



Project: 21_5837_01_25
Site: Ty Nos, Holt Road, Wrexham,
Client: Richards Moorehead & Laing Ltd



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Document Title:	Arboricultural Method Statement & Tree Protection Plan
Document Author:	Matt Harmsworth
Project Manager:	Matt Harmsworth
Project Title:	Ty Nos, Holt Road, Wrexham

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Distribution.

Approved by:	Signature	Date:	Version:
Matt Harmsworth	MWH	20/1/2021	1.0
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BS5837: 2012	Planning Only	N/A

Report no: 21_5837_01_25

Date: 22nd November 2021

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Summary:

The tree survey for Ty Nos contains the details of nine individual trees, and two tree groups that are all located on the periphery of the usable site.

Our brief has been to obtain details of the tree population on site with a view to assessing any arboricultural constraints. An initial arboricultural impact assessment was produced in January 2021.

We understand that the site is to be redeveloped with residential units and associated hard and soft landscape and a number of tree removals are recommended to facilitate the new layout.

The project obtained planning consent in June 2021 (WRA P/2021/0263) with a condition for an arboricultural method statement which this document seeks to discharge.

Report Author.

Matthew Harmsworth attended Merrist Wood College in Guildford, Surrey in the late 1990's studying horticulture and arboriculture as well as a National Diploma in Countryside Recreation before gaining employment as a Countryside Ranger with Surrey County Council (later Surrey Wildlife Trust).

After a number of years Matthew started an Arboricultural Contracting business serving residential and commercial clients across the SE of England and also gained his aerial NPTC certificates.

Following the sale of this business in 2009 Matthew moved to North Wales as a junior self-employed consultant for Fairley Arboriculture and studied at Myerscough online to study an FDSc in Arboriculture and become a technician member of the Arboricultural Association.

ROAVR Environmental was formed in 2010 and since then has carried out arboricultural consultancy Nationwide with directly employed consultants. Matthew has written well in excess of 600 BS 5837 2012 tree reports.



Table of Contents:

1. Method Statement

Section A: Introduction and Overview

2. Site Inspection

Example ACoW sheet.

3. Tree Works Schedule

4. Tree Protection Barriers Detailed Specification

5. Ground Protection Measures Detailed Specification

6. New Surfaces Detailed Specification

Appendix: Further Information

Appendix 1 - Tree Protection Plan



Arboricultural implications assessment to BS 5837 2012 of trees at: Ty Nos, Holt Road, Wrexham.

1. Method Statement

Section A: Introduction and Overview

1.1. Definition of Terms

Some terms used within the Arboricultural Method Statement have very specific meanings. These are defined below:

Root Protection Area (RPA). This is a theoretical area of ground around a tree where the roots are likely to proliferate. Ground disturbance in this area should be minimised in order to avoid significant impact on tree health. RPAs are indicated on all plans accompanying this report as a pink line.

Construction Exclusion Zone (CEZ). These zones are created to protect roots and canopies from inadvertent damage by construction activity. They are usually fenced off by protective barriers throughout the entire construction phase. No works are permitted in these zones other than minor landscaping works which do not require a change in ground level. Where practicable the entire Root Protection Area and the area beneath the tree canopy shall be treated as a Construction Exclusion Zone. These zones are shown on the Tree Protection Plan.

Restricted Activity Zone (RAZ). It is not always possible to create a Construction Exclusion Zone over the entire RPA. This is because access may be required or some works may be proposed within the RPA. In such circumstances a Restricted Activity Zone is created where limitations are placed on construction activity. Ground protection measures may be specified or the Restricted Activity Zone may be fenced off throughout part of the construction phase. See the legend on the Tree Protection Plan to identify these zones.

1.2. Tree Protection Barriers - Overview

The Tree Protection Plan indicates the location of all proposed tree protection barriers.

The barriers shall be installed prior to the commencement of any localised construction activity including soil stripping and delivery of materials. A detailed specification of the barriers can be found in sections below..



The tree protection plan also indicates where ground protection measures shall be installed / maintained as specified in the section 'Restricted Activity Zone'.

2.3. Planning Status

Tree protection measures specified within this report shall be used to discharge the planning condition and this report should be submitted to the local planning authority and read in conjunction with the previously issued AIA.

The site manager must be familiar with all aspects of this Method Statement and should liaise with the author of this report for clarification, or regarding any unforeseen issues where trees may be impacted upon.

A copy of this Method Statement shall be available on-site at all times. All personnel working on the site shall be made aware of any sections appertaining to their work. This includes short term contractors and persons responsible for deliveries and installation of services.

1.4. Overview of Protection Measures

Below is a list of potential arboricultural impacts and a summary of the proposed protection measures:

Tree no.	Protection Measures	Timeline
T4	Retain and protect with HERAS fencing	Pre-start
T5	Retain and protect with HERAS fencing	Pre-start
T6	Retain and protect with HERAS fencing	Pre-start

The above measures are described in more detail throughout the remainder of this section.



1.5. Timing of Operations

Activity within the site shall be phased according to the following chronology:

<i>Order Phase Activity</i>	Phase Name	Works required
1st Phase	Pre-construction phase	Undertake a pre-start meeting with the builder, client and ACoW
2nd Phase	Protection phase	Install HERAS tree protection fencing and signage as highlighted on the TPP
3rd Phase	Ground Protection	Install any specified ground protection boarding as highlighted on the TPP
4th Phase	Construction phase	Construction works commence with regular ACoW visits
5th Phase	Post Construction Phase	Remove tree protection measures and carryout any remedial works such as alleviation and radial mulching

Section B: Restrictions on Activities – Specific Zones

1.6. Construction Exclusion Zones

Within Construction Exclusion Zones (shaded purple on the Tree Protection Plan) the following restrictions shall apply:

Tree Protection Barriers shall be erected and maintained throughout the entire project as indicated on the Tree Protection Plan and specified in -Tree Protection Barriers.

No construction activity whatsoever shall occur.

No vehicles or plant machinery shall be driven or parked.

No tree works, other than those specified in this report shall be undertaken.



No alterations of ground levels or conditions.

No chemicals or cement washings permitted.

No excavation whatsoever shall occur.

No temporary structures.

No spoil shall be stored.

No fires shall be permitted.

All hazardous materials (including non-essential cement products) shall be forbidden.

Where hard surfaces are to be removed, this shall be done using hand tools or mechanical excavators operating from outside the Construction Exclusion Zone and marshalled by the appointed arborist.

Any structures shall be removed manually and without mechanical excavation.

1.7. Restricted Activity Zone A

Within these zones (indicated on the Tree Protection Plan) tree roots are likely to be present. Access will be required to facilitate construction and some resurfacing works may be required. The following restrictions shall apply:

Any resurfacing shall be done strictly in accordance with the Guidelines in APN12 New Surfaces.

Removal of existing structures such as walls, steps and hard surfaces shall be undertaken using hand tools or a mechanical excavator operating from outside the Restricted Activity Zone and carefully marshalled by an appointed arborist.

A suitable load spreading surface shall be installed and/or maintained as specified in Section –Ground Protection Measures. This shall remain in place throughout the entire construction phase.

No excavation shall occur in this zone without consulting the appointed arborist and obtaining approval from the local authority.

Storage of materials shall be limited to that which is required for the task in hand. Heavy materials that require storage for more than two days shall be stored outside the Restricted Zone.



No spoil shall be stored.

No fires shall be permitted.

All hazardous materials (including non-essential cement products) shall be forbidden.

5.8. Restricted Activity Zone B

Within this zone (indicated on the Tree Protection Plan) it is proposed to create car park bay 8.

The specific method adopted will vary between contractors. However, the following restrictions will apply and must be adhered to:

No excavation or ground disturbance shall occur beyond the footprint of the parking bay.

No large plant machinery shall operate beneath the canopy of tree T6.

The appointed arborist shall be invited to oversee the initial stages of any cellweb installation.

Section C: Restrictions on Activities – Throughout the Site

1.9. Canopy Protection

In order to protect tree canopies the following restrictions shall apply throughout the site:

No machinery shall pass beneath the crowns of trees without being carefully marshalled in order to ensure that no branches are damaged.

If materials require installation or delivery beneath tree canopies, this shall be done without the use of overhead cranes.

If materials are to be installed or delivered close to tree canopies (but not beneath them) and a crane is required, they shall be carefully marshalled in order to ensure that branches are not accidentally damaged.



1.10. Site Hoarding

If site hoarding shall be installed over the Root Protection Area of any tree, the following restrictions shall apply:

Ground levels shall be maintained as existing.

Post holes shall not exceed 300mm x 300mm.

No post hole shall be excavated within 1.5m of any tree stem.

Post holes shall be excavated using hand tools or by a post-hole auger attached to plant machinery sited outside the Root Protection Area(s).

Roots in excess of 25mm shall be retained wherever possible.

Roots in excess of 10mm shall be pruned with sharp secateurs.

Pruning shall be minimal and only undertaken where absolutely necessary to facilitate the site hoarding. It shall be undertaken by a reputable tree surgeon working to BS 3998 (2010).

Cement products shall be mixed away from Root Protection Areas (see Section - Hazardous Materials).

Site hoarding may be installed in place of the specified tree protection measures subject to the approval of the local authority with regard to its location and specification.

1.11. Fencing.

Where fence posts are to be installed within Root Protection Areas, the following restrictions shall apply:

All post holes shall be excavated by hand and kept as narrow as possible (maximum diameter 300mm).

Exploratory post holes shall be dug before committing to post / panel positions. If any roots in excess of 25mm are encountered they are to remain intact and the post hole shall be relocated slightly. The fencing system must permit such flexibility (i.e. where fixed panel widths are used, all post holes must be excavated before committing to the final location).



Any roots in excess of 10mm which are severed shall be neatly pruned back with secateurs. This will encourage healing and reduce the likelihood of infection.

Hedges may be planted within Root Protection Areas using hand tools to minimise excavation.

1.12. Demolition and Initial Ground Works

1.12.1. No demolition, removal of surfaces, or soil stripping shall commence until the protective fencing and ground protection measures are installed to the satisfaction of the local authority.

1.13. Underground Services

No underground services (including soak-aways) shall be located in any part of the Construction Exclusion Zones or Restricted Activity Zones unless done so in a manner detailed in a specific Method Statement and approved by the local authority.

1.14. Lighting, Bollards, CCTV and associated Cables

If any of the above are to be installed close to tree canopies or within Root Protection Areas of retained trees, installation methods shall be detailed in a specific Method Statement and approved by the local authority. Consideration should be given to the following:

Pruning of branches to enable sufficient clearance for light and views. Branches should be removed to the branch collar as per British Standard 3998 (2010).

Post holes must be excavated by hand or using an appropriate sized auger. No other form of mechanical excavation may be used.

Wherever possible, cables should be routed in a direction directly away from the tree stem rather than tangentially across the rooting zone. The location of all such cables shall be determined after consultation with the appointed arborist and approval by the local authority.

1.15. Use of Heavy Plant

All machinery operatives are to be made aware of any Construction Exclusion Zones and Restricted Activity Zones that apply to this site (see the Tree Protection Plan).



All machinery operatives are to respect these zones and ensure that no damage occurs to trees due to the careless use of machinery.

Mechanical excavators should have tracks rather than wheels to help spread their load. They should be carefully marshalled when working close to tree canopies.

1.16. Scaffolding

If scaffolding is required in areas containing ground protection measures, the protective boards shall need to remain in-situ and be strengthened and stabilised to bear the weight of scaffold poles.

Prior to the installation of any scaffolding within 0.5m of any tree branches, the appointed arborist shall be consulted to specify any pruning works that may be required.

1.17. Siting of Cabins and Storage of Materials

Cabins and heavy building materials may be located or stored anywhere outside of Construction Exclusion Zones and Restricted Activity Zones.

Any proposal to install cabins or materials within these zones shall be agreed in writing with the local authority prior to installation.

It may be acceptable to locate site cabins such that they act as a tree protection barrier and replace the specified protective fencing. Where this is being considered, written approval must be sought from the local authority.

1.18. Pedestrian Paving

If it is proposed to install new pedestrian surfaces over Root Protection Areas, excavation shall be limited to the removal of existing turf/vegetation plus an additional 50mm. Excavation shall be undertaken using hand tools only. Porous materials are preferred but not essential if the new surface covers less than 10% of the Root Protection Area. Paving with a thickness of 50mm bedded on mortar, or sand, bearing directly onto the ground, with a finished surface level with existing ground levels will be acceptable. No retaining kerbs shall be used.

1.19. Hazardous Materials

Any mixing of cement based materials shall take place outside the Construction Exclusion Zones and Restricted Activity Zones. Where cement is to be mixed on sturdy plastic sheeting e.g 1200 gauge DPM considerable distances from trees and water run-off cannot enter Root Protection Areas.



All other chemicals hazardous to tree health, including petrol and diesel, shall be stored in suitable containers as specified by current COSHH Regulations, and kept away from Root Protection Areas.

1.20. Removal of Tree Protection Barriers

This will be done after all major construction work is complete. Vehicular access will not be permitted within the Construction Exclusion Zones.

The local authority tree officer shall be made aware that the fencing is to be removed.



2. Site Inspection

2.1. Inspection Schedule

In order to ensure that the trees are adequately protected it shall be necessary to periodically monitor the works. This will be done by the local authority tree officer or an appointed arborist who will provide the tree officer with a copy of inspection details.

<i>Order Phase Activity</i>	Phase Name	Works required
1st Phase	Pre-construction phase	Pre-start ACoW visit with all interested stakeholders
2nd Phase	Protection phase	ACoW visit to sign off tree protection measures
3rd Phase	Ground Protection	ACoW visit to sign off tree protection measures
4th Phase	Construction phase	ACoW visit to supervise any cellweb installation works
5th Phase	Post Construction Phase	ACoW visit to supervise removal of protection measures and final site sign off.



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SITE SUPERVISION FORM - ARBORICULTURAL CLERK OF WORKS

DATE	
CLIENT	
TELEPHONE NUMBER	
E-MAIL	

TERMS AND CONDITIONS FOR THE PROVISION OF ARBORICULTURAL CONSULTANCY

Site:	
Inspected by:	
Site Manager:	
Date of Inspection:	
Tree Protection Fencing.	
Comments/Actions:	
Ground Protection.	
Comments/Actions:	
Additional Comments.	
Remarks:	
I am aware of the tree protection requirements for this site and understand no retained trees must be damaged.	
Signed:	Dated:
Name:	Company: T

Example ACoW sheet.



3. Tree Works Schedule

3.1. Tree Works Specification

3.1.1. The following table specifies the tree works which will be required prior to the commencement of construction activity:

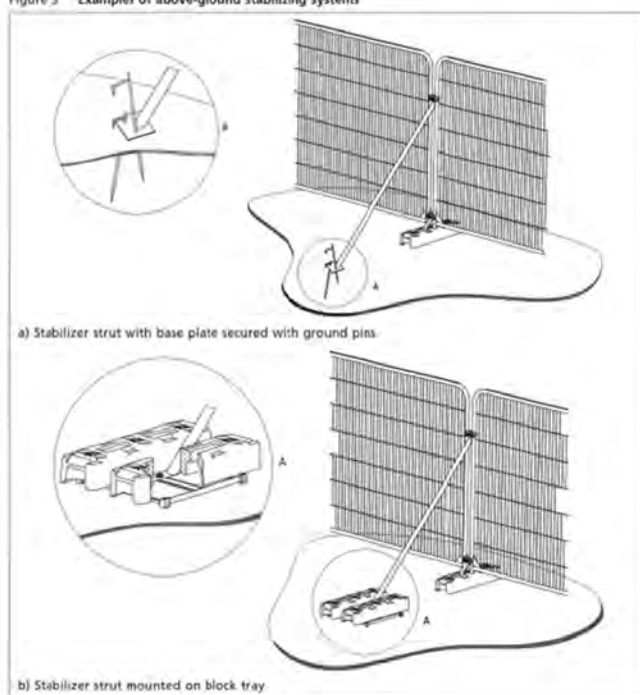
Tree no.	Works Required	Phase Timing
T7	Fell to facilitate project	Pre-start
T8	Fell to facilitate project	Pre-start
T9	Fell to facilitate project	Pre-start
T10	Fell to facilitate project	Pre-start
G11	Fell to facilitate project	Pre-start
T2	Fell to facilitate project	Pre-start
T3	Fell to facilitate project	Pre-start

4. Tree Protection Barriers Detailed Specification

The purpose of tree protection barriers is to keep construction activity away from Restricted Activity Zones or Construction Exclusion Zones. They should be appropriate to the nature and proximity of activity within the site. The barriers should be erected prior to the commencement of all activity including demolition, soil stripping and delivery of materials and demolition (except where existing structures require demolition to enable the barriers to be installed).

Barrier systems are specified below and should be installed according to the legend on the Tree Protection Plan.

Figure 3 Examples of above-ground stabilizing systems



Suitable weather-proof notices should be displayed to identify tree protection zones. They should state the purpose of the fencing and that it should not be moved, or traversed, other than by authorised personnel.



Example signage.

5. Ground Protection Measures Detailed Specification

Where indicated on the Tree Protection Plan (Restricted Activity Zone A), the soil may contain tree roots, and ground protection measures should be implemented. Where Root Protection Areas are outside of the Construction Exclusion Zone, the soil may be subject to compaction due to general construction activity (including pedestrian activity and use of plant machinery).

In order to minimise compaction, it is proposed to ensure that a suitable load-spreading surface is in place at all times.

Any existing hard surfacing may be retained and reinforced (where Construction activity is applicable and adequate), otherwise suitable new ground protection fencing measures shall be installed. The ground protection shall need to be able to adequately spread the load of construction traffic. Where existing hard surfacing is to be retained, it shall not be necessary to install additional ground protection measures. However, the hard surfacing must be firm enough to spread the load of any traffic passing overhead.



Where only pedestrian traffic will occur, the ground protection measures may be as simple as timber boards, or scaffold planks installed directly onto a geotextile fabric on the ground. The ground should first be made even by raking, or by adding a few centimetres of sand or woodchip. Alternatively the boards may be supported by a scaffold framework. The scaffold may be founded on poles driven into the ground and/or onto blocks (to raise the scaffold) with additional couplings to make the framework secure.

Where only light vehicles are to operate (e.g. barrows, trolleys or occasional cars), thick wooden boards or scaffold planks should also suffice, though at least 150mm of compressible woodchip will need to be installed first to help spread the load. Sturdier systems are specified below:

Where cars will regularly park or heavier vehicles/plant machinery will occasionally operate, sturdier ground protection measures will be required such as metal road plates, or purpose built synthetic road mats over a compression resistant layer such as 150mm of woodchip or 100mm of a 3D cellular confinement system in-filled with 7–40mm angular gravel (e.g. Cellweb™).

A temporary concrete slab may also be considered as a suitable load spreading platform. Where a pile driver needs to operate, a concrete slab may be the preferred option.

Where existing structures need to be removed, this shall be done with temporary ground protection measures in place to enable this to be achieved without compacting soils.

The ground protection measures shall be installed and approved before commencement of demolition and construction activity and before the arrival of plant machinery or materials. They shall remain in place until all heavy construction activity is complete or until they are due to be replaced with a new hard surface.



6. New Surfaces Detailed Specification

6.1. Resurfacing an Existing Hard Surface

If it becomes necessary to replace an existing hard surface over Root Protection Areas the following restrictions shall apply:

The existing hard surfacing shall remain in place throughout the entire construction project or until it is due to be replaced with a new surface. If the hard surfacing is removed for any reason it shall immediately be replaced by ground protection measures as specified until a permanent hard surface is installed. No vehicle shall pass over this zone unless a permanent hard surface or ground protection is in place.

No excavation in excess of the existing sub-base shall occur. The existing sub-base may be retained undisturbed and incorporated into the new structure.

Hand operated tools shall be used to lift existing surfaces. Mechanical excavators may be used so long as they operate from outside Root Protection Areas and are carefully marshalled by the appointed arborist or local authority tree officer.

Any exposed roots in excess of 25mm are to be retained. Before the new surface is installed, 25mm of soil (or river sand) and a geotextile membrane shall be laid over the root. Until such times, the root shall be adequately protected from pedestrian damage using timber and sand.

Any new sub-base shall not contain fine particles. Coarse sand or larger particles shall be acceptable. 7-14mm gravel is ideal.

A 3 dimensional cellular confinement system may be incorporated into the sub-base and is encouraged. However, this is not considered compulsory since the resurfacing operation shall not cause a deterioration of rooting conditions beneath the existing driveway.

No salt or lime based products are to be incorporated within the sub-base.

Where the existing surface is porous, it shall be replaced with a new surface which is equally as porous. Where the existing surface is impermeable (e.g. concrete or asphalt), replacement with a porous surface is encouraged but not compulsory.

ACCESS ROADS, HAUL ROUTES, DRIVEWAYS AND PARKING AREAS



1. Where construction of a hard surface has been approved within the CEZ, or within the RPAs of retained trees, a no-dig system must be used to prevent damage to tree roots from excavation, ground compaction or loss of ground permeability.
- Vegetative growth may be removed by hand, reduced using herbicide applications or carefully scraped away. Soil scraping must not exceed a depth of 50mm and, should substantial tree root presence be encountered, must be abandoned in favour of the other 2 listed methods of vegetation clearance.
 - Ground levels can only be adjusted by up-filling; that is, filling in of hollows and/or undulations with a porous material that still permits water and oxygen to reach the soil below. Examples are sharp sand (no fines), clean crushed stone (no fines), gravel chips (no fines) or a mix of any of the former with good topsoil.
 - Terram or equivalent geotextile must be laid over the surface to be covered and pegged into position.
 - A Cellweb or equivalent Cellular Confinement System is then placed over the Terram, and secured as per manufacturer's instructions.
 - An aggregate sub-base material 20 to 40mm in size (no fines) is then used to fill the cells of the Cellweb to the required depth (100mm for pedestrian traffic or domestic car parking, 150mm for commercial car parking, and 200mm for frequent traffic including HGVs, or for heavy duty haul routes).
*200mm depth
 - Cellweb is recommended for the **car park bay 8** to cope with long term access and parking arrangements without degradation, and to offset possible ground compaction caused by construction related plant/vehicle movement.
 - The sub-base can be gently compressed.
 - Final surfaces can be chosen from a range of options but must be porous and must be approved by the LPA. It is usually appropriate to apply final surface treatments following completion of construction operations – as a part of the landscaping works.



Appendix: Further Information

Building Near Trees – General

National Joint Utilities Group publication # 10 (1995), Guidelines for the Planning, Installation and Maintenance of Utility Services in Proximity to Trees. Downloadable at www.njug.demon.co.uk/pdf/NJUG%20Publication10.pdf

NHBC Standards Chapter 4.2., Trees and Buildings.

Horticulture LINK project 212. (University of Cambridge, 2004), Controlling Water Use of Trees to Alleviate Subsidence Risk. Tree Planting and aftercare see www.trees.org.uk/leaflets.php# for downloadable leaflets on selecting a garden tree, planting, aftercare and veteran tree management.

British Standards BS 5837: 2012. Trees in Relation to Design, Demolition and Construction – Recommendations. Bs 3998: 2010.

Recommendations for Tree Work. BS 3936: 1992. Nursery Stock. Part 1: Specification for Trees and Shrubs. BS 3936: 1992. Nursery Stock. Part 10:

Specification for Ground Cover Plants. BS 4043: 1989. Transplanting Root-balled Trees. BS 8004: 1986. Foundations. BS 8103: 1995.

Structural design of Low-Rise Buildings. BS 8206: 1992. Lighting for Buildings.

BS 8545:2014. Trees: From nursery to independence in the landscape – Recommendations

BS 3882: 2007. Topsoil. BS 4428: 1989. General Landscaping Operations (excluding hard surfaces). Permission to do Works to Protected Trees / Tree Law Forestry Commission (Edinburgh, 2003), Tree Felling – Getting Permission. Country Services Division - Forestry Commission. Downloadable at [www.forestry.gov.uk/website/pdf.nsf/pdf/wgsfell.pdf/\\$FILE/wgsfell.pdf](http://www.forestry.gov.uk/website/pdf.nsf/pdf/wgsfell.pdf/$FILE/wgsfell.pdf)

Transport and the Regions (Department of the Environment, 2000), Tree Preservation Orders, A Guide to the Law and Good Practice. Downloadable at www.communities.gov.uk/publications/planningandbuilding/tposguide

C. Mynors, The Law of Trees, Forests and Hedgerows (Sweet and Maxwell, London, 2002)



Communities and Local Government website with numerous downloadable documents, from:
<http://www.communities.gov.uk/planningandbuilding/planning/treeshighhedges/Lighting Levels>

P.J. Littlefair, B.R.E. 209: Site layout planning for daylight and sunlight A guide to good practice. B.R.E. Bookshop, London.

British Standards Institution. Code of practice for daylighting. British Standard BS 8206: Part 2 (1992).

Chartered Institution of Building Services Engineers. Applications manual: Window Design (London, 1987).

NBA Tectonics. A study of passive solar housing estate layout. ETSU Report S-1126. Harwell, Energy Technology Support Unit (1988).

I.P. Duncan; D. Hawkes, Passive solar design in non-domestic buildings. ETSU Report S-1110. Harwell, Energy Technology. P. J. Littlefair, Measuring Daylight, BRE Information Paper 23/93 f3.50. (Advises on measuring daylight under the real sky or an artificial sky, allowing for the changing nature of sky light).

High Hedges Communities and Local Government website with numerous downloadable documents, from:
<http://www.communities.gov.uk/planningandbuilding/planning/treeshighhedges/Tree Specific>

Websites

www.trees.org.uk Arboricultural Association www.rfs.co.uk Royal Forestry Society of England, Wales and N. Ireland

www.treehelp.info The Tree Advice Trust

www.woodland-trust.org.uk The Woodland Trust www.treecouncil.org.uk The Tree Council

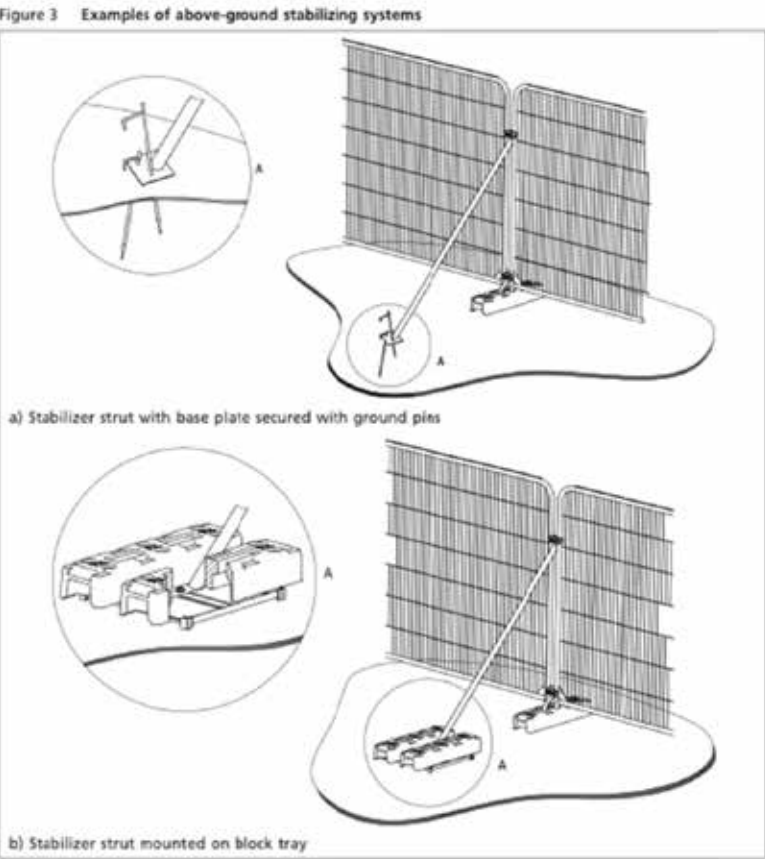
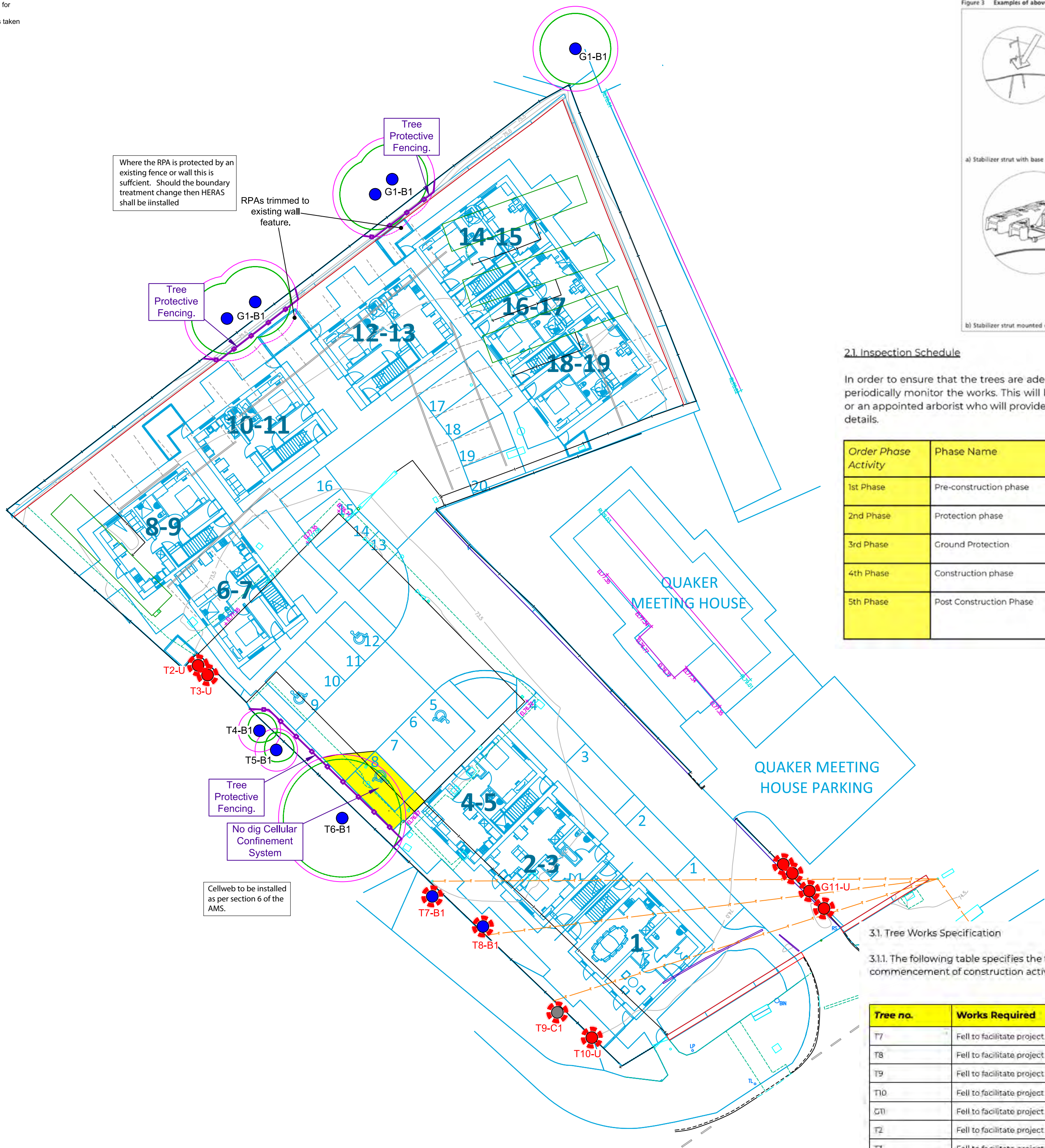
www.roavr-environmental.co.uk - UK wide consultancy

www.go-roavr.co.uk - portal for booking tree surveys UK wide.



Appendix 1 - Tree Protection Plan

General Notes
Do not scale off drawing - refer to the tree data schedule for accurate crown spread measurements.
Depictions of tree canopies are based on measurements taken to four cardinal compass points.
No liability of any kind is accepted for any omissions or inaccuracies in respect of this plan.
The original of this drawing was produced in colour – a monochrome copy should not be relied upon.
All rights reserved.



2.1. Inspection Schedule

In order to ensure that the trees are adequately protected it shall be necessary to periodically monitor the works. This will be done by the local authority tree officer or an appointed arborist who will provide the tree officer with a copy of inspection details.

Order Phase Activity	Phase Name	Works required
1st Phase	Pre-construction phase	Pre-start ACoW visit with all interested stakeholders
2nd Phase	Protection phase	ACoW visit to sign off tree protection measures
3rd Phase	Ground Protection	ACoW visit to sign off tree protection measures
4th Phase	Construction phase	ACoW visit to supervise any cellweb installation works
5th Phase	Post Construction Phase	ACoW visit to supervise removal of protection measures and final site sign off.

Tree Protection Plan showing proposed layout with tree categories and root protection zones.

Key

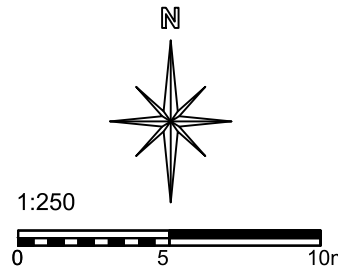
- Category A**
Trees of high quality with an estimated remaining life expectancy of at least 40 years
- Category B**
Trees of moderate quality with an estimated remaining life expectancy of at least 20 years
- Category C**
Trees of low quality with an estimated remaining life expectancy of at least 10 years, or young trees with a stem diameter below 150 mm
- Category U**
Trees in such a condition that they cannot realistically be retained as living trees in the context of the current land use for longer than 10 years
- BS 5837:2012 Root Protection Area**
Note: The RPA limits for some groups may be represented by a dashed/hatched category coloured line.
- Tree**
Showing Canopy extents, category colour, tag number (with category) and optional indication arrow showing bearing of first significant branch.
- Tree Protective Fencing**
- Trees for Removal**
- No dig Cellular Confinement System**

Tree/Group/Hedge numbering: 1-11.

3.1. Tree Works Specification

3.1.1. The following table specifies the tree works which will be required prior to the commencement of construction activity:

Tree no.	Works Required	Phase Timing
T7	Fell to facilitate project	Pre-start
T8	Fell to facilitate project	Pre-start
T9	Fell to facilitate project	Pre-start
T10	Fell to facilitate project	Pre-start
G11	Fell to facilitate project	Pre-start
T2	Fell to facilitate project	Pre-start
T3	Fell to facilitate project	Pre-start



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Client
RML Consulting

Project
Holt Road, Wrexham.

Drawing Title
Tree Protection Plan

Scale
1:250@A2

Date
Nov 2021

DB
CS

CB
MH

Drawing Number
21_5837_01_25

Rev
1

Tree Number	Species	Age Class	DBH	Height (crown height)	N	E	S	W	Condition	Life Expectancy	Physical Description	Comments	Managment Recommendations	RPA offset from stem.	Category Rating
G1	<i>Acer pseudoplatanus</i> (Sycamore), <i>Fraxinus excelsior</i> (Ash)	EM-SM	300 max	8 max	As drawn				Fair-Good	20+	Tree located within raised bed. Part of linear group. Stem divides at ground level. Stem divides below 1.5m.	Offsite group of several multi-stemmed individuals on banking above site; constrained RPA; dbh estimated	No works required	3.6	B3
T2	<i>Acer pseudoplatanus</i> (Sycamore)	EM	200	8(1)	2	2	2	2	Fair	20+	Tree located within hard surface area. Epicormics on stem. Stem divides at ground level. Branches encroaching upon building.	Poor quality multi-stemmed self-set on boundary fence line; limited long term prospects due to location and form.	Consider Removal	2.4	U
T3	<i>Acer pseudoplatanus</i> (Sycamore)	EM	250	7(1)	2.5	2.5	2.5	2.5	Fair	20+	Tree located within hard surface area. Epicormics on stem. Stem divides at ground level. Branches encroaching upon building.	Poor quality multi-stemmed self-set on boundary fence line; limited long term prospects due to location and form.	Consider Removal	3	U
T4	<i>Fraxinus excelsior</i> (Ash)	EM	150	7(3)	1.5	1.5	1	1	Fair	20+	Tree located within hard surface area. Leaning North-East. Branches encroaching upon building.	Located offsite; self-set.	No works required	1.8	B1
T5	<i>Fraxinus excelsior</i> (Ash)	EM	150	7(2)	1.5	1.5	1	1	Fair	20+	Tree located within hard surface area. Tree located within raised bed. Leaning North-East. Mechanical Damage. Branches encroaching upon building.	Located offsite; self-set.	No works required	1.8	B1
T6	<i>Acer pseudoplatanus</i> (Sycamore)	M	450	11(3)	5	5	5	5	Fair	20+	Tree located within hard surface area. Unable to inspect stem due to undergrowth. Mechanical Damage. Low branches over road/footpath. Branches encroaching upon building.	Located offsite; self-set.	No works required	5.4	B1
T7	<i>Fraxinus excelsior</i> (Ash)	M	300	11(3)	3.5	3.5	3.5	3.5	Fair	20+	Tree located within hard surface area. Tree located within raised bed. Unable to inspect stem due to undergrowth. Low branches over road/footpath.	Located offsite; self-set.	No works required	3.6	B1
T8	<i>Fraxinus excelsior</i> (Ash)	M	200	10(3)	1	1	1	1	Fair	20+	Tree located within hard surface area. Tree located within raised bed.	Located offsite; self-set.	No works required	2.4	B1
T9	<i>Crataegus monogyna</i> (Hawthorn)	EM	100	7(1)	1	1	1	1	Fair	10+	Poor shape & form. Declining. Tree located within hard surface area. Tree located within raised bed. Unable to inspect stem due to undergrowth. Mechanical Damage.	Located offsite; self-set.	No works required	1.2	C1
T10	<i>Acer pseudoplatanus</i> (Sycamore)	M	300	8(1)	3	3	3	3	Poor	<10	Tree located within hard surface area. Epicormics on stem. Stem divides at ground level. Mechanical Damage. Low branches over road/footpath.	Partially occluded through fence at entrance to the site.	Requires removal	3.6	U
G11	<i>Acer pseudoplatanus</i> (Sycamore)	SM-M	310 max	7 max	As drawn				Poor	<10	Poor shape & form. Declining. Tree located within hard surface area. Part of linear group. Major bark wounding on stem. Stem divides at ground level. Mechanical Damage. Low branches over road/footpath.	Partially occluded through fence at entrance to the site.	Requires removal	3.72	U