TREE SURVEY REPORT

PRE-DEVELOPMENT

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April 2020

SITE : Former Mepal Outdoor Centre, Chatteris Road, Mepal, Ely, Cambridgeshire CB6 2AZ

CLIENT : The CDS Group

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A pre-development advisory document, broadly in accord with British Standard 5837 : 2012 'Trees in relation to Design, demolition & construction - Recommendations', designed to inform the conceptual design by highlighting the above and below ground arboricultural constraints in the context of a proposed development.

CONTENTS :

1.0 Terms of Reference

1.1 We are instructed by Rebecca Ballinger on behalf of The CDS Group, to undertake a pre-development tree survey at the former Mepal Outdoor Centre, Ely, Cambridgeshire CB6 2AZ, which is to be in line with B.S. 5837 : 2012 'Trees in Relation to Design, Demolition & Construction - Recommendations', and is to be used to inform the proposed site layout and to support a planning application.

1.2 All trees on or immediately adjacent the application site have been inspected from ground level only. Should further, more detailed inspection be deemed appropriate, this will be covered under Recommendations. Trees are dynamic living organisms, whose health and condition can be subject to rapid change, depending on a number of external and internal factors. The conclusions and recommendations contained in this report relate to the trees at the time of inspection.

1.3 The site survey and tree assessment was undertaken by Robert Yates, who holds the formal qualification Tech.Cert.(Arbor.A), the LANTRA Certificate in Professional Tree Inspection and is a member of the Consulting Arborist Society, the Arboricultural Association and The Royal Forestry Society.

1.4 This report, its appendices and any subsequent revisions or additional information, will form part of any formal planning application in respect of the development of this site, and as such will be open to public scrutiny and comment.

2.0 Survey Methodology

2.1 The trees have been assessed using the current recommendations, as detailed in British Standard 5837 : 2012 'Trees in relation to Design, Demolition & Construction – Recommendations', in order to arrive at a Retention Category for each individual tree or group of trees. A Root Protection Area (RPA) has been assigned to each tree, based on its stem diameter and in some cases crown spread, which has then been used to produce the Tree Constraints Plan (attached as appendix 3). For full details of the relevant assessment criteria and retention categories see Table 1 of B.S. 5837 (attached as appendix 4).

2.2 All surveyed trees have been given a notional reference number e.g. T1 – T7, G1 – G16. All collected survey data and work recommendations for the trees is presented in the survey schedule which forms appendix 2 to this report. For the location of the trees see appendix 3 (Tree Constraints Plan).

3.0 Site Overview / Design Brief

3.1 The survey/study area predominantly comprises the land surrounding the former Outdoor Centre and lake, which is adjacent the A142 Ireton's Way, Ely.

3.2 The development proposal briefly comprises the construction of a crematorium and associated service and administration building, function building, memorial garden, natural burial areas, pet cemetery, car parking and landscaping

4.0 Summary of Findings & Conclusions

4.1 A total of **7no**. individual trees and **16no**. groups of trees have been surveyed. A breakdown of the numbers of trees/hedgerows in each retention category can be seen in the table below:

Table 1

Retention Category	Individual Trees (T)	Groups of Trees (G)	Hedgerows (H)
A High Quality	1	2	n/a
B Moderate Quality	3	8	n/a
C Low Quality	3	6	n/a
U (Unsuitable for retention)	0	0	n/a
Totals	**7**	**16**	**0**

4.2 All U Category (poor quality) trees should generally be removed for reasons of sound arboricultural practice or health & safety, irrespective of any development proposals, unless they offer particular conservation value to the site, in which case this will be highlighted in the survey schedule along with appropriate recommendations.

4.3 As regards the C category trees, it may not always be possible or even desirable to retain low quality trees within the context of a proposed development, unless in such a location that they do not represent a significant constraint on the design brief. Young trees, and those with a stem diameter of less than 150mm, will normally be placed in the C category, unless it is considered that they are of especially good form or are of a species that is particularly rare, in which case they may be upgraded. In certain cases it may be appropriate to consider re-location of young C category trees within the site.

4.4 All A & B Category trees (high & moderate quality) will under normal circumstances be retained on development sites, and should ideally influence and inform the conceptual design, site layout, and in some cases the specific construction methods to be used – The root protection area and/or crown spread of these trees will generally form a construction exclusion zone, although under certain circumstances it may be possible to build or operate within these areas providing that appropriate measures and specifications have been formally agreed between the local planning authority, the consulting arboriculturist and the developer/client.

5.0 Arboricultural Impact Assessment

5.1 Based on the indicative site layout/concept plan, as per Fig.1 below, the following potential impacts and implications have been identified and their significance assessed.

6.0 Recommendations / Tree Protection Strategy

6.1 Certain trees will require physical protection for the duration of the construction phase of the development; a suitable specification for temporary barriers is shown below at Fig.2, whilst the locations are shown on the Tree Constraints Plan at Appendix 3. Areas protected in this way are to be considered Construction Exclusion Zones, and hence strictly off-limits to all contractors, their vehicles, equipment and materials; furthermore, the fencing is to be affixed with appropriate signage at regular intervals, to warn contractors of its purpose e.g. *"Tree Protection Area – No Unauthorised Access to Contractors"*.

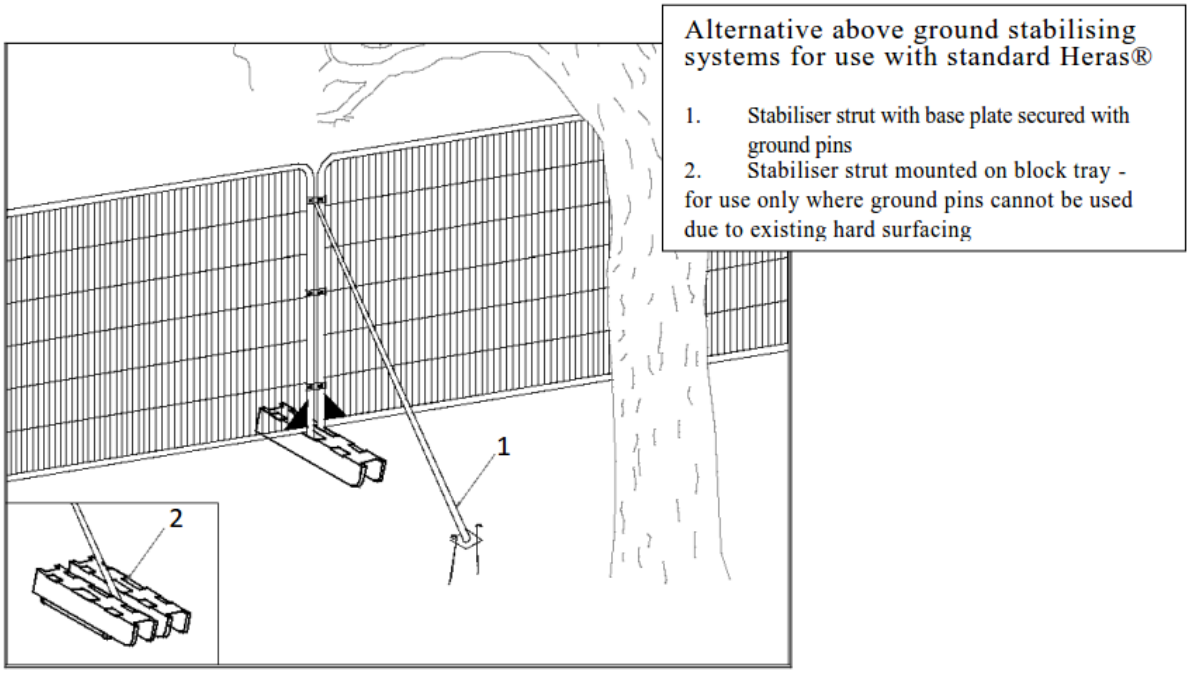

Fig.2 Specification for Tree Protection Barrier to enforce Construction Exclusion Zone

7.0 Statutory Obligations

- Works to trees which are covered by Tree Preservation Orders [TPOs] or are within a Conservation Area [CA] require permission or consent from the Local Planning Authority [LPA]. Full planning consent will however, override the need for a separate application, providing that details of all tree works were included in the submission and subsequently approved by the local authority.

- It is a criminal offence under normal circumstances to disturb or destroy - whether intentional or unintentional - the nesting sites of wild birds or the roost sites of bats, under the 'Wildlife & Countryside Act 1981, the 'Countryside and Rights of Way Act 2000' and the 'Conservation of Habitats & Species Regulations 2017'.
  Therefore, avoid carrying out significant tree works or hedgerow removal during the bird nesting season [mid-March to mid-August] and ensure that trees are professionally surveyed for signs of bat roosts and/or bat activity before starting any significant tree work, such as felling or heavy crown reduction. Further advice on how to proceed should bat occupation be suspected can be obtained from any qualified ecologist.

APPENDIX 1 :

KEY TO SURVEY CRITERIA & HEADINGS:

Tree No.	Notional ID given to each tree or group of trees (unless tagged)
Species	Botanical name with common name in brackets
Age Class	Young, semi-mature, early mature, mature or over-mature
Height	Estimated in metres
Crown Spread	Crown spread (North / East / South / West) measured from centre of trunk, in metres
Crown clearance	Approximate height between lowest part of canopy and ground level (metres)
Stem dia.	Trunk diameter (mm) measured at 1.5m above ground level, or other height as specified
Vigour	Objective assessment of a tree's vigour e.g. shoot extension growth (normal, reduced or low)
Amenity	Subjective assessment of a tree's contribution to the amenity value of the immediate area: High to Low
Condition	Good, Fair or Poor, based on the general health and structural condition of the tree
Recommendations	Remedial works in order to facilitate retention, or recommendation to remove
Ret.Cat.	Based on B.S.5837 Retention categories: A = Those of High Quality & Value B = Those of Moderate Quality & Value (Sub-categories 1, 2, 3 for A & B categories in brackets) C = Those of Low Quality & Value U = Unsuitable for retention
RPA	Root Protection Area, measured in metres (radius) from centre of tree, or may be expressed in m2

APPENDIX 2 : SURVEY SCHEDULE (page 1 of 4)

INDIVIDUAL TREES:

Tree No.	Species (common name)	Age class	Height (m)	Crown Spread (m) :				Crown Clearance (direction)	Stem dia. (mm)	Vigour	Amenity Value	Condition	Comments	Recommendations	Ret. Cat. (sub cat.)	RPA (m)
				N	E	S	W									
T1	***Quercus ilex*** (Holm Oak)	**early mature**	**6.0**	**4**	**4**	**4**	**4**	**0**	**300**	**normal**	**mod/low**	**good/fair**	**no comments**	**no works required**	**B (1)**	**4.0**
T2	***Quercus ilex*** (Holm Oak)	**semi-mature**	**5.0**	**2**	**2**	**2**	**2**	**0**	**150**	**normal**	**low**	**good/fair**	**no comments**	**no works required**	**C**	**1.8**
T3	***Corylus avellana*** (Hazel)	**mature**	**4.5**	**4**	**4**	**4**	**4**	**0**	**15x 60**	**normal**	**low**	**good**	**typical multi-stem form**		**C**	**3.5**
T4	***Betula pendula*** (Silver Birch)	**mature**	**13.0**	**4.5**	**4.5**	**4.5**	**4.5**	**1**	**260**	**normal**	**moderate**	**good/fair**	**no comments**		**B (1)**	**3.5**
T5	***Carpinus betulus*** **Fastigiata** (Hornbeam)	**early mature**	**8.0**	**3**	**3**	**3**	**3**	**1.5**	**330**	**normal**	**low**	**good**	**no comments**		**B (1)**	**4.0**
T6	***Quercus robur*** (English Oak)	**early mature**	**12.0**	**7.5**	**7.5**	**7.5**	**7.5**	**1.5**	**530**	**normal**	**moderate**	**good**	**no comments**		**A (1)**	**8.0**
T7	***Robinia pseudoacacia 'Frisia'*** (False Acacia)	**early mature**	**8.0**	**2.5**	**2.5**	**2.5**	**2.5**	**1**	**220**	**normal**	**low**	**fair**	**wounding to lower stem**		**C**	**2.7**

GROUPED TREES:

group No.	Species (common name)	Age class	Height (m)	Spread	Crown Clearance	Stem dia. (mm)	Vigour	Amenity Value	Condition	Comments	Recommendations	Ret. Cat. (sub cat.)	RPA (m)
G1	***Quercus ilex*** (Holm Oak)**,** ***Acer campestre*** (Field Maple)	**early mature**	**avg. 9**	**see plan**	**0**	**avg. 350**	**normal**	**mod/high**	**good**	**linear boundary group visible from highway**		**B (2)**	**4.2**
G2	***Salix fragilis*** (Crack Willow), ***Salix viminalis*** (Osier)	**mature**	**3-11**	**see plan**	**0**	**100 - 400**	**normal to low**	**mod/low**	**fair to poor**	**linear boundary group, mostly of coppice form, small number of maiden trees at south end in poor structural condition**		**C**	**1.2 - 4.8**
G3	***Crataegus monogyna*** (Hawthorn), ***Betula pendula*** (Silver Birch), ***Salix caprea*** (Goat Willow), ***Fraxinus excelsior*** (Ash)	**semi-mature to mature**	**avg. 6**	**see plan**	**0**	**avg. 200**	**normal**	**mod/low**	**fair**	**Hawthorn dominate, low lying area**		**B (3)**	**2.4**
G4	***7no. Betula pendula*** (Silver Birch)	**semi-mature**	**avg. 6**	**see plan**	**0**	**avg. 100**	**normal**	**low**	**good/fair**	**linear group**		**C**	**1.2**
G5	***Salix sp.*** (Willow), ***Prunus laurocerasus*** (Cherry Laurel)	**early mature**	**avg. 5**	**see plan**	**0**	**avg. 350**	**normal**	**low**	**good/fair**	**linear group on mound, Willow pollards dominate**		**C**	**3.5**
G6	***2no. Prunus avium*** (Wild Cherry), ***1no. Salix caprea*** (Goat Willow)	**early mature**	**avg. 6**	**see plan**	**2**	**avg. 150**	**normal**	**low**	**fair**	**congested group in car park island bed**		**C**	**1.8**

group No.	Species (common name)	Age class	Height (m)	Spread	Crown Clearance	Stem dia. (mm)	Vigour	Amenity Value	Condition	Comments	Recommendations	Ret. Cat. (sub cat.)	RPA (m)
G7	***2no. Prunus avium*** (Wild Cherry), ***1no. Salix sp.*** (Willow)	**early mature**	**avg. 7**	**see plan**	**0**	**avg. 150**	**normal**	**low**	**fair**	**congested group in car park island bed**		**C**	**1.8**
G8	***Betula pendula*** (Silver Birch), ***Salix sp.*** (Willow), ***Crataegus monogyna*** (Hawthorn)	**mature**	**avg. 20**	**see plan**	**0**	**150 - 550**	**normal to low**	**mod/high**	**good to poor**	**some dead Willow + one dead Birch, steeply sloping sandy ground**		**B (2/3)**	**1.8 – 6.6**
G9	***Betula pendula*** (Silver Birch), ***Salix caprea*** (Goat Willow), ***Crataegus monogyna*** (Hawthorn)	**mature**	**avg. 20**	**see plan**	**1**	**avg. 350**	**normal**	**mod/high**	**good/fair**	**occasional dead Willow, one fallen Birch**		**A (2)**	**4.2**
G10	***Salix viminalis*** (Osier), ***Betula pendula*** (Silver Birch), ***Salix caprea*** (Goat Willow)	**early mature**	**4 - 10**	**see plan**	**0**	**avg. 170**	**normal**	**mod/low**	**good/fair**	**linear group along water's edge**		**B (2)**	**2.1**
G11	***3no. Betula pendula*** (Silver Birch)	**mature**	**avg. 10**	**see plan**	**0**	**avg. 300**	**normal**	**mod/low**	**good**	**no comments**		**B (2)**	**3.6**
G12	***3no. Betula pendula*** (Silver Birch)	**mature**	**avg. 15**	**see plan**	**0**	**avg. 300**	**normal**	**mod/low**	**good**	**no comments**		**B (2)**	**3.6**

group No.	Species (common name)	Age class	Height (m)	Spread	Crown Clearance	Stem dia. (mm)	Vigour	Amenity Value	Condition	Comments	Recommendations	Ret. Cat. (sub cat.)	RPA (m)
G13	***Salix fragilis*** (Crack Willow)	**mature**	**avg. 20**	**see plan**	**0**	**avg. 700**	**normal to low**	**moderate**	**fair to poor**	**undefined group adjacent southeast corner of lake, 2no. dead trees at east end, 2no. fallen but live trees, good habitat area with dense understorey/ground vegetation**	**reduce height of standing live trees by 50% for safety reasons + reduce dead trees to 5m, manage area for habitat i.e. minimal intervention**	**B (3)**	**8.4**
G14	***Betula pendula*** (Silver Birch), ***Salix sp.*** (Willow), ***Crataegus monogyna*** (Hawthorn)	**early mature to mature**	**5 - 11**	**see plan**	**0**	**100 - 450**	**normal**	**moderate**	**good/fair**	**linear group bordering lake, good habitat**	**manage area for habitat i.e. minimal intervention**	**B (2/3)**	**1.2 – 5.4**
G15	***Salix fragilis*** (Crack Willow) ***Betula pendula*** (Silver Birch), ***Salix caprea*** (Goat Willow), ***Crataegus monogyna*** (Hawthorn), ***Acer campestre*** (Field Maple), ***Fraxinus excelsior*** (Ash)	**semi-mature to mature**	**5 - 23**	**see plan**	**0**	**100 - 800**	**normal**	**high**	**good to fair/poor**	**large area of unmanaged woodland adjacent lake & highway with minimal access, excellent habitat**	**manage area for habitat i.e. minimal intervention, subject to H&S measures**	**A (2/3)**	**1.2 – 9.6**
G16	***13no. Betula pendula*** (Silver Birch)	**semi-mature**	**avg. 5**	**see plan**	**0**	**avg. 75**	**normal**	**low**	**good/fair**	**linear group**		**C**	**0.9**