BNTW - SCOTLAND

6 WESTBANK

AUCHTERMUCHTY

FIFE

KY14 7LA

Attention Sophia Cockell
Senior Consultant
SLR Consulting Ltd

Re: Tree Impact Assessment
BS:5837 Arboriculture Method Statement
Land at Kirknewton GR: NT 10322 64907

Draft AMS relating to:

BS:5837 Tree Survey, at, **Land at Kirknewton**
GR: NT 10322 64907

02/10/25
Revised 23/10/25

BNTW - SCOTLAND

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Contents

1) Terms of Reference

1.1 Initial instructions were received by email on 21st August 2025 by Sophia Cockell,SLR Consulting Limited 3rd Floor, Summit House, 12 Red Lion Square, London, United Kingdom, WC1R 4HQ with regards to assisting this development project - BS:5837 Tree Survey, at,

Land at Kirknewton GR: NT 10322 64907

1.2 I was instructed to undertake a tree survey and Tree Protection Plan and compile an Arboricultural Method Statement (AMS) in accordance with **British Standard BS5837: 2012 'Trees in relation to design, demolition and construction - Recommendations'** to satisfy tree protection requirements of Planning Condition (2), including the removal of a number of low-quality / semi-mature /hardwoods//ornamentals within the annex/development boundary.

1.3 Any subsequent amendments including to the approved plans or requiring changes to either the AMS / TPP, compliance with any subsequent planning conditions and attendance at site meetings or site supervision will be in addition to the current work undertaken.

1.4 Existing and proposed location and site plans have been supplied by the client in Digital/PDF format. In the absence of a detailed topographical plan, trees have been plotted in relation to existing site features.

1.5 Qualifications held by me include:

- Scotvec Diploma in Forestry
- PTI Lantra
- QTRA

I have over 44 years of forestry experience (Forestry Commission) from practical to land management including research/forest health, private consultancy and as a local authority Arboricultural Officer.

2) Scope of Report and Limitations

2.1 The tree data gathered is for the purposes of a development site survey in accordance with BS5837:2012 and is **not** a detailed tree safety inspection. As general guidance it is recommended that regular tree safety inspections are carried out by a competent person to ensure that the owner / controller of the land fulfils their duty of care to persons who may reasonably be affected.

2.2 A preliminary visual assessment of each tree was carried out from ground level noting external defects and features only. All measurements are estimated and tree locations on the attached plans have been plotted with gps.

2.3 The tree assessment 2025, did not include a detailed examination of tree root systems, aerial access, or the use of internal decay detection equipment. A tree with internal faults will often display associated external evidence of such faults; these would be noted in a visual tree inspection. However, such signs are not always apparent at all times of the year, for example fungal fruiting bodies or leaf size and condition. The survey findings and recommendations have been drawn from the evidence present on the day of inspection.

2.4 Only trees identified within the development boundary have been surveyed as per instructions received i.e. those within or 30 metres adjacent to the access point off Leyden Road which could be affected either directly (proximal to the area of construction) or indirectly (e.g. during the construction phase).

2.5 This report expressly excludes any liability for any direct or indirect structural damage that the trees may cause to property including any structural movement, subsidence and heave. Where necessary, appropriate specialists e.g. structural engineer, building surveyor or drainage expert should be consulted for specific advice including foundation design and anti-heave precautions. No reliance shall be placed on any comment(s) made in respect of the structural integrity of any main structure or drainage system located on the premises to which this survey and report relates.

2.6 The survey expressly excludes an assessment of the presence or absence of any invasive species.

N/a

2.7 The Local Planning Authority (West Lothian Council) must be consulted by the Client prior to any works being carried out to establish whether any Tree Preservation Orders (TPO's) or Conservation Areas apply to the site and that any relevant planning conditions have been appropriately discharged. Failure to obtain written permission for works to protected trees may result in a substantial fine and criminal conviction. No works to any neighbouring trees should be undertaken without the agreement and express permission (in writing) of the owner.

2.8 Full consideration must be given to current legislation by anyone proposing to carry out works to trees, particularly with regards to the presence of European Protected Species (including bats). Arboricultural ('tree surgery') contractors should be adequately trained, experienced and carry adequate insurance. All works should be carried out to the current edition of British Standard BS3998 'Recommendations for Tree Work', 2010.

2.9 This report should be considered valid for a period of **12 months** from date of original issue assuming that any recommendations are carried out. Additional inspection is recommended following exposure to extreme weather, significant wounding or damage (e.g. incursion into the rooting zone, impacts, etc.) or any other event giving cause for concern.

2.10 The information contained within this document is provided without prejudice and is based upon the author's knowledge, experience, qualifications and published research. The author cannot be held responsible for the consequences of a difference of opinion held by third parties, for example the Local Planning Authority or Planning Inspectorate.

2.11 Third Party Disclaimer: Any disclosure of this report to a third party is subject to this disclaimer. The report was prepared by BNTW Scotland at the instruction of, and for the use by, the Client named within the report and the Local Planning Authority. This report does not in any way constitute advice to any third party who is able to access it by any means.

3) Arboricultural Method Statement

An Arboricultural Method Statement (AMS) will be required where any construction operations, including access, are proposed within or adjacent to the RPA (or crown spread where this is greater) of any retained trees. This applies to trees within the scope of this proposed development.

The intention of the method statement is to minimise the risk of any adverse impact on the trees to be retained (especially damage caused by excavation and soil compaction) and to clearly demonstrate how relevant operations will be undertaken. It should also specify appropriate tree and ground protection measures in accordance with BS5837:2012 which will be detailed on the Tree Protection Plan (TPP).

NB: *It is presumed that approval of the Tree Protection Plan and Arboricultural Method Statement contained within this report - normally relating to the discharge of Planning Condition(s):*

*** will represent deemed consent by West Lothian Council for the listed preconstruction tree works (including tree removals) without further reference to the Local Planning Authority.* ***TBC by LPA***

*** Ref Tree Protection Plan / Compensatory Planting Plan*

3.1 Site Information

3.1.1 Site Address:

Land at Kirknewton GR: NT 10322 64907

3.1.2 Planning Information

Planning Condition(s) **TBC by LPA** (tree protection measures) to grant of planning consent Re: **Land at Kirknewton GR: NT 10322 64907**

	Name	Contact Details
Client	Sophia Cockell Senior Consultant On behalf of Trio Power Ltd	SLR Consulting Limited 3rd Floor, Summit House, 12 Red Lion Square, London, United Kingdom WC1R 4HQ
Architect		as above
Site Agent / Manager / Building Contractor	To be appointed	-
Arboriculture Consultant:	David Robertson	BNTW SCOTLAND 6 Westbank, Auchtermuchty, Cupar, Fife , KY14 7LA
Local Planning Authority	West Lothian Council	West Lothian Civic Centre, Howden South Road, Livingston, West Lothian, EH54 6FF
Local Authority Planning Case Officer	To be appointed	West Lothian Civic Centre, Howden South Road, Livingston, West Lothian, EH54 6FF
Local Authority Tree Officer	To be appointed	

3.2 Introduction *to be read in conjunction with the Tree Protection Plan (TPP) & Compensatory Planting Plan (CPP)*

3.2.1 Overview

This document outlines the methodology to be followed for any operation that may result in the loss or damage to trees in or adjacent to "Land at Kirknewton GR: NT 10322 64907" during the construction of the new domestic property and associated landscaping works, in particular:

- Tree works to be undertaken
- How the retained trees will be protected
- How works close to the trees will be carried out
- Responsibilities, supervision and emergency procedures

Copies of this document should be made available on site for consultation by anyone carrying out operations in proximity to the tree. Reference will be made throughout to **BS5837:2012 'Trees in relation to design, demolition and construction - Recommendations'**.

3.2.2 Legal Considerations

No works should be carried out to any tree without first confirming with the LPA whether they are subject to any form of protection and that all relevant consents have been granted. Unauthorised works to protected trees (including their roots), including those protected by a Tree Preservation Order or Conservation Area may result in a criminal conviction and substantial fine - no notifications have been made to date.

3.2.3 Significance of Planning Conditions

The grant of planning permission relating to this development is subject to the following planning condition specifically relating to tree protection measures. This relates directly to the approval of and compliance with the tree protection measures detailed within this Arboricultural Method Statement and the accompanying Tree Protection Plan.
To be specified, that the Landscape Enhancement and Mitigation Plan (LEMP) will be agreed with the council.

Note:

Any breaches of any stated conditions may result in the LPA carrying out an investigation of that breach. The client / developer will be advised to adhere to the requirements of the planning condition(s) and if the breach continues to take place the LPA can use various planning enforcement tools such as a Temporary Stop Notice, Enforcement / Stop Notice or a Breach of Condition Notice.

3.2.4 Notifying the Local Planning Authority

It is the responsibility of the client or their appointed Site Agent / Manager to ensure that appropriate notice as required by the LPA is given prior to the commencement of works.

3.2.5 Pre-Commencement Site Meeting

A pre-commencement site meeting is recommended and should be arranged by the client or their appointed Site Agent / Manager including the main contractor and arboriculturist (with the LA Tree Officer invited to attend) to discuss issues of tree protection and appropriate precautions to avoid damage to rooting systems.

3.3 Pre-Construction Schedule of Works to Trees

3.3.1 Trees to be Removed

No trees within the boundary of the Development are to be removed. Please refer to the Tree Survey Schedule for further details on tree condition. Ref Table 1 & 2 below

Note: Stumps should not be removed using mechanical excavation equipment where it is reasonably foreseeable that this may cause damage to the root systems of adjacent retained trees. Where such methods are used, appropriate precautions should be in place including site supervision, the use of a toothless bucket, placement of temporary ground protection and the use of a banksman while manoeuvring near the canopies of retained trees.

NB: *It is presumed that approval of the Tree Protection Plan and Arboricultural Method Statement contained within this report -***Land at Kirknewton GR: NT 10322 64907***, will represent deemed consent by West Lothian Council for the above tree works (including tree removals) without further reference to the Local Planning Authority.* ***TBC by LPA***

3.3.2 Trees to be Retained

All trees to be retained trees, are proposed with the exception of minor works- namely crown reduction/lifting.

3.3.3 Conditions Regarding Tree Work

Tree work is a potentially hazardous activity; anyone carrying out these operations must be appropriately trained, experienced and carry appropriate insurance. All works will be carried out in accordance with BS3998: 2010 'Recommendations for Tree Work' or current industry best practice. In particular:

- Contractors to confirm protected status of any trees and obtain necessary permissions before work starts

- Full consideration must be given to all relevant legislation including the Health and Safety at Work Act 1974, the Management of Health and Safety at Work Regulations 1999, the Wildlife and Countryside Act 1981 (as amended), The Countryside and Rights of Way Act 2000 and the Conservation of Habitats and Species Regulations 2017 regarding European Protected Species such as bats. Works should be timed, where possible, to avoid the bird nesting season (March to September)
- Contractors to comply with the Work at Height Regulations 2005 particularly when making an assessment of a tree's condition before undertaking climbing operations

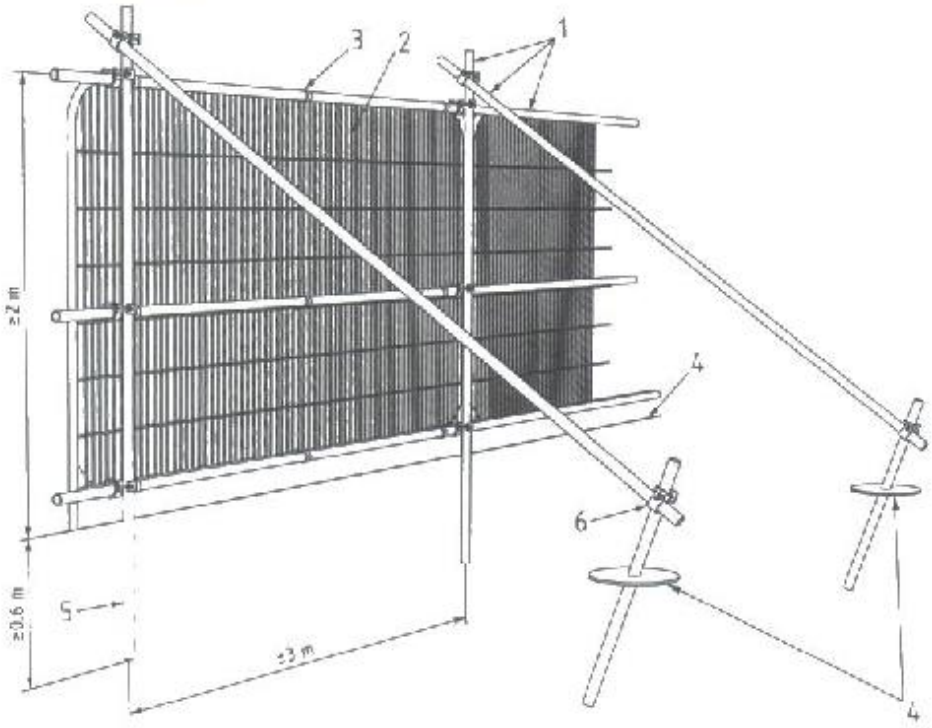
3.4 Tree protection

3.4.1 Protective Fencing Specification

Protective fencing will be fit for purpose, complying with Figures 2-3 in BS5837:2012 (see below) unless otherwise specified and agreed in writing by the LPA. For example, the use of a wooden post framework with plywood hoarding as alternative form of protection providing that it can be securely installed without causing any root damage, or in low-risk environments using orange builder's mesh supported by road pins.

BRITISH STANDARD **BS 5837:2012**

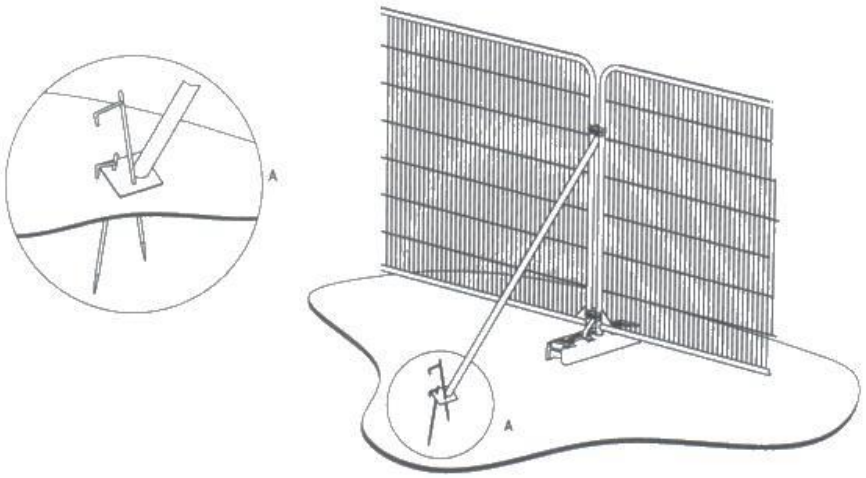
Figure 2 **Default specification for protective barrier**



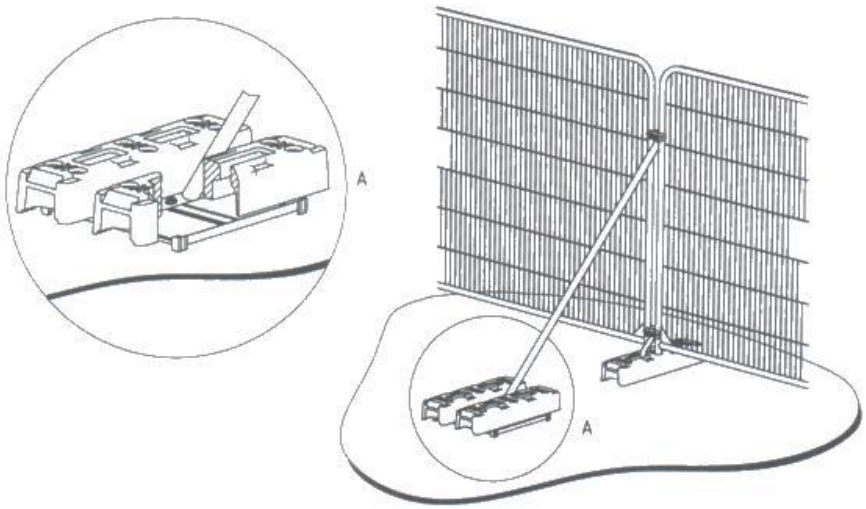
Key

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

Figure 3 **Examples of above-ground stabilizing systems**



a) Stabilizer strut with base plate secured with ground pins



b) Stabilizer strut mounted on block tray

Protective fencing will:

- Be erected prior to any demolition or construction (excluding pre-development tree works) taking place at distances specified within the Tree Protection Plan
- Have appropriate all-weather warning signs clearly affixed e.g. 'CAUTION - PROTECTED TREE' (See Appendix 1 for suggested examples)
- Remain in place until completion of the construction phase (including the new retaining walls for the patio). Removal only to take place following the approval of the Tree Officer.

Once erected, the area within the barriers – the **Construction Exclusion Zone** (shaded area marked 'CEZ' on the Tree Protection Plan) – must be regarded as sacrosanct and not removed or altered without the prior recommendation of an arboriculturist and approval of the LPA / Local Authority Tree Officer.

Care must be taken to avoid underground utilities or buried obstacles when installing any support poles or pegs (the supports being installed on the 'protected' CEZ side of the fencing). Where space does not allow for the installation of a scaffold framework to support the protective fencing, panels are to be affixed to secure anchor blocks to prevent unauthorised movement or removal. NB: Where the client or their appointed Site Agent / Manager sees that any alternative anchor systems are being moved without authorisation then the fencing must be upgraded to the full BS 'Figure 2' specification.

Where site huts or temporary storage containers are used as components of the protective fencing or temporary ground protection the following precautions should be observed:

- Retain any existing hard surfacing or use railway sleepers (or similar bulk timber / ground mats) to spread the load
- No excavation within the RPA to install the huts and no trenching to install temporary services e.g. drainage to the site facilities
- Observe all precautions set out in this document regarding discharge of materials, diesel, concrete, etc. and emergency procedures in the event of spillages

3.4.2 Ground Protection and Temporary Access

Where temporary ground protection is required within the Root Protection Area or CEZ of a retained tree(s) as shown on the Tree Protection Plan then this should be designed to cope with the expected load and be capable of preventing soil compaction. Detailed guidance is provided in BS5837:2012 section 6.2.3.3 including for:

- Pedestrian movement (including scaffolding) - a single-thickness scaffold board on top of a compressible layer e.g. 100mm depth of woodchip laid on a geotextile fabric
- Pedestrian-operated plant up to 2t – proprietary ground protection boards on top of a compressible layer e.g. 150mm depth of woodchip laid on a geotextile fabric
- Construction machinery exceeding 2t – proprietary ground protection or pre-cast slabs to an engineer's specification. An assessment of the need for upgrading the existing driveway should be made by an engineer before commencement of works

Where scaffolding requires additional space to be safely installed or for a wider working width, the tree protection fencing may be moved back as required only if this is accompanied by a corresponding increase in appropriate ground protection. If the supporting feet need to be placed directly onto the ground for reasons of stability, their combined area should not result in a significant incursion into any RPA.

3.5 Development Operations

3.5.1 The nature of the development and restricted space should result in a low intensity build environment as overseen by the Client's appointed Site Agent / Manager. Details (subject to confirmation) include:

Site Access	Main site access from private tarmac road via front of property (through gates).
Build Sequence / Arboricultural Supervision & Monitoring	• Pre-commencement site meeting (RBG Tree Officer to be invited) # • Completion of approved tree works • Installation of tree protection fencing / temporary ground protection # • Excavation # / installation of new foundations / connection to drainage & service utility runs • Construction of new extension • Hard landscaping operations • Soft landscaping operations **# Indicates Arboricultural Involvement / Supervision / Monitoring Recommended**
Service Installation including drainage	Use of existing service routing where possible with the routing of additional services outside of amended RPAs of any retained trees. NJUG Volume 4 Guidelines to be followed for any excavation / installation near trees
Contractors Car Parking	On street parking in accordance with local restrictions
Deliveries / Storage	No materials to be stored / no concrete mixed / re-fuelling within CEZ's. Appropriate precautions in place e.g. fully bunded trays / impermeable membranes to prevent contaminants reaching any RPA
Site Huts / Welfare Facilities	May be located within development envelope subject to precautions detailed in AMS section 3.4.1

3.5.2 Demolition

No significant demolition operations are required. All plant should either be located outside of any RPA or operate on appropriate ground protection (see section 3.4.2, above) and any movements are supervised to avoid causing damage to retained trees. Adequate water supplies should be in place so that if there is a significant build-up of dust on foliage then the trees can be hosed down.

3.5.3 Ground Level Changes

No significant ground level changes are anticipated as part of this development. Any subsequent changes to ground levels within the CEZ or areas marked as 'Temporary Ground Protection' must be approved in writing by the LPA and subject to arboricultural advice. The General Precautions / Prohibited Activities listed in section 3.5.11 (below).

3.5.4 Removal of Existing Hard Surfaces

Any hard surfacing with the RPA (s) must be carefully lifted using hand tools working from the remaining hard surfacing and immediately replaced with either temporary ground protection or appropriate tree protection fencing. Care should be taken to avoid damage to roots that may be present beneath the surface.

3.5.5 Foundation Excavation / Installation

N/A

- Exposed roots to be immediately wrapped or covered to avoid desiccation
- Backfilling to take place as soon as possible. Prior to backfilling retained roots to be surrounded with topsoil, uncompacted sharp sand or other inert loose granular material before the soil is replaced. Builders' sand should not be used due to its high salt content.
- Pruning back of roots <25mm diameter making a clean cut with a suitable sharp tool
- Clumps of roots and roots >25mm diameter only to be severed after consultation with an arboriculturist

The soil and roots of retained trees adjacent to the foundations (if applicable) should be protected from the effects of wet concrete leachate through the use of impermeable liners or sheathing. **A copy of the finalised foundation design should be attached to the AMS when available and the project arboriculturist consulted on the need for any additional precautions.**

Root severance, tree de-stabilised

Significant roots retained

3.5.6 New Drainage

It is anticipated that connections will be made to the existing drainage runs and that any soakaways will be installed where they will not cause harm to the rooting systems of any retained tree. Should they need to be cited within these areas, then they must be subject to LPA approval and be accompanied by a separate method statement.

3.5.7 Installation of Low-Invasive Surfacing

There is requirement for low-invasive surfacing on this site eg geocell or Arbweb.

Determined by supervised trial excavations in conjunction with arboricultural advice. Where necessary, any design and construction of new hard surfacing by an appropriate specialist should adequately consider and allow for the following factors (the performance specification):

- *Allows gaseous exchange (horizontally and vertically)*
- *Water permeable while preventing contaminants entering the rooting area*
- *Allows for future growth of the root system*
- *Recognises the fact that the majority of roots are found in the top 600mm of soil*

The inclusion of a cellular confinement system (proprietary products such as 'Cellweb' are available e.g. www.geosyn.co.uk or telephone 0870 850 1018 (Geosynthetics Ltd)) avoiding the need for excavation into the underlying soil may assist with the delivery of this specification. Further advice is available in the Arboricultural Association Guidance Note 14 'The use of Cellular Confinement Systems Near Trees' 2020.

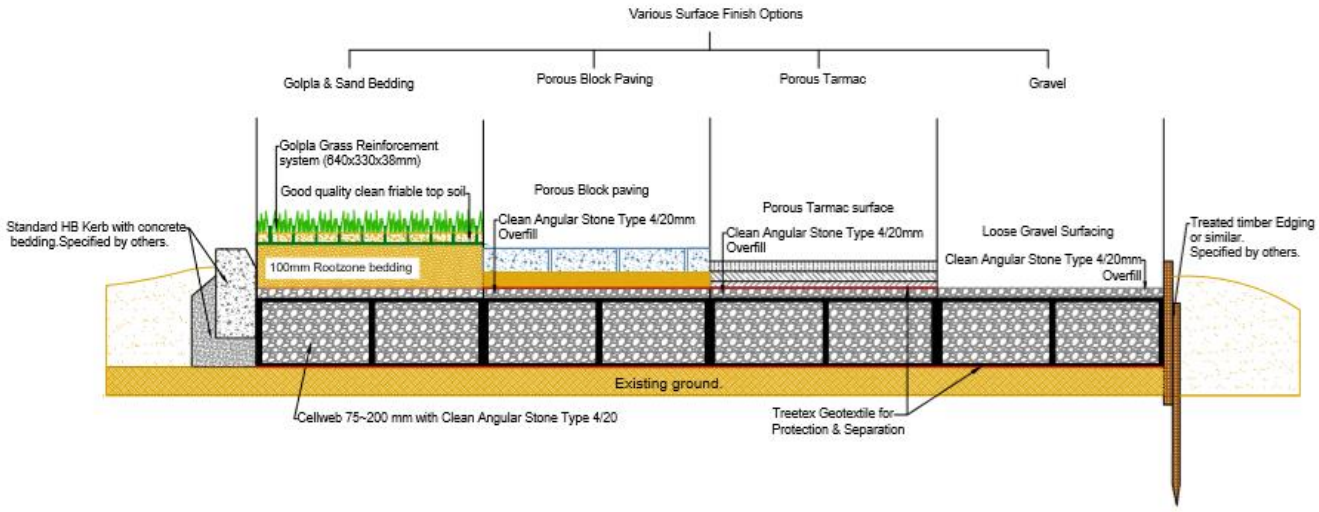


Diagram 1: Example of low-invasive surfacing with alternative surface treatments and no-dig edging

Suggested Method: (further information available in BS5837:2012 section 7.4 and APN 12)

- *Existing hard surfacing or loose organic matter and / or turf to be carefully removed using hand-held tools or appropriate machinery working backwards over the area so that the machinery is not working on the exposed ground. Alternatively, machinery will work from appropriate temporary ground protection i.e. it will not compact the exposed rooting area*
- *Any roots encountered should be treated in accordance with BS5837:2012 section 7.2. In particular roots >25mm in diameter should only be severed following consultation with an arboriculturist. Exposed roots should be immediately wrapped or covered to avoid desiccation*
- *Fill any hollows using sharp sand (Builder's sand not to be used due to high salt content)*
- *Install the geotextile fabric layer.*
- *Lay the cellular confinement system over the geotextile fabric layer*
- *Fill the cellular confinement system using a no-fines angular material, working from the area already filled to minimise the risk of soil compaction*
- *Install finished surface (may be delayed until completion of construction works if the sub-base is appropriately overcharged with no-fines angular material) according to architect's / engineer's specification*

3.5.8 Hard Landscaping

- Any new post holes or hard landscape foundations within any retained tree RPA should be carefully excavated using hand tools and should be positioned to avoid any damage to roots. Any roots encountered <25mm in diameter should be cleanly severed and treated in accordance with BS5837:2012 section 7.2. Roots >25mm should only be severed following arboricultural advice

- Any in-situ poured concrete (e.g. new retaining walls / steps) in close proximity to any retained trees must be separated from the existing soil by heavy duty impermeable membrane to prevent the potentially damaging effects on the rooting area
- Post holes should be lined with heavy duty impermeable membrane prior to the pouring of any concrete
- Landscaping operations should be carried out in accordance with BS4428:1989

3.5.9 Soft Landscaping (including new tree and shrub planting - Ref TREE PROTECTION PLAN & COMPENSATORY PLANTING PLAN - 01/010/25

1) Site Preparation:

- ***Protective fencing and use of Construction Exclusion Zone (see TPP) to protect potential new planting areas from compaction, contamination, etc.*** All ground preparation and planting operations adjacent to existing retained trees, shrubs and hedges to be undertaken using hand tools only. No chemicals are to be used
- Any changes in soil level +/- 300mm to be made using imported soil meeting BS3882:2007 'Multipurpose' classification standards
- Shrub planting areas are to be graded to be approximately 50mm below any adjacent surfaces prior to planting and mulching. Remaining landscape areas to be graded flush with existing/finished levels
- Landscaping operations should be carried out in accordance with the following British Standards:
    - BS4428:1989 ‘Code of practice for general landscape operations (excluding hard surfaces)’
    - BS8545:2014 ‘Trees: from nursery to independence in the landscape – Recommendations’
    - BS5837:2012, ‘Trees in relation to design, demolition and construction – Recommendations’
    - BS3996 ‘Nursery Stock’ (all parts) and BS7370-4 ‘Recommendations for maintenance of soft landscape (other than turf)’

2) Shrub Planting:

- All planting to be handled, stored, transported and planting in accordance with BS8545:2014 Trees: from nursery to independence in the landscape Recommendations
- All planting to be watered thoroughly (field capacity) prior to planting.
- Topsoil to all shrub planting areas to be improved with 50mm depth composted green waste to BSI PAS 100
- Planting holes / trenches to be cultivated to a minimum of 300mm depth incorporating composted soil improver (detailed above) and slow-release fertilizer to manufacturer’s recommended rates

3) Tree Planting

- At time of planting, tree compost and slow-release fertilizer to be incorporated into backfill material at manufacturer's recommended rates
- Trees to be staked with 1.2 metre tree shelters using 30mm square x 1.5m tree stakes.

Example Planting Schedule (species selection / location TBC as part of landscaping scheme)						
Reference to be made to BS3936: Part 1: 1992 - Nursery Stock. Specification for Trees and Shrubs.						
Name (common and botanical)	Height	Root (container (C), root ball (RB) bare root (BR)	Container Size (Lt)	Spacing per sq. m	Centres	Quantity
Field Maple *(Acer campestre)*	40-60 Whip	C	-	Specimen tree	-	1
Snowy Mespil *(Amelanchier lamarckii)*	40-60 Whip	C	-	Specimen tree	-	1
Japanese Cherry e.g. *Prunus* 'Pink Perfection'	40-60 Whip	C	-	Specimen tree	-	1

4) Mulch, Weed Control and Watering

- All planting areas (shrub and hedge) to be mulched with medium grade bark mulch laid to depth of 75mm
- Areas of new planting to be hand weeded
- Shrubs to be watered as appropriate to ensure that the soil remains moist during the growing season (March-November)

3.5.10 Aftercare

Adequate soil moisture levels should be maintained around all new tree planting. Regular watering should be undertaken to ensure that the soil remains moist particularly during periods of hot weather and / or low rainfall (e.g. the application of 20L to 30L every 2 weeks during the Spring and Summer) and mulch reapplied as required. Trees should be inspected upon completion of the development and any post development works specified to BS3998:2010. Additional watering of the established mature trees on site is not considered necessary although water should be available to flush through any contamination.

3.5.11 Prohibited Activities / General Precautions

- No storage of materials (including excavated material) or mixing of concrete / mortar within any RPA unless appropriate precautions are in place
- Any materials whose discharge may cause damage to a tree (concrete mixings, diesel, vehicle washings, etc.) should be handled well away from the outer edge of its RPA
- Consideration must be given to any slopes that may affect any run-off towards trees
- Fires on site should be avoided where at all possible. Where unavoidable, they should not be lit where heat could affect foliage or branches. Wind direction should be taken into account and the fire attended at all times
- Banksman to oversee movements of high-sided vehicles, grab lorries, unloading, etc. in proximity to any trees (including street trees)

3.5.12 Responsibilities

- It is the responsibility of the Client to ensure that all planning conditions relating to trees (including Planning Condition X) have been adequately discharged before any works to trees on site are undertaken. Unless otherwise agreed in writing, it will be the responsibility of the client or their appointed Site Agent / Manager to ensure that the content of this Arboricultural Method Statement is adhered to
- the Client or their appointed Site Agent / Manager to arrange the pre-commencement site meeting (section 4.2.5, above)
- The main contractor and any sub-contractors are to be briefed on the relevant sections of this prior to commencing any works particularly with regards to the Prohibited Activities. Copies of general information regarding the prevention of damage to trees are included in Appendix 4 to assist with the site induction
- The Client or their appointed Site Agent / Manager are responsible for contacting the LPA / arboriculturist at any time issues relating to the trees on site are raised or when specialist arboricultural advice is needed

3.5.13 Supervision & Emergency Procedures

- Day-to-day supervision will be the responsibility of the Client or their appointed Site Agent / Manager
- Supervision and monitoring by a qualified arboriculturist at key stages of the development (as indicated at section 4.5.1, above) to be coordinated by the Client or their appointed Site Agent / Manager. An example of the Site Supervision / Site Visit Record template is included at Appendix 2.
- Water to be readily available on site and to be used to flush spilt materials through the soil to minimise tree root contamination. Spill kits to be available at all times

- An arboriculturist to be contacted for advice immediately following any unauthorised incursion / spillages within the RPA
- A copy of the Arboricultural Method Statement to be available on site at all times

Appendix 1 – Sample Tree Protection Notices

CAUTION
PROTECTED TREE

Tree Protective barriers are essential to protect tree roots from soil compaction, contamination, poisoning, etc.

Tree Protective Barriers MUST NOT BE REMOVED or REPOSITIONED unless permitted to do so by the Local Planning Authority (LPA).

The barriers MUST remain in place until completion of the development or such earlier time as agreed by the LPA.
PROSECUTION may result from a failure to adhere to these instructions.
The Tree Officer (Royal Borough of Greenwich) can be contacted on 0208 921 3100.

"Leyden Road
Kirknewton 2025"

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

TREE PROTECTION AREA

KEEP OUT !

(TOWN & COUNTRY PLANNING ACT 1990)
TREES ENCLOSED BY THIS FENCE ARE PROTECTED BY PLANNING CONDITIONS AND/OR ARE THE SUBJECTS OF A TREE PRESERVATION ORDER.
CONTRAVENTION OF A TREE PRESERVATION ORDER MAY LEAD TO CRIMINAL PROSECUTION

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

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Appendix 2 – Site Supervision / Site Visit Record

Arboricultural Consultant's Development Site Monitoring Form

Arboricultural Consultant's Details: Company name/address Consultant's name tel: fax: mob:	
Development site address:	Local Planning Authority (LPA):
LPA Case Officer:	LPA Tree Officer:
Developer's details: Company name/address Developer's name tel: fax: mob:	

Stage of development (√):

Pre-development works		**Development works**		**Post-development works**	
Tree works	☐	Demolition	☐	Rectifying tree damage/pruning	☐
Protective fencing/tape	☐	Grading/muck away	☐	Hard landscaping/walls/drives	☐
Fencing signage	☐	Placing portacabin	☐	Removal of protective fencing etc	☐
Ground protection	☐	Excavations/services	☐	Soft landscaping	☐
Temporary haul road	☐	Construction works	☐	Special surfacing ☐ Tree planting	☐

Findings:	
Action taken:	
Further action required/recommendations:	
Comments:	
Date of site visit:	Date of next site visit:

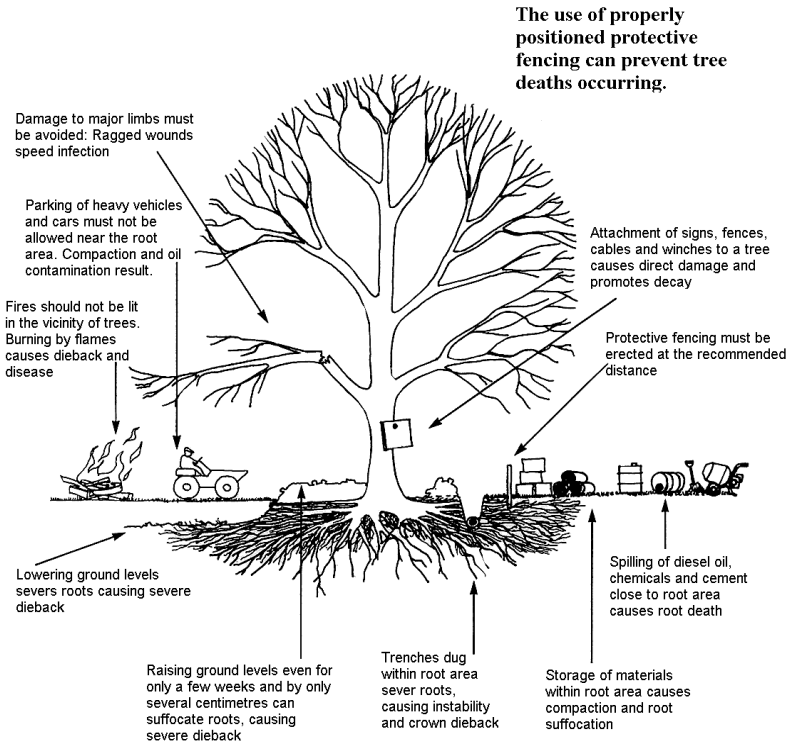
Date sent to Local Planning Authority Case Officer _____

Appendix 3 – Reference Material

- Arboricultural Association Guidance Note 14 ‘The use of Cellular Confinement Systems Near Trees’ 2020
- British Standard 3936:1989 onwards ‘Nursery Stock’ (all parts)
- British Standard 3998:2010 ‘Recommendations for Tree Work’
- British Standard 4428:1989 ‘Code of Practice for General Landscape Operations (excluding hard surfaces)’
- British Standard 5837:2012 ‘Trees in relation to design, demolition and construction - Recommendations’
- British Standard 8545:2014 ‘Trees from nursery to independence in the landscape - Recommendations’
- DCLG Planning Practice Guidance –Tree Preservation Orders and trees in conservation areas
- NHBC Chapter 4.2 ‘Building Near Trees’ 2021
- National Joint Utilities Group NJUG Volume 4 ‘Guidelines For The Planning, Installation And Maintenance Of Utility Apparatus In Proximity To Trees (Issue 2)’ 2007
- Countryside and Rights of Way Act 2000
- Conservation of Habitats and Species Regulations 2017
- Health and Safety at Work Act 1974
- Management of Health and Safety at Work Regulations 1999
- The Town & Country Planning Act 1990, The Town and Country Planning (Trees)(England) Regulations 2012, The Planning (Listed Buildings & Conservation Areas) Act 1990
- Wildlife and Countryside Act 1981
- Construction (Design & Management) Regulations 2015

Appendix 4 – Key Messages for Site Induction (courtesy of the Arboricultural Information Exchange, www.AIE.org.uk)

Common causes of Tree Death



Please use copies of this as an on-site poster for personnel

Construction and Trees

Why Is Fencing Erected Around Trees?

1. The major cause of damage to trees on construction sites is due to **soil compaction**.
2. Roots use the spaces between soil particles to obtain Oxygen, Water and Nutrients.
3. Heavy plant and machinery compresses (compacts) the soil, squashing out the air spaces and preventing root function.
4. A compacted soil structure will stay compacted.
5. Consequently the tree suffers and will show signs of branch die-back.
6. Symptoms such as die-back may take several years to appear.
7. Soil compaction over roots can be prevented by maintaining a fenced exclusion zone over the tree roots.
8. The exclusion zone distance is calculated using British Standard 5837.
9. Protective Fencing is installed at the calculated distance.
10. Protective Fencing is a condition of planning approval, if it is removed or repositioned the construction firm is in breach of a condition and may be subjected to legal action.

APPENDIX - TREES WITHIN DEVELOPMENT BOUNDARY TABLE 1

Tree Number	Species	Height	N	E	S	W	Stem Diameter (m)	Age Class	Physiological condition	INITIAL IMPACT ASSESSMENT	COMMENT	OVERALL IMPACT ASSESSMENT AFTER MITIGATION	Category	RPA Radius	RPA (m2)
T1	Sitka Spruce (Picea sitchensis)	18.1	2	2	2	2	300	MA	Fair	Nil	Tree within development envelope but outwith access track footprint	Nil	C	3.6	40.7
T2	Sitka Spruce (Picea sitchensis)		2	2	2	2	490	MA	Fair	Nil	Tree within development envelope but outwith access track footprint	Nil	C	5.9	108.6
T3	Sitka Spruce (Picea sitchensis)		2	2	2	2	210	MA	Fair	High	Tree within development envelope and adjacent to access track footprint. U category tree	Nil	U		
T4	Sitka Spruce (Picea sitchensis)		2	2	2	2	570	MA	Fair	High	Tree within development envelope /access track footprint , egress approximately 4m	Low/Nil	C	6.8	147.0
T5	Scots Pine (Pinus sylvestris)	9	1	1	1	1	130	MA	Poor	Nil	Tree within development envelope but outwith access track footprint	Nil	U		
T6	Scots Pine (Pinus sylvestris)	9	2	2	2	2	210	MA	Fair	Nil	Tree within development envelope but outwith access track footprint	Nil	C	2.5	20.0
T7	Scots Pine (Pinus sylvestris)	13.2	1	1	1	1	280	MA	Poor	Nil	Tree within development envelope but outwith access track footprint	Nil	U		
T8	Beech (Fagus sylvatica)	12.2	4	4	4	4	490	MA	Fair	Nil	Tree within development envelope but outwith access track footprint	Nil	U		
T9	Sitka Spruce (Picea sitchensis)		1	1	1	1	180	MA	Poor	Nil	Tree within development envelope but outwith access track footprint	Nil	U		
T10	Sitka Spruce (Picea sitchensis)		1	1	1	1	290	MA	Fair	Nil	Tree within development envelope but outwith access track footprint	Nil	C	3.5	38.0
T11	Sitka Spruce (Picea sitchensis)		0	0	0	0	0	MA	Dead	Nil	Tree within development envelope but outwith access track footprint	Nil	U		
T12	Sitka Spruce (Picea sitchensis)		0	0	0	0	0	MA	WB	Nil	Tree within development envelope but outwith access track footprint	Nil	U		
T13	Sitka Spruce (Picea sitchensis)		0	0	0	0	0	MA	Dead	Nil	Tree within development envelope but outwith access track footprint	Nil	U		
T14	Sitka Spruce (Picea sitchensis)		0	0	0	0	320	MA	Fair	Nil	Tree within development envelope but outwith access track footprint	Nil	U		
T15	Sitka Spruce (Picea sitchensis)		0	0	0	0	0	MA	WB	Nil	Tree within development envelope but outwith access track footprint	Nil	U		
T16	Sitka Spruce (Picea sitchensis)		0	0	0	0	0	MA	WB	Nil	Tree within development envelope but outwith access track footprint	Nil	U		
T17	Sitka Spruce (Picea sitchensis)		0	0	0	0	0	MA	WB	Nil	Tree within development envelope but outwith access track footprint	Nil	U		
T18	Sitka Spruce (Picea sitchensis)		0	0	0	0	380	MA	Fair	Nil	Tree within development envelope but outwith access track footprint	Nil	U		
T19	Sitka Spruce (Picea sitchensis)		0	0	0	0	0	MA	Poor	Nil	Tree within development envelope but outwith access track footprint	Nil	U		
T20	Sitka Spruce (Picea sitchensis)		0	0	0	0	0	MA	Dead	Nil	Tree within development envelope but outwith access track footprint	Nil	U		
T21	Sitka Spruce (Picea sitchensis)		1	1	1	1	240	MA	Poor	Nil	Tree within development envelope but outwith access track footprint	Nil	U		
T22	Sitka Spruce (Picea sitchensis)		1	1	1	1	0	MA	Poor	Nil	Tree within development envelope but outwith access track footprint	Nil	U		
T23	Sitka Spruce (Picea sitchensis)		1	1	1	1	0	MA	Poor	Nil	Tree within development envelope but outwith access track footprint	Nil	U		
T24	Sitka Spruce (Picea sitchensis)		1	1	1	1	0	MA	Poor	Nil	Tree within development envelope but outwith access track footprint	Nil	U		
T25	Sitka Spruce (Picea sitchensis)		1	1	1	1	0	MA	Poor	Nil	Tree within development envelope but outwith access track footprint	Nil	U		
T26	Sitka Spruce (Picea sitchensis)		1	1	1	1	280	MA	Poor	Nil	Tree within development envelope but outwith access track footprint	Nil	U		
T28	Sitka Spruce (Picea sitchensis)		2	2	2	2	400	MA	Fair	Nil	Tree within development envelope but outwith access track footprint	Nil	C	4.8	72.4
T27	Sitka Spruce (Picea sitchensis)		1	1	1	1	200	MA	Poor	Nil	Tree within development envelope but outwith access track footprint	Nil	U		
T29	Sitka Spruce (Picea sitchensis)		2	2	2	2	410	MA	Fair	Nil	Tree within development envelope but outwith access track footprint	Nil	C	4.9	76.0
T30	Sitka Spruce (Picea sitchensis)		2	2	2	2	518	MA	Fair	Nil	Tree within development envelope but outwith access track footprint	Nil	C	6.2	121.4
T31	Sitka Spruce (Picea sitchensis)		2	2	2	2	390	MA	Poor	Nil	Tree within development envelope but outwith access track footprint	Nil	U		
T32	Sitka Spruce (Picea sitchensis)		2	2	2	2	630	MA	Good	Nil	Tree within development envelope but outwith access track footprint	Nil	C	7.6	179.6
T33	Sitka Spruce (Picea sitchensis)		2	2	2	2	320	MA	Poor	Nil	Tree within development envelope but outwith access track footprint	Nil	C	3.8	46.3
T34	Sitka Spruce (Picea sitchensis)		2	2	2	2	280	MA	Fair	Nil	Tree within development envelope but outwith access track footprint	Nil	C	3.4	35.5
T35	Sitka Spruce (Picea sitchensis)		1	1	1	1	0	MA	Fair	Nil	Tree within development envelope but outwith access track footprint	Nil	U		
T36	Sitka Spruce (Picea sitchensis)		2	2	2	2	260	MA	Fair	Nil	Tree within development envelope but outwith access track footprint	Nil	C	3.1	30.6
T37	Sitka Spruce (Picea sitchensis)		2	2	2	2	290	MA	Fair	Nil	Tree within development envelope but outwith access track footprint	Nil	C	3.5	38.0
T38	Sitka Spruce (Picea sitchensis)		0	0	0	0	0	MA	Dead	Nil	Tree within development envelope but outwith access track footprint	Nil	U		
T39	Sitka Spruce (Picea sitchensis)		0	0	0	0	0	MA	Dead	Nil	Tree within development envelope but outwith access track footprint	Nil	U		

T40	Sitka Spruce (Picea sitchensis)		0	0	0	0	0	MA	Dead	Nil	Tree within development envelope but outwith access track footprint	**Nil**	**U**		
T41	Sitka Spruce (Picea sitchensis)		1	1	1	1	250	MA	Poor	Nil	Tree within development envelope but outwith access track footprint	**Nil**	**U**		
T42	Sitka Spruce (Picea sitchensis)		0	0	0	0	0	MA	Dead	Nil	Tree Dead	**Nil**	**U**		
T43	Sitka Spruce (Picea sitchensis)		3	3	3	3	500	MA	Fair	Nil	Tree within development envelope but outwith access track footprint	**Nil**	**C**	6.0	113.1
T44	Sitka Spruce (Picea sitchensis)		1	1	1	1	210	MA	Poor	Nil	Tree within development envelope but outwith access track footprint	**Nil**	**U**		
T45	Sitka Spruce (Picea sitchensis)		3	3	3	3	430	MA	Fair	High	Tree within development envelope /access track footprint , egress approximately 4m	**Low/Nil**	**C**	5.2	83.6
T46	Sitka Spruce (Picea sitchensis)		1	1	1	1	320	MA	Fair	Nil	Tree within development envelope but outwith access track footprint	**Nil**	**C**	3.8	46.3
T47	Sitka Spruce (Picea sitchensis)		0	0	0	0	0	MA	Dead	Nil	Tree Dead	**Nil**	**U**		
T48	Beech (Fagus sylvatica)	13.1	4	4	4	4	760	MA	Poor	High	Tree within development envelope /access track footprint , egress – U category tree in poor condition	**Low/Nil**	**U**		
T49	Sitka Spruce (Picea sitchensis)		0	0	0	0	0	MA	Poor	High	Tree within development envelope and adjacent to access track footprint. U category tree	**Nil**	**U**		
T50	Sitka Spruce (Picea sitchensis)		1	1	1	1	0	MA	Poor	High	Tree within development envelope and adjacent to access track footprint. U category tree	**Nil**	**U**		
T51	Sitka Spruce (Picea sitchensis)		2	2	2	2	280	MA	Fair	Nil	Tree within development envelope but outwith access track footprint	**Nil**	**C**	3.4	35.5
T52	Sitka Spruce (Picea sitchensis)		2	2	2	2	300	MA	Fair	Nil	Tree within development envelope but outwith access track footprint	**Nil**	**C**	3.6	40.7
T53	Sitka Spruce (Picea sitchensis)		2	2	2	2	439	MA	Fair	Nil	Tree within development envelope but outwith access track footprint	**Nil**	**C**	5.3	87.2
T54	Sitka Spruce (Picea sitchensis)		2	2	2	2	320	MA	Poor	High	Tree within development envelope and within access track footprint – root egress approx 3m	**Low/Nil**	**C**	3.8	46.3
T55	Sitka Spruce (Picea sitchensis)		3	3	3	3	410	MA	Fair	High	Tree within development envelope and within access track footprint – root egress approx 3.5m	**Low/Nil**	**C**	4.9	76.0
T56	Sitka Spruce (Picea sitchensis)		0	0	0	0	0	MA	Dead	Nil	Dead Tree within development envelope but outwith access track footprint	**Nil**	**U**		
T57	Sitka Spruce (Picea sitchensis)		3	3	3	3	360	MA	Fair	Nil	Tree within development envelope but outwith access track footprint	**Nil**	**C**	4.3	58.6
T58	Sitka Spruce (Picea sitchensis)		3	3	3	3	530	MA	Fair	Nil	Tree within development envelope but outwith access track footprint	**Nil**	**C**	6.4	127.1
T59	Sitka Spruce (Picea sitchensis)		1	1	1	1	210	MA	Poor	Nil	Tree within development envelope but outwith access track footprint	**Nil**	**U**		
T60	Sitka Spruce (Picea sitchensis)		2	2	2	2	350	MA	Fair	Nil	Tree within development envelope but outwith access track footprint	**Nil**	**C**	4.2	55.4
T61	Sitka Spruce (Picea sitchensis)		4	4	4	4	690	MA	Fair	High	Tree within development envelope and within access track footprint – root egress approx 6.0m	**Low/Nil**	**C**	8.3	215.4
T62	Scots Pine (Pinus sylvestris)	6	2	2	2	2	310	MA	poor	High	U category Tree within development envelope and within access track footprint – root egress	**Nil**	**U**		
T63	Scots Pine (Pinus sylvestris)	8	2	2	2	2	310	MA	poor	High	U category Tree within development envelope and within access track footprint – root egress	**Nil**	**U**		
T64	Sitka Spruce (Picea sitchensis)		0	0	0	0	0	MA	Dead	Nil	Dead Tree within development envelope but outwith access track footprint	**Nil**	**U**		
T65	Sitka Spruce (Picea sitchensis)		0	0	0	0	0	MA	Dead	Nil	Dead Tree within development envelope but outwith access track footprint	**Nil**	**U**		
T66	Sitka Spruce (Picea sitchensis)		3	3	3	3	785	MA	Fair	Nil	Tree within development envelope but outwith access track footprint	**Nil**	**C**	9.4	278.8
T67	Sitka Spruce (Picea sitchensis)		1	1	1	1	0	MA	Dead	Nil	Dead Tree within development envelope but outwith access track footprint	**Nil**	**U**		
T68	Sitka Spruce (Picea sitchensis)		2	2	2	2	439	MA	Poor	Nil	Tree within development envelope but outwith access track footprint	**Nil**	**U**		
T69	Sitka Spruce (Picea sitchensis)		4	4	4	4	628	MA	Fair	Nil	Tree within development envelope but outwith access track footprint	**Nil**	**C**	7.5	178.4
T70	Sitka Spruce (Picea sitchensis)		2	2	2	2	376	MA	Fair	Nil	Tree within development envelope but outwith access track footprint	**Nil**	**C**	4.5	64.0
T71	Sitka Spruce (Picea sitchensis)		1	1	1	1	220	MA	Poor	Nil	Tree within development envelope but outwith access track footprint	**Nil**	**U**		
T72	Sitka Spruce (Picea sitchensis)		0	0	0	0	0	MA	Poor	Nil	Tree within development envelope but outwith access track footprint	**Nil**	**U**		
T73	Sitka Spruce (Picea sitchensis)		1	1	1	1	0	MA	Poor	Nil	Tree within development envelope but outwith access track footprint	**Nil**	**U**		
T74	Sitka Spruce (Picea sitchensis)		3	3	3	3	549	MA	Fair	Nil	Tree within development envelope but outwith access track footprint	**Nil**	**C**	6.6	136.4
T75	Sitka Spruce (Picea sitchensis)		0	0	0	0	0	MA	Dead	Nil	Dead Tree within development envelope but outwith access track footprint	**Nil**	**U**		
T76	Sitka Spruce (Picea sitchensis)		3	3	3	3	533	MA	Fair	Nil	Tree within development envelope but outwith access track footprint	**Nil**	**C**	6.4	128.5
T77	Sitka Spruce (Picea sitchensis)		5	5	5	5	847	MA	Fair	Nil	Tree within development envelope but outwith access track footprint	**Nil**	**C**	10.2	324.5
T78	Sitka Spruce (Picea sitchensis)		1	1	1	1	220	MA	Poor	Nil	Tree within development envelope but outwith access track footprint	**Nil**	**U**		
T79	Sitka Spruce (Picea sitchensis)		0	0	0	0	0	MA	Dead	Nil	Dead Tree within development envelope but outwith access track footprint	**Nil**	**U**		
T80	Sitka Spruce (Picea sitchensis)		0	0	0	0	0	MA	WB	Nil	Tree within development envelope but outwith access track footprint	**Nil**	**U**		

TREES FOR REMOVAL

Category and definition	Criteria	Colour on Plan
Category U -Those in such a condition that any existing value would be lost within 10 years and which should, in the current context, be removed for reasons of sound arboricultural management • Trees infected with	• 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	
	pathogens of significance to the health and/or safety of other trees nearby (e.g. Ash Dieback disease), or very low quality trees suppressing adjacent trees of better quality NOTE Habitat reinstatement may be appropriate (e.g. U category tree used as a bat roost: installation of bat box in nearby tree).	**DARK RED**

TREES TO BE CONSIDERED FOR RETENTION

Category and definition	Criteria — Subcategories			Colour on Plan
	1 Mainly arboricultural values	2 Mainly landscape values	3 Mainly cultural values, including conservation	
Category A - Those of high quality and value: in such a condition as to be able to make a substantial contribution (a minimum of 40 years is suggested)	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 dominant and/or principal trees	Trees, groups or woodlands which provide a definite screening or softening effect to the locality in relation to views into or out of the site, or those of particular visual importance (e.g. avenues or other arboricultural features assessed as groups)	Trees, groups or woodlands of significant conservation, historical, commemorative or other value (e.g. veteran trees or wood-pasture)	**LIGHT GREEN**
Category B - Those of moderate quality and value: those in such a condition as to make a significant contribution (a minimum of 20 years is suggested)	Trees that might be included in the high category, but are downgraded because of impaired condition (e.g. presence of remediable defects including unsympathetic past management and minor storm damage)	Trees present in numbers, usually as groups or woodlands, such that they form distinct landscape features, thereby attracting a higher collective rating than they might as individuals but which are not, individually, essential components of formal or semi-formal arboricultural features (e.g. trees of moderate quality within an avenue that includes better, A category specimens), or trees situated mainly internally to the site, therefore individually having little visual impact on the wider locality	Trees with clearly identifiable conservation or other cultural benefits	**MID BLUE**
Category C - Those of low quality and value: currently in adequate condition to remain until new planting could be established (a minimum of 10 years is suggested), or young trees with a stem diameter below 150mm	Trees not qualifying in higher categories	Trees present in groups or woodlands, but without this conferring on them significantly greater landscape value, and/or trees offering low or only temporary screening benefit	Trees with very limited conservation or other cultural benefits	**GREY**
NOTE Whilst 'C' category trees will usually not be retained where they would impose a significant constraint on development, young trees with a stem diameter of less than 150 mm should be considered for relocation.				

APPENDIX TREE PROTECTION PLAN 1:200
Phase 1 - Fencing

"Leyden Road
Kirknewton 2025"

0 10 m

A

B

C

D

CEZ - Construction Exclusion Zone to North of Fencing

A - B

CEZ - Construction Exclusion Zone to North of Fencing

A - B

CEZ - Construction Exclusion Zone both within fenced area and adjoining

CEZ - Construction Exclusion Zone to South of Fencing

C - D

CEZ - Construction Exclusion Zone to South of Fencing

C - D

T1 SS C
T2 SS C
T3 SS U
T4 SS C
T33 SS C
T37 SS C
T41 SS U
T42 SS U
T43 SS C
T44 SS U
T45 SS C
T46 SS C
T48 Be U
T50 SS U
T51 SS C
T52 SS C
T53 SS C
T54 SS C
T55 SS C
T56 SS U
T57 SS C
T58 SS C
T59 SS U
T60 SS C
T61 SS C
T62 SP U
T63 SP U
T64 SS U

KEY

T15 - tree number
Be - Species
B/C/U - tree category

Blue Dot - B class
Grey Dot C class
Red Dot - U class

Red circle Tree RPA/ yellow (area within development boundary)

Blue dotted line - protection fence A-B,C-D external protection fence.

BNTW Scotland

APPENDIX TREE PROTECTION PLAN 1:200
Phase 2 - Geocell & Membrane

"Leyden Road
Kirknewton 2025"

0 10 m

KEY

T15 - tree number
Be - Species
B/C/U - tree category

Blue Dot - B class
Grey Dot C class
Red Dot - U class

Red circle Tree RPA/yellow (area within development boundary)

Blue dotted line - protection fence A-B,C-D external protection fence.

A

CEZ - Construction Exclusion Zone to North of Fencing

A - B

CEZ - Construction Exclusion Zone to North of Fencing

A - B

B

CEZ - Construction Exclusion Zone both within fenced area and adjoining

CEZ - Construction Exclusion Zone both within fenced area and adjoining

CEZ - Construction Exclusion Zone to South of Fencing

C - D

C

CEZ - Construction Exclusion Zone to South of Fencing

C - D

D

T1 SS C
T2 SS C
T3 SS U
T4 SS C
T33 SS C
T37 SS C
T41 SS U
T42 SS U
T43 SS C
T44 SS U
T45 SS C
T46 SS C
T48 Be U
T50 SS U
T51 SS C
T52 SS C
T53 SS C
T54 SS C
T55 SS C
T56 SS U
T57 SS C
T58 SS C
T59 SS U
T60 SS C
T61 SS C
T62 SP U
T63 SP U
T64 SS U

The impact on trees is mitigated by the fact that although an overlap into the development envelope, it is proposed to use "no dig" construction techniques in and around trees and advocates the use of geocellular blanket systems, such as Abweb TRP ref Arboricultural Practice Note 12: Driveways Close to Trees (APN12) for guidance.

- Access road width 10 metres, using "geocell" membrane with type 6 stone with dust cover to cover 8 metres with 1 metre buffer zone either side of the camber. For example using the EuroGravel PRO geocell over a permeable membrane.

  The load-bearing capacity of a filled gravel grid is 340 tons per m² to accommodate HGV lorry access. Geoell area should be increased to accommodate the bell mouth onto Leyden Road and be extended into the field (East) by 6 metres, to protect tree T48 Beech.

- All works including levelling works to be done by hand, with **No** compaction of materials.

"Leyden Road
Kirknewton 2025"

Appendix 2 Tree Protection Plan

Indicative planting Areas and Survey insert

KEY

**Light Green Tree locations with protective fencing.
(indicative tree location).**

May require consideration to sequencing ie cultivation and establishment post development construction phase.

**Thick
Red Line -
Development Envelope**

BNTW Scotland

CEZ - Construction Exclusion Zone

CEZ - Construction Exclusion Zone

**CEZ - Construction Exclusion Zone
Ref: Appendix 2 above**

Gogar Burn

Leyden Road

Lyndon

Newlands

Newlands

N

0

600 m

EuroGravel®

PRO

All-in-one solution

for a stable and rut-free gravel surface

Weed-resistant

The high-quality weed control membrane prevents weed growth from the underside

Quick processing

Can be easily cut to size, with a bottom layer of weed control membrane already integrated

Very strong

The hexagonal cell structure can withstand very heavy loads. EuroGravel PRO is currently the strongest gravel stabilisation system available on the market

Easy to install

The grids can be easily laid out and installed. The gravel grids do not use a special connection system, so they are very easy to install

Water permeable

The gravel grids and the weed control membrane are permeable to water

Recyclable

The membrane is attached with a glue free system and is made of the same material as the gravel grid

Gravel stabilisation grids with weed controle membrane
for all types of gravel and chippings

EuroGravel®
innovative basis for gravel and chippings

Choose a rut-free and easily walkable gravel surface

EuroGravel PRO gravel stabilisation grids make it very easy to lay down a uniform and rut-free gravel surface. The result is an extremely stable and load-resistant surface that is not susceptible to deformation or rutting. The weed control membrane on the bottom side prevents the growth of weeds from the underside. It's the perfect all-in-one solution for small decorative gardens as well as driveways, large car parks, golf courses, camping sites etc.

The research institute TNO did a test that proves the EuroGravel PRO stabilisation grids can be loaded with very high loads.

Very high load resistance

The EuroGravel PRO gravel stabilisation system can withstand very high loads and is therefore ideal for surfaces subjected to such high loads. A properly installed and stable foundation is very important in this regard.

Test	Maximum permissible load:
Empty panel	> 340 tons per square metre
Filled panel	> 11,881 tons per square metre

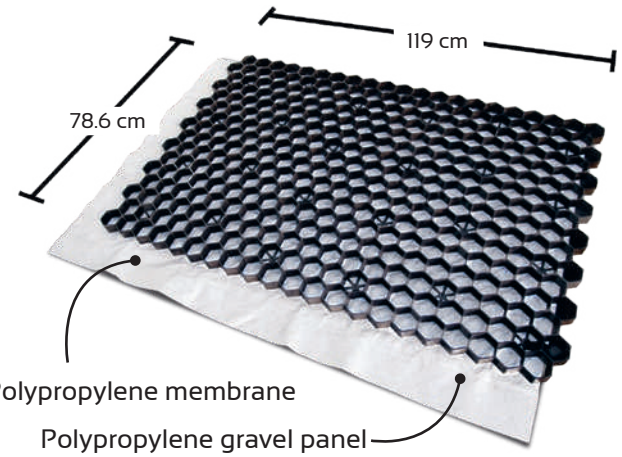
Freeze thaw resistant

Conform NEN-EN-1338, no noticeable damage. It would be advisable, however, to install and cover the product within 2 weeks of removing the shrink sleeves.

EuroGravel® PRO

Specifications

Panel dimensions	119 x 78.6 x 3 cm
Cell diameter	51mm
Cell wall thickness	below: 4mm above: 3mm
Panels per m^2	1.12
M^2 per panel	0.9 m^2
Weight per panel	3050 grams
Gravel/chippings consumption	approx. 75kg per m^2
Available colours	black and white
Gravel size	Min. 5mm, max. 25mm
Chipping size	Min. 5mm, max. 20mm
Weight of weed control membrane	100 g/m^2
Water permeability of weed control membrane	110 l/m^2.s (conform EN-ISO-11058)
Tensile strength of weed control membrane (CMD/MD)	8 kN/m (conform EN-ISO-10319)



Your EuroGravel dealer:

Produced in the EU