



ARBORICULTURAL IMPACT ASSESSMENT

Client: Redsun Projects

Site: The Croft
Caldbeck Road
Bromborough

Date: 06 July 2021

Ref.: THL-R21/23

GROWING SINCE • 1982

TREE HERITAGE

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1.0 Introduction.

- 1.1 This Arboricultural Impact Assessment (AIA) is looking at the proposed development at the above site, and how it may effect the existing trees.
- 1.2 The survey complies with British Standard 5837:2012 *Trees in relation to design, demolition and construction – Recommendations*. All significant trees on the site have been inspected including any that may be on the boundary or on adjacent land that may be affected by any development. Included in the schedule of trees are the relevant areas of protection for the trees or the Root Protections Areas (RPAs). The relevant distance from each tree from which construction work should be excluded by the erection of a Protective Barrier is also listed.

2.0 Arboricultural Impact of the proposal.

- 2.1 The proposed development is shown on plan THL-0710-6 attached to this report. The development consists of the constructions of several industrial units and associated parking and infrastructure.
- 2.2 Along the north boundary of the site, all trees will be retained and protected throughout the development.
- 2.3 Adjacent to Welton Road, T1 and T2 will be removed to allow for the construction of unit 4 as shown on the attached plan. Both trees are category C, and their removal will not only allow space for the development but will also give T3 more space to grow into. T3 is a category B Alder.
- 2.4 On the corner of Welton Road and Caldbeck Road is a group of 10 trees that will all require removal to allow space for the development. This group consists of 5 category C trees, 3 category B trees, and 2 category A trees. In addition to this 2 category U trees will be removed on the grounds of safety.
- 2.5 Along the site boundary with Caldbeck Road, 6 trees will require removal to allow for the development. This includes 3 category B trees and 3 category C trees. In addition to this, 10 category U trees will be removed on the grounds of safety.
- 2.6 A complete list of all trees that require removal, either due to the development or based on the grounds of safety, is attached to this report in appendix A.
- 2.7 It is recommended that a planting scheme is produced as part of the development. There are many Willow species on site which are generally not suitable for planting in this type of location, and it is recommended that more suitable species are chosen as replacements.



3.0 Protection of the trees that are retained.

- 3.1 BS 5837:2012 is intended to give recommendations to protect the trees during development and ensure their survival following the construction work. To achieve this there are two main considerations. The first is to protect the roots of the trees and the second to protect the upper parts of the tree, the trunk and branches.
- 3.2 The main tool to achieve the above is to create “Construction Exclusion Zones” around the trees. These are based on the “Root Protection Area” or RPA as calculated as required in BS 5837:2012. The RPAs for all the trees are included in the survey schedule. It is possible to vary the RPA from a circle to allow for specific site conditions.
- 3.3 To achieve an effective “Construction Exclusion Zone” (CEZ) it is necessary to erect a protective barrier along the edge of the RPA’s. The details of this fencing are shown in Figure 2, which is included as an appendix (B) to this report. The barrier should be erected a minimum distance from each tree. This minimum distance is provided as a radius in the Survey Schedule and shown on the plan. It is essential that this barrier is well anchored into the ground to prevent it being moved. It is acceptable to use “Herras” fencing in concrete or rubber feet and appropriately back braced in areas where site circumstances and the associated risk of damaging incursion into the RPA are low.
- 3.4 The Tree Protective Fencing should be installed before any construction work takes place. This includes demolition, site clearance and drainage work.
- 3.5 Notices should be fixed to the fencing warning personnel not to enter. They should read “CONSTRUCTION EXCLUSION ZONE” – NO ACCESS”.
- 3.6 Tree should not be used to support notices and under no circumstances should nails, screws or bolts be driven into the trees. Likewise, trees should not be used to support cables or lights.
- 3.7 Care should be taken to avoid the discharge of any material that could contaminate the soil within 15 metres of any tree. This would include: Washings from cement mixers, fuel or oil storage etc. This distance may need to be extended if the ground slopes towards the tree.
- 3.8 Plan THL-0710-7 shows the recommended location for the tree protection barriers.



4.0 Arboricultural Methods.

- 4.1 The Arboriculturalist or the LA Tree Officer should be consulted if there are any unforeseen issues in relation to any tree on site including any unexpected work within the Root Protection Areas.
- 4.2 All tree work should be carried out by highly skilled professionals and it is recommended that contractors are selected from the Approved List of Arboricultural Association Contractors. This is obtained from www.trees.org.uk
- 4.3 All tree work should be carried out to the latest standards based on BS 3998: 2010 'Recommendations for Tree Work'.

Tree Heritage Ltd

Ben Williams

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6th July 2021



APPENDIX A: TREE SURVEY SCHEDULE

KEY:

Measurements	Life Stage	Physiological Condition	Category Grading	Symbols
Height - Metres Stem Diameter - Millimetres at 1.5m above ground level Branch Spread - Metres (North, South, East and West) Crown Clearance - Metres RPA Radius - Metres Estimated Remaining Contribution - Years FSB - First Significant Branch - Metres	Y - Young SM - Semi-Mature EM - Early Mature M - Mature OM - Over-Mature V - Veteran	G - Good F - Fair P - Poor D - Dead	A - High (green) B - Moderate (blue) C - Low (grey) U - Poor/Trees for removal (red) Sub-Categories: 1 - Mainly Arboricultural value 2 - Mainly Landscape value 3 - Mainly Cultural value	< - Less than ~ - Approximately > - Greater than
RPA - Root protection area (equivalent to a circle with a radius 12x the stem diameter measured at 1.5m above ground level)				

Site: The Croft, Bromborough
 Surveyed by: Ben Williams BSc (Hons) Arb. M.Arbor.A
 Date: 03/12/18

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Tree Ref.	Species	Height	Stem Diameter	Branch Spread				Crown Clearance	FSB Height + Direction	Life Stage	Phys. Condition	Structural Condition	Recommendations	Estimated Remaining Contribution	Category Grading	RPA Radius
				N	S	E	W									
T1	Alnus cordata (Italian Alder)	14	290,280, 220	4	5.5	5.5	4	1	2.5(W)	M	Good	Multiple stems at ground level. Major deadwood in crown.	Remove major deadwood.	10+	C1	5.51
T2	Alnus cordata (Italian Alder)	15	320	3	3	1	4	1	1(W)	M	Good	Decay present on stem.	No work required.	10+	C1	3.84
T3	Alnus cordata (Italian Alder)	15	490,290	6	6	4	6	1.5	2(W)	M	Good	Major deadwood in crown.	Remove major deadwood.	20+	B1	6.83
T4	Acer platanoides (Norway Maple)	5	340	4	4	4	4	2	2(E)	M	Fair	Poor pruning cuts. Tree has been topped.	No work required.	10+	U	4.08
T5	Betula pendula (Silver Birch)	10	230	3	3	3	2	3	3(E)	EM	Good		No work required.	20+	B1	2.76
T6	Quercus robur (Common Oak)	10	230	3	3	3	1	3	3(E)	EM	Good	Poor shape/form.	No work required.	20+	C1	2.76
T7	Betula pendula (Silver Birch)	10	230	2	2	2	1	3	3(E)	EM	Good		No work required.	20+	C1	2.76
T8	Acer campestre (Field Maple)	10	260	3.5	3	3.5	3	2	2(E)	EM	Good		No work required.	20+	B1	3.12
T9	Acer campestre (Field Maple)	10	260	3.5	3	3.5	3	2	2(E)	EM	Good		No work required.	20+	B1	3.12
T10	Quercus robur (Common Oak)	10	320	3	6	5	5	3	3(E)	EM	Good	Poor shape/form.	No work required.	20+	C1	3.84
T11	Alnus glutinosa (Common Alder)	10	290	3	4	4	4	1.5	1.5(W)	EM	Good		No work required.	20+	B1	3.48
T12	Betula pendula (Silver Birch)	9	190	4	4	4	3	3	1.5(S)	M	Fair		No work required.	10+	C1	2.28
T13	Betula pendula (Silver Birch)	9	160	2	2	5	0	3	3(E)	EM	Fair	Poor shape/form. Leaning East.	Remove tree.	<10	U	1.92
T14	Betula pendula (Silver Birch)	12	340	4	4	4	3	1.5	1.5(E)	M	Fair	Weak fork.	Monitor.	10+	C1	4.08
T15	Acer pseudoplatanus (Sycamore)	11	270	4	3	4	3	1.5	2(E)	EM	Good	Included bark present in fork. Weak fork.	Remove tree.	<10	U	3.24

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				N	S	E	W									
T16	Quercus robur (Common Oak)	11	260	3	5	4	2	1.5	2(NW)	EM	Good	Crown distorted due to group pressure.	No work required.	10+	C1	3.12
T17	Quercus robur (Common Oak)	11	300	3	5	2	5	2	2(W)	EM	Good		No work required.	20+	B1	3.6
T18	Acer campestre (Field Maple)	9	280	3.5	3.5	3.5	3.5	2	2(N)	EM	Good	Included bark present in fork.	No work required.	10+	C1	3.36
T19	Acer campestre (Field Maple)	9	200	3.5	1	2	2	2	2(N)	EM	Good		No work required.	10+	C1	2.4
T20	Alnus glutinosa (Common Alder)	10	210,150	3.5	3.5	4	3	2	2(S)	EM	Good	Weak fork.	No work required.	10+	C1	3.1
T21	Prunus avium (Wild Cherry)	10	350	4	3	4.5	3	2	2(NE)	M	Fair		No work required.	10+	C1	4.2
T22	Prunus avium (Wild Cherry)	10	220	4	4	3	3	2	2(NE)	M	Fair		No work required.	10+	C1	2.64
T23	Acer platanoides (Norway Maple)	11	240	4	4	4	4	3	2.5(W)	EM	Good		No work required.	20+	B1	2.88
T24	Acer platanoides (Norway Maple)	11	240	4	4	4	4	3	2.5(W)	EM	Good		No work required.	20+	B1	2.88
T25	Acer platanoides (Norway Maple)	11	200	3	3	3	3	3	2.5(W)	EM	Good		No work required.	20+	C1	2.4
T26	Prunus avium (Wild Cherry)	12	300	4	4	4.5	3	2	2(NE)	M	Fair		No work required.	10+	C1	3.6
T27	Acer platanoides (Norway Maple)	11	250	4	4	4	4	3	2.5(W)	EM	Good		No work required.	20+	C1	3
T28	Acer platanoides (Norway Maple)	11	260	4	4	4	4	3	2.5(W)	EM	Good		No work required.	20+	B1	3.12
T29	Acer platanoides (Norway Maple)	11	250	4	4	4	4	3	2.5(W)	EM	Good		No work required.	20+	B1	3
T30	Acer platanoides (Norway Maple)	11	240	4	4	4	4	3	2.5(W)	EM	Good		No work required.	20+	B1	2.88
T31	Acer platanoides (Norway Maple)	11	190	3	3	3	3	3	2.5(W)	EM	Good		No work required.	20+	B1	2.28
T32	Acer platanoides (Norway Maple)	11	280	4	4	4	4	3	2.5(W)	EM	Good		No work required.	20+	B1	3.36
T33	Prunus avium (Wild Cherry)	12	340	4.5	4.5	4.5	4.5	2	2(NE)	M	Fair	Decay present on stem. Weak fork.	No work required.	10+	C1	4.08

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				N	S	E	W									
T34	Prunus avium (Wild Cherry)	12	260	4	4	3	3	2	2(NE)	M	Fair		No work required.	10+	C1	3.12
T35	Prunus avium (Wild Cherry)	12	270	4	4	3	3	2	2(NE)	M	Fair		No work required.	10+	C1	3.24
T36	Prunus avium (Wild Cherry)	12	330	5	5	3.5	3.5	2	2(NE)	M	Fair		No work required.	10+	C1	3.96
T37	Acer platanoides (Norway Maple)	11	270	4	4	4	4	3	2.5(W)	EM	Good		No work required.	20+	B1	3.24
T38	Acer platanoides (Norway Maple)	11	300	4	4.5	4.5	4.5	3	2.5(W)	EM	Good		No work required.	20+	B1	3.6
T39	Quercus rubra (Red Oak)	12	340	5	5.5	4	5.5	2	2.5(W)	M	Good		No work required.	20+	B1	4.08
T40	Quercus rubra (Red Oak)	12	360	6	6	4	6	3	3.5(W)	M	Good		No work required.	20+	B1	4.32
T41	Quercus rubra (Red Oak)	12	340	5	5.5	4.5	5.5	3	3.5(SW)	M	Good		No work required.	20+	B1	4.08
T42	Prunus avium (Wild Cherry)	10	330	4	4	3	3	2	2.5(N)	M	Good		No work required.	10+	C1	3.96
T43	Prunus avium (Wild Cherry)	10	300	4	4	3	3	2	2.5(N)	M	Good	Exudation on stem.	No work required.	10+	C1	3.6
T44	Prunus padus (Bird Cherry)	10	460	4	5	4	4	2	2.5(N)	M	Good	Ivy on stem.	No work required.	10+	C1	5.52
T45	Pinus nigra 'maritima' (Corsican Pine)	9	300	1	4.5	3	3	2	2.5(S)	EM	Good	Crown distorted due to group pressure.	No work required.	10+	C1	3.6
T46	Pinus nigra 'maritima' (Corsican Pine)	9	350	3	4.5	3.5	3.5	2	2.5(S)	EM	Good		No work required.	20+	B1	4.2
T47	Prunus padus (Bird Cherry)	10	370	4	4.5	4.5	4	2	2.5(N)	M	Good		No work required.	10+	C1	4.44

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Tree Ref.	Species	Height	Stem Diameter	Branch Spread				Crown Clearance	FSB Height + Direction	Life Stage	Phys. Condition	Structural Condition	Recommendations	Estimated Remaining Contribution	Category Grading	RPA Radius
				N	S	E	W									
T48	Salix fragilis (Crack Willow)	10	450	6	3	4	6	1	2(N)	M	Fair	Decay present on stem. Cavity on stem. Major deadwood in crown. Unbalanced crown shape. Crown distorted due to group pressure.	Remove tree.	10+	U	5.4
T49	Quercus rubra (Red Oak)	12	330	6	3	6	3	3	3.5(W)	M	Good	Major deadwood in crown. Crown distorted due to group pressure.	Remove major deadwood.	20+	B1	3.96
T50	Cedrus atlantica 'Glauca' (Blue Atlas Cedar)	11	350	5	3	6	2	2	2.5(E)	EM	Good	Major deadwood in crown. Crown distorted due to group pressure.	No work required.	20+	B1	4.2
T51	Cedrus atlantica 'Glauca' (Blue Atlas Cedar)	11	350	6	6	6	6	2	2.5(E)	EM	Good	Major deadwood in crown.	No work required.	20+	B1	4.2
T52	Quercus rubra (Red Oak)	10	240	6	3	4	4	3	3.5(W)	M	Good	Major deadwood in crown. Crown distorted due to group pressure.	Remove major deadwood.	20+	B1	2.88
T53	Salix fragilis (Crack Willow)	9	510	4	4	4	4	2	2(S)	M	Fair	Poor shape/form. Pollard.	No work required.	<10	U	6.12
T54	Salix fragilis (Crack Willow)	9	330	4	4	4	4	2	2(S)	M	Fair	Poor shape/form. Pollard.	No work required.	<10	U	3.96

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				N	S	E	W									
T55	Salix fragilis (Crack Willow)	9	340	4	4	4	4	2	2(S)	M	Fair	Poor shape/form. Pollard.	No work required.	<10	U	4.08
T56	Malus sylvestris (Crab Apple)	8	280	3.5	3.5	3.5	3.5	2	2(S)	M	Fair		No work required.	10+	C1	3.36
T57	Salix fragilis (Crack Willow)	11	330	5	4	5	2	2	2(NW)	M	Fair	Crown distorted due to group pressure.	No work required.	10+	C1	3.96
T58	Salix fragilis (Crack Willow)	10	440	5	6	3	6	2	3(SW)	M	Poor	Poor shape/form. Declining. Poor pruning cuts. Major deadwood in crown.	Remove tree.	<10	U	5.28
T59	Salix fragilis (Crack Willow)	10	400	6	6	5	3	2	3(SW)	M	Poor	Poor shape/form. Declining. Major bark wounding on stem. Poor pruning cuts. Broken branch/es in crown. Major deadwood in crown.	Remove tree.	<10	U	4.8
T60	Salix fragilis (Crack Willow)	7	190	3	2	3	1	2	3(N)	EM	Poor	Poor shape/form. Declining. Major deadwood in crown.	Remove tree.	<10	U	2.28
T61	Pinus nigra 'maritima' (Corsican Pine)	10	360	5	4	4	4.5	3	3(NW)	EM	Good		No work required.	20+	B1	4.32
T62	Betula pubescens (Downy Birch)	10	200	2	4	3	2.5	2.5	3(S)	M	Good		No work required.	10+	C1	2.4

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				N	S	E	W									
T63	Prunus x subhirtella 'Autumnalis' (Winter Flowering Cherry)	7	190	3	3.5	4	3	2	3(NE)	M	Fair		No work required.	10+	C1	2.28
T64	Betula pubescens (Downy Birch)	10	170	2	4	3	2.5	2.5	3(S)	M	Good		No work required.	10+	C1	2.04
T65	Betula pendula (Silver Birch)	11	280	4	4	4	4	2	3(W)	M	Good		No work required.	20+	B1	3.36
T66	Pinus nigra 'maritima' (Corsican Pine)	10	380	5	4	4	4	3	3(NW)	EM	Good		No work required.	20+	B1	4.56
T67	Prunus x subhirtella 'Autumnalis' (Winter Flowering Cherry)	7	190	3	4.5	3	3	2	3(NE)	M	Fair		No work required.	10+	C1	2.28
T68	Salix fragilis (Crack Willow)	10	380	6	4	5	5	2	3(SW)	M	Poor	Poor shape/form. Declining. Major bark wounding on stem. Poor pruning cuts. Broken branch/es in crown. Major deadwood in crown.	Remove tree.	<10	U	4.56
T69	Betula pendula (Silver Birch)	11	210,190	4	4	4	4	2	3(W)	M	Good	Multiple stems at ground level.	No work required.	10+	C1	3.4

Tree Ref.	Species	Height	Stem Diameter	Branch Spread				Crown Clearance	FSB Height + Direction	Life Stage	Phys. Condition	Structural Condition	Recommendations	Estimated Remaining Contribution	Category Grading	RPA Radius
				N	S	E	W									
T70	Salix fragilis (Crack Willow)	10	280	4	2	3	3	2	3(SW)	M	Poor	Poor shape/form. Declining. Major bark wounding on stem. Poor pruning cuts. Broken branch/es in crown. Major deadwood in crown.	Remove tree.	<10	U	3.36
T71	Salix fragilis (Crack Willow)	4	200	3	3	3	3	0.5	0.5(SW)	M	Poor	Poor shape/form. Declining. Major bark wounding on stem. Poor pruning cuts. Broken branch/es in crown. Major deadwood in crown.	Remove tree.	<10	U	2.4
T72	Alnus cordata (Italian Alder)	14	520	6	6	6	6	1	2(N)	M	Good		No work required.	40+	A1	6.24
T73	Prunus padus (Bird Cherry)	8	300	4	3	4	2	2	3(N)	M	Good	Crown distorted due to group pressure.	No work required.	10+	C1	3.6
T74	Alnus cordata (Italian Alder)	14	530	6	6	6	6	1	2(N)	M	Good		No work required.	40+	A1	6.36
T75	Alnus cordata (Italian Alder)	14	620	7	7	7	6	1	2(N)	M	Good		No work required.	40+	A1	7.44
T76	Alnus cordata (Italian Alder)	10	280	5	5	5	5	1	2(N)	M	Good		No work required.	20+	B1	3.36
T77	Alnus cordata (Italian Alder)	10	280	5	5	5	5	1	2(N)	M	Good		No work required.	20+	B1	3.36
T78	Alnus cordata (Italian Alder)	7	280	4	4	4	4	1	2(N)	M	Good		No work required.	20+	B1	3.36
T79	Alnus cordata (Italian Alder)	5	200	4	4	4	4	1	2(N)	M	Good		No work required.	20+	B1	2.4

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				N	S	E	W									
T80	Prunus padus (Bird Cherry)	6	280	5	4	4	5	2	2.5(NW)	M	Good		No work required.	10+	C1	3.36
T81	Prunus padus (Bird Cherry)	6	270	4	5	4	5	2	2.5(NW)	M	Good		No work required.	10+	C1	3.24
T82	Alnus glutinosa (Common Alder)	14	400	5	5	5	5	4	4(N)	M	Good		No work required.	40+	A1	4.8
T83	Alnus glutinosa (Common Alder)	12	290	3	5	5	5	2	2(N)	M	Good		No work required.	40+	B1	3.48
T84	Prunus padus (Bird Cherry)	6	200	5	4	4	5	2	2.5(NW)	M	Good		No work required.	10+	C1	2.4
T85	Alnus glutinosa (Common Alder)	14	460	5	5	5	5	4	4(N)	M	Good	Major bark wounding on stem.	No work required.	20+	B1	5.52
T86	Betula pendula (Silver Birch)	10	230,160	3	5	5	4	3	3(S)	M	Fair	Decay present on stem. Major bark wounding on stem. Multiple stems at ground level.	Fell tree on the grounds of safety.	<10	U	3.36
T87	Prunus avium (Wild Cherry)	6	210	4	4	4	4	2	2.5(NW)	M	Good		No work required.	10+	C1	2.52
T88	Alnus glutinosa (Common Alder)	14	560	5	5	5	5	4	4(N)	M	Good		No work required.	40+	A1	6.72
T89	Prunus padus (Bird Cherry)	6	150	3	3	2	4	2	1(NW)	M	Fair		No work required.	10+	C1	1.8
T90	Alnus glutinosa (Common Alder)	12	380	5	5	5	3	2	2(N)	M	Good	Ivy on stem.	No work required.	40+	B1	4.56
T91	Castanea sativa (Sweet Chestnut)	10	380	5	5	5	6	1	2(NE)	M	Fair	Hanging branch/es in crown. Storm damage in crown. Broken branch/es in crown.	Remove tree.	<10	U	4.56



APPENDIX A: TREE REMOVAL SCHEDULE

KEY:

Measurements	Life Stage	Physiological Condition	Category Grading	Symbols
Height - Metres Stem Diameter - Millimetres at 1.5m above ground level Branch Spread - Metres (North, South, East and West) Crown Clearance - Metres RPA Radius - Metres Estimated Remaining Contribution - Years FSB - First Significant Branch - Metres	Y - Young SM - Semi-Mature EM - Early Mature M - Mature OM - Over-Mature V - Veteran	G - Good F - Fair P - Poor D - Dead	A - High (green) B - Moderate (blue) C - Low (grey) U - Poor/Trees for removal (red) Sub-Categories: 1 - Mainly Arboricultural value 2 - Mainly Landscape value 3 - Mainly Cultural value	< - Less than ~ - Approximately > - Greater than
RPA - Root protection area (equivalent to a circle with a radius 12x the stem diameter measured at 1.5m above ground level)				

Site: The Croft, Bromborough

Surveyed by: Ben Williams BSc (Hons) Arb M.Arbor.A

Date: 17/02/2021

Tree Heritage Ltd, Unit 1 Sneyd Mill, Sneyd St, Leek, Staffs, ST13 5HP

T: 01538 384019 E: info@treeheritage.co.uk

Tree Ref.	Species	Height	Stem Diameter	Branch Spread				Crown Clearance	FSB Height + Direction	Life Stage	Phys. Condition	Structural Condition	Recommendations	Estimated Remaining Contribution	Category Grading	RPA Radius
				N	S	E	W									
T1	Alnus cordata (Italian Alder)	14	290,280, 220	4	5.5	5.5	4	1	2.5(W)	M	Good	Multiple stems at ground level. Major deadwood in crown.	Remove tree to allow for development.	10+	C1	5.51
T2	Alnus cordata (Italian Alder)	15	320	3	3	1	4	1	1(W)	M	Good	Decay present on stem.	Remove tree to allow for development.	10+	C1	3.84
T48	Salix fragilis (Crack Willow)	10	450	6	3	4	6	1	2(N)	M	Fair	Decay present on stem. Cavity on stem. Major deadwood in crown. Unbalanced crown shape. Crown distorted due to group pressure.	Fell tree on the grounds of safety.	10+	U	5.4
T50	Cedrus atlantica 'Glauca' (Blue Atlas Cedar)	11	350	5	3	6	2	2	2.5(E)	EM	Good	Major deadwood in crown. Crown distorted due to group pressure.	Remove tree to allow for development.	20+	B1	4.2
T51	Cedrus atlantica 'Glauca' (Blue Atlas Cedar)	11	350	6	6	6	6	2	2.5(E)	EM	Good	Major deadwood in crown.	Remove tree to allow for development.	20+	B1	4.2
T53	Salix fragilis (Crack Willow)	9	510	4	4	4	4	2	2(S)	M	Fair	Poor shape/form. Pollard.	Fell tree on the grounds of safety.	<10	U	6.12
T54	Salix fragilis (Crack Willow)	9	330	4	4	4	4	2	2(S)	M	Fair	Poor shape/form. Pollard.	Fell tree on the grounds of safety.	<10	U	3.96
T55	Salix fragilis (Crack Willow)	9	340	4	4	4	4	2	2(S)	M	Fair	Poor shape/form. Pollard.	Fell tree on the grounds of safety.	<10	U	4.08

Site: The Croft, Bromborough

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Tree Ref.	Species	Height	Stem Diameter	Branch Spread				Crown Clearance	FSB Height + Direction	Life Stage	Phys. Condition	Structural Condition	Recommendations	Estimated Remaining Contribution	Category Grading	RPA Radius
				N	S	E	W									
T58	Salix fragilis (Crack Willow)	10	440	5	6	3	6	2	3(SW)	M	Poor	Poor shape/form. Declining. Poor pruning cuts. Major deadwood in crown.	Fell tree on the grounds of safety.	<10	U	5.28
T59	Salix fragilis (Crack Willow)	10	400	6	6	5	3	2	3(SW)	M	Poor	Poor shape/form. Declining. Major bark wounding on stem. Poor pruning cuts. Broken branch/es in crown. Major deadwood in crown.	Fell tree on the grounds of safety.	<10	U	4.8
T60	Salix fragilis (Crack Willow)	7	190	3	2	3	1	2	3(N)	EM	Poor	Poor shape/form. Declining. Major deadwood in crown.	Fell tree on the grounds of safety.	<10	U	2.28
T66	Pinus nigra 'maritima' (Corsican Pine)	10	380	5	4	4	4	3	3(NW)	EM	Good		Remove tree to allow for development.	20+	B1	4.56
T68	Salix fragilis (Crack Willow)	10	380	6	4	5	5	2	3(SW)	M	Poor	Poor shape/form. Declining. Major bark wounding on stem. Poor pruning cuts. Broken branch/es in crown. Major deadwood in crown.	Fell tree on the grounds of safety.	<10	U	4.56

Site: The Croft, Bromborough

Surveyed by: Ben Williams BSc (Hons) Arb M.Arbor.A

Date: 17/02/2021

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T: 01538 384019 E: info@treeheritage.co.uk

Tree Ref.	Species	Height	Stem Diameter	Branch Spread				Crown Clearance	FSB Height + Direction	Life Stage	Phys. Condition	Structural Condition	Recommendations	Estimated Remaining Contribution	Category Grading	RPA Radius
				N	S	E	W									
T70	Salix fragilis (Crack Willow)	10	280	4	2	3	3	2	3(SW)	M	Poor	Poor shape/form. Declining. Major bark wounding on stem. Poor pruning cuts. Broken branch/es in crown. Major deadwood in crown.	Fell tree on the grounds of safety.	<10	U	3.36
T71	Salix fragilis (Crack Willow)	4	200	3	3	3	3	0.5	0.5(SW)	M	Poor	Poor shape/form. Declining. Major bark wounding on stem. Poor pruning cuts. Broken branch/es in crown. Major deadwood in crown.	Fell tree on the grounds of safety.	<10	U	2.4
T72	Alnus cordata (Italian Alder)	14	520	6	6	6	6	1	2(N)	M	Good		Remove tree to allow for development.	40+	A1	6.24
T74	Alnus cordata (Italian Alder)	14	530	6	6	6	6	1	2(N)	M	Good		Remove tree to allow for development.	40+	A1	6.36
T75	Alnus cordata (Italian Alder)	14	620	7	7	7	6	1	2(N)	M	Good		Remove tree to allow for development.	40+	A1	7.44
T80	Prunus padus (Bird Cherry)	6	280	5	4	4	5	2	2.5(NW)	M	Good		Remove tree to allow for development.	10+	C1	3.36
T81	Prunus padus (Bird Cherry)	6	270	4	5	4	5	2	2.5(NW)	M	Good		Remove tree to allow for development.	10+	C1	3.24
T82	Alnus glutinosa (Common Alder)	14	400	5	5	5	5	4	4(N)	M	Good		Remove tree to allow for development.	40+	A1	4.8
T83	Alnus glutinosa (Common Alder)	12	290	3	5	5	5	2	2(N)	M	Good		Remove tree to allow for development.	40+	B1	3.48
T84	Prunus padus (Bird Cherry)	6	200	5	4	4	5	2	2.5(NW)	M	Good		Remove tree to allow for development.	10+	C1	2.4

Site: The Croft, Bromborough

Tree Heritage Ltd, Unit 1 Sneyd Mill, Sneyd St, Leek, Staffs, ST13 5HP

Surveyed by: Ben Williams BSc (Hons) Arb M.Arbor.A

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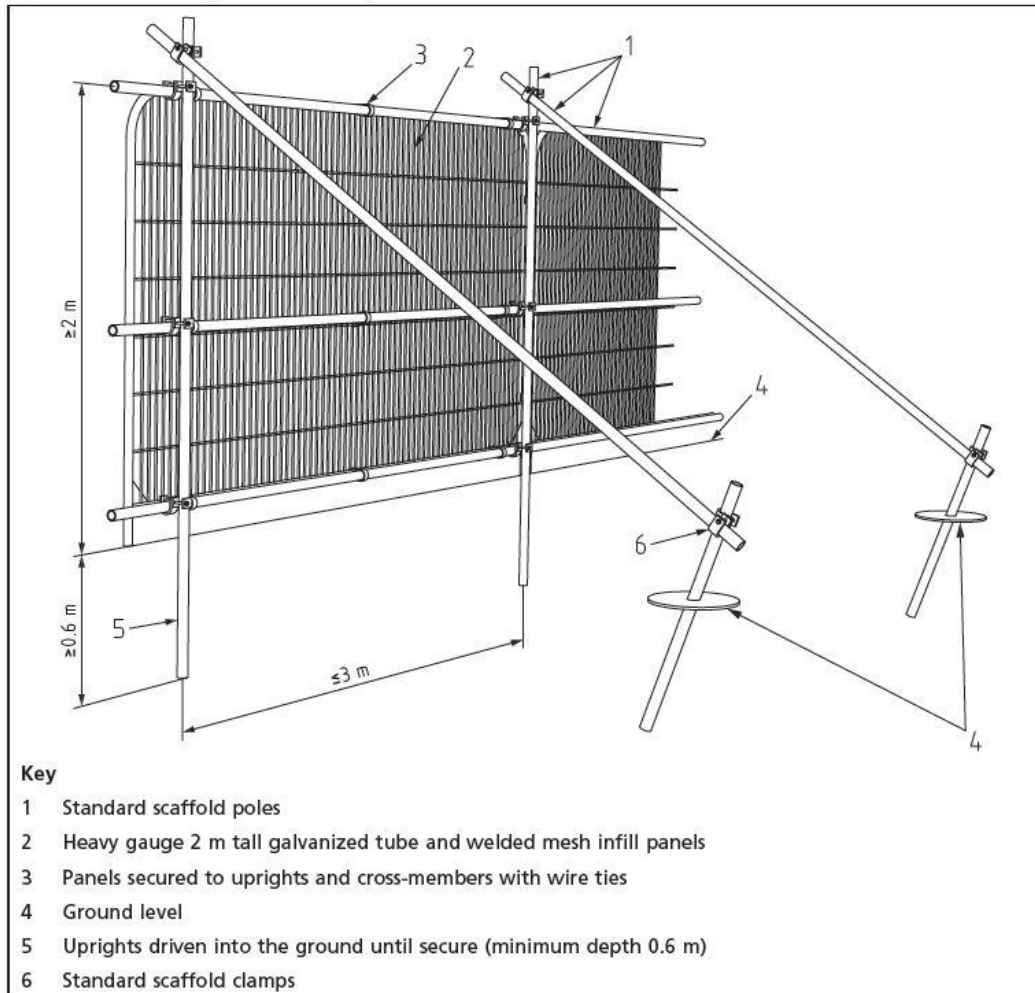
Date: 17/02/2021

Tree Ref.	Species	Height	Stem Diameter	Branch Spread				Crown Clearance	FSB Height + Direction	Life Stage	Phys. Condition	Structural Condition	Recommendations	Estimated Remaining Contribution	Category Grading	RPA Radius
				N	S	E	W									
T85	Alnus glutinosa (Common Alder)	14	460	5	5	5	5	4	4(N)	M	Good	Major bark wounding on stem.	Remove tree to allow for development.	20+	B1	5.52
T86	Betula pendula (Silver Birch)	10	230,160	3	5	5	4	3	3(S)	M	Fair	Decay present on stem. Major bark wounding on stem. Multiple stems at ground level.	Fell tree on the grounds of safety.	<10	U	3.36
T87	Prunus avium (Wild Cherry)	6	210	4	4	4	4	2	2.5(NW)	M	Good		Remove tree to allow for development.	10+	C1	2.52
T88	Alnus glutinosa (Common Alder)	14	560	5	5	5	5	4	4(N)	M	Good		Remove tree to allow for development.	40+	A1	6.72
T89	Prunus padus (Bird Cherry)	6	150	3	3	2	4	2	1(NW)	M	Fair		Remove tree to allow for development.	10+	C1	1.8
T90	Alnus glutinosa (Common Alder)	12	380	5	5	5	3	2	2(N)	M	Good	Ivy on stem.	Remove tree to allow for development.	40+	B1	4.56
T91	Castanea sativa (Sweet Chestnut)	10	380	5	5	5	6	1	2(NE)	M	Fair	Hanging branch/es in crown. Storm damage in crown. Broken branch/es in crown.	Fell tree on the grounds of safety.	<10	U	4.56

Appendix B i

Figure 2 – Default specification for protective barrier

Figure 2 Default specification for protective barrier





PROTECTIVE FENCING. THIS FENCING MUST BE MAINTAINED IN ACCORDANCE WITH THE APPROVED PLANS AND DRAWINGS FOR THIS DEVELOPMENT.



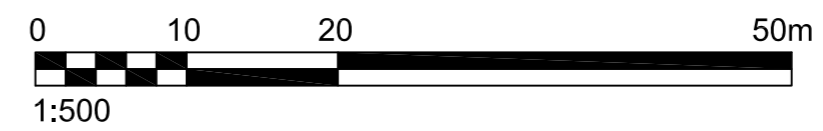
**TREE PROTECTION AREA
KEEP OUT !**

TREES ENCLOSED BY THIS FENCE ARE PROTECTED BY PLANNING CONDITIONS

ANY INCURSION INTO THE PROTECTED AREA MUST BE WITH THE WRITTEN PERMISSION OF THE LOCAL PLANNING AUTHORITY

Notes:

- Contractors are advised to check all dimensions against the tree schedule. Tree canopies are symbolic only and are representative of the average spread; this may not represent the true outline. Note that the tree stem may not sit centrally to canopy. Tree stems are symbolic only and are representative of the tree category; this does not represent the stem diameter - see schedule for details.
- The original of this drawing was produced in colour - a monochrome copy should not be relied upon.



Rev:	Date:	Status/Amendments:	By:

Key:	
	Category A Tree / Group
	Category B Tree / Group
	Category C Tree / Group
	Category U Tree / Group
	Branch Spread
	Tree to be Removed
	Root Protection Area (RPA)
	First Significant Branch Direction
	Root Protective Barrier
	Special Measures
	Tree Shadow

GROWING SINCE 1982

TREE HERITAGE

Tree Heritage Ltd, 100 North Street,
Leek, Staffordshire, ST13 8DQ

Telephone: 01538 384019

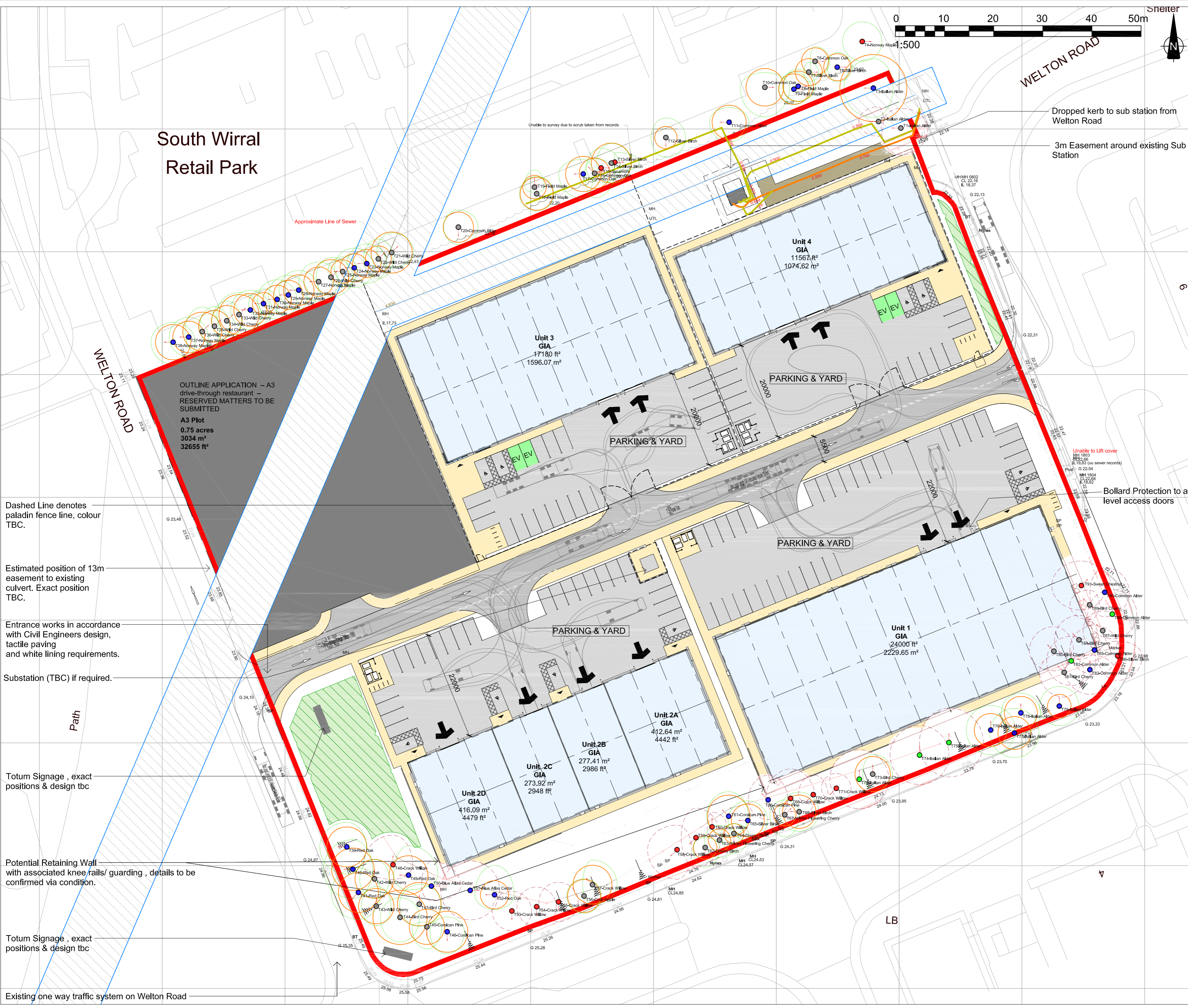
treeheritage.co.uk • info@treeheritage.co.uk

Client:
Redsun Projects

Project:
The Croft, Caldbeck Road, Bromborough

Drawing Title:
Tree Constraints Plan

Scale: 1:500	Paper Size: A2
Drawing Number: THL-0710	Date Created: 04/12/18



South Wirral Retail Park

OUTLINE APPLICATION – A3 drive-through restaurant – RESERVED MATTERS TO BE SUBMITTED
A3 Plot
 0.75 acres
 3034 m²
 32655 ft²

Dashed Line denotes paladin fence line, colour TBC.

Estimated position of 13m easement to existing culvert. Exact position TBC.

Entrance works in accordance with Civil Engineers design, tactile paving and white lining requirements.

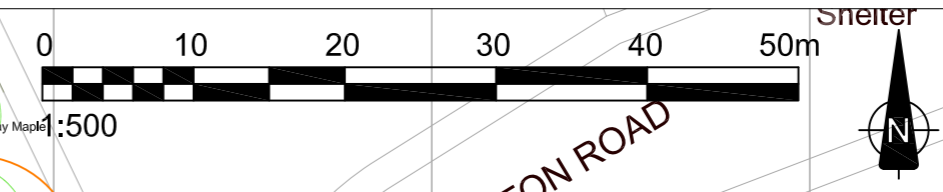
Substation (TBC) if required.

Totum Signage, exact positions & design tbc

Potential Retaining Wall with associated knee rails/ guarding, details to be confirmed via condition.

Totum Signage, exact positions & design tbc

Existing one way traffic system on Welton Road



Notes:
 1. Contractors are advised to check all dimensions against the tree schedule. Tree canopies are symbolic only and are representative of the average spread; this may not represent the true outline. Note that the tree stem may not sit centrally to canopy. Tree stems are symbolic only and are representative of the tree category; this does not represent the stem diameter - see schedule for details.
 2. The original of this drawing was produced in colour - a monochrome copy should not be relied upon.

Rev:	Date:	Status/Amendments:	By:

Key:

- Category A Tree / Group
- Category B Tree / Group
- Category C Tree / Group
- Category U Tree / Group
- Branch Spread
- Tree to be Removed
- Root Protection Area (RPA)
- ➔ First Significant Branch Direction
- Tree Protection Barrier
- Special Measures
- Tree Shadow

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 Tree Heritage Ltd, Unit 1 Sneyd Mill, Sneyd Street, Leek, Staffordshire, ST13 5HP
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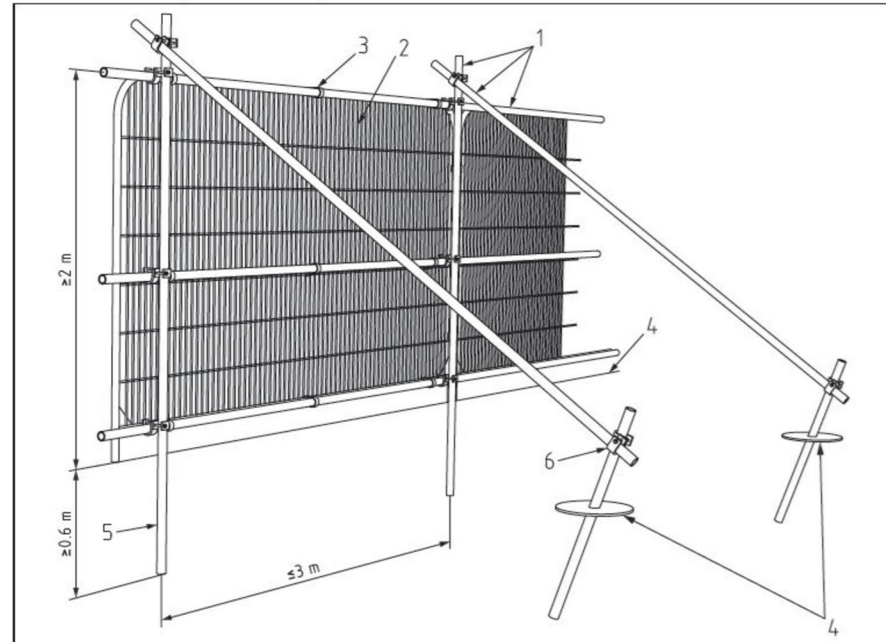
Client:
Redsun Projects

Project:
The Croft, Caldbeck Road, Bromborough

Drawing Title:
Arboricultural Impact Assessment

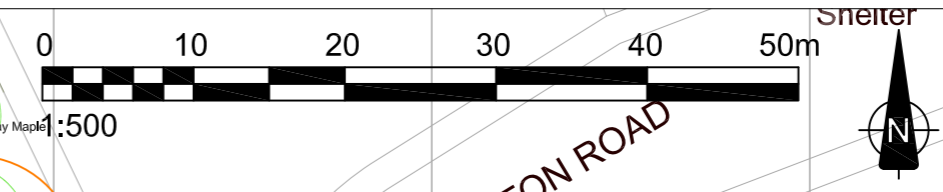
Scale: 1:500	Paper Size: A2
Drawing Number: THL-0710-6	Date Created: 05/07/2021

Figure 2 Default specification for protective barrier



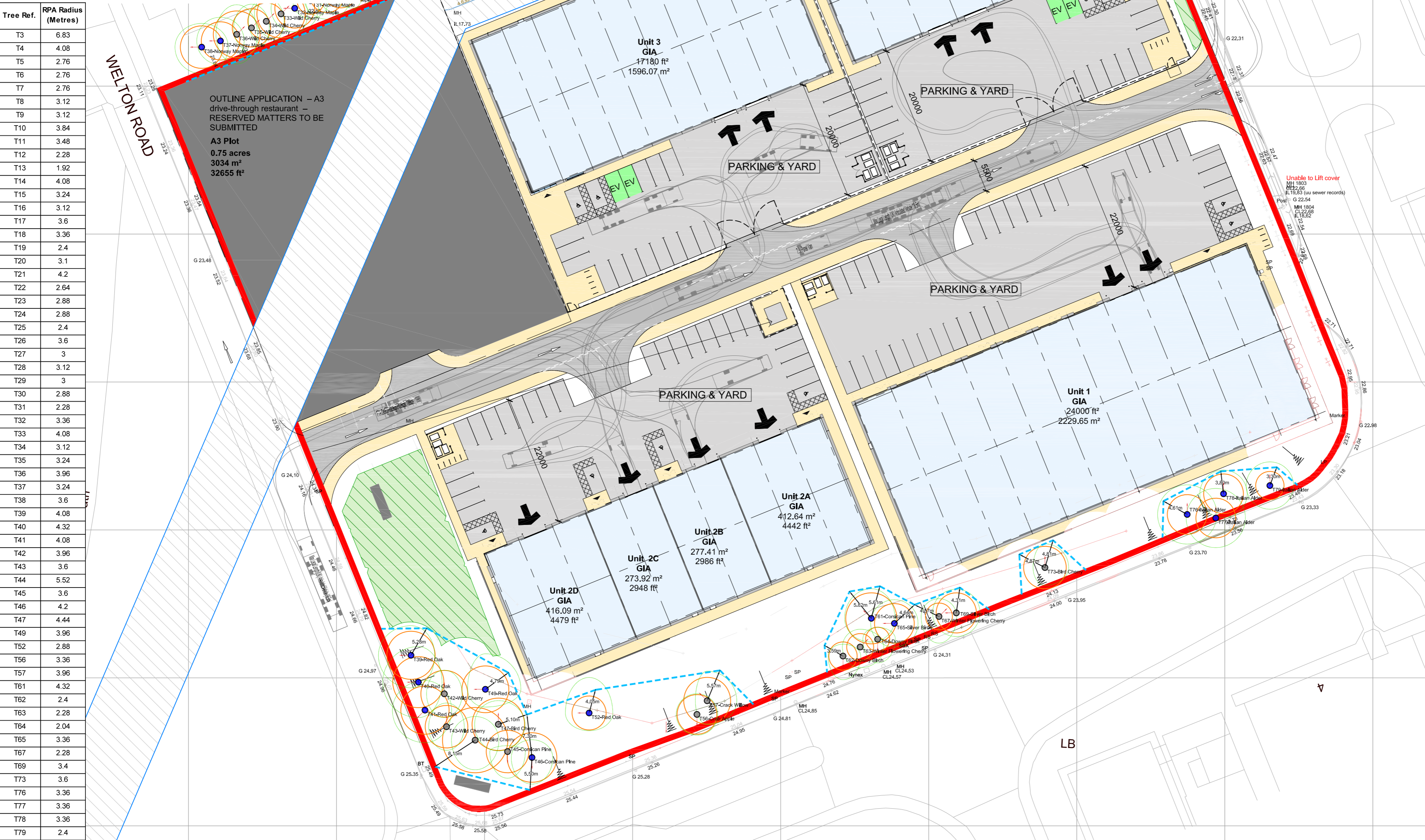
- Key**
- 1 Standard scaffold poles
 - 2 Heavy gauge 2 m tall galvanized tube and welded mesh infill panels
 - 3 Panels secured to uprights and cross-members with wire ties
 - 4 Ground level
 - 5 Uprights driven into the ground until secure (minimum depth 0.6 m)
 - 6 Standard scaffold clamps

Tree Ref.	RPA Radius (Metres)
T3	6.83
T4	4.08
T5	2.76
T6	2.76
T7	2.76
T8	3.12
T9	3.12
T10	3.84
T11	3.48
T12	2.28
T13	1.92
T14	4.08
T15	3.24
T16	3.12
T17	3.6
T18	3.36
T19	2.4
T20	3.1
T21	4.2
T22	2.64
T23	2.88
T24	2.88
T25	2.4
T26	3.6
T27	3
T28	3.12
T29	3
T30	2.88
T31	2.28
T32	3.36
T33	4.08
T34	3.12
T35	3.24
T36	3.96
T37	3.24
T38	3.6
T39	4.08
T40	4.32
T41	4.08
T42	3.96
T43	3.6
T44	5.52
T45	3.6
T46	4.2
T47	4.44
T49	3.96
T52	2.88
T56	3.36
T57	3.96
T61	4.32
T62	2.4
T63	2.28
T64	2.04
T65	3.36
T67	2.28
T69	3.4
T73	3.6
T76	3.36
T77	3.36
T78	3.36
T79	2.4



Notes:

- Contractors are advised to check all dimensions against the tree schedule. Tree canopies are symbolic only and are representative of the average spread; this may not represent the true outline. Note that the tree stem may not sit centrally to canopy. Tree stems are symbolic only and are representative of the tree category; this does not represent the stem diameter - see schedule for details.
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OUTLINE APPLICATION – A3 drive-through restaurant – RESERVED MATTERS TO BE SUBMITTED

A3 Plot
0.75 acres
32655 ft²

Rev:	Date:	Status/Amendments:	By:
------	-------	--------------------	-----

- Key:**
- Category A Tree / Group
 - Category B Tree / Group
 - Category C Tree / Group
 - Category U Tree / Group
 - Branch Spread
 - Tree to be Removed
 - Root Protection Area (RPA)
 - ➔ First Significant Branch Direction
 - Tree Protection Barrier
 - Special Measures
 - Tree Shadow

GROWING SINCE 1982

TREE HERITAGE

Tree Heritage Ltd, Unit 1 Sneyd Mill, Sneyd Street, Leek, Staffordshire, ST13 5HP

Telephone: 01538 384019

treeheritage.co.uk • info@treeheritage.co.uk

Client:
Redsun Projects

Project:
The Croft, Caldbeck Road, Bromborough

Drawing Title:
Tree Protection Plan

Scale: 1:500	Paper Size: A2
Drawing Number: THL-0710-7	Date Created: 06/07/2021