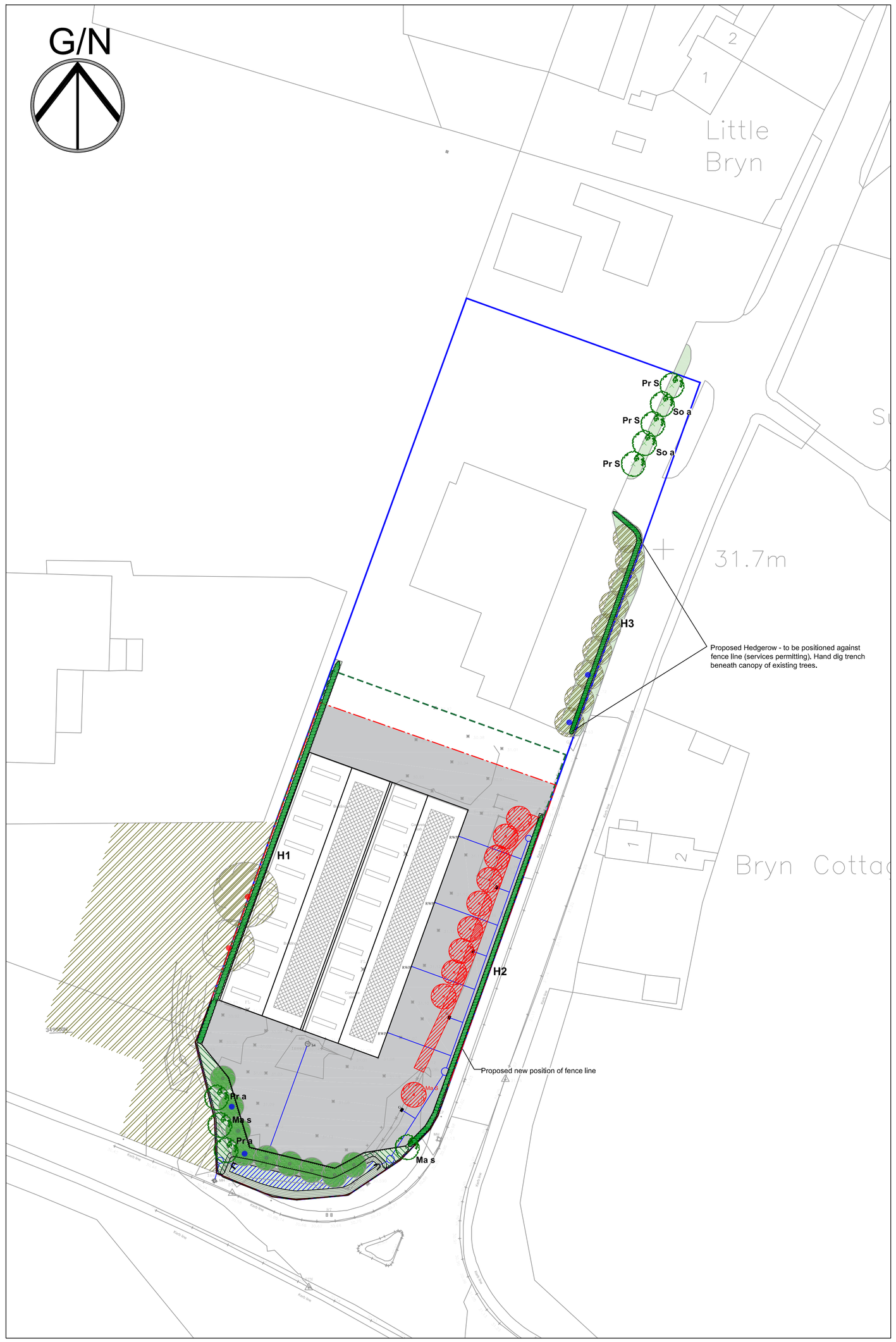


NATIVE TREE & SHRUB PLANTING MIX

Species:	%Mix:	Size:	Type:	Nos:
Cornus sangulnea	10	40-60cm 1/1	Br	7
Corylus avellana	15	40-60cm 1/1	Br	11
Crataegus monogyna	15	40-60cm 1/1	Br	11
Ilex aquifolium	10	30-45cm	2L	7
Malus sylvestris *	5	60-80cm 1/1	Br	4
Prunus spinosa	5	40-60cm 1/1	Br	4
Rosa arvensis	5	60-80cm 1/1	Br	4
Rosa canina	5	40-60cm 1/0	Br	4
Salix caprea ~	5	60-80cm 0/1	Br	4
Salix cinerea ~	5	60-80cm 0/1	Br	4
Sambucus nigra *	5	40-60cm 1/0	Br	4
Sorbus aucuparia *	5	60-80cm 1/1	Br	4
Viburnum opulus *	10	40-60cm 1/1	Br	7

Notes:
1. All plants to be pit planted. Pits = 300 x 300 x 300mm depth, applying Mycorrhizal Fungi to the base of each pit.
2. Existing trees and scrub to be retained and inter-planted with the above mix.
3. Planting density = circa 1.5m centres, planted in random mix (0.45/m²).
4. ~ - Salix species to be planted close to top of swale embankment.
5. * - Large shrub / tree species to be located more centrally within the planting bed.
6. Topsoil to be good quality imported topsoil, mixed thoroughly with one third organic (peat free) compost, soil conditioner, organic slow release fertilizer and Broadleaf P4, applied at rates specified by the manufacturer.
7. Biodegradable tree / shrub shelters to be applied to all species, or alternatively protect planting bed with rabbit proof netting, offset 300mm from bed perimeter. Fencing 1200mm wide - 900mm fence height with 300mm below ground, bottom 150mm turned at 90 degrees on side of rabbit attack.

MANAGEMENT & MAINTENANCE:
- Weed Control: entire bed area to be kept free of grass and weed growth, to aid establishment.
- Pruning: shrubs shall be pruned as required to achieve even, healthy growth and suppress lateral spread onto paths and parking areas.
- Shelters to be kept grass / weed free & checked and adjusted as required, removing after year 5, or when plants have become established.
- Water all plants during drought periods, to aid establishment.

NATIVE HEDGE PLANTING SCHEDULE:

Species:	%Mix:	Size:	Type:	H1: 788m	H2: 698m	H3: 478m
Corylus avellana	20	40-60cm 1/1	Bare root	78	69	47
Crataegus monogyna	20	40-60cm 1/1	Bare root	78	69	47
Lonicera periclymenum	5	30-45cm	2L pot	20	17	12
Prunus spinosa	15	40-60cm 1/1	Bare root	59	52	35
Rosa canina	5	40-60cm 1/1	Bare root	20	17	12
Sambucus nigra	15	20-30cm	2L pot	59	52	35
Ilex aquifolium	20	30-45cm	2L pot	78	69	47

Notes:
1. All plants to be of local provenance: Wrexham (or nearby counties).
2. Hedgerow trench to be length x 600mm width x 300mm depth, applying Mycorrhizal Fungi to the base of the trench,
3. Species planted at **5no/m2** in double staggered row, min 300mm apart.
4. Topsoil to be imported, good quality topsoil, mixed thoroughly with one third organic (peat free) compost, soil conditioner, organic slow release fertilizer and Broadleaf P4, at rates specified by manufacturer.
5. Biodegradable tree guards / shelters to be applied to all species, or alternatively if rabbits are a problem, protect hedgerow length with rabbit proof netting, offset 200mm from hedgerow trench. Netting to be 1200mm wide = 900mm fence height with 300mm below ground, bottom 150mm turned at 90 degrees on side of rabbit attack.

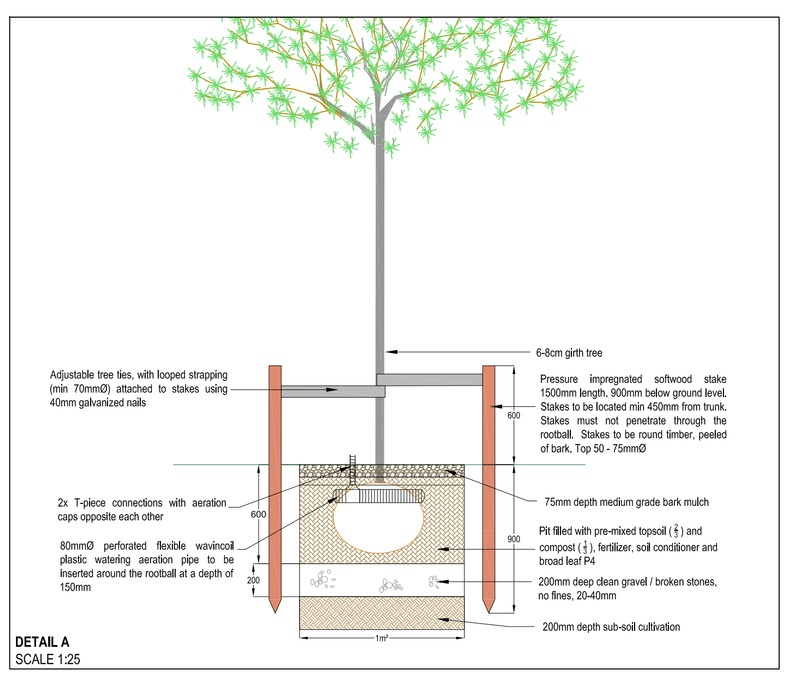
MANAGEMENT & MAINTENANCE:
- Weed Control: hedgerow trench to be kept free of grass and weed growth, to aid establishment.
- Organic Slow Release Fertilizer to be evenly incorporated into the surface of the soil over the rooting area of each plant.
- Pruning: hedge to be pruned as required to achieve even, upright form and healthy growth. Suppress lateral growth / encroachment as required,
- Shelters to be kept grass / weed free and checked / adjusted as required, removing after year 5 or when planting has established.
- Watering: water to aid establishment, particularly during prolonged dry periods.

TREE PLANTING SCHEDULE

Species:	Key:	Size (cm):	Type:	Number:
Prunus 'Spire'*	Pr S	2x 250-300	6-8cm girth / B'gd	3
Prunus avium	Pr a	2x 200-250	Bagged	2
Malus sylvestris	Ma	2x 175 - 200	Bagged	2
Sorbus aucuparia*	So a	2x 250-300	6-8cm girth / B'gd	2

Notes:
1. All trees to be planted in pits = 1000 x 1000 x 600mm depth. Exact location, as agreed on site.
2. Apply Mycorrhizal Fungi to the base of each pit.
3. Planting location = as shown. Exact location to be agreed on site.
4. Topsoil to be imported good quality, peat free topsoil, mixed thoroughly with one third organic (peat free) compost, soil conditioner, organic slow release fertilizer and Broadleaf P4, applied at rates specified by the manufacturer.
5. Each tree is to be staked using a short stake, driven into firm ground for a minimum depth of 500mm below the base of the tree pit. Stakes to be placed off-centre on the windward side of the tree and secured with a single rubber tree tie and pad. The tops of the stakes shall be below the branching head of the trees, 500mm above ground level.
6. Specimen trees marked * to be staked as **Detail A**.
7. Biodegradable spiral trees guards to be applied to all species.

MANAGEMENT & MAINTENANCE:
- Weed Control: a circle 500mm radius from the base of each tree shall be kept free of grass and weed growth, to aid establishment.
- Tree ties, guards and stakes to be checked and adjusted as required, removing after year 5 or when trees have become established.
- Water all plants during drought periods, to aid establishment.



DETAIL A
SCALE 1:25

MARSHY GRASSLAND MIX - for swale & embankment
Germinal WFG9 mix or equivalent

Species:		
AUTUMN HAWKBIT	Leontodon autumnalis	0.2%
COMMON FLEABANE	Pulicaria dysenterica	0.1%
CREEPING BUTTERCUP	Ranunculus repens	2.5%
CRESTED DOGSTAIL	Cynosurus Cristatus	22.5%
DEVILSBIT SCABIOUS	Succisa pratensis	0.2%
GREATER BIRDSFOOT	Lotus uliginosus	0.4%
GREATER BURNET	Sanguisorba officinalis	0.2%
GYPSY WORT	Lycopsus europaeus	0.2%
HARD RUSH	Juncus inflexus	1.5%
HEMP AGRIMONY	Eupatorium cannabinum	0.1%
LOOSESTRIFE	Lythrum salicaria	0.2%
MARSH MARIGOLD	Caltha palustrus	0.1%
MEADOW SWEET	Filipendula ulmaria	0.5%
OXEYE DAISY	Leucanthemum vulgare	4.0%
RAGGED ROBIN	Lychnis flos cuculi	0.1%
ROUGH STALKED MEADOW GRASS	Poa trivialis	10.0%
SALAD BURNET	Sanguisorba minor	4.3%
SLENDER CREEPING RED FESCUE	Festuca rubra litoralis	25.0%
TALL FESCUE	Festuca arundinacea	10.0%
TENO	Phleum bertolonii	7.5%
TUFTED HAIR GRASS	Deschampsia caespitosa	5.0%
WATER PLANTAIN	Alisma plantago aquatica	0.2%
YELLOW FLAG	Iris pseudacorus	2.2%
YELLOW RATTLE	Rhinanthus minor	3.0%

Notes:
1. Sown at a rate of 5g/m2 over suitably prepared ex-site subsoil / topsoil mix, during March - October.
2. Sow in two equal transverse operations.
3. After sowing, hand rake over the area and take all necessary care to protect the seeded areas to ensure satisfactory establishment.

MANAGEMENT & MAINTENANCE:
- Hand weed as necessary to aid establishment.
- Initial establishment cut required in mid-September, then again in October, following Spring seeding, to 70-100mm.
- Thereafter - Cut from mid-July to early September, removing arisings. Lightly mow the sward in Winter until March, collecting the clippings.

GENERAL HORTICULTURAL NOTES:
1. Tree removal to be undertaken during October to February inclusive, to avoid the bird nesting season; or in the presence of a licensed Ecologist, outside of this period.
2. Planting to be undertaken during the planting season (November to March inclusive), in the first season following completion of the development works.
3. All plants supplied shall comply with the requirements of BS 3936, Nursery Stock Specification for Trees & Shrubs. Tree stock to be prepared in accordance with the recommendations in BS 8545:2014 Trees: from nursery to independence in the landscape, and as detailed within the planting schedules provided.
4. Native plant stock to be of local provenance - Wrexham / surrounding counties.
5. Pre-planting site preparation, planting and post-planting maintenance works shall be carried out in accordance with the requirements of BS 4428(1989) Code of Practice for General Landscape Operations and the notes as highlighted beneath each plant schedule.
6. No herbicide / pesticide is to be used on site. Fertiliser to be organic with any compost to be peat free. All tree tubes / shrub shelters to be biodegradable.
7. Topsoil for planting areas to be good quality, peat free imported topsoil, conforming to BS3882:2015.
8. The site developer is to make the landscape contractor aware of any known service runs and the landscape contractor is to ascertain the precise location and depth of all underground services prior to the commencement of any digging works.
9. Any works (planting or construction) within the root protection zone of all retained trees, to be undertaken by hand.
10. All planting to be maintained from completion of the planting works for a minimum period of 5 years, to establish healthy growth and natural form. Removal of grass and weed growth within 1m diameter of all new planting to be undertaken on a regular basis, to ensure planting establishment.
11. Any planting which becomes severely damaged or seriously diseased, or is in poor physiological condition and/or are removed without the written permission of the Local Planning Authority shall be replaced within the next available planting season by trees or shrubs of similar size and species to those originally required to be planted.

DISCLAIMER:
Any discrepancy found to be referred back to the consultant before work is executed. All dimensions to be checked on site. This drawing is the copyright of Sian Griffiths and must not be copied in whole or in part without prior written permission.

Key:

Existing off-site scrub / Existing trees - to be retained

Existing Acer trees (9No.) & Malus (1No.) along eastern site boundary - felled to accommodate works

Existing hedge - felled to accommodate works. Hedgerow length to be replaced by native hedgerow mix against new fence line

Existing trees to be retained and protected in accordance with BS 5837:2012

Proposed Native Planting - all existing plants to be retained, See schedule for species

Proposed Native Hedge Planting - see schedule for mix

Proposed Tree Planting - see schedule

Drainage Proposals - oversized pipework to provide additional storage for surface water run off in storm events.

Drainage Proposals - proposed SUDS attenuation swale, seeded with suitable mix, as scheduled

Note: The contractor is to ensure that all existing trees are retained and any works within the root protection zone should be undertaken by hand

Proposed 1.8m high weld mesh security fence in dark green - to match existing

Existing area of hard standing - compacted hardcore

Proposed Bird Box (x4) - to be erected on the trunk of a mature tree, at a height of 3m, on a sheltered aspect facing north or east.

Proposed Bat Box (x2) - to be erected within mature trees, as highlighted, on a south - south west facing aspect, at a height of 5m (or more).

NOTES:
1. This drawing is based upon HDS Architectural Services drawing: Site Location & Site Plan (JD/PD/05 - Rev A), dated 19th February 2021: together with the Proposed Surface Water Drainage Layout, dated 24th November 2023, by BRP Ltd.

2. The result of the drainage design (as required by and discussed with WCBC) has meant that 9 Acer trees, 1 Malus and a length of Leyland Cypress hedgerow has now been removed from the eastern boundary of the site. A swale is also required to accommodate the drainage proposals, located on the southern boundary. During the construction of this swale, care will be taken not to remove any further trees. All works below the canopy of the retained existing trees will be undertaken by hand.

3. The proposed planting aims to reflect the landscape context of the surrounding area, whilst also enhancing biodiversity and creating new connective green corridors around the site.

4. The proposals aim to discharge condition 3 from planning permission ISY P/2021/0905, dated 21st July 2023, namely;
"Within 2 months of the date of this permission, full details of both hard and soft landscape works, to include some native planting shall be submitted to and approved in writing by the Local Planning Authority. The plan shall include a timescale for the implementation of works, and shall provide for ecological improvement / habitat creation and enhancement in the soft landscape areas for the benefit of biodiversity conservation specifically tailored to the landscape features".

5. All planting to be fully implemented within the agreed timescale and in strict accordance with the approved planting scheme.

6. The planting scheme implemented shall be permanently retained.

Issue	Drawn	Date
-	SG	2024.05.07
DRAFT - for comment	SG	2024.05.03

Sian Griffiths | Landscape Architect CMLI
Cytgord Gellfan, Dolwyddelan Road, Betws y Coed, Conwy, LL24 0SN
email: sian@siangriffiths.wales mobile: 07718 439646
www.SianGriffiths-LandscapeArchitect.co.uk

Client:
J B Fabrication (Wrexham) Ltd

Scheme:
JB Fabrication
Extension to Industrial Unit

Drawing Title:
Soft Landscape &
Biodiversity Enhancement Plan

Scale @ A1: 1:500

Drawing No:
2023084/BEP/02

© Copyright Sian Griffiths