

Report	Condition Report
Site Name	West Bay Club Halletts Shute Yarmouth Isle of Wight PO41 0RJ
Author(s)	Tristanna Boxall BSc (Hons)
Client	Norton Residential Ltd
Date of Issue	16 th January 2024
Status	<i>FINAL</i>

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1.0 INTRODUCTION

1.1 Background

Ecosupport were commissioned to produce this report to discharge Condition 9:

“No building shall be occupied until a site wide ecological enhancement plan has been provided, outlining measures for the enhancement of habitats at the site, habitat creation and landscaping, based on the recommendations contained within the Arc Ecological Impact Assessment submitted in relation to planning permission P/00402/18 and the findings of the updated Arc Walkover Survey submitted in relation to this planning application. Development shall be carried out in accordance with the approved details and the approved enhancements shall be carried out prior to the occupation of any building hereby approved”.

NB - This report does not cover species specific mitigation.

1.2 Aim

The aim of this report is to bring together the elements from the previous Ecological reports to provide detail on specific landscape and ecological enhancement.

1.3 Objectives

The objective of this report is to enhance the habitats on site and increase opportunities for wildlife and ecology on site. It also provides management prescription as on-going maintenance is essential to the success of the measures.

2.0 BASELINE DATA

2.1 Habitats

The site is currently occupied by:

- Hard standing
- Scrub
- Amenity grassland
- Scattered broadleaf and coniferous trees
- Short perennial / patchy ephemeral
- Tall ruderal
- Bare ground
- Introduced shrub

2.2 Protected Species

2.2.1 Reptiles

The survey results indicated the presence of a 'good population' of Slow Worms.

2.2.2 Bats

Habitats within the site boundary were considered to have low value for bats.

2.2.3 Hedgehogs

It was considered that the habitats within the site and in the surrounding area were suitable for Hedgehogs.

2.2.4 Birds

The trees and scrub within the site offer foraging and nesting opportunities for urban and urban fringe bird species which may be found in the local area.

2.2.5 Badgers

Two active Badger setts were recorded on site.

2.2.6 Dormice

No evidence of Dormice was recorded however habitats on site and within the wider area are suitable.

3.0 ENHANCEMENTS

Figure 1 below shows the locations of the required enhancements.

Figure 1. Ecological Enhancements.



3.1 Native Planting

Landscape design and planting will create semi-natural cover around the site perimeter. The overall reduction of amenity lawn space has been compensated for in new planting designed to provide enhanced forage, foodplant and habitat for wildlife and in the bolstering of existing boundary hedgerows.

Please see Landscape plan attached (**Appendix I**).

3.1.1 Trees

Fruit bearing trees, providing food sources for birds and small mammals during the autumn and winter and nest sites during the spring and summer, will be utilised. Species specified within the landscape strategy include:

- Rowan,
- Hazel,
- Hawthorn,
- Elder,
- Pear,
- Crab Apple.

Shrubs include:

- Holly,
- Dogwood,
- Privet,
- Dog Rose,
- Guelder Rose.

Key species are Willow, Oak and Birch as they can support high numbers of insects. In addition, once matured they can eventually provide roosting opportunities for bats (see **Table 1** below).

Table 1. Tree species for foraging and roosting potential (Gunnel et al. 2012).

Native Tree species	Roosting potential	Supporting foraging
Oak	Very good	Very good
Willow	Minimal	Very good
Beech	Very good	Good
Ash	Good	Good
Elm	Good	Good
Birch	Minimal	Very good

3.1.2 Hedgerow

Northwest perimeter will be planted with a new hedgerow in addition to infill planting where existing gaps are present. Species to be utilized include:

- Apple,

- Pear,
- Hazel,
- Hawthorn,
- Field Maple,
- Blackthorn,
- Guelder rose,
- Honeysuckle.

3.1.3 Grassland

The meadow area will be sown with Emorsgate EM2. EM2 is a complete mix composed of 15% native wild flowers and 85% slow growing grasses (by weight).

Wild flowers include:

- 0.75% *Achillea millefolium* – Yarrow
- 0.30% *Agrimonia eupatoria* – Agrimony
- 1.50% *Centurea nigra* – Common Knapweed
- 0.90% *Daucus carota* – Wild Carrot
- 0.30% *Rumex acetosa* – Common Sorrel
- 1.50% *Galium verum* – Lady’s Bedstraw
- 0.45% *Knautia arvensis* – Field Scabious
- 1.27% *Leucanthemum vulgare* – Oxeye Daisy
- 1.80% *Malva moschata* – Musk Mallow
- 1.80% *Plantago lanceolata* – Ribwort Plantain
- 0.90% *Poterium sanguisorba ssp sanguisorba* – Salad Burnet
- 0.30% *Primula veris* – Cowslip
- 0.75% *Ranunculus acris* – Meadow Buttercup
- 1.50% *Silene dioica* – Red Campion
- 0.98% *Rhinanthus minor* – Yellow Rattle

3.1.4 Herbaceous

It is beneficial that flowers vary in colour (although pale flowers that are more easily seen in poor light and so attract insects at dusk), fragrance, shape, amount of nectar and time of flowering. Flowers with ‘landing platforms’ for insects (i.e. flowers from the Daisy and Carrot families) increase opportunities for insects and in turn foraging Bats. Such species specified within the planting schedule include:

- *Achillea* ‘Terracotta’,
- *Gaura lindheimeri*,
- *Echinacea* ‘Sundown’,
- *Geranium* ‘Orion’,
- *Helenium* ‘Waltraut’,
- *Helleborus* Sp.
- *Nepeta* × *faassenii*,

- *Salvia nemorosa* 'Amethyst' and 'Caradonna',
- *Sanguisorba* 'Tanna',
- *Sedum* 'Beach Party',
- *Verbena bonariensis*,
- *Buddleja davidii* 'Empire Blue',
- *Lavandula angustifolia*,
- *Lonicera periclymenum*,
- *Origanum majorana*,
- *Pulmonaria officinalis*,
- *Rosmarinus officinalis*.

3.2 Bat Boxes

20 bat features will be attached to new builds on site. The Beaumaris WoodStone Bat Box Midi (**Fig 2**) is recommended as it is constructed from woodstone and therefore suitable for long-term enhancement. This model does not require any maintenance as the droppings fall out.

Figure 2. Recommended style of bat box.



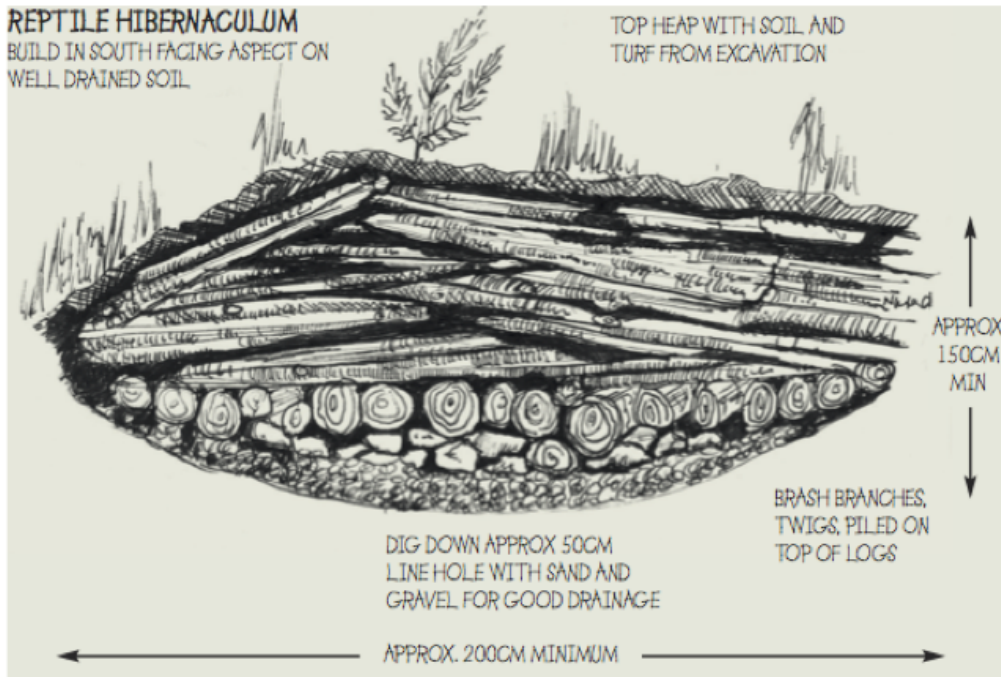
In general, bats seek warm spaces when rearing young. For this reason, bat boxes will be located where they will receive at least partial sunlight (**Fig 1**). The bat boxes will be installed a minimum of 2m above ground level, although 5-7m is preferable to prevent disturbance from people and

predators. The features should also be positioned near the eaves or gable apex of buildings to minimise disturbance.

3.3 Hibernacula

A wood-based hibernacula will be created following the specification outlined within Reptile Habitat Management: Guidelines for Landowners (HART, 2009) (Fig 3).

Figure 3. Reptile hibernaculum design as provided in HART (2009).



4.0 MANAGEMENT

4.1 Trees and Hedgerow

The Hedgerow Management and Wildlife (Barr et al., undated) document outlines three important factors in how hedgerows are managed that affect resident mammal population (and have therefore formed the basis of the recommendations in this section):

1. The type and amount of food available within the hedgerow. Favourable conditions being a large invertebrate population or prolific annual seed and berry crop.
2. The vegetation structure and composition of the hedgerow. For instance, a dense, herb-rich basal layer or a continuous line of hedgerow trees is preferred by several species.
3. The continuity and connectivity of the hedge within the landscape.

The more favourable approach to managing hedgerows for the benefits of small mammals is to encourage minimal interference and ensure when there is any cutting, it does so after autumn fruiting (so late winter is preferable). The key points of the management prescriptions will

therefore be as follows (adopting recommendations as outlined within Bright and MacPherson 2002):

- Existing boundary vegetation/hedgerows will be allowed to develop into a tall, dense, bushy structures and maintained at a height of 3-4m
- Cut using hand tools
- If vegetation needs to be reduced, avoid cutting the top and cut one side.

4.2 Grassland

Following the sowing of wildflower seed, during the first year, areas do not require any additional watering or fertilizer. Cutting and removing the clippings retains low nutrient levels in the soil and suppresses coarse grasses which would otherwise out-compete the wildflowers. It is recommended the wildflower grassland undergoes two annual cuts.

Management Once Established: Grassland which is consistently cut late in the season, in August and September, year on year reduces species diversity as late cutting gives more time for coarse grasses and other dominant plants to grow unchecked. To maintain maximum diversity and flowering interest the buffer should be managed in sections at different times from late June to the end of August. Varying the mowing times from year to year is the best way to maintain a diverse balanced sward.

5.0 CONCLUSION

The aim of this report was to extract relevant sections of the previous ecological reports associated with the site to inform a site-wide Ecological Enhancement Plan. It is considered once completed the site will continue to provide opportunities for local wildlife.

6.0 REFERENCES

Barr, C.J., Britt, C.P., Sparks, T, H., & Churchward, J.M., (undated) Hedgerow Management and Wildlife, a Review of Research on the Effects of Hedgerow Management and Adjacent Land on Biodiversity

Bat Conservation Trust / Institute of Lighting Professionals (2018) *Guidance Note 08/18 Bats and Artificial Lighting in the UK*

Bright, P., & MacPherson, D., (2002). Hedgerow Management, Dormice and Biodiversity. *English Nature Research Report No 454.*

CIEEM (2018) *Guidelines for Ecological Impact Assessment in the UK & Ireland*

Stone, E.L. (2013). Bats and lighting: Overview of Current Evidence and Mitigation Guidance. University of Bristol, Bristol.'

Tree Planting

Tree pit filled with approved site topsoil, with compost. 1.50m clear stem, full, evenly branching full crown, root ball, from approved selected supplier. Planted with aeration pipe, underground guying system. 1.0m diameter x 50mm depth composted bark mulch finish.

Ref	Species	Specification	Girth	Height
Coast				
T1	Betula pendula	EHS	18-20cm	min 450cm
T2	Pinus sylvestris 'Watereri'	EHS	18-20cm	min 450cm
T3	Hippophae salicifolia 'Robert'	EHS	16-18cm	min 450cm
T4	Tamarix gallica	EHS	16-18cm	min 450cm
Field and wood				
T5	Acer campestre	HS	12-14cm	350-425cm
T6	Ilex aquifolium	HS	12-14cm	350-425cm
T7	Pyrus communis	HS	12-14cm	350-425cm
T8	Malus sylvestris	HS	12-14cm	350-425cm
T9	Quercus robur	HS	12-14cm	350-425cm
T10	Sorbus aucuparia	HS	12-14cm	350-425cm
T11	Ulmus lutece	HS	12-14cm	350-425cm

Hedge Planting

Native transplants to be planted in a staggered row at 6no. plants per linear metre. Planted in groups of 5-25 per species. All native transplants to be supported by a single cane with overlapping spiral photodegradeable recycled PVC gaurds.

Species	Specification	Height	% of mix
Acer campestre	BR, transplant	40-60cm	13%
Crataegus monogyna			18%
Corylus avellana			27%
Ilex aquifolium			9%
Lonicera periclymenum			16%
Prunus avium			9%
Rosa canina			5%
Rhamnus frangula			3%

Shrub / perennial planting

Mix of shrub and perennial plants in 2-5lit containers, planted at a density of 3-5 plants per metre in groups of 5-9.

Species	
Coast	
Calamagrostis × acutiflora 'Karl Foerster', Achillea 'Terracotta', Agapanthus 'Little Dutch White', Agapanthus 'Bressingham Blue', Agapanthus 'Purple Cloud', Carex oshimensis 'Evergold', Carex testacea, Carex buchananii, Echinacea 'Sundown', Gaura lindheimeri, Geranium 'Orion', Helenium 'Waltraut', Helleborus spp, Kniphofia 'Alcazar', Miscanthus 'Morning Light', Nepeta × faassenii, Panicum virgatum 'Rehbraun', Pennisetum alopecuroides 'Red Head', Phormium 'Yellow Wave', Salvia nemorosa 'Amethyst', Salvia nemorosa 'Caradonna', Sanguisorba 'Tanna', Stipa tenuissima, Sedum 'Beach Party', Verbena bonariensis 'Lollipop'.	
Field and wood	
Buddleja davidii 'Empire Blue', Cornus alba, Cornus sanguinea, Deschampsia cespitosa, Festuca rubra, Hedera helix 'Green Ripple', Lavandula angustifolia, Lonicera periclymenum, Origanum majorana, Pulmonaria officinalis, Ribes sanguineum, Rosa canina, Rosmarinus officinalis, Sambucus nigra, Trisetum flavescens, Viburnum opulus	

Meadow grassland

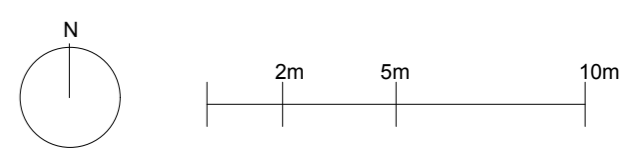
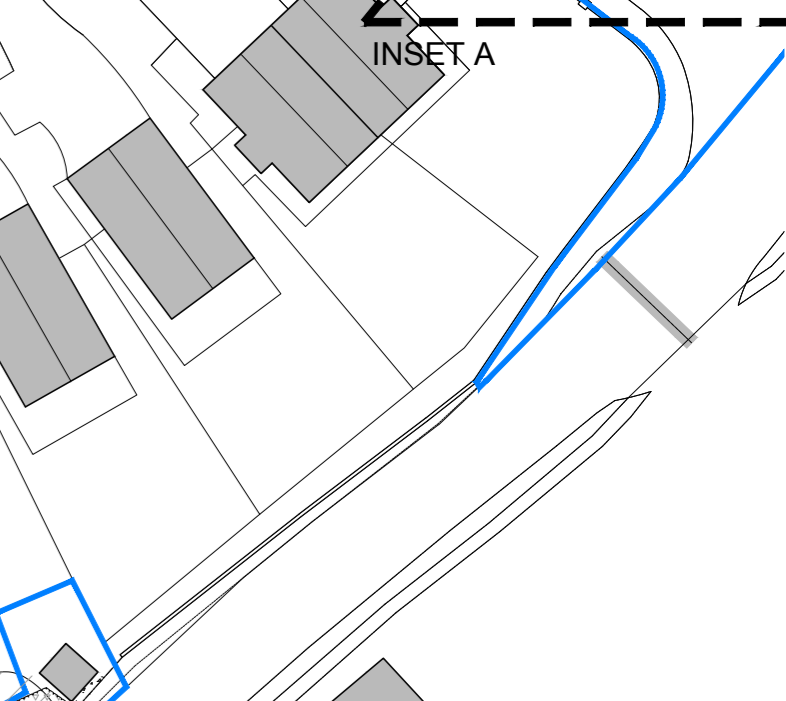
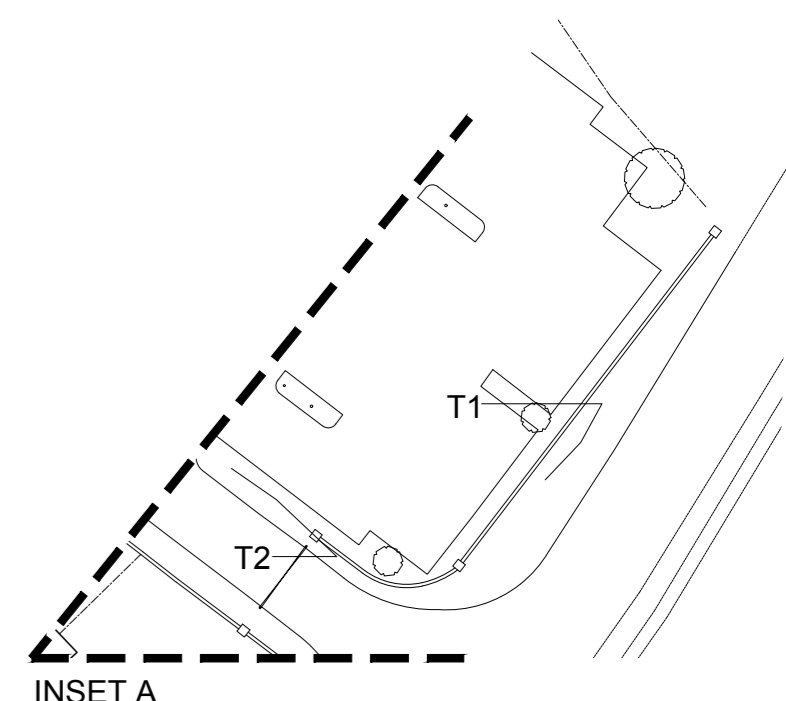
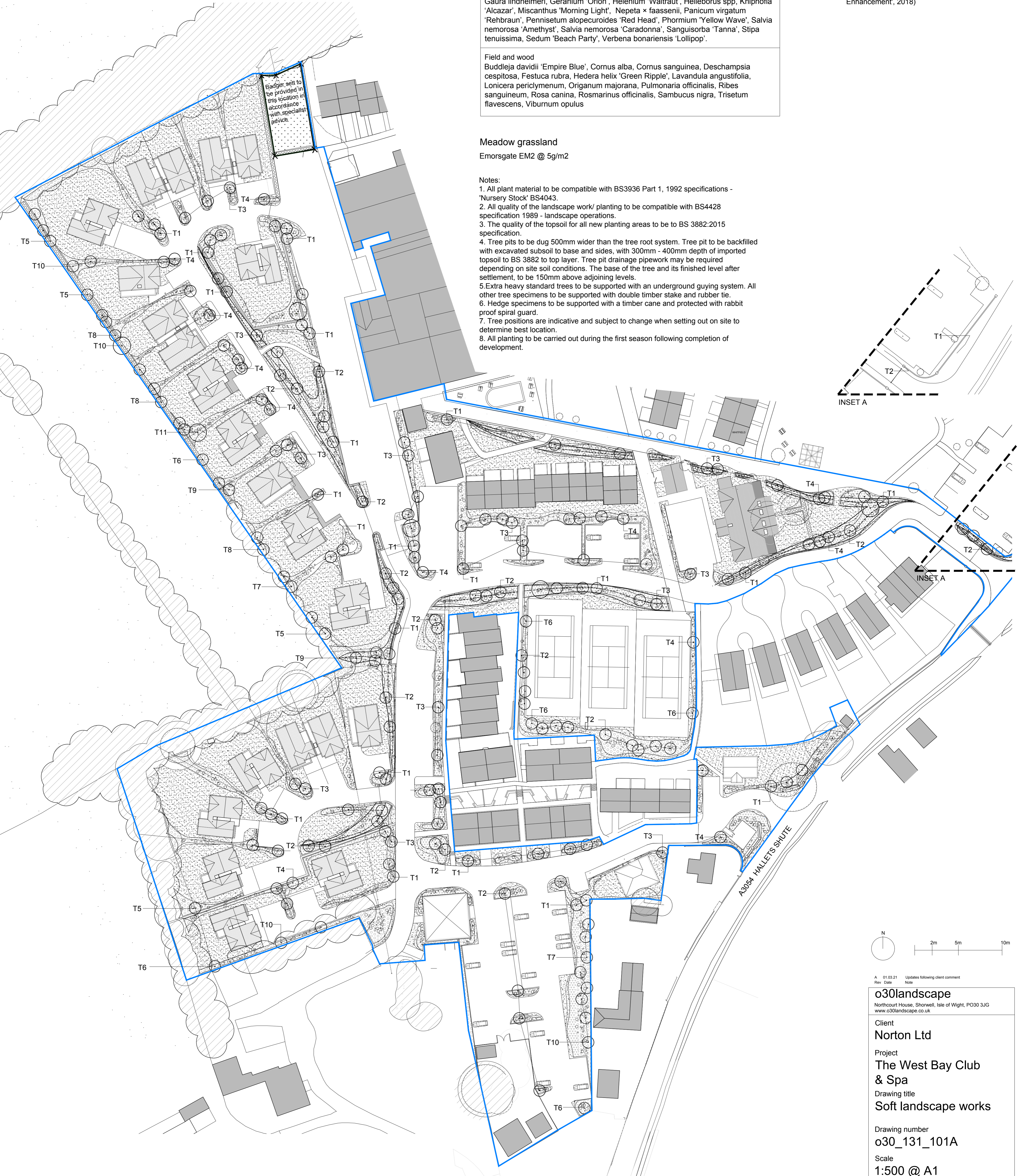
Emorsgate EM2 @ 5g/m2

Notes:

- All plant material to be compatible with BS3936 Part 1, 1992 specifications - 'Nursery Stock' BS4043.
- All quality of the landscape work/ planting to be compatible with BS4428 specification 1989 - landscape operations.
- The quality of the topsoil for all new planting areas to be to BS 3882:2015 specification.
- Tree pits to be dug 500mm wider than the tree root system. Tree pit to be backfilled with excavated subsoil to base and sides, with 300mm - 400mm depth of imported topsoil to BS 3882 to top layer. Tree pit drainage pipework may be required depending on site soil conditions. The base of the tree and its finished level after settlement, to be 150mm above adjoining levels.
- Extra heavy standard trees to be supported with an underground guying system. All other tree specimens to be supported with double timber stake and rubber tie.
- Hedge specimens to be supported with a timber cane and protected with rabbit proof spiral guard.
- Tree positions are indicative and subject to change when setting out on site to determine best location.
- All planting to be carried out during the first season following completion of development.

LEGEND

- Extent of landscape works
- Existing tree to be retained (with accurate canopy shown where applicable)
- Specimen tree planting
- Perennial / shrub planting
- Native mixed hedge
- Meadow grassland
- Amenity grass
- The 'Dune'
- Dune gravel/sand
- 'Coast' themed planting
- 'Field and wood' themed planting (as recommendations from Arc Consulting 'Green Infrastructure Enhancement', 2018)



A 01.03.21 Updates following client comment
 Rev Date Note
o30landscape
 Northcourt House, Shorwell, Isle of Wight, PO30 3JG
 www.o30landscape.co.uk

Client
Norton Ltd

Project
The West Bay Club & Spa

Drawing title
Soft landscape works

Drawing number
o30_131_101A

Scale
1:500 @ A1