xxxx 2020
CBAxxxx v1

(client)

ARBORICULTURAL CONSTRAINTS ADVICE

Site:

East Lodge, Leylands Business Park,
Colden Common, Winchester, SO21 1TH
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The Complete Arboricultural Consultancy

ARBORICULTURAL CONSTRAINTS ADVICE

Client:	xxxx
Site:	xxxx
Arboricultural Consultant:	xxxx
Date:	June 2020

Further to carrying out a Tree Survey on the xxxx 2020 we are pleased to provide the following constraints advice based on guidance contained within British Standard 5837:2012 *"Trees in Relation to Design, Demolition and Construction – Recommendations",* on-site observations and an assessment of the tree constraints relating to the above site.

This advice should be read in conjunction with the Tree Survey Schedule and notes (previously issued), and the Tree Constraints Plan CBAxxxx.02 TCP (appended at CB1). It is to provide guidance to aid the design process of any redevelopment of the site, and does not on its own, support any planning application.

1.0 TREE STOCK ASSESSMENT

The tree survey identified 21 (twenty one) individual trees and 1 (one) group of trees on or adjacent to the site at the time of the survey. The existing tree stock has been assessed by a qualified arboriculturist, and the trees have been categorised in accordance with BS5837:2012 *"Trees in Relation to Design, Demotion and Construction – Recommendations".* These categories are as follows:

'U' Grade Trees

These are trees that are in such a condition that they might realistically be retained as living trees in the context of the current land use for up to 10 years. However, in accordance with the recommendations within BS5837:2012 paragraph 4.5.7 *"Category U trees can have existing or potential conservation value which it might be desirable to preserve".*

- Tree 1

‘A’ Grade trees

These are trees considered to be of high quality and value, and to be in such a condition as to make a substantial contribution (40 years or more is recommended). These trees should be a material consideration in the development process

- There were no individual trees, groups of trees or hedges classified as ‘A’ grade at the time of the site visit.

‘B’ Grade trees

These are trees considered to be of moderate quality and value, capable of making a significant contribution for in excess of 20 years. These trees should be a material consideration in the development process.

- Trees 2, 3, 4, 6, 10, 11, 13, 15, 16, 18, 20 and 21

‘C’ Grade trees

These are trees considered to be of low quality, with low or temporary landscape conservation or other cultural value, which might remain for a minimum of 10 years, or young trees with stems of less than 150mm diameter.

These trees should be considered in the development process, however they will usually not be retained where they impose a significant constraint on any proposed development.

- Trees 5, 7, 8, 9, 12, 14, 15 and 19
- Groups 1

Interim Grades

These trees have been given an interim grade and are advised for further works to enable a better, more informed assessment of the tree’s quality.

- Trees 15 and 21

2.0 LEGAL CONSTRAINTS

2.1 Tree Preservation Orders (TPO) and Conservation Areas

At the time of compiling this advice, an online check of the mapping facility provided by xxxx Council indicated that the site is not within a Conservation Area nor are the trees protected by a Tree Preservation Order. It is important to note that before any tree works commence on site checks are made with and written approval (if required), is obtained from xxxx Council in regard to Tree Preservation Orders or Conservation Areas that may be in force on this site.

2.2 Consideration of Wildlife, Bats, Protected Species, Habitats, Ecology

The Wildlife and Countryside Act, 1981 (as amended) provides protection for wildlife, and in particular with regard to trees, attention and consideration should be given to nesting birds and the potential for bat roosts within trees, groups and hedges. We advise that an Ecologist is engaged as part of the project to fully advise on the ecological constraints of the site.

3.0 EXISTING ABOVE AND BELOW GROUND CONSTRAINTS

3.1 Root Protection Area (RPA)

The magenta polygons on the Tree Constraints Plan CBAxxxx.02 TCP represent the minimum RPAs which will need to be fenced off and protected to ensure that the retained trees have the minimal rooting area to survive.

The RPA of a tree (shown as a magenta circle on the Tree Constraints Plan CBAxxxx. TCP) is defined in BS5837:2012 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".* This is calculated as an area based on the stem diameter of the tree. It is usually considered to be a circular shape centred on the trunk of the tree, unless an arboriculturist considers site factors may have affected this.

In line with the recommendations within BS5837:2012, it is recommended that a view is taken by the arboriculturist on the likely rooting zone of trees, in view of existing on and off-site construction features which may have distorted root patterns, and make allowance for this accordingly. For example buildings, footpaths/hard surfacing, retaining walls and changes of ground levels can all have an impact on the rooting patterns of trees.

3.2 Morphology and Disposition of the Roots

The morphology and disposition of roots is very complex. Roots are opportunistic and will only grow where the conditions suit them. It is generally accepted that only deep built form will have acted as a root barrier which will stop roots from growing in a certain direction i.e. foundations to a house, retaining walls etc. Where there is light hard standing i.e. footpath, drives etc. we would expect to find root growth under these areas.

For the trees on and adjacent to this site, a representative RPA circle has been retained for the majority of trees as there is little evidence to suggest rooting areas need to be adapted. However, for Trees 6, 7, 8, 9, 10 and 17 adapting the root protection areas for the public road, housing and boundary walls is based on experience and has taken account of where roots are more likely to be found as a desktop basis without any on site investigations to confirm these changes.

Should development of the site be critical in areas close to trees and their root protection areas, the theoretical root protection provides a starting point or reference

that may require further assessment through on site investigation work such as trial pit holes/trenches or ground penetrating radar to inform the spread, depth and size of roots.

3.3 Site Characteristics

The site appeared to be level in nature.

The majority of the trees and the one group are located around the perimeter of the site. Three trees grow more centrally within the site.

The south eastern corner of the site is dominated by a hard surface car park accessed by a centrally located access drive on the southern boundary.

Two buildings are located to the eastern and western sides of the northern half of the site with lawns to the rear of each and a central landscaped area between them.

3.4 Current Height and Spread of Trees

The majority of the existing tree stock on and adjacent to the site are of an early mature or mature age class. The trees complement the current use of the site and do not appear to have a negative impact with regard to shading at this time.

Trees 1 and 12 (young age class) and Trees 5, 9, 10 14 and Group 1 (semi mature age class) have the ability to significantly grow in height and spread and therefore an allowance for future growth will need to be taken into consideration in any future development of the site.

With regard to this site, the bias is towards the younger age tree class but there are a good number of early mature and mature age class trees on site. These trees potentially will not react so readily to changes on the site as the younger trees. Therefore development should seek to minimise the potential impact of changes to the site around these older trees.

4.0 FUTURE CONSTRAINTS

4.1 Working Space/Construction Exclusion Zone (CEZ)

In addition to the RPA as calculated for each tree, there is also a need to consider any above ground constraints. The Tree Constraints Plan CBAxxxx.02 TCP shows an indicative developable area (informed by the indicative tree protection barrier location) which allows for adequate above and below ground protection for the trees as they are currently and forms the construction exclusion zone; outside of this area is the arboriculturally developable area. In addition the dashed line indicates the reasonable potential future growth of the trees that any development should ideally allow for.

Working space to enable contractors to build the development and install services and drainage for example must also be allowed for outside of the construction exclusion zone.

The tree constraints plan (CBAxxxx.02 TCP) identifies the trees that should be retained, those that could be removed to facilitate any proposed development and those trees that should be removed regardless of any proposed development layouts.

4.2 Ultimate Height and Spread of the Trees

It would be expected that the young and semi-mature trees have the ability to put on a significant amount of future growth if retained and therefore any design layout should take account of this potential new growth by allowing these trees room to grow (where they are retained) without being significantly impacted upon by built form.

The early-mature and mature trees are not expected to put on as much growth as the younger trees but are vulnerable to changes in the environment around them.

Trees 1 and 12 (young age class) and Trees 10 and 14 (semi mature age class) have the potential to grow into large dominating trees.

4.3 Shading

The majority of trees are to the northern side of the site and will not cast a dominating shadow onto the site. Trees 2, 3, 4, 6, 18, 20 and 21 are, or have, the potential to dominate the sky line/are in positions on site where they can cast a shadow effecting the site as they grow centrally, on the southern or western on the eastern, southern areas of the site. Development of the site should take account of the potential or perceived dominance of these trees and the shading that they will cast to minimise future concerns from residents. This could mean that roads, open spaces or play areas are immediately adjacent to these trees to separate new built form from the canopies of these trees and groups. It should be noted however, that in some cases shading can be a positive for a site rather than a negative.

4.4 Infrastructure Requirements to be Considered

It is recommended that any easements for underground services, soakaways, highway safety and visibility splays, substations, refuse stores, lighting, signage, CCTV requirements etc are all considered during the design phase and are located so that any retained trees are fully respected and protected. These are often overlooked at the design stage with built form being proposed on the edge of the root protection areas with no allowance for the location and installation of services and drainage which then compromises the full retention of the trees.

The layout of the aforementioned items should be seriously considered at design stage, as they can be detrimental to retained trees when attempting to fit these into a layout that is tight to the root protection area of trees.

5.0 TREE CONSTRAINTS PLAN

5.1 The Tree Constraints Plan CBAxxxx.02 TCP has been designed to aid any proposed layouts and detail a developable area that will allow the long term retention of any trees deemed to be worthy.

5.2 This plan identifies trees that should be retained and trees that could be removed to facilitate any development proposals.

6.0 MITIGATION PLANTING

6.1 It should be recognised that any new development may require the loss of existing trees to facilitate a new design layout. The retention of existing trees provides established planting to any new development, which can dramatically enhance the visual appearance of the site.

6.2 Where trees have to be removed, mitigation planting must be considered. The consideration should involve trying to retain the same number of trees or to increase tree numbers on site. We generally recommend that where a 'U' or 'C' grade tree has to be removed that a 1:1 replacement is provided. If a 'B' grade tree has to be removed, then we would recommend a 2:1 replacement as a guide. However, xxxx Council have a replacement planting policy of 2:1 and therefore for any one tree removed the Tree Team will be expecting two trees to be planted.

6.3 Any new landscaping scheme for the site should consider any proposed tree loss and mitigate this loss through new planting. In particular new tree planting should be selected that is suitable for the ground conditions and space available to be able to grow to maturity. It is important to note that any new planting should have the opportunity to be able to grow and mature without being compromised by the need for pruning due to built form, CCTV or street lighting concerns.

6.4 New tree planting should be in suitable planting pits that are sufficient in terms of available rooting volume with sufficient rooting volume surround the tree to allow the tree to establish and grow to maturity. The location of new trees will also be a determining factor for the choice of species so that trees can grow and mature without the need for significant intervention pruning.

7.0 CONCLUSIONS

7.1 The tree constraints advice provided in this report is intended to guide the design of a layout which is sympathetic to the existing tree cover of the site, which is of value to the immediate area and the site itself.

7.2 By working within the developable area identified on the tree constraints plan an arboriculturally supportable design which respects the recommended retained trees should be achievable.

Appendices

CB1 Tree Constraints Plan CBAxxxx.02 TCP
CB2 AIA Checklist
CB3 Qualifications and Experience

CB1

CBA Trees

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Job Number: CBAxxxx
Site: xxxx
Tree Constraints Plan

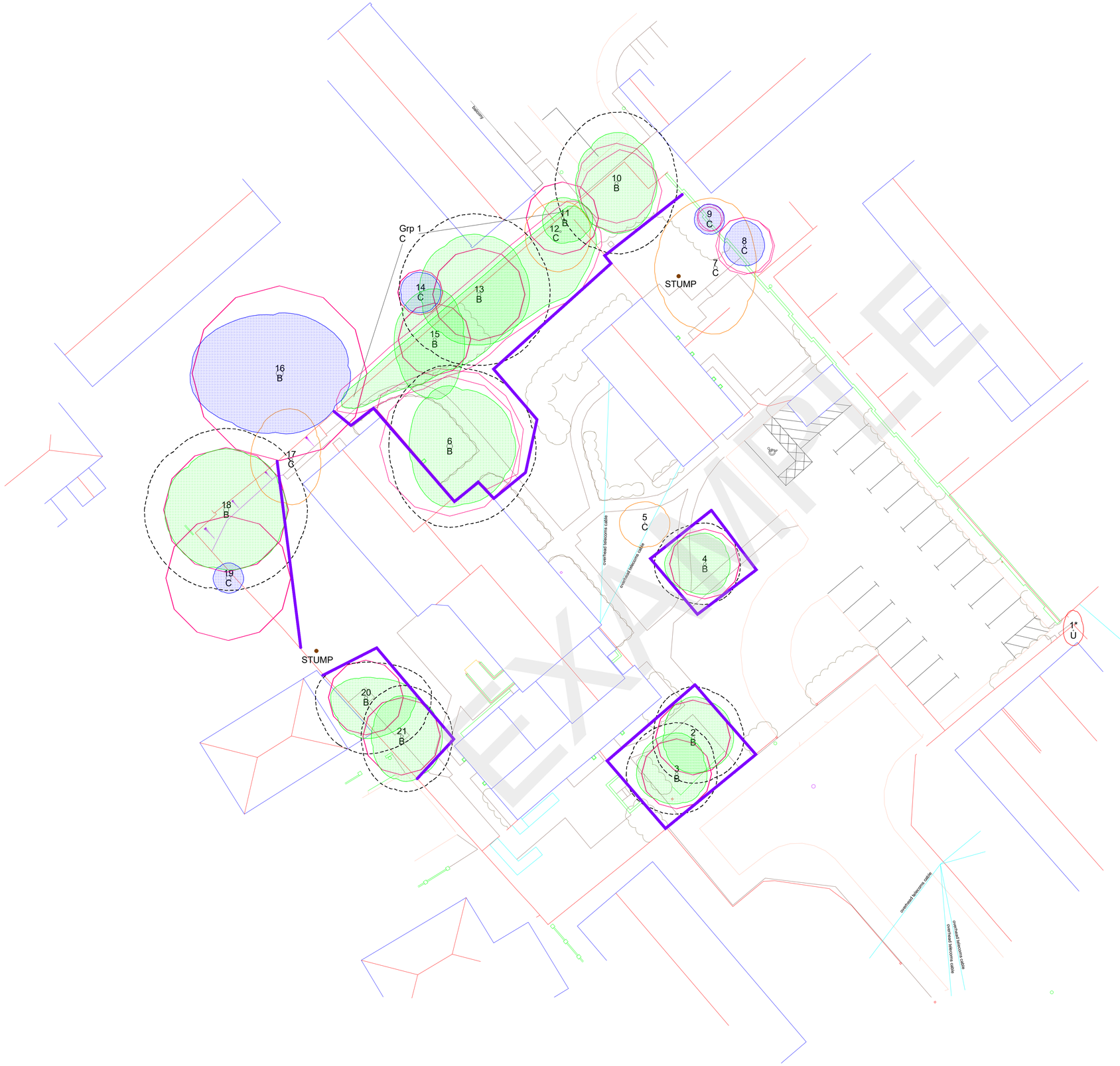
SCALE : 1 : 200 @ A1	**DATE :** 29/06/2020
MAP FILENAME : CBAxxxx.02 TCP	**BASE PLAN:** xxxx

N

0 30m

KEY:

- ROOT PROTECTION AREA
- OFFSITE TREES TO BE RETAINED AND PROTECTED
- TREES TO BE RETAINED AND PROTECTED
- TREES THAT COULD BE REMOVED TO FACILITATE POTENTIAL DEVELOPMENT
- OFFSITE TREE TO BE REMOVED IN AGREEMENT WITH THIRD PARTY OWNER GIVEN ITS GROWING LOCATION AND LIMITED LIFE EXPECTANCY
- POTENTIAL FUTURE GROWTH
- INDICATIVE LOCATION OF TREE PROTECTION BARRIER TO INFORM POTENTIAL DEVELOPMENT FOOTPRINT



Job No: CBA

CONSULTANT CHECK LIST FOR PRODUCTION OF ARBORICULTURAL IMPLICATIONS ASSESSMENT (AIA) AND/OR ARBORICULTURAL DEVELOPMENT STATEMENT(ADS)

Details provided	Recd	Reqd	Details provided	Recd	Reqd
Development layout plans to an appropriate scale	☐	☐	**Easements for underground or aboveground services to include:**		
Elevation plans	☐	☐	Foul and surface water drainage	☐	☐
Level changes - existing & proposed	☐	☐	Land drains	☐	☐
Retaining walls	☐	☐	Soakaways	☐	☐
Steps	☐	☐	Gas	☐	☐
Foundations proposed	☐	☐	Oil	☐	☐
Back Filling proposals	☐	☐	Electricity	☐	☐
Piling method	☐	☐	Telephone Cables	☐	☐
Section drawings	☐	☐	TV Cables	☐	☐
Highway safety and visibility splays	☐	☐	Other connection cables	☐	☐
Proposed surfacing types	☐	☐	**Infrastructural provisions to include:**		
Sunlight/daylight assessment	☐	☐	Basement structure	☐	☐
Internal layouts of buildings	☐	☐	Car parking	☐	☐
Specific or specialised plant required for construction and how their movements will be guided around the site:			Refuse/cycle/garden stores or sheds	☐	☐
			Sub stations	☐	☐
			Lighting	☐	☐
Piling rigs	☐	☐	Signage	☐	☐
Large vehicle access	☐	☐	CCTV requirements	☐	☐
Hoists	☐	☐	**Proposed locations and details of:**		
Cradles	☐	☐	Footpaths	☐	☐
Cranes mobile/tower (delete as appropriate)	☐	☐	New roads	☐	☐
Intensity and nature of the construction activity taking place:			Cycle routes	☐	☐
			Pedestrian routes and management	☐	☐
Site construction traffic access	☐	☐	**Works proposed within CEZ:**		
Contractors car parking arrangements	☐	☐	'No dig' specification required	☐	☐
Phasing of construction works	☐	☐	Engineering solution required	☐	☐
Space for working	☐	☐	**Tree surgery works required**		
Foundation excavations space	☐	☐	Development facilitation pruning	☐	☐
Erection of scaffolding	☐	☐	Level of pruning detrimental	☐	☐
Storage of materials	☐	☐	**Details of proposed landscaping and structural planting:**		
Location of temporary site huts	☐	☐			
Location of temporary latrines (including their drainage)	☐	☐	Planting needed to mitigate tree loss	☐	☐
			Impact of new landscaping on trees	☐	☐
Location of temporary structures	☐	☐	**Legal constraints:**		
Site compound location	☐	☐	Tree Preservations Order (TPO)	☐	☐
Mixing of materials area	☐	☐	Conservation Area (CA)	☐	☐
Cement/concrete requirements	☐	☐	Other (provide details)	☐	☐
Is the mixing site located on a slope?	☐	☐			
Demolition of existing built form	☐	☐