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ARBORICULTURAL IMPACT ASSESSMENT

of

**TREES IN RELATION TO OUTLINE APPLICATION FOR
PROPOSED RESIDENTIAL DEVELOPMENT**

at

**THE BROWN LEAVES COUNTRY HOTEL
LONGSIGHT ROAD
COPSTER GREEN
LANCASHIRE
BB1 9EU**

prepared for

MR ARTHUR FISHER

June 2011

CONTROL SHEET

Project No.: BOW17/278

Project Title: Arboricultural Impact Assessment at Brown Leaves Hotel, Copster Green

Client: Mr Arthur Fisher

Architects: Lea, Hough & Co.

Local Authority: Ribble Valley Borough Council

Date of Survey: 16/02/11

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DISCLAIMER

Survey Limitations: Unless otherwise stated all trees are surveyed from ground level using non-invasive techniques, in sufficient detail to gather data for and inform the design of the current project only. The disclosure of hidden crown and stem defects, in particular where they may be above a reachable height or where trees are ivy clad or in areas of ground vegetation, cannot therefore be expected. All obvious defects, however, are reported. Detailed tree safety appraisals are only carried out under specific written instructions. Comments upon evident tree safety relate to the condition of said tree at the time of the survey only. Unless otherwise stated all trees should be re-inspected annually in order to appraise their on-going mechanical integrity and physiological condition. It should, however, be recognised that tree condition is subject to change, for example due to the effects of disease, decay, high winds, development works, etc. Changes in land use or site conditions (e.g. development that increases access frequency) and the occurrence of severe weather incidents are also significant considerations with regards tree structural integrity and trees should therefore be re-assessed in the context of such changes and/or incidents and inspected at intervals relative to identified and varying site conditions and associated risks.

Where trees are located wholly or partially on neighbouring private third-party land then said land is not accessed and our inspection is therefore restricted to what can reasonably be seen from within the site. Stem diameters of trees located on such land are estimated. Any subsequent comments and judgments made in respect of such trees are based on these restrictions and are our preliminary opinion only. Recommendations for works to neighbouring third-party trees are only made where a potential risk to persons and/or property has been identified during our survey or, if applicable, where permissible works are required to implement a proposed development. Where significant structural defects of third-party trees are identified and associated management works are considered essential to negate any risk of harm and/or damage then we will first attempt to inform the site occupier of the issues and, if not possible, then inform the relevant Council. Where a more detailed assessment is considered necessary then appropriate recommendations are set out in the Tree Survey Schedule.

Where tree stem locations are not included on the plan(s) provided then they are plotted at the time of the survey using, where appropriate and/or practicable, a combination of measurement triangulation and GPS co-ordination. Where this is not possible then locations are estimated. Restrictions in these respects are detailed in the report.

The potential influence of trees upon buildings or other structures resulting from the effects of their roots abstracting water from shrinkable load-bearing soils is not considered herein. The advice of a structural engineer should be sought with regard to appropriate foundation depths for new buildings with reference to NHBC Standards Chapter 4.2 (NHBC, 2008).

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1.0 INTRODUCTION

Terms of Reference

- 1.1 Bowland Ecology are commissioned by Lea, Hough & Co to:
- a) Survey from ground level all trees having reasonable potential to be adversely affected by the proposed site development;
 - b) Prepare a tabulated Tree Survey Schedule based on guidance specified in British Standard BS5837:2005 - Trees in Relation to Construction – Recommendations;
 - c) Assess the tree related impacts and potential design conflicts of the proposed development;
 - d) Advise on removal, retention and management options for the trees in the current context and in the context of the proposed development;
 - e) Assess the tree protection measures required during the development;
 - f) Annotate the site proposal plan to identify tree numbers, retention categories, crown spreads and Root Protection Areas to indicate tree constraints, along with trees proposed for retention and removal in order to produce a Tree Impact Plan;
 - g) Produce an Arboricultural Impact Assessment (AIA) report outlining the main tree related issues and potential tree related impacts in relation to the development proposal and suitable mitigation and/or protection measures; and
 - h) Provide the completed documents as a combined report in electronic PDF format in support of the planning application.

Scope and Purpose of Report

- 1.2 By detailing foreseeable tree related issues this report is intended to assist the Local Planning Authority (LPA) in their review of the proposed development and, as such, should be supplied to them in support of the planning application to which it pertains. Essentially, the report provides a preliminary analysis of the impacts that the proposed development would potentially have on trees and, in turn, the effects that any such impacts would potentially have on the visual amenity of the local landscape. It also offers guidance on suitable tree management and mitigation and appropriate tree protection measures in the context of the proposed development.

Site Visit, Data Collection and Plan Preparation

- 1.3 Further to our instruction we confirm that Phill Harris visited the site on 16 February 2011 and carried out an appraisal of trees, as detailed above and in accordance with the preceding disclaimer. All tree data collected on site is set out in the attached tabulated Tree Survey Schedule (TSS) at Appendix One which, for ease of interpretation, should be read in conjunction with the associated BS5837:2005 Table 1. Weather conditions during the survey were moderately cold but clear and dry, with no discernable wind.
- 1.4 During our survey we identified fifteen individual trees (prefixed 'T') and eight groups of trees (prefixed 'G') and have numbered them T1 to T16 and G1 to G8, as detailed on the appended Tree Impact Plan (TIP). The TIP is based on an OS plan that was provided in electronic format by project architects Lea, Hough & Co. and, for the purpose of this report, we presume the plan details to be accurate. The TIP details the existing site with the readily definable tree constraints (see 1.1f) and an overlay of the development proposal, thereby allowing a preliminary appraisal of the development's potential impacts on trees (see section 6.0) and a subsequent evaluation of protection, tree work and mitigation requirements. The constraints relating to tree RPAs and their protection requirements are discussed in detail at paragraphs 7.1 and 7.2.

2.0 STATUTORY PROTECTION IN RESPECT OF TREES & ASSOCIATED WILDLIFE

Tree Preservation Orders & Conservation Area Designations

- 2.1 Section 198 of the Town & Country Planning Act (the Act) 1990 and associated Regulations empower Local Planning Authorities (LPAs) to protect trees in the interests of amenity by making Tree Preservation Orders (TPOs). Section 211 of the Act also affords protection for trees of over 75mm diameter that stand within the curtilage of a Conservation Area (CA). Subject to certain specified exemptions, an application must be made to the LPA in question to carry out works upon or to remove trees that are subject to a TPO, whilst six weeks' notice of intention must be given to carry out works upon or remove trees within a CA and not protected by a TPO. However, in situations where detailed planning permission has been granted and protected trees directly affect the implementation of the approved development, then it is permissible to carry out any works necessary to said trees in order to implement said development.
- 2.2 We are informed by Lea, Hough & Co that none of the surveyed trees are currently afforded protection as part of a TPO and, according to the Lancashire County Council 'Maps & Related Information Online' (Mario) website, the site itself does not stand within a CA.

Protected Species

- 2.3 Nesting birds are afforded statutory protection under the Wildlife & Countryside Act (1981) (as amended) and their potential presence should therefore be considered when clipping hedges, removing climbing plants and pruning and removing trees. Hedges provide valuable nesting sites for many birds and clipping should therefore be avoided during March to July. Trees, hedges and ivy should be inspected for nests prior to pruning or removal and any work likely to destroy or disturb active nests should be avoided until the young have fledged.
- 2.4 All species of bat are protected under Schedule 5 of the Wildlife & Countryside Act (1981) (as amended) and under Schedule 2 of the Conservation of Habitats and Species Regulations 2010. In this respect it should be noted that it is possible that unidentified bat habitat features may be located high up in tree crowns and all personnel subsequently carrying out tree works at the site should therefore be vigilant and mindful of the possibility that roosting bats may be present in trees with such features. If any bat roosts are identified then it is essential that works are halted immediately and that a qualified and an experienced ecologist investigate them prior to works continuing. These issues are considered in more detail in the ecology reports submitted in support of the application.

Felling Licences

- 2.5 Subject to certain exemptions the Forestry Act (1967) requires that a 'Felling Licence' be obtained to fell growing trees amounting to specific volumes of timber. Felling Licences are administered by the Forestry Commission and contravention of the associated controls can incur substantial penalties. However, we would note that a Felling Licence is not needed for the removal of trees immediately required for the purpose of carrying out a development authorised by detailed planning permission granted under the Act (1990).

3.0 COUNCIL POLICY IN RESPECT OF TREES & WOODLANDS

- 3.1 The site stands within the administrative boundaries of Ribble Valley BC and, as such, our arboricultural appraisal considers the proposed site development against the relevant Council policies. The Ribble Valley BC Districtwide Local Plan (Ribble Valley BC, 1998) includes only one Policy (below) specific to trees in relation to this site; 'Policy ENV13 - Landscape Protection'. Ribble Valley BC also have a Supplementary Planning Policy for Trees, of which paragraph 5.5 states that the "Local Authority will ensure that the right trees are maintained, protected and correctly managed".

POLICY ENV13 - LANDSCAPE PROTECTION

The Borough Council will refuse development proposals which harm important landscape features including traditional stone walls, ponds, characteristic herb rich meadows and pastures, woodlands, copses, hedgerows and individual trees other than in exceptional circumstances where satisfactory works of mitigation or enhancement would be achieved including rebuilding, replanting and landscape management

Reasoned Justification

It is important to protect the existing landscape features which add to the character of the Borough. The woodland coverage of the borough whether large woods, small groups, or individual trees, together with hedgerow coverage forms an important part of the landscape quality. In addition valuable ecological, recreational and economic functions arise from these features.

4.0 THE SITE & THE SURROUNDINGS

- 4.1 The site in question is located in a suburban residential rural-edge area of the village of Copster Green, approximately 11km due south-west of the centre of the Council's administrative town of Clitheroe. It is roughly rectangular in shape and currently consists of a single storey red-brick hotel building with associated hard-standing in the northern section and gardens in the southern section.

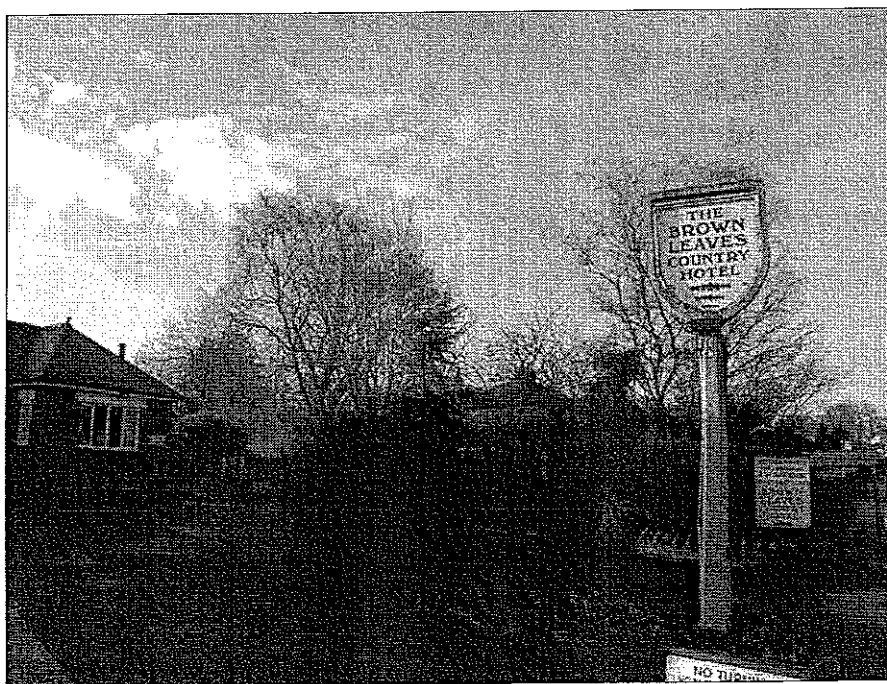


Fig 1: The site access looking south-west, with tree T3 visible to the left of centre

- 4.2 The site is bordered to the north by the busy A59 Longsight Road, to the east and north-west by moderately low density residential properties with gardens, and to the south and south-west by open fields. A stream separates the site from the field and

residential properties to the west and north-west. The main site features are a group of trees along the northern part of the western boundary and the hotel buildings themselves (see Fig. 1, previous page). Topography is largely level throughout the main but is variable to the northern and western boundaries, where it slopes slightly down to the road and, in places, steeply to the stream. Vehicular access to the site is from a single point off Longsight Road to the north.

- 4.3 In the circumstances of the development proposed, it was not necessary to carry out a detailed landscape character appraisal of the locality as part of this assessment. However, we did make a general appraisal of the visual amenity that the trees standing within the site confer in the locality based on their visual prominence and overall contribution to the landscape, as discussed in paragraph 5.1.

5.0 THE TREE POPULATION

- 5.1 As noted previously, fifteen individual trees and eight groups were surveyed for the purpose of this appraisal as detailed in the Tree Survey Schedule (TSS) at Appendix One and on the TIP at Plan One. The trees under consideration are in the small to moderate size range and the majority stand within the site boundaries, although several stand on neighbouring land. The comparatively larger trees closest to the road frontage are visible to varying degrees from the adjacent public highway and from various neighbouring properties (see Fig. 1, previous page), but those trees internal to the site are either hidden from public view or only partially visible (see Fig. 2, below). As such, the trees within the site boundaries confer a variable visual amenity in the immediate local landscape, from very low to moderate.

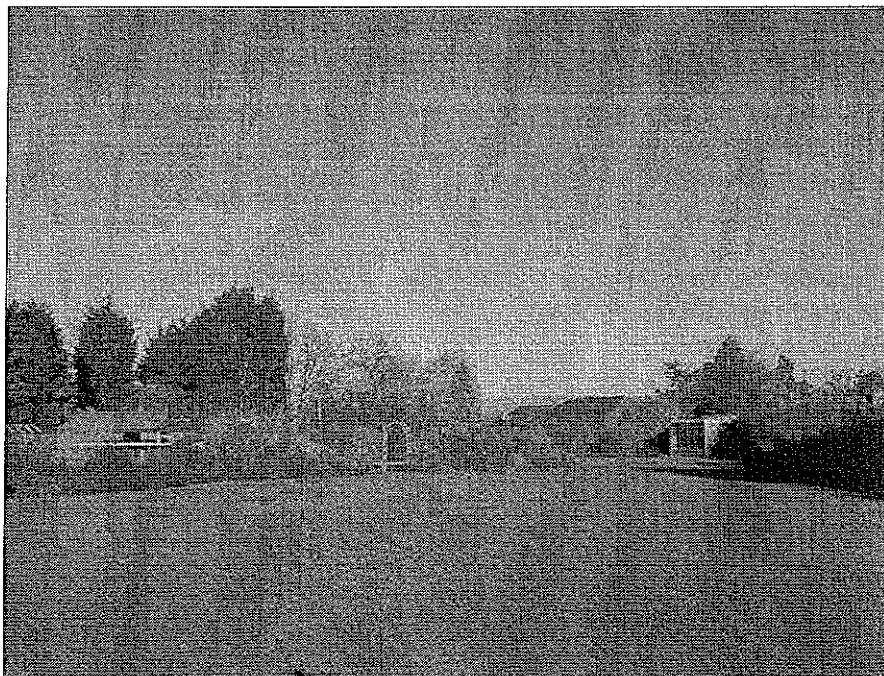


Fig. 2: The site, as seen from the south looking north, with group G3 to the left

- 5.2 The surveyed vegetation consists of various deciduous broadleaf, evergreen broadleaf and evergreen coniferous tree and shrub species, including ash, sycamore, silver birch and Leyland cypress. The trees and shrubs are in the young to early-mature age range and stand at heights of up to approximately 16.0 metres, have maximum diametrical crown spreads of up to approximately 13.0 metres and stem diameters of up to approximately 600mm. Detailed tree dimensions and other

pertinent information such as structural defects and physiological deficiencies are included in the Tree Survey Schedule (TSS) attached at Appendix One. In respect of the TSS it should be noted that tree quality and value is categorised within the existing context without taking into account any site development proposals. However, the recommendations for works included in the TSS take both current site usage into consideration and the proposed site development where there are definable development related issues with regards specific trees.

- 5.3 The TSS includes a column ('Cat. Grade') listing the trees' respective retention values, where they are rated either 'A', 'B', 'C' or 'R', as per BS5837:2005 Table 1 (Appendix One). In respect of the TSS it should be noted that tree quality and value is categorised within the existing context without taking into account any site development proposals. 'A' category trees are those considered to be of 'high quality and value' and, accordingly, the most suitable for retention and 'B' category trees are those considered to be of 'moderate quality and value'. 'C' category trees are those considered to be of 'low quality and value' which, as stated in BS5837:2005 Table 1, *"will usually not be retained where they would pose a significant constraint on development"*. In turn, 'R' category trees are those that are in relatively poor condition whereby they should be removed for reasons of sound arboricultural management regardless of any plans for the site.
- 5.4 As such, only those classed either 'A' or 'B' are of a quality and value whereby they may be considered as a potential material constraint in the development process and, in this respect, BS5837:2005 states that *"Certain ['A' category] trees are of such importance and sensitivity as to prevent development occurring or to substantially modify its design"*. However, it should be noted that the guidance does not state that all trees identified as 'A' or 'B' category have to be retained at all costs. Rather, a more pragmatic approach should be taken whereby the retention values of such trees are considered against the merits of the planned land use changes and they are subsequently afforded appropriate weight in the context of such proposals, with suitable compensatory planting proffered for any necessary losses should this course of action be established to be acceptable.
- 5.5 As detailed in Table One (below) six individual trees and two groups were allocated moderate retention values of 'B' and eight individual trees and six groups were allocated low retention values of 'C'. In addition one tree was allocated an 'R' category grade and, as such, is therefore recommended for removal in accordance with prudent arboricultural management regardless of site proposals.

Table One: BS5837(2005) Retention Values of the Surveyed Trees

	Ret Cats.	Tree Numbers	Totals
Trees of a high or moderate quality & value that should be afforded appropriate consideration in the context of development	'A'	-	-
	'B'	T3, T4, T5, T6, T7, T9, G1, G5	= 6 Individual Trees & 2 Groups of Trees
Trees of a low quality & value that should not be considered a material constraint to development	'C'	T1, T2, T8, T10, T11, T12, T13, T15, G2, G3, G4, G6, G7, G8	= 8 Individual Trees & 6 Groups of Trees
Trees that should be removed for sound management reasons regardless of site plans	'R'	T14	= 1 Individual Tree
			= 15 Individual Trees & 8 Groups in Total

6.0 THE DEVELOPMENT PROPOSAL, ITS PROJECTED ARBORICULTURAL IMPACTS & PROPOSED MITIGATION

- 6.1 The current proposal is for outline permission to construct 18 detached and semi-detached single-storey properties with associated access driveways leading from a new access road, private outdoor amenity space and, where applicable, garages, as per the Sketch Plan ref. BL-SK02 Rev. A. (Option 2), prepared by Baldwin Design & Consultancy Ltd. A footpath is proposed to run along the western side of the access road.
- 6.2 In order to preliminarily identify the impacts that these proposals would potentially have upon the trees in question the tree survey and constraints information has been overlaid onto the proposal plan to produce a Tree Impact Plan (TIP) (appended at Plan One) detailing:
- The approximate locations of the surveyed trees, along with their respective indicative radial RPAs and other pertinent information;
 - The location of the proposed residential properties and their associated gardens and drives, etc.;
 - The route of the proposed access road and the associated footpath; and
 - Approximate locations considered suitable for appropriate mitigation tree planting.

Projected Arboricultural Losses Relating to the Proposal & Associated Mitigation

- 6.3 As detailed in Table Two (below) construction of the proposed development will require the removal of one moderate quality 'B' category tree (T6) and one moderate value group (G5), four low quality 'C' category individual trees (T2, T8, T11 & T13) and three low quality groups (G4, G6 & G7). In addition, a small number of the tree and/or shrubs in group G2 also require removal in order to form the access footpath. Overall, these losses are projected to have a negligible impact upon the visual amenity of the locality

Table Two: Arboricultural Impacts of Proposed Development & Other Tree Removals

	Ret. Cats.	Removals necessary to implement development	Removals recommended for non-development related reasons	Total number of tree removals
Trees of a moderate or high quality & value that should be afforded appropriate consideration in the context of the proposed development	'A'	-	-	-
	'B'	T6, G5	-	1 Tree & 1 Group
Trees of a low quality & value that should not be considered a material constraint to development	'C'	T2, T8, T11, T13, G4, G6, G7	-	4 Trees & 3 Groups
Trees that should be removed for sound management reasons regardless of site plans	'R'	-	T14	1 Tree
Totals		5 Trees & 4 Groups	1 Tree	= 6 Trees & 4 Groups in Total

Mitigation for Projected Development Related Tree Losses

- 6.4 The necessary development related tree removals can be adequately mitigated for through the provision of new trees on site. The establishment of locally native species, in particular common oak (*Quercus robur*), silver birch (*Betula pendula*) and

field maple (*Acer campestre*) to the site boundaries would effectively complement the existing neighbouring rural landscape and enhance the long-term visual amenity of the locality, as well as provide important urban wildlife habitat. In addition, the provision of individual trees of smaller semi-ornamental species planted internal to the site would complement the proposed built structures. As can be seen on the TIP, given appropriate consideration for future growth potential, the site could accommodate upwards of approximately 20 trees.

- 6.5 General new tree planting recommendations are outlined further in paragraph 8.3, whilst specific tree planting requirements for this particular development proposal can be conditioned to a planning approval.

Other Projected Arboricultural Losses

- 6.6 As also detailed in Table Two, a single 'R' category tree (T14) is recommended for removal in accordance with prudent arboricultural management regardless of the site proposals.

7.0 RECOMMENDATIONS FOR SUCCESSFUL TREE RETENTION IN THE CONTEXT OF DEVELOPMENT

Root Protection Areas and Construction Exclusion Zones

- 7.1 Adequate protection of the Root Protection Areas (RPAs) of retained trees during construction is essential if their long-term viability is to be assured. RPAs, which are calculated through a method provided in BS5837:2005, are ground areas that should be protected by temporary protective fencing as Construction Exclusion Zones (CEZs) throughout the development process, thereby keeping the trees' root zones free from disturbance. Consequently, the RPA distances, as detailed in the TSS (see 7.2, below), give an idea of the on-site below-ground constraints in respect of tree roots and assist in planning for appropriate tree retention in relation to feasible development. In certain situations, there is a limited degree of flexibility in the RPA and CEZ positioning.
- 7.2 The TSS includes two columns listing the RPAs of the individually surveyed trees and, where applicable, the largest of the trees in any surveyed groups as overall areas in square metres and as radial distances. The radial RPAs are indicated as magenta coloured circles on the TCP. With regards CEZs the design, materials and construction of the fencing should be appropriate for the intensity and type of site construction works, should conform to section 9 of BS5837:2005 and should be agreed with the LPA. A temporary protective fencing specification is included at Appendix Two and the extents of the RPAs should dictate locations of the CEZs.

Underground Utilities

- 7.3 The installation of underground utilities can cause serious damage to trees roots and it is therefore essential that this is taken into account during the design layout stages and ensure that they are routed outside tree RPAs wherever possible. However, in situations where this is not possible and the service route must pass within tree RPAs then it is essential that they be installed using hand digging or thrust boring only, in accordance with the guidelines set out in the National Joint Utilities Group publication 'Volume 4: NJUG Guidelines For The Planning, Installation And Maintenance Of Utility Apparatus In Proximity To Trees (Issue 2) – Operatives Handbook' (2007).

- 7.4 If applicable, then specific details in respect of the installation of underground utilities at the site can be included in an Arboricultural Method Statement and a Tree Protection Plan, as discussed in paragraph 7.5, below

Arboricultural Method Statement and Tree Protection Plan

- 7.5 BS5837:2005 recommends that, where considered expedient, an Arboricultural Method Statement (AMS) and a Tree Protection Plan (TPP) be prepared detailing "*special mitigation construction*" such as the installation of underground utilities within tree RPAs using special methods. Essentially, the AMS and TPP describe the procedures, working methods and protective measures to be used in relation to retained trees in order to ensure that they are adequately protected during the construction process. Production of and adherence to an AMS and TPP can be conditioned to a planning approval if considered necessary.

8.0 OTHER RECOMMENDATIONS

Non-Development Related Tree Works and Recommendations

- 8.1 Any general management pruning works for retained trees that are stated to be non-development related, as detailed in the TSS, are recommended in accordance with prudent arboricultural management and should therefore be carried out regardless of any site plans and potential changes in land usage. All tree works should be carried out in accordance with BS3998:2010 - Tree Work – Recommendations.

Tree Work Related Consents

- 8.2 No tree pruning or removal works should commence on site until necessary consents have been obtained from the LPA as part of a planning approval or in respect of any statutory tree protection.

New Tree Planting

- 8.3 New tree planting proposals should be included in a landscape design plan for the site. All tree planting should be carried out in accordance with BS4428:1989 - Code of Practice for General Landscape Operations, BS3936-1:1992, Nursery Stock – Part 1: Specification for Trees and Shrubs and BS4043:1989, Transplanting Root-Balled Trees where applicable.

Arboricultural Contractors

- 8.4 All tree works should be carried out by suitably qualified and experienced arboricultural contractors carrying appropriate public liability insurance cover and be implemented to the minimum current CE and UK industry standards and in accordance with industry codes of practice. Only certificated personnel should, in accordance with The Control of Pesticides Regulations, apply any pesticides.

Contractors and Subsequently Identified Tree Defects

- 8.5 Contractors should be made aware that, should any significant tree defects become apparent during operations that would not have been immediately obvious to the surveyor, then such defects should be notified immediately to the client and subsequently confirmed to the consultant within five working days.

Retained Tree Management

- 8.6 Any tree risk management appraisal and subsequent recommendations made in this report were based on observations and site circumstances at the time of our survey. Trees are dynamic living organisms whose structure is constantly changing and even those evidently in good condition can succumb to damage and/or stress. In this respect we would note that, under the Occupiers' Liability Act (1957 & 1984), site occupants have a duty of care to take reasonable steps to prevent or minimise the risk of personal injury and/or damage to property from any tree located within the curtilage of the land they occupy. It is accepted that these steps should normally include commissioning a qualified and experienced arboriculturist to survey their trees in order to identify any risk of harm to persons or damage to property that they may present and, where unacceptable risks are identified, taking suitable remedial action to negate those risks.

9.0 SUMMARY AND CONCLUSIONS

- 9.1 15 individual trees and eight groups of trees were surveyed in respect of the outline proposal to construct 18 residential units at the site in question.
- 9.2 The surveyed trees are small to moderate in size and confer a very low to moderate visual amenity in the local landscape, dependent on the tree(s) under consideration and the location(s) from where they are viewed. Most are located within the site boundaries but a small number are evidently sited on neighbouring land and are therefore likely to be under third party ownership.
- 9.3 Six trees and two groups were allocated moderate retention values, eight trees and six groups were allocated low retention values and one tree was recommended for removal regardless of the site proposals.
- 9.4 Construction of the proposed development can be achieved with the removal of one moderate value tree, one moderate value group, four low value trees, three low value groups and part of a fourth low value group. The remaining low and moderate value vegetation can and should be sufficiently protected throughout the development, as per the recommendations in section 7 of this report.
- 9.5 Overall, these removals are projected to have a negligible impact upon the visual amenity of the locality and can be adequately compensated for through extensive new tree planting as part of an approved landscape scheme. The provision of suitable native and, where appropriate, non-native trees of appropriate species and growth potential which would help assure long-term landscape improvements and enhance tree cover and habitat value in the locality.
- 9.6 In consideration of the above we therefore conclude that the scheme complies with the requirements of relevant Council Policy and current Government guidance in respect of trees and development.

REFERENCES

- BS4428:1989 - Code of Practice for General Landscape Operations. BSI British Standards, London.
- BS3936-1:1992, Nursery Stock – Part 1: Specification for Trees and Shrubs. BSI British Standards, London.

BS4043:1989, Transplanting Root-Balled Trees. BSI British Standards, London.
BS5837:2005 - Trees in Relation to Construction – Recommendations. BSI British Standards, London.
National House Building Council (2008) NHBC Standards Chapter 4.2 - Building Near Trees. NHBC, Amersham.
National Joint Utilities Group (2007). Volume 4: NJUG Guidelines For The Planning, Installation And Maintenance Of Utility Apparatus In Proximity To Trees (Issue 2) – Operatives Handbook.
Ribble Valley Borough Council (1998). Ribble Valley Borough Council Districtwide Local Plan.

APPENDIX ONE:

TREE SURVEY SCHEDULE & BS5837:2005 TABLE 1

TREE SURVEY SCHEDULE FOR ARBORICULTURAL IMPACT APPRAISAL

Site: Brown Leaves Hotel, Copster Green, Lancashire, BB1 9EU

Agent for Client: Lea, Hugh & Co.

Surveyor: Phill Harris – Chartered Arboriculturist

Assessment Date: 16 February 2011

Job References: BOW17/278 / BTC185

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No.	Species	Height	Stem Diam.	Branch Spread	Height of CC	Age	PC	Comments on Condition, etc.	Management Recommendations	ERC	Cat. Grade	RPA Radius (m ²)	RPA Radius (m)
T1	Lawson Cypress (<i>Chamaecyparis lawsoniana</i>)	6.5	280	N 2 E 2 S 2.5 W 2.5	0.5	SM	M	- Evidently recently topped. - Crown showing signs of a reduction in vitality with moderate amount of foliar browning.	- Retain or remove in accordance with development design priorities. - If retained then ensure protection of RPA with CEZ throughout development.	10-20	C1/2	35.47	3.36
T2	Sargent Cherry (<i>Prunus sargentii</i>)	10	400 (ts)	N 2 E 2.5 S 1 W 1	4	EM	G	Stem bifurcates into co-dominant sub-stems at a height of approximately 0.1m with an acute included bark union.	Remove in order to accommodate development.	10-20	C1/2	50.27	4
T3	Silver Birch (<i>Betula pendula</i>)	13.5	410	N 6 E 6 S 3 W 4	4.5	EM	G	Slightly biased crown to north-east due to partial suppression by neighbouring tree(s).	Retain and ensure protection of RPA with CEZ throughout development.	20-40	B1	76.06	4.92
T4	Ash (<i>Fraxinus excelsior</i>)	15.5	500	N 7 E 7.5 S 5 W 6	5	EM	G	- Evidently located on neighbouring land therefore not inspected in detail. - Stem trifurcates into primary branches at a height of approximately 4.0m.	Ensure protection of RPA with CEZ throughout development.	> 40	B1	113.11	6
T5	Norway Maple (<i>Acer platanoides</i>)	9	200	N 2 E 5 S 3 W 2	3	Y	G	Slightly biased crown to north-east.	- Remove in order to accommodate development. - Grind out stump.	> 40	B1/2	18.10	2.4
T6	Norway Maple	9	210	N 3 E 4.5 S 3 W 2	3	Y	G	- Slightly biased crown to east. - Of a moderate quality and value whereby it would preferable to retain in context of proposed development and incorporate into landscape plans for site.	Retain and ensure protection of RPA with CEZ throughout development.	> 40	B1/2	19.95	2.52
T7	Ash	15.5	600	N 5 E 6.5 S 4 W 4	6	EM	G	Evidently located on neighbouring land therefore not inspected in detail.	Ensure protection of RPA with CEZ throughout development.	> 40	B2	162.88	7.2

HEADINGS & ABBREVIATIONS

Allocated Tree (T), Group (G), Woodland (W) or Hedge (H) reference number - refer to plan and to numbered tags where applicable

Common and botanical name in brackets where appropriate

In metres - where possible approximately 80% are measured using an electronic clinometer and the remainder estimated against the measured trees. In the case of Groups and Woodlands the measurement listed is that of the highest tree

Stem diameter - measured or estimated at a height of approximately 1.5 metres above ground level or just above the root flare for multi-stemmed trees. MS = multi-stemmed, TS = twin-stemmed

Crown radius measured (or estimated where considered appropriate) from the four cardinal points (north, east, south and west) to give an accurate visual representation of the crown

Height of crown clearance in metres - measured at lowest point above adjacent ground level - to inform on crown to height ratio, potential for shading, etc

Estimated age class - Y = young, SM = semi-mature, M = mature, PM = post-mature

Physiological Condition - a measure of the tree's overall vitality, i.e. D = Dead, WD = Wounded, P = Poor, M = Moderate, G = Good

Comments relating to the tree's overall condition and any other pertinent factors including structural defects, current and potential direct structural damage, physiological decline, poor form, etc

Either Preliminary or In Consideration of the Proposal - In the case of Arboricultural Constraints Surveys the recommended management works only take existing site and tree circumstances and conditions into account and not proposed developments. Arboricultural Impact Assessment and Method Statement related Surveys

Take the proposed development into consideration with recommendations made accordingly. More than one option may be given if considered appropriate

Estimated Remaining Contribution - in years as per BS5837:2005 (i.e. less than 10, 10-20, 20-40, more than 40)

Category Grading - tree retention value listed as R or A or C - broadly in line with BS5837:2005 table 1

Root Protection Area in m² - calculated area around the tree that must be appropriately protected throughout the development process in order to avoid root damage

Root Protection Area Radius - in metres measured from the centre of the stem to the line of tree protection

ERC: Comments on Condition, etc:

Management Recommendations:

ERC: Cat. Grade:

RPA m²:

RPA Radius (m):

No.	Species	Height	Stem Diam.	Branch Spread	Height of CC	Age	PC	Comments on Condition, etc.	Management Recommendations	ERC	Cat. Grade	RPA (m ²)	RPA Radius (m)
T8	Hybrid Black Poplar (<i>Populus x canadensis</i>)	9	220	N 1 E 2.5 S 1.5 W 1	5	SM	G	Moderate lower stem curvature.	- Remove in order to accommodate development. - Treat stump with suitable herbicide to prevent re-growth.	10-20	C1/2	21.90	2.64
T9	Sycamore (<i>Acer pseudoplatanus</i>)	14	500 (ms)	N 4 E 6 S 4 W 4	4.5	SM	G	Three stems arise at ground level.	Retain and ensure protection of RPA with CEZ throughout development.	> 40	B1/2	78.55	5
T10	Wild Cherry (<i>Prunus avium</i>)	16	270	N 1 E 4 S 4 W 1	6	SM	G	Severe mid to lower stem curvature to east.	Retain and ensure protection of RPA with CEZ throughout development.	10-20	C1/2	32.98	3.24
T11	Norway Maple	7.5	120	N 2 E 2 S 1 W 1	4	Y	G	No visible structural defects.	- Remove in order to accommodate development. - Grub out stump.	> 40	C1	6.52	1.44
T12	Eucalyptus (<i>Eucalyptus</i> sp.)	9	390	N 3 E 3 S 2 W 3	3	SM	P	- Stem bifurcates at a height of approximately 0.1m. - Stem to west has evidently died.	- Retain or remove in accordance with development design priorities. - If retained then ensure protection of RPA with CEZ throughout development.	10-20	C1/2	47.79	3.9
T13	Atlas Cedar (<i>Cedrus atlantica</i>)	10.5	280	N 4 E 4 S 1 W 4	3.5	SM	G	Recently heavily topped.	- Remove in order to accommodate development. - Grub out stump.	10-20	C1/2	35.47	3.36
T14	Wild Cherry	9	340 (ts)	N 4 E 2 S 2 W 4	4	EM	G	- Stem bifurcates into co-dominant sub-stems at a height of approximately 0.2m with an acute included bark union. - Growing close to overhead telephone with branches and stem in contact at various points. - Considered unsuitable for long-term retention.	- Remove due proximity to telephone pole. - Treat stump with suitable herbicide to prevent regrowth.	< 10	R	36.32	3.4
T15	Lawson Cypress	10	290	N 2 E 2 S 2 W 2	0.5	SM	G	Stem trifurcates into primary branches at a height of approximately 2.5m with acute included bark unions.	- Retain or remove in accordance with development design priorities. - If retained then ensure protection of RPA with CEZ throughout development.	10-20	C1/2	38.05	3.48

TREE SURVEY SCHEDULE FOR ARBORICULTURAL IMPACT APPRAISAL

Site: Brown Leaves Hotel, Copster Green, Lancashire, BB1 9EU

Agent for Client: Lea, Hugh & Co.

Surveyor: Phill Harris – Chartered Arboriculturist

Assessment Date: 16 February 2011

Job Reference: BOW17/278 / BTC185

Page: 3 of 4

No.	Species	Height	Stem Diam.	Branch Spread	Height of CC	Age	PC	Comments on Condition, etc	Management Recommendations	ERC	Calc. Grade	RPA Radius (m)	RPA (m ²)
G1	2no. Silver Birch	≤ 12	≤ 380	N ≤ 4 E ≤ 4 S ≤ 4 W ≤ 4	≥ 3	EM	G	- Small group located on neighbouring land. - Not inspected in detail.	Ensure protection of RPA with CEZ throughout development.	20-40	B1/2	≤ 65.33	≤ 4.56
G2	Holly (<i>Ilex aquifolium</i>), Berberis (<i>Berberis thunbergii</i>), Cherry, Cotoneaster (<i>Cotoneaster</i> sp.), Privet (<i>Ligustrum ovalifolium</i>), etc.	≤ 7	≤ 200 (ms)	N ≤ 3 E ≤ 3 S ≤ 3 W ≤ 3	≥ 0	Y-EM	G	Large loose group made up mostly of small growing ornamental shrubs with several very young trees.	- Remove sufficient number to accommodate development. - Retain and ensure protection of RPA with CEZ throughout development.	> 40	C2	≤ 12.57	≤ 2
G3	5no. Leyland Cypress (<i>X Cupressocyparis leylandii</i>)	≤ 16	≤ 500 (ms)	N ≤ 3 E ≤ 3 S ≤ 3 W ≤ 3	≥ 2	EM	G	- Closely spaced linear group. - All have included bark unions of sub-stems and/or branches.	- Retain or remove in accordance with development design priorities. - If retained then ensure protection of RPA with CEZ throughout development.	10-20	C1/2	≤ 113.11	≤ 6
G4	approx. 10no. Leyland Cypress	≤ 10	≤ 200	N ≤ 1.5 E ≤ 1.5 S ≤ 1.5 W ≤ 1.5	≥ 0	Y-SM	M	- Very closely spaced group. - Most have included bark unions of branches.	- Remove in order to accommodate development. - Grub out stumps.	10-20	C1/2	≤ 18.1	≤ 2.4
G5	Silver Birch, Sycamore, Willow (<i>Salix</i> sp.), Horse Chestnut (<i>Aesculus hippocastanum</i>), Rowan (<i>Sorbus aucuparia</i>)	≤ 12	≤ 250	N ≤ 4 E ≤ 5 S ≤ 4 W ≤ 4	≥ 1.5	Y-SM	G	Very closely spaced L-shaped group.	- Remove in order to accommodate development. - Grub out stumps.	> 40	B1/2	≤ 28.28	≤ 3
G6	approx. 25no. Leyland Cypress	≤ 16	≤ 450	N ≤ 2 E ≤ 2 S ≤ 2 W ≤ 2	≥ 0	SM	G	- Very closely spaced group. - Most have included bark unions of branches.	- Remove in order to accommodate development. - Grub out stumps.	10-20	C1/2	≤ 91.62	≤ 5.4
G7	Holly, Cotoneaster, Cherry, Privet, Leyland Cypress, Hawthorn, + various other ornamental shrubs	≤ 7	≤ 200 (ms)	N ≤ 3 E ≤ 3 S ≤ 3 W ≤ 3	≥ 0	Y-EM	G	Very large loose group made up mostly of small growing ornamental shrubs with several very young trees.	- Remove in order to accommodate development. - Grub out stumps.	> 40	C2	≤ 12.57	≤ 2

TREE SURVEY SCHEDULE FOR ARBORICULTURAL IMPACT APPRAISAL	
Site:	Brown Leaves Hotel, Copster Green, Lancashire, BB1 9EU
Agent for Client:	Lea, Hugh & Co.

Surveyor:	Phill Harris – Chartered Arboriculturist
Assessment Date:	16 February 2011
Job Reference:	BOW17/278 / BTC185

No.	Species	Height	Stem Diam.	Branch Spread	Height of CC	Age	PC	Comments on Condition, etc.	Management Recommendations	ERC	Can. Grade	RPA (m²)	RPA Radius (m)
G8	approx. 4no. Leyland Cypress	≤ 8	≤ 200	N ≤ 2 E ≤ 2 S ≤ 2 W ≤ 2	≥ 1	SM	M	Loose group of low value trees.	- Retain or remove in accordance with development design priorities. - If retained then ensure protection of RPA with CEZ throughout development.	20-40	C1/2	≤ 18.1	≤ 2.4

BS5837:2005 Table 1 – Cascade Chart for Tree Quality Assessment

Trees for removal		Criteria			Identification on plan
Category and definition					
Category R Those in such a condition that any existing value would be lost within 10 years and which should, in the current context, be removed for reasons of sound arboricultural management	- Trees that have serious, irremediable, structural defect, such that their early loss is expected due to collapse, including those that will become unviable after removal of other R category trees such as 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, for example Dutch Elm Disease, or very low quality trees suppressing adjacent trees of better quality Note – Habitat reinstatement may be appropriate. For example R category tree used as a bat roost: installation of bat box in nearby tree.				Dark Red
Trees to be considered for retention					
Category and definition		Category – Subcategories			Identification on plan
		1. Mainly arboricultural values	2. Mainly landscape values	3. Mainly cultural values, including conservation	
Category A Those of high quality and value: in such a condition as to be able to make a substantial contribution. A minimum of 40 years is suggested.	Trees that are particularly good examples of their species, especially if rare or unusual, or essential components of groups, or of formal or semi-formal Arboricultural features for example the dominant and/or principal trees within an avenue	Trees that might be included in the high category, but are downgraded because of impaired condition. Examples include the presence of remediable defects including unsympathetic past management and minor storm damage	Trees, groups or woodlands which provide a definite screening or softening effect to the locality in relation to views into or out of the site, or those of particular visual importance for example avenues or other arboricultural features assessed as groups	Trees, groups or woodlands or significant conservation, historical, commemorative or other value for example veteran trees or wood-pasture	Light Green
Category B Those of moderate quality and value: those in such a condition as to make a significant contribution. A minimum of 20 years is suggested.	Trees not qualifying in higher categories	Trees present in numbers, usually as groups or woodlands, so they form distinct landscape features which attract a higher collective rating than they might as individuals. But which are not, individually, essential components of formal or semi-formal arboricultural features. For example, trees of moderate quality within an avenue that includes better, A category specimens. Or trees which are internal to the site, therefore individually having little visual impact on the wider locality	Trees with clearly identifiable conservation or other cultural benefits		Mid Blue
Category C Those trees of low quality and value: currently in adequate condition to remain until new planting could be established - a minimum of 10 years is suggested - or young trees with a stem diameter below 150 mm	Trees present in groups or woodlands, but without this conferring on them significantly greater landscape value, and/or trees offering low or only temporary screening benefit	Trees with very limited conservation or other cultural benefits			Grey
	Note – Whilst C category trees will usually not be retained where they would impose a significant constraint on development, young trees with a stem diameter of less than 150mm should be considered for relocation				

APPENDIX TWO:

**TEMPORARY PROTECTIVE FENCING &
GROUND PROTECTION SPECIFICATION**

- TEMPORARY PROTECTIVE FENCING & GROUND PROTECTION SPECIFICATION -

Construction Exclusion Zones (CEZs), enclosed by Temporary Protective Fencing, as detailed below and to be agreed with the Local Planning Authority (LPA), shall:

1. be protected throughout the development process, as specified in the 'Temporary Protective Fencing Construction' section below and detailed in BS5837:2005 Fig. 2 (overleaf) and, if applicable, as defined by area on the Tree Protection Plan (TPP);
2. be erected prior to any construction, demolition or excavation works and remain in place for the duration of the project;
3. preclude any delivery of site accommodation and/or materials and/or plant machinery;
4. preclude all construction related activity, with the sole exception of specified arboricultural works and any other works to be carried out under supervision that have been agreed by all parties; and
5. preclude the storage of all development related materials and substances including fuels, oils, additives, cement and/or any other deleterious substance.

Any incursion into CEZs must be by prior arrangement, following consultation with the LPA.

Temporary Protective Fencing Construction

1. Temporary protective fencing panels shall be of at least 2.1 metres in height and, in agreement with the LPA, be either weldmesh "Heras" panels or 18mm thick exterior grade plywood boards.
2. The panels shall butt together and be securely fixed to a scaffold framework, as per 3 to 5 below.
3. The scaffold framework shall comprise of upright poles of at least 3.0 metres in length driven no less than 0.6 metres into the ground at maximum 3.0 metre centres with horizontal and diagonal poles fixed to the uprights, as per 4 to 5 below.
4. The two horizontal rail poles shall be attached to the uprights at heights of 0.6 and 1.8 metres with 3 no. clamps to each joint.
5. The diagonal scaffold pole struts be clamped to the top rail of the scaffold framework at a 45° angle and extend back into the CEZ and clamped to a 0.7 metre length of scaffold tube that shall be driven no less than 0.5m into the ground.
6. No fixing shall be made to any tree and all possible precautions shall be taken to prevent damage to tree roots when locating posts.
7. A 600mm x 300mm warning sign reading "TREE PROTECTION AREA KEEP OUT" (see Fig 1, overleaf) shall be fixed to every 10.0 metre length of protective fencing.
8. On completion and prior to any demolition or construction works, site preparation, excavation or delivery of plant and materials, the Consulting Arborist shall inspect the Temporary Protective Fencing.

Temporary Ground Protection

1. Any necessary Temporary Ground Protection shall conform to Figure 3 of BS5837:2005 (see overleaf).
2. The Ground Protection Area shall be left undisturbed and covered by a semi-permeable geotextile membrane which shall, in turn, be covered by a compressible layer consisting of a material such as woodchip.
3. Side-butting scaffold boards shall then be fitted to cover the Ground Protection Area.
4. Prior to any demolition or construction works, site preparation, excavation or delivery of plant and materials, the Arboricultural Consultant shall inspect the Temporary Ground Protection.
5. The Temporary Ground Protection shall remain in place until completion of the project and only removed following receipt of written permission from the LPA.

– CONSTRUCTION EXCLUSION ZONE – KEEP OUT!

(TOWN & COUNTRY PLANNING ACT 1990)
THE TREES ENCLOSED BY THIS FENCE ARE PROTECTED BY
PLANNING CONDITIONS AND/OR SUBJECTS OF A 'TREE
PRESERVATION ORDER', THE CONTRAVENTION OF WHICH MAY
LEAD TO CRIMINAL PROSECUTION

THE FOLLOWING MUST BE OBSERVED BY ALL PERSONNEL:

- THE PROTECTIVE FENCING MUST NOT BE MOVED
- NO PERSON SHALL ENTER THE CONSTRUCTION EXCLUSION ZONE
- NO MACHINE, PLANT OR VEHICLES SHALL ENTER THE EXCLUSION ZONE
- NO MATERIALS SHALL BE STORED IN THE EXCLUSION ZONE
- NO SPOIL SHALL BE DEPOSITED IN THE EXCLUSION ZONE
- NO EXCAVATION SHALL OCCUR IN THE EXCLUSION ZONE
- NO FIRES SHALL BE LIT IN THE EXCLUSION ZONE

ANY INCURSION INTO THE EXCLUSION ZONE MUST BE WITH THE
WRITTEN PERMISSION OF THE LOCAL PLANNING AUTHORITY

Fig 1: CEZ Warning Sign

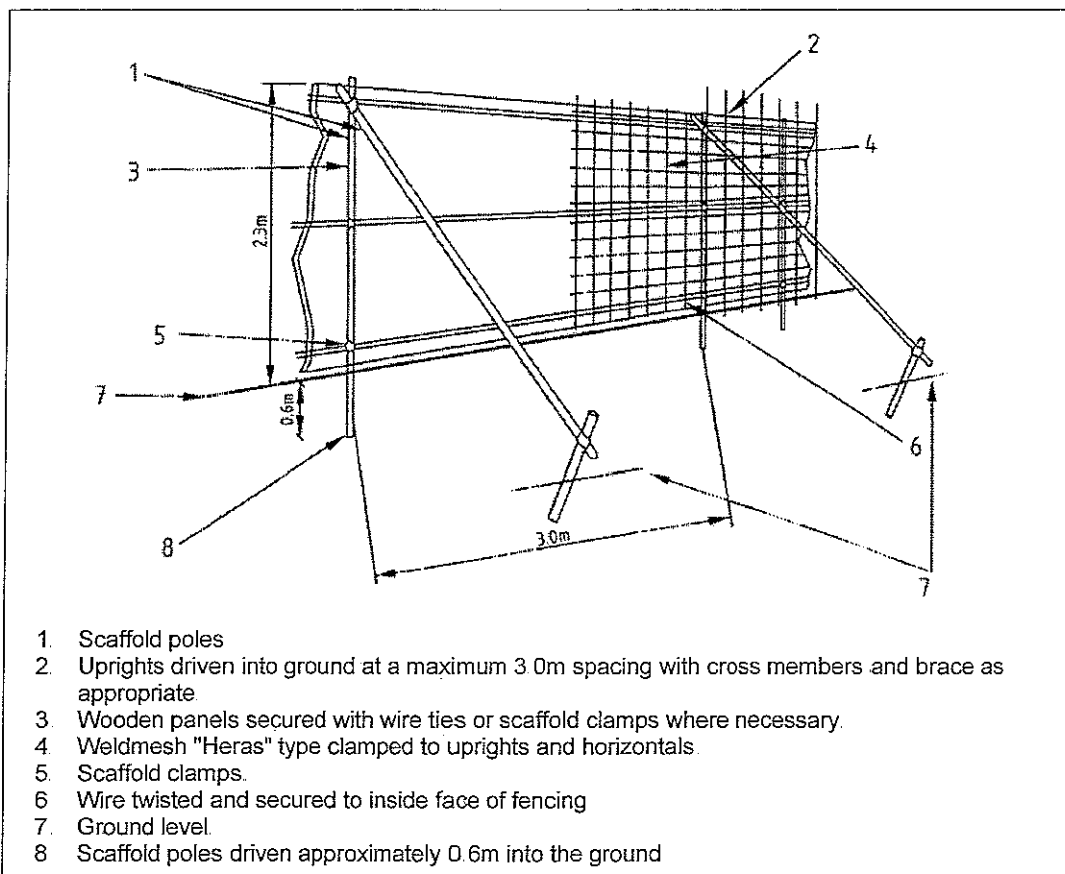


Fig 2: BS5837:2005 Temporary Protective Fencing -- Recommended Construction

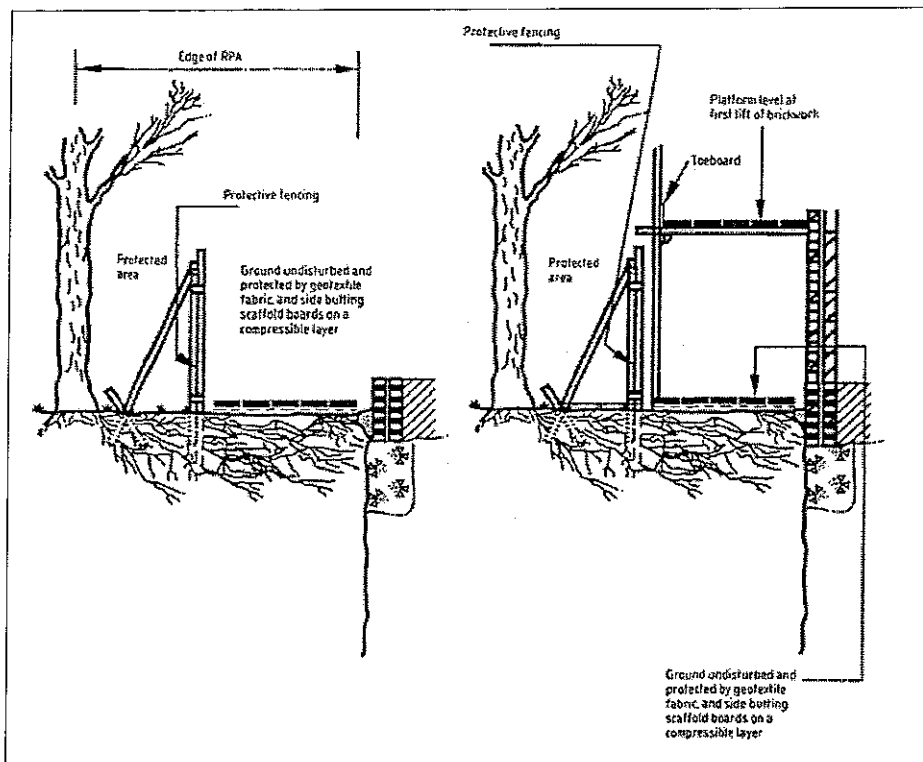


Fig. 3: BS5837:2005 Temporary Ground Protection – Recommended Construction

T = Surveyed Individual Tree
G = Surveyed Group of Trees

Please refer to associated Aboriginal Impact Assessment report for specific details in respect items related below.

Tree Retention Categories:

Those of a High and Moderate Quality &or Value:

Category 'A' Tree/Group
High Quality/Value with Estimated
Over 40 Years

Category 'B' Tree/Group
Moderate Quantity/Value with Estima-
tion of Between 20 & 40 Years

Those of a Low Quality & for Value:

Category 'C' Tree/Group
Low Quality/Value with Estimated
Between 10 & 20 Years

Category 'R' Tree/Group
470 Years Remaining Lifespan -
Considered for Removal in Accordance
with the Forest Management District
of Prognosis

Note: Trees with Crowned Marked as Broken Limbs are Proposed for Removal

Root Protection Areas:

Radial RPA
(Area that Should
Development With
a Construction E

Tree Planting:

Indicative New Tree Planting
Locations Considered Suitable for Planting with Trees of
Appropriate Species and Growth Potential

Project:
BROWN LEAVES HOTEL
LONGSIGHT ROAD
COPSTER GREEN
LANCASHIRE
BB1 9EU

Agent for Client:
LEA, HOUGH & CO.

Title:

TREE IMPACT PLAN

in Relation to Proposed Development of 18no. Residential Units (Option 2)

Scale: 1:750 @ A3

Date: May 2011

Drawn by: _____

pH _____

Checked by: _____ pH _____



	House type A	=	810	sq ft
	4 No Unit	=	3240	sq ft
	House type B	=	625	sq ft
	2 No Unit	=	1250	sq ft
	House type C	=	900	sq ft
	8 No Unit	=	7200	sq ft
	House type D	=	1140	sq ft
	4 No Unit	=	4560	sq ft
	Total	=	16250	sq ft

320110482P



Brown Leaves Hotel, Copster Green

Ecology Survey

June 2011

Control sheet

Project No & Title: BOW0017/278, Brown Leaves Hotel - *Ecology Report*

Client: Arthur Fisher

Prepared by: Ellen Milner *Senior Ecologist*

Checked by: Jeremy James *Director & Principal Ecologist*

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1. Introduction

- 1.1 Bowland Ecology Ltd was commissioned by Arthur Fisher to undertake an Extended Phase 1 Habitat Survey, desk study, bat survey and amphibian survey of a site at Brown Leaves Hotel at Copster Green, Lancashire (SD 67265 33634) in support of a planning application for a proposed residential development.
- 1.2 The aim of the surveys and desk study was to make an assessment of wildlife interests at the site with particular reference to legal requirements and potential development constraints.
- 1.3 This report includes a description of survey methods; a summary description of habitats and fauna; and outlines recommendations to provide protection and enhancements for biodiversity and protected species.

2. Methodology

Desk Study and Data Search Methodology

- 2.1 A targeted desk study was undertaken of the site and a 1.5km buffer zone to search for records of statutory and non-statutory wildlife sites, legally protected and notable species involving an online search of the National Biodiversity Network (www.nbn.org.uk) and Natural England's Nature on the Map (<http://www.natureonthemap.org.uk/>). The UK and Local (Lancashire) Biodiversity Action Plans were also consulted.
- 2.2 Further information relating to ecological interests was sought from Lancashire County Council, which is the ecological records centre for the area.
- 2.3 The aim of the desk study was to identify the presence of any previous notable site and/or species records for the area.

Extended Phase 1 Survey Methodology

- 2.4 The extended Phase 1 Habitat survey was undertaken on the 16th February 2011 by Kerry Rhodes BA (Hons), MIEEM.
- 2.5 The survey followed Phase 1 Habitat survey methodology (JNCC, 1993) and involved walking the whole site, mapping and describing different habitats (for example: woodland, grassland, scrub). A colour coded map of the habitats on site is produced, with corresponding target notes of ecologically interesting features.
- 2.6 The survey was extended such that evidence of fauna and faunal habitat is also recorded (for example droppings, tracks or specialist habitat such as ponds for breeding amphibians). The Extended Phase 1 Habitat survey is a modified version of the Phase 1 Habitat survey and follows the approach recommended by the Guidelines for Baseline Ecological Assessment (IEA, 1995).

Bat Survey Methodology

- 2.7 An internal inspection of the buildings on site was undertaken in which all accessible areas were searched for field signs such as bats, bat droppings, urine stains, bat feeding remains (moth wings, insect cases), bat staining, distinctive smell of bats, scratch marks and smoothing of surfaces which would indicate a roost site. An assessment of the potential of the building was also made during the survey i.e. searching for suitable roosting crevices, entrance points and hanging positions. High power torches (Cluson Clu-lite 500,000 candlepower), close focus binoculars and ladders were used to aid the survey.
- 2.8 During this visit an external search of the building was undertaken, again checking for field signs of bats. Particular attention was paid to windowsills, windowpanes and ledges.
- 2.9 Natural England's Bat Mitigation Guidelines (2004) state that a significant bat roost can normally be determined on a single visit at any time of the year, provided that the entire structure is accessible and that signs of bats have not been removed by others. The timing of this survey was therefore considered to be optimal.
- 2.10 The internal and external inspection was undertaken by Kerry Rhodes BA (Hons), MIEEM as part of the extended Phase 1 Survey.
- 2.11 An emergence and activity survey was undertaken on 22nd March 2011. This used a frequency division detector connected to an Edirol digital recording device. The timing of this survey was outwith the optimum period for detecting maternity roosts which is from May until August. However, March was unseasonably warm during 2011 and it was considered that conditions were suitable for bat emergence surveys. The Bat Conservation Trust Good Practice Guidelines 2007 state that other months outside the period May-August may be suitable for detecting other types of summer roost.

Amphibian Survey Methodology

- 2.12 There are two ponds on the site. A further pond lies 115m to the north of the site, but this lies beyond the A59 (Longsight Road) which is considered to be a significant barrier to the potential dispersal of amphibians. Both on-site ponds were checked as part of the extended Phase 1 survey and were subject to full amphibian presence absence surveys.
- 2.13 The methodology for the amphibian survey followed Natural England's *Great Crested Newt Mitigation Guidelines* (Natural England 2001). The objective of the survey was to establish presence/probable absence of great crested newt. The surveys were undertaken by Kerry Rhodes (GCN survey license holder), James Segar BA (Hons), MSc, Emma Kilduff BSc (Hons), (GCN survey license holder), and Laura Bennet BSc (Hons), MSc.
- 2.14 In accordance with the guidelines for presence absence surveys, four visits were undertaken and a combination of methods were employed including egg search, torch survey (night time), netting and terrestrial refuge search. Bottle trapping was not practical due to either shallow water or risk of puncturing pond liners.

3. Results

Desk Study

- 3.1 There are no statutory wildlife sites within the 1.5km search area. There are some small blocks of ancient woodland, and some areas showing as lowland meadow within the search area, none of which lie on the site.
- 3.2 A non statutory wildlife site lies approximately 465m to the south-east of the proposed application site. This is Hazel Moor (Ref SE6306). This is a 5.21ha site designated on the basis of its grassland habitat. This area shows up as lowland meadow which is a UK BAP habitat on www.magic.gov.uk. Nature on the Map indicates this area is purple moor grass and rush pasture UK BAP habitat. Clearly there is some discrepancy about the classification of this habitat but the designation as BHS indicates it is of County ecological value.
- 3.3 A search of the National Biodiversity Network revealed the following relevant and recent (since 1990) BAP species within a 10km OS grid square SD63 around the site;
- A range of BAP bird species including passerines such as yellowhammer, lesser redpoll and ground nesting species such as curlew, lapwing.
 - Otter from the River Ribble between Copster Green and Ribchester.
 - Soprano pipistrelle record from 2007 from SD 643 302 which is to the south-west of the site, along the A677.
 - A single record of hedgehog from 2007, to the south of the site along the A6119, south of Mellor.
- 3.4 Consultation with Lancashire County Council highlighted a large number of records (over 4500), the majority of which are common and widespread species. The notable records are as follows;
- Several records of badgers in the area.
 - Records of pipistrelle bat from the Blackburn area (bats is a Lancashire BAP species action plan).
 - Dated records (1956) of great crested newt from the Ribble Valley area.
 - Records of Japanese knotweed.
 - A large number of bird records including species listed on the red list of birds of high conservation concern (e.g. spotted flycatcher, reed bunting) and the amber list of birds of medium conservation concern (e.g. mistle thrush, lapwing) and species on the Lancashire BAP Long List e.g. swallow, house martin, linnet.

Extended Phase 1 Survey

- 3.5 Target notes summarising key interest features recorded during the Extended Phase 1 survey are included as Appendix 1. The Phase 1 Habitat plan for the site is presented in Appendix 2, which also includes the locations of the target notes.

- 3.6 The site comprises a single large property (Brown Leaves Country Hotel) with associated large garden area. The property fronts onto Longsight Road, and is bordered to residential development, wet grassland and permanent and grazed pasture around the garden.

Habitat descriptions from field survey

- 3.7 The following Phase 1 habitats are present on or adjacent to the site;

Buildings and Hardstanding

- 3.8 Target Note 8 is the hotel building which is a large single storey brick built residential style building with terracotta roof tiles. The roof is pitched and there are some raised ridge and hip tiles. There are a combination of timber framed and uPVC framed windows.
- 3.9 Target Note 9 is a collection of timber outbuildings one of which has a pitched roof and the remainder with flat roofs covered with bitumastic roofing felt. There are also a number of glasshouses and aviaries.
- 3.10 The buildings are surrounded by a tarmac driveway which is shown on the plan at Appendix B.

Grassland

An area of amenity grassland is present forming the garden area of the hotel property. This is a regularly managed lawn.

Ornamental/non-native species

- 3.12 Target Note 2 comprises ornamental raised beds and mature conifers within the mature landscaped gardens of the hotel. Adjacent to the property is a managed privet (*Ligustrum ovalifolium*) hedge and ornamental planted heathers (*Ericaceae* sp.). Also present are planted daffodils (*Narcissus* sp.), cotoneaster sp., and a variegated ornamental holly (*Ilex* sp.).
- 3.13 Target Note 4 is a boundary comprising a combination of native and ornamental species including privet, bamboo (*Bambusoideae* family), cotoneaster sp., ivy (*Hedera helix*), elder (*Sambucus nigra*) cherry (*Prunus* sp.), cedar (*Cedrus* sp.), buddlejah (*Buddleja davidii*) variegated holly (*Ilex* sp.), Norway maple (*Acer platanoides*), horse chestnut (*Aesculus hippocastanum*) and downy birch (*Betula pubescens*). The ground flora is dominated by ground ivy (*Glechoma hederacea*).
- 3.14 Target Note 5 is a stand of ornamentals at the side of the hotel building with ornamental heather, rhododendron (*Rhododendron ponticum*), cotoneaster and quince (*Cydonia oblonga*). Target Note 6 is a band of planted ornamental shrubs forming a band surrounding the lawn area.

Standing water

- 3.15 Pond 1 (Target Note 10) – this is a pond at the back of the outbuildings and surrounded by horse chestnut, silver birch (*Betula pendula*) and cedar trees. It lies adjacent to the watercourse described at TN3. There is abundant garden waste to the sides and within the pond. There was no aquatic vegetation at the time of the survey, just accumulated leaf litter. The pond is approximately 10m by 5m and 1m deep. The pond is heavily shaded by the surrounding trees.

- 3.16 Pond 2 (Target Note 11) – this is a man-made pond with a liner and concrete banks. It is approximately 5m by 5m and has dense bankside, emergent and submerged vegetation including great reedmace (*Typha latifolia*), common reed (*Phragmites australis*), water lily (*Nymphaeaceae* family), and soft rush (*Juncus effusus*).

Running water

- 3.17 Target Note 3 is the boundary of the proposed application site which comprises a small watercourse which is culverted under the road. It is more or less 0.5m wide and with a medium flow of water. The depth is approximately 0.5m as the watercourse is bordered by a dense privet and hawthorn (*Crataegus monogyna*) hedgerow to either side. The ground flora comprises ground ivy and angelica (*Angelica sylvestris*).

Bat Survey Results

- 3.18 The building description is given above. The hotel building is shown in the photographs below.
- 3.19 No evidence of bat use was found during the internal and external inspection. The building is in a well maintained state of repair. A number of potential access points including the raised ridge and hip tiles were noted. However, no bats were observed to emerge from the building during the emergence survey.



Photo 1 – frontage onto Longsight Road



Photo 2 – Western elevation

Amphibian Survey Results

- 3.20 The full amphibian survey results are provided in Appendix 3. No great crested newts were found. No common toad (UK BAP species) were found. A small population of smooth/palmate newts is present within Pond 1 and a single common frog was found in Pond 2 on one survey visit.

Additional faunal description from field survey

- 3.21 Hedgehog may use the mature landscaped garden at times.
- 3.22 Water vole could potentially use the watercourse at Target Note 3. In terms of the potential for water vole, this is considered to be low due to the dense shading from the adjacent hedgerows which will prevent a cover of marginal and bankside vegetation from developing.

3.23 The following birds were noted on or around the site during the Extended Phase 1 Survey and are likely to use the ornamental scrub within the site to nest and feed.

- Song thrush
- Blackbird
- Robin
- Greenfinch
- House sparrow
- Blue tit
- Great tit
- Dunnock
- Magpie
- Rook
- Chaffinch
- Goldcrest

3.24 The site does not provide suitable habitat for ground nesting bird species.

4. Evaluation, Impact Assessment & Recommendations

Evaluation and Impact Assessment

- 4.1 The site comprises a large property, associated outbuildings and hardstanding and a mature landscaped garden with two ponds. Whilst the mature gardens provide habitat for some protected species, there are many ornamental species present and the site is considered to be of no more than local ecological value.
- 4.2 This section provides a summary of features of ecological interest as identified by the extended Phase 1 Habitat survey, bat survey and amphibian survey. It also indicates potential impacts of the proposed works and suggested further actions.
- 4.3 The proposals are for a residential development comprising 18 dwellings with associated gardens and car parking. The proposed layout is shown in Appendix 4.
- 4.4 In terms of potential impacts to wildlife sites, there is habitat connectivity between the proposed development site and Hazel Moor BHS, the lowland meadow/purple moor grass and rush pasture BHS, via open grazed fields to the south-east of the site i.e. there are no residential areas or roads forming barriers. However, the non-statutory wildlife sites lie some distance (465m) from the proposed application site and it is unlikely that direct impacts would occur. There are already a number of public footpaths which traverse this area, and although the proposed development will increase the number of residents in the area, this is unlikely to lead to a significant increase in disturbance to the BHS.
- 4.5 In terms of potential impacts of the proposed development, these are as follows:
- Loss of buildings, hardstanding and mature landscaped garden including two ponds.

- Loss of habitat for protected species e.g. breeding birds.
 - Potential unintentional killing or injury of protected species if works are undertaken without due care and attention.
 - Potential siltation/pollution of the watercourse which borders the site.
- 4.6 The project has the potential to impact upon breeding birds, if scrub clearance was undertaken without due care and attention and at an inappropriate time of year. All birds, their nests and eggs are protected by The Wildlife and Countryside Act 1981 (as amended) and it is thus an offence, to:
- Intentionally kill, injure or take any wild bird;
 - Intentionally take, damage or destroy the nest of any wild bird whilst it is in use or being built;
 - Intentionally take or destroy the egg of any wild bird;
 - Intentionally or recklessly disturb any wild bird listed on Schedule 1 while it is nest building, or at a nest containing eggs or young, or disturb the dependent young of such a bird.
- 4.7 No great crested newts were found during the surveys, nor was a bat roost identified and therefore impacts to these species are unlikely.

Recommendations

- 4.8 The two ponds should where practical be retained and protected during works. It should be noted that the ponds on site, are small and ornamental (Pond 2), or suffering from neglect (Pond 1) and are not considered to be of high ecological or landscape value. If Pond 1 is lost mitigation would be required. A new pond of at least equivalent size to that/those lost should be created; this could be integrated with a site SUDS scheme if practical. Pond 2 is considered to be of negligible significance ecologically.
- 4.9 Loss of trees and scrub should be kept to the absolute minimum to allow the works to proceed. Any vegetation clearance work should occur outside the bird breeding season in order to avoid acting unlawfully. If vegetation is cleared or cut-back during the nesting season it should be preceded by a pre-clearance nesting bird survey by an experienced ecologist to avoid acting unlawfully. If nesting birds are found an exclusion zone should be maintained around any occupied nest and these areas should not be cleared until declared free of nesting birds by the ecologist
- 4.10 Mitigation for any loss of breeding bird habitat should include the planting of native species of local provenance within the landscaping scheme for the project. It should also include the provision of alternative nesting opportunities in the form of nest boxes (combination of designs to cater for different nesting habits). These can include boxes installed on trees and boxes within the construction of new residential properties.
- 4.11 It is recommended that measures are in place to ensure that the watercourse at Target Note 3 is protected from any pollution or siltation during the works. This should be in accordance with the Environment Agency Pollution Prevention Guidelines. No storage of machinery, materials or fuel should occur within 3m of the bank top.
- 4.12 Whilst no bat roosts or evidence of bats was found during the survey, it should be acknowledged that bats are highly mobile and can colonise

buildings at any time. Therefore the following procedures should be adhered to; should bats be found or suspected at anytime during works then, as a legal requirement, work in that area should cease immediately until further advice has been sought from Natural England and/or the scheme ecologist. The scheme ecologist, Natural England or their agents in the Lancashire area will be able to locate a licensed bat worker to remove any bats present which might be harmed during the works. If bats are exposed during the works and are vulnerable to harm, gloves or a container should be used to move them to a dark and quiet area, until a bat worker has been contacted.

- 4.13 A key element of Planning Policy Statement 9 is the emphasis upon enhancements. Paragraph 14 states that 'Development proposals provide many opportunities for building in beneficial biodiversity or geological features as part of good design. When considering proposals, local planning authorities should maximise such opportunities in and around developments, using planning obligations where appropriate'
- 4.14 Therefore it is recommended that as part of the project, provisions are made for bat roosting within the new residential development. This could include;
- Morris bat slates installed into the new roofs to allow access to the crevice between the slates and the roof liner.
 - Raised ridge tiles (un-filled).
 - Non-plastic roof linings.
 - Allowing access into the loft space by making small slits in the roof lining, close to the installed Morris bat slates.
 - Barge boards on spacers of approximately 1.5-2cm which are left unsealed.
 - Bat boxes or bat tubes installed into the wall construction.
 - Retain small gaps (5cm) retained when re-pointing walls and at the wall tops.

References

IEA. 1995. *Guidelines for Baseline Ecological Assessment*. Chapman and Hall.

Joint Nature Conservation Committee (1993). *Handbook for Phase 1 Habitat Survey: A technique for environmental audit*. JNCC.

Bat Conservation Trust – Surveys, Good Practice Guidelines. 2007.

Great Crested Newt Mitigation Guidelines. Natural England 2001.

Appendix 1 – Extended Phase 1 Target Notes

Target Note Reference	Description
1	Tarmac hardstanding driveway.
2	Ornamental raised beds and mature conifers. The boundary adjacent to the property is a managed privet hedge and ornamental planted heather species. Also present are planted daffodils, cotoneaster sp., and a variegated ornamental holly species.
3	The boundary of the proposed applications site which comprises a small watercourse which is culverted under the road. It is more or less 0.5m wide and with a medium flow of water. The depth is approximately 0.5m as the watercourse is bordered by a dense privet and hawthorn hedgerow to either side. The ground flora comprises ground ivy and angelica.
4	A boundary comprising a combination of native and ornamental species including privet, bamboo, cotoneaster, ivy, elder, cherry, cedar, buddlejia, variegated holly, Norway maple, horse chestnut, downy birch and elder. The ground flora is dominated by ground ivy.
5	Ornamentals at the side of the building with ornamental heather, rhododendron, cotoneaster and quince.
6	Ornamentals surrounding the garden.
7	Coniferous hedge.
8	Hotel Building which is a single storey brick built residential style building with terracotta roof tiles. The roof is pitched and there are some raised ridge and hip tiles. There are a combination of timber framed and uPVC framed windows.
9	Timber outbuildings one of which has a pitched roof and the remainder with flat roofs covered with bitumastic roofing felt. There are also a number of glasshouses and aviaries.
10	Pond 1 – a pond at the back of the outbuildings and surrounded by horse chestnut, silver birch and cedar trees. It lies adjacent to the watercourse described at TN3. There is abundant garden waste to the sides and within the pond. There was no aquatic vegetation at the time of the survey, just accumulated leaf litter. The pond is approximately 10m by 5m and 1m deep. The pond is heavily shaded by the surrounding trees.
11	Pond 2 – a man-made pond with a liner and concrete banks. It is approximately 5m by 5m and has dense bankside, emergent and submerged vegetation including great reedmace, common reed, water lily sp., and soft rush.

Appendix 2 – Aerial Photograph showing Target Notes

① to ⑪



Appendix 3 – Amphibian Survey Results

Pond 1

Method	GCN		indet.	Smooth newt		Palmate newt		Palmate/smooth ♀ indet.	Other (specify)
	♂	♀		♂	♀	♂	♀		
Visit 1 - 22/03/11									
Temp - Turbidity - Veg Cover -									
Net	0	0	0	0	0	0	0	0	
Torch	0	0	0	0	0	0	0	0	
Visit 2 - 12/4/11									
Temp - 8 celcius Turbidity - 1 Veg Cover - 2									
Torch	0	0	0	1	0	0	0	4	7 smooth/palmate newts
Net	0	0	0	0	0	0	0	0	
Eggs	0	0	0	0	0	0	0	0	
Visit 3 - 26/4/11									
Temp - 13 celcius Turbidity - 1 Veg Cover -2									
Torch	0	0	0	4	3	0	0	0	
Eggs	0	0	0	0	0	0	0	0	
Net	0	0	0	0	0	0	0	0	
Visit 4 - 16/5/11									
Temp - 11 celcius Turbidity - 1 Veg Cover - 2									
Torch	0	0	0	0	0	0	0	0	
Eggs	0	0	0	0	0	0	0	0	
Net	0	0	0	0	0	0	0	0	

Pond 2

Method	GCN			Smooth newt		Palmate newt		Palmate/smooth ♀ indet.	Other (specify)
	♂	♀	indet.	♂	♀	♂	♀		
Visit 1 - 22/03/11									
Temp - Turbidity - Veg Cover -									
Net	0	0	0	0	0	0	0		
Torch	0	0	0	0	0	0	0		
Visit 2 - 12/4/11									
Temp - 8 celcius Turbidity - 2 Veg Cover - 3									
Torch	0	0	0	0	0	0	0	0	
Net	0	0	0	0	0	0	0	0	
Visit 3 - 26/4/11									
Temp - 13 celsius Turbidity - 2 Veg Cover - 3									
Torch	0	0	0	0	0	0	0	0	
Terrestrial	0	0	0	0	0	0	0	0	
Net	0	0	0	0	0	0	0	0	
Visit 4 - 16/5/11									
Temp - 11 celcius Turbidity - 2 Veg Cover - 3									
Torch	0	0	0	0	0	0	0	0	1 Frog
Net	0	0	0	0	0	0	0	0	

Appendix 4 – Proposed Site Layout

