

**Proposed barn conversion
at Coc y North Lane, Rhiwderin, Newport NP10 8RR**

Soft Landscape Outline Planting and Maintenance Schedule v2

For Planning Purposes

Client: David Williams Homes Ltd

**Prepared by Mackley Davies Associates Ltd
v2 February 2024**

BACKGROUND

1.1 The attached Soft Landscape Plan 24/1015/01 is provided to accompany a planning application to Newport City Council for a barn conversion adjacent to Coc y North Lane, at Coc y North Lane, Rhiwderin, Newport NP10 8RR.

1.2 A Landscape Visual Appraisal by Mackley Davies provides further background, landscape character and visual amenity impact analysis and a suite of mitigation measures which have been detailed in the Soft Landscape Plan to integrate the proposal into the wider Special Landscape Area landscape setting.

- Double hedge to replace the (20 linear meters) road frontage hedge on a set-back line and to screen the parking area.
- New planting to boundaries using native based on species which are appropriate to the local landscape and are appropriate to the site layout.
- Use of larger sized nursery stock for new hedges to boundaries (1+2 900-1200mm) to provide for more immediate impact.
- Undertake planting and seeding in the first planting season following construction and maintain (replacing any failures/failing areas) for five years to ensure successful plant establishment.

2.0 OUTLINE SPECIFICATION FOR SOFT LANDSCAPE WORKS

Refer to Soft Landscape Plan reference: 24/1015/01.

1.0 Work to be carried out in accordance with the following standards:

- British Standards:
 - BS 3882:2015 Specification for topsoil
 - BS 8601:2013 Specification for subsoil and requirements for use
 - BS 5837:2012 Trees in relation to design, demolition and construction
 - BS 8545:2014 Trees from nursery to independence in the landscape
 - BS 4428:1989 Code of practice for general landscape operations (excluding hard surfaces)
- National Plant Specification
- National Landscape Specification (NBS) latest revision
- Landscape Architects detailed specification (to be issued at tender stage)

2.0 Protection of site hedges:

Before work commences, ensure protection of hedges to be retained in accordance with BS 5837:2012 Trees in relation to design, demolition and construction.

3.0 Site clearance:

Remove any bramble, rubbish, concrete, metal, glass, decayed vegetation, contaminated substrate and stones with largest dimension exceeding 100mm. Contamination includes steel, concrete, rubble, fuel, lubricants or other substances injurious to plant growth.

4.0 Soil conditions:

Do not work in waterlogged conditions, when the ground is frozen or covered by snow, or when there are pools of water on the ground surface, or following sustained heavy rainfall eg >10mm in 24 hours. Cultivate and plant into moist friable soil.

Provide adequate additional root protection and prevent planting pit sides and bases and backfill materials from freezing.

5.0 Climatic conditions:

Carry out the work while soil and weather conditions are suitable for the relevant operations. Do not plant during periods of frost or strong winds. Bare root planting to be restricted to the 'lifting' season, generally November to March.

6.0 Machines and tools:

Use only machinery and tools suitable for the site conditions and the work to be carried out.

7.0 Excavation:

Ensure the location of all services is known before any excavation operations.

Excavation is NOT to be carried out within the root protection areas of trees to be retained.

8.0 Soils:

The following hierarchy to be followed to reduce soil handling:

1. If soils are suitable and in the right location, protect during the construction period in-situ by adequate fencing
2. Otherwise, move to the prepared receptor site
3. Otherwise, strip, store, and re-use for backfill once the receptor site is ready
4. Short fall will be made up by site won topsoil

All in accordance with:

- BS 15176: 2019 Guidance on the characterization of excavated soil and other materials intended for reuse
- BS 3882:2015 Specification for topsoil
- BS 8601:2013 Specification for subsoil and requirements for use
- Defra Code of Practice for the Sustainable Use of Soils on Construction Sites

No spreading after sustained heavy rainfall over 10mm in 24 hours. Ensure topsoil is loose tipped in layers of 0.2m maximum, and not firmed, consolidated, or compacted when laying by tipping and grading to approximate levels in one operation with minimum trafficking by plant in line with Landscape National Building Specification.

Place sufficient depth to allow for topsoil settlement. Batter/feather in local levels to achieve smooth rounded profiles and ensure falls are positive to reduce the risk of water ponding.

Backfill to the following depths for subsoil (to BS8601:2013) and topsoil (to BS3882:2015):

	Subsoil depth mm	Topsoil depth mm
trees	600	300
hedging	300	300
grass	150	150

9.0 Tree Planting:

Refer to Tree Pit Sections on Soft Landscape Plan 24/1015/01.

Backfill mix (including green compost, fertilizer, mycorrhizal supplement) for bare root stock, to accord with recommendations of topsoil survey. Backfill mix should not be required for rootballed and container trees at planting.

Plant trees as indicated on the Soft Landscape Plan. Contractor is to locate underground services before excavation. Install a root barrier where trees will lie within 3m of an existing or proposed underground service route or highway kerb eg. Greenleaf Reroot or equivalent to full depth of topsoil to top of finished soil level with sides vertical.

10.0 Cultivation prior to planting:

If areas are weed infested, remove by hand or mechanical means. Re-growth (during the growing season) may need to be treated with an approved herbicide such as Glyphosate as advised by the CA.

No cultivation to take place within tree root protection areas.

No cultivation after sustained heavy rainfall over 10mm in 24 hours.

Cultivate topsoil by hand or machine to achieve a suitable loose, friable tilth, remove rubbish/stones/roots etc over 50mm for planting areas in line with BS 3882:2015 table A.1, and rake to even out levels.

11.0 Plant Supply:

Nursery Stock to BS 3936 Part 1 'Nursery stock specification for trees and shrubs' and BS 8545:2014 Trees from nursery to independence in the landscape.

Name, forms, dimensions and other criteria as scheduled and defined in the National Plant Specification. If specified plants are unobtainable or known to be likely to be unobtainable at the time of ordering, obtain approval before making any substitution.

Plants should be:

- Materially undamaged, sturdy, healthy, vigorous, of good shape and without elongated shoots.
- Grown in suitable environment and hardened off.
- Free from pests diseases, discoloration, weeds and physiological disorders.
- Budded or grafted plants to be bottom worked unless otherwise specified or approved.
- UK grown.
- Produced in peat-free compost.

In addition, trees should have:

- Clearly defined and straight leader.
- Balanced branching framework with lateral branches subordinate to the leader.
- Clearly defined stem taper and proportionate, balanced height/stem girth ratio appropriate to the species.
- No crossing or co-dominant branches.
- Evenly spaced lateral roots with minimum four major laterals.
- Evenly spaced, well developed fibrous roots.
- An intact root-ball with the root-flare clearly visible.

12.0 Plant Handling:

Handling of plants to HTA National Plant Specification and the Committee for Plant Handling and Establishment Part 3 'Recommendations for Plant Handling from Delivery to Successful Establishment' and BS 8545:2014 Trees from nursery to independence in the landscape.

All plants delivered on racks. Boxed/pallet stacked plants are not acceptable.

Protect plants / trees from frost and from drying out.

Handle plants / trees with care. Protect from mechanical damage and do not subject to shock eg. by dropping from a vehicle.

All plant material is to be carefully lifted, adequately and carefully packed and protected for delivery to site. Plants should not be lifted and stored on the delivery vehicle overnight. Ideally plants should be lifted, delivered to the site and planted on the same day.

On delivery to site, bare-root or root-balled plants, should be stacked together, away from the effects of the drying winds, their roots being covered with sand or fine soil and watered to prevent drying out.

Plants may require to be heeled-in, using prepared trenches, covered with soil (fine material) and watered thoroughly. Stored plants should be checked regularly to ensure their root systems are fully covered and that the soil (fine material) is kept moist.

If planting becomes delayed into April or later, then bare root plant material is to be stored in cold stores until required on site.

13.0 Planting:

Set out plants evenly to density and quantities shown, arranged to avoid straight lines and geometric patterns. Plant to the nursery soil depth, face up to present best side, and firm in.

For bare root stock, dip in a proprietary alginate prior to planting such as Alginure/Broadleaf P4 anti-desiccant gel before planting.

For rootballed, containerizing and container grown trees:

Dig a hole that is widest at the top with gently sloping, scarified sides to comfortably accommodate the width, but of no greater depth than the roots or root-ball. For root-balled trees the hole may be slightly shallower than the rootball (approximately 2.5-5cm), in anticipation of soil settlement. For container grown trees the hole may need to be 4-6cm shallower. Do not mix the excavated soil.

Water the root system prior to planting.

Diameter of pit to be minimum 75mm greater than the root system. Plant at correct depth with root flare visible at ground level, allowing for topsoil settlement. Backfill in 150-200mm layers, firm to eliminate voids. Final backfill layer is not consolidated. Remove wire baskets, hessian and twine used in the rootballing process where this is feasible without disturbing the root ball. Immediately water to field capacity, add mulch but not at root flare to a 1.2m radius or 3m radius for large trees where possible. No fertilizer to be added in the first season.

14.0 Immediate aftercare:

Immediately after planting cut back any damaged, dead or diseased branches and remove any weak, thin or malformed growth.

For tree species any immediate aftercare is to accord with BS3998:2010 and BS 8545:2014.

If tree leaders are damaged or have been removed, the stock should be replaced.

Water as necessary to ensure the establishment and continued thriving of all planting. Ensure the full depth of topsoil is thoroughly wetted. Use a fine rose where appropriate to avoid damaging or loosening plants.

For trees planted into tree pits, wet the root system before planting and saturate the tree pit after planting to field capacity. Allow for watering every week to every fortnight according to weather conditions, from April to October. Where tree irrigation is provided, water through the cap and also use overhead watering for roots above the irrigation system – allow 20-40L for all trees. Add mulch after watering in.

15.0 Tree guards:

All trees to be planted into hedgerows to avoid the need for mower guards.

16.0 Tree staking:

For 14-16cmg trees: three untreated wooden stakes driven well into the ground vertically, equally spaced around the root system, with biodegradable fabric ties and pads, set low on the stem (max 1/3rd tree height).

For feathered trees: one untreated wooden stake driven well into the ground vertically with biodegradable fabric ties and pads, set low on the stem (max 1/3rd tree height).

17.0 Mulch specification:

Supplier to be agreed. Generally an amenity grade is required. Spread evenly to a depth of 50mm, increasing to 75mm around trees. Ensure no plant foliage is covered by mulch, lift all ground cover foliage above. Hedgerow seed mix will establish once mulch has started to break down.

18.0 Species Rich Grass Seeding:

Carry out the work while soil and weather conditions are suitable. Ideally carry out seeding during April-May or September. Cultivate and rake removing stones over 20mm and perennial weeds and to create smooth profile with existing levels ensuring areas are 25mm settled depth higher than adjacent hard surfaces to allow for easy grass cutting and 150mm below DPC of adjoining buildings.

Spread seed evenly at the specified rate(s) applied in two equal sowings in transverse directions. Lightly harrow or rake, roll and cross-roll after seeding using a lightweight roller. Stone and earth clod removal to 10mm size.

Seed mix to be:

- Germinal WFG20 Eco Species Rich Lawn (or equivalent if there are supply issues or as advised by the Ecologist), sown at 10g/sqm to achieve a close mown grass sward in line with advice from the supplier. A pre-seeding fertilizer should not be applied.
- The mix can be managed as a close mown grass sward suitable for a residential garden but can also be managed with a more relaxed regime at lawn edges.

19.0 Hedgerow Seeding:

Carry out the work while soil and weather conditions are suitable. Ideally carry out seeding during April-May or September. For all areas be aware of tree protection areas where cultivation by hand is required. Lightly cultivate, removing stones over 20mm and perennial weeds to ensure good contact between seed and soil. Mix seed with sand to ensure an even sowing rate. Lightly rake or trample down after seeding to ensure good contact with topsoil.

Seed mix to be:

- Emorsgate EH1 Hedgerow Mix under new native mixed hedges (or equivalent if there are supply issues) sown at 4g per sqm. A pre-seeding fertilizer should not be applied (in line with manufacturers recommendations for EH1) OR alternative as advised by Ecologist.

20.0 Immediate aftercare:

Immediately after planting cut back any damaged, dead or diseased, weak, thin or malformed growth.

Water as necessary to ensure the establishment and continued thriving of all planting. Ensure the full depth of topsoil is thoroughly wetted. Use a fine rose where appropriate to avoid damaging or loosening plants.

3.0 PLANTING SCHEDULE

Refer to Soft Landscape Plan 24/1015/01 for layout and detail of tree pits and hedge planting.

Trees	Species	Height (mm)	Description	Total (no.)
See plan for tree pit detail. Secured with a triple stake and biodegradable pad and belting for heavy standard trees, single stake for feathered and orchard trees. Good branching rather than height is key. 75mm mulch to 1.2 sqm. Spacing as shown on the Plan.				
	Prunus avium [wild cherry]	14-16cmg	Container or rootballed	1
	Malus sylvestris [common apple]	2.5-3m	Bare root feathered	3
	Crataegus monogyna [hawthorn]	2.5-3m	Bare root feathered	4
	Pyrus communis [common pear]	2.5-3m	Bare root feathered	2

Native Mixed hedge – 127 linear meters [note some sections are planted as a double width hedge]	
Plant a staggered row [450mm between rows, 400mm along rows] at 5 plants/lin m , bare root transplants 1+2, 900-1200mm, 2L for Holly. Mulch hedge width to 50mm depth.	
Maintain on an annual cut ideally in February before bird nesting to provide source of nuts and berries, to a height of 1.5-1.8m; for the north boundary hedge [44linm] relax cutting of sides/top on rotation every 3 years in February before bird nesting to provide source of nuts and berries, to a min height of 1.8m or allow to grow on.	
Hawthorn [Crataegus monogyna] 50%	320
Holly [Ilex aquifolium] 25%	160
Hazel [Corylus avellana] 15%	60
Cornus sanguinea [Dogwood] 10%	60

Ornamental hedging shrubs	
Plant a straight row at 3 plants/lin m as a hedge . Mulch full hedge width of 800mm to 50mm depth.	
Prunus laurocerasus (laurel) 5L	50

4.0 PRESCRIPTIONS FOR MANAGEMENT ACTIONS

For new planting and seeding areas undertake maintenance visits in April, May, July, and September.

During the 5 year establishment phase carry out maintenance of the planted areas as follows:

4.1 For new native mixed hedges:

- New native mixed hedges to be maintained as stated on the Soft Landscape Plan.
- When cutting on an annual or 3 year rotation (hedge faces and top), aim to provide a food and shelter resource by leaving overwinter berries and cutting in February.

4.2 For new planting:

- Maintain weed free planted areas by use of HAND WEEDING (not by using glyphosate due to the risk of plant damage from herbicide drift onto new and existing vegetation).
- Hand weed to remove any perennial weed growth before these flower and set seed, do not use herbicide.
- The timing and method of weed control is to be kept under review.
- Water as necessary to prevent plants wilting.
- Maintenance operations shall be carried out only during suitable weather conditions.
- Every visit check condition of plants, including for any rabbit damage.
- Re-firm plants as required without compacting topsoil.

- Prune at appropriate times to remove dead or dying and diseased vegetation to promote healthy growth and natural shape and in accordance with good horticultural practice.
- All operations to be carried out by hand.
- Top up mulch to 50mm to the original specification.

4.3 For new tree planting:

- Maintain a weed free area around each tree, minimum diameter 1.0m ideally by use of HAND WEEDING (not by using glyphosate due to the risk of plant damage from herbicide drift).
- Watering trees: for the first growing year allow for watering every week to every fortnight according to weather conditions, from April to October. Allow 20-40L for trees. Watering in year 2 is also likely to be required.
- Top up mulch to maintain full depth of 75mm.
- Every month check condition of stakes, ties. Adjust if necessary to allow for growth and prevent rubbing of bark. Cut back any damaged bark.
- At year 2-3 remove all tree stakes.
- Re-firm new trees as required without compacting topsoil.
- Only prune at appropriate times to remove dead or dying and diseased wood and suckers to promote healthy growth and natural shape and in accordance with good horticultural practice.
- Undertake formative pruning in accordance with BS3998:2010 and ongoing aftercare in accordance with BS 8545:2014. Prune trees to favour a single central leading shoot.

4.4 For species rich mix grass areas:

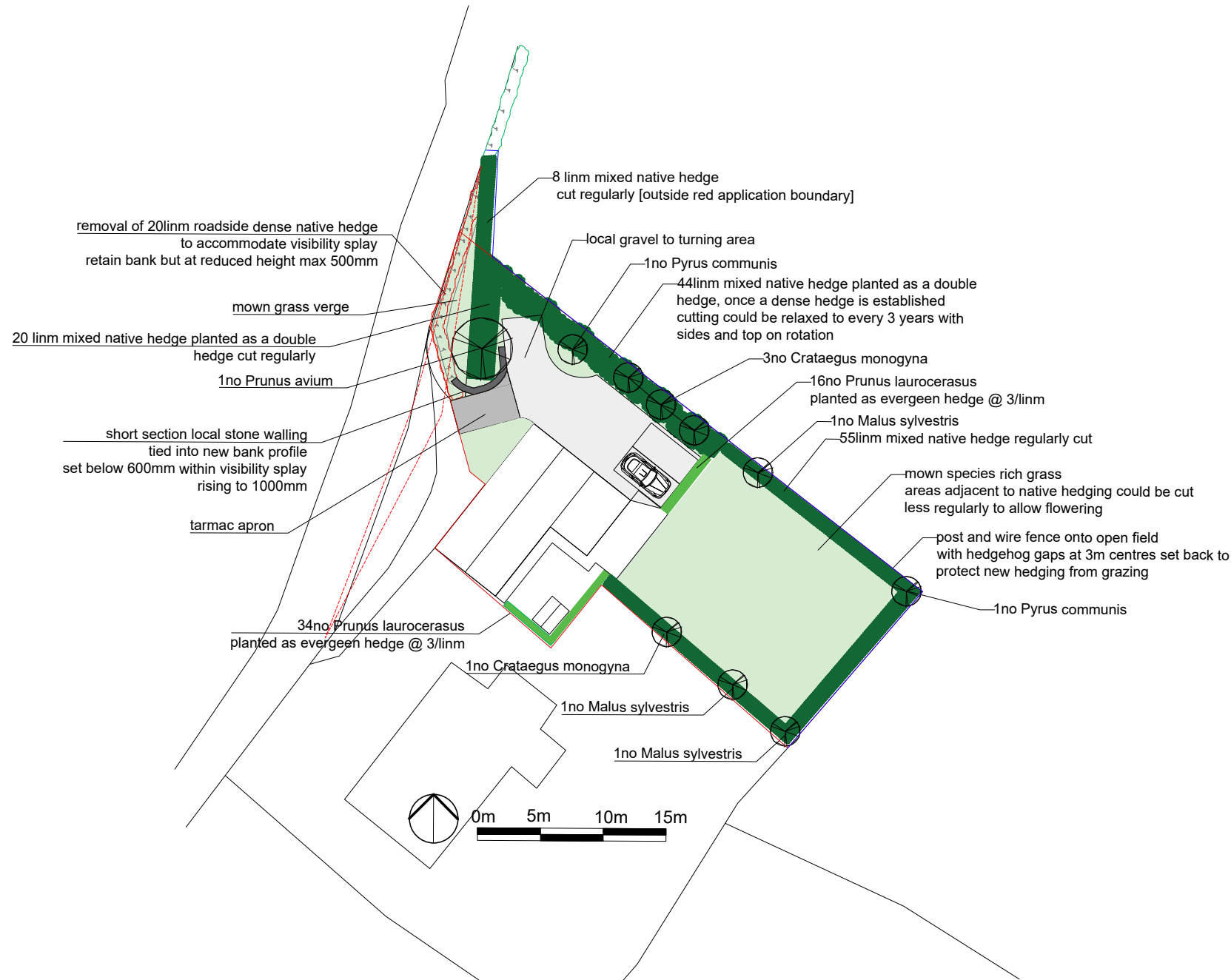
- **All grass areas to be seeded with Germinal WFG20 Eco Species Rich Lawn**, this is a mix of grasses and wildflowers. **For first year management**, regular mowing of all areas by cutting to a height of 40-60mm and removal of cuttings if dense will gradually help develop a good sward structure, maintaining a balance between faster growing grasses and slower developing wild flowers, and control annual weeds Perennial residual weeds such as dock should be dug out.
- Once established the mix can be mown regularly as a lawn. A more varied mowing regime can be used by allowing some areas to the rear to flower with mowing after late July, arisings to be removed. The regime can be varied annually.

4.5 For hedgerow seed mix:

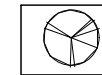
- Once bark mulch has degraded, the mix will develop and become rough and “tussocky” in character. If cutting back is required, undertake no more frequently than every 2-3 years between October and February and ideally on a rotational basis so that no more than half the area is cut in any one year leaving part as an undisturbed refuge.

5.0 MONITORING AND REMEDIAL MEASURES

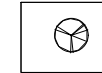
- 5.1 An annual walkover will be undertaken by the applicant to monitor establishment success, with any plants or areas that fail to thrive during the **5 year establishment phase** to be replaced in the next suitable planting season. Replacements will match the size of adjacent or nearby plants of the same species or should match the original specification, whichever is the greater.



Notes



proposed selected extra heavy standard native tree 14-16cmg



proposed feathered native tree 2.5-3m height



proposed native mixed hedge [high percentage of holly] undersown with hedgerow seed mix eg Emorsgate EH1 at 4g/sqm



proposed ornamental evergreen hedge



hedges to be removed



hedges to be retained



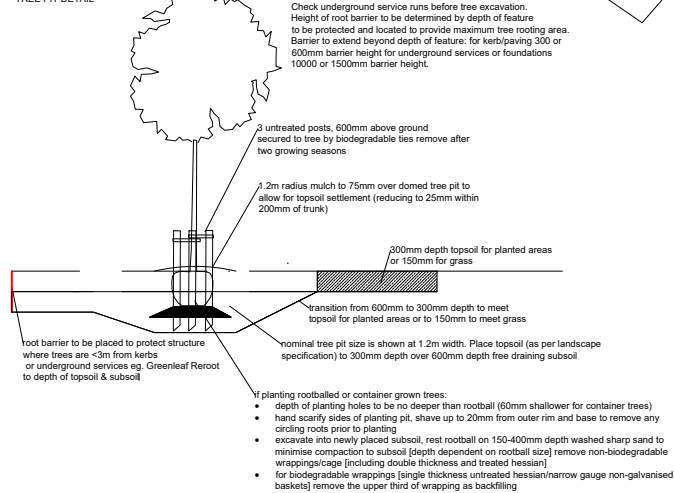
species rich seed mix close mown eg Germinal WFG20 at 10g/sqm

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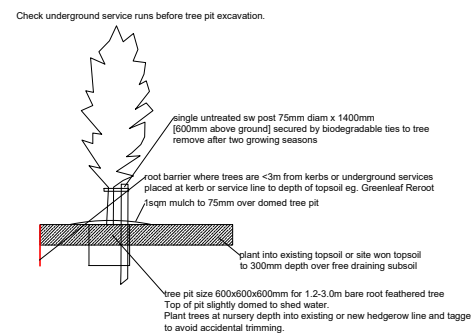
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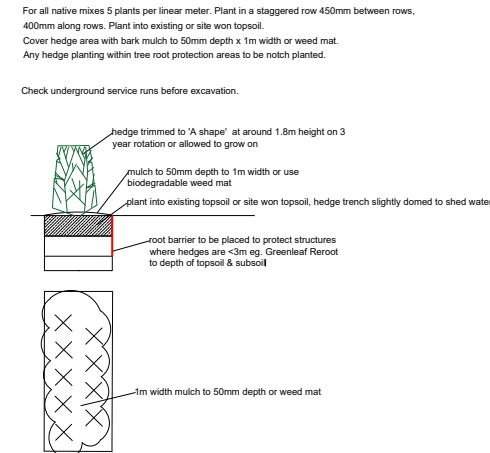
TREE PIT DETAIL



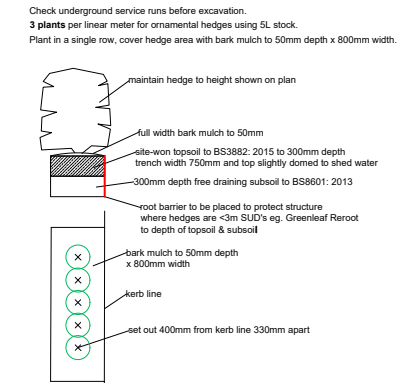
FEATHERED TREE PIT DETAIL



NATIVE MIXED HEDGE PLANTING DETAIL



ORNAMENTAL HEDGE PLANTING DETAIL



All dimensions must be checked on site and not scaled from this drawing.

This drawing is for the purposes of PLANNING. Based on Ordnance Survey and topographic survey data as supplied. OS Licence 100043966 Refer to Landscape Schedules Mackley Davies Assoc Ltd.

MACKLEY DAVIES ASSOCIATES LTD
Ffynnon yr Eirin, Crickhowell Road, Gilwern
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SITE
Barn adjacent Coc Y North Lane,
Rhiwderin

CLIENT
David Williams Homes Ltd

DRAWING TITLE
Soft Landscape Plan

SCALE 1:200 @ A1 Job No. 24/1015/01
DATE February 2024 REVISION No. A