

Arboricultural Impact Assessment

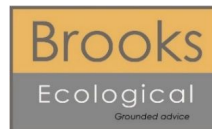
Plus Tree Survey

THT and L&Q Developments

Old Row, Whalley Road, Barrow

Report reference: AR-6446-02
September 2022

Report Title:	Arboricultural Impact Assessment Old Row, Whalley Road, Barrow
Report Reference:	AR-6446-02
Written by:	Tom Benson FdSc Arb Trainee Arboricultural Consultant
Technical review:	Victoria Black FdSc Arb Principal Arboricultural Consultant
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Date:	28.01.2023



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Tree Survey including Tree Constraints Plan DR-6446-01
Tree Protection Plan DR-6446-02

Summary Statement

The site is located on the northern edge of Barrow, a village in the Ribble valley to the north east of Blackburn. The existing site consists of a field used agricultural purposes.

The application site is located on the northern edge of Barrow, a village in the Ribble Valley to the north east of Blackburn, approximately 9.9 miles from the town centre. The site's north boundary joins the grounds of Barrow Primary school; the east boundary joins further agricultural land; the south is bound by a footpath with a playground and the gardens of houses off Washbrook Close beyond and the west is bound by the houses of Old Row.

The tree survey revealed a total of fifteen individual trees and four groups of trees. Of these, one tree was identified as retention category 'A', nine trees were identified as retention category 'B' and nine 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-5143-01 and Tree Survey AR-5143-01.

A plan has been provided by the client Ref: BB7-9AZ-BARROW-SITEPLAN-A-03.B 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 Old Row, Whalley Road, Barrow.
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
T1	Birch	C1	Boundary feature – 1.8m boarded timber fencing	Some very minor root pruning may be required.	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

Tree ref.	Species	Retention category	Proposal feature	Impact	Mitigation
					<p>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.</p> <p>Care to be taken when removing the grass.</p>
T2	Birch	C1	Boundary feature – 1.8m boarded timber fencing	Some very minor root pruning may be required.	<p>Tree protection fencing in accordance with BS 5837:2012</p> <p>Arboricultural supervision required.</p> <p>Some very minor root pruning may be required.</p> <p>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.</p> <p>Care to be taken when removing the grass.</p>

Tree ref.	Species	Retention category	Proposal feature	Impact	Mitigation
T3	Oak	A1	Boundary feature – 1.8m boarded timber fencing	Some very minor root pruning may be required.	<p>Tree protection fencing in accordance with BS 5837:2012</p> <p>Arboricultural supervision required.</p> <p>Some very minor root pruning may be required.</p> <p>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.</p> <p>Care to be taken when removing the grass.</p>
T4	Ash	C1	Boundary feature – 1.8m boarded timber fencing	Some very minor root pruning may be required.	<p>Tree protection fencing in accordance with BS 5837:2012</p> <p>Arboricultural supervision required.</p> <p>Some very minor root pruning may be required.</p> <p>In order to minimise root damage to these trees, excavation must be kept to a minimum. A fence designs requiring intermittent posts will be</p>

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					<p>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.</p> <p>Care to be taken when removing the grass.</p>
T5	Ash	B1	Boundary feature – 1.8m boarded timber fencing	Some very minor root pruning may be required.	<p>Tree protection fencing in accordance with BS 5837:2012</p> <p>Arboricultural supervision required.</p> <p>Some very minor root pruning may be required.</p> <p>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.</p> <p>Care to be taken when removing the grass.</p>

Tree ref.	Species	Retention category	Proposal feature	Impact	Mitigation
T6	Oak	B1	Boundary feature – 1.8m boarded timber fencing	Some very minor root pruning may be required.	<p>Tree protection fencing in accordance with BS 5837:2012</p> <p>Arboricultural supervision required.</p> <p>Some very minor root pruning may be required.</p> <p>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.</p> <p>Care to be taken when removing the grass.</p>
T7	Ash	B1	Boundary feature – 1.8m boarded timber fencing	Some very minor root pruning may be required.	<p>Tree protection fencing in accordance with BS 5837:2012</p> <p>Arboricultural supervision required.</p> <p>Some very minor root pruning may be required.</p> <p>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</p>

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					<p>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.</p> <p>Care to be taken when removing the grass.</p>
T8	Hawthorn	C1	Boundary feature – 1.8m boarded timber fencing	Some very minor root pruning may be required.	<p>Tree protection fencing in accordance with BS 5837:2012</p> <p>Arboricultural supervision required.</p> <p>Some very minor root pruning may be required.</p> <p>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.</p> <p>Care to be taken when removing the grass.</p>
T9	Apple	C1	Boundary feature – 1.8m boarded timber fencing	Some very minor root pruning may be required.	Tree protection fencing in accordance with BS 5837:2012

Tree ref.	Species	Retention category	Proposal feature	Impact	Mitigation
					<p>Arboricultural supervision required.</p> <p>Some very minor root pruning may be required.</p> <p>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.</p> <p>Care to be taken when removing the grass.</p>
T10	Oak	B1	Boundary feature – 1.8m boarded timber fencing	Some very minor root pruning may be required.	<p>Tree protection fencing in accordance with BS 5837:2012</p> <p>Arboricultural supervision required.</p> <p>Some very minor root pruning may be required.</p> <p>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</p>

Tree ref.	Species	Retention category	Proposal feature	Impact	Mitigation
					<p>found cleanly severed) or the posts may be driven into the ground.</p> <p>Care to be taken when removing the grass.</p>
T11	Hawthorn	C1	Boundary feature – 1.8m boarded timber fencing	Some very minor root pruning may be required.	<p>Tree protection fencing in accordance with BS 5837:2012</p> <p>Arboricultural supervision required.</p> <p>Some very minor root pruning may be required.</p> <p>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.</p> <p>Care to be taken when removing the grass.</p>
T12	Oak	B1	Boundary feature – 1.8m boarded timber fencing	Some very minor root pruning may be required.	<p>Tree protection fencing in accordance with BS 5837:2012</p> <p>Arboricultural supervision required.</p>

Tree ref.	Species	Retention category	Proposal feature	Impact	Mitigation
					<p>Some very minor root pruning may be required.</p> <p>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.</p> <p>Care to be taken when removing the grass.</p>
G13	Hawthorn	C2	Boundary feature – 1.8m boarded timber fencing	Some very minor root pruning may be required.	<p>Tree protection fencing in accordance with BS 5837:2012</p> <p>Arboricultural supervision required.</p> <p>Some very minor root pruning may be required.</p> <p>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</p>

Tree ref.	Species	Retention category	Proposal feature	Impact	Mitigation
					<p>found cleanly severed) or the posts may be driven into the ground.</p> <p>Care to be taken when removing the grass.</p>
G14	Hawthorn, Elder	C2	Footpath	Removal	Mitigation planting on site required.
T15	Ash	B1	Boundary feature Demolition of disused public house	Some very minor root pruning may be required.	<p>Tree protection barrier to BS5837: 2012.</p> <p>Arboricultural supervision required.</p> <p>Some very minor root pruning may be required.</p> <p>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.</p> <p>Building to be demolished within its own footprint.</p> <p>Care to be taken when removing the grass.</p>

Tree ref.	Species	Retention category	Proposal feature	Impact	Mitigation
G16	Hawthorn	C1	Boundary feature	Some very minor root pruning may be required.	<p>Some of the group is off development site – no fencing required.</p> <p>Tree protection barrier to BS5837: 2012.</p> <p>Arboricultural supervision required.</p> <p>Some very minor root pruning may be required.</p> <p>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.</p> <p>Care to be taken when removing the grass.</p>
T17	Oak	B1	Boundary feature	Some very minor root pruning may be required.	<p>Tree protection barrier to BS5837: 2012.</p> <p>Arboricultural supervision required.</p> <p>Some very minor root pruning may be required.</p> <p>In order to minimise root damage to these trees, excavation must be</p>

Tree ref.	Species	Retention category	Proposal feature	Impact	Mitigation
					<p>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.</p> <p>Care to be taken when removing the grass.</p>
T18	Cypress	B1	None	None	Off development site – no fencing required.
G19	Hawthorn, Willow, Hazel, Elder	B2	None	None	Off development site – no fencing 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.

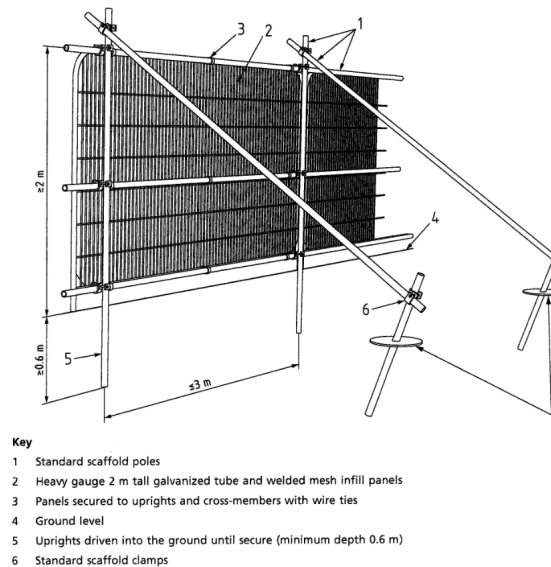


Figure 1

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

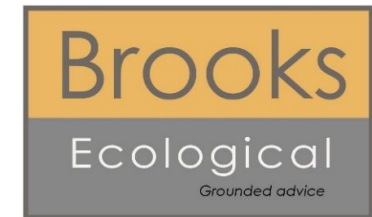
12. The demolition of the existing building should be undertaken inwards within its footprint, often referred to as “top down, pull”.
13. If high levels of dust build up on the adjacent foliage, it might be necessary to hose down the trees.

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

Trees to be removed

15. One group, G14, is expected to be removed to facilitate the development.

Tree Survey



Tree Survey

THT and L&Q Developments

**Old Row
Whalley Road
Barrow**

Report reference: AR-6446-01
September 2022

Report Title:	Tree Survey Old Row, Whalley Road, Barrow
Report Reference:	AR-6446-01
Written by:	Tom Benson FdSc Arb Trainee Arboricultural Consultant
Technical review:	Victoria Black FdSc Arb Principal Arboricultural Consultant
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Approved for issue:	Victoria Black FdSc Arb Principal Arboricultural Consultant
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DR-6446-01 TREE CONSTRAINTS PLAN

Summary Statement

The site is located on the northern edge of Barrow, a village in the Ribble valley to the north east of Blackburn. The existing site consists of a field used agricultural purposes.

The application site is located on the northern edge of Barrow, a village in the Ribble Valley to the north east of Blackburn, approximately 9.9 miles from the town centre. The site’s north boundary joins the grounds of Barrow Primary school; the east boundary joins further agricultural land; the south is bound by a footpath with a playground and the gardens of houses off Washbrook Close beyond and the west is bound by the houses of Old Row.

The tree survey revealed a total of fifteen individual trees and four groups of trees. Of these, one tree was identified as

retention category 'A', eight trees were identified as retention category 'B' and ten 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-6446-01.

Introduction

Purpose of the report

51. This report has been commissioned to provide professional independent, detailed arboricultural advice on all relevant trees present at land Old Row, Whalley Road, Barrow.
52. This report has been undertaken in accordance with BS 5837:2012 Trees in relation to construction – Recommendations.
53. The client has provided a topographical plan.
54. 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.
55. 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

56. 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.

57. 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.
58. 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

59. The site is located on the northern edge of Barrow, a village in the Ribble valley to the north east of Blackburn. The existing site consists of a field used agricultural purposes.
60. The application site is located on the northern edge of Barrow, a village in the Ribble Valley to the north east of Blackburn, approximately 9.9 miles from the town centre. The site's north boundary joins the grounds of Barrow Primary school; the east boundary joins further agricultural land; the south is bound by a footpath with a playground and the gardens of houses off Washbrook Close beyond and the west is bound by the houses of Old Row. The trees surveyed are predominantly located around the perimeter of the site with more mature specimens found on the southern boundary.
61. The wider landscape is dominated by residential and commercial development of Barrow and the semi-rural aspect of the surrounding Ribble Valley.

Survey conditions

62. The trees were surveyed in overcast conditions on the 22nd September 2022.

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

63. The trees were assessed visually from ground level. Where access to a tree is restricted this is noted in the schedule.
64. The tree reference numbers refer to the attached Tree Constraints Plan (TCP) references. The trees were not tagged for this survey.
65. 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)	<i>Alnus glutinosa</i>	Goat willow	<i>Salix caprea</i>
Alder (grey)	<i>Alnus incana</i>	Hawthorn	<i>Crataegus monogyna</i>
Apple	<i>Malus domestica</i>	Hazel	<i>Corylus avellana</i>
Aspen	<i>Populus tremula</i>	Holly	<i>Ilex aquifolium</i>
Ash	<i>Fraxinus excelsior</i>	Hornbeam	<i>Carpinus betulus</i>
Beech	<i>Fagus sylvatica</i>	Larch	<i>Larix decidua</i>
Birch (silver)	<i>Betula pendula</i>	Lime (common)	<i>Tilia x europaea</i>
Birch (downy)	<i>Betula pubescens</i>	Lime (small-leaved)	<i>Tilia cordata</i>
Chestnut (sweet)	<i>Castanea sativa</i>	Maple (field)	<i>Acer campestre</i>

Chestnut (horse)	<i>Aesculus hippocastanum</i>	Maple (Norway)	<i>Acer platanoides</i>
Cherry (wild)	<i>Prunus avium</i>	Poplar (black)	<i>Populus nigra</i>
Cherry (bird)	<i>Prunus padus</i>	Oak (sessile)	<i>Quercus petraea</i>
Cherry (Japanese)	<i>Prunus serrulata</i>	Oak (pendunculate)	<i>Quercus robur</i>
Leyland Cypress	<i>X Cupressocyparis leylandii</i>	Rowan/mountain ash	<i>Sorbus aucuparia</i>
Elm (English)	<i>Ulmus procera</i>	Sycamore	<i>Acer pseudoplatanus</i>
Elm (wych)	<i>Ulmus glabra</i>	Weeping willow	<i>Salix chrysocoma</i>
		Whitebeam (Swedish)	<i>Sorbus intermedia</i>

66. 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.
67. 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 '#'.
68. 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.
69. 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).
70. 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.
71. Structural condition includes tree form, visible defects, irregularities and influencing factors.
72. 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.
73. The life expectancy (life exp.) is the estimated remaining contribution in years, (<10, 10+, 20+, 40+).

74. 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.

75. 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'.

76. The root protection area (RPA) in m² is 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

77. 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
T1	Birch	SM	11	2	# 260	N 3.1 E 3.5 S 3.2 W 3	G	Single vertical stem with a balanced canopy. Growing in area of dense, overgrown undergrowth. Previously topped. Overhanging boundary. Situated on adjacent land.	No action required.	20+	C1
T2	Birch	SM	9	2	# 180	N 2.3 E 2.5 S 2.3 W 2.4	G	Single vertical stem with a balanced canopy. Growing in area of dense, overgrown undergrowth. Overhanging boundary. Situated on adjacent land.	No action required.	40+	C1
T3	Oak	M	22	3	960	N 7.2 E 9.3 S #9 W 8.5	G	Single vertical stem with a balanced canopy. Furcates at 3M. Natural deadwood and stubs noted. Full, healthy crown. Overhanging footpath and boundary.	No action required.	20+	A1
T4	Ash	M	11	2.5	# 300 Over ivy	N 2.2 E 4.6 S #3 W #1	F	Single leaning stem with an unbalanced canopy. Covered in ivy. Sparse canopy, possible dieback. Dense bramble obscuring base. Overhanging footpath and boundary.	Remove ivy and reinspect. Monitor for signs of dieback.	20+	C1
T5	Ash	M	16	3	# 520 Over ivy	N 3.4 E 8.4 S #7.8 W 5.6	F	Single vertical stem with an unbalanced canopy. Covered in ivy. Sparse canopy, possible dieback. Deadwood and stubs noted. Pruning wounds. Overhanging footpath and boundary.	Remove ivy and reinspect. Monitor for signs of dieback.	20+	B1

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	Oak	M	16	3	650	N 6.1 E 11 S 8.6 W 3.7	G	Single leaning stem with an unbalanced canopy. Significant dog leg in stem at 2.5M to east. Deadwood and stubs noted. Pruning wounds. Culvert head adjacent to base. Overhanging footpath and boundary.	No action required.	40+	B1
T7	Ash	M	20	4	# 900	N 7.5 E 8.6 S #9 W 9.3	G	Single vertical stem with a balanced canopy. Furcates at 4M. Dieback in canopy. Suckers at base. Overhanging road, boundary and building.	Monitor for signs of dieback.	20+	B1
T8	Hawthorn	EM	9	0+	# 300 @ base	N 4 E 4.5 S 4.2 W 4	G	Multi-stemmed at base with a balanced canopy. Covered in ivy. No close access due to location. No major visible defects.	No action required.	20+	C1
T9	Apple	EM	4.5	1.3	165	N 3.5 E 3.8 S 3.6 W 3.5	G	Single vertical stem with a balanced canopy. Hawthorn at base. Overhanging footpath and boundary. No major visible defects.	No action required.	20+	C1
T10	Oak	M	19	3	700	N 6.6 E 6.5 S 6.5 W 6.9	G	Single vertical stem with a balanced canopy. Pruning wounds. No major visible defects. Overhanging footpath, boundary and building.	No action required.	20+	B1

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
T11	Hawthorn	OM	5	2	300 275	N 3.5 E 2 S 5.2 W 3.2	P	Twin stemmed at base with a balanced canopy. Sparse canopy. Significant decay throughout. Weak union with decay evident. Twisted, gnarly form. Overhanging footpath and boundary.	Monitor.	20+	C1
T12	Oak	Y	5	2	135	N 2.9 E 3 S 3.2 W 3	G	Single vertical stem with a balanced canopy. No major visible defects. Overhanging boundary.	No action required.	20+	C1
G13	Hawthorn	M	>9	2	# >500 Over ivy	See plan	G	Multi-stemmed at base with a balanced canopy. Covered in ivy. Significant decay throughout, form typical of species. Overhanging boundary. Situated on adjacent land.	Remove ivy and reinspect.	20+	C2
G14	Hawthorn, Elder	M	>9	0+	# >360	See plan	G	Multi-stemmed at base with a balanced canopy. Covered in ivy. Typical of species. Dense undergrowth surrounding base. No major visible defects.	No action required.	20+	C2
T15	Ash	M	18	2.5	# 340	N #5.5 E 4.2 S #4.3 W #4	G	Single vertical stem with a balanced canopy. No close access due to location within fenced off pub compound. Healthy looking with full canopy. No major visible defects.	No action required.	20+	B1

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
G16	Hawthorn	M	>7.5	0+	# >280	See plan	G	Lapsed, gappy hedge within dense undergrowth.	No action required.	20+	C1
T17	Oak	SM	9	2.5	# 280	N #3.6 E #3.5 S #3.6 W #3.4	G	Single vertical stem with a balanced canopy. Situated on adjacent land. No major visible defects.	No action required.	40+	B1
T18	Cypress	M	12	0+	8 @ ave 180	N 4.5 E 4.8 S 4.6 W 4.5	G	Multi-stemmed at base with a balanced canopy. Situated on adjacent land. No major visible defects.	No action required.	20+	B1
G19	Hawthorn, Willow, Hazel, Elder	SM-EM	>9	0+	# >300	See plan	G	Mixed group growing around lock up garages with dense undergrowth. No close access due to location. No major visible defects.	No action required.	40+	B2

Findings

Tree descriptions and recommendations

78. The tree survey revealed a total of fifteen individual trees and four groups of trees. Of these, one tree was identified as retention category 'A', eight trees were identified as retention category 'B' and ten 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.
79. It has been recommended that tree T4, T5 and T7 are monitored annually to assess if their condition is still acceptable a significant dieback and decay has been noted.
80. 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.



Figure 1: Looking NW from neighbouring land at the mature trees located along the southern site boundary.



Figure 2: T3, a Retention category 'A' tree located on the southern boundary.

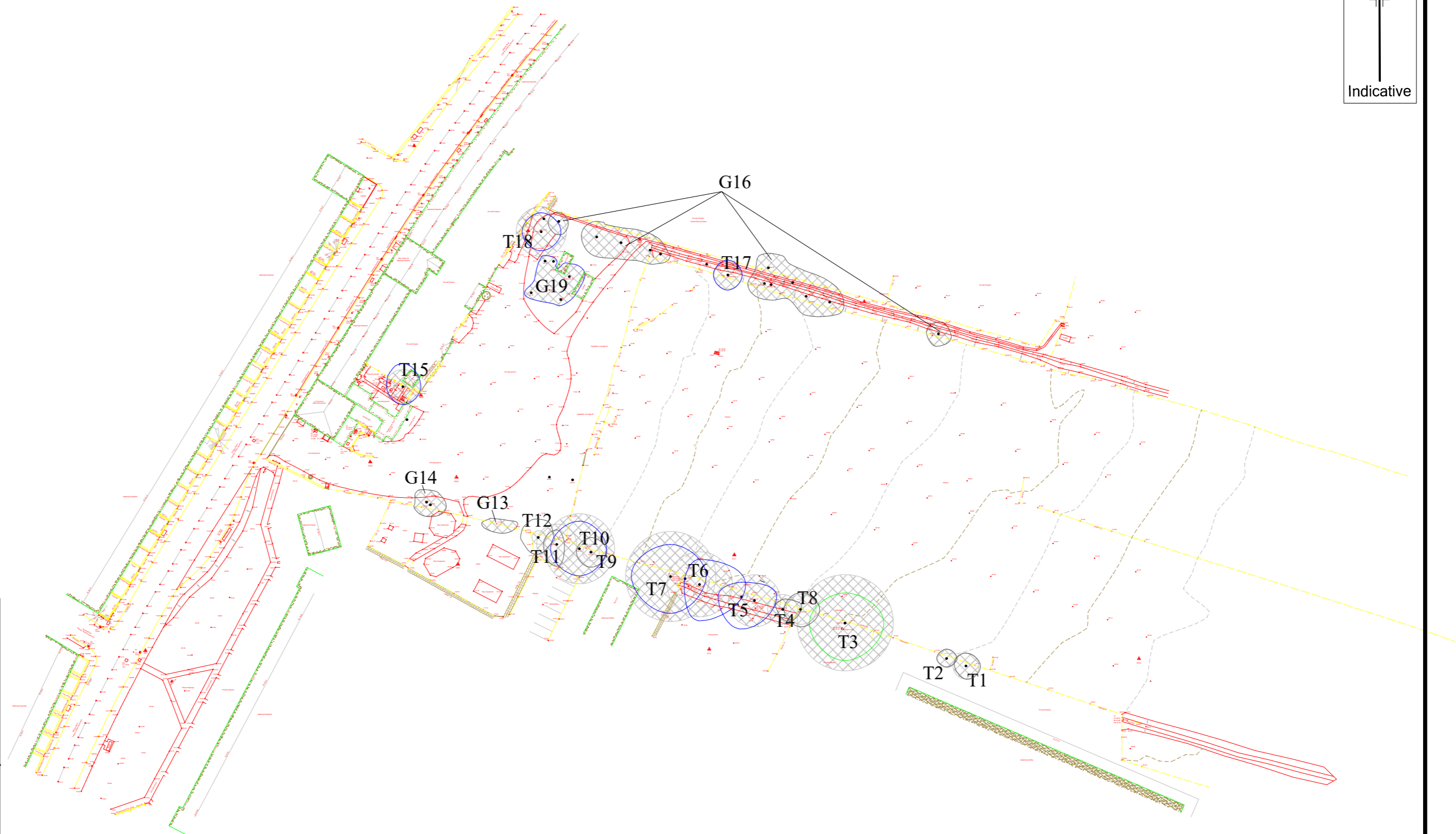
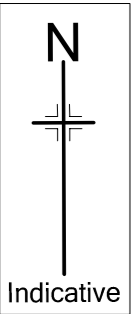



Figure 3: T15, an ash located within the locked pub compound, surveyed from a distance.



Figure 4: T5, an ash displaying signs of dieback within the canopy.

DR-6446-01 Tree Constraints Plan





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DR-6446-01 - TREE CONSTRAINTS PLAN



Site: Old Row, Whalley Road, Barrow.

Paper Size: A1

Scale: 1:500

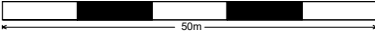
BS 5837: 2012 Retention Categories

	CATEGORY A
	CATEGORY B
	CATEGORY C
	CATEGORY U

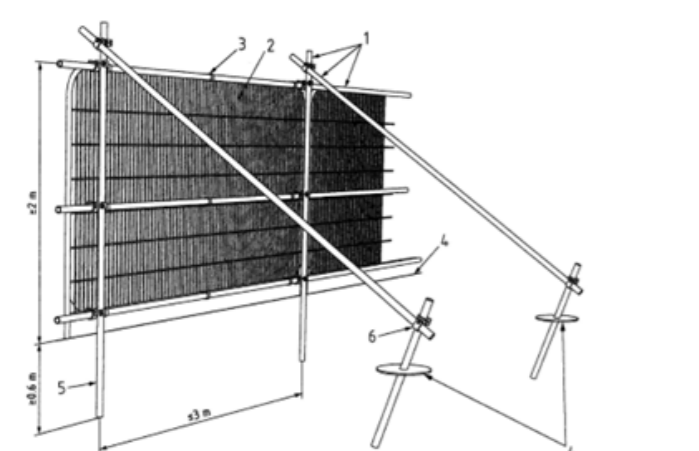
	ROOT PROTECTION AREA
	TREE STEM

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.



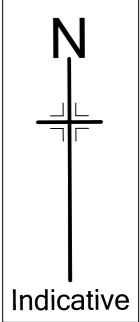
DR-6446-02 Tree Protection Plan




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 protective fencing in accordance with BS 5837:2012. For further information please refer to paragraphs 3-7 of the submitted AIA Ref: AR-6446-02.










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DR-6446-02 TREE PROTECTION PLAN

Site: Old Row, Whalley Road, Barrow.

Paper Size: A1 **Scale:** 1:500

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