11 April 2014

Bowland Meadows, Land East of Chipping Lane, Longridge

Tree Quality Survey, Arboricultural Implications Assessment & Method Statement

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Contents

Appendices

Plans

Section 1: Introduction

1.1. Tyler Grange LLP (TG) have been appointed to undertake a Tree Survey, Arboricultural Implications Assessment and the production of an Arboricultural Method Statement in relation to the proposed creation of a new residential development (circa 106 dwellings) including affordable housing, new vehicular and pedestrian accesses, on-site landscaping, public open space and ecological enhancement measures on the northern outskirts of Longridge, a town in the Ribble Valley.

1.2. The detailed application relates to land off Chipping Lane located to the immediate north-west of the settlement of Longridge, hereafter referred to as the 'site'. The application site boundary is shown in red, and includes an area set aside for ecological mitigation and enhancement. The site is centred on Ordnance Survey (OS) grid reference SD 60196 38111 and extends to a total area of 7.3 hectares (18.05 acres).

1.3. A wider outline application is being developed for 'Land at Higgins Brook', which incorporates this site area and is subject to a separate Tree Quality Survey report with a view to submission in the near future.

1.4. The work associated with this detailed application submission involved collecting data relating to the tree stock, in order to inform a development response and assess the implication of any necessary tree loss.

Tree Survey

1.5. The tree survey was undertaken during January 2014, during which the weather conditions were cold and wet, with a light wind present.

1.6. No invasive investigations or climbing inspections were necessary to confirm visual or audible signs of defect or debility and no tissue or soil samples were undertaken. Where identified, signs of substantial defects or debility significant to the pre-development context have been recorded.

Survey Methodology

1.7. The pre-development survey and assessment was undertaken in accordance with British Standard 5837:2012 'Trees in Relation to Design, Demolition and Construction – Recommendations' (hereafter BS5837:2012).

1.8. In accordance with the above recommendations, the tree survey included all trees within the Site boundary that were over 7cm diameter at breast height (dbh). Topographical survey data was available for the majority of the tree stock; however, some areas of denser tree planting have been approximately placed within groups that form cohesive arboricultural features either aerodynamically, visually, culturally or in biodiversity terms.

1.9. The tree survey involved collecting the following data:

- Tree Number / Group Reference;
- Species;
- Height;

- Branch Spread (in metres taken at the four cardinal points);
- Crown Clearance (in metres above the adjacent ground level);
- Age Class;
- Physiological Condition;
- Structural Condition;
- Estimated Remaining Contribution (in years);
- Management Recommendations; and
- Notes.

1.10. For further clarification, please refer to the tree survey explanatory notes in **Appendix 1**.

Tree Categorisation

1.11. The quality and value of each tree or group of trees has been recorded by allocating it to one of the four categories below in accordance with BS5837:2012. Categories A, B and C deal with trees that should be a material consideration in the development process and are divided into subcategories that reflect arboricultural, landscape and cultural values. Category U trees are those which would be removed in the short term for reasons connected with their physiological or structural condition. For this reason, they should not be considered in the planning process.

- Category Grading A: Trees of high quality and value, which are in such a condition as to be able to make a substantial contribution from an arboricultural, landscape or cultural perspective;
- Category Grading B: Trees of moderate quality and value, which are in such a condition as to make a significant contribution from an arboricultural, landscape or cultural perspective;
- Category Grading C: Trees of low quality and value, which are currently in adequate condition to remain until new planting could be established or young trees with a stem diameter below 150mm; and
- Category Grading U: Trees which are 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.

1.12. The subcategories included within the Cascade Chart for Tree Quality Assessment (1, 2 and 3) are intended to reflect arboricultural, landscape and cultural values respectively. These tree subcategories have equal weight and have been applied in response to professional opinion.

1.13. Findings for each of the individual trees surveyed are summarised on **Plan 1: Findings of Tree Quality Survey and Root Protection Areas (2001/P12a) (Sheet 1 of 2)** and **Plan 1: Findings of Tree Quality Survey and Root Protection Areas (2001/P24) (Sheet 2 of 2)**, contained at the rear of this report and listed individually within the Tree Survey Table at **Appendix 2**.

Preliminary Management Recommendations

1.14. Any recommendations made for management of the trees (e.g. tree works) prior to the proposed development are not a detailed 'specification' for tree work and should not be considered as such.

1.15. These recommendations are proposed on the basis that they are advised and undertaken by a qualified arboricultural contractor working in accordance with best practice as, for instance, embodied in BS3998:2010 Recommendations for Tree Work, or in the European Tree Pruning Guide, published in 2001 by the Arboricultural Association and who must be listed in the Arboricultural Association's Approved Contractors Directory *www.trees.org.uk.*

Limitations

1.16. The comments made are based on observable factors present at the time of inspection and are based on maximising the trees' safe life expectancy given their existing context. Although the health and stability of trees in the pre-development context is an integral part of their suitability for retention, it must be stressed that this report is not a tree risk assessment and should not be construed as such. While every attempt has been made to provide a realistic and accurate assessment of the trees' condition at the time of inspection, it may have not been appropriate, or possible, to view all parts or all sides of every tree to fulfil the assessment criteria of a risk assessment.

1.17. No tree is entirely safe, given the possibility that exceptionally strong winds could damage or uproot even a mechanically 'perfect' specimen. It is therefore usually accepted that hazards are only recognisable from distinct defects or from other failure-prone characteristics of the tree or the Site.

1.18. Assessment of the potential influence of trees upon buildings or other structures resulting from the effects of trees upon shrinkable load-bearing soils or the effects of incremental root or branch growth, are specifically excluded from this report.

1.19. All measurements are metric and approximate.

Un-assessable Risks

1.20. Any alteration to the application site or development proposals could change the current circumstances and may invalidate this report and any recommendations made.

1.21. The Wildlife and Countryside Act (WCA) 1981 (as amended) makes it an offence to disturb nesting birds or recklessly endanger a bat or its roost. Bats are also a European protected species and are additionally protected under the Conservation (Habitats & c) Regulations 1994 (as amended).

1.22. A lack of recommended work does not imply that a tree does not pose an unacceptable level of risk and, likewise, it should not be implied that a tree will present an acceptable level of risk following the completion of any recommended work.

Section 2: Findings of the Tree Survey

Site Description

2.1. The site comprises three pastoral fields separated by hedgerows with occasional scattered trees. Hedgerows are gappy in places and associated with a watercourse along the eastern boundary and a connecting system of field ditches.

2.2. The site is bordered by residential development and a Sainsbury's supermarket to the south, Chipping Lane and Longridge Cricket Ground to the west and by further pastoral land to the north and east.

2.3. The land is generally flat, with a slight fall in gradient from north-west (103m AOD) to south-east (107m AOD).

2.4. A total of 11 individual trees were surveyed along and 11 groups, as shown on **Plan 1: Findings of Tree Quality Survey and Root Protection Areas (2001/P12a) (Sheet 1 of 2)** and **Plan 1: Findings of Tree Quality Survey and Root Protection Areas (2001/P24) (Sheet 2 of 2)**, located to the rear of this report.

Planning Context

2.5. A data search request in relation to Tree Preservation Orders for the site and locality was submitted to the Council on the 7th February. No response has been received to-date.

2.6. The site is also located beyond the adjoining Conservation Area.

2.7. None of the trees surveyed are contained upon the National Inventory of Ancient Woodland or listed on the Woodland Trust's Ancient / Veteran Tree Database.

2.8. Policy protection is in the form of Policy ENV13: Landscape Protection (Ribble Valley Districtwide Local Plan (adopted 1998)); and, Policy DME1: Protecting Trees and Woodland (Core Strategy 2008-2028 A Local Plan for Ribble Valley - Regulation 22 Submission Draft (emerging)).

2.9. This survey has also been undertaken with acknowledgement of the Ribble Valley Borough Council 'Supplementary Planning Policy for Trees'.

Species Composition

2.10. A total of 16 principal species were recorded and these included:

- Alder *(Alnus glutinosa)*;
- Ash (*Fraxinus excelsior*);
- Sycamore *(Acer pseudoplatanus)*;
- Hawthorn *(Crataegus monogyna)*;
- Blackthorn *(Prunus spinosa)*;
- Crack Willow *(Salix fragilis)*;

- White Willow *(Salix alba)*;
- Beech *(Fagus sylvatica)*;
- Hazel (*Corylus avellana);*
- Holly *(Ilex sp.);*
- Elder (*Sambucus sp.);*
- Field Maple *(Acer campestre)*;
- Whitebeam *(Sorbus aria)*;
- Ornamental Cherry *(Prunus sp.)*;
- Birch *(Betula pendula)*; and
- Lawson's Cypress (*Chamaecyparis lawsoniana*).

Health, Physiological and Structural Condition

2.11. The survey involved ground level examination of the external features of the trees. Growing conditions were noted together with the presence of dead branch wood, die-back and any fungal fruiting bodies or obvious signs of decay. The findings of the survey are summarised in the table below:

Physiological and Structural Condition
Poor – 4%
Fair-Poor – 12%
Fair – 31%
Fair-Good – 35%
Good – 18%

2.12. Of the trees surveyed the majority were found to be in a fair / fair-good good physiological and structural condition. Typical observations recorded the general presence of deadwood and minor dieback in some of the trees, most of which appeared to be age related or as a result of minor limb failure.

2.13. No disease or fruiting fungal bodies were recorded during the visual survey.

2.14. Cavities and bat potential has been assessed separately within the Tyler Grange Ecological Assessment report.

Age Class

2.15. The findings of the survey are summarised below:

Age Class
Sapling – 3%
Young – 13%
Young-Mature – 36%
Mature – 48%

2.16. The majority of the tree stock (predominantly the hedgerows) can be classified as mature in terms of age class (50-60+ years). Many of the mature trees are associated with field enclosure and ditch alignment.

2.17. It should be noted that with a significant proportion of the hedgerow trees being within the final third of their life span, new tree planting and hedgerow supplementation should be considered to provide a continued tree presence as part of longer term management proposals for on-site tree stock.

Category Grading

2.18. The findings of the survey are summarised below:

Category Grading	
Quality Class A – 10%	Quality Class B – 37%
Quality Class C – 53%	Quality Class U – 0%

2.19. Of the hedgerow trees surveyed, a large proportion were classified as Category C, considered to be of low to fair value, with the majority of the remaining trees being classified as Category B reflecting the overall moderate quality of the tree stock. Some of the more open grown trees were considered to represent Category A.

2.20. The category grades are linked mainly to arboricultural and landscape sub criteria (BS5837:2012 subcategories).

Section 3: Arboricultural Implications Assessment (Tree Loss)

Root Protection Areas

3.1. The other purpose of **Plan 1 (Sheet 1 of 2)** (**2001/P12a**) is to show the influence that the existing trees have upon adjacent land and upon any future development proposals. The approximate extent of Root Protection Areas (RPAs) have been illustrated to represent the worst case concentric area that should be left undisturbed around any retained tree in order to avoid damage to roots or the rooting environment.

3.2. The RPAs have been calculated in accordance with the methodology set out in BS5837: 2012, using the stem diameter dimensions obtained during the site visit. In terms of the individual trees, T2 (Ash) has the largest theoretical RPA (8.52m radius off-set / 228m²).

3.3. This should be considered in association with existing above and below ground constraints. Also, the current and ultimate height of any tree needs to be appreciated in terms of its size, dominance, shade and movement in strong winds. Existing and future branch spread must therefore be taken into account as part of the design process.

Impact of Proposed Development & Access Options on the Trees

3.4. Given the consideration of the existing agricultural context of the site, it is likely that the proposed works will have an impact upon some of the tree stock surveyed. The wider site to the north will remain unaffected and the trees will be retained as part of the ecological mitigation and enhancement area.

3.5. The following implications are predicted in relation to the proposed development and access options, as illustrated on **Plan 2: Development Implications (Tree Loss) (2001/P25)**:

Tree No. / Species	Quality Class	Description of Loss
T1 – Sycamore	A1	Direct conflict with proposed access visibility splay on Chipping Lane.
T2 - Ash	A1	Direct conflict with proposed access visibility splay on Chipping Lane.
T3 – Ash	B1	Direct conflict with proposed access visibility splay on Chipping Lane.
G2 – Hawthorn, Blackthorn, Elder and Holly (including taller Ash tree within ditch)	C2	Direct conflict with internal access road and required culvert works associated with the ditch crossing.

3.6. Approximately 150m of flailed hedgerow will be lost in association with Chipping Lane and three young-mature trees removed in order to achieve the proposed highway access and for implementing visibility splays at the principal entry point to the development. A ditch also associated with G2 would need to be culverted and crossed by an internal access road. This will result in the loss of approximately 20m of hedgerow and a larger ditch-side Ash tree. In the absence of mitigation this would potentially trigger planning polices both within the NPPF and local

planning policy ENV 13 which seeks to protect important landscape features including hedges and their associated features.

3.7. However, the loss of hedge lengths and individual trees will be compensated by providing new species-rich hedgerow planting within the site totalling 355m in length. The proposed location for new hedges is shown on **The Landscape Strategy Plan (2001/P23)** which seeks to augment retained habitats and enhance connectivity between similar habitats present on adjacent land. Individual light standard and heavy standard native tree planting is also proposed, with tree numbers exceeding 80 in total.

Section 4: Tree Protection & Arboricultural Method Statement

Tree Protection Plan

4.1 All trees to be retained as part of the development proposals will be protected from unnecessary damage during the construction process. Tree protection on development sites is of paramount importance if they are to be retained successfully. The inevitable stress caused by development near existing trees can, if provision for adequate protection is not made, be a strain that can severely damage the trees or even result in their death.

4.2 Tree protection measures are illustrated at the rear of the report on **Plan 3 – Tree Protection Measures (sheet 1 of 2) (2001/P26)** and **Plan 3 – Tree Protection Measures (sheet 2 of 2) (2001/P27)**; and, outlined further below in the form of an Arboricultural Method Statement (AMS).

Purpose of a Method Statement

4.3 The purpose of an Arboricultural Method Statement (AMS) is to safeguard the retained trees on Site during the construction process. The following information sets out the methodology and approach for all proposed works that could affect such trees.

4.4 Compliance with this AMS will be a requirement of all relevant contractors associated with the development, including initial groundworks and landscaping.

4.5 Copies of this report will be available for inspection on Site and all personnel shall be made aware of the key implications of the AMS.

General Site Precautions

4.6 The following points must be observed during both advanced works and the construction process:

- No fires will be lit on Site;
- No access will be permitted inside tree protection / non-intervention areas (unless authorised);
- No materials, equipment or debris will be stored within the tree protection fencing;
- Notice boards, telephone wires or other services must not be attached to any part of retained trees; and
- Materials which will contaminate the soil (e.g. concrete, diesel oil and vehicle washings) must not be permitted to enter the RPA of retained trees.

Site Preparation & Tree Works

4.7 Firstly, the necessary tree protection measures associated with the retained hedgerows (G1, G2 (in-part), G3, G3a, G7, G8, G9, G9a, G10 and G11) need to be implemented in accordance with BS 5837:2012, followed by the protection of other individual trees as listed at para. 4.18 below.

4.8 The trees and / or vegetation required for removal (T1, T2, T3 and G2 in-part) should be removed and remedial works carried out in accordance with the 'advance works' provisions set out above and in line with BS 3998:2010.

4.9 In order to gain access to the ecological enhancement and mitigation land to the north, it may also be necessary to undertake some minor pruning works (in association with G3a).

4.10 Access through to the Sainsbury's supermarket will be via an existing field entrance / culvert; however, some general pruning works may also be required to the overhanging hedgerow associated with G3.

4.11 It is suggested that these are all removed manually and under arboricultural supervision.

Protection Barriers

4.12 Protective fencing should be erected in line with BS 5837:2012 in association with all retained trees and hedgerows within the proposed southern (developed) portion of the application site (in association with T4, T5, T6, T7, T8, T9, T10, T11, G1, G2 (in-part), G3 and the southern side of G3a. The fencing consists of a scaffold framework, well braced to resist impacts, with vertical tubes spaced at a maximum of 3m to add further stability. Onto this, weldmesh panels should be securely fixed with wire or scaffold clamps (see extract of BS 5837 – Figure 2 below).

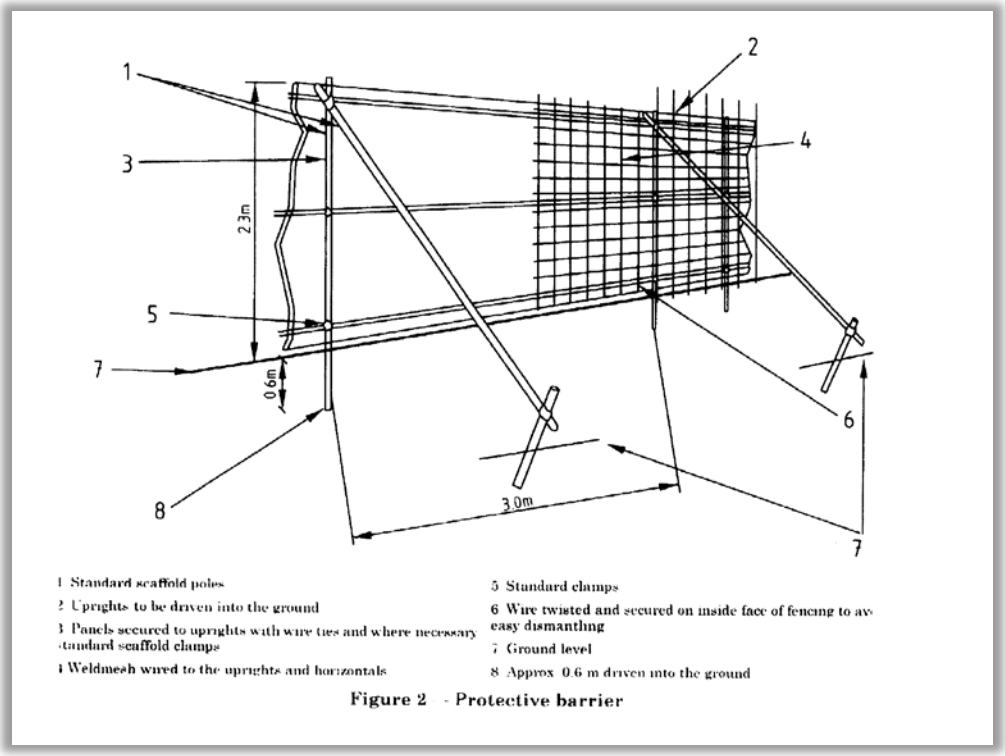

Figure 2 - Protective barrier

4.13 All-weather notices should be attached to the barriers with words such as 'Construction Exclusion Zone – Keep Out' (see signage examples). Other signage should be positioned to alert plant operators about sensitive tree canopies (particularly in both directions on approach to T1).

4.14 For the northern portion of the application site where largely landscape enhancement works are to be undertaken, it is recommended that retained areas of hedgerow and trees are only protected using secured plastic mesh fencing, where proposed pond excavations are required (see photographic example below).

4.15 If during construction, excessive levels of dust build-up on retained trees, it may be necessary to undertake remedial measures such as hosing down immediately with a clean water supply.

4.16 The protective fencing will remain in position for the duration of the construction activities.

Special Working Methods

4.17 Where works are required to facilitate the required culvert and internal road crossing at the margins of the defined Root Protection Areas for G2, any excavation should be undertaken by hand, to avoid any damage to the protective bark covering any larger roots. If necessary, any roots encountered which are smaller than 25mm in diameter can be pruned back, preferably to a side branch using a proprietary cutting tool. Roots larger than 25mm diameter should only be severed

following on-site agreement with an arboricultural consultant, as they may be essential to the tree's health and stability.

Amendments & Summary of AMS Procedures

4.18 Issues sometimes arise on development Sites which require amendments to the previously agreed tree protection details, usually in response to detailed design alterations. Any amendments to the AMS will be discussed with the Arboricultural Consultant and agreed in writing with the LPA prior to being implemented. Copies of paperwork relating to any amendments shall be attached to the Site AMS to provide a definitive record of what has been approved.

Appendix 1: Tree Survey Explanatory Notes

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Tree Numbers

'T' prefixes have been used to identify individual trees and commence with 'T1'.

'G' prefixes have been used to identify groups of trees.

Species

Species are listed by their common name, both in the schedule and in the report text.

Height and Stem Diameter

Tree heights are measured in metres (m). The stem diameter of single stemmed trees is measured at 1.5m above ground level and given in millimetres (mm). The diameter measurement of multi-stemmed trees is taken immediately above the root flare.

Crown Spread and Height of Crown Clearance

This is the height above ground in metres of the attachment point of the first significant branch, or the height to which the lowest (living) branch reaches; whichever is the lower. Radial crown spread is measured in metres and is listed for each of the four cardinal points. The canopy shape for individually surveyed trees depicted on the accompanying plans accurately represents the canopy spread as measured on-site.

Age Class

The age of each tree is defined as follows:

Y Young - within the first third of life expectancy;

YM Young Mature - within the second third of life expectancy;

M Mature - within the last third of life expectancy;

OM Over mature - Tree in decline; and

V Veteran – tree that, by recognised criteria, shows features of biological, cultural or aesthetic value that are characteristic of, but not exclusive to, individuals surviving beyond the typical age range for the species' concerned. For the purpose of this report the term 'ancient tree' and 'veteran tree' are interchangeable.

Physiological and Structural Condition

The physiological or structural condition of each tree is defined as either; good, fair, poor or dead. For each tree, where appropriate, notes on the structural integrity are provided on form, taper, forking habit, storm damage, decay, fungi, pests, etc.

Estimated Remaining Contribution (ERC) in Years

The Estimated Remaining Contribution (ERC) for each tree is based on species and existing and apparent physiological and structural condition of the tree. The ERC may affect the proposed development layout, since the longer the tree is likely to live the greater the contribution it will make and the greater the need for retention.

TREES FOR REMOVAL		
Category and Definition	**Criteria**	**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 (i.e. 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)	DARK RED

TREES TO BE CONSIDERED FOR RETENTION				
Category and Definition	**Criteria - Subcategories**			**Identification on Plan**
	1. Mainly Arboricultural Values	**2. Mainly Landscape Values**	**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 of significant conservation, historical, commemorative or other value (e.g. veteran trees or wood-pasture).	LIGHT 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 remedial 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 benefits.	MID 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 150mm	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 temporary/transient landscape benefit.	Trees with no material conservation or other cultural value.	GREY

Appendix 2: Tree Survey Table

Tree Survey Table

No	Species	Height (m)	Stem Diameter (mm)	Branch Spread (m)				Height of Crown Clearance (m)	Age Class	Physiological Condition	Structural Condition	Estimated Remaining Contribution (Years)	Category Grading	Preliminary Management Recommendations	Root Protection Area msq (and off-set radius in metres from stems)
				N	S	E	W								
T1	Sycamore	11.5	490	4.0	5.0	6.0	5.5	2.5	M	Fair – Good	Fair – Good	20 +	A1		(5.88)
Notes: Ivy clad, slight east bias. Crown lifted to roadside. Minor deadwood in mid canopy.															
T2	Ash	12.0	710	7.0	8.0	9.0	4.0	3.0	M	Fair – Good	Fair – Good	20 +	A1	Monitor union.	(8.52)
Notes: Roadside tree. Split at 3.0m (leader union). Two principal leaders. Ivy clad, east bias (crown bias also). Deadwood and dieback in lower east crown.															
T3	Ash	8.0	430	4.0	4.5	6.5	5.0	2.0	Y – M	Fair	Fair	10 – 20	B1	Monitor union.	(5.16)
Notes: Neat, round canopy formed by two principal leaders. Union split from 1.8m.															
T4	Ash	Est. 7.0	Est.360	5.0	5.5	6.5	6.0	3.0 +	Y – M	Fair – Good	Fair – Good	20 +	B1		(4.32)
Notes: Off site, ivy clad, slight west bias. Three principal leaders. Minor dieback in lower canopy.															
G1	Hawthorn, Blackthorn, Elder, Holly	Up to 5.5	Average 120	-	-	-	-	N/a	Y – M	Fair – Poor	Fair – Poor	10 – 20	C2	Re-stock and manage.	(1.44)
Notes: Far side of ditch, next to Sainsbury's service area. Typical unmanaged hedgerow.															
T5	Alder	8.0	500	5.5	6.0	8.0	2.0	3.0 +	M	Fair	Fair	10 – 20	C2	Monitor rot hole.	(6.10)
Notes: Eastern canopy bias. Basal and stem cavity at 90cm. Minor decay and basal exudates.															
T6	Ash	9.0	- 500 - 410 - 400	9.0	10	6.5	7.0	1.5m	M	Fair	Fair	10 – 20	B2	Monitor union.	(7.60)
Notes: Three stems/one bole. Sprawling canopy formed by three union split at bole. Lower pruning evident.															

No	Species	Height (m)	Stem Diameter (mm)	Branch Spread (m)				Height of Crown Clearance (m)	Age Class	Physiological Condition	Structural Condition	Estimated Remaining Contribution (Years)	Category Grading	Preliminary Management Recommendations	Root Protection Area msq (and off-set radius in metres from stems)
				N	S	E	W								
T7	Ash	5.5	520	4.5	3.5	7.0	3.0	N/a	M	Fair – Poor	Fair – Poor	10 – 20	C2	Retention optional.	(6.24)
Notes: Significant bias to north east. Deadwood and dieback with small rot holes in principal leader.															
G2	Ash, Holly, Hawthorn, Blackthorn, Elder	Up to 7.5	Av.180	-	-	-	-	N/a	Y – M	Fair	Fair	20 + if managed	C2	Re-stock and manage.	(2.16)
Notes: Typical internal hedge and ditch. Unmanaged, scattered trees. Ok screen. Gappy centre and significant leaning Ash. Most northerly Ash conflict with power lines.															
G3 G3a	Hawthorn, Blackthorn, Elder, Holly	Up to 5.5m	Av. 100	-	-	-	-	N/a	M	Fair	Fair	20 +	C2	Re-stock and manage.	(1.20)
Notes: Typical ditch/hedgerow. Hawthorn dominated. Conflicting canopies in places. Scattered trees throughout.															
T8	Sycamore	7.5	330	5.5	5.5	5.0	6.0	N/a	Y – M	Fair – Good	Fair – Good	20 +	B2		(3.96)
Notes: Vigorous upright tree on ditch-side of watercourse. Tight canopy.															
T9	Alder	10.0	- 400 -200 -180 -170 -380 -420	7.0	7.0	6.5	7.0	N/a	M	Fair – Good	Fair – Good	20 +	B2	Monitor union	(7.40)
Notes: At ditch meander. Large multi stem bole. Six leaders, weak union, sprawling canopy. Some pruning evident. Nice tree.															
T10	Elder	9.0	- 340 - 480 - 310	5.0	6.0	6.0	6.0	N/a	M	Fair	Fair	20 +	B2		(6.60)
Notes: Multi stem bole located on ditch-side. Some root wash and crossing leaders.															
T11	Alder	9.0	X 8 -180 each	6.5	6.5	5.5	5.5	N/a	M	Fair	Fair	20 +	B2		(5.10)
Notes: Ditch-side multi stem with some crossing leaders.															

No	Species	Height (m)	Stem Diameter (mm)	Branch Spread (m)- N	S	E	W	Height of Crown Clearance (m)	Age Class	Physiological Condition	Structural Condition	Estimated Remaining Contribution (Years)	Category Grading	Preliminary Management Recommendations	Root Protection Area msq (and off-set radius in metres from stems)
G4	Hawthorn, Elder Blackthorn, Holly	Up to 5.0	Av.80	-	-	-	-	N/a	YM – M	Fair	Fair	10 – 20	C2	Manage and re-stock	(0.96)
Notes: Slightly narrower hedge and shallow ditch. Dominated by Hawthorn, Elder, Blackthorn and forming typical enclosure. One taller hawthorn – 4 stem at 160 dbh to east.															
G5	Hawthorn, Blackthorn, Elder	Up to 5.0	Av. 90	-	-	-	-	N/a	YM – M	Fair	Fair	10 – 20	C2	Manage and re-stock.	(1.08)
Notes: As G.4 – typical hedgerow and ditch enclosure. Hawthorn dominated. Slightly denser, previously managed. Decent low level screen. Gaps at either end.															
G6	Birch, Cypress, Sorbus, Cherry, Field Maple	Up to 10.5	Max. 210					N/a	Y – YM	Fair – Poor	Fair – Poor	20 +	C2		(1.32/2.52)
Notes: Off-site ornamental planting belt associated with Sainsbury's and standalone boundary Cypress trees.															
G7	Ash, Willow, Hawthorn, Blackthorn	Up to 11.5	Max. 360	-	-	-	-	N/a	M	Fair	Fair	20 +	C2		(4.08)
Notes: Dry depression group dominated by double stemmed mature Ash with some visible knot holes.															
G8	Hawthorn, Alder, Holly	Up to 7.5	Max. 120	-	-	-	-	N/a	M	Fair	Fair	20 +	C2	Management required.	(1.44)
Notes: Typical enclosure with some gaps. Would respond well to on-going management.															
G9 G9a	Willow, Ash, Hawthorn, Blackthorn	Up to 11.5	Max. 410	-	-	-	-	N/a	M	Fair	Fair	20 +	C2		(4.92/3.72)
Notes: Group of four more prominent Willow associated with field pond with understorey hedgerow. Some evidence of deadwood and contorted form, minor root wash or damage from grazing animals.															

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No	Species	Height (m)	Stem Diameter (mm)	Branch Spread (m)				Height of Crown Clearance (m)	Age Class	Physiological Condition	Structural Condition	Estimated Remaining Contribution (Years)	Category Grading	Preliminary Management Recommendations	Root Protection Area msq (and off-set radius in metres from stems)
				N	S	E	W								
G10	Hawthorn, Alder, Ash, Beech	Up to 8.5	Max. 210	-	-	-	-	N/a	M	Fair	Fair	20 +	C2	Re-stock and manage	(2.52)
Notes: Alder dominated gappy hedgerow.															
G11 G11a	Hawthorn, Alder, Ash	Up to 9.5	Max. 330	-	-	-	-	N/a	M	Fair	Fair	20 +	C2	Re-stock and manage	(3.60)
Notes: Alder dominated gappy hedgerow.															

Plans

Plan 1: Findings of Tree Quality Survey & Root Protection Areas (Sheet 1 of 2)
(2001/P12a April 2014)

Plan 1: Findings of Tree Quality Survey & Root Protection Areas (Sheet 2 of 2)
(2001/P24 April 2014)

Plan 2: Development Implications (Tree Loss)
(2001/P25 April 2014)

Plan 3: Tree Protection Measures (Sheet 1 of 2)
(2001/P26 April 2014)

Plan 3: Tree Protection Measures (Sheet 2 of 2)
(2001/P27 April 2014)

Key

- Category A - Trees of high quality and value
- Category B - Trees of moderate quality and value
- Category C - Trees of low quality and value
- Application Site Boundary
- Approximate Extent of BS5837 Calculated Root Protection Areas (RPAs)
- Existing / Suitable Access Points

Revision

Tyler Grange

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Plan 1: Findings of Tree Quality Survey & Root Protection Areas (Sheet 1 of 2)

N

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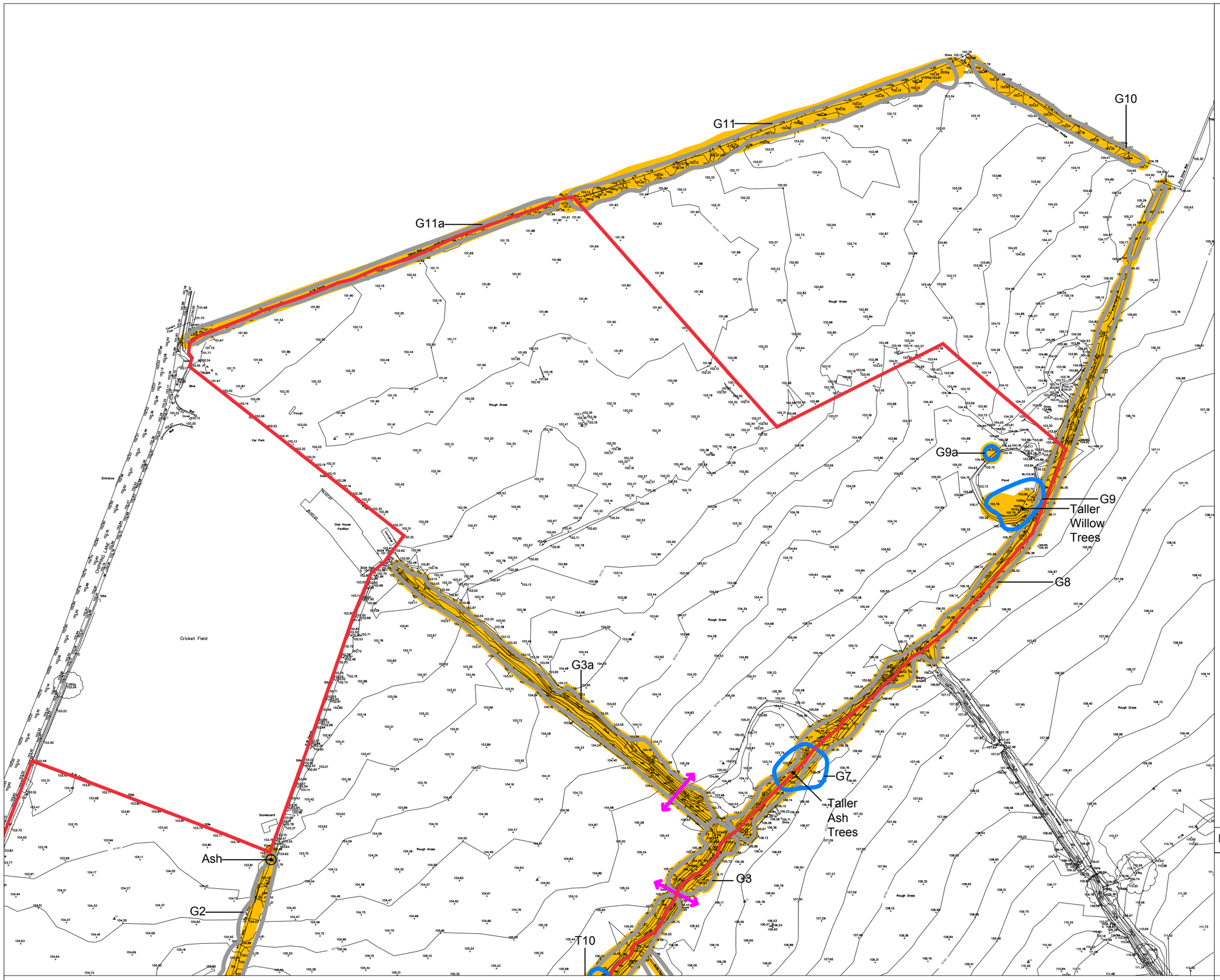
Project	Bowland Meadows, Land East of Chipping Lane, Longridge
Drawing No	2001/P12a
Date	April 2014



Key

- Category A - Trees of high quality and value
- Category B - Trees of moderate quality and value
- Category C - Trees of low quality and value
- Application Site Boundary
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Revision

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Plan 1: Findings of Tree Quality Survey & Root Protection Areas (Sheet 2 of 2)

N

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1:1250 @ A3

Project	Bowland Meadows, Land East of Chipping Lane, Longridge
Drawing No	2001/P24
Date	April 2014

Key

Application Site Boundary

Predicted Tree & Hedgerow Loss

Revision

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Plan 2: Development Implications (Tree Loss)

N

0 20m

1:1250 @ A3

Project	Bowland Meadows, Land East of Chipping Lane, Longridge
Drawing No	2001/P25
Date	April 2014

Key

Application Site Boundary

Extent of BS 5837 Protective Fencing

Revision

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Plan 3: Tree Protection Measures (Sheet 1 of 2)

N

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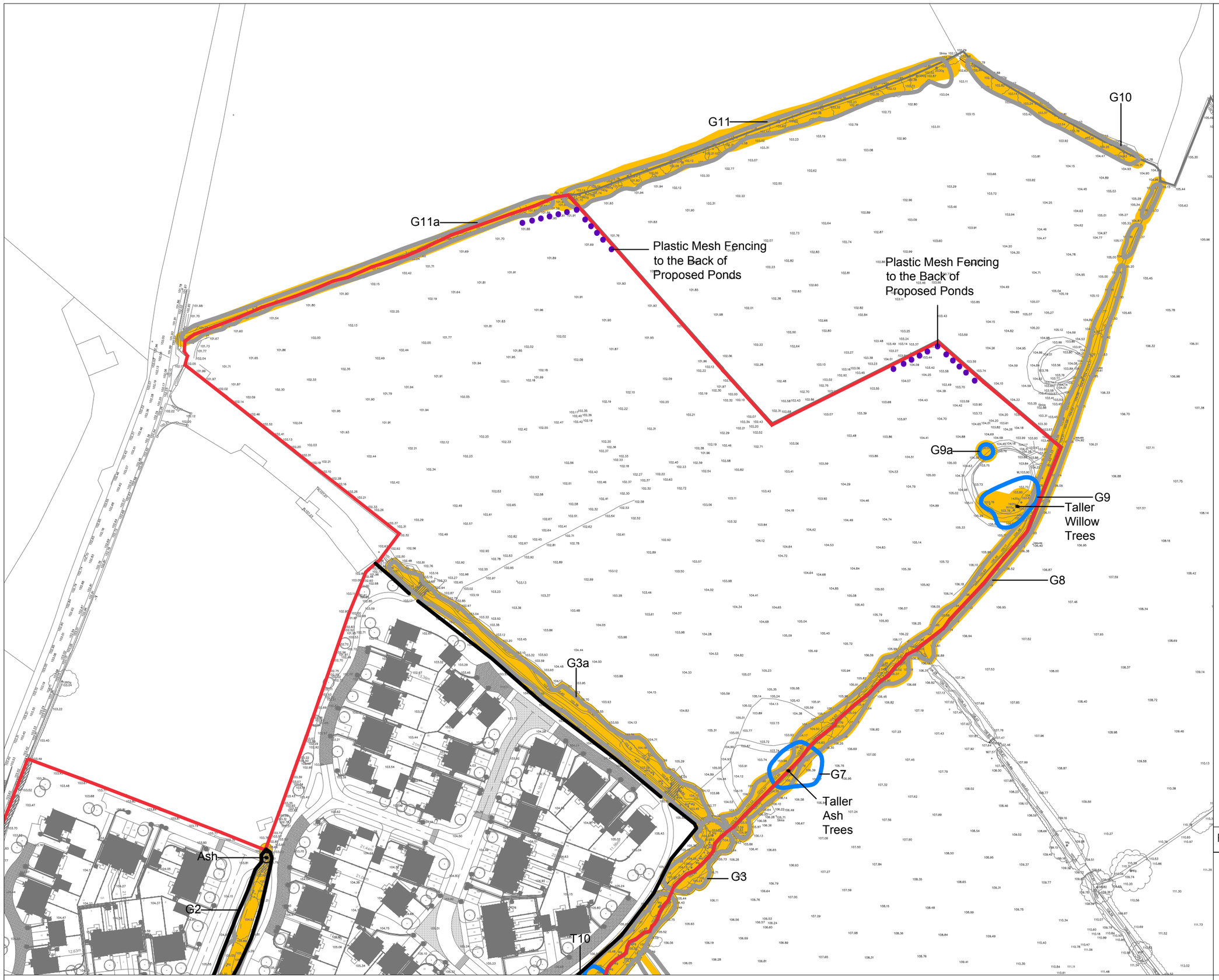
Project	Bowland Meadows, Land East of Chipping Lane, Longridge
Drawing No	2001/P26
Date	April 2014



Key

Application Site Boundary

Extent of BS 5837 Protective Fencing

Extent of Plastic Mesh Fencing

Revision

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Plan 3: Tree Protection Measures (Sheet 2 of 2)

N

0 20m

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Project	Bowland Meadows, Land East of Chipping Lane, Longridge
Drawing No	2001/P27
Date	April 2014