

Location:

Centurion Park Golf Course Phase 2, Wallsend

Report Type: **Arboricultural Method Statement**

Ref: ARB/CP/1937

Date: October 2023



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1 Introduction

1.1 This arboricultural method statement has been prepared by Charles Prowse of Elliott Consultancy Ltd at the request of the client. It will provide details regarding the retention and protection of trees during development of Phase 2 within the property of Centurion Park Golf Course, Wallsend.

1.2 Scope of the report:

- This method statement provides arboricultural information and advice in relation to the development of Centurion Park Golf Course Phase 2, as detailed within Appendix 4.
- It will outline any trees to be removed prior to development and those to be retained along with any pruning required. Also provided are details of all measures recommended for adequate tree protection including any special construction measures to be utilised.
- It should be used to guide the construction process to minimise potential damage to retained trees.
- It will detail, within the Arboricultural Tasks Sequence Table (Appendix 1), a timescale for implementation of these tree works and protective measures in reference to the development period.
- 1.3 Prior to site works commencing, and in particular ground preparation, this Arboricultural Method Statement needs to be passed to the site manager and used as reference during the development period, with particular attention paid Sections 3-5, and Appendices 1-10.

2 Site Information

2.1 The site originally surveyed and the extent of that covered by this method statement is located on the Centurion Park golf course in Wallsend, Newcastle-Upon-Tyne. Figure 1 shows the extent of the site.

Figure 1: Area Surveyed Highlighted



Map data ©Google Imagery

- 2.2 The original survey area measures approximately 41ha and being a golf course broadly comprises managed grassed areas within predominantly linear groups of trees delineating the fairways.
- 2.3 A number of wooded groups are covered by Tree Preservation Order Refs: Figure 2, overleaf, provides an excerpt of the TPO map detailed upon North Tyneside Council's website. All tree works detailed within the method statement will need to be approved by the local planning authority before being undertaken.

Type Thanks

Type

Figure 2: Trees Covered by Tree Preservation Order

North Tyneside Council. © Crown Copyright and database right 2021

3 Pre-Development and Site Preparation Works

- 3.1 Refer to Appendix 1 for stage specific tasks.
- 3.2 Prior to any site works commencing, the following arboricultural specific actions need to be implemented:
 - a) An arboricultural contractor should be sought, and the tree works recommended within Appendix 2 undertaken. Also refer to Appendix 3 for tree removals.
 - b) A supplier needs to be sought to provide the tree protection fencing as specified within Appendix 5. The use of the type B fencing is thought to be suited to the requirements of this development.
- 3.3 Once the aforementioned tasks have been completed and prior to any site work the tree protection barriers need to be erected as per the Tree Protection Plans (Appendix 4). The barrier must encompass the root protection areas and crown extents of the retained trees to ensure that these areas remain free from disturbance.
 - 3.3.1 The barriers need to be installed according to the locations found on the Tree Protection Plans, Appendix 4 and conform to the specification within Appendix 5 type B (if approved by the LPA type A if not). All weather notices should be attached to the fencing marked with the following: 'Construction Exclusion Zone Keep Out' (a notice is provided within Appendix 7).
- 3.4 Material storage and site offices must be confined to areas outside root protection areas.
- 3.5 A copy of the Tree Protection Plan must be displayed outside the site office.

4 Tree protection measures during development

- 4.1 Refer to Appendix 1 for stage specific tasks.
- 4.2 All ground levels where trees are located should be maintained. Changes to soil levels adjacent to trees can severely affect the trees structural integrity and its ability to gain moisture and nutrients from the surrounding soil. Unavoidable level changes that may affect retained trees, and not already accounted for within this method statement, should be assessed by the project arboriculturalist.
- 4.3 Building material storage and operations that can contaminate soil, such as cement mixing, must be confined to areas outside the tree protection zones.
- 4.4 Fires should not be lit within 5m of the foliage or drip line of the tree. Care should be taken, and the fire should not be allowed to become large, and the wind direction noted.
- 4.5 The trees should not be used to attach notices, cables or other services.
- 4.6 The installation of any underground services near or adjacent to trees on the site shall conform to the requirements of National Joint Utilities Group (NJUG) publication Volume 4 (November 2007). The intended service routes are noted upon the Tree Protection Plans, Appendix 4. Additional information regarding excavations within root protection areas are provided within Appendix 7.
- 4.7 At the beginning of the construction phase, the site manager will appoint a delegated site representative who shall be responsible for continued checking of the protective barriers to ensure it is compliant with the exclusion zone. Appendix 9 contains a record sheet that can be copied for such use.
- As recommended within BS 5837:2012, and specified within the Arboricultural Tasks Sequence Table, the development site should be visited by the project arboriculturalist on occasions to provide any arboricultural advice necessary and to ensure the efficacy of the Tree Protection features. Contact between the project manager and project arboriculturalist should be maintained throughout the works period so that supervision can be provided when operations with the potential to damage retained trees are being undertaken. Key stages that will require the attendance of a qualified arboriculturalist with evidence of the visit provided to LPA are:
 - Inspection of tree protection features prior to site works commencing.
 - Unarranged spot check(s) carried out during the construction period.

- Supervision of construction activities that could lead to damage of retained trees.
- Site visit to ensure all development operations have been completed prior to tree
 protection features being removed and to inspect the condition of the trees.

5 Post-Construction Considerations

- 5.1 Refer to Appendix 1 for stage specific tasks.
- 5.2 Only once all major construction works have been completed can the protective barriers be removed.
- 5.3 Post development landscaping should be kept to a minimum within the root protection areas of retained trees.
- 5.4 Since trees are capable of influencing soil hydrology newly planted trees need to be situated where they will not interfere with built structures. Refer to NHBC Chapter 4.2 'Building near Trees' and Arboriculture Research and Information Note 'Tree Roots and Foundations' for further information.

Appendix 1: Arboricultural Tasks Sequence Table

Tree or Group Number	Pre-Construction Stage	Construction Stage	Post Construction Stage
Groups 22, 26. Sections of Groups 2-6, 8-12, 20, 21, 24, 25, 29, 35, 37, 38, 42, 46, 51, 57, 59, and Hedgerow 2 indicated red on Appendix 3.	Remove		
Trees 1-5. Groups 1-21, 23-25, 27-59. Hedgerows 1 & 2.	Adhere to specification within Section 3. Set out and erect protective fencing as per Appendices 4 and 5 (Type B if approved by LPA, type A if not). Attach notice in Appendix 8. Project arboriculturalist should check the correct installation of protective features prior to site works commencing, unless LPA undertake inspection.	Adhere to specification within Section 4. Monitor integrity of tree protection features daily; completing inspection record in Appendix 9. Site to be visited by the project arboriculturalist – visit to be documented in Appendix 9 and evidence of visit provided to LPA.	Adhere to specification within Section 5. Remove tree protection measures. Complete landscape works adjacent to trees.

Appendix 2: Tree Data & Works Required

Key for Tree & Group Data tables:

No. Tree Number

Species Tree Name (common)

Age Y = Young; SM = Semi-mature; EM = Early-mature M =

Mature; OM = Over-mature; V = Veteran; D = Dead

DBH Diameter at Breast Height (measured at 1.5m above

ground level to the nearest cm)

Stems The number of stems the tree has

Height Overall tree height measured in metres

Crown Spread Measured along the four cardinal points in metres

CH Canopy Height (height of crown above ground)

1st Branch The height and aspect of the 1st significant limb e.g. 2

NE = 1st limb at 2m growing in a north-easterly

direction.

EstD Indication of whether any of the trees dimensions were

estimated: Y=Yes, N=No.

General Observations Appraisal of trees general condition

EstCont Estimated remaining contribution (years)

BS Cat British Standard 5837:2012 retention category

Recommendation Remedial works that may be required should the tree

be retained

Tree Survey Data

No.	Species	Age	DBH	Stems	Height	Cr	own	Spre	ead	СН	EstD	General Observations	EstCont	BS Cat	Recommendation
						N	S	E	W						
1	Norway Maple	EM	47	1	12	3	4	4	4	2	N	Damage to surface roots from mower/strimmer.	40+	B1	No work required
2	Alder spp	EM	34	1	12	5	5	5	4	2	N		40+	B1	No work required
3	Rowan	SM	16	1	3.5	2	2	2	0.5	2	N	Stem leaning 10 degrees. Asymmetric crown.	40+	C1	No work required
4	Poplar spp	M	61	1	22	5	5	7	5	1.5	N	Broken branch within lower crown. Minor deadwood.	40+	B1	Remove broken branch.
5	Poplar spp	M	54	1	21	5	5	6	6	1	N	Codominant stems at 1.8m. Broken branch within lower crown. Minor deadwood.	40+	B1	Remove broken branch.

Group Data

Group Number	Dominant Species	Lesser Species	DBH	Average Height	Age	Average Spread	Condition/Comments	Recommendations	EstCont	BS Cat
1	Alder spp Prunus spp Elder Hawthorn	Leyland Cypress	40	10	EM	4	Linear group of trees which form a continuous canopy. Many of the Alder have black exudates to the lower stems likely to be symptomatic of Phytophthora alni. Foliage was not present to assess the canopy condition.	Monitor condition of Alder - remove any with 50%+ crown death	40+	B2
2	Cherry spp	Willow spp	30	7	ЕМ	34	Group of 3 Cherry and 6 coppiced Willow. Cherries have stem wounds and leans away from course.	Remove section(s) indicated red on Appenidix 3	20+	C2
3	Cherry spp Birch spp Sycamore Oak spp	Ash Alder spp Beech	30	8	SM	3	Linear group of varied depth. Trees forming a contiguous canopy. Numerous stem wounds - strimmer/mower. Minor deadwood. Branch failure stubs. Western end has denser undergrowth.	Remove section(s) indicated red on Appenidix 3	40+	B2
4	Ash Oak spp Norway Maple Birch spp	Birch spp Field Maple Hawthorn	20	8	SM	3	Large group trees. Trees forming a contiguous canopy. Western end is wide with unmanaged understorey. Central area is mown beneath. Occassional larger Poplar withithin.	Remove section(s) indicated red on Appenidix 3	40+	B2

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Group Number	Dominant Species	Lesser Species	DBH	Average Height	Age	Average Spread	Condition/Comments	Recommendations	EstCont	BS Cat
5	Alder spp Ash Oak spp Cherry spp	Whitebeam spp Birch spp Apple Elder	18	10	SM	3	Wide group of trees. Trees forming a contiguous canopy. Trackway at east end forms break to adjacent group.	Remove section(s) indicated red on Appenidix 3	40+	B2
6	Ash Birch spp Hawthorn Sycamore	Oak spp Norway Maple Poplar spp	18	10	SM	3	Linear group of trees forming a contiguous canopy. Unmanaged undergrowth. Some trees with ivy covered stems. Minor deadwood. Branch failure stubs. Some dead trees.	Remove section(s) indicated red on Appenidix 3	40+	B2
7	Hawthorn Elder	Cherry spp	15	5	Y-M	3	Scrubby group with Ivy covered stem & crown. Some small dead trees.	No work required	40+	C2
8	Poplar spp	Hawthorn Unknown dead.	35	17	ЕМ	5	Group of Poplars forming a contiguous canopy. Undergrowth of Hawthornaw. Small number of small dead trees. Minor deadwood.	Remove section(s) indicated red on Appenidix 3 located within the Phase 2 area	40+	B2

Group Number	Dominant Species	Lesser Species	DBH	Average Height	Age	Average Spread	Condition/Comments	Recommendations	EstCont	BS Cat
9	Oak spp Field Maple Hawthorn Cherry spp	Birch spp Poplar spp	12	5	SM	2	Narrow linear group forming a contiguous canopy. Sallm number of dead trees.	Remove section(s) indicated red on Appenidix 3	40+	B2
10	Ash Oak spp	Hawthorn	15	6	Y	2	Triangular shaped group with trees forming a contiguous canopy. Good health, reasonable form.	Remove section(s) indicated red on Appenidix 3	40+	C2
11	Hawthorn Poplar spp Sycamore Ash	Oak spp Scots Pine Cherry spp Birch spp	30	12	Y-M	4	Linear group adjacent to northern boundary. Unmanaged understorey. Trees forming a contiguous canopy. Lack of strategic management. Small number of dead trees. Minor deadwood.	Remove section(s) indicated red on Appenidix 3. Refer to management recommendations produced by glenkemp Landscape Architects Drawing No. 1576-2-9	40+	B2
12	Pine spp Birch spp	Hawthorn Poplar spp	23	9	SM	3	Scrubby group containing small number of large mature Poplars. Trees forming a contiguous canopy. Unmanaged understorey.	Remove section(s) indicated red on Appenidix 3 located within the Phase 2 area.	40+	B2

Group Number	Dominant Species	Lesser Species	DBH	Average Height	Age	Average Spread	Condition/Comments	Recommendations	EstCont	BS Cat
13	Pine spp Birch spp	Hawthorn	23	7	SM-M	2	Linear group. Trees forming a contiguous canopy. Mown under. Small stand of mature Hawthorn within. Thins out at eastern end.	No work required	40+	B2
14	Hawthorn Elder		22	4	М	3	Small group of x3 trees forming a contiguous canopy	No work required	40+	C2
15	Hawthorn		20	3	EM	2	Small group of x3 trees forming a contiguous canopy	No work required	40+	C2
16	Hawthorn		20	3	ЕМ	2	Small group of x3 trees forming a contiguous canopy	No work required	40+	C2

Group Number	Dominant Species	Lesser Species	DBH	Average Height	Age	Average Spread	Condition/Comments	Recommendations	EstCont	BS Cat
17	Birch spp Pine spp Oak spp Ash	Rowan Willow spp	20	10	SM	3	Linear narrow group with trees forming a contiguous canopy. Mown under. X3 mature Willows of reasonable condition near green with moderate deadwood. Thins out at eastern end.	No work required	40+	B2
18	Norway Maple Cherry spp Field Maple		22	7	SM	2	Narrow linear group with trees forming a contiguous canopy. Mown under. Damage to surface roots.	No work required	40+	B2
19	Willow spp		16	4	SM	2	Regrowth from coppiced and failed stems.	No work required	20+	C2
20	Hawthorn Elder		15	3	М	2	Linear group which appears to have been planted as hedgerow	Remove section(s) indicated red on Appenidix 3	40+	B2

Group Number	Dominant Species	Lesser Species	DBH	Average Height	Age	Average Spread	Condition/Comments	Recommendations	EstCont	BS Cat
21	Willow spp		15	2	SM	1	Regrowth from coppiced stems.	Remove section(s) indicated red on Appenidix 3	20+	C2
22	Oak spp Sycamore		25	8	SM	3	x2 trees with continuous canopies. Good health and form.	Remove entire group	40+	B2
23	Poplar spp Willow spp		80	16	M	7	x2 Poplars x1 Willow. Willow stem snapped at 2m. Poplars are multi- stemmed and have asymmetric crowns. Minor deadwood.	Fell willow.	10+	C2
24	Birch spp Oak spp Rowan		16	7	SM	2	Linear group with trees forming a contiguous canopy.	Remove section(s) indicated red on Appenidix 3	40+	B2

Group Number	Dominant Species	Lesser Species	DBH	Average Height	Age	Average Spread	Condition/Comments	Recommendations	EstCont	BS Cat
25	Birch spp Pine spp Oak spp Field Maple	Alder spp	16	8	SM	2	Linear group with trees forming a contiguous canopy. Southern half mown beneath.	Remove section(s) indicated red on Appenidix 3	40+	B2
26	Hawthorn		15	3	М	2	Linear group which appears to have been planted as hedgerow	Remove entire group	40+	B2
27	Hawthorn		18	3	М	2	x3 trees forming a continuous canopy.	No work required	40+	C2
28	Hawthorn	Alder spp	20	4	М	2	Linear group, possibly outgrown remnants of an old hedgerow. Unmanaged understory. Branch failure stubs. Minor deadwood.	No work required	20+	C2

Group Number	Dominant Species	Lesser Species	DBH	Average Height	Age	Average Spread	Condition/Comments	Recommendations	EstCont	BS Cat
29	Birch spp Hawthorn Oak spp Field Maple	Pine spp Cherry spp	14	8	Y-SM	2	Linear group with trees forming a contiguous canopy. Unmanaged understory. Numerous young Hawthorn.	Remove section(s) indicated red on Appenidix 3	40+	B2
30	Hawthorn Elder Blackthorn		19	3	М	2	Scrubby group with unmanaged understorey. Brambles. Low quality.	No work required	20+	C2
31	Alder spp		35	15	М	4	x4 trees forming a linear group with continuous canopy. Extensive deadwood. Branch failure stubs. Stem sweeps.	No work required	20+	B2
32	Hawthorn Elder Willow spp	Apple	25	4	SM-M	3	Scrubby group. Trees forming a contiguous canopy. Multi-stemmed at base. Some small Willows with stem failures.	No work required	20+	C2

Group Number	Dominant Species	Lesser Species	DBH	Average Height	Age	Average Spread	Condition/Comments	Recommendations	EstCont	BS Cat
33	Willow spp Ash Birch spp Oak spp		18	12	SM	3	Linear group with trees forming a contiguous canopy. Unmanaged understorey. Scrubby appearance with Willows.	No work required	40+	B2
34	Oak spp Scots Pine Cherry spp Birch spp		20	12	SM	3	Linear group with trees forming a contiguous canopy. Unmanaged understorey.	No work required	40+	B2
35	Oak spp Cherry spp Field Maple	Lime spp	18	7	SM	2	Group with trees forming a contiguous canopy. Mown under.	Remove section(s) indicated red on Appenidix 3. Refer to management recommendations produced by glenkemp Landscape Architects Drawing No. 1576-2-9	40+	B2
36	Oak spp Birch spp Pine spp Norway Maple	Sorbus spp Horse Chestnut Hawthorn Ash	20	14	SM-EM	3	Long linear group with trees forming a contiguous canopy. Minor deadwood. Stand of Norway Maples with - some with Included bark union(s) present. Thins out at southern end.	Refer to management recommendations produced by glenkemp Landscape Architects Drawing No. 1576-2-9	40+	B2

Group Number	Dominant Species	Lesser Species	DBH	Average Height	Age	Average Spread	Condition/Comments	Recommendations	EstCont	BS Cat
37	Oak spp		8	3	Y	1	Reasonable health and form. Rough underneath.	Remove section(s) indicated red on Appenidix 3	40+	C2
38	Oak spp Birch spp Pine spp Lime spp	Maple spp Cherry spp Sorbus spp Hawthorn	17	12	SM	3	Linear group with trees forming a contiguous canopy. Narrows at southern end. Mature Hawthorn at northern end.	Remove section(s) indicated red on Appenidix 3	40+	B2
39	Elder	Hawthorn	16	3	М	1	Scrubby group on bank. Brambles present within unmanaged ungrowth.	No work required	20+	C2
40	Sorbus spp Willow spp		9	3	Y	1	Linear group of young trees. Some in tubes.	No work required	40+	C2

Group Number	Dominant Species	Lesser Species	DBH	Average Height	Age	Average Spread	Condition/Comments	Recommendations	EstCont	BS Cat
41	Oak spp Birch spp Willow spp Pine spp	Ash Hazel	12	4	Y	1	Linear group with trees forming a contiguous canopy.	Crown lift to 2m.	40+	C2
42	Alder spp Willow spp Cherry spp		18	8	SM-M	3	Group on banks either side of water course. Trees forming a contiguous canopy. Some trees of poor condition. Stand of young-seimi mature Cherry's with poor form	Remove section(s) indicated red on Appenidix 3	20+	C2
43	Hawthorn Ash Cherry spp		25	11	ЕМ	5	Group on banks either side of water course. Trees forming a contiguous canopy.	No work required	40+	B2
44	Cherry spp	Ash	40	9	ЕМ	4	Group on banks either side of water course. Trees forming a contiguous canopy. Rough under.	No work required	40+	B2

Group Number	Dominant Species	Lesser Species	DBH	Average Height	Age	Average Spread	Condition/Comments	Recommendations	EstCont	BS Cat
45	Birch spp Cherry spp Oak spp Norway Maple	Ash Hawthorn Willow spp	20	13	SM	3	Linear group with trees forming a contiguous canopy. Numbers thin out in places. Rough under. Grass track crosses group in northern half.	No work required	40+	B2
46	Birch spp Pine spp Cherry spp Oak spp	Horse Chestnut Maple spp Poplar spp Sorbus spp	18	9	SM	3	Linear group with trees forming a contiguous canopy. Mix of mown and rough under trees. Small stand of tall Poplars in central area.	Remove section(s) indicated red on Appenidix 3	40+	B2
47	Poplar spp Hawthorn Elder Willow spp	Field Maple	35	16	Y-M	5	Scrubby group on bank down to water course. Tree with a continuous canopy. Large willow with upper stem failures.	Crown clean	20+	B2
48	Oak spp Alder spp Cherry spp Ash	Willow spp	18	7	SM-M	2	Linear group with trees forming a contiguous canopy. Mostly semi-mature trees. Occasional large willow at southern end near water with larger diameters.	No work required	40+	B2

Group Number	Dominant Species	Lesser Species	DBH	Average Height	Age	Average Spread	Condition/Comments	Recommendations	EstCont	BS Cat
49	Leyland Cypress	Prunus spp	45	18	М	3	Linear group adjacent to driveway. Some canopies in contact but not all.	No work required	20+	B2
50	Hawthorn Cherry spp	Elder Lombardy Poplar	30	6	SM-M	3	Linear group adjacent to old hedge. x6 Poplars together with 1 other individual - Positions not located on the base plan.	No work required	40+	B2
51	Field Maple Lombardy Poplar Norway Maple Common Oak	Ash Birch spp Beech Cherry spp	40	14	SM-EM	4	Long linear group of trees which form a continuous canopy. Poplars along the rear with smaller trees to front (mostly Field maple in east section, greater diversirty to the west). Minor deadwood. Branch failure stubs.	Remove section(s) indicated red on Appenidix 3	40+	B2
52	Common Oak Lime spp Birch spp Norway Maple		18	7	SM	2	Group of trees which form a continuous canopy. Mown beneath.	No work required	40+	C2

Group Number	Dominant Species	Lesser Species	DBH	Average Height	Age	Average Spread	Condition/Comments	Recommendations	EstCont	BS Cat
53	Hornbeam Sycamore Birch spp		37	12	SM	4	Group of trees which form a continuous canopy. Mown beneath.	No work required	40+	B2
54	Hybrid Poplar		45	19	EM	6	Group of trees which form a continuous canopy. Mown beneath. Branch failure stubs. Minor deadwood. Recent failure of 1 stem at 6m.	Remove failed stem	40+	B2
55	Birch spp Alder spp Common Oak Norway Maple	Red Oak Ash Horse Chestnut Goat Willow	20	10	Y-SM	4	Group of trees which form a continuous canopy. Partially mown beneath. Evdence of small fires.	No work required	40+	B2
56	Weeping Willow Hybrid Poplar Norway Maple	Hawthorn Sycamore	40	18	Y-M	0	Linear boundary group of trees which form a continuous canopy. Large Poplars to rear, smaller suppressed form Willows to front. Group becomes wider towards the north.	Refer to management recommendations produced by glenkemp Landscape Architects Drawing No. 1576-2-9	40+	B2

Group Number	Dominant Species	Lesser Species	DBH	Average Height	Age	Average Spread	Condition/Comments	Recommendations	EstCont	BS Cat
57	Hybrid Poplar White Willow	Alder spp Birch spp Common Oak Ash	45	18	Y-M	4	Group of trees which form a continuous canopy. Mown beneath. Multiple recent limb failures. Minor deadwood.	Remove section(s) indicated red on Appenidix 3	40+	B2
58	Hybrid Poplar Pine spp Cherry spp Birch spp	Norway Maple	35	17	Y-M	4	Linear boundary group of trees which form a continuous canopy. Large Poplars to rear, smaller trees to front. Branch failure stubs. Minor deadwood. Previous failures.	Refer to management recommendations produced by glenkemp Landscape Architects Drawing No. 1576-2-9	40+	B2
59	Common Oak Field Maple Scots Pine Birch spp	Sycamore Ash Horse Chestnut White Willow	20	8	SM	3	Group of trees which form a continuous canopy. Mown beneath. Evidence of recent thinning.	Remove section(s) indicated red on Appenidix 3	40+	B2

Hedgerow Data

Hedge Number	Dominant Species	Lesser Species	Age	Average Height	Average Depth	Historically Managed Height	Historically Managed Depth	Condition/Comments	Recommendations	EstCont	BS Cat
1	Hawthorn Elder		ЕМ	3	1	1.5	0.5	Managed hedgerow.	No work required	40+	B2
2	Hawthorn	Elder	M	2.5	2.5	1	0.5	Unmanaged hedgerow located on mound with ditch (most likely modern related to golf course drainage).	Remove section(s) indicated red on Appenidix 3	40+	C2







Appendix 5: Protective Fencing Specification

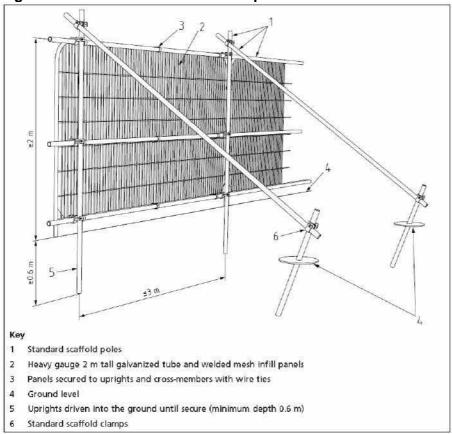


Figure A:- Tree Protection Fence as per BS5837:2012

Drawing Source: BS 5837:2012

B:- Alternative Fencing Detail: Adequate protection - provided LPA approve its use

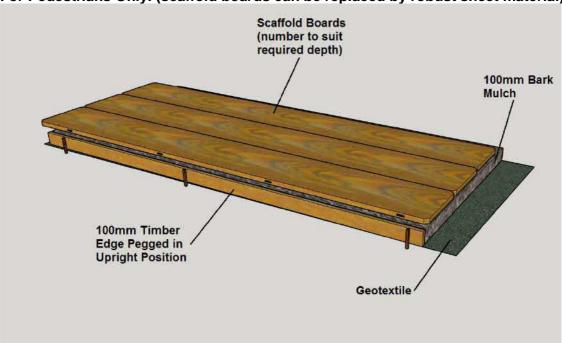


Weldmesh fence panels attached together using fence couplers bolted to 100mmx100mmx2400mm treated timber fence posts driven 500mm into the ground. Use of plant to assist with erection only from outside of root protection area.

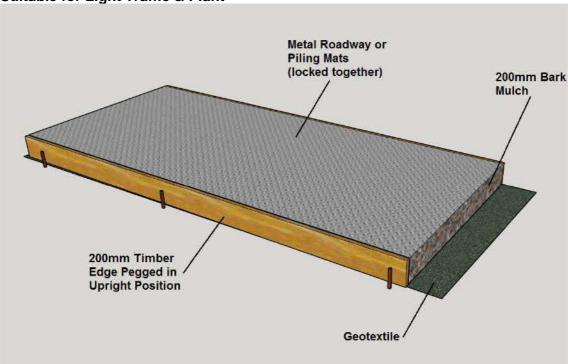
Appendix 6: Access within Root Protection Areas

Ground Protection to Enable Access within Root Protection Areas

For Pedestrians Only. (scaffold boards can be replaced by robust sheet material)



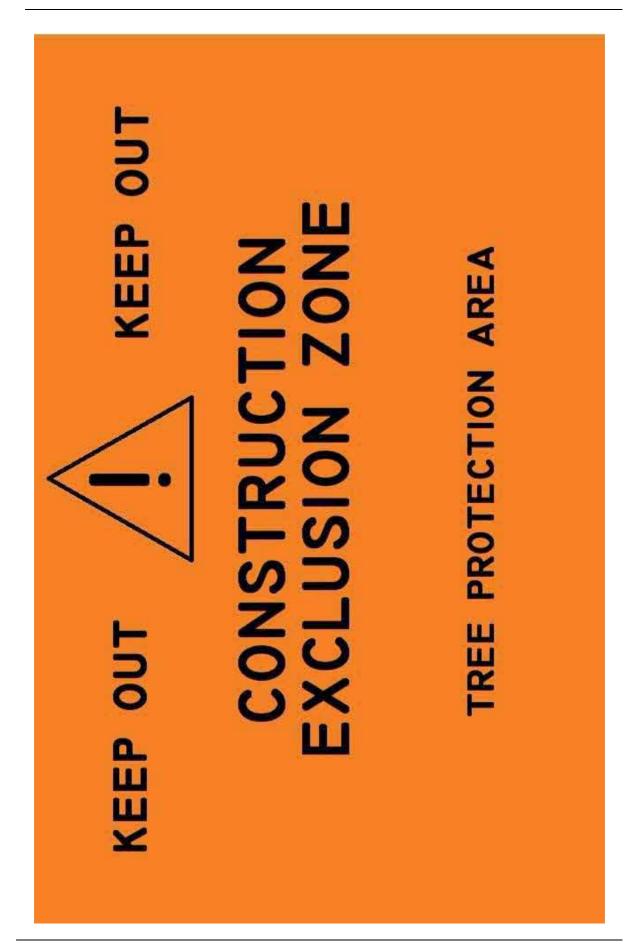
Suitable for Light Traffic & Plant



Where erecting scaffolding within areas of protected ground. The geotextile should be laid and then the scaffold footings placed on boards to spread the load. Ground protection as above should then be installed if access beneath the scaffolding is required.

Appendix 7: Removing Hard Surfaces & Other Excavations within Root Protection Areas

- All excavations within root protections areas must only be undertaken using hand tools or pedestrian operated machinery.
- The required excavations must be kept to a minimum to avoid unnecessary root damage and ideally undertaken during the presence of an arboriculturalist.
- Great care must be taken not to damage the bark of roots that can be retained in order to avoid wounds which could be exploited by pathogens.
- Exposed roots that can be retained must be wrapped with dry sacking if to be left exposed for extended periods e.g. overnight. Sacking must be removed prior to backfilling.
- All roots >25mm should be preserved and worked around. Where this is not possible, severance should only take place after consultation with the tree officer / appointed arboriculturalist. Roots must be cut using a sharp knife leaving as small a wound and as clean a cut as possible.
- Great care must be taken not to allow contaminants, such as oils, into the excavation.



Appendix 9: Tree Protection Zones Inspection Record

	Tree Protection Zones Inspection Record – assessment of tree protection barriers and ground protection										
Date	Checked By	Comments	Action Required?								

Appendix 10: Contact Details of Relevant Parties

Arboricultural Consultant

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Elliott Consultancy Ltd

Wren's Nest Underhill Glaisdale YO212PF



Golf Course Designer

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Local Planning Authority

North Tyneside Council

Quadrant East First Floor Left The Silverlink North Cobalt Business Park North Tyneside

NE27 0BY