Arboricultural Impact Assessment and Tree Condition Survey for the S278 Agreement Works at Camp Road Upper Heyford, Bicester, OX25 5HD

Prepared for Dorchester Group

RUSKINS
TREE CONSULTANCY

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Appendices

1.0 Introduction

1.1 This Arboricultural Implication Assessment has been prepared By Ruskins Tree Consultancy to inform the S278 Highway Works Agreement for the prepared works to a section of Camp Road located at the centre of the Heyford Park development.

1.2 The scope of the Tree Condition Survey assessment was to visit the site and to re-survey relevant trees, groups and hedges in accordance with BS5837:2012 '*Trees in relation to design, demolition and construction – recommendations*.' These trees have previously been surveyed by Pegasus Group over the period from March 2015 to June 2016 and we have been provided with a copy of this tree survey, within our tree survey we have used the same tree numbers as the earlier Pegasus Group tree survey. See Appendix 1 for tree details.

1.3 For details on the trees located beyond the S278 Agreement site boundary please refer to the relevant planning application for each parcel of land.

1.4 We have been provided with a copy of the proposed highway works plan and we have been instructed to assess the impact of development proposals on the arboricultural resource and to produce the following:

- Arboricultural Impact Assessment
- Tree Retention and Loss Plan
- Tree Protection Plan
- Arboricultural Method Statement.

2.0 Report Limitations

2.1 Trees are living organisms as well as self-supporting dynamic structures. Their physiological and structural condition can change rapidly in response to a wide range of biotic/abiotic factors. They have the potential to fail structurally, both with and without prior manifestation of any reasonably observable symptoms.

2.2 This report is prepared for the planning application purposes only and does not evaluate the degree of risk posed by trees.

2.3 It is beyond the scope of this report to comment in relation to structural damage – direct or indirect, existing or potential – that might be associated with vegetation growth, or vegetation-related soil subsidence or heave.

2.4 Any management recommendations set out within this report are of an advisory and preliminary nature only and relate to trees within the context of current site use.

2.5 Any physical alterations to site conditions subsequent to the date of the site survey will have the potential to change/invalidate the findings and recommendations of this report.

2.6 Findings relate to the condition of the trees as found at the time of survey.

2.7 The findings and recommendations of this report are limited to a period of 24 months from the date of this report. In the event of any changes in the rooting environment of the trees including excavation works, waterlogging or removal of any underground structures /services the condition of the trees should be reviewed.

2.8 After extreme weather events or if any large branch failure, storm damage, structural failure or symptoms of disease of decay including fungi are observed then we recommend that the condition of the trees should be reviewed.

3.0 Statutory Tree Protection

3.1 The site is located within the Upper Heyford Conservation Area therefore all the trees with a stem diameter in excess of 75mm are subject to protection under the Conservation Area legislation. Notwithstanding specific exemptions in general terms, a Conservation Area prevents the cutting down, uprooting, topping, lopping, wilful damage or wilful destruction of trees or woodlands without the prior consent of the local planning authority.

3.2 Unless tree works are explicitly approved within the full planning consent or are exempt from this statutory protection, no works should be undertaken to trees with a stem diameter of more than 75mm without the necessary notification (or if the trees are subject to a TPO a consent application for tree works) being submitted to Cherwell District Council.

3.3 We are not aware of any TPOs that protect trees within this area, but it should be noted that the Conservation Area status does not preclude the presence of Tree Preservation Orders (TPO) which may also serve to protect the trees.

3.4 On many sites (excluding specific exemptions) there is also a statutory restriction relating to tree felling that relates to quantities of timber that can be removed within set time periods. In basic terms, it is an offence to remove more than 5 cubic metres of timber in any one calendar quarter without having first obtained a felling licence from the Forestry Commission.

3.5 Prior to any treeworks or vegetation clearance being undertaken the possible presence of nesting birds or protected species needs to considered and if necessary specific ecological advice should be sought. Nesting birds and protected species (including bats and their roosts) are protected from disturbance under the Wildlife and Countryside Act 1981 (as amended), The Countryside and Rights of Way Act 2000 (as amended) and the Conservation of Habitat and Species Regulations 2010.

4.0 Planning Context

4.1 In December 2011, Cherwell District Council (CDC) granted outline planning permission for the development of Heyford Park; a new settlement on the former RAF Upper Heyford airbase (Ref. 10/01642/OUT).

4.2 The outline permission included: -

- Up to 1,075 dwellings (a mix of new build and conversion of existing former military accommodation)
- New employment comprising of B1 Offices
- B2/B8 industrial/ warehousing (new build and conversion of existing)
- A new Village Centre
- Other physical and social infrastructure

4.3 The Cherwell Local Plan was adopted in July 2015 which has subsequently increased the size of the original application from 1,075 dwellings to 2,675 with additional employment and social and physical infrastructure. A framework plan, produced by the applicant and the local planning authority, is due for consideration by the Council on how the increased allocation should be incorporated and brought forward.

5.0 Description of Proposed Highway Works

5.1 The proposed S278 works are to Camp Road which runs east-west through the centre of the Heyford Park. The proposed works are located within the Village Centre part of the site and includes the junction which originally formed the main entrance to the airfield and now forms the main entrance into the northern part of Heyford Park.

5.2 The section of Camp Road that is subject to this S278 Agreement extends for an overall length of some 260m and runs east-west between the Village Centre North and Village Centre South parts of the site. The proposed works are described elsewhere in this application and include works to the main highway, including provision of a pedestrian crossings traffic calming measures and construction of footpaths along the northern and southern side of the highway.

6.0 The Tree Resource

6.1 The vegetation within the S278 Agreement site consists of a mature beech tree T121 which is located to the northern side of Camp Road, to the east of the main entrance and is to be retained. There is a hawthorn hedge T133 running along the northern side of the site, part of which is located within the S278 Agreement site is to be removed.

6.2 The remaining trees relevant to this S278 Agreement are located within the land beyond the northern side of the S278 Agreement site, these trees are within the Village Centre North application site and consist of a group of trees planted as part of the airfield development of the site, including beech, sycamores with some ash, Scots pines, hornbeams, hawthorns and a row of conifers.

7.0 Arboricultural Impact Assessment

7.1 The on-site tree T121 is to be retained within the verge to the northern side of Camp Road. The growing location of the trees remain unaffected by the proposed works, the footpath within the Root Protection Area of this tree is existing and no works are proposed within the open ground near this tree. This tree and the open ground around it will be protected during the proposed works by tree protection fencing as per the Tree Protection Plan (See Appendix 2).

7.2 The trees to be removed to allow the proposed development are identified within the Tree Condition Survey and shown on the Tree Removals Plan. The trees to be removed are; the hawthorn hedge T133 and hawthorns T150, T151 and T155 growing within this hedgerow. This vegetation is located close to the northern boundary of the S278 Agreement site and are to be removed to allow for the construction of the proposed footpath.

7.3 The hawthorn hedge has been managed as a formal hedgerow at approximately 1.5m in height and hawthorn trees are poor quality, small ivy covered trees. The removal of this vegetation is s necessary to allow for the proposed works and with regard to their limited stature the impact of these removals is considered limited.

7.4 There are a number of trees shown to be retained within the Village Centre North application site which need consideration as part of this S278 Agreement (Sycamores T146, T148, T149, T152, T154, T156, T157, T158). The proposed footpath runs through the Root Protection Area of these trees and the protection and specification of these works are addressed in Sections 8-10 of this report.

7.5 To ensure that the retained trees are protected and maintained in the most favourable growing conditions it is proposed that as per the BS5837 (2012) the area around retained trees is fenced-off with tree protection fencing prior to commencement of any enabling or excavation works commencing .

7.6 All works within this fenced-off area including the construction of the new footpath and soft landscaping will be undertaken following the guidance outlined in the Arboricultural Method Statement and under the direct on-site supervision by the Arboricultural Clerk of Works.

7.7 With regard to the width of the footpath it is my opinion that there is no requirement that the sub-base and surface finish of the proposed hardstanding needs to be specified to be permeable and porous. The majority of rainwater will run-off the footpath into the open ground and gases will dissipate to from beneath the footpath.

7.8 Providing the retained trees are subject to appropriate protection and the footpath is constructed to restrict the amount of excavation within the Root Protection Area of retained trees it is my opinion that the proposed works can be undertaken without detriment to the health, or longevity of the retained trees.

7.9 The following sections of this report outlines the site works in relation to the retained trees, it is proposed as recommended in BS5837 (2012) that subject to planning consent being granted, the guidelines outlined in this report will be revisited and addressed in detail prior to site works commencing.

8.0 Summary of Tree Protection Measures

8.1 The main points of note regarding the tree protection measures during the proposed works are listed below:

- **An Arboricultural Clerk of Works (ACoW) will be appointed to help ensure that the retained trees are considered during the preparation of all detailed works drawings and construction methodology are successfully protected during the proposed works.**
- **Prior to any works commencing on site a meeting will be held with the site agent, client representative, main contractor to discuss the Tree Protection Measures associated with this project.**
- **Vegetation identified for removal as per the approved drawings will be clearly marked with spray paint. Any Trees works including clearance, removal or facilitation pruning will be undertaken by a suitably qualified and insured Arboricultural Contractor.**
- **The groundworks will not commence until the Tree Protection Fencing has been inspected by the ACoW. The area for the no-dig section of footpath will be fenced-off to prevent access across the open ground prior within the RPA of retained trees.**
- **The Tree Protection Fencing will remain in situ during the construction programme.**
- **No Machinery will overhang or pass over the line of the Tree Protection Fencing.**
- **The Tree Protection Plan will be on display in the site agent's office.**
- **Any variations to the agreed construction methodology that may impact on the retained trees or the ground around the retained trees will be reviewed by the ACoW**
- **All works (including Footpath Construction / Landscaping works) within the fenced-off Tree Protection / Construction Exclusion Zone and as identified on the Tree Protection Plan will be specified to avoid excavation, level changes and damage to the root system of the retained trees. The specifications and construction methodology for all these works will be reviewed by the ACoW prior to works commencing.**
- **The construction of the footpath will be undertaken following the guidance outlined in the Arboricultural Method Statement and under direct Arboricultural Supervision by the ACoW.**
- **The removal or movement of Tree Protection Fencing will only be undertaken following discussion with, and receipt of written confirmation from the ACoW.**

8.2 It should be noted that damage to trees both above and below ground may impact on the health and structural integrity of the tree and this may (usually in the longer term result) in whole or partial tree failure, which has the potential to result in personal injury and or damage to property. With regard to the size and location of the retained trees it is therefore essential that the construction methodology and tree protection measures outlined in this report are fully implemented.

8.3 Below is an extract from BS5837 (2012) *'Trees in relation to design, demolition and construction – Recommendations*' relating to the preparation of an Arboricultural method statement.

6.1 Arboricultural method statement

6.1.1 *A precautionary approach towards tree protection should be adopted and any operations, including access, proposed within the RPA (or crown spread where this is greater) should be described within an arboricultural method statement, in order to demonstrate that the operations can be undertaken with minimal risk of adverse impact on trees to be retained.*

6.1.2 *The arboricultural method statement should be appropriate to the proposals and might typically address some or all of the following, incorporating relevant information from other specialists as required:*

a) removal of existing structures and hard surfacing;

b) installation of temporary ground protection,

c) excavations and the requirement for specialized trenchless techniques;

d) installation of new hard surfacing – materials, design constraints and implications for levels;

e) specialist foundations – installation techniques and effect on finished floor levels and overall height;

f) retaining structures to facilitate changes in ground levels;

g) preparatory works for new landscaping;

h) auditable/audited system of arboricultural site monitoring, including a schedule of specific site events requiring input or supervision.

6.1.3 *The arboricultural method statement should also include a list of contact details for the relevant parties.*

8.4 Within Section of 9 of this report we will deal with each of the relevant points in turn but the 1st works to be undertaken prior to any groundworks or enabling works commencing will be the tree works along with the installation of the tree protection fencing as per the Tree Protection Plan prepared by Ruskins Tree Consultancy (See Appendix 2).

8.5 Any subsequent works within the fenced-off area will be subject to detailed specification and direct arboricultural supervision.

8.6 Within the fenced off Tree Protection Area unless agreed with the ACoW there will be;

- No level changes + or -
- No storage of plant or materials.
- No storage or handling of any chemical including cement washings.
- No Pedestrian, Machinery or Vehicular Access.
- Any works within the Fenced off areas will be subject to Arboricultural Supervision.

8.7 Fires on site should be avoided if possible. Where they are unavoidable, they must not be lit in a position where heat could damage foliage or branches. Fires must be a minimum of 20m from the trunk of any retained tree or the centre line of any hedgerow to be retained. No signs, cables, fixtures or fittings of any other description shall be attached to any part of a retained tree.

8.8 The fencing should only be removed only after completion of the construction works to allow for landscaping works. The fenced off area is a Construction Exclusion Zone (CEZ). Clear notices are to be fixed to the outside of the fencing with words such as 'TREE PROTECTION AREA – NO ACCESS OR WORKING WITHIN THIS AREA'. (See Appendix 3).

9.0 Arboricultural Site Supervision

9.1 To ensure that the construction process is undertaken with minimal disturbance to the retained tree stock, an Arboricultural Clerk of Works (ACoW) will be appointed to undertake regular inspections of the site.

9.2 The Arboricultural Clerk of Works role shall be to:

a. To assess the specification and methodology of the proposed works and ensure these works have the minimum impact on the retained trees.
b. Brief the workers on the necessity to protect the retained trees.
c. To ensure the agreed methodology is followed by direct on-site supervision.
d. To prune roots using clean sharp pruning tools during manual excavation (if necessary).
e. To provide direction on tree protection issues as they arise.
f. To monitor and photograph the works undertaken.

9.3 Prior to site works commencing a site meeting will be held with the site agent and the arboricultural clerk of works and the demolition and ground works contractors.

9.4 The purpose of this meeting is to brief the site manager and relevant parties on the arboricultural issues to be considered, agree the programme of works and the location tree protection fencing.

9.5 The tree protection measures will be explained to all contactors and sub-contractors who will read, and sign this document before they undertake any works on site.

9.6 Arboricultural monitoring site visits will be undertaken at regular intervals during the construction process.

9.7 To deal with any emergences involving damage to trees, the Arboricultural Supervisor will provide a contact number that will be answered during all the hours of works on site. The Cherwell District Council Tree Officer will be informed of any accidents or emergencies involving trees.

10.0 Tree and Hedge Removals and Tree Pruning

10.1 Removal of vegetation will be undertaken as per the approved plans on the granting of full planning permission. The works will be undertaken prior to the erection of the tree protection fencing, all vehicles and machinery will be located on the existing hardstanding or on open ground well beyond the Root Protection Area of the retained vegetation. All tree works will be undertaken by appropriately qualified and insured Tree Surgery Contractors with all works to comply with BS3998 2010.

11.0 Arboricultural Method Statement

11.1 Prior to works commencing the tree protection fencing will be erected to restrict the working zone as per the Tree Protection Plan (See Appendix 2). This 2m high fencing will form a rigid immovable barrier which will be braced and secured in place using ground pins (See Appendix 3). Tree protection fencing must remain in place throughout the works. The area for the no-dig section of footpath will be fenced-off to prevent access across the open ground prior within the RPA of retained trees.

11.2 During the highway works weekly arboricultural monitoring site visits will be undertaken by Peter Wilkins of Ruskins Tree Consultancy. A mix of scheduled and unannounced site visits will be undertaken these inspections will serve to identify any damage to the Tree Protection Fencing, poor working practices, potential problems and points of conflict between the demolition process and the health of the trees.

11.3 During these visits any changes to the proposed works will be discussed, their impact assessed and recommendations for best practice will be outlined. After each of these visits a copy of the report will be sent to the Site Agent, Local Authority Tree Officer and Project Manager. The remedial action undertaken will be recorded on the next visit.

11.4 Underground services will be designed to avoid the root protection areas of retained trees. The underground services drawing will be reviewed by the ACoW. If underground services are located within the Root Protection Area of retained trees the works the works will follow the guidelines outlined in NJUG Volume 4 Guidelines for the Planning, Installation and Maintenance of Utility Apparatus in Proximity to Trees – Issue 2.

11.5 This guidance recommends works are undertaken following these rules; (with our additional comments in italics).

- **Don't** excavate with machinery. Where excavation is unavoidable within this zone excavate only by hand or use trenchless techniques. (*Preferably using an air-spade to excavate soil to determine the size, location and density of roots within the service route).*
- **Don't** cut roots over 25mm in diameter, unless advice has been sought from the local authority tree officer. (or ACoW)
- **Don't** move / use heavy mechanical plant except on hard standing.
- **Don't** store spoil or building material, including chemicals and fuels, within this zone.
- **Do** prune roots which have to be removed using a sharp tool (e.g. secateurs or handsaw). Make a clean cut and leave as small a wound as possible.
- **Do** backfill the trench with an inert granular material and top soil mix. Compact the backfill with care around the retained roots. On non-highway sites backfill only with excavated soil.
- **Do** protect any exposed roots with dry sacking ensuring this is removed before backfilling.
- **Do** notify the local authority tree officer and the tree's owner of any damage.

11.6 <u>Installation of new footpaths;</u>

11.7 The proposed new footpaths as identified as No-Dig on the Tree Protection Plan will be installed to restrict the amount of excavation for both sub-base and edging kerbs and avoid damage to the root system and rooting environment of the retained trees. Within the RPA of retained trees in areas of existing open ground the new 'low impact' hardstanding will be specified and constructed to avoid excavation >150mm below the existing ground level.

11.8 For the areas of low impact / 'no dig' hardstanding as identified on attached Tree Protection Plan (See Appendix 2) the following guidelines will be followed:

- A detailed site specific specification for the new footpath will be prepared based on the soil characteristics prior to works commencing on this site. This specification will be reviewed and approved by the Arboricultural Clerk of Works.
- No excavation is to be undertaken without agreement and supervision by the Arboricultural Clerk of Works.
- During construction of the footpath all operations will be carried out using machinery located on the existing hardstanding, temporary ground protection or the installed hardstanding. No machinery will travel across open ground within the Root Protection Area of retained trees.
- The finished surface must be permeable to moisture penetration.

11.9 <u>Preparatory works for new landscaping</u>

11.10 Dismantling the protection barriers will be required to allow completion of final landscaping. Supervision of this exercise and control of the landscaping thereafter will be administered by the appointed Arboriculturist. The removal of the Tree Protection Fencing is not an opportunity for machinery to access the previously fenced off area.

11.11 No further excavation will be carried out during this process and soils levels will not be raised above that existing by greater than 100mm and not at all within 2m of the trunk.

11.12 During landscaping works the following guidance will be followed.

- Landscaping within the RPA of retained trees shall be by manual methods only.
- No machinery is to be used for cultivation, removal of soil or additional of soil.
- For areas of open ground original soil levels shall be unchanged, without import of topsoil or removal of existing soil.
- For laying of turf, the soil will not be rotavated. The soil will be lightly forked, manually hoed and raked to a fine tilthe prior to laying of turf.
- For shrubs or herbaceous beds. Planting shall be by use of hand tools and excavation shall be to the minimum extent required for planting of shrubs etc., on an individual plant by plant basis.
- Bark mulch may be applied to a maximum 75mm depth. No mulch should be piled up against the trunk of retained or newly planted trees.

11.13 <u>Auditable / audited system of arboricultural site monitoring</u>

11.14 See Section 9.0. Arboricultural monitoring site visits will be undertaken at regular intervals during the enabling / demolition and construction programme. During the demolition / groundworks and initial phases of construction works site the visits will be undertaken on a maximum of a fortnightly intervals, as the construction programme progresses and the high risk activities in terms of impacting on trees have been completed the intervals will increase with the maximum interval between site visits of 1 month.

11.15 To deal with any issues involving the trees, the Arboricultural Clerk of Works will provide a contact number that will be answered during all the hours of works on site (See Below). The Local Authority Tree Officer will be informed of any accidents or emergencies involving trees.

12.0 Contact Details

Dorchester Group Project Manager
Barry Dell
01869 238410
07548 650556
b.dell@dorchestergrp.com

Cherwell District Council Arboricultural Officer
Rhodri Jones
01295 221708
Rhodri.jones@cherwellandsouthnorthants.gov.uk

Arboricultural Clerk of Works
Peter Wilkins,
07765 228388
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Appendix 1

Tree Condition Survey

Tree Condition Survey for the S278 Works Camp Road, Heyford Park, Upper Heyford, Bicester, OX25 5HD

Prepared for Dorchester Group

RUSKINS
TREE CONSULTANCY

A trading name of RG Consultancy Limited

Prepared by
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Tree Condition Survey for the S278 Agreement Works, Camp Road, Heyford Park Centre Development, Upper Heyford, Bicester, OX25 5HD

1.0 Introduction

This survey has been undertaken on behalf of Dorchester Group, The scope of our assessment was to visit the S278 Agreement site and to re-survey relevant trees, we have been asked to re-assess the condition of trees located within and close to the boundary of the site in accordance with BS5837:2012 '*Trees in relation to design, demolition and construction – recommendations*.' These trees have previously been surveyed by Pegasus Group over the period from March 2015 to June 2016 and we have been provided with a copy of this tree survey, within our tree survey we have used the same tree numbers as the earlier Pegasus Group tree survey.

We have received a copy of the proposed S278 works plan and have updated this survey to reflect the tree works necessary to allow for these works .

2.0 Survey Methodology

We have surveyed all the individual trees and groups of trees located within and close to the boundary of the site. The objective of the survey is to collect tree data relevant to the proposed redevelopment of the site and to categorise individual trees or tree groups in accordance with BS 5837 (2012) 'Trees in relation to design, demolition and construction – Recommendations' based on their condition, quality and future potential.

The purpose of the categories within BS5837 2012, is not to determine whether retention of trees is desirable, '*The purpose of the tree categorization method, which should be applied by an arboriculturist, is to identify the quality and value (in a non-fiscal sense) of the existing tree stock, allowing informed decisions to be made concerning which trees should be removed or retained in the event of development occurring*.' (BS5837 2012 Section 4.5.2).

This survey should therefore be regarded as an initial appraisal and observations, assessments or recommendations relating to tree protection zones, remedial tree works, protective fencing, foundation design, material specification are beyond the scope of this report. The location of the tree is shown on the attached drawing.

A detailed inspection with respect to decay, defects and hazard is not included.

Within the tree survey schedule, each surveyed Tree (T) or Group (G) on or adjacent to the site is given a reference number which refers to its position on the overall tree survey plan for Upper Heyford (electronic copy available on request). Tree survey plan information such as quality grading, preliminary tree constraints: root protection areas are subsequently used in order to assess arboricultural impacts and tree protection measures.

In accordance with BS5837:2012, the following measurement standards were applied.

- *Tree species* are listed by common name.
- *Heights* are measured in metres. They are recorded to the nearest half metre for dimensions up to 10m and to the nearest whole metre for dimensions over 10m.
- *Trunk diameters* are measured in millimetres and are rounded to the nearest 10mm. Single stemmed tree diameters are measured at 1.5m above ground level or, where a fork or swelling makes this impractical, at the narrowest point beneath. Diameters of multi-stemmed trees are calculated as 'combined stem diameters' according to specific guidance set out within BS5837:2012. W here trunk diameters have had to be estimated due to poor access, for example, this is indicated with a '#'.
- *Branch spreads* are taken at the four cardinal points to derive an accurate representation of the tree crown. They are recorded up to the nearest half metre for dimensions up to 10m and to up the nearest whole metre for dimensions over *10m.*
- *Crown clearance* is expressed both as existing height above ground level of first significant branch along with its direction of growth (eg 2.5m-N), and also in terms of the overall canopy. Measurements are recorded to the nearest half metre for dimensions up to 10m and to the nearest whole metre for dimensions over 10m.
- *Estimates.* Where any other measurement has had to be estimated, due to inaccessibility for example, this is indicated by a "#" suffix to the measurement as shown in the tree survey schedule.
- *Life stage* is defined as Y – young (stake dependent), SM - Semi-Mature (still capable of being transplanted without preparation, up to 30cm girth and not yet sexually mature), EM – Early Mature (not yet having reached 75% of expected mature size), M – Mature (anything else up to normal life expectancy for the species), OM – Over Mature (anything beyond mature and in natural decline), V
  – Veteran (any tree displaying characteristics described by Natural England).
- *General observations are* recorded in relation to a tree's structural and/or physiological condition (e.g. the presence of any decay and physical defect) and /or any preliminary management recommendations that may be appropriate.
- *Physiological condition* is described as Good (no indications of impaired physiological function and in optimum condition for age and species), Fair (with indicators of reduced vitality. Some intervention may be required), Poor (with significantly impaired physiological function for age and species).
- *Structural condition* is described as Good (without any observable significant bio-mechanical structural weaknesses), Fair (with minor biomechanical structural flaws. Some remedial action may be required), Poor (with significant biomechanical weaknesses requiring intervention particularly where risk management is required).
- *Useful life expectancy,* or the length of time a tree's is estimated to be able to make a useful contribution, is expressed in years as: <10, 10+, 20+, and 40+.
- *Quality of individual trees, groups of trees and woodlands is assessed in terms of quality* and benefit within the context of proposed development and graded into one of four categories (A, B, C and U) which are differentiated on the tree survey (Appendix 3) plan as per the Cascade chart for tree quality assessment BS 5837 (2012) 'Trees in relation to design, demolition and construction – Recommendations' see below.

BS 5837 (2012) 'Trees in relation to design, demolition and construction – Recommendations'.

Table 1 Cascade chart for tree quality assessment

Trees unsuitable for retention (See Note)				
Category and definition	**Criteria (including subcategories where appropriate**			**Identification on plan**
Category 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	• 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) • Trees that are dead or are showing signs of significant, immediate, and irreversible overall decline • 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 NOTE Category U trees can have existing or potential conservation value which it might be desirable to preserve; see ***4.5.7***.			Red
Trees to be considered for retention				
	1 Mainly arboricultural qualities	**2 Mainly landscape qualities**	**3 Mainly cultural values, including conservation**	
Category A **Trees of high quality** 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 See Table 2 of significant conservation, historical, commemorative or other value (e.g. veteran trees or wood-pasture)	Green
Category B **Trees of moderate quality** 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	Blue
Category 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 *	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

From BS 5837 (2012) Trees in relation to design, demolition and construction – Recommendations

TABLE 1

Tree No.	Species	Hgt (m)	Stem Dia (mm)	CS N (m)	CS S (m)	CS E (m)	CS W (m)	1st branch	1st branch direction	Canopy Hgt (m)	Structural Condition	Physiological Condition	ERCY	Life stage	General observations Physiological and structural condition	Proposed Works	BS Cat
H133	Mixed hedge.	1.5	-		-	-	-	-	-	-	-	-	-	-	A mixed hedge along the highway boundary of the site.	Remove to allow for proposed S278 Works.	C2
T147	Hawthorn	4	220	1	3	2.5	3	2	West	2	Medium	Medium	10+	M	In hedge. Evidence of past pruning on roadside. Remove ivy on stem.	Remove due to poor condition	C2
T149	Sycamore	15	509	6	6	2	3	2.5	North	2	Medium	Medium	20+	M	Multiple weak forks. Minor deadwood. Suppressed to east.	Within Village Centre (North) Site Retain and protect during construction works	C2
T150	Hawthorn	6	300	1	3	3	3	N/A	N/A	2.5	Medium	Medium	10+	M	Forks at 2m. Remove ivy and re assess.	Remove due to poor condition	C2
T151	Hawthorn	4.5	230	0.5	3	3	3	N/A	N/A	2.5	Medium	Medium	10+	M	Forks at 1.5m. Remove ivy and re assess.	Remove due to poor condition	C2
T152	Sycamore	17	460	7	6	4	3	2	South	4	Medium	Medium	20+	M	Some pruning wounds with deadwood and decay. Clean through canopy.	Within Village Centre (North) Site Retain and protect during construction works	C2
T154	Beech (Common)	16	742	8	8	8	7	2.5	South west	2	Medium	High	20+	M	No works required. Minor deadwood.	Within Village Centre (North) Site Retain and protect during construction works	B2
T155	Hawthorn	6	250	0.5	3	3	3	N/A	N/A	2	Medium	Medium	10+	M	Forks at 2m. Remove ivy and re assess.	Remove due to poor condition	C2
T156	Sycamore	15	550	7	6	5	5	2	North west	2.5	High	High	20+	M	Minor deadwood.	Within Village Centre (North) Site Retain and protect during construction works	B2
T157	Sycamore	15	600	6	6	5	3	2.5	South east	2.5	Medium	Medium	20+	M	Possible decay at junction of stems at 1.5m. Suppressed to west.	Within Village Centre (North) Site Retain and protect during construction works	B2
T158	Beech (Common)	16	630	4	7	6	5	2.5	East	2	High	High	20+	M	Suppressed to north.	Within Village Centre (North) Site Retain and protect during construction works	B2
T121	Beech (Common)	16	790	9	8	12	8	3	East	High	Medium	40+	2	M	Minor bark damage at 1.5m west. Exposed roots. Minor amounts minor deadwood.	Within S278 Camp Road Site Retain and protect during construction works	B1
T123	Cypress (Lawson)	14	600	3.5	4	3.5	4	N/A	N/A	High	High	40+	1.5	M	Pruning observed. Good tree.	Adjacent to S278 Camp Road Site Off-site if necessary protect during construction works	B1

Appendix 2

Tree Removals Plan

Tree Protection Plan

(If digital versions of these plans are required

please email info@ruskins-tree-consultancy.co.uk to request a copy)

N

CAMP ROAD

MP ROAD

CAMP ROAD

CAMP ROAD

T162 -B2
T160 -C2
T159 -C2
T158 -B2
T154 -B2
T152 -B2
T146 -C2
T157 -B2
T156 -B2
T155 -C2
T151 -C2
T150 -C2
T149 -C2
T148 -C2
T139 -B2
T136 -C2
T134 -B2
T132 -B1
T138 -B2
T137 -B2
T135 -C2
H133 -C2
T123 -A1
T121 -B1

VILLAGE CENTRE (North)
Subject to separate planning application

Redline shows
S2178 Planning Application

294 295 296 297 298 300 299
293 289 291 292 290
280 279 278 281 277 282 276

0 5 10 15 25 50m 75m

NORTH
Indicative

Tree Removals Plan Key

Hedge to be removed

T651 -B1
Tree to be retained

T651 -B1
Tree to be removed

Heyford Park
S278 Application Camp Road

Tree Removals Plan
For
Dorchester Group

Ruskins Group Consultancy
Arboricultural Consultants
01277 849990 linfo@ruskins.co.uk
www.ruskins.co.uk

Scale	NTS	Drawn by	PW
Date	24/04/2017	Checked by	*
Project No.	0317-2107		
Dwg. No.	TSP 1		

T157 – C2

T162 – B2
T160 – C2
T159 – C2
T158 – B2

T154 – B2
T152 – B2

T157 – B2
T156 – B2

CAMP ROAD

CAMP ROAD

Redline shows
S278 Planning Application

VILLAGE CENTRE (North)
Subject to separate planning application

T123 -A1

T121 -B1

EXISTING

S278
VILLAGE CENTRE

PHASE 5

LAYOUT OF PARCEL TBC
THROUGH PLANNING

CAMP ROAD

CAMP ROAD

294 295 296 297 298 299 300

292 293 289 291 290 280 279 281 278 277 276 282

0 5 10 15 25 50m 75m

N
NORTH
Indicative

Heyford Park
S278 Application Camp Road

Tree Protection Plan
For
Dorchester Group

RUSKINS
TREE CONSULTANCY
01277 849990
info@ruskins-tree-consultancy.co.uk
www.ruskins-tree-consultancy.co.uk

Scale	NTS	Drawn by	PW
Date	24/04/2017	Checked by	*
Project No.	0317-2111		
Dwg. No.	TPP 1		

Tree Protection Plan Key

No-Dig Hardstanding
Fence-off this area prior to any works commencing on site, No-Dig Hardstanding specification, including levels and Construction Methodology to be approved by the Arboricultural Clerk of Works (ACoW) prior to works commencing. All works within this areas to follow the guidelines as outlined in the Arboricultural Report and to be undertaken under direct supervision by the (ACoW).

Tree Protection Zone / Construction Exclusion Zone
Fence-off this area prior to any works commencing on site, no access during enabling, groundworks or construction works except under direct supervision by the Arboricultural Clerk of Works (ACoW). Fencing to be moved to allow installation of No-Dig paths and No-Dig hardstanding to follow the guidelines as outlined in the Arboricultural Report and to be undertaken under direct supervision by the (ACoW).follow guidelines as outlined in the Arboricultural Report.

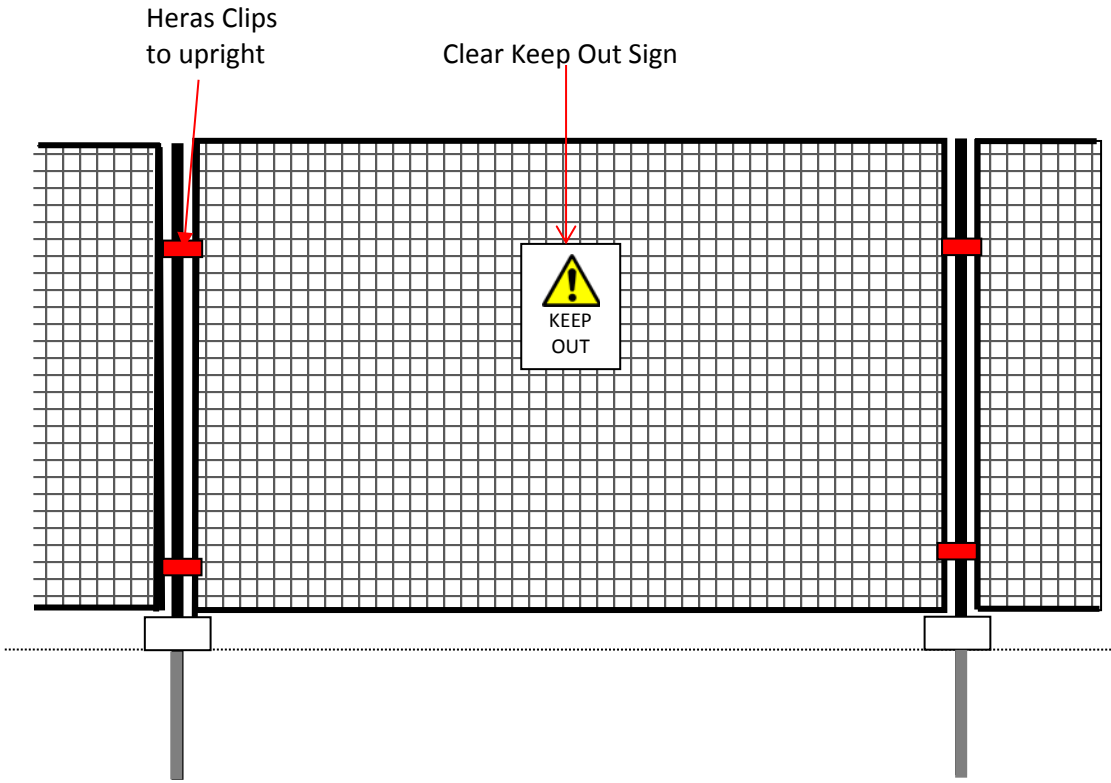
Appendix 3

Tree Protection Fencing Specification

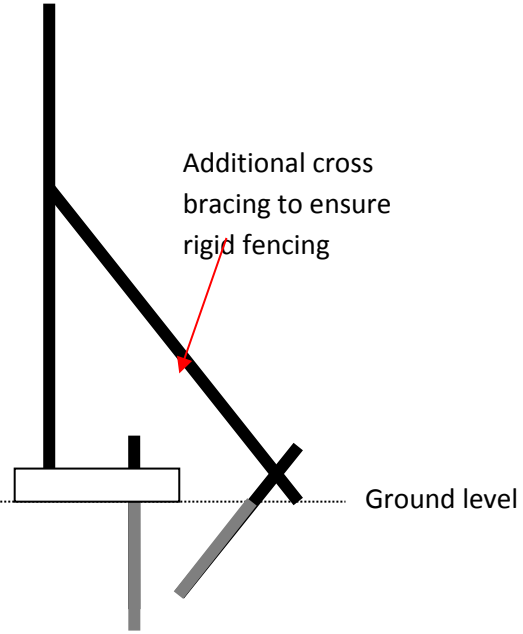
Tree Protection Fencing Notice

Tree Protection Fencing Specification

Elevation



Section



Tree Protection Fencing should be erected as per the Tree Protection Plan prior to any works commencing or materials being delivered to site.

If concrete or rubber feet are used these must be pinned to the ground to prevent movement.

TREE PROTECTION AREA

PLEASE KEEP OUT

The trees in this area are protected by statutory protection and / or planning conditions. Any works in this fenced off area may result in damage to the above ground parts or root system of these trees.

Damage to these trees (including above or below ground parts of these trees) is a breach of the planning consent and may lead to enforcement action and / or a criminal prosecution.

Please contact peter@ruskins-tree-consultancy.co.uk for more information.