Tree Care Consultancy
ARBORICULTURAL CONSULTANTS

Arboricultural Implication Assessment
35 Intake Lane
Barnsley
S75 2HX

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Prepared By:
Tree Care Consultancy
Mike Shackleton
Clifton Villa
37 Hall Cliffe Road
Horbury
Wakefield
West Yorkshire
WF4 6BY
Phone: 01924 270619 or 0113 2175175
Email: info@treecareconsultancy.co.uk

Prepared For:
Mr. R. Barraclough
C/O Fox Architecture & Design
Fox Cottage
Whitley Road
Whitley West Yorkshire
WF12 0LU

1. Introduction

1.1. Instruction and Brief

Tree Care Consultancy was commissioned by Mr. R. Barraclough to prepare an Arboricultural Implication Assessment to accompany a planning application for the demolition and erection of a replacement dwelling and detached garage at the above address. The report produced includes the following information:

- A tree survey, undertaken in accordance with British Standard 5837:2012 'Trees in relation to design, demolition and construction' – Recommendations;

- Tree Constraints Plan (TCP) overlaying proposed layout which highlights the potential development limitations the trees pose on site;

1.1.1. This report is based on site observations and information provided by Fox Architecture and Design. Conclusions have been made in light of the surveyors experience and qualifications.

1.1.2. This report is only concerned with trees in relation to construction and makes no attempt to provide a full safety inspection of the trees surveyed. It should not be seen as an alternative for a Tree Hazard Assessment which is specific to minimising the risk and liability associated with trees.

1.1.3. Climatic conditions including storms, drought and temperature-related factors can cause damage and failure in apparently healthy trees. It should be remembered that all trees do pose a risk and whilst every effort has been made to detect any major defects in inspected trees, no guarantee can be given as to their safety. Although the risk should be managed to an acceptable level, no tree can be guaranteed as safe at all times.

1.1.4. This report is based on Visual Tree Assessment (VTA) methodology, as devised by Mattheck (1991). V.T.A is a ground level visual assessment of a tree, which is carried out to identify obvious mechanical defects, signs of ill health, potential mechanical failure and the suitability of a tree to a site. The survey is compiled in accordance with British Standard 5837:2012 'Trees in relation to design, demolition and construction' - Recommendations with Root Protection Areas (RPA's) based upon section 4.6 of the document.

1.2. Site Visit

1.2.1. The survey was undertaken by Steve Waterson on 13 November 2018. On the day of the survey the weather conditions were sunny and dry with no visibility constraints.

1.2.2. Measurements were estimated due to offsite nature of the material present. No climbing inspections or decay detection analysis was undertaken.

1.2.3. Tree survey data was recorded and the trees were graded using table 1 of BS5837. This information has been included within the tree schedule at Appendix 1. An explanation of the tree schedule format is also included within the Appendix.

1.2.4. This survey should be read in conjunction with the TCP which has been prepared by overlaying tree survey data onto the Proposed Site Plan. The author has relied on the accuracy of the drawings in the production of this report.

1.3. Site & Tree Description

1.3.1. The existing dwelling (and replacement dwelling) sits squarely on the plot fronting Intake Lane. The plot in relatively flat. Only 1No. inconsequential rear garden Lilac tree and a Hawthorn hedge occupy the site.

1.3.2. The trees that exist on adjacent properties are also detailed in the report since these will to a greater or lesser extent influence the proposed development.

1.3.3. Tree cover within the neighbourhood is moderate in terms of numbers and species mix, being defined by the prevailing land use, local infrastructure and landscape treatment.

1.4. Tree Status

1.4.1. It is understood no trees covered by this report are subject of a Tree Preservation Order (TPO) or Conservation Area status. In the case of trees that are subject of TPO, Conservation Area controls or planning application procedures it is essential the Local Authority's advice is sought and where necessary consent obtained before undertaking any tree removal or pruning operations.

1.5. Soil Assessment

1.5.1. No soil testing was undertaken and no soil information was provided for the author.

2. Tree Quality Assessment

2.1.1. As highlighted in table 1 below, the tree survey includes 8No. individual trees all of which are identified as retention category 'B' material.

Table 1:

Category	Category Description	Tree Numbers
'A'	Trees of high quality, with life expectancy in excess of 40 years	None
'B'	Trees of moderate quality, with life expectancy in excess of 20 years	4No. individual trees.
'C'	Trees of low quality with life expectancy in excess of 10 years or young trees	2No. individual trees and 1No. tree group.
'U'	Seriously defective trees that cannot be retained in present context for longer than 10 years	None
Total number of trees:		6No. individual trees and 1No. hedgerow.

2.1.2. Generally, the Local Planning Authority is likely to accept the removal of trees in a poor condition or those with a minimal, safe, useful life expectancy. This usually includes category 'U' and 'C' trees. This presumption is also viewed reasonable where it accords with competent arboricultural management. However in this instance there is no requirement to undertake any tree removal.

3. Arboricultural Implication Assessment

3.1.1. The following section evaluates the proposed layout in relation to trees on site. Any tree and design conflicts are highlighted and possible remedial action recommended. The assessment is based on the surveyor's findings and drawings provided by the client's architect.

3.1.2. The scheme proposes the demolition of an existing dwelling and erection of a replacement dwelling and detached garage.

3.2. Tree Work Necessary to Facilitate the Proposed Development

3.2.1. As demonstrated in Table 2 no tree removal will be required to complete the development save for the possible part coppicing or drawing back of a section of Hawthorn hedge on the south eastern boundary. In addition it is recommended that T5 be removed due to its poor form and replaced with a more attractive tree.

Table 2:

Tree categories A, B, C & U	Trees to be retained and protected	Trees to be removed for development	Trees to be removed for arboricultural management reasons
'A'	Nil	Nil	Nil
'B'	T1, T2, T3, T4, T5, T6, T7, T8	Nil	Nil
'C'	Nil	Nil	H4 (possible coppicing to ground level or drawing back) & T5
'U'	Nil	Nil	Nil

3.3. Below Ground Constraints

3.3.1. The area of roots that need to be protected around a tree to try to ensure it does not suffer damage during the construction process is called the Root Protection Area (RPA).

3.3.2. As recommended in BS5837 the RPAs have been plotted onto the TCP/Proposed Site Plan taking full account of the surrounding topographical factors, tree condition and the probable root disposition.

3.3.3. It will be seen the proposed dwelling and garage do not encroach in a negative nature within the RPAs of any trees, other than a small section of hedgerow H4. In terms of the hedgerow material this can be hard pruned or coppiced in the knowledge it will have the capacity to regenerate post construction.

3.3.4. In so far as the RPA of the offsite Sycamore T3 is concerned the proposed drive is to be constructed on the line of the existing drive and will therefore not materially impact on the viability of this tree.

3.4. Above Ground Constraints

3.4.1. The expected future growth of retained off site trees is not considered to cause any conflicts with the proposed future use of the site.

3.4.2. In terms of the potential impact of the proposed dwelling and garage on hedgerow H4 should the need arise this can be hard pruned or coppiced in advance of construction with a view to allowing it to regenerate post construction.

3.5. Tree Protection

3.5.1. A protective barrier will be erected at the face of H4 prior to the commencement of any site works e.g. before any demolition takes place and materials are brought on site. The protection shall comprise of palisade fencing braced together and retained in position for the duration of demolition and construction work.

3.6. Material Storage

3.6.1. No material storage or plant movement will be required within the RPA of retained trees/hedgerow.

3.7. Services

3.7.1. No new services or soak-a-ways shall be sited or constructed within the RPA of any retained tree. However should it become necessary these must be installed using techniques and methods described at section 4.1 of the current edition of the National Joint Utilities Group (NJUG) Guidelines for the Planning, Installation and Maintenance of Utility Apparatus in Proximity to Trees (www.njug.org.uk) or if this is not practicable, trenches are to be opened by compressed air excavation tools and not mechanically dug.

3.8. Tree Planting

3.8.1. With regard to additional planting a tree planting scheme prepared by Tree Care Consultancy is included under separate cover. This planting will help vary the age and species of tree present, providing for continuity of tree cover, to the benefit of visual amenity.

4. Conclusions

4.1.1. From the tree survey findings, comments and observations, it will be seen that save for the cutting back of hedgerow material the proposal does not require any tree removal in order to undertake development. Equally important the proposal provides for additional planting that will serve to enhance visual amenity and biodiversity for the enjoyment of future generations.

4.1.2. It is hoped that this report and recommendations provides all necessary information, however should there be any queries or should clarification of any points be required, please contact the report author.

5. Appendices (Non Paginated)

Appendix 1 – Explanation of Survey Details

Tree Id- Each tree/group has been given a unique number, which coincides with the drawings located in appendix 3.

Species & botanical name- where identifiable the full botanical name has been given. Where a cultivar, variety or species cannot be accurately given the genus name only will be given.

Height (m) - measured approximately to the nearest 1m. If height issues are critical, measurements can be collected accurately using optical instruments.

No of stems- the number of separate stems each individual tree has.

Stem Dia @1.5m (mm) - the diameter of the given tree at 1.5m above soil level, (on sloping ground taken on the up-slope side of the tree base). Where the tree is multi-stemmed measurements will be record for each stem.

Spread- indicates the crown radius from the base of tree in four compass directions, recorded to the nearest metre.

Crown height + direction (m) - recorded as the first significant branch and direction of growth.

Life stage- described as young, semi-mature, early-mature, mature or over-mature.

Physiological condition (P) - an assessment of the trees health. Considers vitality, die back and the presence of disease. Described as Good = no significant health problems Fair = symptoms of ill health that can be remediated Poor = significant ill health.

Structural condition (S) - an assessment of the trees structural condition. Described as Good = no significant defects Fair = significant defects that can be remediated Poor = significant defects no remedy.

Observations – negative and positive- narrative comments on general condition, significant defects and overall appearance (e.g. the presence of any decay).

Preliminary management recommendations- e.g. requires pruning or further investigation of suspected defects is needed.

Life expectancy- preliminary management recommendations, e.g. requires pruning or further investigation of suspected defects is needed.

Retention Category- Each tree/group is identified with a retention category in accordance with BS5837 (an in depth explanation is provided on the following page)

RPA radius (m) - minimum area in metres which should be left undisturbed around each retained tree.

Appendix 2 – Cascade Chart for Tree Quality Assessment (Extract BS5837)

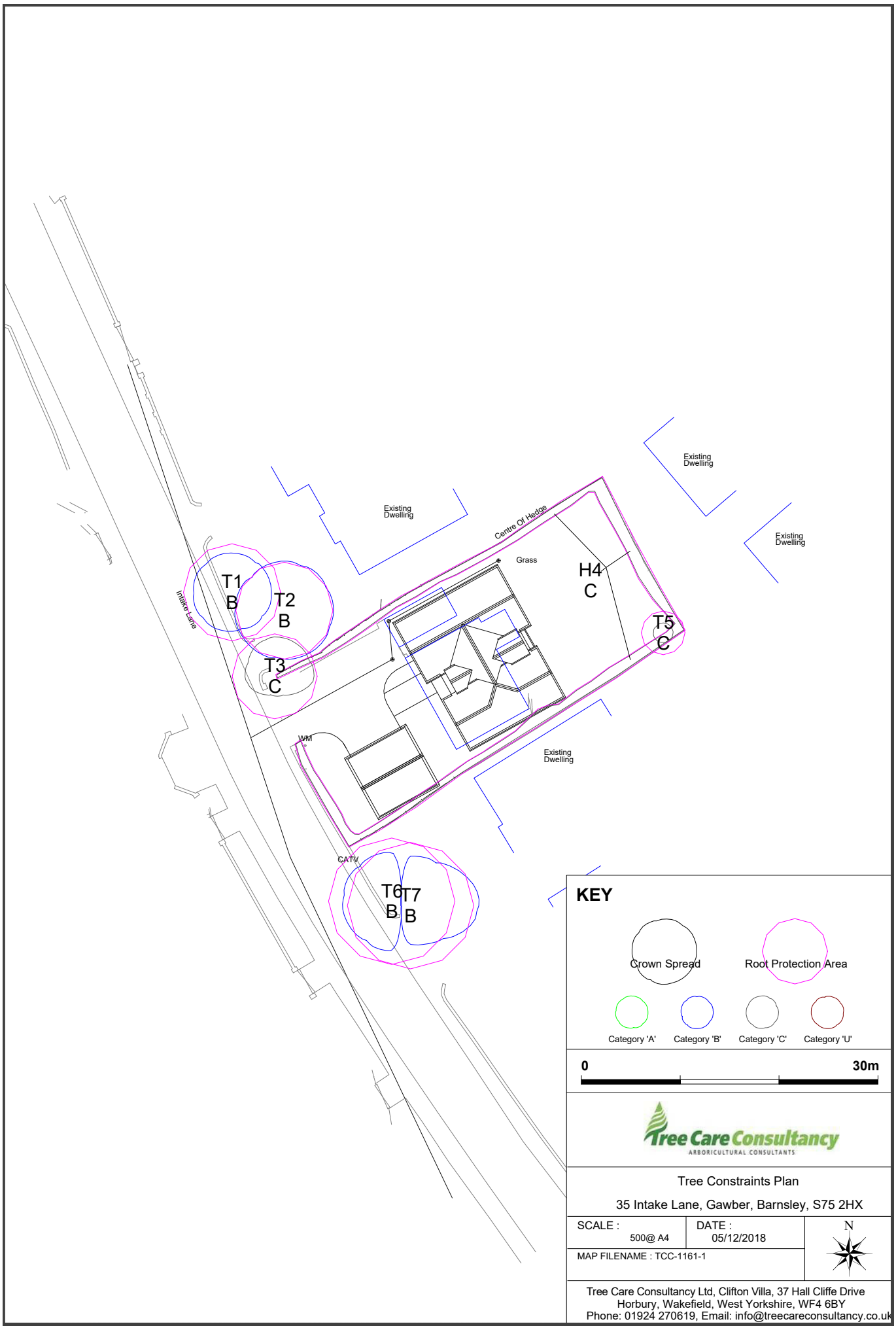
Category and definition	**Criteria (including subcategories where appropriate)**	**Identification on Plan**
Category U Those in such a condition that they cannot realistically be retained as living trees in the context of the current land use for longer than 10 years	• Trees that have a serious, irremediable, 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 (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 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 a 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 essential components of groups, or of 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 **Those of moderate quality** with and 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 remediable 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 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 value	MID BLUE

Appendix 3- Tree Schedule

Tree ID	Species, Botanical Name	Height (m)	No of stems	Stem Dia @ 1.5M (mm)	Spread - N,E,S,W				Crown height+ direction (m)	Life stage	Physiological (P) and Structural (S) condition. Observations- negative and positive	Recommendations	Life expectancy	Retention category	RPA Radius (m)
T1	Sycamore, *Acer pseudoplatanus*	13	1	400	4	4	4	4	4-w	Early-mature	P= Good, S= Fair. Limited inspection due to off site location. Visually prominent tree. Crown supports minor snags and dead wood.	Retain, no work required.	20 to 40 yrs	B2	4.8
T2	Sycamore, *Acer pseudoplatanus*	14	1	400	5	5	5	5	5-n	Mature	P= Good, S= Good. Limited inspection due to off site location. Visually prominent tree. Crown supports minor snags and dead wood.	Retain, no work required.	20 to 40 yrs	B2	4.8
T3	Sycamore, *Acer pseudoplatanus*	14	1	350	4	4	2	3	3-w	Semi-mature	P= Fair, S= Fair. Limited inspection due to off site location. RPA influenced by presence of boundary wall and hard surfacing. Visually prominent tree. Previously topped at 8m with resulting high level pocket of decay. Stunted form with relatively thin crown exhibiting low vitality. Crown supports minor snags and dead wood.	Retain, no work required.	10 to 20 yrs	C2	4.2

Tree ID	Species, Botanical Name	Height (m)	No of stems	Stem Dia @ 1.5M (mm)	Spread - N,E,S,W				Crown height+ direction (m)	Life stage	Physiological (P) and Structural (S) condition. Observations- negative and positive	Recommendations	Life expectancy	Retention category	RPA Radius (m)
H4	Common Hawthorn, *Crataegus monogyna*	<2	n/a	<50	see plan				n/a	Mature	P= Good, S= Good. Provides effective boundary feature/enclosure.	Retain and maintain at present height and spread with exception of south eastern boundary where it will be necessary to either coppice or draw back section of hedgerow to create working room.	10 to 20 yrs	C2	0.6
T5	Lilac, Syringa spp	3	3	120, 100 & 90	1	1	1	1	2-w	Mature	P= Fair, S= Good. Inconsequential item of multi stemmed shrubby proportions. Contains various snags and dead wood where past heavy pruning has occurred.	Remove tree to provide context for replacement tree planting.	10 to 20 yrs	C1	2.2
T6	Oak, *Quercus petraea*	14	1	520	5	1	5	5	2-sw	Semi-mature	P= Good, S= Good. Limited inspection due to off site location. Visually prominent tree. Shares crown space with T7. Crown supports minor snags and dead wood.	Retain, no work required.	20 to 40 yrs	B2	6.2

Tree ID	Species, Botanical Name	Height (m)	No of stems	Stem Dia @ 1.5M (mm)	Spread - N,E,S,W				Crown height+ direction (m)	Life stage	Physiological (P) and Structural (S) condition. Observations- negative and positive	Recommendations	Life expectancy	Retention category	RPA Radius (m)
T7	Beech, *Fagus sylvatica*	14	1	520	5	7	4	1	3-se	Semi-mature	P= Good, S= Good. Limited inspection due to off site location. Visually prominent tree. Shares crown space with T7. Crown supports minor snags and dead wood.	Retain, no work required.	20 to 40 yrs	B2	6.2


Existing Dwelling
Existing Dwelling
Existing Dwelling
Centre Of Hedge
Grass
T1
B
T2
B
T3
C
H4
C
T5
C
Intake Lane
WM
Existing Dwelling
CATV
T6
B
T7
B
KEY
Crown Spread
Root Protection Area
Category 'A'
Category 'B'
Category 'C'
Category 'U'
0
30m
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ARBORICULTURAL CONSULTANTS
Tree Constraints Plan
35 Intake Lane, Gawber, Barnsley, S75 2HX
SCALE : 500@ A4
DATE : 05/12/2018
N
MAP FILENAME : TCC-1161-1
Tree Care Consultancy Ltd, Clifton Villa, 37 Hall Cliffe Drive
Horbury, Wakefield, West Yorkshire, WF4 6BY
Phone: 01924 270619, Email: info@treecareconsultancy.co.uk