



BNTW - SCOTLAND

6 WESTBANK

AUCHTERMUCHTY

FIFE

KY14 7LA

Attention Sophia Cockell
Senior Consultant
SLR Consulting Ltd

Re: Tree Protection and Compensatory Planting Plan
BS:5837 Land at Kirknewton GR: NT 10322 64907

01/10/25

Revised 23/10/25

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APPENDIX 1 TREE PROTECTION PLAN

APPENDIX 2 LANDSCAPE MANAGEMENT PLAN

1.0 BACKGROUND

BNTW Scotland was commissioned to by Sophia Cockell, SLR Consulting Limited 3rd Floor, Summit House, 12 Red Lion Square, London, United Kingdom, WC1R 4HQ, to carry out an assessment of the tree cover within a specified area of land (approx 0.151 ha) and produce a BS:5837 Tree Protection Plan / Compensatory Planting Plan based on the Tree Impact Assessment - ref KN02 dated 29/09/25.

Survey area was 30m either side of an intersecting access track, into the fields to the East, to facilitate access from the development to the West of Leyden Road into the Eastern section of the development, to the East of Leyden Road.

The Client has expressed an aspiration that all trees are retained, where possible.

1.1 General Description –The specified survey area (0.151 ha), comprises of a woodland strip that runs NW - SE for approximately 600m. The Western elevation is bounded by "Leyden Road", a busy "C" class road with agricultural fields (both grazing & arable) to the North, East and South aspects, with an elevation of 180m approx. Soil types are predominately imperfectly drained gleys (skeletal in places), over red-dish-brown till derived from shales, sandstones, cementstones and coals of the Carboniferous age. Soil depth appears to be shallow.

Historically, the woodland strip is classed as LEPO (Long established of Plantation Origin) approximating to 1850 and can be estimated as second or potentially a third rotation crop. Current conifer trees are approximately 45 - 55 years old.

Trees are reaching the end of their "Silvicultural" rotation and terminal height, with a number of trees blown over (wind) or showing signs of root lift/lean. This includes a number of dead trees.

The current access track/bell mouth has been bolstered with hardcore and levelled as per normal farming practice to facilitate the movement of agricultural vehicles, preventing soil erosion.

1.2 Objective -

There is **No requirement for Compensatory Planting** in relation to this project although it be prudent to add a degree of tree cover to increase / offset some of the overall development impact. Tree planting should be incorporated into the Landscape plan along with hedges and micro nature havens.

In the event that planting takes place the following should be considered:

To provide a concise, tree protection measures (fencing), establishment, maintenance and inspection schedule to satisfy aspirational compensatory planting in respect of the planning application.

Appendix 2 Landscape Management Plan dated covers replacement trees (numbers yet to be determined)

to enrich trees identified in the BS:5837 tree survey/tree impact assessment ie trees in the C and U categories, as

well as increasing Net woodland area within the development envelope Ref Landscape Management Plan dated 28/05/25

2.0 Construction / Implementation

2.1 In order to ensure that no compaction, contamination or disturbance of the ground within the root protection areas adjacent to the access road, and hard standing areas (bell mouth); it will be necessary to erect protective fencing in accordance with the specifications given at Section 6.2 of BS5837: 2012, prior to the commencement of any upgrading and construction works. Once in place, the fencing and ground protection measures would remain intact until work in the area is completed and no further movements of plant or machinery are likely. Fencing will be erected as per fencing specification and locations.

Important to erect fencing (by hand) prior to any site development works.

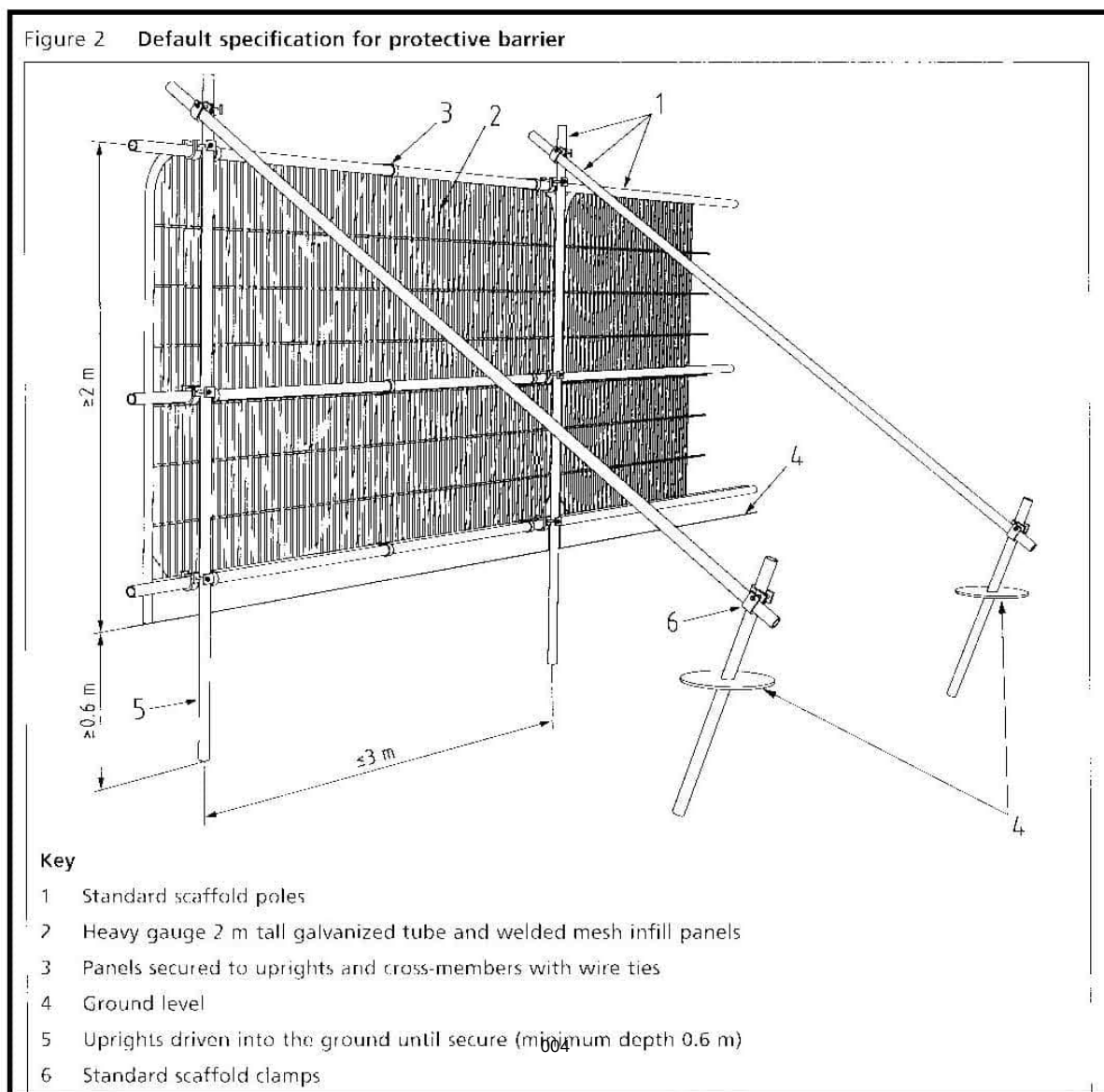
Ref Appendix 1A & 1B Tree Protection Plan.

It is essential that tree RPA's are maintained and no compaction, is undertaken. .

The protective fencing is to be constructed of weld mesh panels such as "or a similar, securely fixed to a framework of scaffold poles in accordance with the specifications given at

2.2 The Geocell modular driveway should be installed along with tree protection measures (fencing) pre development construction.

Figure 2 of BS5837: 2012, as shown below:-



3.0 Planting and Maintenance Schedule

*Ref Appendix 2 Landscape Mitigation
Plan.*

Period 1 -

Establishment to Year 1 (April 2027- October 2028)

Tasks - Fencing, cultivation, planting, protection (tube+stake+weed mat)

Nurseries to be contacted ref numbers/availability of trees/species (bare root
planting stock 50 - 100cm,)

Trees (Native & Ornamental species) as dictated by on-site planting availability.
Purchase treated fence posts, x 1.2 tubes/stakes-treated and 1m3
weed mats and metal pins. Ref Landscape Plan

Cultivation - To use a mini excavator to produce cultivated planting mounds of approx 5 litres at a density of
1.5 m spacing. It is important to mound prior to planting to allow mounds to settle and out with
weed seeding season. Hand cultivation may be an alternative.

Fencing - Fencing should not be required for this project. Normally installed prior to planting, mainly
fence posts and 2 line wires to exclude horses/livestock and to protect tree shelters/
tubes from physical damage.

Planting - Using bare root native planting stock, planted in mound centre with free flowing root ball
and gently compress to root collar. Important to protect trees from extremes of temperature
and to be planted quickly. Ref attached map.

Protection - Important to place weed mat over the planted tree and to peg corners down firmly. There
should be a hole in the weed mat to incorporate the tree and tree stake. The tree stake
should be installed firmly to support the tree tube/ shelter, with the shelter in contact with
the soil /weed mat.

Timing is crucial and will be dependent on when planting stock is available from nursery and on local
weather conditions. Ideally April 2026.

Period 2 -

Year 1 to Year 2 (December 2028 - November 2029)

Tasks - Inspection, "beat up" replacement trees, protection (tube+stake+weed mat) , firming up tubes and stakes, additional weeding if required - grass strimming around tube groups.

Nurseries to be contacted ref numbers/availability of trees/species (bare root planting stock 50 - 100cm,)

Inspection - To be carried out prior to the Spring planting season Feb -April 2028, to quantify any tree loss and or tube/stake maintenance. Summer weeding should be carried out (strimming around mounds).

Period 3 -

Year 2 to Year 3 (December 2030 - November 2031)

Tasks - Inspection, "beat up" replacement trees, protection (tube+stake+weed mat) , firming up tubes and stakes, additional weeding if required - grass strimming around tube groups.

Inspection - To be carried out prior to the Spring planting season Feb -April 2030, to quantify any tree loss and or tube/stake maintenance. Summer weeding should be carried out (strimming around mounds).

Period 4 -7

Year 3 to Year 8 (December 2031 - November 2036)

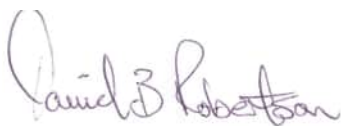
Tasks - Inspection, "beat up" replacement trees, protection (tube+stake+weed mat) , firming up tubes and stakes, additional weeding if required - grass strimming around tube groups.

Inspection - To be carried out prior to the Spring with an assessment of whether planted trees are "free to grow" ie out with maintenance period.

Inspection/ Supervision

Inspection period is anticipated to be 1 -2 times per year with a higher input in the establishment phase.

A Summary report should be compiled on an annual basis, outlining any tree mortality, maintenance requirements and supplementary work.

A handwritten signature in purple ink that reads "David B Robertson". The signature is written in a cursive, flowing style.

David Robertson Dip For, PTI,VR
01/10/25

APPENDIX 1A TREE PROTECTION PLAN 1:200

Phase 1 - Fencing

0 10 m

A

B

C

D

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.

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APPENDIX 1B TREE PROTECTION PLAN 1:200

Phase 2 - Geocell & Membrane



0 10 m

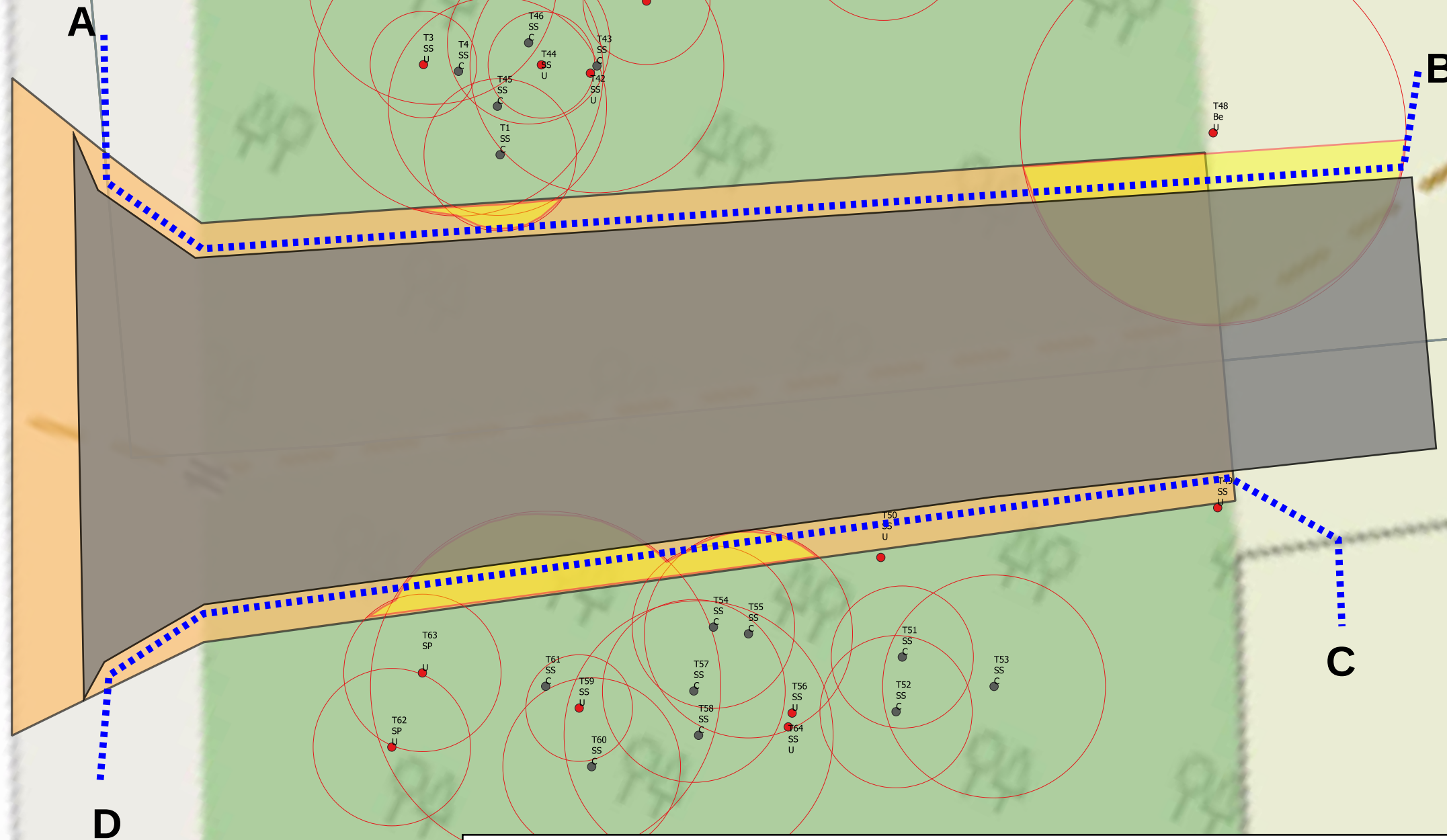
KEY

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



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.

Appendix 2 Landscape Management Plan (Incorporating planting /Landscape Planting Plan dated 25/08/25)

KEY

Ref map below:

Planting locations, where identified, open areas are to be stocked with hardwood species (half standards/whips) and shrub species in groups as defined below.

Shrubs should be used as both screening (hedging) and to establish wildlife havens eg adjacent boundaries and/or adjacent to access roads eg:

Sessile Oak (Quercus petraea),
Rowan (Sorbus aucuparia var)
Scots pine (Pinus sylvestris)
Birch (Betula spp)
Cherry (Prunus avium)
Holly (Ilex aquifolium)
Apple, domestic (Malus domestica)
European Pear (Pyrus communis)
Wayfaring tree (Viburnum lantana)

With shrubs - Hazel (Corylus avellana),
Hawthorn (Crateagus monogyna),
Holly (Ilex aquifolium),
Blackthorn (Prunus spinosa).

Trees and shrubs to be staked and tubed 1.2m tubes for trees and shrubs. Trees to be 40-60 whips and shrubs 30-50cm to reduce planting shock.

MAINTENANCE

Trees and shrubs will require maintenance for a period of 5-7 years, with beat up within the first two years and a weeding programme over 4 years. Stakes and tubes will need firmed up tightened periodically.

Note :Reference should also be made to the Landscape Management Plan below.

British Standard 3936 Parts 1 (1992) and 4 (1984). Advanced Nursery stock trees shall conform to BS 5236. Handling, planting and establishment of trees shall be in accordance with BS 8545:2014 Trees from nursery to independence in the landscape

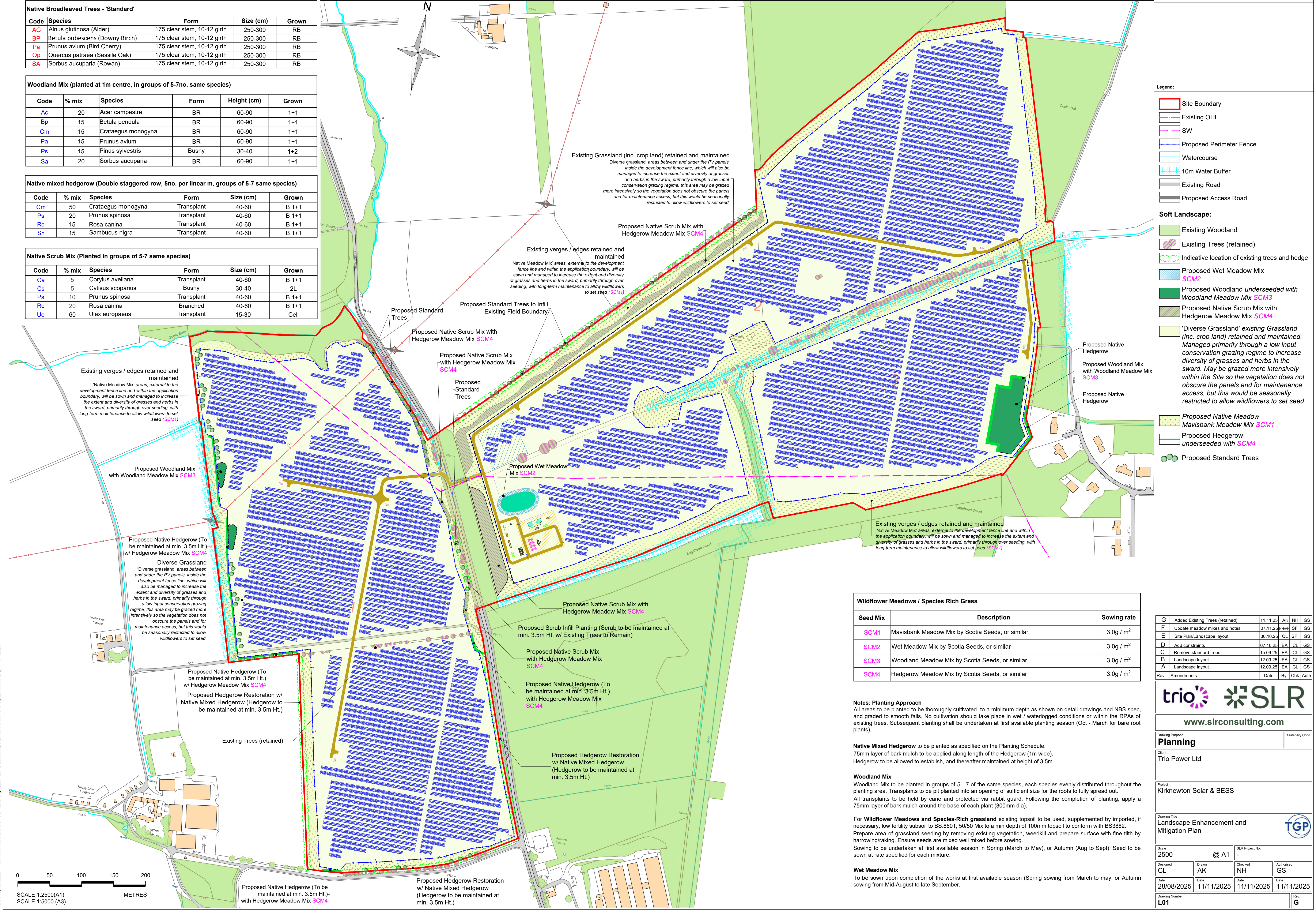
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Native Broadleaved Trees - 'Standard'					
Code	Species	Form	Size (cm)	Grown	
AG	Alnus glutinosa (Alder)	175 clear stem, 10-12 girth	250-300	RB	
BP	Betula pubescens (Downy Birch)	175 clear stem, 10-12 girth	250-300	RB	
Pa	Prunus avium (Bird Cherry)	175 clear stem, 10-12 girth	250-300	RB	
Qp	Quercus patraea (Sessile Oak)	175 clear stem, 10-12 girth	250-300	RB	
SA	Sorbus aucuparia (Rowan)	175 clear stem, 10-12 girth	250-300	RB	

Woodland Mix (planted at 1m centre, in groups of 5-7no. same species)					
Code	% mix	Species	Form	Height (cm)	Grown
Ac	20	Acer campestre	BR	60-90	1+1
Bp	15	Betula pendula	BR	60-90	1+1
Cm	15	Crataegus monogyna	BR	60-90	1+1
Pa	15	Prunus avium	BR	60-90	1+1
Ps	15	Pinus sylvestris	Bushy	30-40	1+2
Sa	20	Sorbus aucuparia	BR	60-90	1+1

Native mixed hedgerow (Double staggered row, 5no. per linear m, groups of 5-7 same species)					
Code	% mix	Species	Form	Size (cm)	Grown
Cm	50	Crataegus monogyna	Transplant	40-60	B 1+1
Ps	20	Prunus spinosa	Transplant	40-60	B 1+1
Rc	15	Rosa canina	Transplant	40-60	B 1+1
Sn	15	Sambucus nigra	Transplant	40-60	B 1+1

Native Scrub Mix (Planted in groups of 5-7 same species)					
Code	% mix	Species	Form	Size (cm)	Grown
Ca	5	Corylus avellana	Transplant	40-60	B 1+1
Cs	5	Cytisus scoparius	Bushy	30-40	2L
Ps	10	Prunus spinosa	Transplant	40-60	B 1+1
Rc	20	Rosa canina	Branched	40-60	B 1+1
Ue	60	Ulex europaeus	Transplant	15-30	Cell



Notes:

Legend:

Site Boundary

Existing OHL

SW

Proposed Perimeter Fence

Watercourse

10m Water Buffer

Existing Road

Proposed Access Road

Soft Landscape:

Existing Woodland

Existing Trees (retained)

Indicative location of existing trees and hedge

Proposed Wet Meadow Mix SCM2

Proposed Woodland underseeded with Woodland Meadow Mix SCM3

Proposed Native Scrub Mix with Hedgerow Meadow Mix SCM4

'Diverse Grassland' existing Grassland (inc. crop land) retained and maintained. Managed primarily through a low input conservation grazing regime to increase diversity of grasses and herbs in the sward. May be grazed more intensively within the Site so the vegetation does not obscure the panels and for maintenance access, but this would be seasonally restricted to allow wildflowers to set seed.

Proposed Native Meadow Mavisbank Meadow Mix SCM1

Proposed Hedgerow underseeded with SCM4

Proposed Standard Trees

Wildflower Meadows / Species Rich Grass			
Seed Mix	Description	Sowing rate	
SCM1	Mavisbank Meadow Mix by Scotia Seeds, or similar	3.0g / m ²	
SCM2	Wet Meadow Mix by Scotia Seeds, or similar	3.0g / m ²	
SCM3	Woodland Meadow Mix by Scotia Seeds, or similar	3.0g / m ²	
SCM4	Hedgerow Meadow Mix by Scotia Seeds, or similar	3.0g / m ²	

Notes: Planting Approach
All areas to be planted to be thoroughly cultivated to a minimum depth as shown on detail drawings and NBS spec, and graded to smooth falls. No cultivation should take place in wet / waterlogged conditions or within the RPAs of existing trees. Subsequent planting shall be undertaken at first available planting season (Oct - March for bare root plants).

Native Mixed Hedgerow to be planted as specified on the Planting Schedule.
75mm layer of bark mulch to be applied along length of the Hedgerow (1m wide).
Hedgerow to be allowed to establish, and thereafter maintained at height of 3.5m

Woodland Mix
Woodland Mix to be planted in groups of 5 - 7 of the same species, each species evenly distributed throughout the planting area. Transplants to be pit planted into an opening of sufficient size for the roots to fully spread out.
All transplants to be held by cane and protected via rabbit guard. Following the completion of planting, apply a 75mm layer of bark mulch around the base of each plant (300mm dia).

For **Wildflower Meadows and Species-Rich grassland** existing topsoil to be used, supplemented by imported, if necessary, low fertility subsoil to BS.8601, 50/50 Mix to a min depth of 100mm topsoil to conform with BS3882. Prepare area of grassland seeding by removing existing vegetation, weedkill and prepare surface with fine tith by harrowing/raking. Ensure seeds are mixed well mixed before sowing.
Sowing to be undertaken at first available season in Spring (March to May), or Autumn (Aug to Sept). Seed to be sown at rate specified for each mixture.

Wet Meadow Mix
To be sown upon completion of the works at first available season (Spring sowing from March to may, or Autumn sowing from Mid-August to late September).

G	Added Existing Trees (retained)	11.11.25	AK	NH	GS
F	Update meadow mixes and notes	07.11.25	NHAK	SF	GS
E	Site Plan/Landscape layout	30.10.25	CL	SF	GS
D	Add constraints	07.10.25	EA	CL	GS
C	Remove standard trees	15.09.25	EA	CL	GS
B	Landscape layout	12.09.25	EA	CL	GS
A	Landscape layout	12.09.25	EA	CL	GS
Rev	Amendments	Date	By	Chk	Auth

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Drawing Purpose

Planning

Suitability Code

Client

Trio Power Ltd

Project

Kirknewton Solar & BESS

Drawing Title

Landscape Enhancement and Mitigation Plan

TGP

Scale

2500 @ A1

SLR Project No.

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Designed

CL

Drawn

AK

Checked

NH

Authorised

GS

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28/08/2025

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11/11/2025

Date

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Date

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Rev

G

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