Arboricultural Impact Assessment

in Relation to Proposed Nine-Unit Residential Development at

Land Rear of the Dog Inn, Market Place, Longridge, Lancashire, PR3 3RR

Prepared by:

Bowland Tree Consultancy Ltd

March 2021

ARBORICULTURAL IMPACT ASSESSMENT
LAND REAR OF THE DOG INN, LONGRIDGE

Control sheet

Project No.:	BTC2127
Site:	Land Rear of The Dog Inn, Market Place, Longridge, PR3 3RR
Agent for Client:	PWA Planning
Council:	Ribble Valley Borough Council
Survey Date:	8 December 2020
Surveyors:	Phill Harris MSc BSc(Hons) HND MArborA CEnv MICFor & Maxine Knagg BSc(Hons) FdSc MArborA
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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 located in areas of restrictive ground vegetation, cannot therefore be expected. 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 regard to 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 and other measurements 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 inform the relevant Council of the matter. 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 by the arboriculturist 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.

This document is intended as a guide to identify key tree related constraints to site development only, and the potential influence of trees upon existing or proposed buildings or other structures resulting from the effects of their roots abstracting water from shrinkable load-bearing soils is not considered herein. The tree survey information in its current form should not therefore be considered sufficient to determine appropriate foundation depths for new buildings. Accordingly, an updated survey, with reference to the current NHBC Standards Chapter 4.2 - Building Near Trees, must therefore be prepared for the specific purpose of informing suitable foundation depths subsequent to planning approval being granted. The advice of a structural engineer must also be sought with regard to appropriate foundation depths for new buildings.

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APPENDICES

PLANS

1.0 INTRODUCTION

Terms of Reference

1.1 Bowland Tree Consultancy Ltd were instructed to:

a) Survey, as individuals or by group, all trees having reasonable potential to affect or to be adversely affected by the proposed development of the site under consideration;
b) Prepare a tabulated Tree Survey Schedule based on guidance specified BS5837:2012 - Trees in Relation to Design, Demolition and Construction – Recommendations;
c) Evaluate the potential tree related impacts and design conflicts of the proposals, based on the supplied development proposal plan;
d) Advise on removal, retention and management options for the trees in the current context and in the context of the proposed development;
e) Annotate the existing and proposed site plans to produce a Tree Constraints Plan and a Tree Impact Plan, identifying tree retention categories, crown spreads, Root Protection Areas, trees to be removed, trees to be retained, etc.;
f) Advise on suitable retained tree protection measures required during development; and
g) Produce an Arboricultural Impact Assessment report outlining the main tree related issues and reasonably foreseeable impacts in relation to the proposals and indicating suitable mitigation and compensation provisions and retained tree protection measures.

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 this case Ribble Valley Borough Council, in their review of the proposed development, and should be supplied to them in support of the planning application to which it pertains. The report provides an initial analysis of the impacts that the proposed development is projected to have on trees. It also offers guidance on suitable retained tree management and compensation for projected losses, along with advice on appropriate tree protection and mitigation measures in the context of the proposed development in accordance with current guidance.

Site Visit, Data Collection and Tree Plans

1.3 Further to the instruction, a tree survey was carried out on 8 December 2020, and 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 alongside the appended BS5837:2012 Table 1.

1.4 The survey identified three individual trees (prefixed ‘T’), three groups of trees (prefixed ‘G’) and two hedges (prefixed ‘H’) which have been numbered accordingly on the appended Tree Constraint’s Plan (TCP) and Tree Impact Plan (TIP). The TCP details the existing site with the readily definable tree constraints and the TIP details the existing site with an overlay of the proposed development, along with the readily definable tree constraints and projected impacts. Both the topographical survey plan and overlaid proposal plan were both provided in electronic format by the agent for the client, PWA Planning. In turn, for the purpose of this report, it is presumed that the provided plans’ details are accurate.

1.5 The purpose of the TIP is to give an initial indication of the impacts that the proposed development is projected to have on trees, as well as to highlight areas where special construction and/or protection considerations may be necessary. It should subsequently be used by the LPA’s tree specialist to preliminarily assess if the proposed development can potentially be constructed in accordance with BS5837:2012 and, along with the information provided in this report, as a basis for the LPA to request further details regarding specific matters relating to trees at suitable stages in the planning process.

2.0 STATUTORY PROTECTION IN RESPECT OF TREES AND ASSOCIATED WILDLIFE

Tree Preservation Orders and Conservation Area Designations

2.1 The Town & Country Planning Act (1990) (the Act) and associated Regulations empower Local Planning Authorities (LPAs) to protect trees in the interests of amenity by making Tree Preservation Orders (TPOs). The Act also affords protection for trees of over 75 mm diameter that stand within the curtilage of a Conservation Area (CA). Subject to certain 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 to remove trees within a CA that are not protected by a TPO.

2.2 According to Ribble Valley Borough Council's website, the site does not stand within a CA. The council's website, however, does not have an interactive map of trees that are subject to TPOs and, as such, it is essential that the presence of any such statutory protection be checked directly with the Council's planning department prior to either scheduling or carrying out any tree works that are not directly related to the implementation of a detailed (i.e. full) planning permission.

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. The breeding period for woodlands runs from March to August inclusive. 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 bat species and their roosts 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 (as amended). In this respect, it should be noted that it is possible that unidentified bat habitat features may be located high in tree crowns and all personnel 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 suitably qualified and experienced ecologist investigates and advises on appropriate actions prior to works continuing.

Felling Licences

2.5 Subject to certain exemptions the Forestry Act (1967) requires that a 'Felling Licence' be obtained to remove growing trees amounting to more than five cubic metres of timber in a calendar quarter. Felling Licences are administered by the Forestry Commission and contravention of the associated controls can incur substantial penalties. A felling licence is, however, not required for the felling of trees immediately required for the purpose of carrying out development authorised by a full planning permission granted under the Town and Country Planning Act 1990.

3.0 THE SITE AND THE SURROUNDINGS

3.1 The site under consideration is a disused area of land to the rear of The Dog Inn public house, which currently consists of areas of stone hard surfacing, bare earth, and grass, with a vehicular access point to the north-west from Market Place. It is bordered to the north-east, east, south and west by neighbouring residential properties and their associated

gardens, and to the north-west by The Dog Inn and its associated parking area, and there is a public footpath running along the site's south-western boundary to the adjacent properties.

3.2 The topographical survey plan provided shows that there are substantial ground level variations of up to approximately 11 metres between the highest point in the site's north where the access road joins Market Place and the lowest point close to the south-western corner. It is also noted that a retaining wall of up to approximately 3 metres in height runs partially along the western edge of the site where it borders on to the adjacent public house car park (see TCP).

4.0 THE TREE POPULATION

4.1 As noted previously, three individual trees, three groups of trees and two hedges were surveyed for the purpose of this appraisal. They range from young to post-mature in age, with heights of up to 14.5 metres, maximum diametrical crown spreads of up to 15 metres, and stem diameters of up to 650 millimetres. Detailed tree dimensions and other pertinent information are included in the Tree Survey Schedule (TSS) at Appendix One.

4.2 In respect of the survey it should be noted that tree quality is categorised within the existing context without taking any site development proposals into account. However, 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 regard to specific trees.

4.3 Under the UK's planning system trees are a material consideration in the planning and development process. Nonetheless, only trees of a suitable quality and value should be considered a material constraint to development. In this respect the TSS includes a column ('Cat. Grade') listing the trees' respective retention values, where they are rated either 'A', 'B', 'C' or 'U', as per BS5837:2012 Table 1 (Appendix One). 'A' category trees are those considered to be of 'high quality' and, accordingly, the most suitable for retention, whilst 'B' category trees are those considered to be of 'moderate quality', and 'C' category trees are those considered to be of 'low quality' with a correlated low retention value. In turn, 'U' category trees are those that are considered to be 'unsuitable for retention'.

4.4 As detailed in Table A, below, two trees were categorised as moderate quality (i.e. 'B' category) and one tree, three groups and two hedges were categorised as low quality (i.e. 'C' category).

Table A: BS5837-2012 Retention Categories of the Surveyed Trees, Groups & Hedges

	Ret. Cats.	Tree/Group/Hedge Numbers	Totals
Those of a moderate or high quality that should be afforded appropriate consideration in the context of development	**'A'**	-	-
	'B'	T2, T3*	*2 Trees*
Those of a low quality that should not be considered a material constraint to development	**'C'**	T1* G1, G2*, G3* H1*, H2*	*1 Tree* *3 Groups* *2 Hedges*
Those that should be removed for sound management reasons regardless of site proposals	**'U'**	-	-
			= 3 Trees, 3 Groups & 2 Hedges in Total

*Note: Trees, groups and hedges located, or potentially located, wholly or partly on areas(s) of neighbouring third-party owned land

5.0 THE DEVELOPMENT PROPOSAL AND ITS PROJECTED ARBORICULTURAL IMPACTS

The Development Proposal

5.1 The information provided to date by the projects agents, PWA planning, indicates that the proposal is for the construction of a nine-unit residential development across two buildings, with associated private gardens, driveways, car parking and turning provision at the site under consideration, along with vehicular access via the existing access point off Market Place to the north (see TIP).

Projected Arboricultural Losses Relating to the Proposal

5.2 It is projected that construction of the development as proposed can be achieved whilst retaining all of the surveyed trees. Nonetheless, as detailed in the TSS it is identified that it will be necessary to cut back the western side of the canopy of low quality (i.e. 'C' category) group G3 in order to construct plot 9 as proposed and part of low quality hedge H2 in order to construct the proposed access road and bin collection area (see TIP).

Compensation for Projected Tree Losses as Part of Site Landscaping

5.3 Although it will not be necessary to remove any trees in order to construct the development as proposed development it is noted that the layout has a sufficient amount of outdoor space to potential accommodate a number of new hedges and trees of appropriate species. In this respect it is noted that the layout provides opportunity for new hedge planting to the site's perimeters and space for new tree planting to its south and north-east adjacent to the two proposed car parking and turning areas (see TIP).

5.4 Consequently, specific details regarding tree and hedge planting, as part of a landscape proposal plan, should be prepared and provided by a landscape architect in accordance with the guidance listed herein at paragraphs 7.5 and 7.6. Accordingly, the provision of and adherence to a detailed landscape proposal plan can be assured through the imposition of a suitably worded condition attached to a planning approval.

5.5 In turn, the landscaping scheme should be prepared in strict accordance with any relevant government guidance, specifically BS8545:2014 - Trees: From Nursery to Independence in the Landscape – Recommendations, as well as section 5.6 and Table A.1 of BS5837:2012.

Special Design, Construction and Protection Considerations in Relation to Trees

5.6 The review of the proposed development identified that the following development works are proposed close to and within retained trees' RPAs and canopies (see TIP):

- The construction of an extension to the existing retaining wall to the site's west in relation to tree T2 and group G1; and
- The construction of plot 1 in relation to tree T2 and group G1.

5.7 As such, it will subsequently be necessary to ensure that the identified trees are suitably protected in strict accordance with current government guidance through the use of special working and/or construction methods, and special protection measures, details of which are outlined in Table C, and overleaf.

Table B: Elements of Proposal with Potential to Impact Upon Trees and Subsequent Special Measures Required

Element of Proposal with Potential to Impact Upon Retained Trees	Applicable Trees	Proposed Special Measures	Relevant BS5837 Section(s) to be Adhered to	Information Required or Provided and Relevant Specialist
Construction of proposed extension to retaining wall with minor encroachment into RPAs	T2, G1	▪ Initial investigations in proposed location and route of retaining wall to be carried out by hand, under arboricultural supervision, to ensure absence of tree roots in areas under consideration for excavation. In turn, should significant roots be encountered then alterations to design will be necessary in order to ensure tree protection. ▪ All site operations involving plant with booms, jibs and counterweights to be planned in advance to prevent contact with retained trees, and works adjacent to trees conducted under supervision of a banksman and under arboricultural direction to ensure that adequate clearances from retained trees is maintained.	7.3 & 7.5	Specific details and construction of wall to be provided by structural engineer Building contractor to provide method statement of construction, including access for building materials and necessary machinery
Construction of plot 1 adjacent to canopy spreads	T2	▪ East side of tree's canopy to be pruned back by a distance of approximately 1.5m to allow construction of building as proposed. ▪ All site operations involving plant with booms, jibs and counterweights to be planned in advance to prevent contact with retained trees, and works adjacent to trees conducted under supervision of a banksman and under arboricultural direction to ensure that adequate clearances from retained trees is maintained.	7.3 & 7.5	Tree contractor to provide detailed specification of proposed pruning works Building contractor to provide method statement of construction, including access for building materials and necessary machinery

5.8 Consequently, in order to ensure adequate protection of the retained trees throughout the process of site development, specific details regarding the timing, procedures, working methods and protective measures to be used in relation to the proposed works within and in close proximity to Root Protection Areas (RPAs – see paragraph 6.1), as detailed in Table B, should be included in an Arboricultural Method Statement (AMS) and a Tree Protection Plan (TPP), as discussed at paragraphs 6.6 and 6.7. In turn, the provision of and the adherence to an AMS and TPP can be conditioned to a planning approval.

6.0 RECOMMENDATIONS FOR SUCCESSFUL TREE RETENTION IN THE CONTEXT OF DEVELOPMENT

Root Protection Areas and Construction Exclusion Zones

6.1 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 BS5837:2012, are ground areas that should be protected by temporary protective fencing and, where necessary, temporary ground protection measures, 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 6.2) and on the TIP, 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.

6.2 The TSS includes two columns listing RPAs of individually surveyed trees and, where applicable, the largest tree 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 TIP.

6.3 With regard to CEZs the design, materials and construction of the fencing should be appropriate for the intensity and type of site construction works, should conform to at least section 6.2 of BS5837:2012, and should be secured by the imposition of a suitably worded planning condition. A default Temporary Protective Fencing Specification is included at Appendix Two.

Underground Utilities and Drainage

6.4 The installation of underground utilities in close proximity to trees can cause serious damage to their roots. As such, it is essential that utilities be routed outside RPAs unless there is no other available option. Where RPAs cannot be avoided then 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' should be followed (e.g. trenches of a very limited width to be hand dug or the use of directional drilling).

6.5 To date, no service plan showing proposed service and/or drainage runs has been provided in respect of the development under consideration. However, the proposed site plan indicates that, if correctly planned, there should be sufficient space to run the services and drainage outside the RPAs of retained trees for most of the units. Nonetheless, if it is subsequently identified to be necessary to route service and/or drainage runs within RPAs then details regarding any such ground works can be included in a suitably detailed Arboricultural Method Statement and Tree Protection Plan, the provision of which and adherence to can be conditioned to a planning permission.

Arboricultural Method Statement and Tree Protection Plan

6.6 Government guidance recommends that, where considered expedient by the LPA, an Arboricultural Method Statement (AMS) and a Tree Protection Plan (TPP) be prepared detailing special mitigation construction issues in relation to the development under consideration. Essentially, the AMS and TPP describe and detail 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.

6.7 Consequently, in order to ensure that the retained trees are adequately protected throughout the development process, then the production of and adherence to an AMS and a TPP, can be conditioned to a planning approval.

7.0 OTHER RECOMMENDATIONS

Non-Development Related Tree Works and Recommendations

7.1 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 development proposals 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

7.2 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 (e.g. TPOs).

Arboricultural Contractors

7.3 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

7.4 Tree 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.

New Tree Planting

7.5 All tree planting at the site should be carried out in accordance with BS8545:2014 Trees: from nursery to independence in the landscape – Recommendations, and in accordance with the guidance detailed in section 5.6 and Table A.1 of BS5837:2012. In turn, these details should form the basis of the tree planting plan, as discussed at paragraph 5.3, the provision of which and adherence to can be conditioned to a planning approval.

Landscaping Within and Close to Retained Trees' RPAs

7.6 Any landscaping carried out within and close to retained trees' RPAs should be carried out in strict accordance with the guidance detailed in section 8 of BS5837:2012. As is the case with 7.5, above, a requirement for these works to conform with the current guidance detailed in BS5837:2012 can be conditioned to a planning approval.

Retained Tree Management

7.7 Any tree risk management appraisals and subsequent recommendations made in this report were based on observations and site circumstances at the time of the 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.

7.8 In this respect, it should be noted 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. In turn, 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.

8.0 SUMMARY AND CONCLUSIONS

8.1 Three individual trees, three groups of trees, and two hedges were surveyed in respect of a proposed nine-unit residential development over two buildings at the site under consideration.

8.2 Two trees were categorised as moderate quality, one tree, three groups and two hedges were categorised as low quality.

8.3 An appraisal of the documentation provided to date identified that construction of the development as proposed can be achieved whilst retaining all of the surveyed trees, although it will be necessary to cut back the western side of the canopy of a low quality group G3 located on neighbouring land in order to construct plot 9 and part of low quality hedge H2.

8.4 Nevertheless, the proposed development has sufficient space to accommodate new tree and hedge planting, the provision of which can be assured through the implementation of a suitably worded condition attached to a planning approval requiring the provision and implementation of a detailed landscape plan.

8.5 In addition to the above it is also concluded that, in order to ensure successful existing tree preservation over the long-term, it is essential that the retained trees are protected in strict accordance with current Government guidance and the recommendations included herein.

8.6 In this respect the appraisal identified that the proposed construction of an extension to an existing retaining wall and the construction of one of the plots have the potential to impact upon the RPAs and canopy spread of a retained tree and a retained group. As such specially specialist working and protection measures and methods are proposed in order to minimise any potential damage to retained trees.

8.7 Accordingly, in order to ensure adequate protection of retained trees then the aforementioned special consideration factors included herein should be included in a suitably detailed Arboricultural Method Statement and Tree Protection Plan, the provision of which and adherence to can be conditioned to a planning permission.

REFERENCES

BS8545:2014 - Trees: From Nursery to Independence in the Landscape – Recommendations. BSI British Standards, London.
BS3998:2010 - Tree Work - Recommendations. BSI British Standards, London.
BS5837:2012 - Trees in Relation to Design, Demolition and Construction – Recommendations. BSI British Standards, London.
National House Building Council (2017). 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.

TREE SURVEY SCHEDULE FOR ARBORICULTURAL IMPACT ASSESSMENT		Surveyor:	Maxine Knagg BSc(Hons)	Page: 1 of 2
Site:	Land rear of the Dog Inn, Market Place, Longridge, Lancashire, PR3 3RR	Survey Date:	15 December 2020	
Agent for Client:	PWA Planning	Job Reference:	BTC2127	

No.	Species	Height	Stem Diam.	Branch Spread		Branch & Canopy Clearances	Life Stage	PC	General Observations and Comments	Management Recommendations	ERC	Cat. Grade	RPA (m²)	RPA Radius (m)
T1	Wych Elm	10	2x300 1x250 1x180 (ms)	N E S W	8 6 0 6	2.5 1.5	EM	G	▪ Stem evidently located on site boundary, with tree therefore potentially under joint ownership with pub. ▪ Multi-stemmed from a height of approximately 0.5m. ▪ Very dense ivy up stems. ▪ Highly biased crown north due to suppression by neighbouring tree.	▪ Retain tree in context of proposed development. ▪ Ensure protection of tree's Root Protection Area (RPA) throughout development through establishment of Construction Exclusion Zone (CEZ) using temporary protective fencing. ▪ Remove ivy from stems.	10+	C1	124	6.29
T2	Sycamore	14.5	650	N E S W	4 7.5 7.5 7.5	0-E 2.5	M	M/G	▪ Very dense ivy up stem. ▪ Approximately 150mm diameter branch arises from stem base to east. ▪ Reduced distribution buds across canopy indicating a decline in vitality.	▪ Retain tree in context of proposed development. ▪ Ensure protection of tree's RPA, as far as is practicable considering minor encroachment of proposed extension to retaining wall, throughout development through establishment of CEZ using temporary protective fencing (See Table c of AIA). ▪ Remove ivy from stem. ▪ Prune east side of tree's canopy back by approximately 1.5m in order to construct adjacent plot 1 as proposed.	40+	B1/2	191	7.8
T3	Norway Spruce	9	380#	N E S W	3 3 3 3	2-S 0.5	SM	G	▪ Located on neighbouring land and therefore not inspected in detail. ▪ Very dense ivy up stem.	▪ Ensure protection of tree's RPA throughout development through establishment of CEZ using temporary protective fencing.	20+	B1	65	4.56
G1	1no. Wych Elm, 1no. Sycamore	≤ 14	≤ 6x200 (ms)	N E S W	≤ 3 ≤ 7 ≤ 3 ≤ 6	N/A ≥ 3.5	SM-EM	G	▪ Very closely spaced group. ▪ Early-mature Elm is multi-stemmed from ground level. ▪ Stem of semi-mature Sycamore is approximately 1.5m from that of Elm, with resultant suppressed growth and moderately severe stem lean and highly biased crown north-west. ▪ Elm has very dense ivy up stems.	▪ Retain group in context of proposed development. ▪ Ensure protection of group's RPA, as far as is practicable considering minor encroachment of proposed extension to retaining wall, throughout development through establishment of CEZ using temporary protective fencing (See Table c of AIA). ▪ Remove ivy from stems.	10+	C1	≤ 109	≤ 5.88

Headings and Abbreviations:

No. Allocated sequential reference number - Tree ('T'), Group ('G'), Woodland ('W') or Hedge ('H') reference number - refer to plan and to numbered tags where applicable
Species: Common name
Height: In metres, to half nearest metre – 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 Diam.: Stem diameter in millimetres, to nearest 10mm - measured and calculated as per Annex C of BS5837:2012. MS = multi-stemmed, TS = twin-stemmed
Branch Spread: 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
Branch & Canopy Clearances: Existing height above ground level, in metres, of first significant branch and direction of growth (e.g. 2.5-N) and of canopy at lowest point – to inform on crown to height ratio, potential for shading, etc.
Life Stage: Estimated age class - Y = young, SM = semi-mature, EM = early-mature, M = mature, PM = post-mature
PC: Physiological Condition - a measure of the tree'(s)' overall vitality, i.e. D = Dead, MD = Moribund, P = Poor, M = Moderate, G = Good
General Observations and Comments: 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.
Management Recommendations: Either Preliminary or In Consideration of the Proposal - In the case of Arboricultural Constraints Surveys the recommended management works only take exiting 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
ERC: Estimated Remaining Contribution - in years as per BS5837:2012 (i.e. <10, 10+, 20+, 40+)
Cat. Grade: Category Grading - tree retention value listed as U, A, B or C - in accordance with BS5837:2012 Table 1
RPA m²: Root Protection Area in m² - calculated area around the tree that must be appropriately protected throughout the development process in order avoid root damage
RPA Radius (m): Root Protection Area Radius - in metres measured from the centre of the stem to the line of tree protection
 # (Estimated Dimensions): Where trees are located off-site, or are inaccessible for any other reason, and accurate measurements or other information cannot be taken then the information provided is estimated and is duly suffixed with a "#" symbol

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Survey Date:	15 December 2020
Job Reference:	BTC2127

No.	Species	Height	Stem Diam.	Branch Spread	Branch & Canopy Clearances	Life Stage	PC	General Observations and Comments	Management Recommendations	ERC	Cat. Grade	RPA (m²)	RPA Radius (m)
G2	3no. Leyland Cypress	≤ 8	≤ 350#	N ≤ 2.5 E ≤ 2.5 S ≤ 2.5 W ≤ 2.5	N/A ≥ 1.5	SM	G	▪ Very closely spaced group located on neighbouring land and therefore not inspected in detail. ▪ Evidently a length of outgrown hedge. ▪ All are multi-stemmed.	▪ Ensure protection of group's RPA throughout development through establishment of CEZ using temporary protective fencing.	10+	C1	≤ 55	≤ 4.2
G3	approx. 10no. Leyland Cypress	≤ 6	2x250 (ts)	N ≤ 3.5 E ≤ 3.5 S ≤ 3.5 W ≤ 3.5	N/A ≥ 0.5	SM	G	▪ Very closely spared linear group evidently located along eastern site boundary, with definitive ownership subsequently unestablished at current time. ▪ Evidently planted as hedge but left to outgrow. ▪ All topped in relatively recent past.	▪ Cut back western side of group's canopy to ownership boundary where possible in order to construct development as proposed. ▪ Ensure protection of group's RPA, as far as is practicable considering minor encroachment of proposed plot 9, throughout development through establishment of CEZ using temporary protective fencing and ground protection.	10+	C1	≤ 56	≤ 4.24
H1	Leyland Cypress	≈ 4	N/A	≤ 2 wide	N/A 0	SM	G	▪ Managed hedge located on neighbouring land on opposite side of sealed hard surfaced of public footpath. ▪ Not projected to be impacted due to location outside redline boundary and on opposite side of macadam public footpath.	▪	20+	C1	N/A	≈ 1.5
H2	Common Beech	≤ 7	≤ 150	≤ 3.5 wide	N/A ≥ 0	SM	G	▪ Relatively wide partially managed boundary hedge. ▪ Short unmanaged and subsequently outgrown section to western end.	▪ Retain hedge in context of proposed development. ▪ Cutback hedge to allow construction of access road to car parking area and refuse collection point to south where identified to be necessary. ▪ Ensure protection of cut-back hedge, as far as is practicable, throughout development through establishment of CEZ using temporary protective fencing.	40+	C1	N/A	≈ 2

BS5837:2012 Table 1 – Cascade Chart for Tree Quality Assessment

Category and definition	Criteria (including subcategories where appropriate)			Identification on plan
Trees unsuitable for retention (see Note)				
Category U Those in such a condition that they cannot realistically be retained as living trees in the context of the current land use for longer than 10 years	▪ Trees that have a serious, irremediable, structural defect, such that their early loss is expected due to collapse, including those that will become unviable after removal of other category U trees (e.g. where, for whatever reason, the loss of companion shelter cannot be mitigated by pruning) ▪ Trees that are dead or are showing signs of significant, immediate, and irreversible overall decline ▪ Trees infected with pathogens of significance to the health and/or safety of other trees nearby, or very low quality trees suppressing adjacent trees of better quality *Note: Category U trees can have existing or potential conservation value which it might be desirable to preserve; see BS5837:2012 paragraph 4.5.7.*			Red
	1. Mainly arboricultural qualities	**2. Mainly landscape qualities**	**3. Mainly cultural values, including conservation**	
Trees to be considered for retention				
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)	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 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 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	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 not qualifying in higher categories	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			

- TEMPORARY PROTECTIVE FENCING 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 retained in place throughout the development process, as specified in the 'Temporary Protective Fencing Construction' section below and detailed in BS5837:2012 Figure 2 (overleaf);
2. be sited in the area(s) defined by the Root Protection Areas or, if applicable, the Construction Exclusion Zones, as detailed on the associated Tree Plan;
3. be erected prior to any construction, demolition or excavation works and remain in place for the duration of the project;
4. preclude any delivery of site accommodation and/or materials and/or plant machinery;
5. 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
6. 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 weldmesh "Heras" panels of at least 2.0 metres in height.
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 45º 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 Figure 1, below) 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 LPA shall inspect and approve the Temporary Protective Fencing.

Figure 1: CEZ Warning Sign

– TREE PROTECTION AREA –
KEEP OUT!

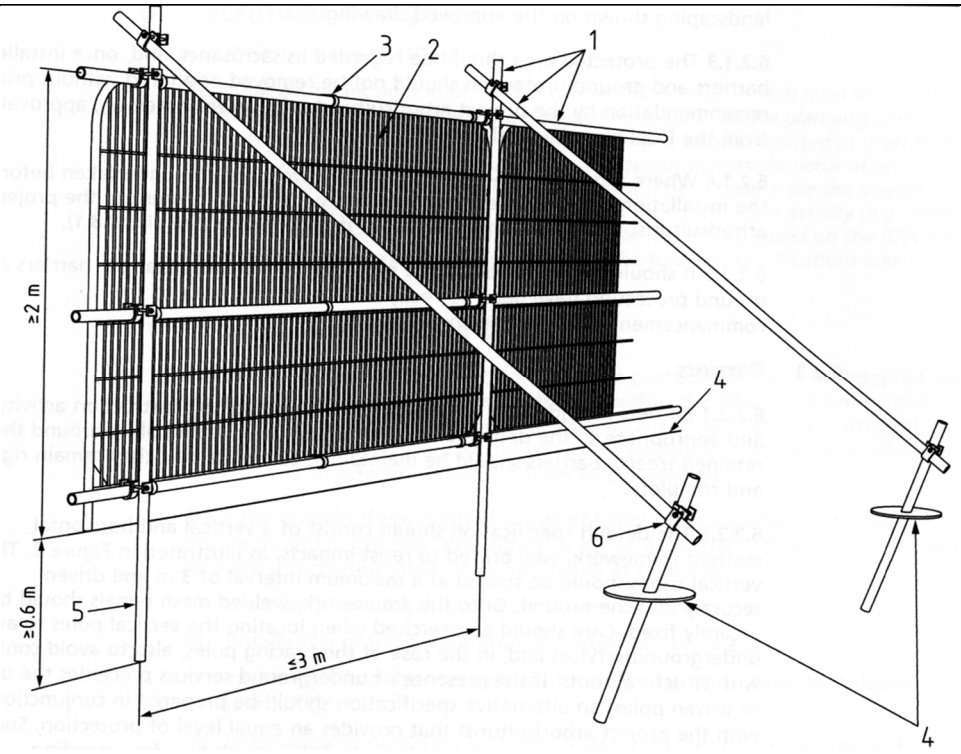
(TOWN & COUNTRY PLANNING ACT 1990)
THE TREES ENCLOSED BY THIS FENCE ARE PROTECTED BY PLANNING CONDITIONS AND/OR SUBJECTS OF A 'TREE PRESERVATION ORDER', THE CONTRAVENTION OF WHICH MAY LEAD TO CRIMINAL PROSECUTION

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

Figure 2: BS5837:2012 Default specification for protective barrier



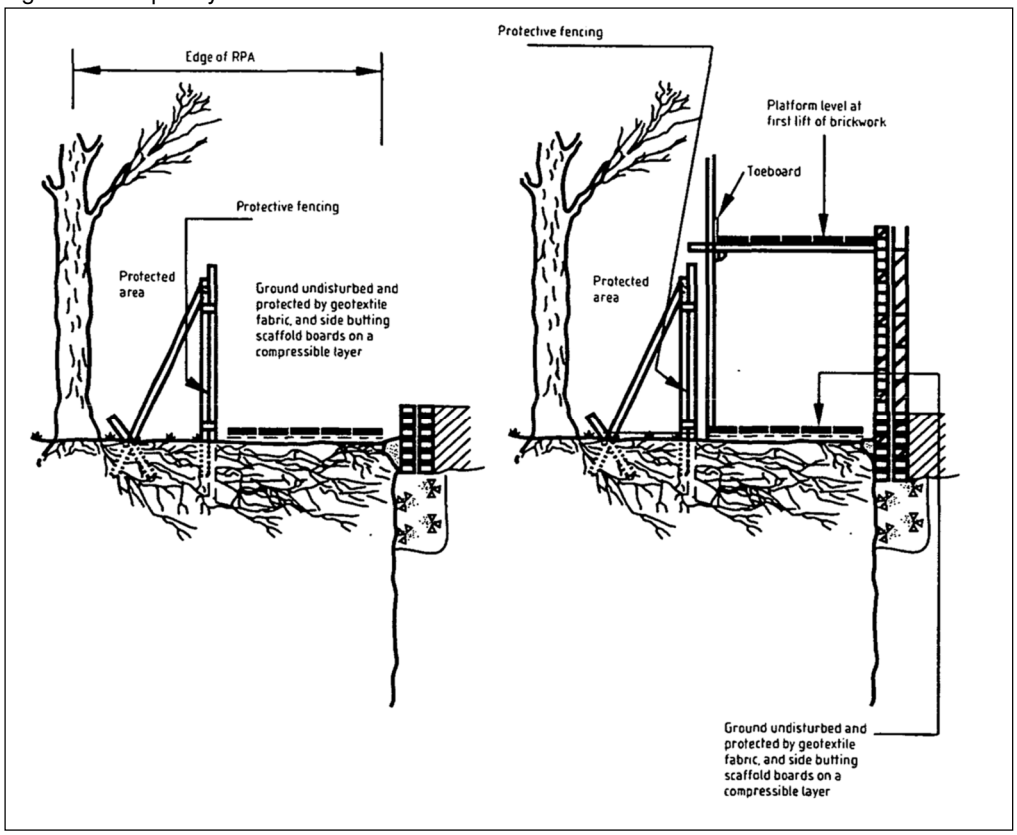
Key

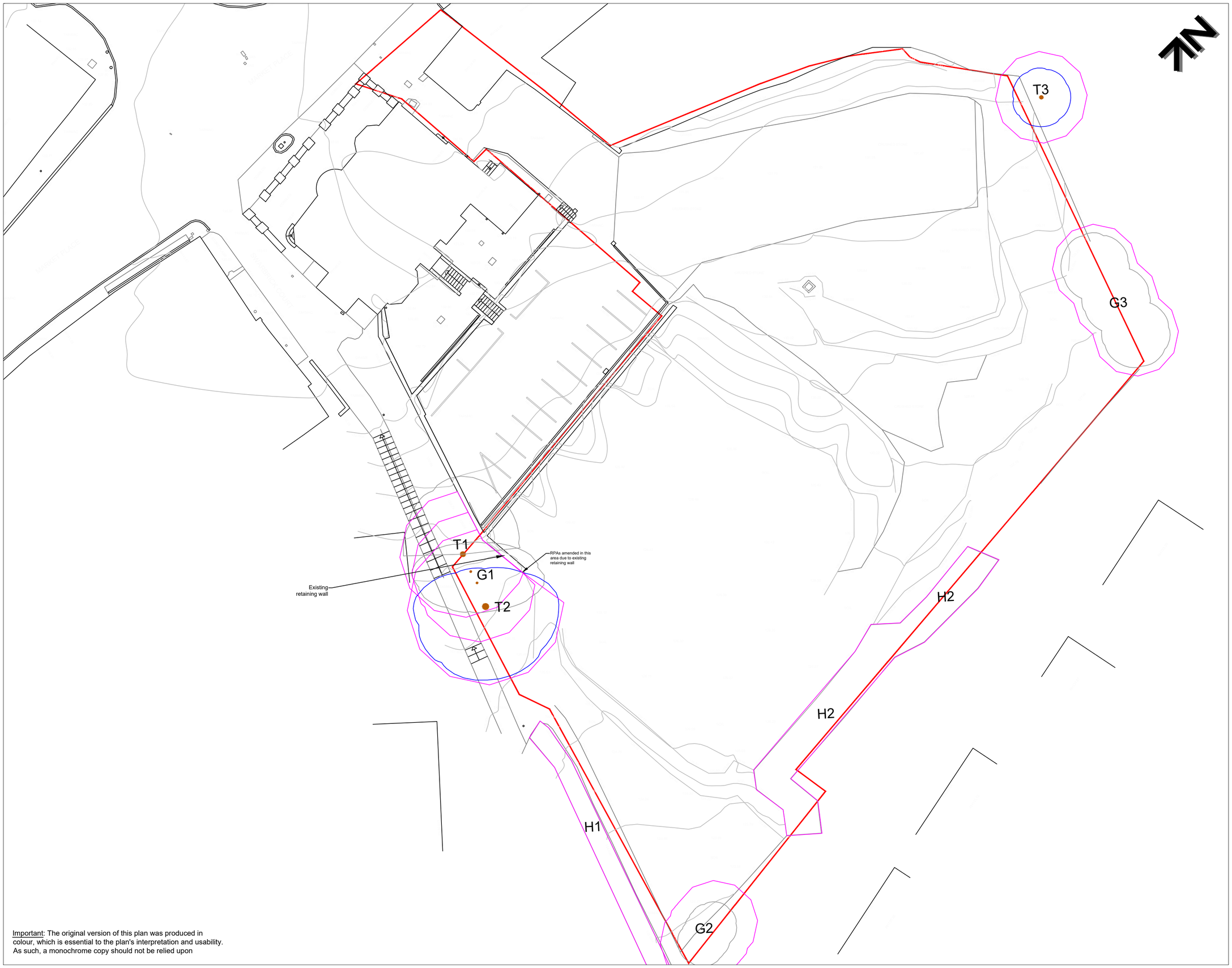
1. Standard scaffold poles.
2. Heavy gauge 2 metre tall galvanised tube and welded mesh infill panels
3. Panels secured to uprights and cross members with wires ties
4. Ground level
5. Uprights driven into the ground until secure (minimum depth 0.6 metres)
6. Standard scaffold clamps

Temporary Ground Protection

1. Any necessary Temporary Ground Protection areas shall conform to Figure 3, below, unless otherwise agreed with the LPA.
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. On completion of installation, and prior to any demolition or construction works, site preparation, excavation or delivery of plant and materials, the Consulting Arboriculturist or the LPA Tree Officer, as agreed, 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.

Figure 3: Temporary Ground Protection – Recommended Construction





Important: The original version of this plan was produced in colour, which is essential to the plan's interpretation and usability. As such, a monochrome copy should not be relied upon

KEY

T = Individual Tree
G = Group of Trees
H = Hedge

Please refer to associated Arboricultural Impact Assessment report for specific details in respect of items below:

Tree Categorisations:

Those to be Considered for Retention:

Category 'A' Tree/Group/Hedge
Those of a High Quality with an Estimated Remaining Life Expectancy of at Least 40 Years

Category 'B' Tree/Group/Hedge
Those of a Moderate Quality with an Estimated Remaining Life Expectancy of at Least 20 Years

Category 'C' Tree/Group/Hedge
Those of Low Quality with an Estimated Remaining Life Expectancy of at Least 10 Years, or Young Trees

Those Considered Unsuitable for Retention:

Category 'U' Tree/Group/Hedge
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

Note 1: The stem location of tree T3 and the stem locations and full extents of the groups G2 and G3 and hedges H1 and H2 were not plotted on the ordnance survey based site plan provided, and their locations were subsequently plotted by the arboricultural surveyor using GPS siting and estimation at the time of the survey. As such, the plotted location of the trees and the locations and extents of the groups and hedges cannot therefore be considered to be wholly accurate

Root Protection Areas (RPAs):

RPAs
Area(s) of Ground Around Trees that Should be Protected Throughout Development Works with Protective Fencing to form a Construction Exclusion Zone - see Temporary Protective Fencing Specification

Project:
LAND REAR OF THE DOG INN
MARKET PLACE
LONGRIDGE
LANCASHIRE
PR3 3RR

Agent for Client:
PWA PLANNING

Title:
TREE CONSTRAINTS PLAN
in Relation to Proposed Nine-Unit Residential Development

Scale:	1:250@A2
Date:	December 2020
Drawn by:	JC
Checked by:	PH

Bowland Tree Consultancy Ltd
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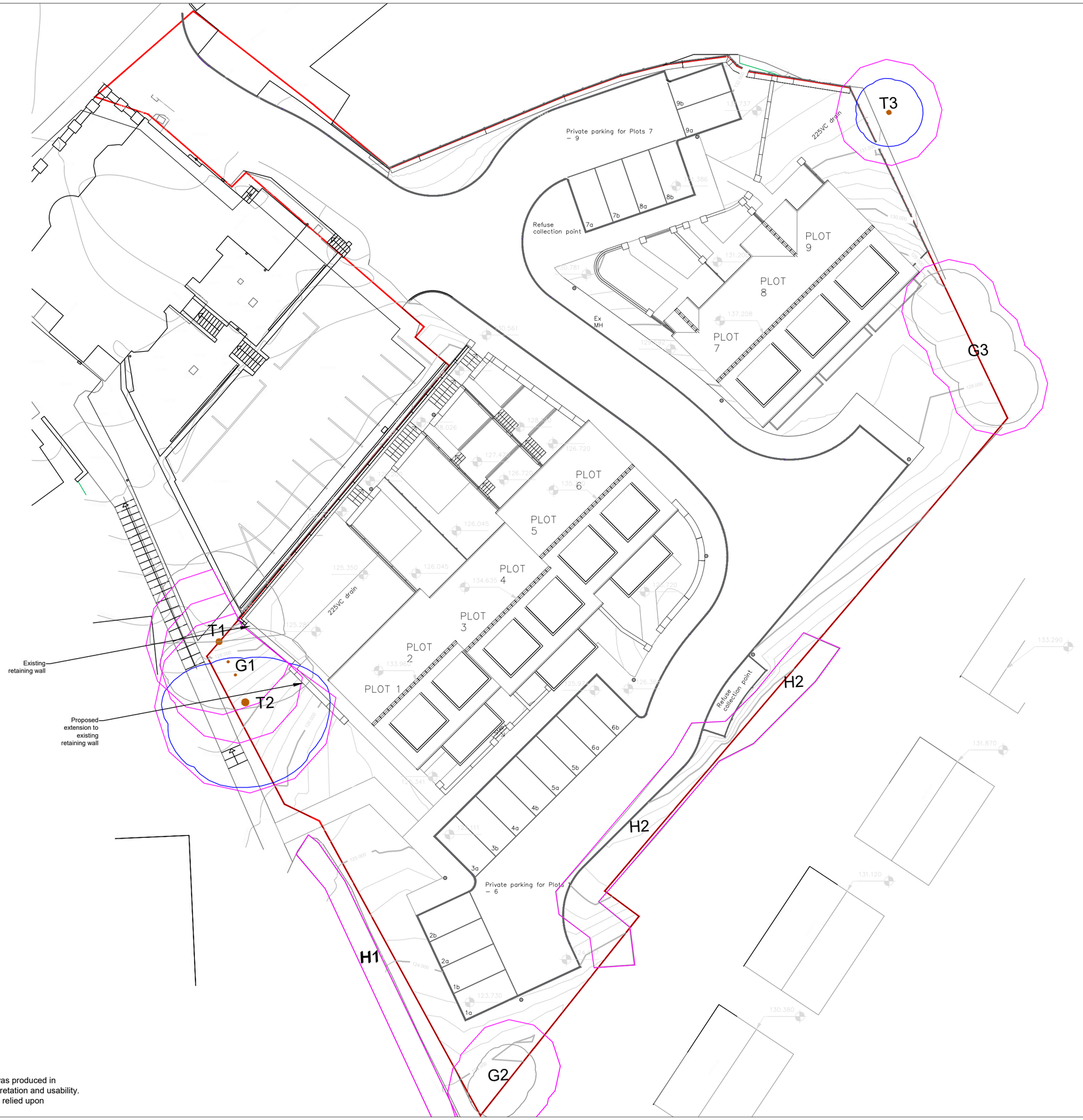
Ref: BTC2127-TCP Rev:



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Note 2: Trees with their identifying numbers labelled in grey are proposed for removal in the context of the proposed development

Root Protection Areas (RPAs):

RPAs
Area(s) of Ground Around Trees that Should be Protected Throughout Development Works with Protective Fencing to form a Construction Exclusion Zone - see Temporary Protective Fencing Specification

Project:
LAND REAR OF THE DOG INN
MARKET PLACE
LONGRIDGE
LANCASHIRE
PR3 3RR

Agent for Client:
PWA PLANNING

Title:
TREE IMPACT PLAN
in Relation to Proposed Nine-Unit Residential Development

Scale:	1:250@A2
Date:	February 2021
Drawn by:	JC & JL
Checked by:	PH

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Ref: BTC2127-TIP Rev: