposed scheme of soft landscaping.

The siting of the units and hardstands within the industrial development have deliberately avoided the band of trees along Nestle Avenue in order to reduce any impact to the residences on the opposite side of the road. A total of 147 advanced nursery and semimature trees are proposed as part of the planting scheme. 21 of these proposed trees will reinforce the existing trees as a mitigation measure along the south boundary.



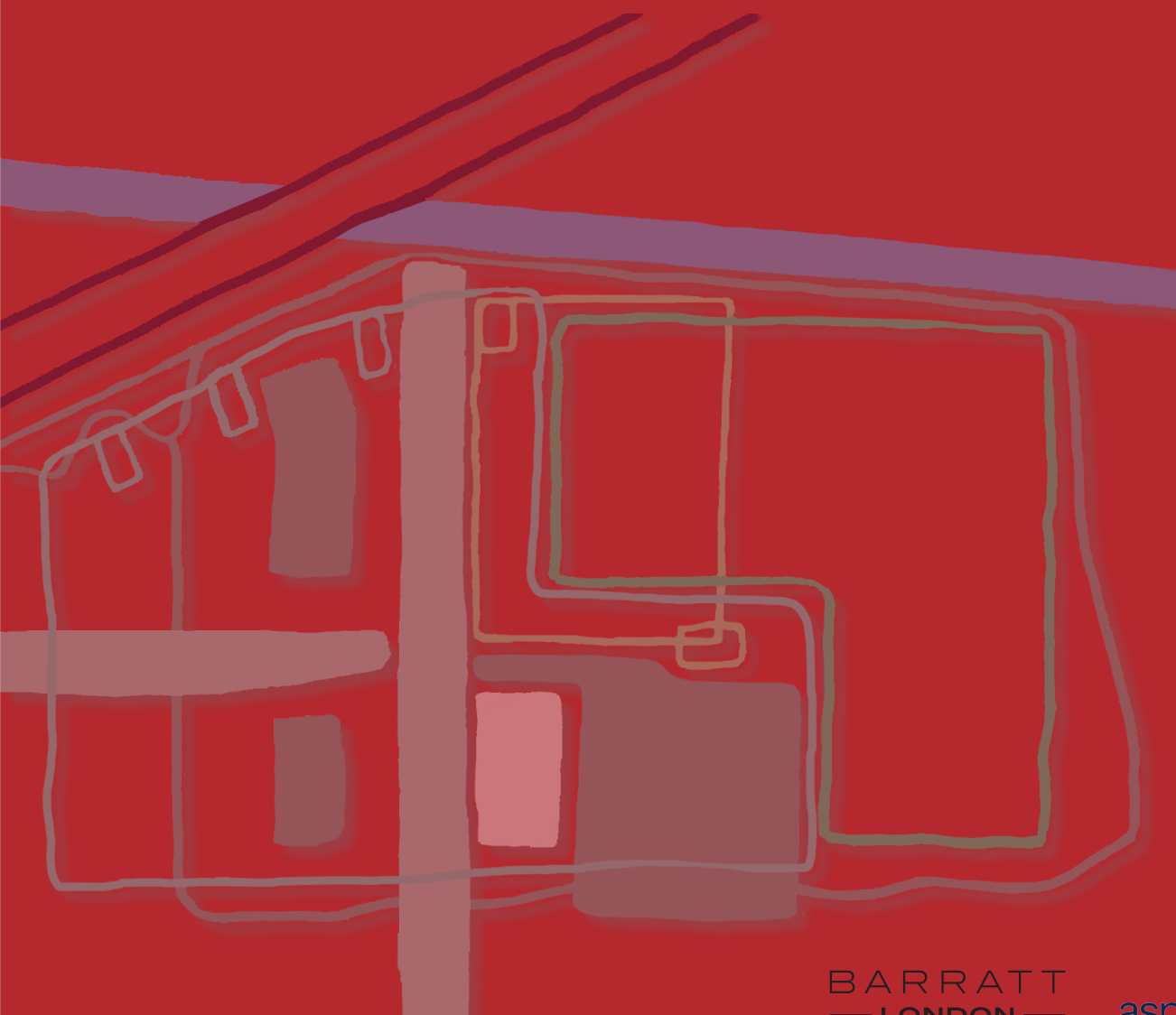


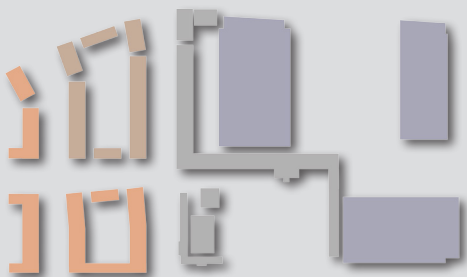
# FORMER NESTLE FACTORY, HAYES

ARBORICULTURAL IMPACT ASSESSMENT

(Residential Scheme)

MAY 2017





BARRATT  
— LONDON —

aspect <sup>arboriculture</sup>

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## **1 INTRODUCTION**

### **1.1 Instruction**

- 1.1.1 This Arboricultural Impact Assessment has been prepared by Aspect Arboriculture to inform a detailed planning application for the following:

“Full planning permission for the part-demolition of existing factory buildings, associated structures and redevelopment to provide to provide to 1,381 dwellings (Use Class C3), office, retail, community and leisure uses (Use Classes A1/A3/A4/B1/B8/D1/D2) 22,663 sqm (GEA) of commercial floorspace (Use Classes B1c/B2/B8 and Data Centre (sui generis)), amenity and playspace, allotments, landscaping, access, service yards, associated car parking and other engineering works”

- 1.1.2 The planning application has been submitted by SEGRO and Barratt London, however, this Arboricultural Impact Assessment has only been produced in relation to Barratt London’s part of the site.

### **1.2 Scope**

- 1.2.1 In keeping with current industry advice, this work has been guided by BS5837:2012 Trees in Relation to Design, Demolition and Construction and provides an assessment of the application area’s existing trees, and their relationship with the proposed development.

### **1.3 Limitations**

- 1.3.1 This work relates to arboriculture, therefore reliance should not be given to comments made in respect of other disciplines, i.e. landscape planning or civil engineering without first consulting an appropriate expert.
- 1.3.2 This assessment has been prepared in respect of the proposed development and should not be interpreted as a report on tree health and safety. Reasonable effort has been made to identify visible defects whilst undertaking the tree survey; trees are however, prone to natural failure without warning therefore no guarantee can be made as to the absolute safety of any of the trees surveyed. Aspect’s opinion of tree



condition and structural potential is therefore valid for a limited period of 12 months from the date of inspection (January 2017). Validity is assumed in the absence of inclement weather and no change to the trees' existing context.

#### 1.4 **Site Description**

- 1.4.1 The application area is comprised of the former Nestle Cocoa Factory and is administered by London Borough of Hillingdon (LBH) as the Local Planning Authority (LPA).
- 1.4.2 The application area is located to the south east of Hayes, on land north of Nestles Avenue and south of the Grand Union Canal. The site comprises the former factory, some of which is locally listed, and its associated scheme of landscaping.
- 1.4.3 The site's tree cover comprises the existing soft landscaping scheme, with the principal tree cover located to the south of the existing factory, either side of the vehicular access. The tree cover in this area consists of early mature to mature ornamentally planted broadleaf species.

## 2 POLICY CONSIDERATIONS

### 2.1 Policy Review

- 2.1.1 The National Planning Policy Framework (NPPF, 2012) provides planning policy guidance at the National level. With respect to arboriculture, it considers that *'planning permission should be refused for development resulting in the loss or deterioration or irreplaceable habitats, including ancient woodland and the loss of aged or veteran trees found outside ancient woodland, unless the need for, and benefits of, the development in that location clearly outweigh the loss'* (para. 118).
- 2.1.2 At a regional level, in relation to Planning Decisions, The London Plan (March 2016) Policy 7.21 – Trees and Woodlands, specifies that: *"Existing trees of value should be retained and any loss as a result of development should be replaced following the principle of 'right place, right tree'. Wherever appropriate, the planting of additional trees should be included in new developments, particularly large-canopied species."*
- 2.1.3 At a local level, the site lies within the administrative control of London Borough of Hillingdon, which expects that trees of merit will be retained where appropriate. It is understood that the council's primary development control document are the saved policies within the Unitary Development Plan (September 2007). It is subsequently anticipated that LBH will therefore assess the proposals against Trees and Landscaping Policy BE38, the NPPF and the London Plan.
- 2.1.4 Policy BE38 reads: *"Development proposals will be expected to retain and utilise topographical and landscape features of merit and provide new planting and landscaping wherever it is appropriate. Planning applicants for planning consent will be required to provide an accurate tree survey showing the location, height, spread and species of all trees where their proposals would affect any existing trees"*.
- 2.1.5 LBH require an arboricultural survey and assessment informed by BS5837 to accompany proposals that may affect trees. This document has been prepared in direct response to this need.
- 2.1.6 The tests embedded within Policy BE38 have been drawn upon as part of Aspect's input to master planning and site design, i.e. through the identification of trees of merit, and trees perceived to have a beneficial influence on the site and its current enjoyment



by the public, albeit from offsite views. The context of the survey was the subject of a site meeting between Aspect and the LPA's arboricultural officer during January 2017.

- 2.1.7 LBH's strategy for appropriate tree retention also includes the use of Tree Preservation Orders as detailed within Policy BE39 which reads: *"The local planning authority recognises the importance of Tree Preservation Orders in protecting trees and woodlands in the landscape and will make orders where the possible loss of trees or woodlands would have a significant impact on their surroundings."*

### **3 STATUTORY DESIGNATIONS RELATING TO ARBORICULTURE**

#### **3.1 Tree Preservation Order(s)**

- 3.1.1 Online enquiries to London Borough of Hillingdon Council have revealed the absence of Tree Preservation Orders confirmed within and immediately adjacent to the application area (LBHC, January 2017).

#### **3.2 Conservation Area**

- 3.2.1 Background checks show that the site forms the Botwell Nestles Conservation Area. LBH would therefore require six weeks prior notice of any intention to undertake works to trees, in order to consider the making of new TPOs (section 211 of the Town and Country Planning Act 1990) (LBHC, January 2017).

## **4 BASELINE INFORMATION**

### **4.1 Tree survey**

- 4.1.1 Pursuant to the Council's policy requirements combined with best practice, the site's existing trees have been surveyed during April 2016 under guidance provided by BS5837:2012 and subsequently revisited as part of a site meeting between Aspect and LBH's arboricultural officer on the 26<sup>th</sup> January 2017. Existing trees within and overhanging the application area can subsequently be described by reference to 128no. individual trees, 8no. groups of trees and 2no. hedgerows.
- 4.1.2 The survey provides a record of species, dimensions, age, physiological and structural condition and the perceived visual importance of each tree/hedgerow. A red line plan of the survey area is included in Appendix A.
- 4.1.3 Note that baseline tree survey work has been undertaken independently of any proposals and prior to any form of preparatory works occurring on site. Aspect's opinion of the trees' significance is therefore independent of specific proposals for development.
- 4.1.4 The trees have been assessed on an individual tree basis, however where appropriate, trees have also been assessed as groups. The term 'group' is used to define trees that form a cohesive arboricultural feature, i.e. aerodynamically, visually or culturally. The assessment of individuals within groups has also been undertaken where it will be advantageous to make such a differentiation.
- 4.1.5 In all instances, the tree survey has been undertaken visually, from ground level and from land on which access was permitted. Where access was not available or practicable, such as offsite trees, measurements have been estimated; this also typically applies to the trunk diameters of small trees occurring as understory to larger independently surveyed tree groups.
- 4.1.6 Following a site meeting between the design team, Aspect, and the LPA's arboricultural officer on the 26<sup>th</sup> January 2017, it was noted that 1no. tree had failed and a further 5no. young and category U trees had been removed subsequent to the tree survey being undertaken. The trees in question are detailed within Appendix B.

- 4.1.7 Full detail of the tree stock is provided within Appendix B; the distribution of the trees is illustrated in Appendix C. Details of the applied methodology are provided in Appendix E.

## **5 TREE CONSTRAINTS**

- 5.1 The proposals have been designed with the overall objective of achieving confident long-term retention of existing trees, particularly those considered to be of merit to the site's amenity, and appropriate for inclusion within the proposed setting. To facilitate this relationship, the following constraints have been identified :

### **5.2 Canopies**

- 5.2.1 The distribution of the site's canopy area is illustrated on the Tree Constraints Plan in Appendix C. Canopies have been measured at cardinal points for individual trees and informed by a topographical survey.

- 5.2.2 It has been Aspect's advice that no proposed buildings are sited within the canopy spreads of retained trees; where it is necessary for proposed structures to be sited within close proximity to canopies; this has been balanced with an allowance for future growth and with species attributes.

- 5.2.3 Vertical canopy clearance has been referenced where it is necessary to permit access beneath canopies, albeit where justifiable. Our advice has been to avoid access beneath canopies where possible.

### **5.3 Root Protection Areas**

- 5.3.1 RPAs are illustrated as a radius from the trunk in plan form and represent the minimum soil surface area required to enable each tree/group's confident retention. It has been our advice that this area remains undisturbed and protected during development of the Site.

- 5.3.2 In accordance with table.2 of BS5837:2012, the relative quality of the trees which may be suitable for retention is illustrated by the colour of their Root Protection Area.

## 5.4 Grading Categories

5.4.1 The quality of the trees is described by reference to BS5837 categories which in this instance range A, B, C and U in order of their constraint. The trees' locations are illustrated within this document at Appendix C.

## 5.5 Category A Tree Cover<sup>1</sup>

5.5.1 Considered to be the principal tree within influence of the application area, **T62** Beech is located close to the west of the existing vehicular access with Nestles Avenue to the southwest. **T62** is considered be of high arboricultural quality, and to provide a significant contribution to the amenity of the application area and its surrounds. **T62** is therefore considered to be the key arboricultural constraint within influence of the application area.

## 5.6 Category B Tree Cover<sup>2</sup>

5.6.1 Numerous Category B trees are present either side of the existing vehicular access, occurring frequently as a significant collection of trees which demonstrate remediable visual defects yet lacking the quality normally expected of a very good example of the species within the setting.

5.6.2 Category B trees represent moderate arboricultural features of the existing site and are considered to be important trees that is desirable to retain within a completed development; they subsequently represent a significant constraint during the architectural design process and are more abundant than category A tree cover.

## 5.7 Category C Tree Cover<sup>3</sup>

5.7.1 With the exception of category U trees below, all remaining tree cover is considered to represent generally unremarkable examples of their type i.e.: ornamentally planted trees that demonstrate compromised structure, signs of stress; trees of indifferent structural and physiological appearance and of limited or transient amenity value which may be readily replaced without significant individual impact on the amenity of the site.

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<sup>1</sup> Category A trees are referenced on Aspect plans with a green RPA.

<sup>2</sup> Category B trees are referenced on Aspect plans with a blue RPA.

<sup>3</sup> Category C trees are referenced on Aspect plans with a grey RPA.

- 5.7.2 Irrespective of their quality, particular benefits provided by category C components relate to: filtering views of the site and contributing to the definition of the site boundaries.
- 5.8 **Category U Tree Cover**<sup>4</sup>
- 5.8.1 **T6** Silver Birch: Exhibiting a decay cavity at its base to the west, T6's poor structural condition is anticipated to result in its early loss.
- 5.8.2 **T8** Silver Birch, **T80** Cherry, **T85** False Acacia, **T88** Beech & **G7** Rowan: All are considered to be in a below average physiological condition, such that they are in a state of terminal decline.
- 5.8.3 **T135 & T176** Cherry, **T136**, **T174 & T175** Sycamore: Are growing through the site's palisade boundary fence, and are occluding the fence. All are therefore considered to be of significantly reduced future potential. T135 and T136 are understood to be located offsite therefore third party consent is likely to be required should the trees be removed.
- 5.8.4 Despite representing the least level of constraint during design of the proposals, category U trees are acknowledged to have existing or potential ecological value which it might be desirable to preserve<sup>5</sup>.

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<sup>4</sup> Category U trees are referenced on Aspect plans with a red canopy outline, no RPA and tree number enclosed within square brackets [ ].

<sup>5</sup> Quantifying this value is outside the scope of this document and is the focus of a separate ecological study prepared by others as part of the current application.



## **6 IMPACT ASSESSMENT**

### **6.1 Preliminary Tree Protection Plan**

6.1.1 In keeping with the recommendations of BS5837:2012, our assessment of the proposed development in relation to the existing trees is presented as a *Preliminary Tree Protection Plan* (refer to Appendix D).

6.1.2 The purpose of the TPP is to: a) identify trees to be retained and integrated within the proposed setting, b) illustrate safeguarding measures to ensure that retained trees are not harmed, either during the course of construction, or as a result of the development; and lastly, c) identify trees that it is necessary to remove in order to implement the proposed development.

6.1.3 Our assessment and the TPP are informed by the tree survey and constraints plan balanced with the requirements of the proposals and adopted policy. The tolerance of the trees to disturbance, based on species, age, condition and the presence of surrounding trees has also been considered. Our opinion of the quality and value of the trees is taken into account, with high quality and offsite trees adjacent to the site prioritised for retention by default.

### **6.2 Tree Removals Necessary To Implement proposed development**

6.2.1 The current proposals necessitate the removal of 87no. individual trees and 6no. groups of trees. The proposed layout has been revised a number of times during design to reduce development pressure on the site's boundaries and the key collection of trees either side of the existing vehicular access. As a result of this, the tree cover to be removed is limited to moderate (6no. components) and low quality components only, and is detailed by category within the Table 1 overleaf:

**Table 1.**

<b>Category B</b>		
<b>T19, T20, T29 &amp; T30</b> Beech	<b>T81</b> Pagoda	<b>T84</b> Whitebeam
<b>Category C</b>		
<b>T1, T2 &amp; T100</b> Lawson Cypress	<b>T92, T93</b> Holly	<b>T152-T154, T162-T164</b>
<b>T3, T5</b> Bay	<b>T94-T98</b> Flowering Cherry	<b>T167-T173</b> Norway Maple
<b>T4</b> Yew	<b>T99</b> Juniper	<b>G1</b> Snowy Mespil & Fig
<b>T11</b> English Oak	<b>T102-T104, T106-T110</b> Whitebeam	<b>G2</b> Whitebeam, Cotoneaster, Elder, Lime,
<b>T12, T14, T101, T105,</b>	<b>T112-T118</b> Common Lime	Holly
<b>T111</b> Silver Birch	<b>T119-T125, T138-T140,</b>	<b>G3</b> Ornamental Cypress
<b>T26-T28</b> Purple Plum	<b>T148-T151</b> Bird Cherry	<b>G4</b> Juniper, Holly, Ornamental Cypress
<b>T83</b> Hawthorn	<b>T126-T127, T132</b>	<b>G5</b> Lawson Cypress, hazel, Yew, Holly,
<b>T90</b> Goat Willow	Lombardy Poplar	Cotoneaster
<b>T91</b> Snowy Mespil	<b>T133-T134</b> Magnolia	<b>G6</b> Norway Maple, Silver Birch, Cherry, Hornbeam, Rowan, Holly
	<b>T141-T147</b> Hornbeam	

6.2.2 The extent of tree removal is illustrated in Appendix D and is distinguishable from retained trees through the absence of an RPA or a hatched canopy; identification numbers are shown coloured red and canopy edges are both dashed and coloured red. As a precaution against erroneous felling, it is recommended that the project arboriculturist spray-marks the trees to be removed with a red flash in the presence of an appointed arboricultural contractor.

6.2.3 Clearance works should be timed to avoid the main nesting season for birds between 1<sup>st</sup> March and 31<sup>st</sup> August. If scheduled within this period it is recommended that an ecologist is present to advise on any necessary protective measures, and on hand to confirm that tree works are not likely to cause disturbance to nesting birds.

### 6.3 Pruning Works

- 6.3.1 It will be necessary to selectively prune the eastern canopy of T7 by up to c.0.6m and the western canopy of T62 by up to c.3m to provide sufficient clearance to construct the proposed built form.
- 6.3.2 It will also be necessary to carry out crown lifting works to a number retained trees adjacent to the proposed footpaths proposed within the amenity space in the southern extent of the site; including: T35-T38, T49-T53, T57, T62, T63, T67, T68, T86 and T87.
- 6.3.3 The exact extent of the above works should be determined on site, but is anticipated to amount to the shortening of secondary minor branches only, and are considered to be achievable without affecting or causing detriment to the amenity value of the subject trees.
- 6.3.4 Throughout the entire site, dead branches should be entirely removed from the canopies of retained trees, particularly adjacent to the vehicular access. Although this work is not required to facilitate construction, it will help mitigate the risk of future tree related hazards emerging. It would be prudent for this work to coincide with clearance work on account that access to the trees will be unimpeded.
- 6.3.5 The above works should be undertaken in accordance with sections 7.3 (for removal of deadwood), 7.6 (for crown lifting) and 7.8 (for selective pruning) of BS3998:2010 by a competent tree contractor to ensure that cuts are performed correctly, and positioned so as to avoid future structural defects or physiological issues, facilitate growth and maintain aesthetic value.

### 6.4 Mitigation

- 6.4.1 Pending the acceptability of proposals, the trees recommended for removal are being mitigated for as part of a comprehensive scheme of soft landscaping submitted separately. The scheme will introduce specimen trees and structural planting to the site. Moreover, when the low quality of the majority of the removals is considered, the scheme will ensure enhancement to the future amenity potential of the application area.

- 6.4.2 Species chosen could include native species and cultivars that are appropriate for inclusion within the proposed setting, new specimen trees will also ensure continuity with the important, amenity trees retained as part of the scheme.
- 6.4.3 The use of advanced nursery stock that seeks to provide seasonal interest is also more likely to provide immediate and improved amenity benefits.

## 7 CONSTRUCTION SAFEGUARDS

### 7.1 Protective Barriers

7.1.1 To ensure integration of retained trees, it will be necessary to protect their above ground structures and underlying RPA from damage during construction. To achieve this, the barrier specification for direct protection should consist of the default specification provided in BS5837:2012 (below). It is considered essential that this is erected prior to occupation of the site for construction related purposes. The location for the tree protection fencing is illustrated within Appendix D with a bold blue line.

7.1.2 It would be prudent for the project arboriculturist to oversee the initial erection of tree protection barriers and provide written confirmation to LBH's arboricultural officer on completion.

Plate.1 Default Protective Barrier Specification





## 7.2 Supervised Excavation

- 7.2.1 To the west of the vehicular access it will be necessary to remove existing hard surface footpaths from within the RPAs of retained T62, T72, T73, T77, T78 & T79, with the existing sub-base retained in situ and undisturbed. The areas are illustrated with a red hatch within Appendix D.
- 7.2.2 In addition, the existing hard surface within the RPA of T137 is to be removed to enable the area's use for allotments, and proposed car parking is sited within the RPA of T129 and T130. The necessary excavations above must be carried out under direct arboricultural supervision to prevent detriment to the retained trees. These areas are illustrated within Appendix D with an orange hatch.
- 7.2.3 This work is considered acceptable subject to the precautionary measure of any excavation being undertaken by hand following the principles contained within section 7.2 of BS5837:2012 'Avoiding physical damage to the roots during demolition or construction'. To ensure that the principles are adhered to, it is recommended that the works within the RPA are carried out under direct arboricultural supervision.

## 7.3 No Dig construction

- 7.3.1 There are proposed footpaths within the RPAs of a number of retained trees within the area of public open space either side of the vehicular access and along the frontage with Nestles Avenue. The paths have been revised to avoid the trunks of retained trees and it is essential that they are constructed above soil, to prevent detriment ground disturbance and unnecessary root damage to the retained tree cover.
- 7.3.2 The areas are illustrated within Appendix D with a blue hatch and in summary affects the following trees: T7, T31, T35-T38, T49-T54, T56, T57, T62, T63, T67, T68, T79, T86, T87, T89 and T180.
- 7.3.3 A precautionary approach to managing the installation of the footpaths will be to incorporate the design recommendations listed in 7.4.2 of BS5837:2012, i.e. the preclusion of excavation into soil, avoidance of localised compaction, and maintained permeability. Subject to an engineer's opinion, this could be achieved if the paths are founded on 75mm Standard Cell CellWeb® overlain by a permeable wearing course

(i.e. TarmacDry®, or block paving) with non-invasive retaining edges. Arboricultural supervision during these works is strongly recommended.

- 7.3.4 To ensure confidence in the trees' tolerances towards proposed no-dig incursions and to overcome any existing compaction within RPAs, it is strongly recommended that the full RPA be terravented, incorporating a mychorizial fungi and bio-stimulant injection. This work should be undertaken prior to the laying the CellWeb sub-base for the footpath.

#### 7.4 **Phasing and Services**

- 7.4.1 At this stage, Aspect has not been able to assess the influence of proposed services, or provided input regarding the phasing of construction works as part of the application put forward. Pending the acceptability of the scale and nature of the proposed development to LBH, it is anticipated that these details will be the subject of a planning condition i.e. the focus of an Arboricultural Method Statement and *detailed* Tree Protection Plan.

## 8 CONCLUSIONS

- 8.1 Pursuant to the Council's policy requirements and current best practice in the context of proposed development, a BS5837:2012 survey and assessment has been prepared to inform the retention of trees of merit, and their contribution to amenity, where appropriate and practicable.
- 8.2 By design, the proposals accommodate the high quality tree cover, and the majority of the moderate quality trees considered to be important to the future amenity of the site and in facilitating the proposal's integration within the wider setting. The removal of 6no. moderate quality trees, has been unavoidable within a viable layout, and to reduce development pressure on key areas of significant trees, and will be mitigated by a proposed scheme of soft landscaping.
- 8.3 The level of tree retention expected is considered practicable subject to future detailed design reflecting the need for temporary protection, and mitigation for permanent development in close proximity to retained trees during construction.
- 8.4 It is our professional opinion that the proposals put forward allow for confidence in the long-term viability of retained and appropriate tree cover, and would not result in harm to the retained trees or over-compromise the wider treescape. The principle of the proposed development is therefore considered supportable from the arboricultural perspective and in terms of the Local Policy where it relates to trees. This opinion is strongly subject to appropriate mitigation planting proposals, and the adoption of future safeguards for protecting trees during construction, which can be achieved by the imposition of suitable planning conditions.

## 9 RECOMMENDATIONS

- 9.1 Pursuant to the Council's preference to ensure appropriate tree retention during development, a detailed Arboricultural Method Statement should be prepared which expands on Appendix D, this could be secured by condition.
- 9.2 Heads of Terms could include: specifications for tree protection barriers, including any revisions to barrier locations; a schedule of tree works; phasing of work; safeguarding procedures for development within RPAs, and a scheme for auditing tree protection and subsequent reporting to LBH's arboricultural officer should feature explicitly throughout.
- 9.3 Detailed Tree Protection Drawings should be prepared to 1:500 scale to support the AMS, with detail given of proposed levels and service routes.

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## **APPENDICES**



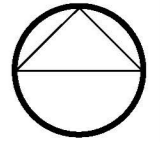
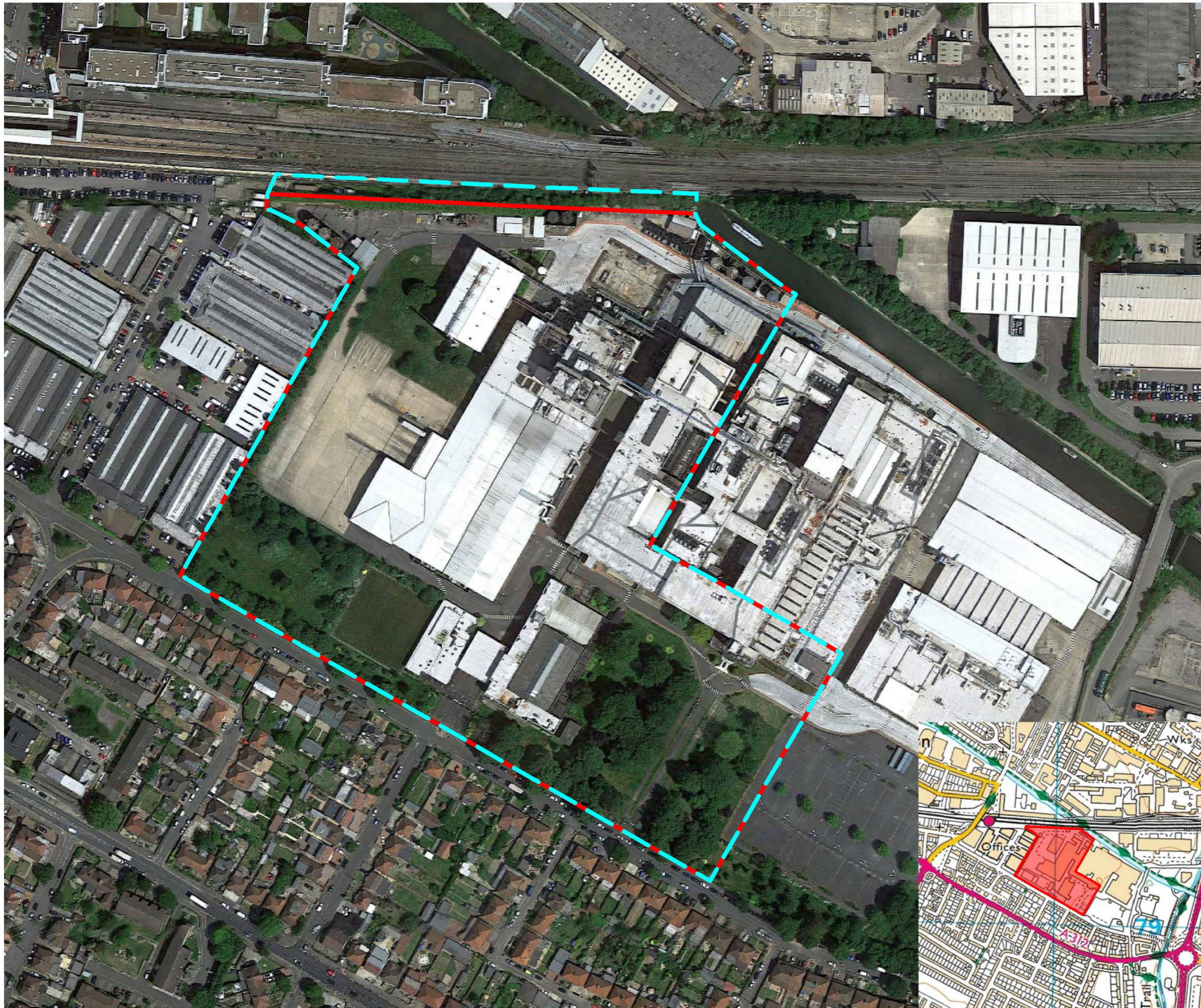


APPENDIX A

SURVEY BOUNDARY PLAN (9236 SBP 01)







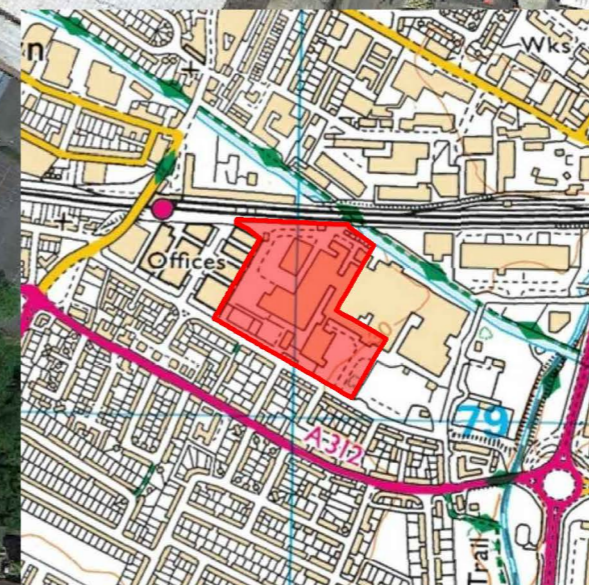
KEY:



Site Boundary



Extent of Tree Survey  
(not application area boundary)



REV	DATE	NOTE	Drawn	Chk'd



TITLE  
Former Nestle Factory  
Survey Boundary Plan

CLIENT  
Barton Willmore

SCALE	DATE	DRAWN
Not to scale	FEB 2017	GW
DRAWING NUMBER	REVISION	
9236 SBP 01		

Cited from Google Earth and Bing Maps







APPENDIX B

TREE SURVEY SCHEDULE (9236 TS 01 Rev A)



**BS 5837:2012 Tree Schedule: Former Nestle Factory,  
Hayes**



BS5837:2012 Tree Survey: Explanation of Survey Criteria

Tree Number	Common Species Name	Trunk Diameter (mm)	Height (m)	Crown Spread (m)					Crown Clearance (m)	Life Stage	Physiological Condition	Structural Condition	Comments	BS5837 Category	RPA Radius (m)
				N	E	S	W	radial							

*Sequential reference number cited on all aspect drawing.*

*Height and Crown spread measured to the nearest half meter; # denotes where this is estimated.*

*e.g.: young, semi-mature, early-mature, mature or over-mature*

*Area around tree deemed to contain sufficient roots and rooting volume to maintain the tree's viability, and where the protection of roots and soil structure is a priority. \*The RPA has been manipulated to allow for various site features, i.e. roads, structures or changes in levels. Please refer to the Tree Constraints Plan for these changes.*

*Category prefix A-C denotes arboricultural quality, decreasing from A (high) to C (low); Subcategories 1, 2 and 3 highlight associated arboricultural (1), landscape (2) and ecological (3) qualities.*

*Category U trees are those in such a condition that they cannot be realistically retained as living trees in the current context for the long term.*

*Measured to the nearest 10mm; # denotes estimated diameter where access is not possible.*

*e.g.: above-average, average, below average or dead*

*General observations, i.e. defects, preliminary management recommendation, presence of pests/disease, perceived significance.*

*Height of first significant branch and/or canopy*

*e.g.: good, indifferent, poor, or hazardous*

**Colour band key:**

- Category A
- Category B
- Category C
- Category U

The following survey should not be interpreted as a report on tree health and safety. Aspect's opinion of tree condition and structural potential is valid for a limited period of 12 months from the date of inspection. Validity is assumed in the absence of inclement weather and no change to the trees existing setting.



Tree Number	Common Species Name	Trunk Diameter (mm)	Height (m)	Crown Spread (m)					First Significant Branch (m)	Crown Clearance (m)	Life Stage	Physiological Condition	Structural Condition	Comments	BS5837 Category	RPA Radius (m)
				N	E	S	W	Radial								
1	Lawson Cypress	200#	5m					2	0.5	0	Semi Mature	Average	Indifferent	Unremarkable ornamental planting Readily replaced at current age	C12	2.4
2	Lawson Cypress	200#	5m					2	0.5	0	Semi Mature	Average	Indifferent	Unremarkable ornamental planting Readily replaced at current age	C12	2.4
3	Bay	120	4m					1.5	0.5	0	Semi Mature	Average	Indifferent	Unremarkable ornamental planting Readily replaced at current age	C12	1.5
4	Yew	75#	2m					1	0.5	0	Semi Mature	Average	Indifferent	Unremarkable ornamental planting Readily replaced at current age	C12	0.9
5	Bay	100	4m					1.5	0.5	0	Semi Mature	Average	Indifferent	Unremarkable ornamental planting Readily replaced at current age	C12	1.2
6	Silver Birch	225	10m	2	2.75	4	3		4	2	Semi Mature	Below Average	Poor	Single stem Cavity at the base to the W Poor scaffold structure Above average dieback and deadwood, appears to be in a state of decline Low arboricultural quality	U	2.7
7	Silver Birch	505	16m	5.5	5.5	6	5.5		2.5	2	Early Mature	Average	Indifferent	Single stout trunk Typical scaffold structure formed at c.3m Some bacterial canker growth around the base Moderate quality amenity planting	B2	6
8	Silver Birch	240	10m	2.75	3	3.75	2.5		2.25	2	Semi Mature	Below Average	Poor	Single stout trunk Scaffold structure has numerous areas with bacterial canker growth and areas of epicormic burring Dieback in upper canopy Appears to be in a state of decline	U	3
T9: Removed as of 26/01/17																
T10: Fallen as of 26/01/17																
11	English Oak	475	16m	10	6.5	7.75	6		2	2	Early Mature	Average	Poor	Single stem, kinks significantly to the N at c.2m then back to the S at c.4m Forms a poor scaffold structure Low arboricultural quality	C1	5.7
12	Silver Birch	210	12m	5.75	3.5	2.75	3		2	2	Semi Mature	Below Average	Poor	Suppressed heavily by T11 Low arboricultural quality	C12	2.4
13	Field Maple	150 220	8m	3.25	2.75	3.75	1.5		1	1.5	Semi Mature	Average	Indifferent	Partially suppressed to the W by T11 Unremarkable ornamental planting	C12	3.3
14	Silver Birch	290	11m	3.75	5.75	2.75	2		4	2	Semi Mature	Average	Indifferent	Leaning heavily to the W Minor deadwood	C1	3.6
15	Whitebeam	75	4m					1.75	1	1	Semi Mature	Average	Indifferent	Ornamental planting Readily replaced	C12	0.9
16	Beech	465	21m	6.75	7.5	2.5	8.25		3.5	3	Early Mature	Average	Indifferent			5.7
17	Beech	235	13m	6.5	2	2.5	6		5	2	Early Mature	Average	Poor			2.7
18	Beech	410 315	21m	6.75	10	6	7.75		3	2	Early Mature	Average	Poor	Parcel of 6no. Beech (T16 to T21) form a cohesive canopy Likely to be reliant upon companion shelter Structures appear typical for the species in context	B2	6.3
19	Beech	320 470	15m	6	8.25	5	3		4	3.5	Early Mature	Average	Poor	T18 and T19 are co-dominant from c.1m Collectively considered to be of moderate arboricultural quality		6.9
20	Beech	570	16m	3.5	8.25	7	6.25		3	2	Early Mature	Average	Indifferent			6.9
21	Beech	380	17m	4	4	4.25	5		7	3.5	Early Mature	Average	Indifferent			4.5
22	Beech	655	20m	7	6.75	5.5	7.75		3.5	3	Mature	Average	Indifferent	Single trunk forking at c.3.5m into a typical, balanced scaffold structure producing a domed canopy which is partially cohesive with T21 Moderate example of the species	B12	7.8





Tree Number	Common Species Name	Trunk Diameter (mm)	Height (m)	Crown Spread (m)				Radial	First Significant Branch (m)	Crown Clearance (m)	Life Stage	Physiological Condition	Structural Condition	Comments	BS5837 Category	RPA Radius (m)
				N	E	S	W									
23	Hawthorn	185 120 85	6m	3.75	2.25	2.5	6.5		1	1.75	Early Mature	Average	Poor	Leaning heavily to the W due to suppression by companion shelter	C1	2.7
24	Ornamental Pear	145	6m	6	4	1.5	3		2	2	Semi Mature	Average	Poor	Low quality ornamental Readily replaced	C1	1.8
25	Beech	375	14m	4.25	5.25	6.75	6.25		3	2	Early Mature	Average	Poor	Single stem Distorted growth Poorly structured scaffold Low arboricultural quality	C1	4.5
26	Purple Cherry Plum	85	5m	2	3	3	1.5		1.75	1.5	Young	Average	Indifferent	Unremarkable ornamental planting Readily replaced at current age	C12	0.9
27	Purple Cherry Plum	135	6m	3.25	3.25	3.25	1.75		1.75	1.75	Semi Mature	Average	Indifferent	Unremarkable ornamental planting Readily replaced at current age	C12	1.5
28	Purple Cherry Plum	60	5m	1.75	2.5	2	1.25		1.75	1.75	Young	Below Average	Indifferent	Unremarkable ornamental planting Readily replaced at current age	C12	0.9
29	Beech	375	12m	5	4	6	5.75		3	3	Early Mature	Average	Indifferent	Single stem, maintaining a single leader for majority of the trees height Structure typical for the species Moderate quality	B2	4.5
30	Beech	420 330 200	14m	5	7	5	5		2.5	3	Early Mature	Average	Indifferent	Multi-stemmed from the base, union appears sound Moderate arboricultural quality	B2	6.9
31	Scotts Pine	320	14m	6	4	1.75	3.5		6	8	Early Mature	Average	Indifferent	Forks at c.6m into 2 leaders Canopy predominately forms to the N Unremarkable example of the species	C1	3.9
T32: Removed as of 26/01/17																
T33: Removed as of 26/01/17																
34	Beech	430	18m	6.25	7.25	2	9.25		3	3	Early Mature	Average	Indifferent	Single stem, maintaining a single leader Cohesive with companion shelter Moderate quality as a collection with companions to the S	B2	5.1
35	Beech	685	17m	6	6.75	7.5	6.75		1.75	2	Early Mature	Average	Indifferent	Single stem, forking at c.1.75m into co-dominant stems slightly etiolated scaffold structure due to mutual suppression with companion shelter Considered to be of moderate arboricultural quality with companions	B2	8.1
36	Beech	460 490	18m	8.25	7.5	6.75	5.5		5.5	2	Early Mature	Average	Indifferent	Co-dominant stems from the base, union appears sound Balanced scaffold structure considered to be of moderate arboricultural quality with companions	B2	8.1
37	Beech	460	16m	4.75	3.5	3.5	5.5		2	2	Early Mature	Below Average	Poor	Single stem, forks at c.2m into co-dominant stems, union appears tight and poor, likely to be weak Weeping pruning wound on S side of trunk has caused a discoloured area of bark Remnants of a fungal bracket on the floor at the base of the tree, appears consistent with Polyporus squamosus, likely to have fallen from a decaying stub to the E at c.2m Low arboricultural quality	C1	5.4
38	Beech	570	17	5.75	7	10	7		3.5	2	Early Mature	Average	Indifferent	Single trunk, maintaining a single leader for majority of the trees height Cohesive with companion shelter Moderate quality	B2	6.9



Tree Number	Common Species Name	Trunk Diameter (mm)	Height (m)	Crown Spread (m)				Radial	First Significant Branch (m)	Crown Clearance (m)	Life Stage	Physiological Condition	Structural Condition	Comments	BS5837 Category	RPA Radius (m)
				N	E	S	W									
39	Scotts Pine	150	6	0	2.5	3.75	2		2.5	2	Semi Mature	Average	Indifferent	Canopy forms to the S due to suppression Low quality	C1	1.8
40	Beech	200 205 255	18	9.5	6	4.5	2.25		1	4.5	Early Mature	Average	Poor	3no co-dominant stems from 1m, two remain in contact for c.3m Moderate quality with companions	B2	4.5
41	Beech	580	18m	6	5.25	6	8.25		3.5	3.5	Early Mature	Average	Indifferent	Single stem, forking at c.3m into co-dominant stems Scaffold structure slightly etiolated from mutual suppression with companion shelter Moderate quality with companions	B2	6.9
42	Beech	445	16m	2.5	6.75	4.5	5.5		1.5	2	Early Mature	Average	Indifferent	Single stem, maintains a single leader cohesive with companion shelter Moderate quality with companions	B2	5.4
43	Beech	540	13m	3	6.75	6	7.75		2	2	Early Mature	Average	Indifferent	Single stem, leaning slightly to the S Average minor deadwood on N from suppression by companion shelter Main scaffold union forms at c.2m Moderate quality with companions	B2	6.6
44	Norway Maple	290#	8m					3.5	2.5	2.75	Semi Mature	Below Average	Indifferent	Unremarkable ornamental planting along Nestle Avenue Low arboricultural quality	C1	3.6*
45	Pear	305	8m	2	1.25	6.5	6		2.5	2	Early Mature	Average	Poor	Low quality ornamental planting leaning heavily to the SW due to suppression by T43	C1	3.6
46	Purple Cherry Plum	210	9m	3	1.75	2.75	5.75		2	1.5	Semi Mature	Average	Poor	Ornamental planting Suppressed by larger companions Low quality	C12	2.4
47	Ornamental Pear	100	4m	3	1.5	2	3		2	2	Semi Mature	Average	Poor	Ornamental planting Suppressed by larger companions Low quality	C1	1.2
48	Beech	615	18	5.5	7.5	8	6		3.5	2	Mature	Average	Indifferent	Single stem, forking at 3.5m into co-dominant stems forming a balanced scaffold structure Canopy is partially cohesive with T49 to the W Moderate quality	B12	7.5
49	Beech	600	16	8	7.5	7.5	6.5		2	2	Early Mature	Below Average	Poor	Dieback visible within upper canopy and above average deadwood throughout Epicormic growth on secondary branches Remnants of a fungal bracket at the base thought to be Meripilus giganteus Likely to be entering stages of decline Low transient value	C1	7.2
50	Beech	745	15m	8.75	6.25	7.25	7		2	2	Mature	Below Average	Poor	Dieback visible within upper canopy and above average deadwood throughout Epicormic growth on secondary branches Likely to be entering stages of decline Low transient value	C1	9
51	Beech	590	15m	7.25	7.25	8	6		2.25	2	Early Mature	Average	Indifferent	Single stem, ribbing reaction wood forming to the S Typical scaffold structure Above average epicormic growth Moderate quality due to visual prominence along Nestle Avenue	B2	7.2



Tree Number	Common Species Name	Trunk Diameter (mm)	Height (m)	Crown Spread (m)					First Significant Branch (m)	Crown Clearance (m)	Life Stage	Physiological Condition	Structural Condition	Comments	BS5837 Category	RPA Radius (m)
				N	E	S	W	Radial								
52	Beech	560	17m	7.75	5.25	6.5	4.5		3.5	2.5	Early Mature	Average	Indifferent	Single stem, ribbing reaction wood forming on the lower trunk Typical scaffold structure Above average epicormic growth Moderate quality due to visual prominence along Nestle Avenue	B2	6.6
53	Beech	765	15m	8.5	5.5	6	6.75		2	1.75	Mature	Average	Indifferent	Stout trunk Canopy appears slightly squat in form Moderate quality due to visual prominence along Nestle Avenue	B2	9.3
54	Lawson Cypress	2*50# 95#	5m					2	0	0	Semi Mature	Average	Indifferent	Unremarkable ornamental planting Readily replaced	C12	1.5
55	Lawson Cypress	95# 160#	8m					2.75	0	0	Early Mature	Average	Indifferent	Unremarkable ornamental planting Readily replaced	C12	2.1
56	Beech	700	20m	6.75	8.25	7	7.5		4.5	2	Mature	Average	Indifferent	Single stem, typical scaffold structure emerging at c. 4.5m Moderate example of the species	B12	8.4
57	Beech	180	13m					5	2	2	Semi Mature	Average	Indifferent	Unremarkable ornamental planting Readily replaced	C12	2.1
58	Beech	155	11m					4.25	1.75	1.75	Semi Mature	Average	Indifferent	Unremarkable ornamental planting Readily replaced	C12	1.8
59	Beech	195	12m					5	1.75	1.75	Semi Mature	Average	Indifferent	Unremarkable ornamental planting Readily replaced	C12	2.4
60	Silver Birch	445	15m	5.75	5.25	7.75	7		2.25	2.25	Early Mature	Average	Indifferent	Single stem, wide spreading scaffold branch structure Moderate quality	B2	5.4
T61: Removed as of 26/01/17																
62	Beech	860	19m	11.5	9	10.75	13.5		2.5	2	Mature	Average	Indifferent	Principal ornamental feature Holds a significant visual presence within internal views Single trunk forking at c.3.5m into co-dominant stems with a wide union, 1 sub-dominant and 2 significant lower lateral branches, union appears sound with supporting reaction wood on the underside Upper canopy remains typical for the species, producing a wide spreading dense canopy appearing domed from a distance buttress roots around the trees base extending into surface roots c.7m away from the tree High quality specimen	A12	10.2
63	Beech	200	10m	3.25	4.25	4.25	2.5		2	1.75	Semi Mature	Average	Indifferent	Unremarkable ornamental planting Structure typical for the species	C12	2.4
64	Beech	210	17m	3.75	3.75	4.25	4		1.5	1.5	Semi Mature	Average	Indifferent	Unremarkable ornamental planting Structure typical for the species	C12	2.4
65	Beech	160	9m	2.75	3	3.25	3.5		1.75	1.75	Semi Mature	Below Average	Indifferent	Unremarkable ornamental planting Structure typical for the species	C12	1.8
66	Beech	790	21m	6.75	8.25	5.25	7		3.25	2	Mature	Average	Indifferent	Single stem Typical scaffold structure Cohesive with companion shelter Average deadwood Epicormic burring on scaffold structure Moderate quality as a collection with T66 to T74	B2	9.6





Tree Number	Common Species Name	Trunk Diameter (mm)	Height (m)	Crown Spread (m)					First Significant Branch (m)	Crown Clearance (m)	Life Stage	Physiological Condition	Structural Condition	Comments	BS5837 Category	RPA Radius (m)
				N	E	S	W	Radial								
67	Beech	690	20m	6.75	4.75	4	8		3.25	2.25	Mature	Average	Indifferent	Single stem Typical scaffold structure Cohesive with companion shelter Moderate quality as a collection with T66 to T74	B2	8.4
68	Beech	630	18m	5.5	4	6.75	10		3	1.75	Mature	Average	Indifferent	Single stem Typical scaffold structure Cohesive with companion shelter Moderate quality as a collection with T66 to T74	B2	7.5
T69: Removed as of 26/01/17																
70	Beech	675	20m	9.75	7.25	8.25	5.25		3	3.5	Mature	Average	Indifferent	Single stem Typical scaffold structure Cohesive with companion shelter Moderate quality as a collection with T66 to T74	B2	8.1
71	Beech	645	17m	5.25	4	9.75	9.25		2.25	2	Mature	Average	Indifferent	Single stem Typical scaffold structure Cohesive with companion shelter Moderate quality as a collection with T66 to T74	B2	7.8
72	Beech	660	18m	3.75	8.25	10	7.25		2.75	2.5	Early Mature	Average	Poor	Single stem Girdled surface root Forks at 2.75m into co-dominant stems, included bark with lobal reaction wood forming Cohesive with companion shelter Moderate quality as a collection with T66 to T74	B2	7.8
73	Beech	710	18m	9.75	7.75	4	6.75		3	2	Mature	Average	Indifferent	Single stem Typical scaffold structure Cohesive with companion shelter Moderate quality as a collection with T66 to T74	B2	8.4
74	Beech	660	19m	6.75	7	7	6.75		2.5	1.75	Mature	Average	Indifferent	Single stem Typical scaffold structure Epicormic burring Cohesive with companion shelter Moderate quality as a collection with T66 to T74	B2	7.8
75	Beech	670	79m	6.25	8.75	6.25	7.5		5	2.25	Mature	Average	Indifferent	Cohesive with T76 to the N Wide union at c.5m Moderate quality as a collection	B2	8.1
76	Beech	655	21m	6.25	8	5.25	5.5		5	2	Mature	Average	Indifferent	Partially suppressed by T75, causing the scaffold structure to be leaning away Moderate quality as a collection	B2	7.8
77	Beech	715	20m	4.25	5.25	8	7.5		5	5	Mature	Average	Poor	Single stem, forking at c.5m above the main union is a longitudinal cavity which is partially occluded with decay visible within Prior damage visible around the base of the trunk, partially occluded, possibly past strimmer damage Low arboricultural quality	C1	8.7
78	Beech	715	20m	6.75	8.25	7.5	8.25		4	4	Mature	Average	Indifferent	Structure typical for the species Moderate quality	B2	8.7
79	Beech	865	21m	11.25	8	10	6.5		5	2.5	Mature	Average	Indifferent	Structure typical for the species Moderate quality Large lower bough has been removed, now partially occluded, visible within is a pocket of decay	B12	10.5



Tree Number	Common Species Name	Trunk Diameter (mm)	Height (m)	Crown Spread (m)				Radial	First Significant Branch (m)	Crown Clearance (m)	Life Stage	Physiological Condition	Structural Condition	Comments	BS5837 Category	RPA Radius (m)
				N	E	S	W									
80	Apple	180	4m	3	3	3.5	1.5		2	1.75	Early Mature	Average	Poor	Ornamental planting Unremarkable Low quality	C12	2.1
81	Pagoda	365	12m	4.5	7	6.25	3.5		4	2	Early Mature	Average	Indifferent	Ornamental planting Moderate example of the species	B1	4.5*
82	Cherry	245	8m	3.75	4	6	2.5		1.75	2	Early Mature	Below Average	Poor	Low quality ornamental planting Above average deadwood Appears to be in a state of decline	U	N/A
83	Hawthorn	230	7m	3	2.75	3	1.5		2	2	Early Mature	Average	Poor	Unremarkable ornamental planting Low quality	C12	2.7*
84	Whitebeam	410	12m	4.25	3.75	4.75	5		2	2	Mature	Average	Poor	Moderate example of the species at maturity Single stem, union at c.2m is poor with bulging forming 20cm below suggesting included bark and the formation of reaction wood	B2	4.8*
85	False Acacia	350	5m					4	2	2	Early Mature	Below Average	Poor	Low quality ornamental Squat formed canopy Above average deadwood and dieback Appears to be in a state of terminal decline	U	N/A
86	Beech	800#	13m					8.5#	2#	2#	Early Mature	Below Average	Indifferent	Inaccessible due to palisade fencing Cohesive with companions Appears to be of moderate quality	B2	9.6
87	Beech	1100#	19m					9.25#	3#	2#	Mature	Average	Indifferent	Inaccessible due to palisade fencing Cohesive with companions Appears to be of moderate quality	B12	13.2
88	Beech	1200#	13m					10#	2#	2#	Early Mature	Below Average	Poor	Inaccessible due to palisade fencing Cohesive with companions Appears to be in a state of terminal decline	U	N/A
89	Beech	800#	13m					7.5#	3#	2#	Early Mature	Below Average	Indifferent	Inaccessible due to palisade fencing Cohesive with companions Appears to be of moderate quality	B2	9.6
90	Goat Willow	10*120# av	6m					4	1	1	Semi Mature	Average	Indifferent	Self-set Low quality	C12	4.5
91	Snowy Mespilus	80	3.5m					1.5	1	1	Young	Average	Indifferent	Unremarkable Low quality	C12	0.9
92	Holly	270 270	8m					3	1.5	1	Early Mature	Average	Indifferent	Low quality ornamental planting	C12	4.5
93	Holly	180	5.5m					2	2.5	2	Semi Mature	Average	Indifferent	Low quality ornamental planting	C12	2.1
94	Flowering Cherry	90	3m					2.25	1	1	Young	Average	Indifferent	Low quality ornamental planting Readily replaced	C12	1.2
95	Flowering Cherry	115	3m					2.5	1	1	Semi Mature	Average	Indifferent	Low quality ornamental planting Readily replaced	C12	1.5
96	Flowering Cherry	160 170	4m					2.75	1	1.5	Semi Mature	Average	Indifferent	Low quality ornamental planting Readily replaced	C12	2.7
97	Flowering Cherry	150	3m					3	1.5	1.5	Semi Mature	Average	Indifferent	Low quality ornamental planting Readily replaced	C12	1.8
98	Flowering Cherry	175	4m					2	1.5	1.5	Semi Mature	Average	Indifferent	Low quality ornamental planting Readily replaced	C12	2.1



Tree Number	Common Species Name	Trunk Diameter (mm)	Height (m)	Crown Spread (m)				Radial	First Significant Branch (m)	Crown Clearance (m)	Life Stage	Physiological Condition	Structural Condition	Comments	BS5837 Category	RPA Radius (m)
				N	E	S	W									
99	Juniper	95	3m					1.5	0.5	0.5	Semi Mature	Average	Indifferent	Low quality ornamental planting Readily replaced	C12	1.2
100	Lawson Cypress	100 90	5m					1.5	0.5	0.5	Semi Mature	Average	Indifferent	Low quality ornamental planting Readily replaced	C12	1.5
101	Silver Birch	230	6m					2.75	3	1.5	Semi Mature	Average	Indifferent	Ornamental planting Structure typical for the species Radial canopy Unremarkable example of the species	C12	2.7
102	Whitebeam	205	6m	3.5	3	2.75	2.75		2	1.75	Semi Mature	Average	Indifferent	Ornamental planting Structure typical for the species Radial canopy Strimmer damage at the base Unremarkable example of the species	C12	2.4
103	Whitebeam	115	3m					1.75	1.5	1.75	Young	Below Average	Indifferent	Ornamental planting Structure typical for the species Radial canopy Strimmer damage at the base Unremarkable example of the species	C12	1.5
104	Whitebeam	115	3m					1.75	1.5	1.75	Young	Below Average	Indifferent	Ornamental planting Structure typical for the species Radial canopy Strimmer damage at the base Unremarkable example of the species	C12	1.5
105	Silver Birch	270	9m	2.75	2.5	2.75	3.75		2	2	Semi Mature	Average	Indifferent	Low quality ornamental planting Structure typical for the species Readily replaced at current age	C12	3.3
106	Whitebeam	115	5m					2	2	1.75	Young	Below Average	Indifferent	Low quality ornamental planting Structure typical for the species Strimmer damage at the base Readily replaced at current age	C12	1.5
107	Whitebeam	105	5m					2	1	1.75	Young	Below Average	Indifferent	Low quality ornamental planting Structure typical for the species Readily replaced at current age	C12	1.2
108	Whitebeam	95	5m					2	1	1.75	Young	Below Average	Indifferent	Low quality ornamental planting Structure typical for the species Readily replaced at current age	C12	1.2
109	Whitebeam	165	5m					2.75	1.5	1.75	Semi Mature	Below Average	Indifferent	Low quality ornamental planting Structure typical for the species Suckering at the base Readily replaced at current age	C12	2.1
110	Whitebeam	100	4m					2	1.75	1.75	Young	Below Average	Indifferent	Low quality ornamental planting Structure typical for the species Suckering at the base Readily replaced at current age	C12	1.2
111	Silver Birch	145	7m					2	2.75	1.75	Semi Mature	Average	Indifferent	Low quality ornamental planting Structure typical for the species Readily replaced at current age	C12	1.8
112	Common Lime	370	8m	5.5	5.75	5	4.25		2.25	2	Early Mature	Average	Poor	T112 to T118 form an ornamental collection fronting the site with Nestle Avenue	C1	4.5
113	Common Lime	390	10m	4.75	3	4.75	4.5		2.5	2.5	Early Mature	Average	Poor		C1	4.8
114	Common Lime	390	8m	5.5	4.5	4.5	3.5		2.25	2.75	Early Mature	Average	Poor		C1	4.8
115	Common Lime	380	11m	4.75	5.25	4	4.25		2	2	Early Mature	Average	Poor		Previously pollarded between c. 4m to 6m	C1
116	Common Lime	315	8m	4.25	4.5	4.5	4.5		2	1.75	Early Mature	Average	Poor	Structures typical for the species in context Collection confers some amenity value as a uniform, linear group.	C1	3.9



Tree Number	Common Species Name	Trunk Diameter (mm)	Height (m)	Crown Spread (m)				Radial	First Significant Branch (m)	Crown Clearance (m)	Life Stage	Physiological Condition	Structural Condition	Comments	BS5837 Category	RPA Radius (m)
				N	E	S	W									
117	Common Lime	450	11m	4.25	5	4.5	5		2.5	2	Early Mature	Average	Poor	Collection confers some amenity value as a minimum, linear group, as individuals each are of relatively low arboricultural quality	C1	5.4
118	Common Lime	410	9m	4.25	5	4.75	4.75		2.5	2	Early Mature	Average	Poor		C1	4.8
119	Bird Cherry	260	9m	4.75	4.75	4	4.25		1.75	1.75	Early Mature	Average	Poor	Low quality ornamental plantings fronting the site with Nestle Avenue Previously unsympathetically pruned on north side Readily replaced	C12	3
120	Bird Cherry	270	7m	3	3	6	3		1.75	1.5	Semi Mature	Average	Poor	Low quality ornamental plantings fronting the site with Nestle Avenue Previously unsympathetically pruned on north side Readily replaced	C12	3.3
121	Bird Cherry	270	7m	5.5	5.5	4.75	3.5		1.75	1	Semi Mature	Average	Poor	Low quality ornamental plantings fronting the site with Nestle Avenue Previously unsympathetically pruned on north side Readily replaced	C12	3.3
122	Bird Cherry	230	7m	4.75	4.75	4.5	3.75		1.75	1.5	Semi Mature	Average	Poor	Low quality ornamental plantings fronting the site with Nestle Avenue Previously unsympathetically pruned on north side Readily replaced	C12	2.7
123	Bird Cherry	200	7m	3.75	3.75	4	2		1.75	1.75	Semi Mature	Average	Poor	Low quality ornamental plantings fronting the site with Nestle Avenue Previously unsympathetically pruned on north side Readily replaced	C12	2.4
124	Bird Cherry	155	6m	2.25	2.25	3	1.75		1.75	1.75	Semi Mature	Below Average	Poor	Low quality ornamental plantings fronting the site with Nestle Avenue Previously unsympathetically pruned on north side Readily replaced	C12	1.8
125	Bird Cherry	185	7m	4.5	3.75	2	2.5		1.75	1.75	Semi Mature	Below Average	Poor	Low quality ornamental plantings fronting the site with Nestle Avenue Previously unsympathetically pruned on north side Readily replaced	C12	2.1
126	Lombardy Poplar	370	15m					2	1	1	Semi Mature	Average	Indifferent	Ornamental, linear group of Lombardy Poplars along the western boundary of the site T126 to T132 Structures appear typical for the species Collection confers some amenity value as a group, as individuals each are of relatively low arboricultural quality being unremarkable examples of these species T132 has an included union at the base	C1	4.5
127	Lombardy Poplar	815	22m					4.25	3	2	Early Mature	Average	Indifferent		C1	9.9*
128	Lombardy Poplar	350	15m					2.5	1.5	2	Semi Mature	Average	Indifferent		C1	4.2*
129	Lombardy Poplar	425	15m					2.5	4	1	Semi Mature	Average	Indifferent		C1	5.1
130	Lombardy Poplar	580	17m					2.5	3	2.5	Early Mature	Average	Indifferent		C1	6.9*
131	Lombardy Poplar	610	17m					2.5	3.5	2.5	Early Mature	Average	Indifferent		C1	7.2
132	Lombardy Poplar	835	21m					3.75	1.75	3	Early Mature	Average	Poor		C1	9.9*
133	Southern Magnolia	210	9m	1.25	3.75	3.75	2.5		2	2	Early Mature	Average	Indifferent		Pair of ornamental plantings against factory building Cohesive canopies Limited visual presence due to planting position	C12
134	Southern Magnolia	230	10m	1.25	3.75	2.75	2.5		2	2	Early Mature	Average	Indifferent	C12	2.7*	
135	Cherry	250# 210# 150#	9m					3.75	0.5	3	Early Mature	Below Average	Poor	Offsite self-set specimen Stems occluded with palisade fencing Low quality	U	N/A
136	Sycamore	210#	8m					3	2.5	3	Semi Mature	Below Average	Poor	Offsite self-set specimen Stems occluded with palisade fencing Low quality	U	N/A
137	Western Red Cedar	3*340	12m					3	3.5	3.5	Early Mature	Average	Indifferent	Ornamental planting Unremarkable example of the species	C12	7.2*





Tree Number	Common Species Name	Trunk Diameter (mm)	Height (m)	Crown Spread (m)				Radial	First Significant Branch (m)	Crown Clearance (m)	Life Stage	Physiological Condition	Structural Condition	Comments	BS5837 Category	RPA Radius (m)
				N	E	S	W									
138	Bird Cherry	210	5m	3.75	4.25	4.25	4.25	1.75	1.75	Semi Mature	Average	Indifferent	Unremarkable ornamental planting Strimmer damage at the base Readily replaced	C12	2.4	
139	Bird Cherry	210	6m	3.75	4	2.75	4	2	2	Semi Mature	Average	Indifferent	Unremarkable ornamental planting Strimmer damage at the base Readily replaced	C12	2.4	
140	Bird Cherry	210	5m	3.75	3	3.25	4.5	2	2	Semi Mature	Average	Indifferent	Unremarkable ornamental planting Strimmer damage at the base Readily replaced	C12	2.4	
141	Hornbeam	460	11m	4.25	3	4.5	2.75	1.5	1.5	Early Mature	Average	Indifferent		C12	5.4	
142	Hornbeam	230	9m	2	2	5.25	2.75	1.5	1.5	Semi Mature	Average	Indifferent		C12	2.7	
143	Hornbeam	230 240	11m	5.25	2.25	5	2.5	1	1.5	Early Mature	Average	Indifferent	T141 to T147 ornamental plantings resemble a former hedge Overgrown and unmaintained, resemble a tree group	C12	3.9	
144	Hornbeam	190	7m	3.25	2	2.75	1.75	1.5	1.5	Semi Mature	Average	Indifferent		C12	2.4	
145	Hornbeam	215	8m	4.75	3	4.25	2.25	1.75	1.5	Semi Mature	Average	Indifferent	Low arboricultural quality	C12	2.7	
146	Hornbeam	260	6m	2.5	3.5	4	1.75	1.5	1.5	Semi Mature	Average	Indifferent		C12	3	
147	Hornbeam	200	5m	4.25	3.5	3.75	1.5	1.5	1.5	Semi Mature	Average	Indifferent		C12	2.4	
		120 140 130														
148	Bird Cherry	125 110 70 3*80	6m					4.25	0.5	1.5	Semi Mature	Average	Indifferent	Ornamental planting Unremarkable example of the species Readily replaced	C12	3.6
149	Bird Cherry	220	6m					3.5	1.75	1.75	Semi Mature	Average	Indifferent	Ornamental planting Unremarkable example of the species Impact wound on north side of lower trunk Readily replaced	C12	2.7
150	Bird Cherry	270	6m					4.5	1.75	1.75	Semi Mature	Average	Indifferent	Ornamental planting Unremarkable example of the species Readily replaced	C12	3.3
151	Bird Cherry	245	6m					4	1.75	1.75	Semi Mature	Average	Indifferent	Ornamental planting Unremarkable example of the species Readily replaced	C12	3
152	Norway Maple	280	8m	3.5	1.75	2.75	3.5	2	2	Semi Mature	Average	Indifferent	Ornamental planting Unremarkable example of the species Readily replaced	C12	3.3	
153	Norway Maple	300	8m	3.25	3.75	4	3.25	2	2	Semi Mature	Average	Indifferent	Ornamental planting Unremarkable example of the species Readily replaced	C12	3.6	
154	Norway Maple	250	6.5m	2.75	3.5	3	3.25	2	2	Semi Mature	Average	Indifferent	Ornamental planting Unremarkable example of the species Readily replaced	C12	3*	
155	Norway Maple	285	7.5m					3.25	2.5	2	Early Mature	Average	Indifferent		C1	3.3*
156	Norway Maple	290	8m					3	2	2	Early Mature	Average	Indifferent		C1	3.6*
157	Norway Maple	265	7.5m					2.5	2	2	Early Mature	Below Average	Indifferent		C1	3.3*
158	Norway Maple	265	8m					3	1.75	2	Early Mature	Average	Indifferent		C1	3.3
159	Norway Maple	380	9m					4.25	2	2	Early Mature	Average	Indifferent		C1	4.5*
160	Norway Maple	305	9m					3.5	2	2	Early Mature	Average	Indifferent		C1	3.6*
161	Norway Maple	295	9m					3	2	2	Early Mature	Average	Indifferent		C1	3.6*
162	Norway Maple	300	7.5m					3.25	2	2	Early Mature	Average	Indifferent	Ornamental, linear belt of 19no Norway Maples lining the western boundary of the site	C1	3.6*
163	Norway Maple	280	8m					3	2	2	Early Mature	Average	Indifferent	Structures appear typical for the species	C1	3.3*
164	Norway Maple	320	9m					4	2.5	2	Early Mature	Average	Indifferent	As a uniform group they collectively contribute to boundary	C1	3.9*



Tree Number	Common Species Name	Trunk Diameter (mm)	Height (m)	Crown Spread (m)				First Significant Branch (m)	Crown Clearance (m)	Life Stage	Physiological Condition	Structural Condition	Comments	BS5837 Category	RPA Radius (m)	
				N	E	S	W									
165	Norway Maple	260	8m					3.75	2.25	2	Early Mature	Average	Indifferent	Individuals in group may contribute to boundary screening and the internal amenity of the site	C1	3
166	Norway Maple	340	9m					4	2.5	2.5	Early Mature	Average	Indifferent	Individually each specimen is of low arboricultural quality	C1	4.2*
167	Norway Maple	320	9.5m					3.5	2	2	Early Mature	Average	Indifferent		C1	3.9*
168	Norway Maple	260	8m					2.25	2	2	Early Mature	Average	Indifferent		C1	3*
169	Norway Maple	320	8.5m					3.25	1.75	2	Early Mature	Average	Indifferent		C1	3.9*
170	Norway Maple	230	7m					3	1.75	2	Early Mature	Average	Indifferent		C1	2.7
171	Norway Maple	230	8.5m					3.5	1.75	2	Semi Mature	Average	Indifferent		C1	2.7
172	Norway Maple	300	9m					3	1.75	2	Early Mature	Average	Indifferent		C1	3.6*
173	Norway Maple	210	6.5m					2	1.75	2	Semi Mature	Average	Indifferent		C1	2.4
174	Sycamore	280# 250#	9m					3.25	3	3.5	Semi Mature	Average	Poor	Self-set specimen Occluded stems with palisade fence	U	N/A
175	Sycamore	270#	11m					2	3	3.5	Semi Mature	Average	Poor	Self-set specimen Occluded stems with palisade fence Appears to be growing on hard standing	U	N/A
176	Cherry	140# 140# 120#	9m					2	3	3.5	Semi Mature	Average	Poor	Self-set specimen Occluded stems with palisade fence Appears to be growing on hard standing	U	N/A
177	Common Lime	705	19m	8.5	6	5.75	5.75		4	3.5	Mature	Average	Indifferent	Street tree along Nestle Avenue Tarmac up to the base of the trunk Prominent amenity feature Structure typical for the species Moderate arboricultural quality	B2	8.4*
178	Common Lime	585	19m	6.5	7	6	5		3.5	2	Mature	Average	Indifferent	Street tree along Nestle Avenue Tarmac up to the base of the trunk Prominent amenity feature Structure typical for the species Cohesive canopy with companions on site Forks at c.3m, reaction wood visible on underside of NE stem, ribbing down trunk Moderate arboricultural quality	B2	6.9*
179	Common Lime	575	19m	5.75	5.5	5	5.75		3.5	3.5	Mature	Average	Indifferent	Street tree along Nestle Avenue Tarmac up to the base of the trunk Prominent amenity feature Appears to have been previously topped at c.9m Moderate arboricultural quality	B2	6.9*
180	Common Lime	550	12m	7.5	6.25	5	6		3.25	3.5	Mature	Average	Moderate	Street tree along Nestle Avenue Tarmac up to the base of the trunk Prominent amenity feature Structure typical for the species Balanced radial scaffold structure and canopy Moderate arboricultural quality	B12	6.6*
181	Norway Maple	355	8m	5	4.25	4.25	5.5		2.75	2.75	Early Mature	Below Average	Poor	Unsympathetically pruned Low arboricultural quality Poor example of the species	C1	4.2*
182	Norway Maple	280	7m	3	3.5	3.25	3.75		2.5	2.5	Early Mature	Below Average	Poor	Unsympathetically pruned Low arboricultural quality Sparse canopy Poor example of the species	C1	3.3*
G1	Snowy Mespilus Fig	9*80# 2*100# 10*60# Max	5m max					3.5 max	0.5	1.5	Semi Mature	Average	Indifferent	Collection of low quality ornamental plantings 2no. Snowy Mespilus and 3no. Fig 1no. Tree removed on eastern end as of 26.01.17	C12	3.9*



Tree Number	Common Species Name	Trunk Diameter (mm)	Height (m)	Crown Spread (m)				First Significant Branch (m)	Crown Clearance (m)	Life Stage	Physiological Condition	Structural Condition	Comments	BS5837 Category	RPA Radius (m)	
				N	E	S	W									Radial
G2	Whitebeam cotoneaster Elder Lime Holly	160 max	4m max					3 max	0.5	1	Semi Mature	Average	Indifferent	Ornamental border	C1	1.8*
G3	Ornamental Cypress	150 max	5 max					1.5 max	0.5	0.5	Semi Mature	Average	Indifferent	Parcel of ornamental plantings Low quality group	C12	1.8
G4	Juniper Holly Ornamental Cypress	100# max	3.5m max					1.5 max	-	0	Semi Mature	Average	Indifferent	Belt of ornamental plantings Unremarkable collection	C12	1.2
G5	Lawson Cypress Hazel Yew Holly Cotoneaster Elder	120 max	5m max					3 max	0.5	0.5	Semi Mature	Average	Indifferent	Unremarkable belt of ornamental shrubs around the western edge of the bowling green	C12	1.5
G6	Norway Maple Silver Birch Bird Cherry Hornbeam Rowan Holly	330 max	8m max					3.25 max	1.5 av	1.5 av	Semi Mature	Average	Indifferent	Parcels of ornamental plantings establishing along an earth bund Low quality specimens Currently unremarkable examples of these species and readily replaced	C1	3.9
G7	Rowan	150# max	6m max					2 max	-	-	Semi Mature	Below Average	Poor	3no. Rowans set within a planting bed Appear to be in a state of terminal decline Low quality	U	N/A
G8	Hawthorn Elder Buddleia	280 max	5m max					3.5 max	0.5	0.5	Semi Mature to Early Mature	Average	Indifferent	Intermittent self-set along the northern boundary with railway Low quality	C12	3.3
H1	Lawson Cypress	120 max	6m max					1.5 max	-	0.5	Semi Mature	Below Average	Indifferent	Ornamental hedge Intermittent with dieback Low quality	C12	1.5
H2	Lawson Cypress	265 max	12m max					4.5 max	0.5	0.5	Early Mature	Average	Indifferent	Ornamental hedge Unmaintained and overgrown Low arboricultural quality Planted on an raised earth bund, defining a section of the northern boundary	C12	3.3

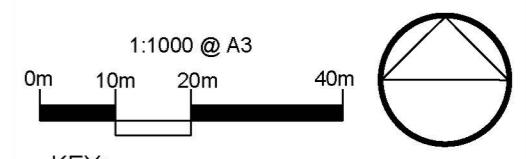




APPENDIX C

TREE CONSTRAINTS PLAN (9236 TCP 01 Rev A)





- KEY:
- 15 Tree Numbers
  - Tree Canopies
  - [8] Category 'U' Trees
  - Category 'A' RPA
  - Category 'B' RPA
  - Category 'C' RPA
  - [15] Fallen/Removed Tree (as of 26.01.17)

Note: Trees 24, 151, 176 and Group G8 are not on the topographical survey and their locations have been approximated using a scale aerial photograph combined with measurements taken on site.



Cited from Google Earth

A	10.02.17	Trees removed as of 26.01.17	GW	JB
REV	DATE	NOTE	Drawn	Chk'd
REVISIONS				



TITLE  
**Former Nestle Factory  
 Tree Constraints Plan**

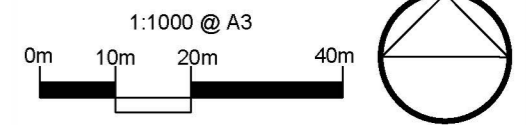
CLIENT  
**Barton Willmore**

SCALE	DATE	DRAWN
1:1000 @ A3	FEB 2017	GW
DRAWING NUMBER	REVISION	
9236 TCP 01 Rev A (North)	A	

Based on topographical survey ref: 20897\_OGL\_REV 0.dwg







- KEY:
- 15 Tree Numbers
  - Tree Canopies
  - [8] Category 'U' Trees
  - Category 'A' RPA
  - Category 'B' RPA
  - Category 'C' RPA
  - 15 Fallen/Removed Tree (as of 26.01.17)

Note: Trees 24, 151, 176 and Group G8 are not on the topographical survey and their locations have been approximated using a scale aerial photograph combined with measurements taken on site.



Cited from Google Earth

A	10.02.17	Trees removed as of 26.01.17	GW	JB
REV	DATE	NOTE	Drawn	Chk'd
REVISIONS				



TITLE  
**Former Nestle Factory  
 Tree Constraints Plan**

CLIENT  
**Barton Willmore**

SCALE	DATE	DRAWN
1:1000 @ A3	FEB 2017	GW
DRAWING NUMBER	REVISION	
9236 TCP 01 Rev A (South)	A	

Based on topographical survey ref: 20897\_OGL\_REV 0.dwg



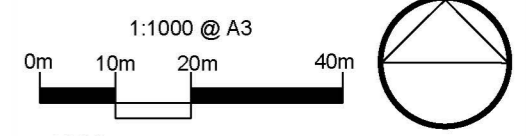
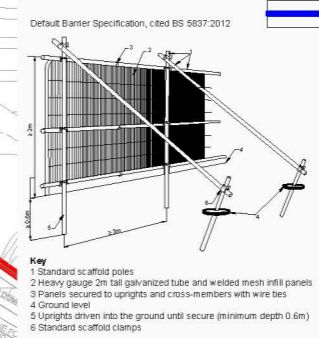
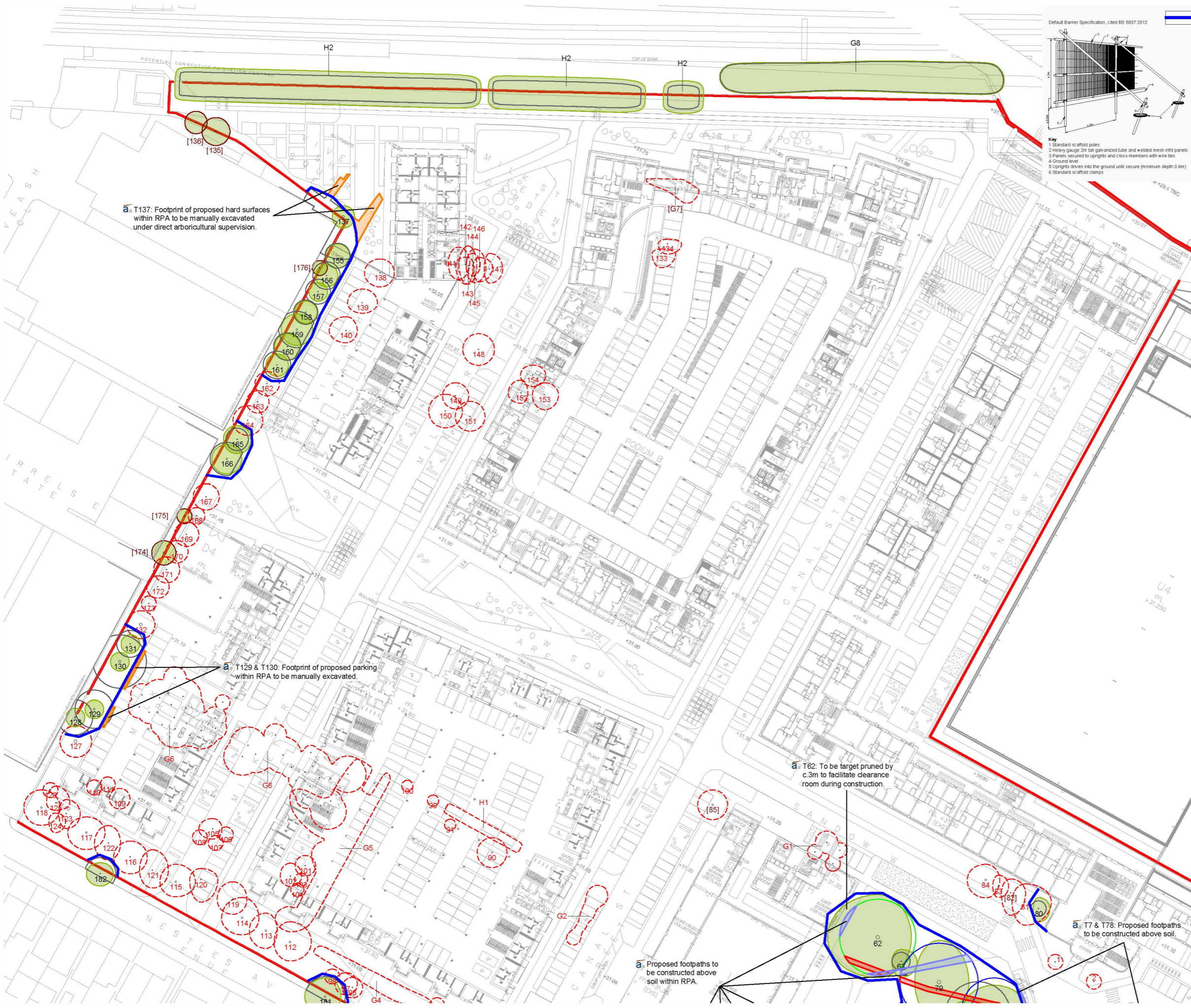
APPENDIX D

TREE PROTECTION PLAN (9236 TPP 01 Rev A)









- KEY:
- Tree Numbers
  - Tree Canopies
  - Category 'U' Trees
  - Category 'U' Trees Removed
  - Category 'A' RPA
  - Category 'B' RPA
  - Category 'C' RPA
  - Trees to be Removed
  - Manual Excavation
  - Above Soil Surfacing
  - Hard Surface Removal
  - Tree Protection Barrier

Note: Trees 24, 151, 176 and Group G8 are not on the topographical survey and their locations have been approximated using a scale aerial photograph combined with measurements taken on site.



Cited from Google Earth

A	21.04.17	Updated layout from architect	GW	RC
REV	DATE	NOTE	Drawn	Chk'd
REVISIONS				



TITLE  
Former Nestle Factory  
Tree Protection Plan

CLIENT  
Barton Willmore

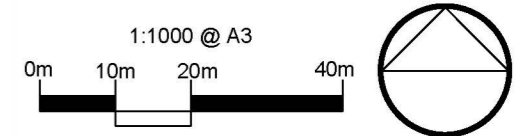
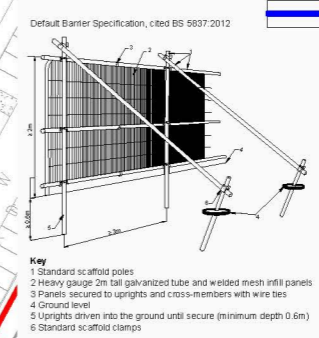
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1:1000 @ A3	APR 2017	GW
DRAWING NUMBER	REVISION	
9236 TPP 01 Rev A (North)	A	

Based on layout ref: 170406\_NFH-Masterplan\_Sheet - MP 100 - MASTERPLAN - Ground Floor Plan.dwg









- KEY:
- Tree Numbers
  - Tree Canopies
  - Category 'U' Trees
  - Category 'U' Trees Removed
  - Category 'A' RPA
  - Category 'B' RPA
  - Category 'C' RPA
  - Trees to be Removed
  - Manual Excavation
  - Above Soil Surfacing
  - Hard Surface Removal
  - Tree Protection Barrier

Note: Trees 24, 151, 176 and Group G8 are not on the topographical survey and their locations have been approximated using a scale aerial photograph combined with measurements taken on site.



Cited from Google Earth

A	21.04.17	Updated layout from architect	GW	RC
REV	DATE	NOTE	Drawn	Chk'd
REVISIONS				



TITLE  
Former Nestle Factory  
Tree Protection Plan

CLIENT  
Barton Willmore

SCALE	DATE	DRAWN
1:1000 @ A3	APR 2017	GW
DRAWING NUMBER	REVISION	
9236 TPP 01 Rev A (South)	A	

Based on layout ref: 170406\_NFH-Masterplan\_Sheet - MP 100 - MASTERPLAN - Ground Floor Plan.dwg





APPENDIX E

TREE SURVEY METHODOLOGY





## Tree Survey Methodology

The tree survey is a form of Visual Tree Assessment undertaken during April 2016 and revisited during January 2017. Tree locations are identified via a topographical survey; locations of any trees excluded from the topographical survey were plotted on site. The purpose of the survey is to record information about trees on or adjacent to the site to inform design options. In keeping with clause 4.4 of BS5837: 2012 'Trees in Relation to Design, Construction and Demolition', the survey provides a record of the following parameters:

**Tree Numbers:** all individual trees are sequentially numbered. Groups of trees, woodlands and hedgerow are also sequentially numbered with a corresponding prefix relevant to their type e.g. G, W or H respectively; the identification of trees as woodland, groups of trees or within hedgerows is undertaken where appropriate. The identification of trees as individuals within collections has been made where it is considered sensible to make such a differentiation.

**Species:** listed by common name

**Stem Diameter:** given in millimetres and obtained by measuring single/multiple stems at 1.5m using a diameter tape in accordance with Annex C within BS5837:2012. Diameters of inaccessible trunks are estimated and provided with the suffix '#'.

**Tree Heights:** determined using a clinometer and measured to the nearest 500mm. Heights are estimated where specific triangulation is not achievable and by reference to measured trees nearby (provided with the suffix '#').

**Crown Spreads:** measured at cardinal points using a Leica Disto™ laser distance measurer. Measurements were recorded to the nearest 250mm. Inaccessible crown spreads are estimated based on measured canopies nearby and provided with the suffix '#'

**Crown Clearance:** The height of the first significant living branch and/or canopy (as appropriate) is recorded using a Leica Disto™ laser distance measurer to inform vertical ground clearance. Crown clearance may be higher or lower than the first significant branch. Estimated clearances are provided with the suffix '#'. Height of first significant branch will be provided where considered advantageous to make the distinction.

**Life Stage** – The age of trees, groups of trees, hedges and woodlands are defined as follows:

- Young (within the first 1/4<sup>th</sup> of life expectancy)
- Semi-mature (within the second 1/4<sup>th</sup> of life expectancy)
- Early Mature (within the third 1/4<sup>th</sup> of life expectancy)
- Mature (within the fourth 1/4<sup>th</sup> of life expectancy)
- Over Mature and Veteran (exceeding normal life expectancy)
- Veteran (significantly exceeding normal life expectancy)

**Physiological and structural condition:** physiological condition defined as follows; good, above average, average, below average, poor or dead. Structural condition is defined as: good, moderate, indifferent, poor or hazardous

**Comments:** further observations were recorded where necessary i.e. details regarding defects, preliminary management recommendations, presence of pest/disease and perceived significance.

**BS5837 Category:** pursuant to BS5837:2012 section 4.5 and cascade chart for tree quality assessment (refer to reproduced Table 1 overleaf). Trees qualifying under a given category (A-C and U) and any appropriate subheading (1-3) are considered to fall within the scope of that category's definition.

**Estimated Remaining Contribution.** Described` as a guideline only and in terms of years: <10, 10+, 20+ and 40+ relevant to category U, C, B and A respectively. This information is not provided on the tree schedule to avoid conclusions based upon 'life expectancy'.

Table 1 Cascade chart for tree quality assessment

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

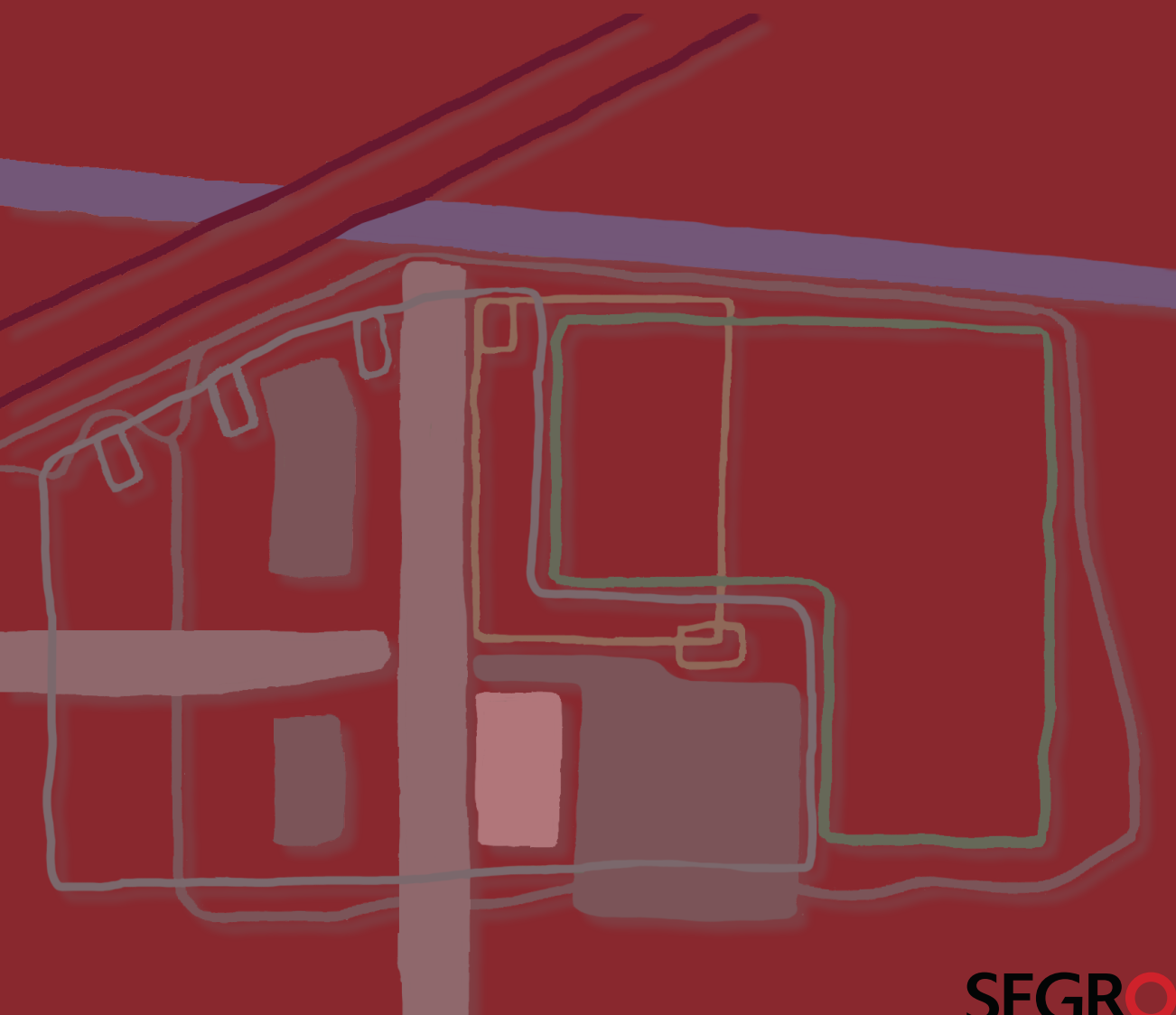


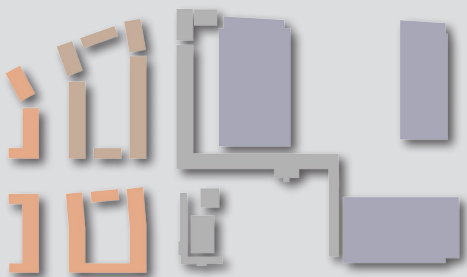
# FORMER NESTLE FACTORY, HAYES

ARBORICULTURAL IMPACT ASSESSMENT

(Industrial Scheme)

MAY 2017





**SEGRO**



TALA  
54 Kenilworth Avenue  
London  
SW19 7LW

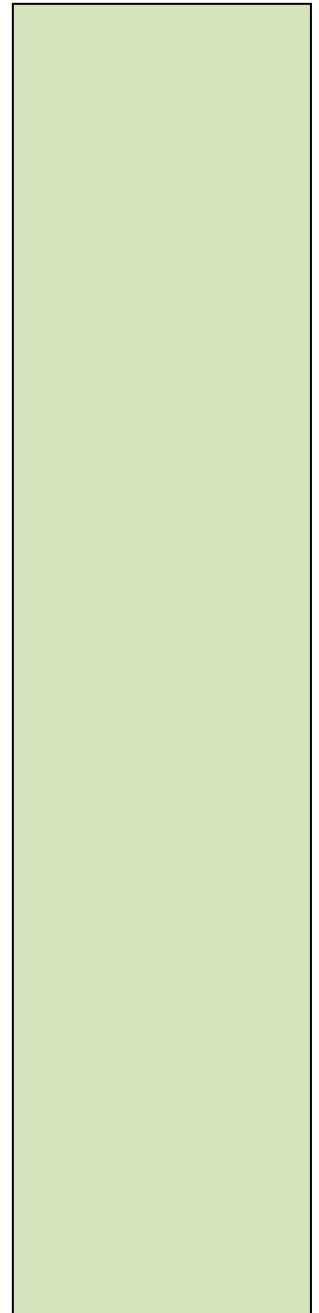
SEGRO

and

BARRATT  
— LONDON —

Former Nestle Factory  
Nestles Avenue  
Hayes

**Arboricultural Impact Assessment**  
(Industrial)



April 2017

 **TALA**  
TERRY ANDERSON LANDSCAPE ARCHITECTS



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Survey Definitions and Schedule

APPENDIX 2  
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## **1 INTRODUCTION**

### **1.1 Survey Undertaken an Summary**

- 1.1.1 A total 31 nr. individual trees and 8 nr. tree groups have been surveyed, see Plan 1 in Appendix 2. The survey schedule prepared follows the guidance provided in BS 5837 'Trees in relation to construction' (2012). The majority of trees surveyed are in a sound condition with only 5 nr. individual trees and 3 nr. tree groups where there are defective aspects to the trees structure. All of the trees that are to remain on site will, in the long term, require some form of maintenance work which should be undertaken by an arboricultural contractor who is a member of the Arboricultural Association or similar professional body.
- 1.1.2 This report and the attached drawings are in support of the planning application submitted by SEGRO and Barratt London. This report considers the industrial part of the proposals.

### **1.2 Survey Scope**

- 1.2.1 The survey undertaken was by means of a visual inspection at ground level and therefore, any statements made regarding the potential extent of decay or structural damage either at ground level or within a tree's upper crown, is based on what can be seen and is therefore an indication of the trees structural health. There may, as a result of these visual observations, be a necessity to undertake additional investigative work to determine the extent of any areas of decay or damage identified at this stage. All recommendations expressed within the survey's conclusions are based on the current condition, health and potential safe life expectancy of individual trees which may change over time. As recommended below regular surveys should be undertaken to monitor the health of the tree stock.

### 1.3 **Site Description**

- 1.3.1 The site for which a planning application is being made comprises of the former Nestle Factory and associated external boundary tree planting. The site is divided into halves with proposals for a commercial development to the east and housing to the west. The tree survey for the western side of the site is separately submitted. Many of the existing trees on both sides of the site are to be retained, particularly those along the southern boundary.

## **2 PLANNING FRAMEWORK**

### **2.1 Current Policies**

2.1.1 The National Planning Policy Framework (NPPF, 2012) states *‘planning permission should be refused for development resulting in the loss or deterioration or irreplaceable habitats, including ancient woodland and the loss of aged or veteran trees found outside ancient woodland, unless the need for, and benefits of, the development in that location clearly outweigh the loss’* (para. 118).

2.1.2 The London Plan (March 2016) Policy 7.21 – Trees and Woodlands, specifies that: *“Existing trees of value should be retained and any loss as a result of development should be replaced following the principle of ‘right place, right tree’. Wherever appropriate, the planting of additional trees should be included in new developments, particularly large-canopied species.”*

2.1.3 The London Borough of Hillingdon (LBH), Policy BE38 states: *“Development proposals will be expected to retain and utilise topographical and landscape features of merit and provide new planting and landscaping wherever it is appropriate. Planning applicants for planning consent will be required to provide an accurate tree survey showing the location, height, spread and species of all trees where their proposals would affect any existing trees”*. The LBH also requires that all arboricultural surveys are undertaken in compliance with BS5837. LBH policy BE39 relates to Tree Preservation Orders (TPO). From an online search it appears that the London Borough of Hillingdon has not currently made any Tree Preservation Orders within or immediately adjacent to the application site. LBH require an arboricultural survey and assessment informed by BS5837 to accompany proposals that may affect trees. This document has been prepared in direct response to this need.

### **2.2 Conservation Area**

2.2.1 The site falls within the Botwell Nestles Conservation Area and so trees within the conservation area are protected and, as such, any proposal to cut down or to carry out work on a tree in a conservation area requires the applicant to give the LBH six weeks prior notice. The Borough then has an opportunity to consider whether the tree(s) in question merit the added protection of a TPO.

### 3 SURVEY INFORMATION

#### 3.1 Tree Survey and Data Schedule

3.1.1 The tree survey was undertaken on 22<sup>nd</sup> October 2014 and reviewed on 29<sup>th</sup> March 2017. Each of the surveyed trees has been individually number and added to the topographical survey base. The survey information recorded included the following:

- Tree species
- An estimation of tree height
- An estimation of crown spread
- Tree condition observations
- Recommendations on remedial tree surgery / felling work
- Overall tree health categorisation, based on the criteria set out with BS 5837 'Trees in relation to design, demolition and construction' recommendations (2012)

The above survey information is recorded in the survey data schedule; see Appendix 1. The survey definitions are also included in this appendix. For the Tree Survey Plan see Appendix 2.

#### 3.2 Tree Quality

3.2.1 The quality and value of the tree stock contained within the proposed re-development area has been broken down in accordance with the tree quality 'grading' rational' as defined within BS 5837 ' Trees in relation to design, demolition and construction' recommendations (2012), and can be summarised as follows:

**A Grade** – Trees of very high value and quality, sound and healthy in the foreseeable future.

**B Grade** – Trees of high value and quality may be defective but correctable, 30 years expectancy.

**C Grade** – Trees defective not correctable, limited useful life.

**D Grade** – Trees defective, dangerous, diseased or dead.

Quality and Value of Existing Tree Stock	A Grade	B Grade	C Grade	D Grade
No. of Tree Records by Grade	0	4	34	1

See Table 1 in Appendix 1 for detail definitions.

### 3.3 Survey Observations

3.3.1 There is a mixture of many non native species throughout the area surveyed with the predominant species consisting London Plane (*Platanus x acerifolia*), Norway Maple (*Acer platanoides*) and Hornbeam (*Carpinus betulus*). The remaining species are Horse Chestnut (*Aesculus hippocastanum*), Holly (*Ilex aquifolium* "Van Tol"), Ash (*Fraxinus excelsior*), Western Red Cedar (*Thuja plicata*), Cedar of Lebanon (*Cedrus libani*), Yew (*Taxus baccata*), Caucasian Ash (*Fraxinus angustifolia* subsp. *oxycarpa*), Pear (*Pyrus* spp.), Red Oak (*Quercus rubra*), Scots Pine (*Pinus sylvestris*), Larch (*Larix decidua*), Himalayan Birch (*Betula utilis*), Sitka Spruce (*Picea sitchensis*), Douglas Fir (*Pseudotsuga menziesii* ech), Beech (*Fagus sylvatica*), Pin Oak (*Quercus palustris*), Silver Birch (*Betula pendula*), Paper Birch (*Betula papyrifera*), Common Lime (*Tilia x europea*), and Italian Cypress (*Cupressus sempervirens*).

3.3.2 The condition of the majority of the trees surveyed are good, with a few moderate and 2 trees and 2 tree groups in a poor condition.

### 3.4 Root Protection Areas and Tree Protection Plan

3.4.1 The Root Protection Area (RPA) is the area shown in plan as a radius from the centre of the tree within which the tree roots must be protected from excavation and disturbance. Where disturbance cannot be avoided, such work must be monitored by an arboriculturalist and or a Landscape Architect to ensure damage to the root system is minimised. The RPA areas have been set out in accordance with table.2 of BS5837:2012. The RPA areas for the trees surveyed are shown on Plan 2, see Appendix 3.

### **3.5 Tree Removal**

3.5.1 The trees to be felled are indicated on Plan 2, see Appendix 3 and total 19 nr. out of 83 nr. trees surveyed. Most of the trees to be removed are young to mature and are behind the main tree cover which is located along the southern boundary and which are to be retained.

3.5.2 Felling and clearance works should not be undertaken during the bird nesting season from 1<sup>st</sup> March to 31<sup>st</sup> August. No nesting birds may be disturbed until all young have fledged.

### **3.6 New Tree Planting**

3.6.1 A total of 148Nr. new trees are to be planted as part of the proposed commercial development. The trees species proposed are a mixture of native and ornamental species, see the landscape details submitted separately. The sizes of the trees to be planted will range from advanced nursery stock to semi mature.

### **3.7 Protective Barriers**

3.7.1 To ensure the protection of the existing retained trees a protective fence along the boundary of the proposed construction works area is proposed. This protective barrier is to be erected as indicated in Plan 2, see Appendix 3. The recommended barrier complies with the recommendations give in BS5837:2012. The protective barrier is to be erected before any construction works commence. Signs are to be attached to this fence at 25m intervals which state "Protected Trees Do Not Damage"

## **4 RECOMMENDATIONS**

### **4.1 Supervision**

- 4.1.1 It is recommended that supervision by an arboriculturalist and or a Landscape Architect for both the tree felling and clearance operations is undertaken. Their duties should also include regular inspections of the erection of the barriers to protect the existing trees to be retained (all to be undertaken before construction works commence). Periodic inspections are also to be undertaken to ensure that the protective fencing remains in place until the completion of all construction works.





**APPENDIX 1**  
**Survey Definitions and Schedule**



## Survey Definitions

Plan Number	Corresponds number sequence on site plan drawing
Species	Defined in Latin
Tree Age	Expressed ST = Recently Planted 'Standard' SM = Semi Mature YM = Young Mature M = Mature
Height in Metres	Measured using a clinometer.
DBH in cm	Stem diameter measured at 1.5 Metres above ground level. Measurement taken in accordance with BS 5837 Trees in relation to design, demolition & construction – Recommendations (2012)
Crown Spread direction.	Approximate total crown spread estimated in metres across a single direction.
Observations	Root Condition: The visual assessment of the rooting area, taking into consideration any evidence of physical damage, soil compaction, excavation work and/or drainage problems.  Stem Condition: The visual assessment of the stem and main scaffold branches inspecting for visible faults and wounds, and sign which may suggest the possibility of internal faults.  Leaf & Bud: The visual assessment of the amount and condition of foliage or bud development, when compared to the foliage of the surrounding trees of the same species.
Recommendations.	The recommendations for any tree surgery work
B.S 5837 Categories	Trees in relation to design, demolition & construction (2012) Green Trees of high quality and value: Blue Trees of moderate quality and value: Grey Trees of low quality and value: Red Trees for removal:
Root Protection Area	BS 5837 (2012) defines the 'Root Protection Area' (RPA) as a "layout design tool indicating the minimum area around a tree deemed to contain sufficient roots and rooting volume to maintain the tree's viability, and where the protection of the roots and soil structure is treated as a priority". The calculation for the RPA area is based on a mathematical formula derived from a tree's stem diameter.
Re-inspection programme	In all cases it is recommended that mature trees are inspected at least twice per year, just after bud burst to assess leaf condition and early Autumn to look for evidence of 'Decay Pathogens'.



**Table 1 – Cascade chart for tree quality assessment**

<b>TREES FOR REMOVAL</b>				
<b>Category and definition</b>	<b>Criteria (include subcategories where appropriate)</b>			<b>Identification on plan</b>
<p><b>Category D</b> Trees defective, dangerous, diseased or dead.</p>	<ul style="list-style-type: none"> <li>Trees that have a serious, irremediable, structural defect, such that their early loss is expected due to collapse including those that will become unviable after removal of other U category trees (e.g. where, for whatever reason, the loss of companion shelter cannot be mitigated by pruning)</li> <li>Trees that are dead or are showing signs of significant, immediate, and irreversible overall decline</li> <li>Trees infected with pathogens of significance to the health and/or safety of other trees nearby or very low quality trees suppressing adjacent trees of better quality</li> </ul> <p>NOTE Category U trees can have existing or potential conservation value which it might be desirable to preserve:</p>			DARK RED
<b>TREES TO BE CONSIDERED FOR RETENION</b>				
<b>Category and definition</b>	<b>Criteria – Subcategories</b>			<b>Identification on plan</b>
	<b>1 Mainly arboricultural values</b>	<b>2 Mainly landscape values</b>	<b>3 Mainly cultural values, including conservation</b>	
<p><b>Category A</b> Trees of very high value and quality, sound and healthy in the foreseeable future.</p>	Trees that are particularly good examples of their species, especially if rare or unusual, or essential components of groups, or of formal or semi-formal arboricultural features (e.g. the dominant and/or principal trees within an avenue)	Trees, groups or woodlands of particular visual importance as arboricultural and/or landscape features	Trees, groups or woodlands of significant conservation, historical, commemorative or other value (e.g. veteran trees or wood-pasture)	LIGHT GREEN
<p><b>Category B</b> Trees of high value and quality may be defective but correctable, 30 years expectancy.</p>	Trees that might be include in the category A, but are downgraded because of impaired condition(e.g. presence of remediable defects including unsympathetic past management and storm damage), such that they are unlikely to be suitable for retention for beyond 40 years; or trees lacking the special quality necessary to merit the category A designation	Trees present in numbers, usually growing as groups or woodlands, such that they attract a higher collective rating than they might as individuals; or trees occurring as collectives but situated so as to make little visual contribution to the wider locality	Trees with material conservation or other cultural value	MID BLUE
<p><b>Category C</b> Trees defective not correctable, limited useful life.</p>	Unremarkable trees of very limited merit or such impaired condition that they do not qualify in higher categories.	Trees present in groups or woodlands, but without this conferring on them significantly greater collective landscape value; and/or trees offering low or only temporary /transient landscape benefits.	Trees with no material conservation or other cultural value	GREY



## Survey Schedule

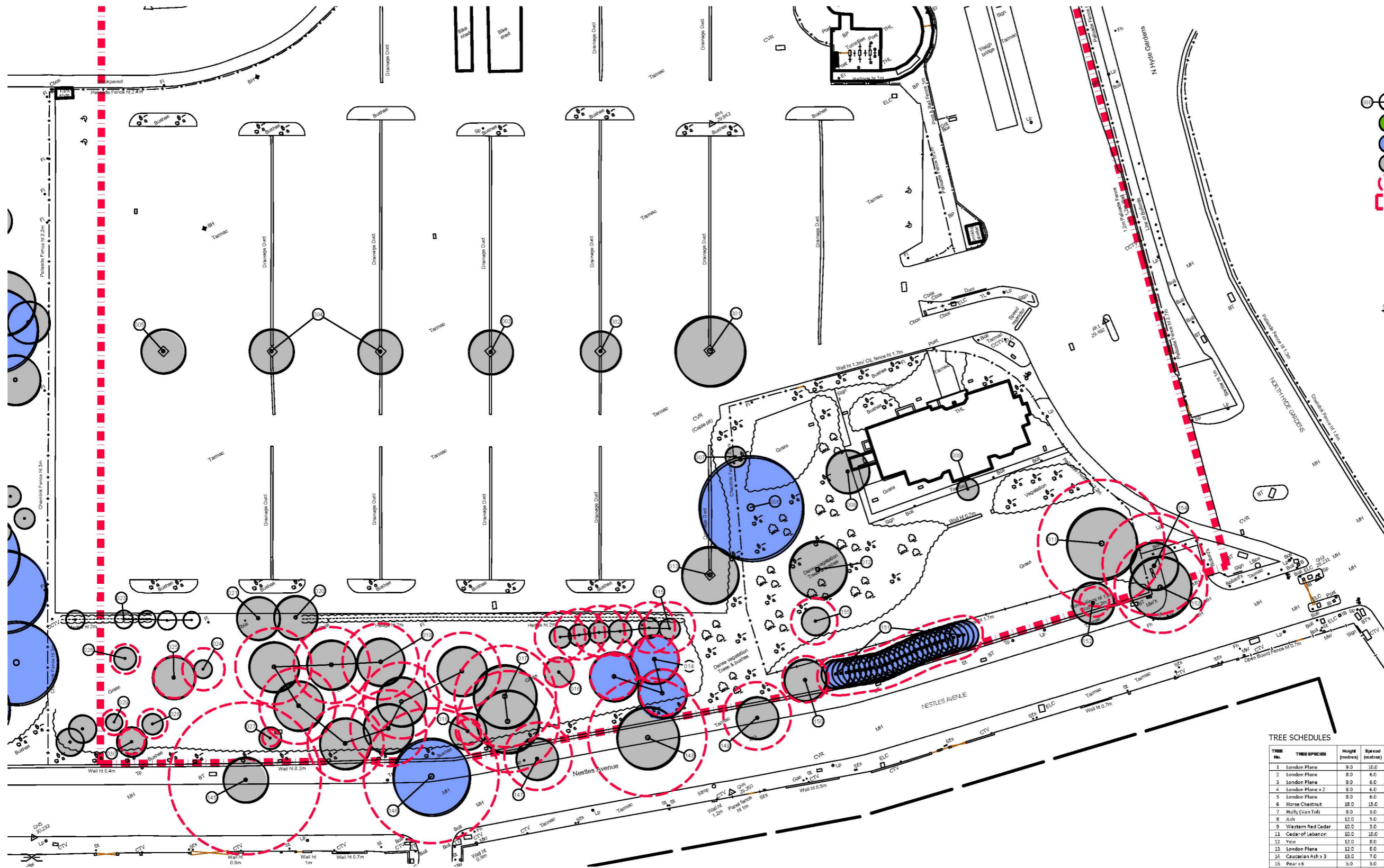
TREE No.	TREE SPECIES	Height (metres)	Spread (metres)	Trunk diam. (mm)	Clear Trunk (metres)	Age	Amenity Value	Condition	COMMENTS
1	London Plane	9.0	10.0	400	1.8	Y/M	C	1	
2	London Plane	8.0	6.0	250	2.0	Y/M	C	1	
3	London Plane	8.0	6.0	250	2.0	Y/M	C	1	
4	London Plane x 2	8.0	6.0	250	2.0	Y/M	C	1	
5	London Plane	8.0	6.0	250	2.0	Y/M	C	1	
6	Horse Chestnut	18.0	15.0	3 x 700	2.8	M	B	1	
7	Holly (Van Tol)	8.0	3.0	225	-	Y/M	C	1	Leaning slightly
8	Ash	12.0	5.0	2 x 200	1.8	Y/M	C	2	
9	Western Red Cedar	10.0	3.0	2 x 200	0.3	M	C	3	
11	Cedar of Lebanon	10.0	10.0	3 x 500	-	M	C	2	Ivy clad
12	Yew	12.0	8.0	300	0.5	Y/M	C	1	
13	London Plane	12.0	8.0	300	2.2	Y/M	C	1	Split in main stem
14	Caucasian Ash x 3	13.0	7.0	300	2.7	M	B	1	
15	Pear x 6	5.0	3.0	300	1.7	M	C	3	
16	Red Oak	7.0	4.0	175	1.7	Y	C	1	
17	Scots Pine x 2	20.0	9.0	600	4.0	M	C	1	
18	Caucasian Ash	8.0	5.0	150	4.0	Y	C	1	
19	Larch x 8	12.0	7.0	450	2.4	M	C	2	
20	Norway Maple	7.0	6.0	300	2.2	Y/M	C	1	
21	Ash	10.0	6.0	300	3.0	Y/M	C	1	
23	Himalayan Birch x 4	5.0	2.5	150	1.8	Y	D	3	
24	Sitka Spruce	9.0	2.5	250	-	Y/M	C	1	
25	Douglas Fir	8.0	6.0	250	0.6	Y	C	1	
26	Beech	8.0	3.0	175	1.0	Y	C	1	
27	Pin Oak	5.0	3.0	100	0.9	Y	C	1	
28	Silver Birch	9.0	3.0	175	-	Y	C	1	
29	Paper Birch	5.0	2.5	150	1.7	Y	C	1	
30	Silver Birch	7.0	4.0	150	1.5	Y	C	1	
145	Norway Maple	14.0	6.0	900	3.5	M	C	2	Pollarded
146	Lime	22.0	11.0	800	4.0	M	B	1	
147	Norway Maple	9.0	6.0	400	2.5	Y/M	C	2	Damage to main stem
148	Lime	16.0	9.0	700	3.0	M	C	1	Dieback
149	Norway Maple	9.0	6.0	400	2.1	Y/M	C	1	
150	Hornbeam	9.0	6.0	2 x 200	2.0	Y	C	3	Ivy covered
151	Hornbeam x 26	18.0	4.0	250	1.8	Y	B	3	
152	Hornbeam	7.0	6.0	175	0.7	Y	C	1	
153	Italian Cypress	13.0	9.0	550	3.5	M	C	3	Main stem damage
154	Ash	12.0	7.0	600	1.5	M	C	3	Central leader removed
155	Holly (Van Tol)	10.0	4.0	275	2.0	M	C	1	



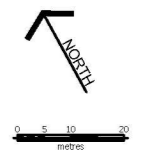


APPENDIX 2  
Tree Survey Plan 1





- SURVEYED TREE
- TREES OF HIGH QUALITY
- TREES OF MODERATE QUALITY
- TREES OF LOW QUALITY
- ROOT PROTECTION AREA OF RETAINED TREES
- REVIEWED TREES (APRIL 2017)



NOTES  
 Survey undertaken on 22nd October 2014  
 Survey Review undertaken on 29th March 2017  
 Review of Trees: 1-30 and 145-155  
 Survey in accordance with BS5837:2012

TREE SCHEDULES

TREE No.	TREE SPECIES	Height (metres)	Spread (metres)	Trunk diam. (mm)	Clear Trunk (metres)	Age	Artenity Value	Condition	COMMENTS
1	London Plane	9.0	10.0	300	1.8	V/M	C	1	
2	London Plane	8.0	6.0	250	2.0	V/M	C	1	
3	London Plane	8.0	6.0	250	2.0	V/M	C	1	
4	London Plane x 2	8.0	6.0	250	2.0	V/M	C	1	
5	London Plane	8.0	6.0	250	2.0	V/M	C	1	
6	Horse Chestnut	18.0	15.0	3 x 700	2.8	M	B	1	
7	Holly (Van Toli)	8.0	3.0	225	-	V/M	C	1	Leaving slightly
8	Ash	12.0	5.0	2 x 200	1.8	V/M	C	2	
9	Western Red Cedar	10.0	3.0	2 x 200	0.3	M	C	3	
11	Cedar of Lebanon	10.0	10.0	3 x 500	-	M	C	2	Ivy clad
12	Yew	12.0	8.0	300	0.5	V/M	C	1	
13	London Plane	12.0	8.0	300	2.2	V/M	C	1	Split in main stem
14	Caucasian Ash x 3	13.0	7.0	300	2.7	M	B	1	
15	Pear x 6	5.0	3.0	300	1.7	M	C	3	
16	Red Oak	7.0	4.0	175	1.7	Y	C	1	
17	Scots Pine x 2	20.0	9.0	600	4.0	M	C	1	
18	Caucasian Ash	8.0	5.0	150	4.0	Y	C	1	
19	Larch x 8	12.0	7.0	450	2.4	M	C	2	
20	Norway Maple	7.0	6.0	300	2.2	V/M	C	1	
21	Ash	10.0	6.0	300	3.0	V/M	C	1	
25	Himalayan Birch x 4	5.0	2.5	150	1.8	Y	D	8	
24	Sitka Spruce	9.0	2.5	250	-	V/M	C	1	
25	Douglas Fir	8.0	6.0	250	0.6	Y	C	1	
26	Beech	9.0	3.0	175	1.0	Y	C	1	
27	Pine Oak	5.0	3.0	150	-	Y	C	1	
28	Silver Birch	9.0	3.0	175	-	Y	C	1	
29	Paper Birch	5.0	2.5	150	1.7	Y	C	1	
30	Silver Birch	7.0	4.0	150	1.5	Y	C	1	
145	Norway Maple	14.0	6.0	900	3.5	M	C	2	Pollarded
146	Lime	22.0	11.0	800	4.0	M	B	1	
147	Norway Maple	9.0	6.0	400	2.5	V/M	C	2	Damage to main stem
148	Lime	15.0	9.0	700	3.0	M	C	1	Dieback
149	Norway Maple	9.0	6.0	400	2.1	V/M	C	1	
150	Hornbeam	9.0	6.0	2 x 200	2.0	Y	C	3	Ivy covered
151	Hornbeam x 26	18.0	4.0	250	1.8	Y	B	8	
152	Hornbeam	7.0	4.0	175	0.7	Y	C	1	
153	Italian Cypress	13.0	9.0	550	3.5	M	C	3	Main stem damage
154	Ash	12.0	7.0	600	1.5	M	C	3	Central leader removed
155	Holly (Van Toli)	10.0	4.0	275	2.0	M	C	1	

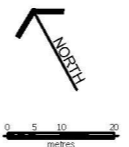
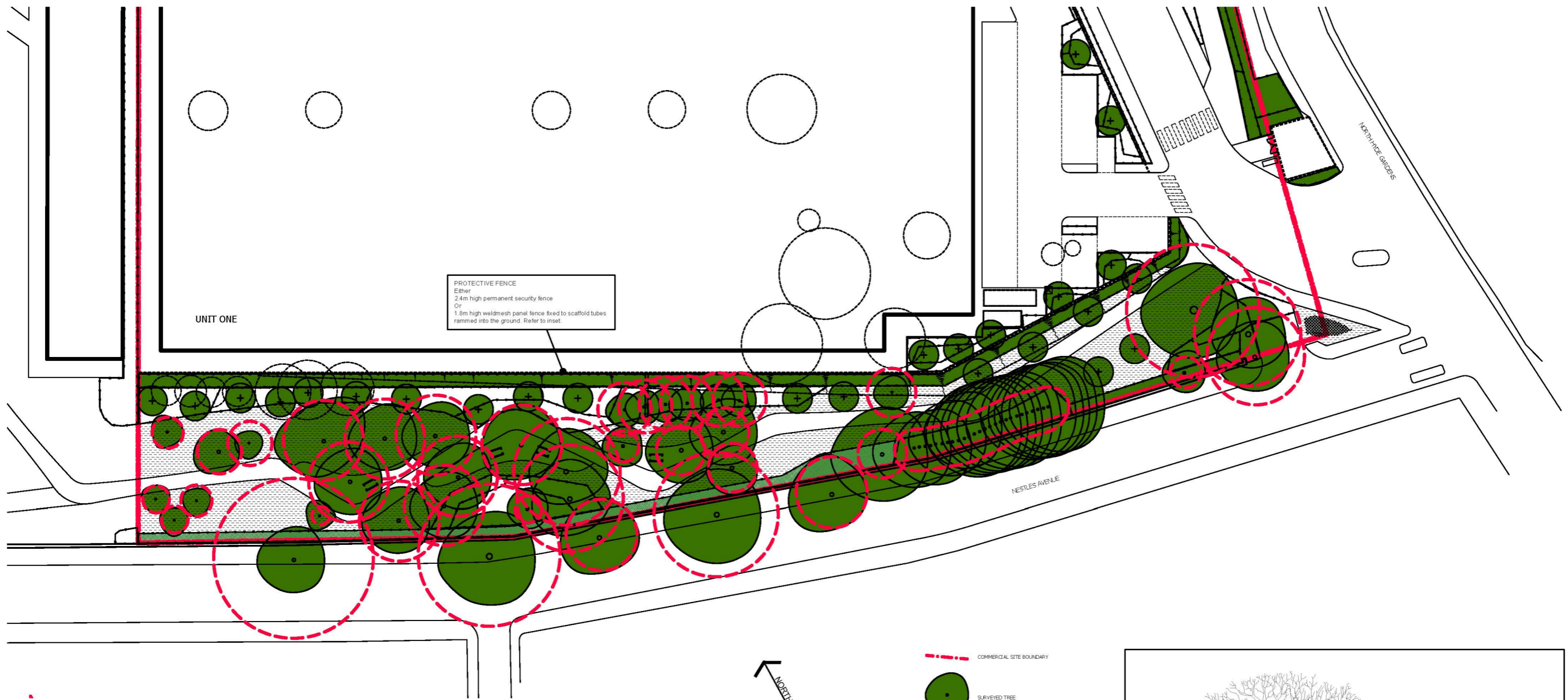
AGE	AMENITY VALUE	CONDITION
new	A Very high value	1 Sound - healthy in the foreseeable future
young	B High Value	2 Defective but correctable - 30 years expectancy
mature	C Young or some value	3 Defective not correctable - limited life expectancy
old	D Negligible value	4 Defective - dangerous, diseased or dead



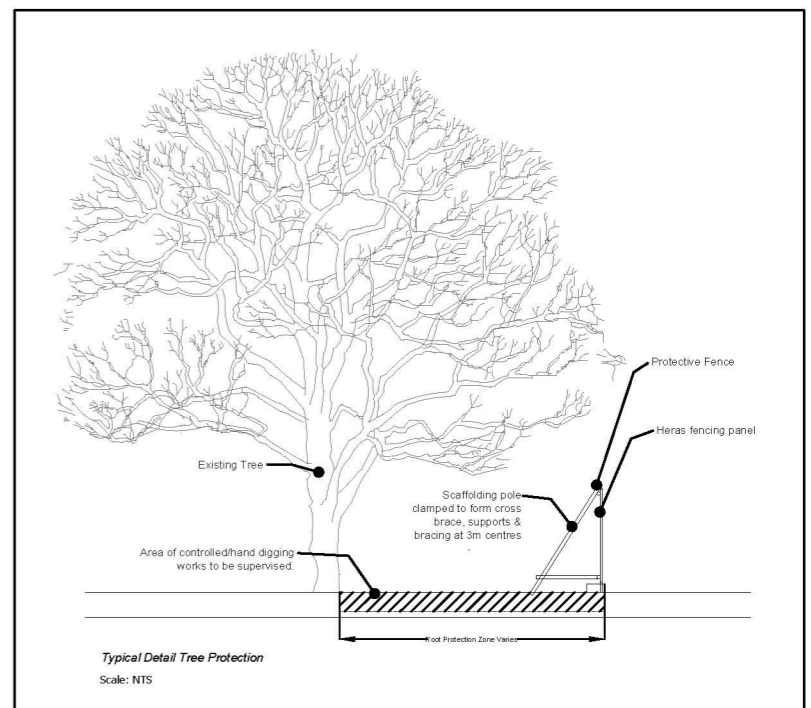
APPENDIX 3  
Tree Protection Plan 2







- COMMERCIAL SITE BOUNDARY
- SURVEILLED TREE
- TREE TO BE REMOVED
- ROOT PROTECTION AREA
- PROPOSED TREE
- PROPOSED PLANT BED
- PROPOSED HEDGE
- EXISTING VEGETATION
- GRASS AREA
















APPENDIX 4  
Landscape Plan 3





-  EXISTING TREE
-  TREE TO BE REMOVED
-  PROPOSED TREE
-  PLANT BED
-  HEDGE
-  EXISTING BOUNDARY HEDGE
-  GRASS AREA
-  WP WATERPOINT
-  CONTOURS (500mm intervals)



DATE	REV	DESCRIPTION
20/01/17	01	Final Issue for Comment
28/01/17	02	Final Issue





