Arboricultural Impact Assessment

Plus Tree Survey

Duchy Homes

Land off Darton Lane
Mapplewell
S75 5AH

Report reference: AR-6517-02
February 2023

Report Title:	Arboricultural Impact Assessment Land off Darton Lane, Mapplewell, S75 5AH.
Report Reference:	AR-6517-02
Written by:	Victoria Black FdSc Arb Principal Arboricultural Consultant
Technical review:	Victoria Black FdSc Arb Principal Arboricultural Consultant
QA review:	Victoria Black FdSc Arb Principal Arboricultural Consultant
Approved for issue:	Victoria Black FdSc Arb Principal Arboricultural Consultant
Date:	28.01.2023

Brooks Ecological
Grounded advice

Unit A, 1 Station Road, Guiseley, Leeds, LS20 8BX
Phone: **01943 884451**
01943 879129
Email:admin@brooks-ecological.co.uk
www.brooks-ecological.co.uk
Registered in England Number 5351418

Contents

Tree Survey including Tree Constraints Plan DR-6517-01 TCP
Tree Protection Plan DR-6517-02 TPP

Summary Statement

The Site is located on the southern edge of Mapplewell, bound by Darton Lane to the north, a dismantled railway line to the south which now supports young woodland, with housing to the west and east. The application site 'the Site' comprises a series of fields, formerly grazed but which seemingly has been left unmanaged.

Past these immediate boundaries, the local landscape is characterised by relativity dense residential development to the north, north-west and north-east with 'green land' to the south- comprising large homogenous fields, former collieries and water courses including the River Dearne.

The tree survey revealed a total of twenty-three individual trees and twelve groups of trees. Of these, three groups of trees were identified as retention category 'A', one individual tree and one group of trees were identified as retention category 'B', and twenty trees/groups were identified as retention category 'C'. There were no retention category 'U' trees identified.

This report should be read in conjunction with the attached Tree Constraints Plan Ref: DR-6517-01, Tree Protection Plan Ref: DR-6517-02 and Tree Survey AR-6517-01.

A plan has been provided by the client Ref: 2239-01 Rev S-Proposed Site Plan, to enable an impact assessment of the proposed works on the existing relevant trees within the Site.

Introduction

Purpose of the report

1. This report has been commissioned to provide professional independent, detailed arboricultural advice on relevant trees present at Land off Darton Lane, Mapplewell, S75 5AH.

2. Plans have been provided by the architect/client to enable an impact assessment of the proposed works on the existing relevant trees within the Site.

Impact Schedule

The following schedule identifies the individual tree and its retention category with the main feature(s) of the proposed works likely to cause an impact. The tree references are shown on the tree constraints plan and the tree protection plan. Any mitigation measures are noted.

Tree ref.	Species	Retention category	Proposal feature	Impact	Mitigation
G1	Hawthorn	C2	Close to proposed access driveway Boundary feature (Knee rail) Bin storage	Some minor root pruning may be required. Reduce back. Some section removal.	Tree protection fencing in accordance with BS 5837:2012 Arboricultural supervision required. Some very minor root pruning may be required.

Tree ref.	Species	Retention category	Proposal feature	Impact	Mitigation
					In order to minimise root damage to these trees, excavation must be kept to a minimum. A fence designs requiring intermittent posts will be acceptable and the post holes must not be excavated by mechanical means but may be either dug by hand (with any roots found cleanly severed) or the posts may be driven into the ground. Canopy requires a reduction. Care to be taken when removing the grass/hardstanding. Mitigation planting required on site.
G2	Mixed	A2	Boundary feature	Some minor root pruning may be required. Reduce back.	Tree protection fencing in accordance with BS 5837:2012 Arboricultural supervision required. Some very minor root pruning may be required. In order to minimise root damage to these trees, excavation must be kept to a minimum. A fence designs requiring intermittent posts will be acceptable and the post holes must not be excavated by mechanical means but may be either dug by hand (with any roots

Tree ref.	Species	Retention category	Proposal feature	Impact	Mitigation
					found cleanly severed) or the posts may be driven into the ground. Canopy requires a reduction. Care to be taken when removing the grass/hardstanding
G3	Hawthorn And Blackthorn	C2	Remove to facilitate proposed development	Removal	Mitigation planting on site required.
T4	Ash	C1	Remove to facilitate proposed development	Removal	Mitigation planting on site required.
T5	Hawthorn	C1	Remove to facilitate proposed development	Removal	Mitigation planting on site required.
T6	Birch	B1	Remove to facilitate proposed development	Removal	Mitigation planting on site required.
T7	Cherry	C1	Remove to facilitate proposed development	Removal	Mitigation planting on site required.
T8	Hawthorn	C1	None	None - retain	Tree protection fencing in accordance with BS 5837:2012
T9	Hawthorn	C1	Remove to facilitate proposed development	Removal	Mitigation planting on site required.
T10	Hawthorn	C1	Remove to facilitate proposed development	Removal	Mitigation planting on site required.
G11	Mixed	A2	Boundary feature	Some minor root pruning may be required. Reduce back.	Tree protection fencing in accordance with BS 5837:2012 Arboricultural supervision required.

Tree ref.	Species	Retention category	Proposal feature	Impact	Mitigation
					Some very minor root pruning may be required. In order to minimise root damage to these trees, excavation must be kept to a minimum. A fence designs requiring intermittent posts will be acceptable and the post holes must not be excavated by mechanical means but may be either dug by hand (with any roots found cleanly severed) or the posts may be driven into the ground. Canopy requires a reduction. Care to be taken when removing the grass/hardstanding
T12	Hawthorn	C1	Remove to facilitate proposed development	Removal	Mitigation planting on site required.
T13	Hawthorn	C1	Remove to facilitate proposed development	Removal	Mitigation planting on site required.
T14	Hawthorn	C1	Remove to facilitate proposed development	Removal	Mitigation planting on site required.
T15	Hawthorn	C1	Remove to facilitate proposed development	Removal	Mitigation planting on site required.
T16	Hawthorn	C1	Remove to facilitate proposed development	Removal	Mitigation planting on site required.

Tree ref.	Species	Retention category	Proposal feature	Impact	Mitigation
T17	Hawthorn	C1	Proposed footpath	Some root loss	Tree protection fencing in accordance with BS 5837:2012 Arboricultural supervision required. Some minor root pruning may be required.
G18	Hawthorn & Elder	C2	Remove to facilitate proposed development	Removal	Mitigation planting on site required.
G19	Mixed	A2	Boundary feature	Some minor root pruning may be required. Reduce back.	Tree protection fencing in accordance with BS 5837:2012 Arboricultural supervision required. Some very minor root pruning may be required. In order to minimise root damage to these trees, excavation must be kept to a minimum. A fence designs requiring intermittent posts will be acceptable and the post holes must not be excavated by mechanical means but may be either dug by hand (with any roots found cleanly severed) or the posts may be driven into the ground. Canopy requires a reduction. Care to be taken when removing the grass/hardstanding

Tree ref.	Species	Retention category	Proposal feature	Impact	Mitigation
T20	Hawthorn	C1	None	None - retain	Tree protection fencing in accordance with BS 5837:2012
T21	Hawthorn	C1	None	None - retain	Tree protection fencing in accordance with BS 5837:2012
T22	Hawthorn	C1	None	None - retain	Tree protection fencing in accordance with BS 5837:2012
T23	Hawthorn	C1	None	None - retain	Tree protection fencing in accordance with BS 5837:2012
G24	Lawson	C2	None	None - retain	Tree protection fencing in accordance with BS 5837:2012
T25	Eucalyptus	C1	None	None - retain	Tree protection fencing in accordance with BS 5837:2012
G26	Lombardy Poplar	B2	None	None - retain	Tree protection fencing in accordance with BS 5837:2012
G27	Hawthorn	C2	Remove to facilitate proposed development	Removal	Mitigation planting on site required.
G28	Elder	C2	Remove to facilitate proposed development	Removal	Mitigation planting on site required.
G29	Hawthorn & Elder	C2	Remove to facilitate proposed development	Removal	Mitigation planting on site required.
G30	Hawthorn & Elder	C2	Remove to facilitate proposed development	Removal	Mitigation planting on site required.
T31	Hawthorn	C1	Remove to facilitate proposed development	Removal	Mitigation planting on site required.
T32	Hawthorn	C1	Remove to facilitate proposed development	Removal	Mitigation planting on site required.

Tree ref.	Species	Retention category	Proposal feature	Impact	Mitigation
T33	Hawthorn	C1	Remove to facilitate proposed development	Removal	Mitigation planting on site required.
T34	Hawthorn	C1	Remove to facilitate proposed development	Removal	Mitigation planting on site required.
T35	Hawthorn	C1	Remove to facilitate proposed development	Removal	Mitigation planting on site required.

Implications for retained trees

Tree protection

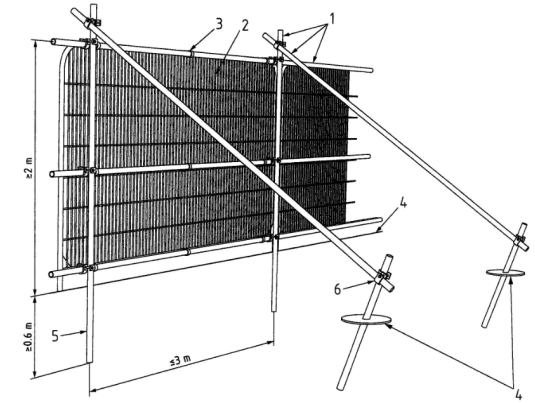
3. Trees and tree groups should be protected from unwanted damage during construction works with temporary tree protection barriers. The barriers should be erected to the outer edge of the tree canopy or the edge of the RPA, whichever is the furthest away from *the* tree, unless otherwise indicated on the Tree Protection Plan.

4. Tree protection barriers should be the default specification for protective barrier, Figure 2, BS 5837: 2012 Trees in relation to design, demolition and constructions – Recommendations. Where Site circumstances prevent the use of the default barrier, an alternative specification would be recommended by the project arboriculturist with agreement of the local planning authority. The recommended locations for tree protective barriers are shown in Tree Protection Plan.

5. All-weather notices should be attached to the barrier with words such as: "Construction exclusion zone – no access".

6. Where facilitation access is authorised within the RPA temporary ground protection should be installed prior to work starting on Site. The temporary ground protection should be capable of supporting the weight of any traffic/machinery using the Site without being distorted or causing compaction to the ground. It is recommended

that the ground of the possible Site compound/storage area is covered in temporary ground protection to minimise soil damage by compaction and conserve soil health through to post-construction planting in this area.



Key

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

Figure 1

Tree work

7. Where pruning work is necessary and authorised to roots or branches of retained trees to enable facilitation works, it should be carried out by a competent contractor in accordance with BS 3998: 2010 Tree Works – Recommendations.

Drainage and utilities

8. Drainage and utilities are expected to be included within the proposed Site works and should not involve digging or trenching within RPA's.

Ground level changes

9. It is our understanding that no ground level changes are required within the root protection area of any tree on this site.

Boundary features

10. Proposed boundary fencing is proposed within the RPA's of some of the retained trees on site. In order to minimise root damage to these trees, excavation must be kept to a minimum. A fence designs requiring intermittent posts will be acceptable and the post holes must not be excavated by mechanical means but may be either dug by hand (with any roots found cleanly severed) or the posts may be driven into the ground.

11. All works within RPA's should supervised by Brooks Ecological.

Demolition

12. Care must be taken when removing grass within the vicinity of any retained tree.

Root pruning

13. The proposed encroachment into the RPA of T17 with a footpath is considered acceptable and does not require any special construction technique. It is recommended that prior to any mechanical machinery entering this area, the roots (if found) are cut back using clean, straight cuts with sharp tools. This will minimise the extent of wounding and save unnecessary root ripping with heavy machinery.

14. These proposed works should be carried out with Arboricultural supervision to ensure no major roots are lost.

15. If required roots smaller than 25mm diameter may be pruned back where necessary, making a clean cut with a suitable sharp tool, except where they occur in clumps. Roots in clumps or larger than 25mm diameter should be severed only following consultation with an Arboriculturist, as such roots may be essential to the health and stability of the tree.

16. Great care must be taken when removing the grass or hard standing within this area. Hand tools only. This should be supervised by an Arboricultural Consultant.

Trees to be removed

17. Six groups, G3, G18, G27, G28, G29, G30, one section of G1, plus sixteen trees, T4, T5, T6, T7, T9, T10, T12, T13, T14, T15, T16, T31, T32, T33, T34 & T35, are expected to be removed to facilitate the development.

Tree Survey

Duchy Homes

Land off Darton Lane
Mapplewell
S75 5AH

Report reference: AR-6517-01
February 2023

Report Title:	Tree Survey Land off Darton Lane, Mapplewell.
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Written by:	Victoria Black FdSc Arb Principal Arboricultural Consultant
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The Site is located on the southern edge of Mapplewell, bound by Darton Lane to the north, a dismantled railway line to the south which now supports young woodland, with housing to the west and east. The application site 'the Site' comprises a series of fields, formerly grazed but which seemingly has been left unmanaged.

Past these immediate boundaries, the local landscape is characterised by relativity dense residential development to the north, north-west and north-east with 'green land' to the south- comprising large homogenous fields, former collieries and water courses including the River Dearne.

The tree survey revealed a total of twenty-three individual trees and twelve groups of trees. Of these, three groups of trees were identified as retention category 'A', one individual tree and one group of trees were identified as retention category 'B', and twenty trees/groups were identified as retention category 'C'. There were no retention category 'U' trees identified.

This report should be read in conjunction with the attached Tree Constraints Plan Ref: DR-6517-01.

Introduction

Purpose of the report

38. This report has been commissioned to provide professional independent, detailed arboricultural advice on all relevant trees present at Land off Darton Lane, Mapplewell, S75 5AH.

39. This report has been undertaken in accordance with BS 5837:2012 Trees in relation to construction – Recommendations.

40. The client has provided a topographical plan.

41. All findings and recommendations are based on visual observations conducted from ground level during the Site visit only. No other diagnostic procedures were used to establish any extent of internal decay nor was a climbing inspection undertaken.

42. All measurements were obtained with the use of a clinometer and an electronic distometer. On occasion it is not viable to provide accurate measurements due to restricted access or other mitigating circumstances on site, and the data may be estimated.

Legal implications of work to trees

43. Due to the potentially large penalties for illegally carrying out work to protected trees, it is recommended that a check with the local planning authority is carried out prior to any tree works being undertaken and any required consents such as for work to trees with Tree Preservation Orders and/or Conservation Areas are obtained before work to trees on site. Additionally, work to trees at certain times of the year may contravene sections of the Wildlife and Countryside Act regarding nesting and roosting of protected species.

44. Every tree owner has a general duty of care to ensure their tree(s) does not pose an unacceptable risk to other people on or adjacent to their land. The landowner will only be liable for injury or damage caused by trees if they are found to be negligent.

45. There is no legal obligation for a tree owner to cut back growth from a neighbouring property. However, under Common law of tort of nuisance, an affected neighbour has the right to cut back roots or branches that encroach onto a neighbouring property back to the boundary of the land owned by the person abating the nuisance without the neighbour's consent (with the exception of TPO's or CA's). The person abating the nuisance has a duty to exercise reasonable care in carrying out work as a failure to do so may lead to liability in negligence (for example where removal of roots makes a tree unstable).

Site description

46. The Site is located on the southern edge of Mapplewell, bound by Darton Lane to the north, a dismantled railway line to the south which now supports young woodland, with housing to the west and east. The application site 'the Site' comprises a series of fields, formerly grazed but which seemingly has been left unmanaged.

47. Past these immediate boundaries, the local landscape is characterised by relativity dense residential development to the north, north-west and north-east with 'green land' to the south- comprising large homogenous fields, former collieries and water courses including the River Dearne.

Site red line boundary

Survey conditions

48. The trees were surveyed in cool, alternately overcast and bright conditions on 13th January 2023.

Tree data abbreviations and survey methodology

T	Tree	GL	Ground level
G	Tree group	MS	Multi-stemmed
H	Hedge	AFP	Access facilitation pruning
OSB	Outside Site boundary	Ave	Average dimension
#/est	Estimated dimension	Typ	Typical dimension
N	North	E	South
S	South	W	West
Min	Minimum	Lwr	Lower
adj	Adjacent	Ht	Height

49. The trees were assessed visually from ground level. Where access to a tree is restricted this is noted in the schedule.

50. The tree reference numbers refer to the attached Tree Constraints Plan (TCP) references. The trees were not tagged for this survey.

51. The tree species is listed by common name in the schedules, with a key to scientific names below:

Common name	Botanical name	Common name	Botanical name
Alder (common)	Alnus glutinosa	Goat willow	Salix caprea
Alder (grey)	Alnus incana	Hawthorn	Crataegus monogyna
Apple	Malus domestica	Hazel	Corylus avellana
Aspen	Populus tremula	Holly	Ilex aquifolium
Ash	Fraxinus excelsior	Hornbeam	Carpinus betulus
Beech	Fagus sylvatica	Larch	Larix decidua

Birch (silver)	Betula pendula	Lime (common)	Tilia x europaea
Birch (downy)	Betula pubescens	Lime (small-leaved)	Tilia cordata
Chestnut (sweet)	Castanea sativa	Maple (field)	Acer campestre
Chestnut (horse)	Aesculus hippocastanum	Maple (Norway)	Acer platanoides
Cherry (wild)	Prunus avium	Poplar (black)	Populus nigra
Cherry (bird)	Prunus padus	Oak (sessile)	Quercus petraea
Cherry (Japanese)	Prunus serrulata	Oak (pendunculate)	Quercus robur
Leyland Cypress	X Cupressocyparis leylandii	Rowan/mountain ash	Sorbus aucuparia
Elm (English)	Ulmus procera	Sycamore	Acer pseudoplatanus
Elm (wych)	Ulmus glabra	Weeping willow	Salix chrysocoma
		Whitebeam (Swedish)	Sorbus intermedia

52. Measurement of the existing height above ground level of the first significant branch and the direction of growth and the height of the canopy. This informs ground clearance, crown/stem ratio and shading.

53. The stem/trunk diameter is measured with a diameter tape at 1.5m from ground level around the stem for single stem trees and for multi-stemmed trees and other variants in accordance with Annex C of the British Standard. Where access restricts measurement of the tree, an estimate has been made, denoted by '#'.

54. Canopy spread is measured with an electronic distometer. The close-spacing of some of the trees impeded measurements of canopy spread and height and estimates were made.

55. The age of the tree is based on the typical longevity of the particular tree species. The age classes are: young (Y), semi-mature (SM), early mature (EM), mature (M), over-mature (OM) and veteran (V).

56. The physiological condition of the tree is an assessment of its likely health, vigour and stress. The classes for physiological condition are: good, fair, poor and dead.

57. Structural condition includes tree form, visible defects, irregularities and influencing factors.

58. Preliminary management recommendations note work (with prior approval where necessary) to promote the health and longevity of the tree and/or improve safety and/or increase habitat potential.

59. The life expectancy (life exp.) is the estimated remaining contribution in years, (<10, 10+, 20+, 40+).

60. The retention category (ret cat) for each tree is assessed in accordance with BS 5837: 2012 Table 1, summarised as below:

Category A	Trees of high quality with an estimated remaining life expectancy (ERC) of at least 40 years. Green canopy outline on plan.
Category B	Trees of moderate quality with an estimated ERC of at least 20 years. Blue canopy outline on plan.
Category C	Trees of low quality with an ERC of at least 10 years, OR young trees with a stem diameter below 150mm. Grey canopy outline on plan.
Category U	Trees 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 unsuitable for retention. Dark red canopy outline on plan.

61. Sub- categories of 1, 2 or 3 are included in the tree data tables and are defined as follows:

Sub-category 1 trees are those with 'mainly arboricultural value'

Sub-category 2 trees are those with 'mainly landscape value'

Sub-category 3 trees are those with 'mainly cultural or conservation value'.

62. The root protection area (RPA) in m²is for layout purposed and indicates the 'minimum area around a tree deemed to contain sufficient roots and rooting volume to maintain the tree's viability, and where the protection of the roots and soil structure is treated as a priority'. The RPA is calculated in accordance with BS 5837: 2012 Annex D. Where Site features are likely to have distorted the typical RPA, a polygon of the same area is estimated on plan to reflect a more realistic shape, in accordance with the British standard.

Tree data

63. The following schedule contains the tree data obtained on site:

Ref	Species	Life stage	Ht (m)	Can Ht (m)	Stem diam (mm)	Canopy spread (m)	Physio logical	Structural condition	Recommendations	Life exp. (yrs)	Ret cat
G1	Hawthorn	Y-EM	To 8	0+	To 280	See plan	Fair	Overhanging boundary and footpath. Overgrown boundary group. Some located on adjacent land. Running down the boundary of the footpath. Minor Deadwood and stubs evident with canopy. Typical of species.	No action required	10+	C2
G2	Mixed	Y-M	To 17	0+	<100 to 450	See plan	Good	Situated on adjacent land. Overhanging boundary. Contains goat willow, sycamore, birch, lime, hawthorn, elder. Some poorer specimens. Deadwood and stubs evident with canopy. Birds nest noted.	Some management along boundary	20+	A2
G3	Hawthorn And Blackthorn	Y-SM	To 8	0+	To 200	See plan	Fair	Dense group. Typical of species. Minor bark wounds throughout. Low hanging canopy.	No action required	10+	C2
T4	Ash	SM	11	3	230	N 4 E 4 S 4 W 4	Fair	Single stemmed and vertical with a balanced canopy. Within G3, resulting in a limited inspection. Slight lean to the north.	No action required	10+	C1
T5	Hawthorn	SM	8	0+	To 100 x 10	N 3 E 3 S 3 W 3	Fair	Multiple stemmed at ground level with a balanced canopy. Low hanging canopy. Typical of species. Bramble at base. Minor bark wounds throughout.	No action required	10+	C1

Ref	Species	Life stage	Ht (m)	Can Ht (m)	Stem diam (mm)	Canopy spread (m)	Physio logical	Structural condition	Recommendations	Life exp. (yrs)	Ret cat
T6	Birch	M	14	2	230 260 250	N 6 E 4 S 7 W 5	Good	Three stems from base with a balanced canopy. Minor Deadwood and stubs evident with canopy.	No action required	20+	B1
T7	Cherry	SM	7	1.8	280 AT BASE	N 3 E 3 S 3 W 3	Fair	Single stemmed and vertical with a balanced canopy. Minor bark wounds throughout.	No action required	10+	C1
T8	Hawthorn	EM	7	0+	To 250 x 4	N 4.5 E 4.5 S 4.5 W 4.5	Fair	Multiple stemmed at ground level with a balanced canopy. Included bark noted at union. Overhanging boundary.	No action required	10+	C1
T9	Hawthorn	SM	7	0.7	To 200 x 5	N 3.5 E 3.5 S 3.5 W 3.5	Fair	Multiple stemmed at ground level with a balanced canopy. Minor bark wounds throughout. Typical of species.	No action required	10+	C1
T10	Hawthorn	SM	7	0.8	To 150 x 8	N 4 E 4 S 4 W 4	Fair	Multiple stemmed at ground level with a balanced canopy. Minor bark wounds throughout. Typical of species.	No action required	10+	C1
G11	Mixed	Y-M	To 17	0+	<100 to 450	See plan	Good	Situated on adjacent land. Overhanging boundary. Contains goat willow, sycamore, birch, lime, hawthorn, elder. Some poorer specimens. Deadwood and stubs evident with canopy. Birds nest noted.	Some management along boundary	20+	A2

Ref	Species	Life stage	Ht (m)	Can Ht (m)	Stem diam (mm)	Canopy spread (m)	Physio logical	Structural condition	Recommendations	Life exp. (yrs)	Ret cat
T12	Hawthorn	SM	7	0.6	To 100 x 6	N 2 E 2 S 2 W 2	Fair	Multiple stemmed at ground level with a balanced canopy. Minor bark wounds throughout. Typical of species.	No action required	10+	C1
T13	Hawthorn	SM	7	0.6	To 100 x 6	N 2 E 2 S 2 W 2	Fair	Multiple stemmed at ground level with a balanced canopy. Minor bark wounds throughout. Typical of species.	No action required	10+	C1
T14	Hawthorn	SM	7	0.6	To 100 x 6	N 2 E 2 S 2 W 2	Fair	Multiple stemmed at ground level with a balanced canopy. Minor bark wounds throughout. Typical of species.	No action required	10+	C1
T15	Hawthorn	SM	7	0.6	To 100 x 6	N 2 E 2 S 2 W 2	Fair	Multiple stemmed at ground level with a balanced canopy. Minor bark wounds throughout. Typical of species.	No action required	10+	C1
T16	Hawthorn	SM	7	0.6	To 100 x 6	N 2 E 2 S 2 W 2	Fair	Multiple stemmed at ground level with a balanced canopy. Minor bark wounds throughout. Typical of species.	No action required	10+	C1
T17	Hawthorn	SM	7	0.6	To 100 x 6	N 2 E 2 S 2 W 2	Fair	Multiple stemmed at ground level with a balanced canopy. Minor bark wounds throughout. Typical of species.	No action required	10+	C1

Ref	Species	Life stage	Ht (m)	Can Ht (m)	Stem diam (mm)	Canopy spread (m)	Physio logical	Structural condition	Recommendations	Life exp. (yrs)	Ret cat
G18	Hawthorn & Elder	Y-EM	To 9	0+	To 200	See plan	Fair	Covered in ivy. Dense group. Typical of species.	No action required	10+	C2
G19	Mixed	Y-M	To 17	0+	<100 to 450	See plan	Good	Situated on adjacent land. Overhanging boundary. Contains goat willow, sycamore, birch, lime, hawthorn, elder. Some poorer specimens. Deadwood and stubs evident with canopy. Birds nest noted. On raised banking.	Some management along boundary	20+	A2
T20	Hawthorn	SM	7	0.7	To 200 x 5	N 3.5 E 3.5 S 3.5 W 3.5	Fair	Multiple stemmed at ground level with a balanced canopy. Minor bark wounds throughout. Typical of species.	No action required	10+	C1
T21	Hawthorn	SM	7	0.7	To 200 x 5	N 3.5 E 3.5 S 3.5 W 3.5	Fair	Multiple stemmed at ground level with a balanced canopy. Minor bark wounds throughout. Typical of species.	No action required	10+	C1
T22	Hawthorn	SM	7	0.7	To 200 x 5	N 3.5 E 3.5 S 3.5 W 3.5	Fair	Multiple stemmed at ground level with a balanced canopy. Minor bark wounds throughout. Typical of species.	No action required	10+	C1

Ref	Species	Life stage	Ht (m)	Can Ht (m)	Stem diam (mm)	Canopy spread (m)	Physio logical	Structural condition	Recommendations	Life exp. (yrs)	Ret cat
T23	Hawthorn	SM	7	0.7	To 200 x 5	N 3.5 E 3.5 S 3.5 W 3.5	Fair	Multiple stemmed at ground level with a balanced canopy. Minor bark wounds throughout. Typical of species.	No action required	10+	C1
G24	Lawson	M	To 15	0+	#To 350	See plan	Fair	Good screening for property. Typical of species. Very limited inspection due to access.	No action required	10+	C2
T25	Eucalyptus	EM	14	0+	#400	# N 5 E 5 S 2 W 4	Fair	Good screening for property. Typical of species. Very limited inspection due to access. Low hanging canopy	No action required	20+	C1
G26	Lombardy Poplar	M	To 18	1+	#To 550	See plan	Good	Good screening for property. Typical of species. Very limited inspection due to access.	No action required	20+	B2
G27	Hawthorn	Y-SM	To 8	0+	To 200	See plan	Fair	Multiple stemmed at ground level with a balanced canopy. Minor bark wounds throughout. Typical of species.	No action required	10+	C2
G28	Elder	Y-SM	To 6	0+	To 100	See plan	Fair	Typical of species. Bark wounds noted throughout.	No action required	10+	C2

Ref	Species	Life stage	Ht (m)	Can Ht (m)	Stem diam (mm)	Canopy spread (m)	Physio logical	Structural condition	Recommendations	Life exp. (yrs)	Ret cat
G29	Hawthorn & Elder	Y-EM	To 9	0+	To 200	See plan	Fair	Dense group. Typical of species. Minor bark wounds throughout. Low hanging canopy. Overhanging boundary.	No action required	10+	C2
G30	Hawthorn & Elder	Y-EM	To 9	0+	To 200	See plan	Fair	Dense group. Typical of species. Minor bark wounds throughout. Low hanging canopy. Overhanging boundary.	No action required	10+	C2
T31	Hawthorn	SM	7	0.7	To 200 x 5	N 3.5 E 3.5 S 3.5 W 3.5	Fair	Multiple stemmed at ground level with a balanced canopy. Minor bark wounds throughout. Typical of species.	No action required	10+	C1
T32	Hawthorn	SM	7	0.7	To 200 x 5	N 3.5 E 3.5 S 3.5 W 3.5	Fair	Multiple stemmed at ground level with a balanced canopy. Minor bark wounds throughout. Typical of species.	No action required	10+	C1
T33	Hawthorn	SM	7	0.7	To 200 x 5	N 3.5 E 3.5 S 3.5 W 3.5	Fair	Multiple stemmed at ground level with a balanced canopy. Minor bark wounds throughout. Typical of species.	No action required	10+	C1
T34	Hawthorn	SM	7	0.7	To 200 x 5	N 3.5 E 3.5 S 3.5 W 3.5	Fair	Multiple stemmed at ground level with a balanced canopy. Minor bark wounds throughout. Typical of species.	No action required	10+	C1

Ref	Species	Life stage	Ht (m)	Can Ht (m)	Stem diam (mm)	Canopy spread (m)	Physio logical	Structural condition	Recommendations	Life exp. (yrs)	Ret cat
T35	Hawthorn	SM	7	0.7	To 200 x 5	N 3.5 E 3.5 S 3.5 W 3.5	Fair	Multiple stemmed at ground level with a balanced canopy. Minor bark wounds throughout. Typical of species. Overhanging boundary.	No action required	10+	C1

Findings

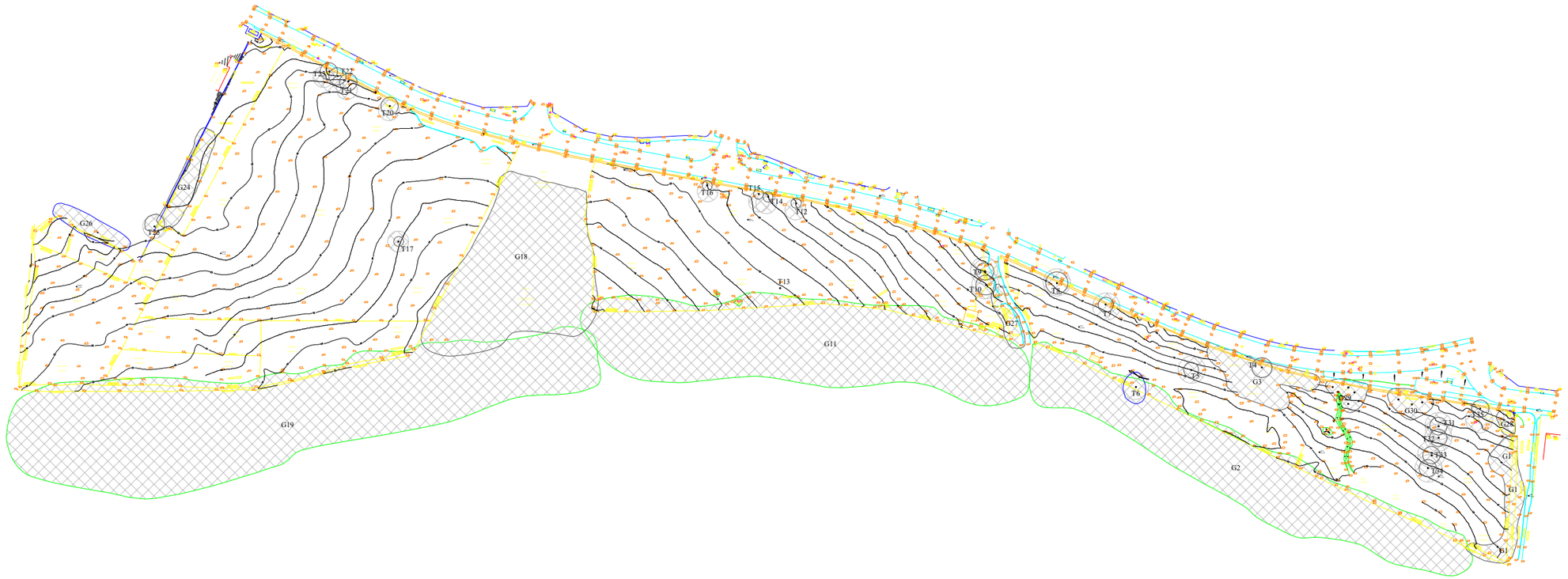
Tree descriptions and recommendations

64. The tree survey revealed a total of twenty-three individual trees and twelve groups of trees. Of these, three groups of trees were identified as retention category 'A', one individual tree and one group of trees were identified as retention category 'B', and twenty trees/groups were identified as retention category 'C'. There were no retention category 'U' trees identified. Please refer above for retention category and definition criteria.

65. It has been recommended that groups G2, G11 & G19 are subject to low level management along the boundary to ensure the health of the better specimens within the group.

66. Those trees which overhang the public footpaths or public highways, shall require future maintenance to maintain clearance heights for vehicular or pedestrian traffic. These heights should be 5.6m above a road and 2.5m above a footpath.

DR-6517-01 Tree Constraints Plan



Brooks Ecological
Grounded in advice
Email: vb@brooks-ecological.co.uk
Tel No: 01943 884 451
www.brooks-ecological.co.uk

DR-6517-01 TREE CONSTRAINTS PLAN

Site: Land off Darton Lane, Mapplewell.

Paper Size: A1	**Scale: 1:1000**

BS 5837: 2012 Retention Categories

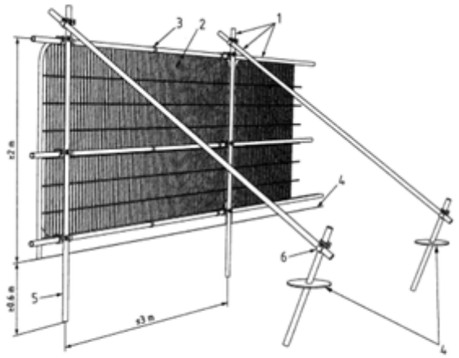
	CATEGORY A
	CATEGORY B
	CATEGORY C
	CATEGORY U

	ROOT PROTECTION AREA
·	TREE STEM

Please note:
The plan is for guidance only
and should not be scaled from.

The original of this drawing was produced
in colour - a monochrome copy should not be
relied upon.

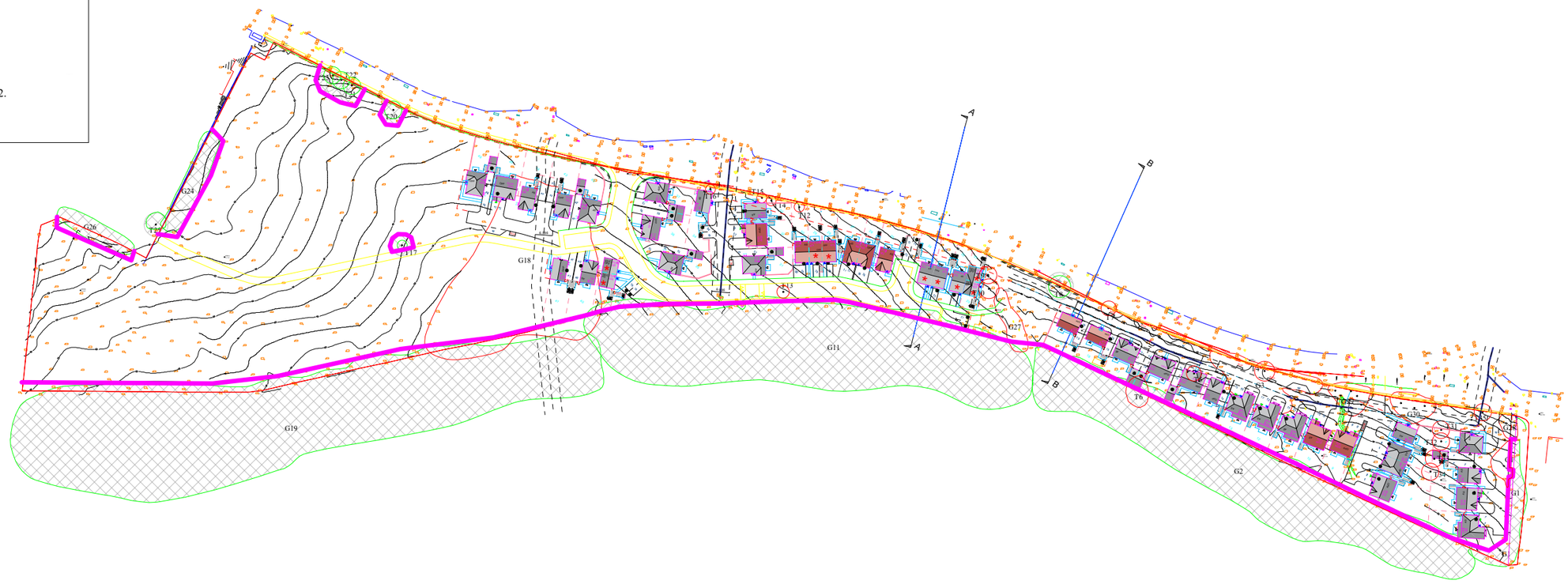
DR-6517-02 Tree Protection Plan



Key

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

An example of tree protective fencing in accordance to BS 5837:2012.
For further details please refer to paragraphs 3-7 of the submitted
AIA Ref: AR-6517-02.



Brooks Ecological
Groundedd advice
Email: vb@brooks-ecological.co.uk
Tel No: 01943 884 451
www.brooks-ecological.co.uk

DR-6517-02 TREE PROTECTION PLAN

Site: Land off Darton Lane, Mapplewell.

Paper Size: A1	**Scale: 1:1000**

	Tree to retain
	Tree to remove
	Protective fencing in line with BS 5837:2012

	ROOT PROTECTION AREA
·	TREE STEM

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