



BETTER SOLUTIONS, INTELLIGENTLY ENGINEERED

ENVIRONMENT - ARBORICULTURE

Land at Hoyland Lowe
Hoyland, S74 0LZ
Arboricultural Method Statement
And Tree Protection Plan

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Land at Hoyland Lowe Hoyland, S74 0LZ Arboricultural Method Statement And Tree Protection Plan

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Limitations

The assessments and interpretation have been made in line with legislation and guidelines in force at the time of writing, representing best practice at that time.

All of the comments and opinions contained in this report, including any conclusions, are based on the information obtained by BWB during our investigations.

There may be other conditions prevailing on the site which have not been disclosed by this investigation and which have not been taken into account by this report. Responsibility cannot be accepted for conditions not revealed by the investigation.

Except as otherwise requested by the Client, BWB is not obliged and disclaims any obligation to update the report for events taking place after:

- a) the date on which this assessment was undertaken; and
- b) the date on which the final report is delivered.

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APPENDICES

APPENDIX 1: Tree Protection Plan

1. INTRODUCTION

Introduction and Background

- 1.1 This report contains an Arboricultural Method Statement and Tree Protection Plan in support of an application for development on land at Hoyland Lowe, Hoyland, Barnsley S74 0LZ (hereafter referred to as 'the site').
- 1.2 The report has been produced to provide supporting information to the application for residential development of the site, which will include the erection of up to 168 residential dwellings, structural landscaping, open space provision and road access.
- 1.3 The proposed development plan is shown in the Tree Protection Plan (TAP) in Appendix 2.

A tree survey of the site, in accordance with BS5837:2012, was carried out in July 2018. The results were detailed in the following report: Land at Hoyland Lowe, Hoyland, S74 0LZ, Arboricultural Survey Report.

- 1.4 This report was produced to support the design of the proposed development. As part of this survey the relevant qualitative tree data was recorded in order to assess the condition of the existing trees, their constraints upon the prospective development and the necessary protection and construction specifications required to allow their retention as a sustainable and integral part of the completed development. Information is given on condition, age, size and indicative positioning of all the trees, both on and affecting the site. This is in accordance with the British Standard 5837:2012 Trees in relation to design, demolition and construction – Recommendations.

Objectives

- 1.5 The objectives of the report are:-
 - This Arboricultural Method Statement has been produced in order to provide guidance and information required to protect the retained trees on site. The method statement has been produced in accordance with BS 5837:2012.
 - A copy of this method statement must be made available to all contractors on site during the development stage to ensure all parties comply with protection measures outlined within.
 - This method statement has been produced specifically for this site and therefore cannot be used for any other site.

Trees Within the Site

- 1.6 The trees included within this survey comprise of 23 individual trees, 9 tree groups, 11 hedge groups and 3 woodland groups.
 - 3 woodland groups were classified as Category B.

- 2 individual trees were classified as Category B.
- 17 individual trees were classified as Category C.
- 9 tree groups were classified as Category C.
- 1 hedge group was classified as Category B.
- 10 hedge groups were classified as Category C.
- 3 trees were classified as Category U.

2. Arboricultural Method Statement

Introduction

- 2.1 The following Method Statement will outline the procedures and requirements needed to protect the retained trees on site and complete the development without detrimental effect on retained trees.

Sequence of Events

- 2.2 For the purposes of protection for the retained trees, the development works on site should be completed in line with the following sequence of events;

- Pre-Commencement site meeting
- Pre-commencement tree works
- Installation of tree protection
- Construction phase
- Landscaping phase
- Removal of tree protection

Pre Commencement Site Meeting

- 2.3 A pre-commencement site meeting should take place prior to any works being started to finalise plans for the layout of tree protection
- 2.4 The developers and the project arboriculturist, plus the LPA Tree Officer should be in attendance for the site meeting.

Pre Commencement Tree Works

- 2.5 A number of trees and tree groups will require removal due to the proposed development. The following will require removal; T9, T10, T11, T14, T15, T18, T23, G1, G2, G3, G6, G7, G9 and H9. All are category C except T14 and T15 which are Category U trees.
- 2.6 All trees that require removal for the development will be removed prior to construction.
- 2.7 All tree works should be completed by an arboricultural contractor holding the appropriate and relevant insurances. All works must be completed in accordance with BS 3998:2010 Tree Works Recommendations and in line with industry best practice and Approved Codes of Practice (ACOP) as detailed under AFAG and FISA guidelines.

- 2.8 It is not envisaged that any access facilitation pruning will be required on any of the retained trees.

Root Protection Areas (RPA)

- 2.9 Based on the tree survey data (Appendix 1), root protection areas (RPAs) have been determined for trees on site.
- 2.10 A topographical survey was undertaken to detail the location of trees within the site. The location of individual trees is shown in Appendix 2; it should be noted however that topographical surveys are not always comprehensive and it is recommended that the root protection zones and therefore the location of the Protective Fencing is measured on site during installation (using collected data for RPAs and canopy spreads). Any deviation from the location of the proposed Protective Fencing should be confirmed with the tree officer at the Local Planning Authority.
- 2.11 The RPA is designed to protect, at least, a functional minimum of tree root mass in order to ensure that the trees survive the construction process.
- 2.12 It is the responsibility of everyone engaged in the construction process to respect the tree protection measures and observe the necessary precautions within and adjacent to them.

Tree Protection Fencing

- 2.13 Standard Fencing
- 2.14 The Tree Protection Plan (TPP), shown in Appendix 3, details the position of the Tree Protection Fencing (TPF). This fencing will comprise of the type detailed below in Figures 1 and 2. TPF must be erected before any materials or machinery are brought onto site and before any development or stripping of soil commences.
- 2.15 Once erected, TPF will be regarded as sacrosanct, and will not be removed or altered without prior agreement of an arboriculturist and approval of the local planning authority.
- 2.16 Barriers should be fit for the purpose of excluding constructive activity, and appropriate to the degree and proximity of work taking place around the retained trees. Special attention should be paid to ensuring that barriers remain rigid and complete. Once the barrier fencing has been installed, construction work can commence. All-weather notices should be erected on the barrier with words such as: "Construction Exclusion Zone – Keep Out".
- 2.17 The default TPF specification (Figure 1) is a vertical and horizontal framework, braced to resist impacts. The vertical timbers are driven securely into the ground. Welded mesh panels are securely attached to the timber posts. During installation it is important to

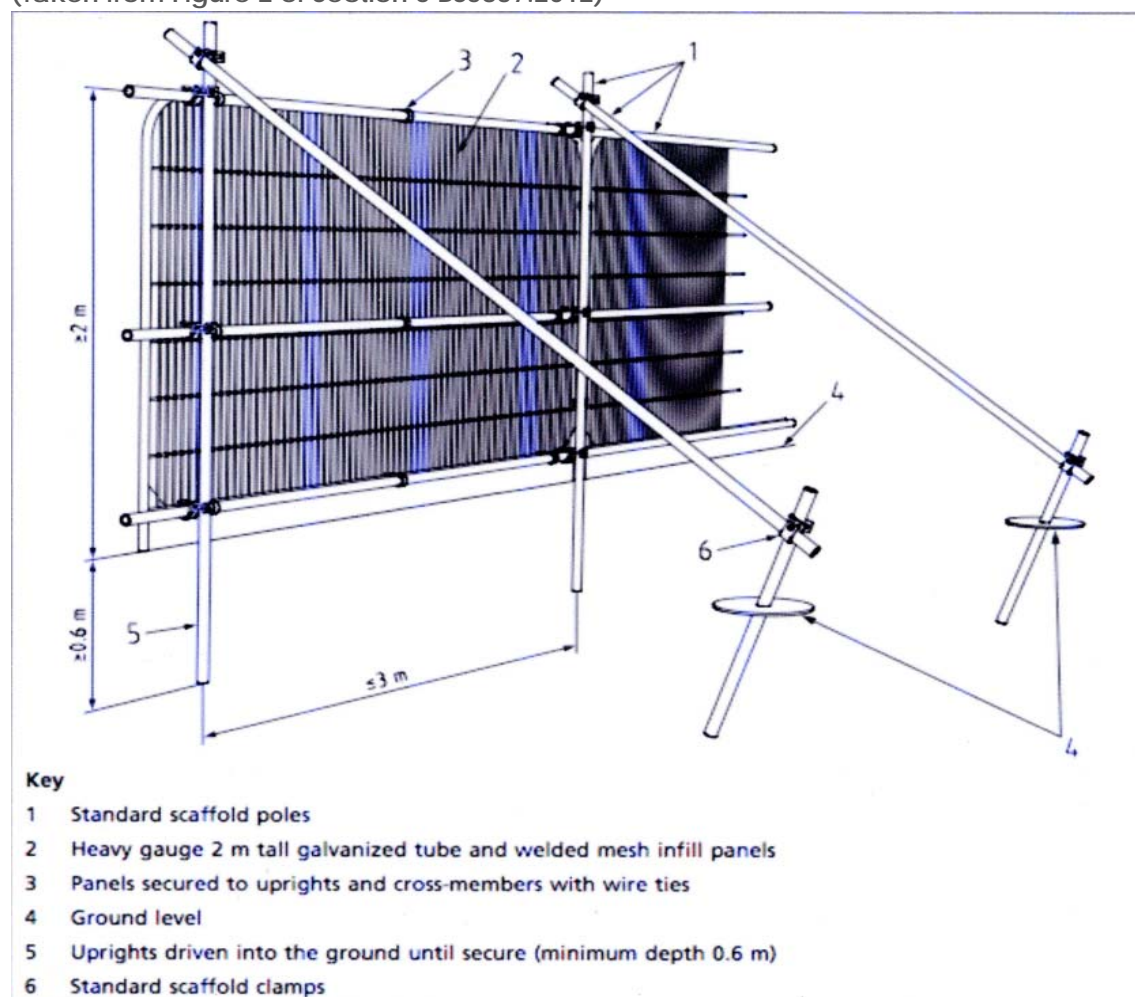
consider the position of below ground services and structural roots, which must not be damaged. Where these constraints prevent the use of this specification, an alternative specification is provided in Figure 2.

2.18 Refer to Figure 1 for the specification of the default Tree Protection Fencing.

2.19 It is the responsibility of everyone engaged in the construction process to respect the tree protection measures and observe the necessary precautions within and adjacent to them. In the event of any panel or support becoming damaged, this must be immediately reinforced by adding panels with the designs below as appropriate.

2.20 Before any works take place within the site, full BS5837 fencing will be used to ensure the safeguard of the tree RPAs, until there is no risk from damage from the construction activity. An illustrated specification, extracted from BS5837, is appended to this document. To be effective the fencing must be robust and clearly signed.

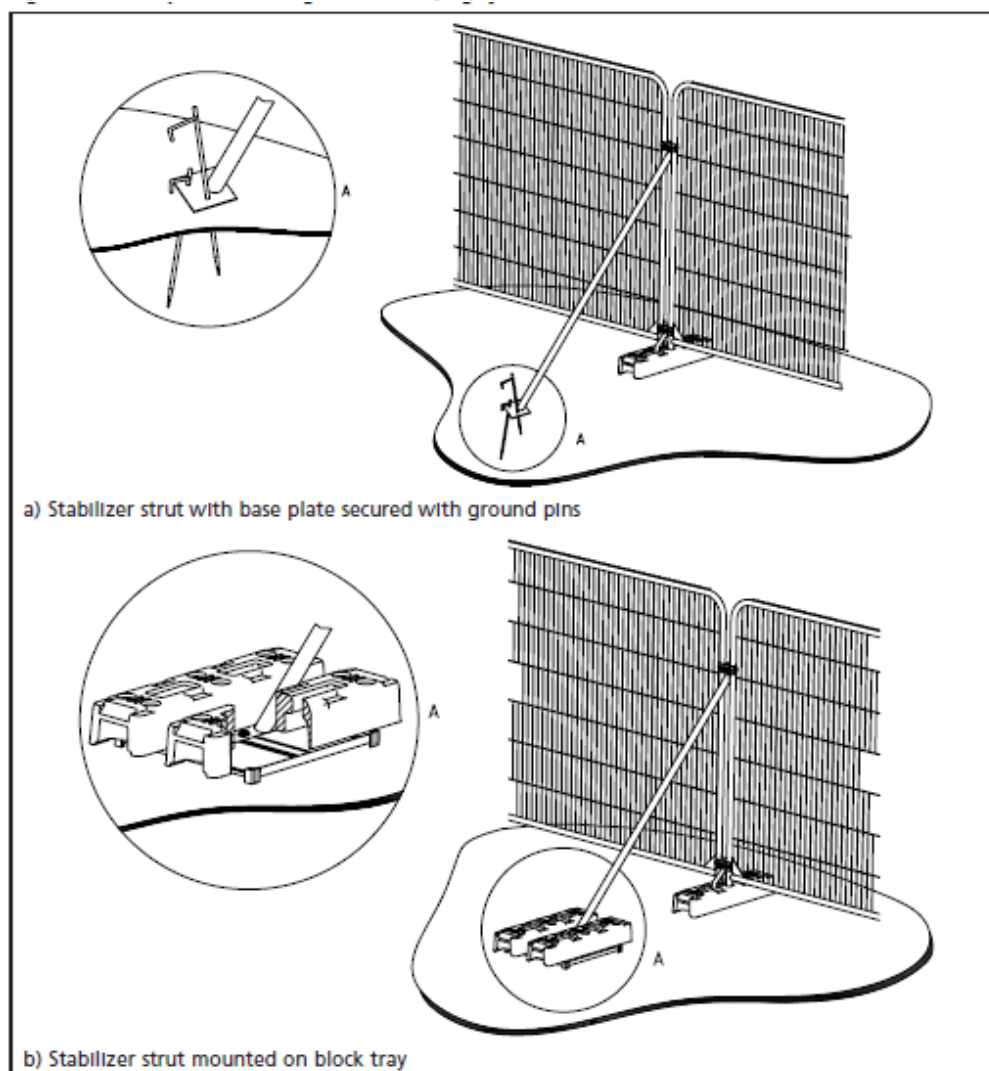
Figure 1. Default Specification for Protective Barrier (Tree Protection Fencing – TPF)
(Taken from Figure 2 of Section 6 BS5837:2012)



Alternative Fencing

- 2.21 An alternative Tree Protection Fencing (TPF) design is shown on Figure 2.
- 2.22 2 metre tall welded mesh panels standing in rubber or concrete feet joined using a minimum of two anti-tamper couplers installed so they can only be removed from inside the protected area. The fence couplers should be spaced at least 1 metre apart, but uniformly across the whole barrier. These panels must be supported within the protected area with struts attached to a base plate secured by ground pins as per Figure 2.
- 2.23 Where the fencing is installed above retained hard surfacing and / or it is otherwise not feasible/unfeasible to use ground pins (e.g. due to underlying services or structural roots), the struts can be mounted on a block tray as per Figure 2.

Figure 2. Above Ground Stabilising Systems



Restrictions within Tree Protection Areas

2.24 Inside the exclusion area of the TPF, the following shall apply:

- No mechanical excavation and no excavation by any other means without prior agreement and stipulation on ground protection requirements from the LPA.
- No ground level changes whatsoever, no storage of plant or materials and no vehicular access. No storage or handling of any chemicals. Any facilities for the storage of oils, fuels or chemicals shall be sited on impervious bases and surrounded by impervious bund walls. The volume of the bund compound shall be at least equivalent to the capacity of the tank plus 10%. If there is a multiple tankage, the compound shall be at least equivalent to the capacity of the largest tank, or the combined capacity of interconnected tanks, plus 10%. All filling points, vents, gauges and sight glasses shall be located within the bund. The drainage system of the bund shall be sealed with no discharge to any watercourse, land or underground strata. Associated pipework shall be located above ground and protected from accidental damage. All filling points and tank overflow pipe outlets shall be detailed to discharge downwards into the bund. All material storage facilities and work areas must consider the effects of sloping ground on the movement of potentially harmful liquid spillages towards or into protected areas. Prior to and during all construction works on site, no spoil or construction materials will be stored within the RPA of any tree on, or adjacent to the site, even if the proposed development is to be within the RPA. This is to reduce to a minimum the compaction of the roots of the trees. Any encroachment within this protected area will only be with the prior agreement of the Local Planning Authority.

Fence Installation within the RPA

- 2.25 Ideally excavation should not occur within the RPA of retained trees. However, where it is necessary, special construction measures should be adopted. Trenching and mechanical excavation must not occur.
- 2.26 The installation of timber fencing will pass through the RPA of T13, T17, G4, G5 and H3. Posts must not be installed within a 1m radius of the tree stems.
- 2.27 Where fence posts will be required within the RPA, hand digging or the use of a hand held powered auger may be used. This will limit the damage caused to existing roots and will allow any exposed roots to be assessed and if necessary pruned under the strict guidance of an arboriculturist.
- 2.28 Where posts are to be concreted in place the excavated pits should be lined with protective material to prevent damage to roots from the chemicals contained in concrete.

Avoiding Crown and Stem Damage

- 2.29 Great care must be exercised when working close to retained trees. Plant and machinery with booms, jibs and counterweights and the passage of tall or wide loads should be controlled by a banksman to maintain adequate clearance.
- 2.30 Under no circumstance shall construction personnel undertake any tree pruning operations.

Installation of Underground Services

- 2.31 Every effort should be made to ensure the routeing of services does not encroach into RPA for the retained trees, if for whatever reason installation within RPA is required, the developers arboriculturist and local authority must be notified prior to any tree protection barrier removal and the following details adhered to.
- 2.32 Trenching for the installation of underground services severs any roots present and may change the local soil hydrology in a way that adversely affected the health of the tree. For this reason, particular care will be taken in the routeing and methods of excavation used. At all times where services are to pass within the Root Protection Area, detailed plans showing the proposed routeing will be drawn up in conjunction with an arboriculturist. Such plans will also show the levels and access space needed for installing the services.
- 2.33 The preferable method for trenching within RPAs to avoid damage is via excavation using 'air- spade' or similar. This tool utilises compressed air to remove soil from around tree roots causing minimal damage. This approach should be utilised whenever possible.
- 2.34 Reference can be made to National Joint Utilities Group Volume 4, Issue 2 for guidance, but any approach must be approved by the developers arboriculturist and brought to the attention of the local authority.

Landscaping

- 2.35 The creation of private gardens is planned within the RPA of T12, T13, T17, G4, G5, H3 and H10.
- 2.36 Generally, ground level changes within the RPA of retained trees should not occur. However, the raising of the ground level may occur minimally as long as the following guidelines are followed.
- 2.37 Good quality top soil with a coarse texture and high sand content should only be used within the RPA. This maintains good aeration and water movement.

- 2.38 No more than a maximum of 150mm of soil should be added within the RPA. This must not be mechanically compacted down as aeration and water movement must be maintained to encourage roots to grow up into the added soil layer.
- 2.39 Tree protection fencing must remain in place until the construction phase is complete. Tree protection fencing may only be removed for the purpose of landscaping activities under the guidance of an arboriculturist or the LPA tree officer.

Location of Site Buildings/Compounds

- 2.40 No information on the location of site buildings and compounds have been provided.
- 2.41 Under no circumstances must any material or debris be stored within the RPA of retained trees and stems must remain clear of any material.
- 2.42 Covering of tree stems with materials or debris can block lenticels and prevent gaseous exchanges, killing the living cambium beneath the bark and leading to the eventual death of trees.

No.	Species (common name)	Age class	Height	Crown spread →				Crown clearance	Stem dia. (mm)	Physiological condition	Structural condition	Estimated Remaining contribution	Comments	Recommendations	Ret. Cat. (sub cat.)	RPA (m)
				W	N	S	E									
INDIVIDUAL TREES																
T1	Betula pendula	M	14	5	5	6	5		320	G		20+	Silver birch tree in rear garden. Large wide crown with unobstructed growth. Good overall condition with no concerns identified.	Retain	B1	3.84
T2	Populus nigra	M	15	4.5	4.5	4.5	4.5		320	G		20+	Poplar Tree located in rear garden of adjacent property. Overall exhibits good condition and health.	Retain	B1	3.84
T3	Sorbus aucuparia	M	5	3.5	3.5	1.5	2		120	F		20+	Rowan tree in rear garden of adjacent property. Located under canopy of T2 and is suppressed.	Retain	C1	1.44
T4	Crataegus mongyna	M	8	4.5	4.5	4.5	4.5		300	F		20+	Stand alone hawthorn tree in horse paddock. Fair condition with minor deadwood.	Retain	C2	3.6

No.	Species (common name)	Age class	Height	Crown spread →				Crown clearance	Stem dia. (mm)	Physiological condition	Structural condition	Estimated Remaining contribution	Comments	Recommendations	Ret. Cat. (sub cat.)	RPA (m)
				W	N	S	E									
T5	Fraxinus excelsior	SM	9	3	4	4	3		170	G		30+	Ash in hedge row exhibiting good health and condition.	Retain	C1	2.04
T6	Fraxinus excelsior	SM	9.5	4	5	5	4		200	G		30+	Ash in hedge row exhibiting good health and condition.	Retain	C1	2.4
T7	Crataegus mongyna	M	4.5	2.5	2.5	2.5	2.5		130	F		30+	Tree with hedge which has been left unmanaged. Fair overall condition.	Retain	C2	1.56
T8	Acer pseudoplatanus	M	10	4.5	4.5	4	3		350	G		30+	Tree on adjacent land next to boundary hedge. Good condition	Retain	C1	4.2

No.	Species (common name)	Age class	Height	Crown spread →				Crown clearance	Stem dia. (mm)	Physiological condition	Structural condition	Estimated Remaining contribution	Comments	Recommendations	Ret. Cat. (sub cat.)	RPA (m)
				W	N	S	E									
T9	Crataegus mongyna	M	5	3.5	3.5	3.5	3.5		200	G		30+	Tree within hedge, overall good condition	Remove	C2	2.4
T10	Crataegus mongyna	M	4	2	2	2	2		140	G		30+	Tree within hedge, overall good condition	Remove	C2	1.68
T11	Crataegus mongyna	M	3.5	2	2	2	2		150	G		30+	Hawthorn shrub on boundary. No obvious defects, good condition.	Remove	C2	1.8
T12	Crataegus mongyna	M	5.5	2	2	2	2		150	G		30+	Self sown tree on boundary fence line. Good overall condition	Retain	C2	1.8

No.	Species (common name)	Age class	Height	Crown spread →				Crown clearance	Stem dia. (mm)	Physiological condition	Structural condition	Estimated Remaining contribution	Comments	Recommendations	Ret. Cat. (sub cat.)	RPA (m)
				W	N	S	E									
T13	Crataegus mongyna	M	4.5	2	4	4	2		150	G		30+	Self sown tree on boundary fence line. Good overall condition	Retain	C2	1.8
T14	Crataegus mongyna	M	6.5	2.5	2.5	2.5	2.5		200	P		<10	Tree is in decline and is not likely to survive more than 10 years of any development.	Remove	U	2.4
T15	Sambucus nigra	M	3.5	1.5	1.5	1.5	1.5		100	P		<10	Tree is in decline and is not likely to survive more than 10 years of any development.	Remove	U	1.2
T16	Cupressocyparis macrocarpa	M	10	2	2	2	2		280	G		20+	Mature Cypress in rear garden of adjacent property. Good condition	Retain	C1	3.36

No.	Species (common name)	Age class	Height	Crown spread →				Crown clearance	Stem dia. (mm)	Physiological condition	Structural condition	Estimated Remaining contribution	Comments	Recommendations	Ret. Cat. (sub cat.)	RPA (m)
				W	N	S	E									
T17	Quercus robur	SM	6.5	3	3	3	3		200	G		40+	Young oak in garden of adjacent property. Good condition	Retain	B1	2.4
T18	Sambucus nigra	M	4	1.5	1.5	1.5	1.5		140	G		20+	Single elder tree. Good overall condition.	Retain	C2	1.68
T19	Picea sp	M	7	3	3	3	3		310	D		Dead	Tree is dead.	Remove	U	3.72
T20	Pyrus sp	M	3.5	2.5	2.5	2.5	2.5		140	G		20+	Self sown pear growing between wall and wooden hut.	Remove	C2	1.68

No.	Species (common name)	Age class	Height	Crown spread →				Crown clearance	Stem dia. (mm)	Physiological condition	Structural condition	Estimated Remaining contribution	Comments	Recommendations	Ret. Cat. (sub cat.)	RPA (m)
				W	N	S	E									
T21	Sorbus aucuparia	M	3	3	1.5	1.5	3		100	G		20+	Multi stemmed self set rowan tree on edge of drive.	Retain	C2	1.2
T22	Salix caprea	M	10	5	5	5	5		300	G		20+	Multi stemmed willow on corner boundary. No obvious defects, exhibits good overall condition.	Retain	C2	3.6
T23	Acer pseudoplatanus	M	13	5	5	5	5		400	G		20+	Tree located within G9, dense undergrowth makes access difficult. Overall exhibits good health.	Remove	C2	4.8
GROUPS OF TREES																
G1	Crataegus mongyna	M	2.5	1	1	1	1		80	G		30+	Small hawthorn shrub in corner of field.	Remove	C2	0.96

No.	Species (common name)	Age class	Height	Crown spread →				Crown clearance	Stem dia. (mm)	Physiological condition	Structural condition	Estimated Remaining contribution	Comments	Recommendations	Ret. Cat. (sub cat.)	RPA (m)
				W	N	S	E									
G2	Crataegus mongyna	M	3.5	2	2	2	2		200	G		30+	Hawthorn shrub on boundary. No obvious defects, good condition.	Remove	C2	2.4
G3	Sambuccus nigra	M	3	1.5	1.5	1.5	1.5		130	G		20+	Elder shrub on boundary. Good condition	Remove	C2	1.56
G4	Crataegus sp, Malus sp	M	4.5	3	3	3	3		190	F		20+	Small group of trees in boundary. Fair condition with some deadwood and decline.	Retain	C2	2.28
G5	Acer sp, Ulmus sp, Alnus sp	SM	5	3.5	3.5	3.5	3.5		150	F		30+	Group of trees in garden of adjacent property.	Retain	C2	1.8
G6	Crataegus sp, Sambuccus sp	M	3	1.5	1.5	1.5	1.5		100	G		30+	Small group of trees/shrubs. No concerns identified, good condition.	Remove	C2	1.2

No.	Species (common name)	Age class	Height	Crown spread →				Crown clearance	Stem dia. (mm)	Physiological condition	Structural condition	Estimated Remaining contribution	Comments	Recommendations	Ret. Cat. (sub cat.)	RPA (m)
				W	N	S	E									
G7	Sambucus sp Salix sp, Prunus sp.	M	7	3	3	3	3	200	F		20+	Large group of trees in various condition with some showing decline. Deadwood throughout group.	Remove	C2	2.4	
G8	Sambucus nigra , Sorbus aucuparia	M	4.5	2	2	2	1	100	F		20+	Self set group of trees against building.	Retain	C2	1.2	
G9	Crataegus sp, Sambucus sp, Alnus sp, Acer sp,	M	4-8	3	3	3	3	200	F-G		20+	Large dense group of vegetation with difficult access. Measurements estimated. Overall exhibits fair to good health with no significant concerns.	Remove	C2	2.4	
H1	Fagus sp, Crataegus sp, Ilex sp	M	2.5-3	0.5	0.5	0.5	0.5	80	G		30+	Well managed rear garden boundary hedge.	Retain	B2	0.96	
H2	Crataegus mongyna, Sambucus nigra	M	2-3	0.5	0.5	0.5	0.5	100	G		30+	Mixed hedge on boundary. Good overall condition.	Retain	C2	1.2	

No.	Species (common name)	Age class	Height	Crown spread →				Crown clearance	Stem dia. (mm)	Physiological condition	Structural condition	Estimated Remaining contribution	Comments	Recommendations	Ret. Cat. (sub cat.)	RPA (m)
				W	N	S	E									
H3	Crataegus sp, Prunus sp, Sambuccus sp	M	3-6	2	2	2	2		200	F-G		30+	Mixed mature hedge on field boundary. Multiple dead and dying trees within. Overall in good condition. Unmanaged.	Retain	C2	2.4
H4	Fraxinus sp, Acer sp, Crataegus sp,	SM	7.5	2.5	2.5	2.5	2.5		150	F-G		20+	Line of semi mature ash and maple along fence line and under power line. Hawthorn understorey. Relatively good overall condition but trees are growing into contact with power line.	Retain	C2	1.8
H5	Crataegus sp, Fraxinus sp, Sambuccus sp	SM-M	2	0.5	0.5	0.5	0.5		80	G		30+	Mixed species boundary hedge. Overall good condition. Managed to maintained height.	Retain	C2	0.96
H6	Crataegus sp, Fraxinus sp, Sambuccus sp	SM-M	2	0.5	0.5	0.5	0.5		80	G		30+	Mixed species hedge across woodland and centre of site. Overall good condition and managed to height.	Retain.	C2	0.96

No.	Species (common name)	Age class	Height	Crown spread →				Crown clearance	Stem dia. (mm)	Physiological condition	Structural condition	Estimated Remaining contribution	Comments	Recommendations	Ret. Cat. (sub cat.)	RPA (m)
				W	N	S	E									
H7	Crataegus mongyna	M	4	1.5	1.5	1.5	1.5		110	G		30+	Hawthorn understorey hedge between 2 ash trees. Good overall condition.	Retain	C2	1.32
H8	Crataegus sp, Ilex sp	M	2-4	0.5	0.5	0.5	0.5		80-110	G		30+	Maintained mixed species hedge, good overall condition.	Retain	C2	1.32
H9	Crataegus mongyna	M	2	0.5	0.5	0.5	0.5		80	G		30+	Managed boundary hedge, good condition.	Remove	C2	0.96
H10	Crataegus sp, Fraxinus sp	M	2.5-5	2	2	2	2		110	F		30+	Mixed unmanaged boundary hedge with deadwood throughout and some stems in decline. Fair condition overall.	Retain	C2	1.32
H11	Crataegus sp, Prunus sp	M	3	1	1	1	1		90	G		30+	Boundary hedge, mixed species, overall good condition.	Retain	C2	1.08

No.	Species (common name)	Age class	Height	Crown spread →				Crown clearance	Stem dia. (mm)	Physiological condition	Structural condition	Estimated Remaining contribution	Comments	Recommendations	Ret. Cat. (sub cat.)	RPA (m)
				W	N	S	E									
W1	Betula sp, Quercus sp, Salix sp, Pinus sp,	Y-SM	7.5	2	2	2	2		150	G		40+	Young mixed species woodland exhibiting overall good condition with dense growth.	Retain	B2	1.8
W2	Acer sp, Alnus sp, Salix sp, Pinus sp, Fraxinus sp,	Y-SM	10	3	3	3	3		150-200	G		40+	Mixed woodland plantation. Good overall condition with dense growth.	Retain	B2	2.4
W3	Acer sp, Fraxinus sp, Quercus sp, Crataegus sp, Corylus sp	SM	8.5	3	3	3	3		150-200	G		40+	Mixed woodland plantation on North West boundary. Overall good condition with dense growth.	Retain	B2	2.4

Key:

- Tree/ Group Ref No. – tree/group number, to be recorded on tree survey plan where necessary.
- Species – common and scientific names where possible.
- Age class – young (Y), young mature (YM), middle mature (MM), mature (M), over mature (OM).

- Height – overall height of tree in metres.
- Crown spread – in meters taken at the four cardinal points to derive an accurate representation of the crown (to be recorded on the tree survey plan where necessary).
- Crown clearance – in meters above adjacent ground level to inform on ground clearance, crown stem ratio and shading.
- Stem Dia – stem diameter, in millimetres at 1.5m above adjacent ground level (on sloping ground to be taken on the upslope of the tree base) or immediately above the roof flare for multi-stemmed trees.
- Physiological condition – e.g. good (G), fair (F), poor (P) and dead (D).
- Structural condition – e.g. collapsing, the presence of decay and any physical defect.
- Estimated remaining contribution – in years e.g. less than 10, 10-20, 20-40, more than 40.
- Management recommendations – including further investigations of suspected defects that require more detailed assessment and potential wildlife habitat. All tree work is based on current tree condition and the existing land use and will include work such as hazard abatement, encroachment pruning, thinning of groups/woods and good arboricultural practice.
- Cat grade – category grade – U or A to C, to be recorded in plan on the tree survey plan where possible.
- RPA – Root protection area calculated from BS5837:2012 Trees in Relation to Design, Demolition and Construction – Recommendations in sq/m. Where indicated, dimensions of radius of circle or sides of square based around centre point of trunk calculated for design purposes.

APPENDICES

APPENDIX 1: Tree Protection Plan

Notes
 Do not scale off drawing - refer to the tree data schedule for accurate crown spread measurements.
 Depictions of tree canopies are based on measurements taken to four cardinal compass points.
 No liability of any kind is accepted for any omissions or inaccuracies in respect of this plan.
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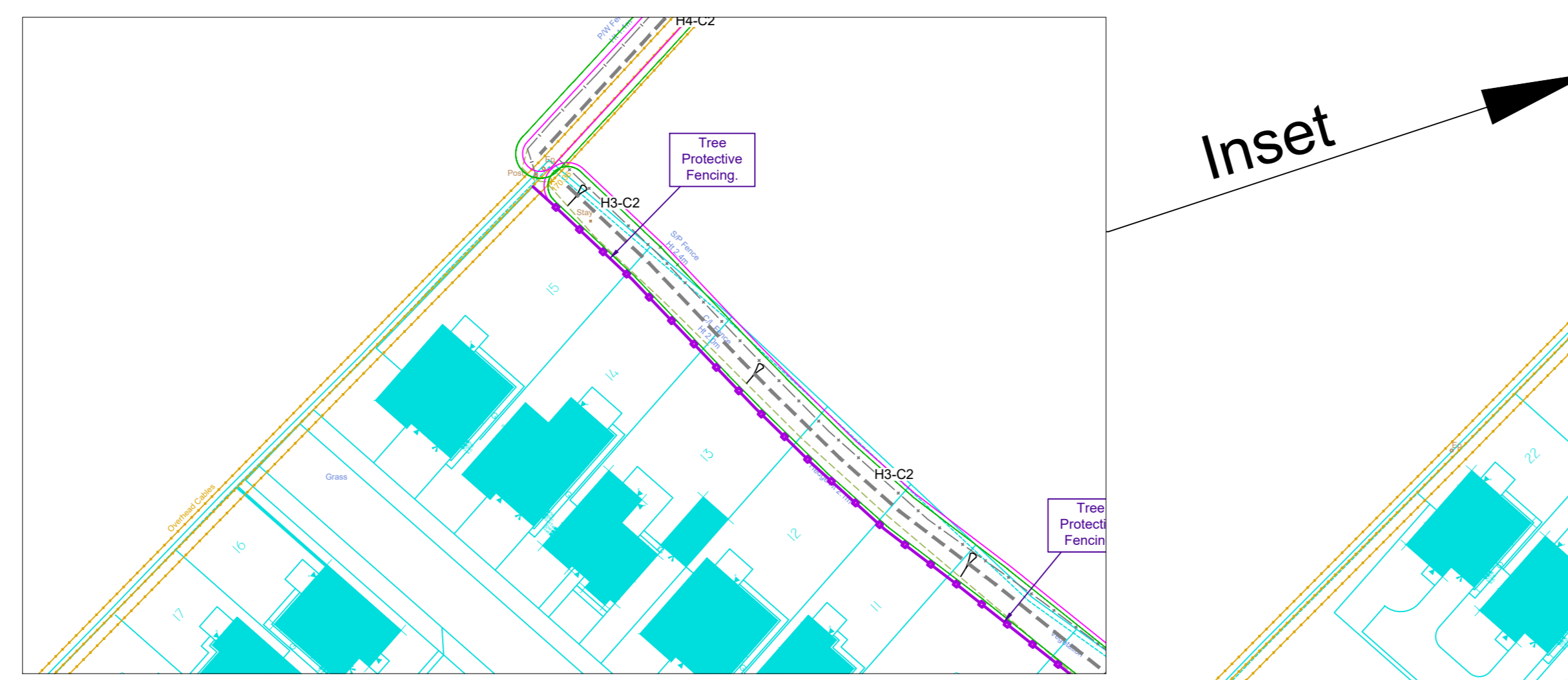
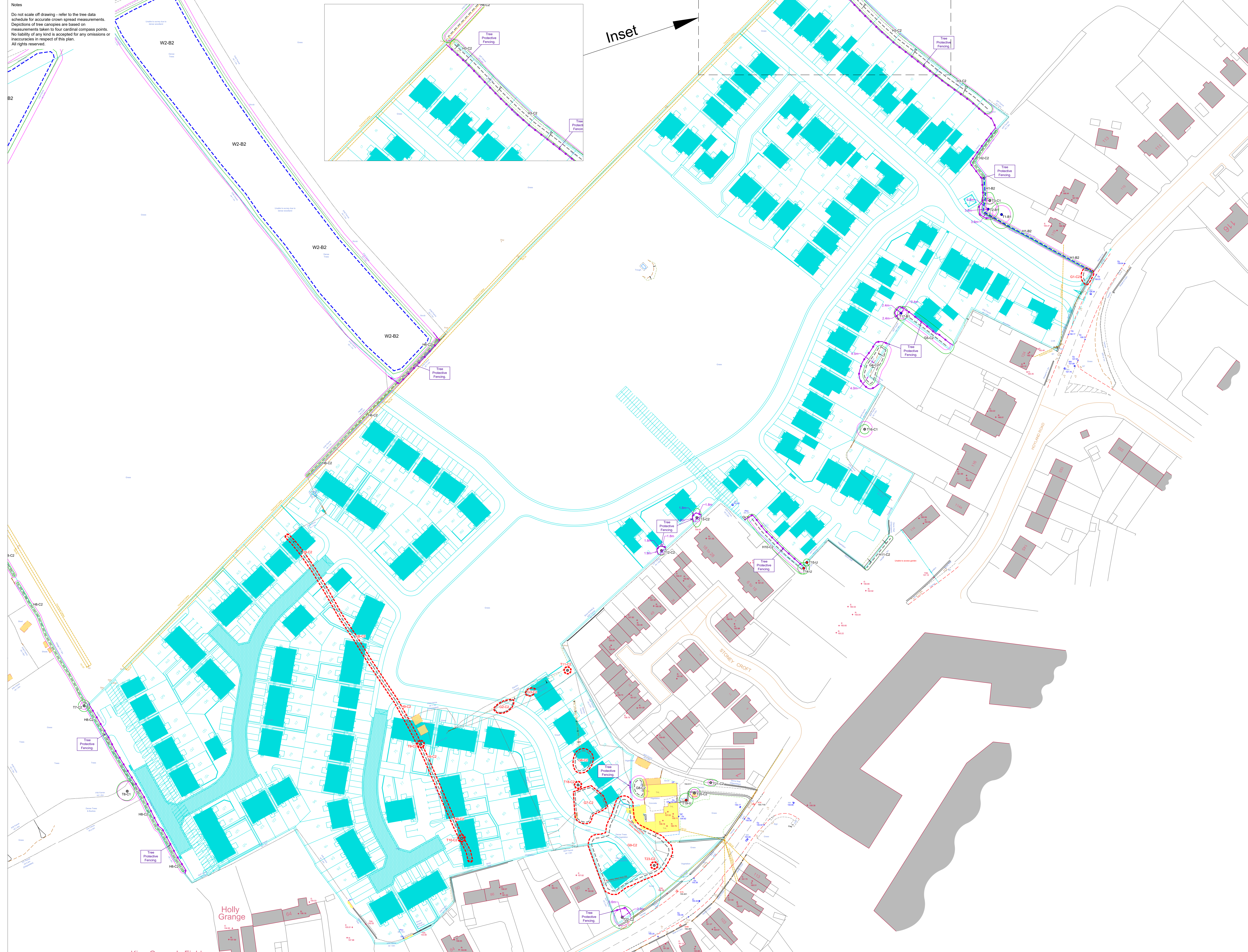
Tree Protection Plan showing proposed layout with trees and arboricultural controls.

Key

- Tree: Showing tree location, category colour, canopy and tag number.
- Tree groups: Shown as dashed centre line. Colour represents category.
- Tree Root Protection Area: (Pink circle)
- Trees to be Removed: (Red circle with slash)
- Tree Root Protective Fencing: BSS837 specification (braced and staked).

Tree/Groupage numbering: T1-T23, G1-G9, H1-H15, W1-W5

1:500



Kina Georae's Field

Holly Grange

BWB
 BUREAU OF WORKS BUILDING
 1011 200 0000
 1011 200 0000
 1011 200 0000
 1011 200 0000

Client			
Project	Land at Hoyland, Lowe.		
Drawing Title	Tree Protection Plan		
Scale	Date	DR	CS
1:500 AD	09/2018	CS	JS
Drawing Number			Rev 1



BETTER SOLUTIONS, INTELLIGENTLY ENGINEERED