

**ARBORICULTURAL SURVEY
FOR A PROPOSED DEVELOPMENT AT
UNIVERSITY OF HERTFORDSHIRE, COLLEGE LANE, HATFIELD, HERTFORDSHIRE**

Prepared For

Willmott Dixon Construction Limited
Willmott Dixon House
80 Wilbury Way
Hitchin
Herts
SG4 0TP

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ADDRESS

Brightwell Barns, Ipswich Road, Brightwell, Suffolk, IP10 0BJ

TELEPHONE

01603 298 076

FAX

01603 298 075

WEBSITE

www.geosphere-environmental.co.uk

DOCUMENT ISSUED RECORD

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Project:	University of Hertfordshire, College Lane, Hatfield, Hertfordshire
Project Number:	3000,AR
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Prepared by:	Richard Fenna Arboricultural and Ecological Consultant	Date:	10 August 2018
Reviewed by:	Katie Linehan Technical Director	Date:	10 August 2018
Authorised by:	Paul Davies Director	Date:	10 August 2018

Prepared by:	Geosphere Environmental Ltd, Brightwell Barns, Ipswich Road, Brightwell, Suffolk, IP10 0BJ. Telephone (01603) 298076. www.geosphere-environmental.co.uk
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REVISION RECORD

Revision	Date	Document	Prepared By:	Admin
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AMENDMENT RECORD

Revision	Date	Amendments
V2	10-08-18	Received up to date development plan

EXECUTIVE SUMMARY

Report Description	<p>Geosphere Environmental Limited was commissioned by Willmott Dixon Construction Limited, to undertake an arboricultural survey of University of Hertfordshire, College Lane, Hatfield, Hertfordshire.</p> <p>The site is located at National Grid Reference (NGR) TL 21031 08465. The report relates to the redevelopment of the site. A development plan has been provided as Drawing UHER-BBA-00-XX-DR-L-1003 P04 and is included within Appendix 6.</p> <p>The site covers an area of approximately 0.2 hectares (ha). This and the immediate surrounding area were surveyed.</p>
Summary of Main Findings	<p>The Tree Constraints Plan Drawings ref. 3000,AR/001-1/Rev 0 and 3000,AR/001-2/Rev 0 in Appendix 6, show the locations of all the trees surveyed with the canopy and root protection area plotted on the plan.</p> <p>A total of twenty-two trees and three groups of trees were surveyed.</p> <p>No trees were classed as category A, B or U trees. Twenty-two trees and three groups of trees were classified as Category C trees.</p> <p>The BGS digital mapping indicated that the site comprised of a bedrock layer of chalk, with a superficial layer of Lowestoft Formation (Diamicton). These soils, potentially contain cohesive materials which could indicate a risk of shrink/ swell that should be considered during foundation design.</p> <p>Tree Preservation Orders or Conservation Areas are not present within the site boundary.</p>
Preliminary Impact Assessment	<p>There are eight trees within the site boundary (T1 to T8), which are all small Category C trees providing a low-level landscape benefit. It should be possible to remove the trees. Some replacement trees are proposed to be planted, as part of the landscaping proposed within the scheme. The shrubs on site are not considered a constraint to development and can be removed as appropriate.</p>
Recommendations	<p>The Tree Constraints Plan should be consulted to ensure that the constraints posed by the trees are taken into account when designing the proposed development. For example, retained trees could be incorporated within the proposed landscaping surrounding the building.</p> <p>A Tree Retention Plan and a Tree Protection Plan may be required. This will include locations of trees to be retained, finalised locations of protective barriers, construction exclusion zones and any other protection that trees will require prior to commencement of construction. An Arboricultural Method Statement, Arboricultural Impact Assessment and Tree Management Plan should be supplied with the Tree Protection Plan.</p>

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1. INTRODUCTION

1.1 General

Geosphere Environmental Limited was commissioned by Willmott Dixon Construction Limited, to undertake an Arboricultural Survey of the site at University of Hertfordshire, College Lane, Hatfield, Hertfordshire. Any limitations and conditions pertaining to the report are stated within Appendix 1, with a full list of technical references provided within Appendix 2.

The site covers an approximate area of 0.2 hectares (ha), located at National Grid reference (NGR) TL 21031 08465.

The site boundary is shown on Figure 1, below:

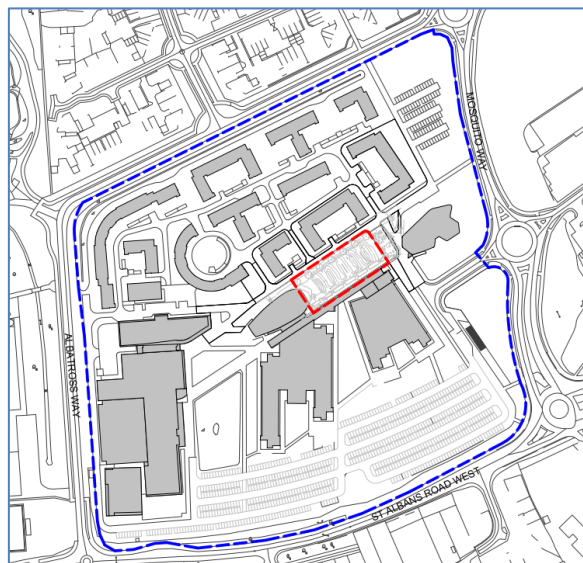


Figure 1 –The site boundary is outlined in red.

1.2 Aims

This report has been prepared to support a planning application and provides baseline data for an arboricultural assessment of the site and identifies the tree constraints and root protection areas of trees on or near the site which may be affected by future development.

2. TECHNICAL APPROACH

2.1 Arboricultural Survey

The arboricultural survey has been undertaken in general accordance with BS 5837:2012 (ref. **R.1**). The recommendations for tree remediation works are in accordance with current legislation and guidance, including BS 3998: 2010 Tree work- Recommendations (ref. **R.2**).

The data collected during this survey is based entirely upon arboricultural grounds and reflects the condition of the trees on the day the survey was undertaken. The locations of the trees were detailed on a topographical survey provided by the client. All locations of trees are assumed to be correct. Any trees not noted on the topographical plan have been added where appropriate during the tree survey.

Scientific names and common names of plant species identified are as they appear in Stace (ref. **R.3**). For species not listed in Stace, scientific and common names were taken from Johnson and More (ref. **R.4**).

2.2 Soil Assessment

A desk-based assessment of the soil was undertaken to determine potential for volume changing soils on site, using BGS mapping (ref. **R.5**).

2.3 Site Specific Limitations

Trees were surveyed without undertaking vegetation clearance. In cases where the trees were obscured or inaccessible, the parameters which could not be accurately measured were estimated as per BS 5837: 2012 (ref. **R.1**).

3. TREE SURVEY

The survey was undertaken by an experienced surveyor from Geosphere Environmental Ltd on 12 July 2018, to record data relevant to the assessment of the trees on and adjacent to the site.

3.1 Site Description

The site comprises of an area of open space within the grounds of the University. The area is landscaped with grass, trees, shrubs and footpaths.

3.2 Tree Survey Results

The results of the tree survey are shown within the Tree Survey Schedule in Appendix 3. A full description of the surveyed parameters is included in the Survey Schedule Description in Appendix 4. A key to the scientific names used is attached within Appendix 5. The results are summarised below:

- A total of twenty-two trees and three groups of trees were surveyed;
- No trees were classed as Category A trees. This is the highest classification available under BS 5837:2012. These trees are of high quality and confer particular visual importance on the landscape. These trees are likely to be required to be protected during the development;
- No trees were classified as Category B trees. These trees are of moderate quality and confer considerable importance on the landscape. These trees should be retained where possible during development;
- Twenty-two trees and three groups of trees were classified as Category C trees. These trees are of low quality and confer lower levels of benefits to the landscape. The local authority may find it acceptable to remove these trees during development;
- No trees were categorised as Category U trees. These trees are of poor condition and are unlikely to provide significant value to the landscape for more than 10 years. The local authority should find it acceptable to remove these trees during development.

3.3 Tree Constraints Plan

The Tree Constraints Plan Drawings ref. 3000,AR/001-1/Rev 0 and 3000,AR/001-2/Rev 0 have been prepared for the site and is attached within Appendix 6.

The Tree Constraints Plan describes the constraints that the trees may place on the development. The tree canopy and root protection area have been calculated using the stem diameter as per BS 5837:2012 (ref. **R.1**).

3.4 Soil Assessment

The BGS digital mapping (ref. **R.5**) indicated that the site comprised of a bedrock layer of Lewes Nodular Chalk Formation and Seaford Chalk Formation (undifferentiated) (Chalk), with a surface layer of Lowestoft Formation (Diamicton). These soils potentially contain cohesive materials and therefore there is a risk of shrink swell soil present on site. A further site investigation should be undertaken to confirm the findings of the BGS digital maps.

The combination of shrinkable soils and trees, hedgerows or shrubs represents a hazard to structures that requires special consideration. Trees and hedgerows can take moisture out of the ground. In cohesive soils this can cause volume change resulting in ground movement and damage to building foundations.

In order to minimise the risk, foundations should be designed in accordance to NHBC Standards Chapter 4.2 Building near Trees, (ref. **R.6**).

3.5 Permissions and Council Restrictions

Welwyn Hatfield Borough Council website (ref. **R.7**) indicated that no Tree Preservation Orders or Conservation Orders were present on site.

It is advisable to contact the local authority regarding Tree Preservation Orders and Conservation Areas before any tree works are carried out, as new Tree Preservation Orders can be made subsequent to the issuing of this report.

4. PRELIMINARY ARBORICULTURAL IMPACT ASSESSMENT

4.1 Proposed Development

A proposed site plan drawing ref. UHER-BBA-00-XX-DR-L-1003 P04 has been supplied by the client and is included within Appendix 6.

4.2 Constraints to Development

The trees within the site boundary (T1 to T8) are all relatively small trees. The trees are located within the footprint of the proposed building, so would have to be removed to facilitate development. These trees are all Category C trees, considered to provide low levels of landscape benefit. It should be acceptable to remove the trees.

G1, comprises of small shrubs and are not considered a constraint to development, and can be removed as appropriate. The remaining trees (T9 to T22) and groups (G2 to G3) are outside of the site boundary, it should be possible to retain these trees throughout development.

The trees to be removed are shown on the Tree Removal Plan, Drawing ref. UHER-BBA-00-XX-DR-L-6201 P01.

4.3 Tree Management

Standard avoidance measures to reduce the impact of development on trees as required by BS 5837:2012, (ref. **R.1**) is simplified as follows for any development type:

- A Consultant Project Arboriculturalist should be appointed to oversee the arboricultural aspects of the development project;
- The Root Protection Areas and above ground structures for retained trees must be protected during construction work with barriers as prescribed by BS 5837:2012, (ref. **R.1**). The locations of barriers should be determined once a finalised development plan has been produced;
- Once the protection areas have been finalised and the protective barriers have been erected, then these areas are to be considered construction exclusion zones. Any work within these zones will need prior agreement with the Consultant Project Arboriculturalist;
- Changes to the shape of the canopy of retained trees must be agreed with the Consultant Project Arboriculturalist before any works are undertaken, however, all construction within the canopy extent of a tree is best avoided to avoid potential damage to future buildings and to avoid recurring pruning regimes;
- Tree planting should form part of the soft landscaping on site to offset any trees which are removed during the development process. An appropriate after care scheme should be implemented to ensure the newly planted trees reach maturity.

5. RECOMMENDATIONS

The Tree Constraints Plan Drawings ref. 3000,AR/001-1/Rev 0 and 3000,AR/001-2/Rev 0 in Appendix 6 should be consulted to ensure that the constraints posed by the trees are taken into account when designing the proposed development. For example, retained trees could be incorporated within proposed landscape areas.

Further arboricultural planning is required once the proposed development plans have been finalised. The formal planning process with regards to trees will require the following additional information:

- A Tree Retention Plan should be designed once the layout of the development area has been finalised, and a final proposed development plan is available. This will show the locations of trees which will remain throughout the development works, and the trees which will be removed prior to the commencement of development;
- A Tree Protection Plan should be designed based upon the Tree Retention Plan. This will include finalised locations of protective barriers, construction exclusion zones and any other protection measures that trees will require prior to commencement of construction;
- An Arboricultural Impact Assessment, Arboricultural Method Statement, and Tree Management Plan should be supplied with the Tree Protection Plan. A Consultant Project Arboriculturalist should be appointed by the developer, to ensure all the arboricultural aspects of the redevelopment project are considered, from the planning stage onwards.

APPENDICES

APPENDIX 1 – REPORT LIMITATIONS AND CONDITIONS

This report was prepared only for our client and is not intended to be relied on by any other party.

The Executive Summary and Recommendations sections of the report provide an overview and guidance only and should not be specifically relied upon until considered in the context of the whole report.

Interpretations and recommendations contained in the report represent our professional opinions, which were arrived at in accordance with currently accepted industry practices at the time of reporting and based on current legislation in force at that time.

This report is prepared and written in the context stated in the introduction to this report and should not be used in a differing context. Furthermore, new information, improved practices and legislation may necessitate an alteration to the report in whole or in part after its submission. Therefore, with any change in circumstances or after the expiry of one year from the date of the report, the report should be referred to us for re-assessment and, if necessary, re-appraisal.

The trees were not climbed but surveyed from ground level. The survey recorded any defects which were observed, but a full tree health and safety inspection for the site is beyond the scope of this survey.

Any physical changes that happen to the site after the tree survey was undertaken have the potential to invalidate or change the findings of this report. Therefore, the consultant shall not be responsible for any event that may happen after the survey was undertaken due to factors that were not apparent at the time.

Any hazards that were visible on the day of the survey have been noted in the tree management recommendations section of the tree survey schedule (Appendix 4). However, this report should not be considered a substitute for a tree risk assessment or management plan, which would be required to minimize the risk and liability associated with the trees found on site.

APPENDIX 2 – REFERENCES

- R.1. BSI (2012). BS 5837:2012 Trees in relation to design, demolition and constructions- Recommendations.
- R.2. BSI (2010). BS 3998:2010 Trees work- Recommendations.
- R.3. Stace, C. A. (2010). New Flora of the British Isles (third edition), Cambridge University Press.
- R.4. Johnson and More (2006). Tree Guide, Harper Collins Publishers Ltd.
- R.5. British Geological Survey (accessed 30 July 2018) Geology of Britain Viewer website: <http://mapapps.bgs.ac.uk/geologyofbritain/home.html>.
- R.6. National House-Building Council, Standards, Chapter 4.2, 2003 'Building Near Trees'.
- R.7. Welwyn Hatfield Borough Council (accessed 30 July 2018) Local Information Search website: <http://www.welhat.gov.uk/article/3430/Local-Information-Search>

APPENDIX 3 – TREE SURVEY SCHEDULE

TREE SURVEY SCHEDULE

1	2	3	4	5	6				7	8	9	10	11	12	13	14	15	16
Tree No.	Species	Height (m)	Stem diameter (mm)	No. of Stems	Branch Spread (m)				First Branch Height (m)	Canopy Height (m)	Life Stage	Physiological Condition	Structural Condition	Tree Work Recommendations/ comments	Remaining Contribution (Years)	Category Grading	RPA (m ²)	RPA Radius (m)
					N	E	S	W										
# denotes estimated values due to lack of access																		
G1	Shrubs	1.0	0	-	0.5	0.5	0.5	0.5	0.0	0.0	-	-	-		10+	C	0.0	0.0
G2	Hazel, Common Lime, Dogwood	4.0	200	1	1	1	1	1	0.0	0.0	SM	G	G		20+	C	18.1	2.4
G3	Hawthorn, Dogwood	4.0	100	-	1	1	1	1	0.0	0.0	SM	G	G		20+	C	4.5	1.2
T1	Fir	8.0	123	1	1.5	1.5	1.5	1.5	0.5	2.0	SM	G	G		20+	C	6.8	1.5
T2	Common Lime	8.0	207	1	2	2	2	2	2.0	1.5	SM	G	G		20+	C	19.4	2.5
T3	Common Lime	8.0	208	1	2	2	2	2	2.0	1.5	SM	G	G		20+	C	19.6	2.5
T4	Common Lime	8.0	182	1	2	2	2	2	2.0	1.5	SM	G	G		20+	C	15.0	2.2
T5	Common Lime	8.0	187	1	2	2	2	2	2.0	1.5	SM	G	G		20+	C	15.8	2.2
T6	Common Lime	8.0	173	1	2	2	2	2	2.0	1.5	SM	G	G		20+	C	13.5	2.1

TREE SURVEY SCHEDULE

1	2	3	4	5	6				7	8	9	10	11	12	13	14	15	16
Tree No.	Species	Height (m)	Stem diameter (mm)	No. of Stems	Branch Spread (m)				First Branch Height (m)	Canopy Height (m)	Life Stage	Physiological Condition	Structural Condition	Tree Work Recommendations/ comments	Remaining Contribution (Years)	Category Grading	RPA (m ²)	RPA Radius (m)
					N	E	S	W										
# denotes estimated values due to lack of access																		
T7	Common Lime	8.0	150	1	2	2	2	2	2.0	1.5	SM	G	G		20+	C	10.2	1.8
T8	Common Lime	8.0	180	1	2	2	2	2	2.0	1.5	SM	G	G		20+	C	14.7	2.2
T9	Wild Chery	6.0	104	1	1.5	1.5	1.5	1.5	2.0	2.0	SM	G	G		20+	C	4.9	1.2
T10	Wild Chery	6.0	101	1	1.5	1.5	1.5	1.5	2.0	2.0	SM	G	G		20+	C	4.6	1.2
T11	Wild Chery	6.0	117	1	1.5	1.5	1.5	1.5	2.0	2.0	SM	G	G		20+	C	6.2	1.4
T12	Wild Chery	6.0	139	1	1.5	1.5	1.5	1.5	2.0	2.0	SM	G	G		20+	C	8.7	1.7
T13	Wild Chery	6.0	136	1	1.5	1.5	1.5	1.5	2.0	2.0	SM	G	G		20+	C	8.4	1.6
T14	Wild Chery	6.0	196	1	1.5	1.5	1.5	1.5	2.0	2.0	SM	G	G		20+	C	17.4	2.4
T15	Wild Chery	6.0	238	1	1.5	1.5	1.5	1.5	2.0	2.0	SM	G	G		20+	C	25.6	2.9
T16	Wild Chery	6.0	163	1	1.5	1.5	1.5	1.5	2.0	2.0	SM	G	G		20+	C	12.0	2.0
T17	Common Lime	5.0	121	1	1.5	1.5	1.5	1.5	2.0	2.0	SM	G	G		20+	C	6.6	1.5

TREE SURVEY SCHEDULE

1	2	3	4	5	6				7	8	9	10	11	12	13	14	15	16
Tree No.	Species	Height (m)	Stem diameter (mm)	No. of Stems	Branch Spread (m)				First Branch Height (m)	Canopy Height (m)	Life Stage	Physiological Condition	Structural Condition	Tree Work Recommendations/ comments	Remaining Contribution (Years)	Category Grading	RPA (m ²)	RPA Radius (m)
					N	E	S	W										
# denotes estimated values due to lack of access																		
T18	Common Lime	5.0	183	1	1.5	1.5	1.5	1.5	2.0	2.0	SM	G	G		20+	C	15.2	2.2
T19	Common Lime	4.0	45	1	0.5	0.5	0.5	0.5	1.0	1.0	Y	P	G	Suffering from drought	20+	C	0.9	0.5
T20	Common Lime	4.0	79	1	1	1	1	1	2.0	2.0	Y	G	G		20+	C	2.8	0.9
T21	Wild Cherry	7.0	230	1	2	2	2	2	2.0	2.0	SM	G	G		20+	C	23.9	2.8
T22	Wild Cherry	7.0	212	1	2	2	2	2	2.0	2.0	SM	G	G		20+	C	20.3	2.5

APPENDIX 4 – SURVEY SCHEDULE DESCRIPTIONS

TREE SURVEY SCHEDULE DESCRIPTION

Tree Survey Schedule Description		
Column Number	Heading	Description
1	Tree No.	Sequential reference number (as recorded on the tree constraints plan)
2	Species	Species listed by common name
3	Height (m)	Total height of the tree
4	Stem Diameter (mm)	Stem diameter measured at 1.5 m above ground level in accordance to BS 5837:2012
5	No of stems	Total number of stems of a tree
6	Branch spread (m)	Branch spread, taken at the four cardinal points, to derive an accurate representation of the crown (plotted on the tree constraints plan)
7	First branch hgt (m)	Existing height above ground level of first branch measured at the union with the stem
8	Canopy hgt (m)	Existing height of the average clearance of the canopy above ground level
9	Life stage	The age of the tree determined by life stage category: Y- young, SM- semi-mature, EM- early mature, M- mature, OM- over mature, V- veteran
10	Physiological condition	The physiological condition of a tree based on a tree health assessment: G- good, F- fair, P- poor, D- dead
11	Structural condition	The structural condition of a tree based on structural integrity and signs of structural defects which may cause failure: G- good, F- fair, P- poor, D- dead
12	Tree work recommendations/ comments	Work which is recommended for a tree to improve its longevity and safety in its present context. The recommendations are recorded primarily to assist with the categorisation of the trees. Please see Section 6, Tree Management for further limitations.
13	Remaining contribution (yrs)	Estimated remaining contribution in years that the trees will have on the landscape in their current context. A tree will not necessarily remain safe for the entirety of the remaining years. The remaining contribution has been categorised as follows: <10, 10+, 20+ and 40+
14	Category grading	The trees have been graded as per BS 5837: 2012 recommendations. The grading is formed by a letter and a number. The letter denotes the quality grading of the tree, the number represents one of three sub categories. Sub categories 1, 2 and 3 reflect arboricultural, landscape and cultural qualities respectively. The primary letter grading is as follows: U- Those in such a condition that they cannot realistically be retained as living trees in the context of the current land use for longer than 10 years A- Trees of high quality with an estimated remaining life expectancy of at least 40 years B- Trees of moderate quality with an estimated remaining life expectancy of at least 20 years C- Trees of low quality with an estimated remaining life expectancy of at least 10 years, or young trees with a stem diameter below 150 mm
15	RPA (m ²)	The root protection area calculated following BS 5837: 2012
16	RPA radius (m)	The root protection area radius calculated following BS 5837: 2012

APPENDIX 5 – KEY TO SCIENTIFIC NAMES

SCIENTIFIC NAMES KEY

Common Name	Scientific Name
Fir	<i>Abies sp.</i>
Dogwood	<i>Cornus sanguinea</i>
Hazel	<i>Corylus avellana</i>
Wild Cherry	<i>Prunus avium</i>
Common Lime	<i>Tilia x europaea</i>

Common and scientific names based on Stace (2010) New flora of the British Isles (3rd Edition), Cambridge University Press. For species not present in Stace, scientific and common and names were taken from Johnson and More (2006). Tree Guide, Harper Collins Publishers Ltd.

APPENDIX 6 – DRAWINGS

Tree Constraints Plan – Drawings Ref. 3000/001-1/Rev 0 and 3000/001-2/Rev 0

Proposed Site Plan – Drawing ref. UHER-BBA-00-XX-DR-L-1003 P04

Tree Removals Plan – Drawing ref. UHER-BBA-00-XX-DR-L-6201 P01

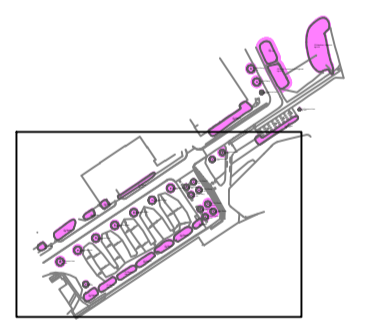


REV	DATE	DESCRIPTION
LEGEND		
	Category U	
	Category A	Trees of high quality
	Category B	Trees of moderate quality
	Category C	Trees of low quality
	RPA	RPA using formula in accordance with BS5837:2012

denotes estimated values due to lack of access

Trees categorised in accordance with BS5837:2012 "Trees in relation to design, demolition and construction - Recommendations"

The original of this drawing was produced in colour - a monochrome copy should not be relied upon



LOCATIONS ARE APPROXIMATE.



PROJECT
University of Hertfordshire,
College Lane, Hatfield, Hertfordshire






TITLE
Tree Constraints Plan

DRAWING NUMBER
3000,AR/001-1/Rev 0

CLIENT
Willmott Dixon Construction Limited

SCALE 1:200 @ A1 **DATE** 31/07/18

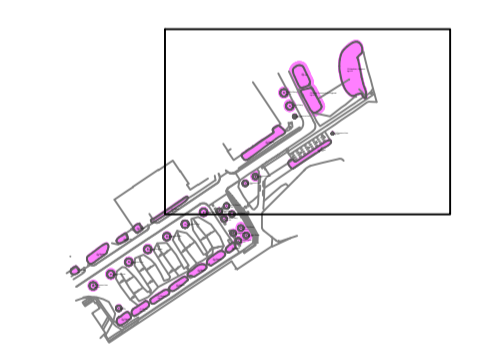
LEGEND

-  Category U
-  Category A
Trees of high quality
-  Category B
Trees of moderate quality
-  Category C
Trees of low quality
-  RPA using formula in accordance with BS5837:2012

denotes estimated values due to lack of access

Trees categorised in accordance with BS5837:2012 "Trees in relation to design, demolition and construction – Recommendations"

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LOCATIONS ARE APPROXIMATE.

PROJECT
University of Hertfordshire,
College Lane, Hatfield, Hertfordshire

TITLE
Tree Constraints Plan

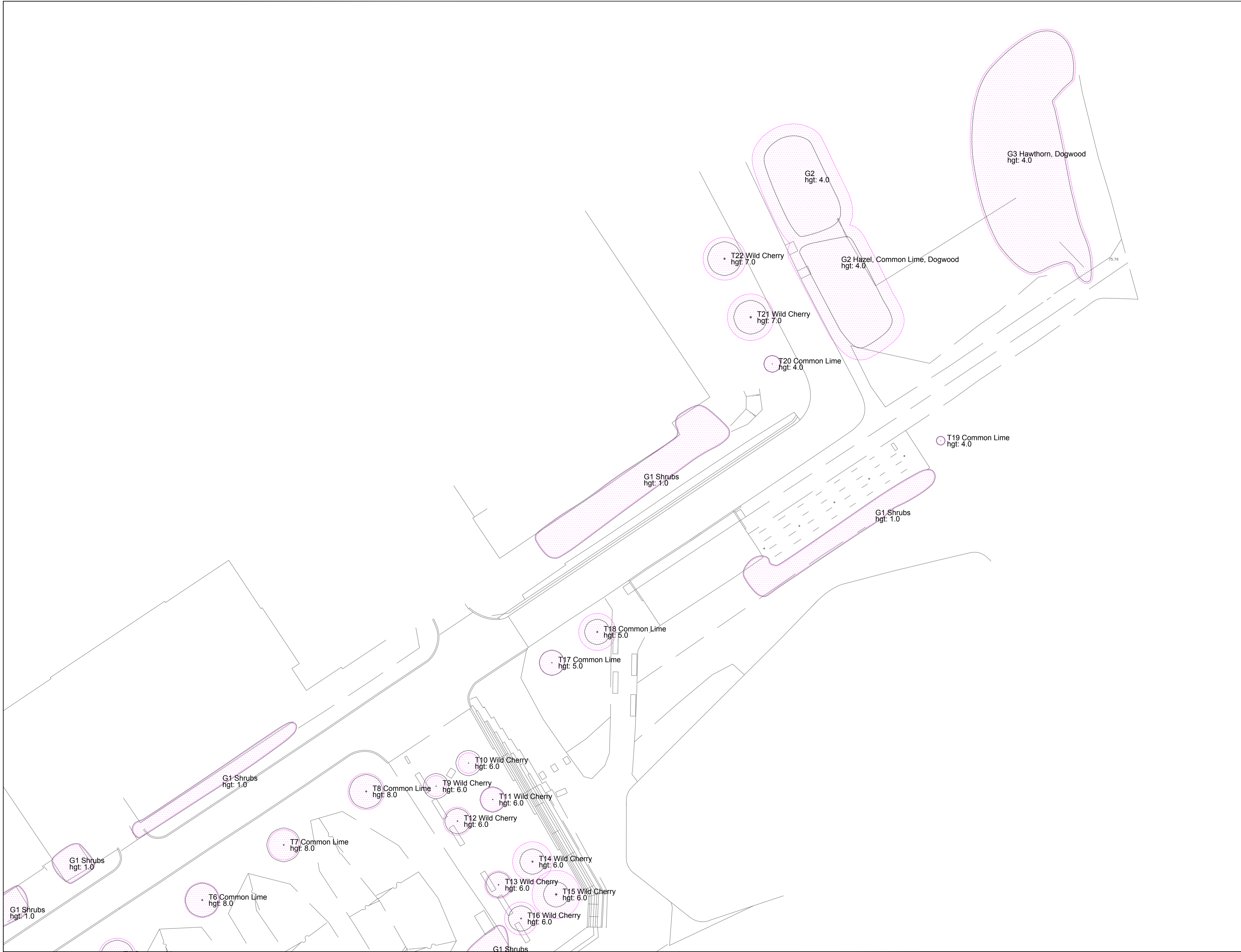
DRAWING NUMBER
3000,AR/001-2/Rev 0

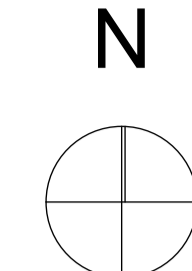
CLIENT
Willmott Dixon Construction Limited

SCALE 1:200 @ A1 **DATE** 31/07/18



Geotechnical, Environmental and Ecological Consultants
T: 01603 298 076 W: www.geosphere-environmental.co.uk





- KEY PROPOSED SITE PLAN**
- Application Boundary
 - Existing Buildings
 - Proposed Building
 - External Stairs of Proposed Building
 - Proposed Paving Type 1
 - Proposed Paving Type 2
 - Transition zone between paving Type 1 & 2. Indicative zone.
 - Proposed Stepped Access
 - Proposed Paving Type 3
 - Proposed Paving Type 4
 - Proposed Building Margin
 - Proposed Grassed Areas
 - Proposed Reinforced Grassed Area
 - Proposed Planting
 - Low Level Seating Wall
 - Existing Trees
 - Proposed Trees
 - Main Access
 - Service Access

P04 Issued for Planning approval.	SW	DS	10.08.18
P03 Design developed.	SW	DS	07.08.18
P02 Design developed. Building area update.	SW	DS	30.07.18
P01 First issue.	SW	DS	25.07.18

rev	description	drawn	checked	date
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Bond Bryan Architects

Verrals House 95 High Street Westerham TN16 1RE

t +44(0)1959 567300 w www.bondbryan.com
e projectemail@bondbryan.co.uk



BUSINESS & SOCIAL HUB
De Havilland Campus
Mosquito Way, Hatfield, AL10 9EU

University of Hertfordshire

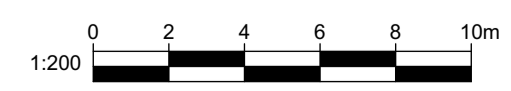
PROPOSED SITE PLAN

bba project ref	scale(s)	original paper size
18-021	1:200	A1

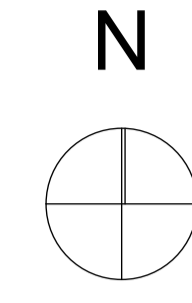
name:	project	originator	volume	level	type	role	number
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status: suitability description:
S8 **SUITABLE FOR PLANNING APPROVAL**

revision: revision description:
P04 **PRELIMINARY**



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**KEY
TREE RETENTION & REMOVAL PLAN**

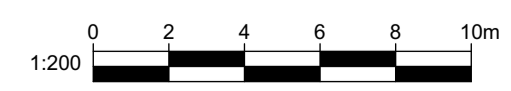
- Application Boundary
- Existing Buildings
- Extent of Existing Building's Canopy
- Proposed Building
- Existing Trees of Category C to be removed & No. (T1, T2, T3, T4, T5, T6, T7 & T8), Ref. to Tree Constraints Plan and Tree Survey.
- Existing Hedges to be removed

NOTE:

1. This drawing is based upon information provided by Geosphere Environmental Ltd.:
 - Drawing: Tree Constraints Plan, drg no. 3000, AR/001-1/Rev 0 of 31/07/18
 - Tree Survey Schedule and other information included in Arboricultural Survey, 01/08/2018, Report Ref. No. 3000, AR/ARB/RF, KL/01-08-18/V1
 and upon Topographical Survey provided by Survey Solutions, drawing number 22281cv-01 / issue date: 03/08/2018..
2. Drawing to be read in conjunction with all Landscape Architect drawings.

TREE SURVEY SCHEDULE

Tree No.	Species	Height (m)	Stem diameter (mm)	No. of Stems	Branch Spread (m)				First Branch Height (m)	Canopy Height (m)	Life Stage	Physiological Condition	Structural Condition	Tree Work Recommendations/ comments	Resilience Contribution (Years)	Category	RPA (m ²)	RPA Radius (m)
					N	E	S	W										
# denotes estimated values due to lack of access																		
G1	Shrubs	1.0	0	-	0.5	0.5	0.5	0.5	0.0	0.0	-	-	-	-	10+	C	0.0	0.0
G2	Hazel, Common Lime, Dogwood	4.0	200	1	1	1	1	1	0.0	0.0	SM	G	G	20+	C	18.1	2.4	
G3	Hawthorn, Dogwood	4.0	100	-	1	1	1	1	0.0	0.0	SM	G	G	20+	C	4.5	1.2	
T1	Fir	8.0	123	1	1.5	1.5	1.5	1.5	0.5	2.0	SM	G	G	20+	C	6.8	1.5	
T2	Common Lime	8.0	207	1	2	2	2	2	2.0	1.5	SM	G	G	20+	C	19.4	2.5	
T3	Common Lime	8.0	208	1	2	2	2	2	2.0	1.5	SM	G	G	20+	C	19.6	2.5	
T4	Common Lime	8.0	182	1	2	2	2	2	2.0	1.5	SM	G	G	20+	C	15.0	2.2	
T5	Common Lime	8.0	187	1	2	2	2	2	2.0	1.5	SM	G	G	20+	C	15.8	2.2	
T6	Common Lime	8.0	173	1	2	2	2	2	2.0	1.5	SM	G	G	20+	C	13.5	2.1	
T7	Common Lime	8.0	150	1	2	2	2	2	2.0	1.5	SM	G	G	20+	C	10.2	1.8	
T8	Common Lime	8.0	180	1	2	2	2	2	2.0	1.5	SM	G	G	20+	C	14.7	2.2	
T9	Wild Chery	6.0	104	1	1.5	1.5	1.5	1.5	2.0	2.0	SM	G	G	20+	C	4.9	1.2	
T10	Wild Chery	6.0	101	1	1.5	1.5	1.5	1.5	2.0	2.0	SM	G	G	20+	C	4.6	1.2	
T11	Wild Chery	6.0	117	1	1.5	1.5	1.5	1.5	2.0	2.0	SM	G	G	20+	C	6.2	1.4	
T12	Wild Chery	6.0	139	1	1.5	1.5	1.5	1.5	2.0	2.0	SM	G	G	20+	C	8.7	1.7	
T13	Wild Chery	6.0	136	1	1.5	1.5	1.5	1.5	2.0	2.0	SM	G	G	20+	C	8.4	1.6	
T14	Wild Chery	6.0	196	1	1.5	1.5	1.5	1.5	2.0	2.0	SM	G	G	20+	C	17.4	2.4	
T15	Wild Chery	6.0	238	1	1.5	1.5	1.5	1.5	2.0	2.0	SM	G	G	20+	C	25.6	2.9	
T16	Wild Chery	6.0	163	1	1.5	1.5	1.5	1.5	2.0	2.0	SM	G	G	20+	C	12.0	2.0	



P01 Issued for Planning. SW RC 10.08.18
 rev description drawn checked date

Bond Bryan Architects
 Verrills House 95 High Street Westerham TN16 1RE
 t +44(0)1959 567300 w www.bondbryan.com
 e projectemail@bondbryan.co.uk

**BUSINESS & SOCIAL HUB
 De Havilland Campus
 Mosquito Way, Hatfield, AL10 9EU**

University of Hertfordshire

TREE REMOVALS PLAN

bba project ref 18-021 scale(s) 1:200 original paper size A1

name :
 project originator volume level type role number

UHER - BBA - 00 - XX - DR - L - 6201

status : suitability description :
S8 SUITABLE FOR PLANNING APPROVAL
 revision : revision description :
P01 PRELIMINARY

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ADDRESS

Brightwell Barns, Ipswich Road, Brightwell, Suffolk, IP10 0BJ

TELEPHONE

01603 298076

FAX

01603 298075

EMAIL

info@geosphere-environmental.co.uk