Rhian Harris
Planner
HOW Planning LLP
40 Peter Street
MANCHESTER
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Our Ref: 1942_L001_SH_JB_AS
31 October 2014

Dear Rhian

Proposed Development at Barnfield Road, Leek – Re-Submission of Tyler Grange Ecology and Arboriculture Reports

I understand that the recent planning application associated with Barnfield Road, Leek was refused and that the client is re-submitting the application with a slightly reduced quantum of development, comprising:

- Demolition of any remaining on site structures as necessary;

- Residential development (use class C3) of up to 175 dwellings, associated open space, play areas and pedestrian / cycle links;

- Employment uses comprising light industrial (B1c) and general industrial (B2) providing up to 1,195m2; and

- Tourism and leisure uses including a marina / basin and railway station hub comprising associated building for heritage/railway activity (use class D2) and tourist/local needs retail (use class A1) up to 394m2; public house/ family restaurant (use class A3/A4) and associated car parking and servicing arrangements.

Tyler Grange produced two reports to support the original planning application, including:

- Ecological Impact Assessment (1942/R01a); and
- Tree Quality Survey, Root Protection Areas and Development Implications (1942/R02a).

I confirm that the original proposals as assessed represent a 'worst case scenario' and consequently the conclusions and recommendations within the reports listed above are sufficient and robust to enable the Local Planning Authority to determine the re-submitted application. The slight reduction in development quantum will therefore result in no additional harm with reference to ecological habitats and previously predicted tree loss.

Yours sincerely

Simon Holden
Senior Ecologist

17 January 2014

Land at Barnfield Road and Sunnyhills Road, Cornhill, Leek

Tree Quality Survey, Root Protection Areas & Development Implications

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Section 1: Introduction

1.1. Tyler Grange LLP (TG) has been appointed on behalf of Barnfield Hughes Ltd to undertake a Tree Quality Survey in respect of the potential development at land off Barnfield Road and Sunnyhills Road, Cornhill, Leek, Staffordshire (hereafter referred to as 'the site'). The Site is approximately 10.6 ha and is centred on Ordnance Survey (OS) grid reference SJ 9788 5525.

1.2. Barnfield Hughes Ltd is submitting an outline planning application to Staffordshire Moorlands District Council (SMDC) for a mixed use development, including means of access comprising 211 Dwellings, with associated open space, play areas and pedestrian/cycle links. Permission is also sought for employment, tourism and leisure uses including a marina/basin and railway station hub comprising a railway museum building, public house/ family restaurant; tourist/local needs retail unit up to 500sqm and associated car parking and servicing arrangement. It is proposed that the site will be accessed by vehicles, cyclists and pedestrians via the new primary access off Sunnyhills Road and the existing Barnfield Road arrangement. Secondary access arrangements will also be provided off Barnfield Road.

1.3. The survey work involved collecting data relating to the tree stock to ascertain the baseline arboricultural context in order to inform the proposed on-site development and to accompany the planning application. Where appropriate, recommendations for the removal of trees or tree management are made in order to facilitate development, or to improve the overall condition of the existing tree stock.

Survey Methodology

1.4. 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). The survey was carried out on 15th August 2013. The weather conditions were sunny and clear with a gentle breeze (approximately force 3 on the Beaufort scale).

1.5. In accordance with the above recommendations, the tree survey included all trees within and adjacent to the Site boundary that were over 7cm diameter at breast height (dbh). Trees have been plotted individually using surveyed topographic data and have also been broadly considered within groups that form cohesive arboricultural features either aerodynamically, visually, culturally or in biodiversity terms. 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 and Structural Condition;

- Estimated Remaining Contribution (in years); and
- Management Recommendations and Notes.

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.

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

Tree Categorisation

1.8. The quality and value of each tree or group of trees has been recorded in accordance with the Cascade Chart for Tree Quality Assessment included at **Appendix 2**. The purpose of the tree categorisation method is to identify the quality and value of the existing tree stock, allowing informed decisions to be made in conformity with BS5837:2012, concerning which trees should be removed or retained, should development occur.

1.9. 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.

1.10. 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. Findings for each of the individual trees surveyed are summarised on the Findings of Tree Quality Survey and Root Protection Areas plans, contained at the rear of this report and listed individually within the Tree Survey Table at **Appendix 3**.

Preliminary Management Recommendations

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

1.12. 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 their current 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.

1.13. 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.

1.14. 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.

1.15. All measurements are metric and approximate. The tree survey was based on the topographic survey prepared by Powers and Tiltman Ltd Land Surveyors (ref. 6724/01).

Un-assessable Risks

1.16. Any alteration to the application Site could change the current circumstances and may invalidate this report and any recommendations made.

1.17. 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 and 2010 (as amended).

1.18. 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 in the majority previously developed land and is 10.6 ha (26.2 acres) in size. The majority of the site was historically operated by Hughes Concrete and latterly by CPM Ltd. The site is split across two distinct land parcels bound by Sunnyhills Road to the north and Barnfield Road to the west. The land to the east of Barnfield Road comprises the former concrete works and is occupied by a number of buildings including former offices with the remainder of the land comprising hard standing/former open storage areas. There is a gas substation located along the eastern boundary marked by a low rise plant building. This part of the site is bound by palisade fencing and is secure. To the south is a small area of additional land comprising open space and an enclosed area of hard standing accessed from Barnfield Road.

2.2. The land to the west of Barnfield Road and south of Sunnyhills was all part of the former concrete works. It is bordered to the north by Sunnyhills Road, an existing scrap metal site and the Ladderedge Country Park to the south. There are existing light industrial units to the west of this land whilst Barnfield Road forms the eastern site boundary. To the extreme north western corner is a small parcel of land occupied by a Severn Trent Water sewerage pumping station. This area is occupied by a number of buildings associated with the former concrete processing and storage uses. The remainder of this portion of the site comprises of hard standing which was mainly utilised for the storage of concrete pipes. The concrete works has now been largely decommissioned although some materials are still stored on site. The site is now vacant.

2.3. Surveyed trees largely consisted of linear belts of boundary screening vegetation (G1, G4) and roadside structure planting (G6) with some smaller areas of scattered internal vegetation present.

2.4. A total of six tree groups and five individual trees were surveyed, as shown on the Findings of Tree Quality Survey & Root Protection Areas plans (**Sheet 1 - 1942/P01a, Sheet 2 - 1942/P02a**), located to the rear of this report.

Planning Context

2.5. As confirmed via email from Staffordshire Moorlands District Council on 18th November 2013, no surveyed trees are protected by a Tree Preservation Order (TPO). There are no Public Rights of Way (PRoW) crossing the Site and the surveyed trees are not located within a Conservation Area.

Species Composition

2.6. A total of 20 principal species were recorded and these consisted of:

- Alder *(Alnus glutinosa)* - 12%;
- Birch *(Betula sp.)* - 12%;
- Swedish Whitebeam *(Sorbus intermedia)* – 10%;
- Hawthorn *(Crataegus monogyna)* – 9%;
- Willow – *(Salix sp.)* – 8%;
- Sycamore *(Acer pseudoplatanus)* – 6%;

- Ash *(Fraxinus excelsior)* – 6%;
- Elm *(Ulmus sp.)* – 6%;
- Beech *(Fagus sylvatica)* – 6%;
- Rowan *(Sorbus acuparia)* - 4%;
- Maple *(Acer sp.)* - 4%;
- Horse Chestnut *(Aesculus hippocastanum)* - 4%;
- Cherry *(Prunus sp.)* - 3%;
- Dogwood *(Cornus sp.)* - 2%;
- Laurel *(Laurus sp.)* - 2%;
- Elder *(Sambucus nigra)* - 2%;
- Lime *(Tilia sp.)* - 1%;
- *Leylandii* - 1%;
- Privet *(Ligustrum sp.)* - 1%; and
- Apple *(Malus sp.)* - 1%.

Health, Physiological and Structural Condition

2.7. 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 and die-back or obvious signs of decay. The findings of the survey are summarised in the table below:

Physiological and Structural Condition
Poor – 0% (Physiological), 1% (Structural)
Fair-Poor – 0% (Physiological), 8% (Structural)
Fair – 14% (Physiological), 5% (Structural)
Fair - Good – 86% (Physiological), 86% (Structural)
Good – 0% (Physiological), 0% (Structural)

2.8. Of the trees surveyed the majority were found to be in a generally fair physiological and structural condition due to their urban edge setting with some roadside and site-edge management works undertaken to facilitate vehicular movements and on-site industrials workings. No major health problems were noted other than the general presence of limited deadwood and minor dieback across the Site, most of which appeared to be age related.

2.9. The past industrial works and recent dereliction of the site has resulted in a largely dilapidated tree stock. Whilst the majority of boundary trees retained a good level of vigour and structural well-being, largely due in part to their off-site location and high degree of past management, such as the raising and pruning of several canopies, more recent or active management and inspection of internal trees has been neglected, with high levels of deadwood and canopy conflict being discernible.

Age Class

2.10. The findings of the survey are summarised below:

Age Class
Young – 10%
Young-Mature – 88%
Mature – 2%

2.11. The majority of the tree stock can be classified as young-mature in terms of age class, with a significant number of younger trees and occasional mature trees also present, giving a fairly broad spread of ages across the site.

2.12. It should be noted that many of the more mature trees will be in the final third of their life span and should be incorporated with new tree planting to provide a continued tree presence as part of longer term management proposals for internal and site-boundary tree stock.

Category Grading

2.13. The findings of the survey are summarised below:

Category Grading	
Quality Class A – 0%	Quality Class B – 87%
Quality Class C – 13%	Quality Class U – 0%

2.14. Of the trees surveyed, the majority were classified as Category B, considered to be of moderate quality and value, with a significant number of trees of generally low value (Category C) being identified during the survey. This reflects the overall fair quality of the tree stock.

2.15. No trees were considered to be of high value (Category A). Despite the degree of past management, which has allowed for the progression of a number of mature trees at the edges of the site; the urban pressures of their setting, the run-down nature of the site and the associated open storage and industrial activity has limited the category grading of much of the tree stock.

2.16. The category grades are linked to arboricultural and landscape criteria. The generally moderate category grading was largely due to the extent of planting at the site boundaries where broad mixed belts of established linear screening vegetation (G1, G4 and G6) offer a vegetated context and a degree of visual containment at the edges of the site. Many of the linear tree belts, whilst often not containing individual trees of notably high value, as a collective group are considered to have an important landscape value given the urban greening value, habitat connectivity and contribution to the visual experience and screening of the adjacent street scenes.

Section 3: Management and Development Implications

Root Protection Areas

3.1. The Tree Quality Survey & Root Protection Areas plans **(Sheet 1 - 1942/P01a, Sheet 2 - 1942/P02a)**, located to the rear of this report shows the approximate extent of Root Protection Areas (RPAs). The RPAs are considered to contain sufficient rooting volume to ensure the survival of the tree and should be left undisturbed in order to avoid damage to the roots or rooting environment surrounding the tree. Particular care is needed regarding the proximity of trees which may become enclosed within new development, or are disturbed by unsuitable working methods or proximity during the construction phase of a development.

3.2. Whilst the locations of RPAs must be respected, and development or excavations avoided wherever possible within them, regulated minor works can be undertaken within the root protection areas in some cases. This must be carried out carefully by hand, avoiding damage to roots and in accordance with an accompanying Arboricultural Method Statement.

3.3. Appropriate protective measures should be implemented to avoid desiccation and undue disturbance of roots if a tree is to be retained. Any sudden and major alteration of the soil or surface conditions within RPAs will lead to progressive shoot and branch dieback until the roots have adapted to the altered conditions and have been able to source sufficient water and oxygen levels. If damage is progressive or so severe that the tree is unable to adapt then it is likely that the tree will ultimately die. It should be noted that in general, with increased maturity of a specimen, the ability of that tree to adapt to dramatic alterations in relation to its root system is lessened.

3.4. 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. The RPAs should also be considered in association with above ground constraints. 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.

Management and Development Implications (Opportunities & Constraints)

3.5. Given the existing developed context of the site, it is considered that the majority of trees should be able to tolerate sensitive development where RPAs have been considered, although large scale excavation or substantial level change within the RPAs must be avoided where trees are to be retained. Where any development is proposed in closer proximity to retained trees there is scope for ensuring appropriate working methods, design intervention and suitable tree protection strategies as a matter of detailed design through the preparation of an accompanying Arboricultural Method Statement.

3.6. The trees of highest value were those associated with the broadly linear mixed wooded belts towards the east (G1) and southern (G4) edges of the site which currently provide a good level of visual screening and filtering, forming a valued backdrop to views across the site and containing several sizeable specimens of higher arboricultural value. The retention of mature tree stock

wherever possible has been sought to aid the assimilation of the scheme proposals into an established landscape framework.

3.7. The scheme layout has sought to enhance the tree cover along the western boundary to reinforce the wooded enclosure seen elsewhere around the edges of the site. The existing boundary vegetation within G5 would benefit from the introduction of some younger trees to safeguard the future sense of enclosure.

3.8. Poorer quality stock which can be more easily supplemented with enhanced native planting includes the internal self-seeded scrappy Birch (G2), which is yet to become established as particular features of arboricultural merit, being largely hampered by the surrounding industrial land use and setting as well as any declining or self-seeded boundary stock (T3, T5)

3.9. G6 represents a belt of young-mature street tree planting along the northern edge of the site. It offers a good level of visual screening whilst affording some visual qualities in terms of the visual experience within the adjacent street scene. Whilst there will need to be selected puncturing of the tree group to facilitate site access G6 will be incorporated into the northern boundary planting proposals through the implementation of suitable development offsets and the supplementing of any losses through the provision of compensatory tree and shrub planting as part of a northern boundary green buffer to the adjacent street scene. Those trees within G6 that are to be retained would benefit from selected crown reductions and cutting back of intervening naturalised shrubby understorey growth to limit canopy conflicts as the trees mature.

3.10. Any new landscape planting should be undertaken between October and March, avoiding days when the ground is frozen. Container-grown trees can be planted at any time of year, if planting is done in late spring or summer they should be watered during dry spells throughout the first growing season. Any deadwood / tree removal or management must be subject to wildlife and planning considerations / constraints. Ideally work should be timed to avoid the bird nesting season wherever possible (1st March to 31st August). If not, each tree will need to be searched for nesting birds prior to clearance. If a nest is found the tree and its immediate surroundings will need to be left undisturbed until nesting is complete.

3.11. The impact of shading and the physical presence of retained trees has been considered as part of the design process for the new development. The Findings of Tree Quality Survey & Root Protection Areas plans illustrate the indicative shading constraints posed by existing surveyed trees, based on their approximated height as measured during the survey. The area illustrated as a shadow constraint indicates the area within which the amenity interests of shading, available daylight and the proximity of trees for future site occupants may be impacted upon should a tree be retained. In general, daylight shading from retained trees is inevitably more of an issue on the north-west to north-eastern side of a tree, and as such, the layout has utilised the findings of the tree survey to consider the implications of development proximity towards the southern and western site boundaries.

3.12. An indicative / outline management prescription, including timings, is set out in the table below as a suggested rationale for arboricultural improvements of the proposed and retained on-site vegetation following development of the site. Any arboricultural 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*).

Resource	Management principles	Rationale / Notes
Boundary tree belts	• Thinning of invasive scrub and brambles where encroachment into the site is apparent, to maintain light penetration. • Removal ivy from encroached tracts of planting; • Remove non-natives (laurel, rhododendron etc) and thinning of deadwood / hanging branches. • Removal of remnant planting tubes as vegetation matures. • Enhance understorey through planting of oak, hazel, honeysuckle, hawthorn, yew. Gaps should be re-stocked with a double staggered mix of native hedgerow planting.	Clearance outside bird nesting season (March to August). Objective to create / enhance understorey structure and to ensure future connectivity and visual containment.
Proposed boundary planting	• Where required to plant up Site edges along development boundary, the promotion of an 'ecotone' edge habitat using native, thorny species, with wildflower grassland strips beyond is encouraged. • Removal of scrub, litter and non-native emergent growth. Cut grass after flowering/fruiting. • Undertake annual maintenance of any and replace dead specimens, as required.	Improved boundary transitions and structuring. Management in autumn.
Mature tree stock	• Removal of hanging deadwood • Cutting back of lower canopy scrub and brambles • Remove ivy from encroached trees • Assessment of damaged branches and stem wounds with selected thinning to improve canopy distribution and form.	Prevent degradation of mature trees and enhance ground condition.

Overview Development Implications

3.13. Whilst the report has been prepared to accompany an outline planning application, observations regarding likely tree loss have been made in response to the preparation of an indicative masterplan. The principal implications include:

- Minor punctuation of the northern boundary tree belt (likely to equate to the loss of a single tree from G6 and selected cutting back / target pruning of adjacent tree canopies) in order to facilitate a proposed access and associated visibility splays onto Sunnyhills Road. There is scope for the provision of additional hedgerow, shrub planting and scattered boundary trees to strengthen visual containment and habitat connectivity along the northern edge of the site;

- The requirement for permeable surfacing and sensitive construction methods where hard surfacing is proposed along the southern edge of the site adjacent to G4; and

- The loss of T1, T3, T4, T5 and G2 to implement the proposed marina/basin and residential development. The loss of these trees is considered negligible given their internal location and impaired context. Much of the internal stock is in such a state of decline or dereliction that selected removal would be acceptable given the opportunities to offer a high level of compensatory replacement planting through the provision of site-wide new street tree and garden planting as part of the development proposals.

3.14. A full Arboricultural Implications Assessment (AIA) and Arboricultural Method Statement (AMS) would be prepared to ascertain the definitive extent of any tree loss and to specify the proposed tree protection, design measures and working methodologies in order to safeguard retained trees during the construction phase of the development if required in order to discharge planning conditions.

Appendix 1: Tree Survey Explanatory Notes

Appendix 1: Tree Survey Explanatory Notes

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

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. Tree heights are measured in metres (m).

Crown Spread and Height of Crown Clearance

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. The height crown clearance is measured above ground in metres from the attachment point of the first significant branch, or the height to which the lowest (living) branch reaches; whichever is the lower.

Age Class

The age of each tree is defined as follows:

Young - within the first third of life expectancy;

Young Mature - within the second third of life expectancy;

Mature - within the last third of life expectancy;

Over mature - Tree in decline; and

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.

Appendix 2: BS 5837:2012 Cascade Chart for Tree Quality Assessment

Appendix 2: BS 5837:2012 Cascade Chart for Tree Quality Assessment

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 3: Tree Survey Table

Appendix 3: 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								
G1	Cherry, Alder, Rowan, Swedish Whitebeam, Birch, Laurel, Elder, Sycamore, Maple, Beech Dogwood, Hawthorn	8 - 10	Up to 250	n/a	n/a	n/a	n/a	Av. 2m	Young-Mature	Fair - Good	Fair - Good	10 – 20	B2	n/a	Average 3m offset from stems
Notes: Linear mixed native screening belt. Offsite vegetation aligning eastern Site boundary palisade fencing, adjacent to hard standing. Dense tree cover with minor dieback and canopy conflicts owing to stem density and proximity of fencing.															
G2	Silver birch, Swedish Whitebeam, Privet	4 – 6	Up to 120	1	1	1	1	0	Young to Young-Mature	Fair	Fair	10 – 20	C2	n/a	Average 1.44m offset from stems
Notes: Scrappy self seeded bushy trees within hardstanding. Minor dieback and occasional snapped branches, typical of industrial setting.															
T1	Goat Willow	10	550	5	5	5	5	1.5	Mature	Fair - Good	Fair	10 - 20	B1	Crown reduction and remedial works to reduce canopy conflicts. Thinning of understorey vegetation.	136.8m^2 (6.6m offset from stem)
Notes: Characterful mature Goat Willow with a dense rounded canopy. Impaired context, surrounded by hardstanding and growing on raised concrete bed adjacent to 5m tall unit to north with associated lower canopy conflicts. Twisted, gnarled form but retains good leaf cover, although several snapped branches within lower canopy noted. Typical of industrial setting surrounded by naturalised shrubby growth, and scrappy declining trees.															
T2	Goat Willow	6	Approx. 250	2.5	2.5	2.5	2.5	2	Young-Mature	Fair - Good	Fair	10 - 20	C1	n/a	28.3m^2 (3m offset from stem)
Notes: Offsite scrappy Goat Willow overhanging southern site boundary.															
G3	Willow, Birch	6 -12	Up to 250	n/a	n/a	n/a	n/a	n/a	Young-Mature to Mature	Fair	Fair	10 - 20	C2/B2	n/a	Average 3m offset from stems
Notes: Self-seeded scrappy clump of Willow and mature Silver Birch trees. Several wounds and snapped branches, typical of industrial setting. 5 larger Birch trees of greater maturity.															
T3	Elder	4	Multistem 3 x 100	1.5	1.5	1.5	1.5	0	Young Mature	Fair	Fair	10 – 20	C2	n/a	13.6m^2 (2.1m offset from stem)
Notes: Scrappy, bushy, elder on southern site boundary. Damage to middle canopy due to proximity to boundary palisade fencing.															

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								
T4	Wych Elm	8	400	7	5	5	5	1.5	Mature	Fair	Fair	10 – 20	B2	Sensitive removal of boundary frame structure to reduce stem damage.	72.4m^2 (4.8m offset from stem)
Notes: Mature Elm with lower canopy leaf discolouration and minor canopy damage due to industrial context and associated pressures. Dense canopy with several branches removed. Metal framework on site boundary hindering stem at 1.5m high.															
T5	Apple	5	200	3.5	1	3	3	2	Mature	Fair	Poor	< 10	C2	Consider removal.	18.1m^2 (2.4m offset from stem)
Notes: Mature apple on site boundary wedged between palisade fencing and metal framework. Deadwood throughout and several brambles removed leading to uneven scrappy appearance.															
G4	Ash, Sycamore, Swedish Whitebeam, Spindle, Elm, Hawthorn, Horse chestnut, Alder, Birch, Beech, Willow	8	Approx. Average. 250	n/a	n/a	n/a	n/a	1.5	Young-Mature	Fair - Good	Fair - Good	10 – 20	B2	n/a	Average 3m offset from stems
Notes: Dense offsite belt of young-mature structure planting and screening vegetation. Offsite tree belt aligning south eastern boundary.															
G5	Birch, Willow, Rowan, Alder	4	Av. 100	n/a	n/a	n/a	n/a	0	Young	Fair	Fair - Poor	10 – 20	C2	n/a	Average 1.2m offset from stems
Notes: Self-seeded bramble clad scrappy vegetation within rubble and hardstanding at eastern site boundary. Sparse growth forming a weak screen.															
G6	Hawthorn, Ash, Alder, Laurel, Swedish Whitebeam, Norway Maple, Elm, Lime, Cherry, Birch, Laurel, Willow, Horse Chestnut, Leylandii, Rowan, Copper Beech	8 – 10	Approx. Average. 250, up to 400	n/a	n/a	n/a	n/a	1.5	Young-Mature	Fair - Good	Fair - Good	10 - 20	B2	Crown reductions to reduce canopy conflicts with thinning of deadwood and monitor extent of dieback.	Average 3m offset from stems, up to 4.8m as illustrated
Notes: Northern boundary roadside belt of linear young mature tree planting, located on site at foot of steep rubble slope. Canopies raised over roadside with naturalised shrubby vegetation at bases. Occasional dieback in lower canopies and minor deadwood. Trees form a collective visual screen and urban greening within the adjacent street scene. Minor stem wounds noted typical of urban setting.															

Plans

Findings of Tree Quality Survey & Root Protection Areas (Sheet 1)
(1942/P01a January 2014)

Findings of Tree Quality Survey & Root Protection Areas (Sheet 2)
(1942/P02a January 2014)

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Project	Land at Barnfield Road and Sunnyhills Road, Cornhill, Leek
Drawing No	1942/P01a
Date	January 2014

Findings of Tree Quality Survey and Root Protection Areas (Sheet 1)

N

0m 5m 10m 15m 20m 25m 30m 35m 40m

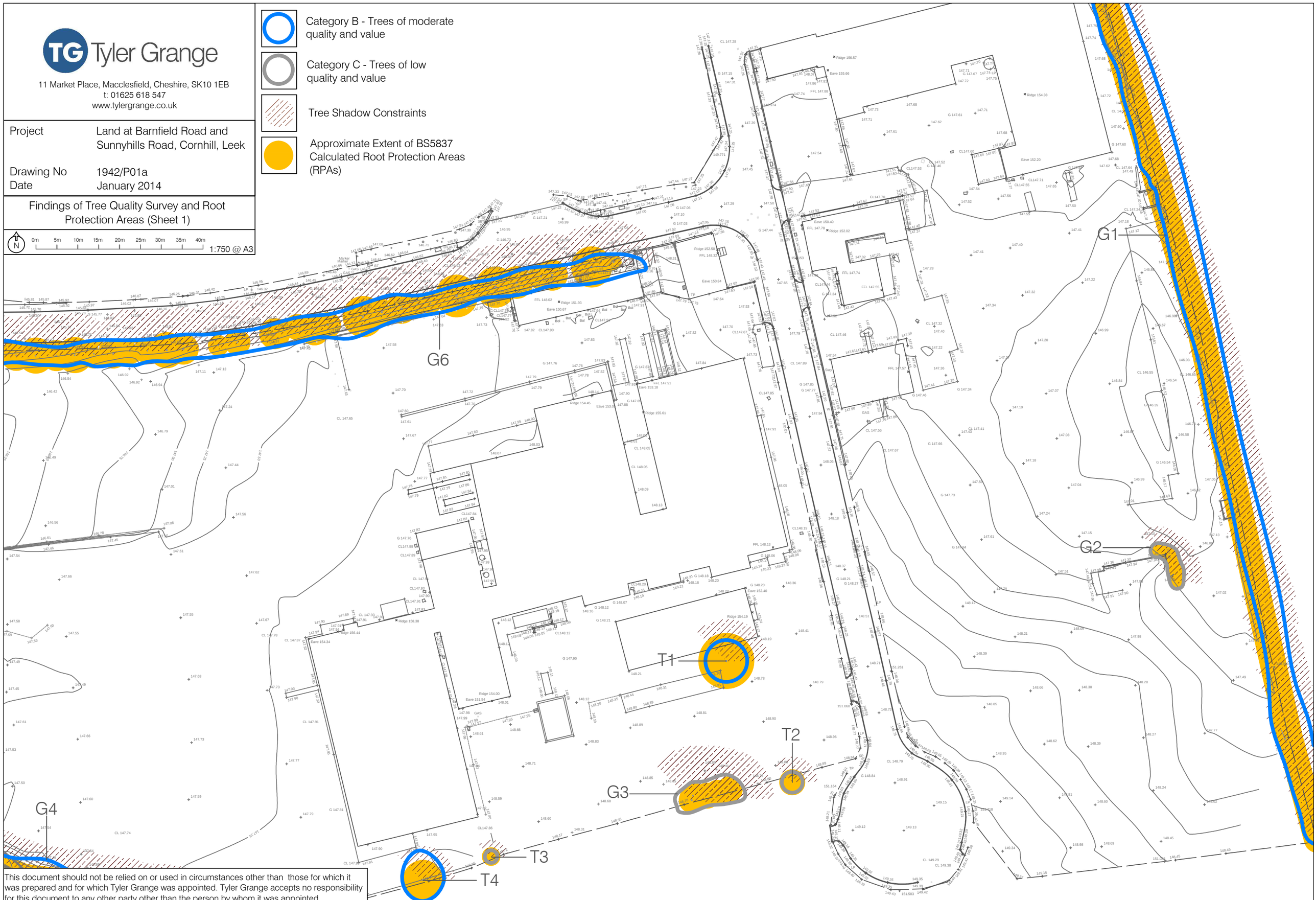
1:750 @ A3

Category B - Trees of moderate quality and value

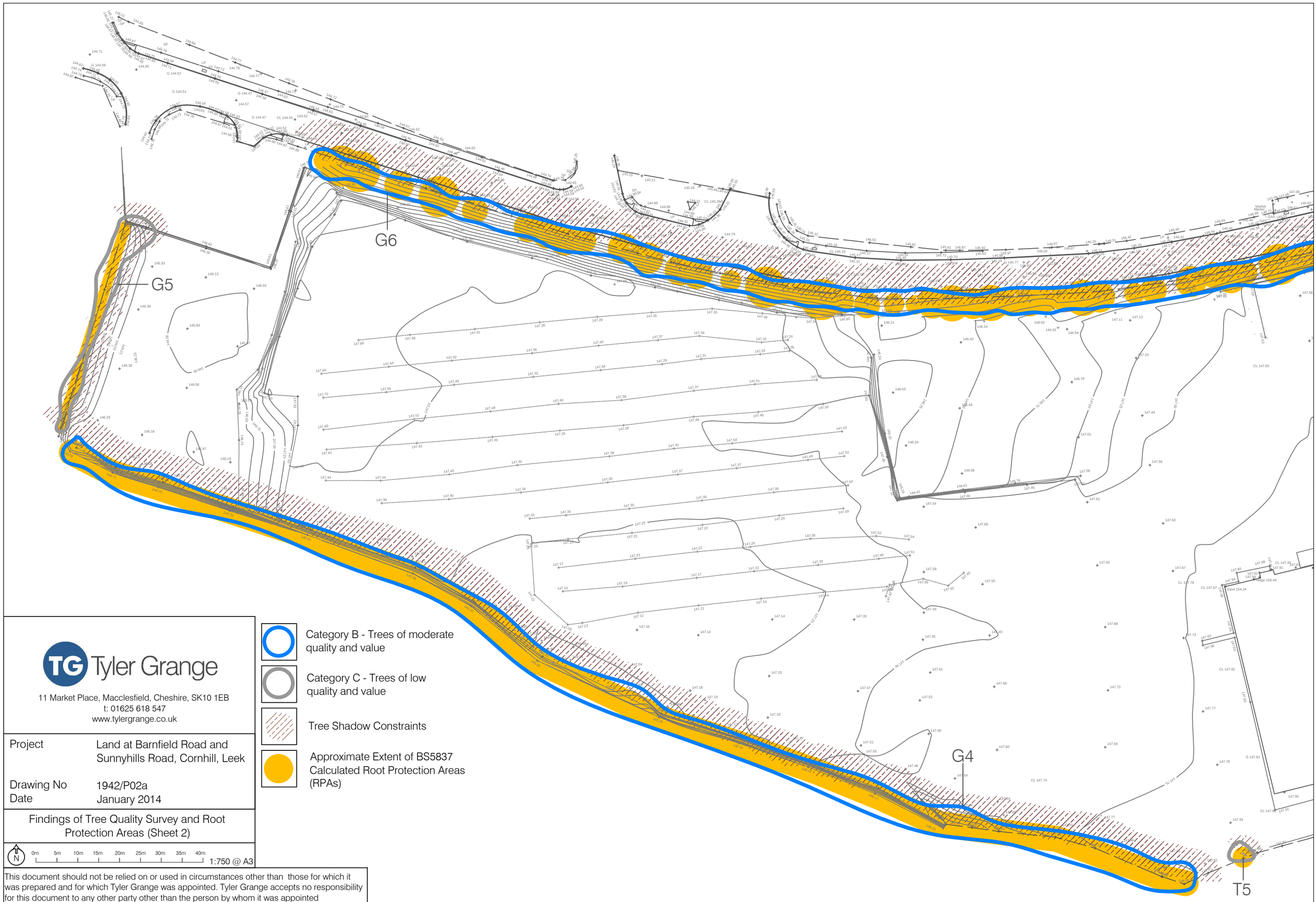
Category C - Trees of low quality and value

Tree Shadow Constraints

Approximate Extent of BS5837 Calculated Root Protection Areas (RPAs)



Revision



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Findings of Tree Quality Survey and Root Protection Areas (Sheet 2)

N

0m 5m 10m 15m 20m 25m 30m 35m 40m

1:750 @ A3

Category B - Trees of moderate quality and value

Category C - Trees of low quality and value

Tree Shadow Constraints

Approximate Extent of BS5837 Calculated Root Protection Areas (RPAs)

Revision