



land at Eagle Avenue, Waterloooville

Arboricultural Method Statement

January 2020

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Section 1

General

This Arboricultural Method Statement (AMS) is prepared on behalf of Vodafone CTIL-Beacon for development at land at Eagle Avenue, Watlooville.

This document is intended to demonstrate the degree of protection to be undertaken and demonstrate the fact that, in arboricultural terms, the development is sustainable.

This AMS sets out proposed measures to minimise and mitigate construction impact on the trees and targets for the management of the site during the construction phase. The document provides certainty of outcomes, for example details of special engineering within tree Root Protection Areas.

It is intended that the AMS remains under review during the construction of the project. Sequencing of tree protection measures has been programmed with the contractors construction programme. The following text contains a series of considerations that Vodafone CTIL-Beacon and their appointed developer will follow whilst working on the project to completion.

Section 2

Description and Location of Project	
Author:	ACS Consulting, 272 Bath Street, Glasgow G2 4JR.
Project Title:	Eagle Avenue
Location:	Eagle Avenue
Nature of Project:	PROPOSED VF 15.00m HIGH HUTCHINSON JUPITER SW POLE ON NEW ROOT FOUNDATION; PROPOSED VF COMMScope B2 METER CABINET ON SHARED CONCRETE FOUNDATION; PROPOSED VF LANCASTER Mk4 CABINET ON NEW SHARED CONCRETE FOUNDATION [sic]
Contract Period:	TBA

Section 3

Description of Project

The application is a: VF 15.00m High Hutchinson Jupiter SW Pole On New Root Foundation; Proposed VF Commscope B2 Meter Cabinet On Shared Concrete Foundation; Proposed VF Lancaster Mk4 Cabinet On New Shared Concrete Foundation [sic].

Section 4

Statutory Protections

The site is not within a Conservation Area. The trees are not the subject of a TPO.

Section 5

Tree Survey

The trees were surveyed for species type, age, height, crown spread, diameter-at-breast-height, condition, and their suitability for retention from ground level. The heights were measured with a Hypsometer and the stem diameters 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.

The trees have been assessed using the BS 5837 2012 category ratings (a copy can be found in Appendix A). The data collection accords with the advice set out at Subsection 4.4.2.5 of BS 5837:2012.

Section 6

Risks to and Impacts on Retained Trees

Overall, the proposed development impact is low. The application will not result in the removal of any trees. The base station and mast foundation are located within the RPA/CEZ of the site's principal trees. However, the total area of the RPA taken by the proposed mast and cabinets is less than 5% of the total RPA of the trees involved. The proposed mast and cabinet base are located at the very edge of the RPA, only small hydrotropic roots will be involved retaining the major anchor roots. The large majority of the RPA will remain intact. The site will be accessed from the pavement. Services will be installed in accordance with NJUG 4.2. A method statement details the precautions to be taken. A landscape plan is also included to maintain tree cover and assist in screening the mast and cabinets.

The canopies of trees cause no issue with signal interference.

Section 7

Construction Methods and Sequence

A Construction Method Statement and Timetable is to be drafted on the appointment of a construction firm.

Section 8

Conclusions

The development can be achieved with minimal impact to the retained trees using the tree protection methods as detailed.

Arboricultural Method Statement

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;
- Installation of protective fencing and surfaces;
- Services (power, water, foul)
- Removal of protective measures.

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'.

Targets

- 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.

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Construction Exclusion Zone Root Protection

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. – TPP/4074/Y/300.

Targets

- Heras fencing fixed to a scaffold framework or timber posts as illustrated.
- Fencing installed at locations shown on the plan (TPP/4074/Y/300) 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



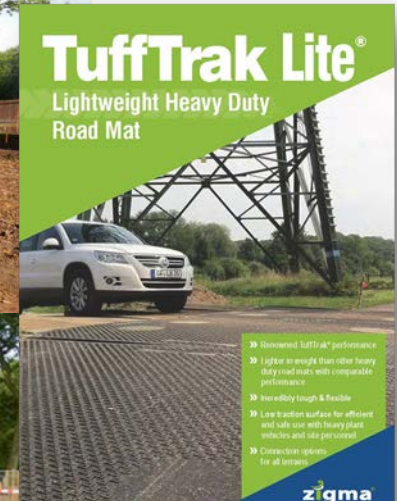
Arboricultural/Ecological Method Statement

Construction Exclusion Zone Ground Protection

Adequate protection of trees requires the installation of the correct ground protection at the locations shown on the Drawing No. – ARB/4074/Y/300.

Actions

- The following applies to Tuff Trak (other systems follow a similar installation procedure).
- The existing grass and ground cover and any hard surfaces are to be removed by hand working.
- Wood chip/sharp sand compressible layer to bring to level.
- Tuff Trak laid over. This surface will be retained through the contract to form a working surface.
- Location and adequacy signed off by the Arboricultural Clerk of Works and the LPA advised.
- Works to be monitored by Arboricultural Consultant.



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Foundation Excavations/Root Pruning

The proposals are to install an equipment cabinet. The following precautions are to be taken. Compliance is to be maintained on site by the appointed Clerk of Works.

Targets

- The works area is to be marked out. The ground to be protected by 24mm boards.
- Turf to a depth of 75 mm to be removed by a turf iron.
- Using Hydro Vacuum & Suction Excavation, a trench will be excavated.
- Roots of <25 mmØ to be cut at a root hair with secateurs.
- Roots of >25mmØ to be retained. The root is to be wrapped in grey insulation foam (the sort the plumbers use) and then in plastic pipe cut vertically to go around, then taped up to make it watertight.
- These roots can be left in place and the concrete poured around the roots.
- Ground protection, such as Visqueen membrane, to be laid on ground and timber former to be placed in location of foundation. Visqueen to be punctured to allow services to be inserted. Visqueen to be taped around the services to stop concrete migration into soil.
- Concrete to be poured by hand into former and allowed to set.
- Once cured, former may be removed and excess Visqueen membrane trimmed.

- Top soil to BS 3882: 2015 to be placed around structure.
- Materials to be stored on Tuff Trak or other ground protection.
- Mixing of concrete and cements to be undertaken outside Construction Exclusion Zone and brought to site in buckets sufficient for use.



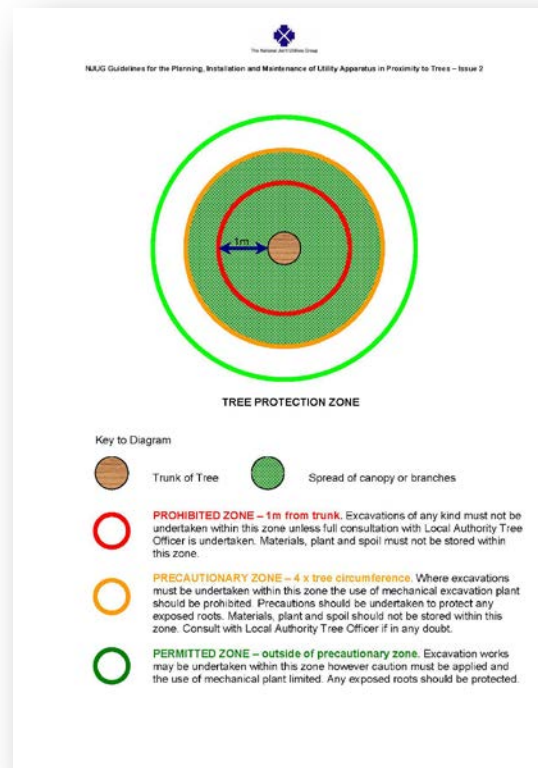
Arboricultural Method Statement

Services

Where the services are located in the Root Protection Area they will be installed in accordance with NJUG 4.2.

Targets

- The precautionary area is to be identified.
- Suitable method of service installation to be identified.
- Location and adequacy signed off by the Arboricultural Clerk of Works and the LPA advised.
- Works to be monitored by Arboricultural Consultant.



Arboricultural Method Statement

General Precautions

The retention of trees requires a number of general precautions to be taken. Compliance is to be maintained on site by the Arboricultural Consultant. The site visits are detailed at criterion 1 – Timing of Works.

Targets

- Spoil from the foundation pits or other excavations shall not be placed within the Construction Exclusion Zone.
- No materials, equipment, spoil or washout water may be deposited, stored or parked within the Root Protection Area/ Construction Exclusion Zone.
- On-site inspections to be undertaken by the Arboricultural Clerk of Works with the Arboricultural Consultant visiting during critical operations. The aim of the visits is to maintain on-going liaison with all personnel involved in the site development, Local Planning Authority and its Tree Officer.
- Any defects requiring rectification shall be notified to the Contractor/Site Manager/Arboricultural Consultant and the client.
- A site logbook for tree protection measures is kept to record all stages of the development from the erection of the protective fencing, right through to the completion of the project. This will be made available to the Arboricultural Consultant and the Local Planning Authority, if required, to show evidence of continuous site monitoring.

Protection and Emergency Procedure/Contacts

Adherence to the method statement, appointment of the Arboricultural Consultant and their involvement, at the critical demolition and construction phases, should negate any incident. The contact page details those personnel who should be contacted if an incident involving a retained tree should take place.

Targets

- Spill kit available.
- On site fuels to be located away from RPA/CEZ and contained in a bunded tank at 110% capacity.
- All incidents involving trees to be reported by telephone and email.
- Bunded storage of oil/fuels.
- Refuelling points for machinery at distance to the watercourse.
- Use of drop trays under plant/machinery overnight.
- Availability of spill kits on site – and training of site staff in their use.
- No excavation during periods of heavy rain.
- Regular maintenance and inspection of plant – engines and hydraulic systems.

Appendix A

Contents

Key

BS 5837 2012

Tree data

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. <i>NOTE Category U trees can have existing or potential conservation value which might be desirable to preserve; see 4.5.7</i>			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	Stem Diameter	Branch Spread M				Height of Crown Clearance	Clear Branch Height	Age Class	Physiological Condition	Structural Condition	Comments/Preliminary Management Recommendations	Estimated Remaining Contribution Years	Category Grading
		M	MM	N	E	S	W	M	M						
1	Oak	15	360	2	2	2	4	6	6	EM	Good	Good	Crown asymmetry. Located within a group. Individually a tree of low quality and value in the landscape.	10+	C1/2
2	Ash	17	275	2	2	2	2	6	6	EM	Good	Good	Crown asymmetry. Located within a group. Individually a tree of low quality and value in the landscape	10+	C1/2
3	Oak	17	360	0.5	2	4	3	5	5	EM	Good/Fair	Good	Crown asymmetry. Large pieces of dead wood. Reasonable distribution of buds and twigs. A tree of low quality and value in the landscape. Work Remove dead wood.	10+	C1/2

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
				N	E	S	W								
4	Ash	17	300	0	0	6	2	5	5	SM/EM	Good	Good	Pronounced lean. Located within a group. Individually a tree of low quality and value in the landscape.	10+	C1/2
5	Oak	16	550	3	3	3	8	4	4	M	Good	Good	Ivy on the stem and into the canopy. A tree of moderate quality and value in the landscape.	20+	B1/2
6	Oak	16	430	0	0	#7	7	3 (S0)	3 (S)	EM/M	Good	Good	Crown asymmetry due to the influence of adjacent trees. A tree of moderate quality and value in the landscape.	20+	B1/2
7	Oak	8	190	2	1	2	4	4 (W)	2	SM/EM	Good	Good	Incongruous feature. Suppressed. A tree of low quality and value in the landscape.	10+	C1/2

Appendix B

Contents

General Information

Arboricultural Method Statement

Contact List

Title	Name	Address	Telephone	Email
Arboricultural Consultant	TBA			
Design	TBA			
Project Manager	TBA			
Arboricultural Consultant (Council)	TBA			

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