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Southgate, Shafton, Barnsley

Arboricultural Impact Assessment

August 2026

Arboricultural Association Fellow Member

AA Registered Consultant trees.org.uk

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We offer a range of services involving trees, woodlands and forestry in the built and rural environment:

Planning
TPO
Hazard Evaluation
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Chapter 1 Introduction

1.01
ACS Consulting is instructed by Clarke Telecom Ltd to report on trees and the implications for the proposed development at Southgate, Shafton, Barnsley. The assessment and report was undertaken by Ian Murat, Registered Consultant of the Arboricultural Association.

1.02
In accordance with guidance on information requirements and validation for planning applications, this report fulfils the recommended national list criteria for tree survey/arboricultural information. More specifically, it contains the following:

- A full tree survey to the requirements of BS5837 (2012) Trees In Relation To Design, Demolition and Construction – Recommendations.
- A plan showing tree survey information, retention categorisation and root protection areas,
- An assessment of the arboricultural implications of development detailing trees to be retained/removed and appropriate protection measures (BS5837:2012 - 5.3.4),
- An Arboricultural Method Statement detailing a set of agreed principles for tree protection, implementation and phasing of works. (BS5837:2012 section 6).

1.03
The site was visited during July 2026. A survey of the trees was completed in accordance with BS5837 – 2012. This British Standard takes the form of guidance and recommendations. It should not be quoted as if it were a specification and particular care should be taken to ensure that claims of compliance and non-compliance are not misleading. All the trees have been summarised in the tables in Appendix A.

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2.01 Location
The site is located in Shafton, a civil parish in the Metropolitan Borough of Barnsley, South Yorkshire (Figure 1).

2.02 Site
The site comprises the highway estate at the junction of Brierley Road and Southgate. The trees are located off site in a lawned area as part of a small housing complex.

2.03 Soils
BS 5837 – 2012 requires a basic assessment of the soils on site. An examination of the British Geological Survey does not record the superficial deposits.

2.04
The Cranfield Soil and Agrifood Institute Soilscapes viewer shows soils at the site to be: Soilscape 17: Slowly permeable seasonally wet acid loamy and clayey soils.

Figure 1

3.01
The tree data can be found at Appendix A. There is no requirement in BS 5837 to repeat the details of the constraints information save for confirming that the trees were surveyed for species type, age, height, crown spread, diameter-at-breast-height, condition, and their suitability for retention from ground level. Each tree or group was assigned to one of the four retention categories [A,B,C,U] specified by BS5837. The individual descriptions and other relevant information are contained in the attached schedule and they are shown on the attached plans, based on the original topographical survey. Only trees with a stem diameter of 75 millimetres measured at 1.5 metres above the ground are required to be recorded.

3.02
The heights were measured with a digital Hypsometer and the diameters were taken with a diameter tape to give an average stem measurement. Canopy spreads have been measured at the cardinal points or where they significantly extend in other directions.

Figure 2

Chapter 4 Development Implications

4.01 Application
The application is for: *proposed 20.00m High ORION-6 structure mounted on new T9 root foundation. structure to be coloured grey (BS 00 A 05) with associated cabinets. [sic]*

4.02 Summary Development Implications
The proposed application does not require the removal of trees. The location of the apparatus overall, is not considered to be harmful to the trees.

4.03 Development Implications
The methodology for assessment is based on BS5837 – 2012 Trees in relation to design, demolition and construction – Recommendations. The guidance recommends that impacts on arboricultural assets should be assessed by considering:

1. Which arboreal assets are affected by the proposed development;
2. Understand what contribution the arboreal assets make to the significance of the site and location;
3. Identify what impact the loss of arboreal assets of the site might have on that significance;
4. Consider maximising enhancements and avoiding harm.

4.04
The proposal is located in the highway estate. The trees are low-graded young self-set material that has been allowed to grow. The proposals are located outside the Root Protection Area of the trees.

4.05 Pruning
The canopy of two trees will require pruning for working space. The pruning has no implications for tree physiology.

4.06 Future Growth Potential
The trees have been assessed for their potential to interfere with the signal and thus require excessive pruning.
The underside of the lowest antenna is +17.80m AGL.
The height of the trees have been measured from a number of locations to give an average height of 5.75m.

4.07
Growth rates of common urban trees in five cities in Great Britain: A dendrochronological evaluation with an emphasis on the impact of climate[1] is a study which investigates growth variations in diameter and height for four common urban tree species (Acer pseudoplatanus, Betula pendula, Fraxinus excelsior and Quercus robur) across five cities in Great Britain[1]. Taking the best average growth from the data and applying it to the site (0.40/yr), it is anticipated that there is in excess of ten years of growth before the canopy of the trees slightly interferes with the antenna assuming the trees are able to attain the average growth rate.

4.08
Given the current height of the trees and their likely rate of growth, it is expected to be many years before there is any realistic potential for signal interference. Any suggestion that future tree pruning may be required is therefore speculative and dependent on numerous unknown factors.

1) Vaz Monteiro, M., Levanič, T. and Doick, K., n.d. Growth rates of common urban trees in five cities in Great Britain. Urban Forestry & Urban Greening 22 (2017) 11–23.

4.09
Telecommunications technology is continually evolving. By the time the trees have grown to a height where interference could potentially occur, the technology may have changed, the equipment may have been upgraded, alternative engineering solutions may be available or, the site may no longer be required and could have been decommissioned. There are currently no proposals or intentions to undertake any tree pruning.

4.10
The proposed development is part of a wider scheme to upgrade the UK network to provide improved coverage and capacity in relation to 5G services. It would expand the 5G telecommunications network across this area of South Yorkshire and would enhance 5G coverage levels and network capacity within the local area. The site has been the subject of detailed assessment that has concluded there are no other viable sites.

Chapter 5 Conclusions

5.01
The application site is described in detail in the design and access statement.

5.02
Proposals are appropriately sited and effectively integrate existing trees into a scheme; retaining existing canopy coverage and the associated landscape character of the site.

Appendix A

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KEY

Age	Y – Young: Out-planted trees that have not yet established SM – Semi-mature: Established trees up to 1/3 of expected height and crown EM – Early mature: Between 1/3 and 2/3 of expected height and crown M – Mature: Between 2/3 and full expected height and crown FM – Fully mature: Full expected height and crown OM – Over mature: Crown beginning to break-up and decrease in size S – Senescent: Crown in advanced stage of break-up
Physiological Condition	Good – Very few defects a reasonable long life expectancy depending on age class Fair – Some defects giving the tree a shortened life expectancy Poor – Limited life with major problems
Structural Condition	Good – Very few defects Fair – Some defects rectifiable with minor tree surgery Poor – Significant defects rectifiable with major tree surgery or felling
#	Estimated dimensions.
(a)	Average stem diameter across a group of trees.
*	Tree subject to TPO.

Table 1 – Cascade chart for tree quality assessment

Category and definition	Criteria			Identification on Plan
Category U Those in such a condition that they cannot realistically be retained as living trees in the context of the current land use for longer than 10 years.	• Trees that have a serious, irremediable, structural defect, such that their early loss is expected due to collapse, including those that will become unviable after removal of other U category trees (i.e. where, for whatever reason, the loss of companion shelter cannot be mitigated by pruning). • Trees that are dead or are showing signs of significant, immediate, and irreversible overall decline. • Trees infected with pathogens of significance to the health and/or safety of other trees nearby, or very low quality trees suppressing adjacent trees of better quality. *NOTE Category U trees can have existing or potential conservation value which might be desirable to preserve; see 4.5.7*			RED
	1 Mainly arboricultural qualities	**2 Mainly landscape qualities**	**3 Mainly cultural values, including conservation.**	
Trees To Be Considered For Retention				
Category A **Trees of high quality** with an estimated remaining life expectancy of at least 40 years	Trees that are particularly good examples of their species, especially if rare or unusual, or essential components of groups, or of formal or semi-formal arboricultural features (e.g. the dormant and/or principal trees within an avenue)	Trees, groups or woodlands of particular visual importance as arboricultural and/or landscape features.	Trees, groups or woodlands of significant conservation, historical, commemorative or other value (e.g. veteran trees or wood-pasture)	GREEN
Category B **Trees of moderate quality** with an estimated remaining life expectancy of at least 20 years.	Trees that might be included in category A, but are downgraded because of impaired condition (e.g. presence of significant though remediable defects, including unsympathetic past management and storm damage), such that they are unlikely to be suitable for retention for beyond 40 years; or trees lacking the special quality necessary to merit the category A designation.	Trees present in numbers, usually growing as groups or woodlands, such that they attract a higher collective rating than they might as individuals; or trees occurring as collectives but situated so as to make little visual contribution to the wider locality.	Trees with material conservation or other cultural value.	BLUE
Category C **Trees of low quality** with an estimated remaining life expectancy of at least 10 years, or young trees with a stem diameter below 150 mm.	Unremarkable trees of very limited merit or such impaired condition that they do not qualify in higher categories.	Trees present in groups or woodlands, but without this conferring on them significantly greater collective landscape value, and/or trees offering low or only temporary/transient landscape benefits.	Trees with no material conservation or other cultural benefits	GREY

Tree Ref No.	Species	Height M	Stem Diameter MM	Branch Spread M				Height of Crown Clearance M	Clear Branch Height M	Age Class	Physiological Condition	Structural Condition	Comments/Preliminary Management Recommendations	Estimated Remaining Contribution Years	Category Grading	RPA Radius (M)	RPA Area (M^2)
				N	E	S	W										
1	Alder	5	100	1	1	1	1	2	2	Y	Good/Fair	Good	Located in the highway verge. Self-set tree of low quality and value in the landscape.	10+	C1/2	1.2	5
2	Hawthorn	4	75	1	1	1	1	0	0	Y	Good	Good	Multi-stemmed at ground level - typical of species. A tree of low quality and value in the landscape. **Work** Crown lift/cut back the lowest branch touching the ground.	10+	C1/2	0.9	3
3	Ash	6.5	115	2	1	2	1	1	0	Y	Good	Good	Located in the highway verge. A tree of low quality and value in the landscape. **Work** Crown lift the southern canopy to give 2.5m clear canopy and stem height.	10+	C1/2	1.4	6
4	Ash	7.5	100	1	1	2	1	1 E	1 E	Y	Good	Good	A tree of low quality and value in the landscape.	10+	C1/2	1.2	5

Appendix B

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Arboricultural Supervision

The general purpose is to ensure compliance with planning conditions. It is anticipated that arboricultural input is likely to be needed for the following operations:

- Pre-commencement meeting;
- Tree Works;
- Tree Protection Measures;
- Foundation Excavation;
- Services.

All supervisory visits will be logged and a copy of the minutes circulated to all team members including the LPA. A number of the operations named above can be undertaken in a single visit.

The pre-commencement site meeting is to be held before any work is undertaken. All tree protection measures, haul routes, site storage, contractor parking, deliveries, working methods are to be freely discussed and agreed in writing. Initial site visits may be intense to ensure measures are implemented.

General site visits will be undertaken once the site is 'live' at intervals agreed with the team. Our role will be to initially to act in a compliance capacity to ensure the protective measures are fit for purpose and meet or exceed the council's requirements and the tree works are undertaken to the required standard. Once this has been completed, our role will be one of monitoring and 'troubleshooting'.

Actions

- Pre-commencement site meeting to agree roles, responsibilities and duties in relation to tree protection. Details to be minuted and distributed.
- Appointment of an Arboricultural Consultant to oversee works.

Tree Felling/Stump Removal/Tree Pruning

The following precautions are to be taken.

Actions

- Trees to be removed shall be felled so as to fall away from tree protection zones and to avoid pulling and breaking of roots of trees to remain. Brush can be chipped into the tree protection zone to a depth of 150 mm.
- The roots shall be removed by severing the major woody root mass before extraction. This may be accomplished by Hydro Vacuum & Suction Excavation or Compressed Air Displacement and then, cutting through the roots by hand, with a vibrating knife, rock saw, narrow trencher with sharp blades, or other approved root pruning equipment.
- Trees to be removed within the tree protection zone shall be removed by qualified tree contractors.
- All felled brush and trees shall be removed from the tree protection zone either by hand or with equipment sitting outside the tree protection zone. Extraction shall occur by lifting the material out or by 'skidding' it across the ground.
- Exposed roots to be kept moist with hessian sacking.
- Site inspections to be reported to the development team and the LPA.
- Tree pruning to European Tree Pruning Standard (2024). EAS 01:2024. European Arboricultural Standards (EAS), European Arboricultural Council. No deviation from the specification.

Tree Pruning

Tree Ref No.	Species	Work
2	Hawthorn	Crown lift/cut back the lowest branch touching the ground.
3	Ash	Crown lift the southern canopy to give 2.5m clear canopy and stem height.

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Construction Exclusion Zone Root Protection – Site Wide

Due to the nature of the works, standard BS 5837 fencing will be used. The Construction Exclusion Zone fence will be heras fence panels fixed to a scaffold framework. Alternatively, heras panels fixed to timber posts. The location will be marked on site by the Arboricultural Consultant and are also shown on the Drawing No. – ARB/5570/Y/200. The requirement will be assessed on a weekly basis by the ACoW.

Drawing No. – ARB/5570/Y/200.

Actions

- Heras fencing fixed to a scaffold framework or timber posts as illustrated.
- Fencing installed at locations shown on the plan (**ARB/5570/Y/200**) and marked on site.
- Location and adequacy signed off by Arboricultural Consultant and LPA advised.
- Tool Box Talk – make construction staff aware of the importance of areas by site manager.
- Signs to be erected advising of the area's importance.
- Fence to be adjusted as noted in the Construction Timetable.

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Excavation of Mast/Cabinets Foundations

Drawing No. – ARB/5570/Y/200

Actions

- The works area is to be marked out.
- Soil tested to determine excavation method. Using either hand digging, Hydro Vacuum & Suction Excavation, Pneumatic Vacuum & Suction Excavation or Clay-Spade Assisted Suction Excavation, the foundation will be excavated.
- The foundation pit to be excavated to a maximum of 110% of the cabinet root fabricated metal base that sits securely underground. In all cases of excavation: Roots <25mm Ø are to be cut at the excavation face with secateurs. Roots >25mm Ø are to be assessed by the Arboricultural Consultant. Findings and decision on root retention/severance to be reported to the LPA.
- Exposed roots to be kept moist with hessian sacking.
- Following excavation of the foundations the sides are to be immediately lined with plastic/DPC barrier to prevent the pouring concrete leaching into the surrounding soil affecting its PH value and contact with any exposed roots.
- Site inspections to be reported to the development team and the LPA.

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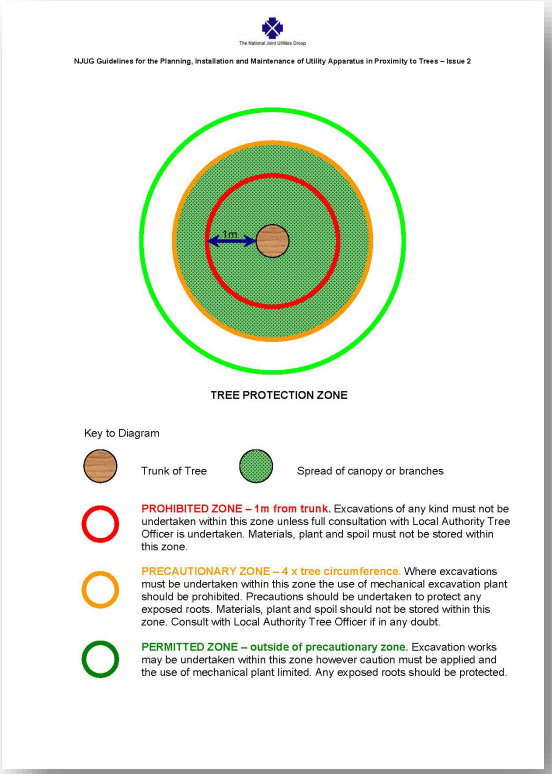
Services - NJUG 4.2

Work area to be marked out in accordance with NJUG 4.2.

Actions

- The precautionary area is to be identified.
- Suitable method of service installation to be identified this may include Hydro Vacuum & Suction Excavation or Compressed Air Displacement.
- Location and adequacy signed off by the ACoW and the LPA advised.
- Works to be monitored by ACoW.



Vertical Mulching for unauthorised access to Root Protection Areas/Construction Exclusion Zones:

Work area to be marked out.

Actions

- Use an air spade or hand-held auger to create holes that are between 50 and 75 millimetres in diameter and drilled at around 600-millimetre centres. The holes should be arranged in a grid pattern up to 1 – 1.5 x the RPA. They should be drilled to a depth of around 300/350 millimetres.
- Dispose of the soil dislodged by the air spade/auger and fill each hole with a diluted liquid fertiliser.
- The liquid fertiliser used and dilution rate (1:100 or 1:50) will depend on the results of a soil nutrient analysis.
- Once the liquid fertiliser has drained away refill each hole with the following blend of fresh soil:
- Biochar (5%):John Innes Soil No 2 or 3 (50%):Multi-Purpose Compost (40%): Slow release (6-12 month) inorganic or organic fertiliser (5%).

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