ENVAR PROPOSED DEVELOPMENT AT THE HEATH, WOODHURST LANDSCAPE MAINTENANCE AND ECOLOGICAL ENHANCEMENT SCHEME

June 2021



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1 INTRODUCTION

1.1 Location

The proposed development area is located within the existing Envar Composting Ltd waste management site at Somersham Road, Woodhurst, Huntingdon, Cambridgeshire. The village of Woodhurst is approximately 2km west of the site, with the larger village of Bluntisham some 3 Km to the east. The area covered by the existing facility is approximately 11 ha within an 18.5 ha area of land holding.



Google Earth Photograph showing location of the site at the junction of Somersham Road (B1040) and Bluntisham Heath Road.

1.2 Proposed Development

This landscape maintenance and ecological enhancement scheme has been prepared by Katie Burfitt for Envar Composting Ltd to accompany an application for the construction of a

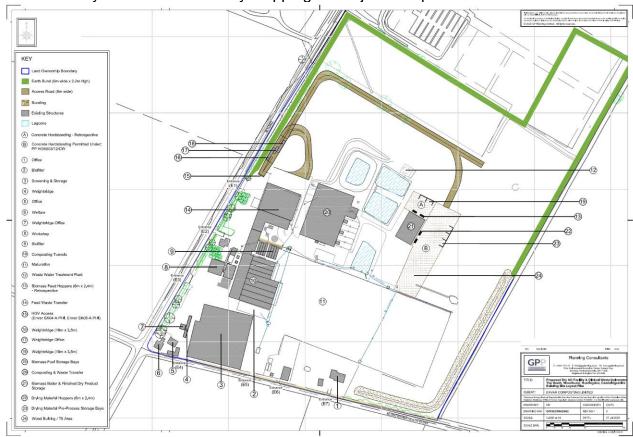
- Dry Anaerobic Digestion (AD) facility
- Healthcare Waste Energy Recovery Facility (ERF)
- Pellet Fertiliser Production Facility
- Vehicle Re-Fuelling Station
- Waste Transfer Station
- Woodchip Biomass Fuel Storage Building

and associated development at The Heath, Woodhurst, Huntingdon, PE28 3BS. It sets out a detailed landscape plan and specification, 5-year maintenance scheme and ecological enhancement details.

2 EXISTING AND PROPOSED WASTE MANAGEMENT FACILITY

2.1 Existing Waste Management Facility Layout

The plan below from July 2020 shows the existing site layout plan detailing the buildings, hard standing and existing site infrastructure labelled items 1-24 and A-B in the key. The plan shows the majority of the existing developed area to the south and west of the site. The perimeter earth bunds shown in green surrounding the north-west, north and north-east boundary had been formed by stripping the adjacent topsoil.



Proposed Dry AD and Healthcare Waste Recovery Facility The Heath Woodhurst, Existing site layout plan no. GPP/E/CWH/20/02 rev 0 dated 27th July 2020 by G P Planning Ltd. (A larger version of this plan can be found in Appendix 1).

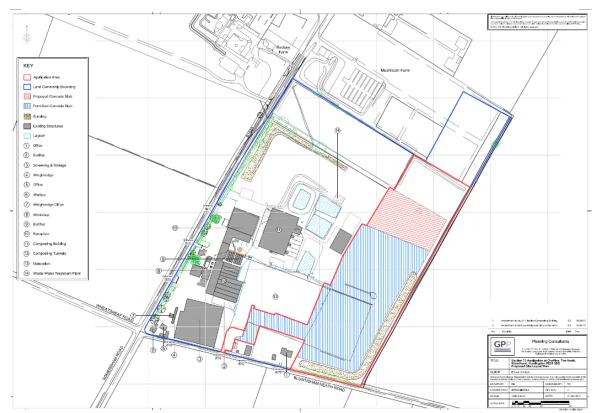
2.2 Existing Approved Planning Permission

Although the plan above shows no development apart from the earth bunds in the area to the north-east of the site, a Section 73 planning application permission number H/5006/17/CW was approved on 2nd November 2017.

This was

"to develop land without complying with condition 2 of planning permission H/05003/12/CW (Extension of concrete pad for maturation of compost with drainage balancing lagoons, reed bed; perimeter earth bunds [for] screening) to extend concrete pad into area of balancing lagoon".

This planning permission has not been enacted, except for the formation of the perimeter earth bunds. The plan below shows the area of the Section 73 application, outlined in red, which was approved in November 2017. This includes a large section along the southeastern side of the site.



Section 73 application at Chaffins, The Heath Woodhurst, Proposed Site Layout Plan no. GPP/E/SI/170/14 rev 3 dated 21st April 2017 by G P Planning Ltd. (A larger version of this plan can be found in Appendix 2).

2.3 Proposed Waste Management Facility Layout



Proposed Dry AD and Healthcare Waste Recovery Facility The Heath Woodhurst, Proposed Site Layout Plan no. GPP/E/CWH/21/03 rev 011 dated 26th April 2021 by G P Planning Ltd. (A larger version of this plan can be found in Appendix 3).

The plan above shows the proposed development of the site. Infrastructure items 25 to 52 are listed in the key. The red line boundary overlaps in the previous 2 plans. Part of the

area shaded red and identified as proposed concrete slab and the area immediately to the north of this in the consented plan no. GPP/E/SI/170/14, is also included within the redline boundary of the new Proposed Site Layout Plan no. GPP/E/CWH/21/03 rev 011 dated 26th April 2021.

There are 4 dirty water lagoons shown in Existing Site Layout plan no. GPP/E/CWH/20/02 rev 0 dated 27th July 2020. There are 4 dirty water lagoons and a clean water lagoon shown on the Proposed Site Layout Plan no. GPP/E/CWH/21/03 rev 011 dated 26th April 2021. One of the dirty water lagoons will be retained in the proposed new development. 3 dirty water lagoons and 1 clean water lagoon will be constructed.

The area of new proposed development is just over 3.00 ha. This does not include any of the overlapping areas which already have planning permission approvals. Approximately 1.5ha of the proposed development area is new lagoons and associated perimeter grassland. Approximately 0.5ha of this lagoon area is clean water lagoon and associated perimeter grassland. (A comprehensive surface water scheme has yet to be drawn up. The lagoon sizes are estimated at this time).

3.0 EXISTING AND PROPOSED LANDSCAPE SCHEMES

3.1 Approved Landscape Schemes and Existing Landscape Features



Annotated Proposed Development at The Heath Woodhurst, Proposed Site Layout Plan V11 by G P Planning Ltd. (A larger version of this plan can be found in Appendix 4).

Plan no GPP/E/CWH/21/03 rev 011 dated 26th April 2021 shown above has been anotated to show Approved Landscape Schemes and Existing Landscape Features in and around the site.

This details the comprehensive approved landscaping schemes at the Heath, Woodhurst set against the proposed development plan. The large roadside bund to the west of the proposed clean water lagoon and the bund to the south-east perimeter of the site adjacent to the perimeter litter fence have both been planted. Additional landscaping works will be carried out as the existing planning permissions are enacted.

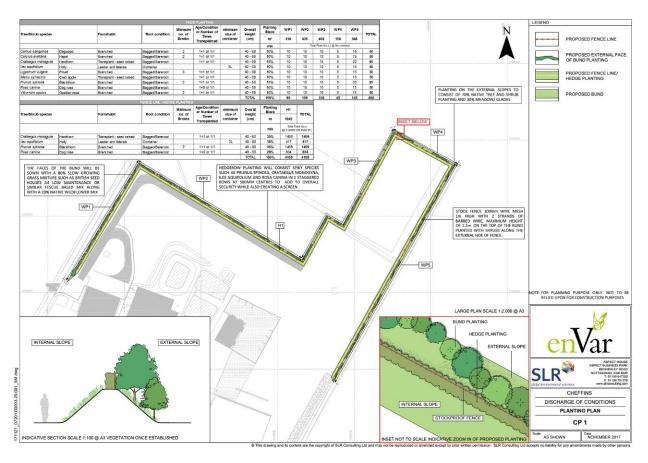
The south-eastern, eastern, northern and part of the western perimeters are all protected by large perimeter bunds which have been constructed since 2018, in advance of the new application for 2021, which this document attaches to. The south-western boundary is effectively screened by a dense roadside hedge with established trees as shown on the plan above. The south-western boundary has existing low hedges and tall buildings abutting Bluntisham Heath Road. The entire perimeter of the site has screening bunds with approved landscape schemes, or existing buildings, providing comprehensive screening of the waste site. As these approved schemes establish the screening will become more effective as the trees mature.

Detailed Landscape Plan, Envar Compost Pad Extension, St Ives itie Burfitt Crack Willow 1.8-2.3m 45-60cm 45-60cn DETAILED LANDSCAPE PLAN FOR ENVAR COMPOST PAD EXTENSION, ST IVES omus sanguinea Dogwood 45-60cm

The 2 approved schemes are set out below

Detailed Landscape Plan no. KB-Sti-003 dated May 2013 (A larger version of this plan can be found in Appendix 5).

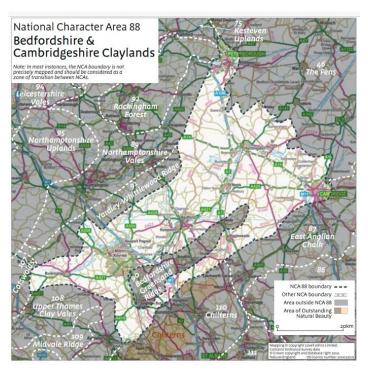
The plan above is superceded by the SLR plan below



Cheffins Discharge of Conditions Planting Plan CP1 dated November 2017 by SLR (A larger version of this plan can be found in Appendix 6).

The larger SLR planting scheme shown above consists of a dense hedgerow across the top of the existing bunds and trees along the outside of the bund. This gives a total planting of 4648 trees and shrubs.

3.2 The Surrounding Landscape



The site is set in National Character Area (NCA) 88. Bedfordshire and Cambridgeshire Claylands in a flat arable plain with few landscape features. The fields are surrounded by vegetated ditches with few trees and hedgerows.

"The described as The area is Bedfordshire and Cambridgeshire Claylands NCA has a predominantly arable intensively farmed and landscape, with main crops of winter cereals and oilseed rape. Fields are generally large and rectilinear, typically increasing in size further eastwards. In the west, hedgerows are predominantly of hawthorn, generally intact, with few hedgerow trees of oak and ash.

Further east, hedgerows are more species-rich and gappy. Open ditches with infrequent trees also bound some fields and are often under-managed. Within the river valleys, willow and poplar help to emphasise local distinctiveness".

The map shown above and quotation from the NCA Profile: 88 Bedfordshire and Cambridgeshire Clay lands (NE555) Natural England Publications.

3.3 Proposed Landscape Scheme and Biodiversity Enhancement

The whole of the perimeter of the site is already comprehensively screened or has landscape schemes approved to provide comprehensive screening. Two additional areas have however been identified to add both landscaping features and biodiversity enhancement to small areas of the perimeter of the site.

The clean water lagoon to the north-west of the site will be surrounded on the eastern and southern side by a new native hedgerow. The areas around the lagoon and adjacent to the new hedgerow will be seeded with slow growing grasses and wildflowers.

The existing wetland area to the south-east corner of the site will be enhanced with an area of shrub planting.

The landscaping and biodiversity enhancement will consist of:

- 121m of new native hedgerow with hedgerow trees
- 1535m² of grassland with wildflowers around the hedgerow and lagoons
- Shrub planting to 40% of the perimeter of a wetland area of 2014m²

(Exact measures of areas and hedgerow length around the lagoons are approximations and will depend on the final surface water scheme construction).

Hedgerow and Shrub Planting

Any existing weeds and competing vegetation will be spot sprayed with herbicide at the plant stations and along the line of the hedge. Compacted soil will be broken up and lightly cultivated. On good ground notch planting will be undertaken where-ever possible. On poorer ground plants will be pit planted or for hedgerow a pre-prepared trench will be formed, soil conditioner will be added where necessary. No planting will be undertaken within 3m of existing infrastructure, ditch lines, fences, underground pipes or cables etc. No planting will be undertaken within 4m of any overhead cables.

Shrubs to be planted at an average of 2m X 2m random spacing to create a natural looking planting in single species groups of 9-11 plants. Shrubs are to be planted to the drier outer perimeter of the wetland area. Plants will be guarded with 750mm shrub shelters. Up to 40% of the area will be planted.

Hedge to be planted as a double staggered row with 5 plants per metre. All hedge plants in spiral guards or shrub shelters with hedgerow trees in 1.2 m tree shelters. Hedgerow plants in same species groups of 7-9 plants. Hedgerow trees to be planted at an average of 8m, irregularly spaced. Hedge to be notch planted into good ground or a prepared trench with soil conditioner as required. The hedge is to be planted at least 8m from the edge of the lagoon to prevent overshading of the water and reduce leaf drop into the new

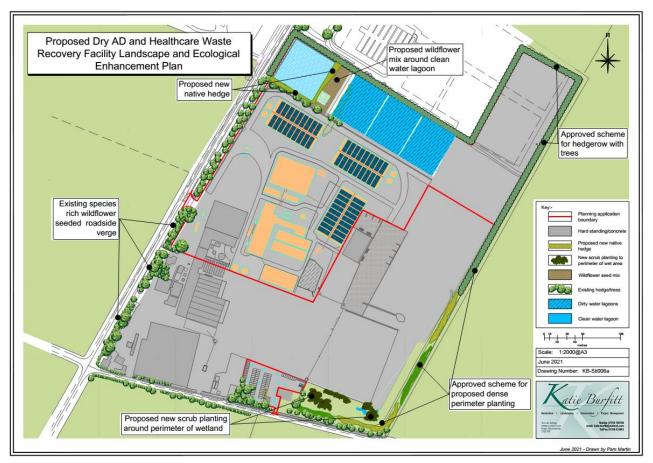
Envar Planting S					
Botanical Name	Common Name	Size	Hedgerow 121m	Wetland shrub planting 800m ²	Tree Shelter
Prunus avium	Wild cherry	45-60cm	5		1.2m
Malus syvestris	Crab apple	45-60cm	5		1.2m
Acer campestre	Field Maple	45-60cm	5		1.2m
Quervcus robur	Oak	45-60cm	5		1.2m
Corylus avellana	Hazel	45-60cm	75	75	60cm spiral
Crataegus monogyna	Hawthorn	45-60cm	400	50	60cm spiral
Prunus spinosa	Blackthorn	45-60cm	30		60cm spiral
Viburnum opulus	Guelder rose	45-60cm	30	25	shrub shelter
Ligustrum vulgare	Privet	45-60cm	25	25	shrub shelter
Cornus sanguinea	Dogwood	45-60cm	25	25	shrub shelter
TOTAL			605	200	805

The table above shows the numbers for the new hedgerow and new shrub planting

Seeding Area

Any establishing weeds will be sprayed with herbicide. The surface will be stone-picked and cultivated to break up any compaction and provide a shallow seed bed of approximately 150mm depth. Carry out two equal sowings at right angles to each other and diagonally to main axis with Germinal Seeds WFG6 for heavy clay soils at a rate of 5g/m². (The topsoil has been stripped in these areas leaving only clay subsoil). Broadcast manually or use seed drill, rake level and roll. Ensuring good seed to soil contact.

It is the intention to undertake the planting/seeding in the first available planting season following approval of planning permission. However, this will be dependent upon access requirements for the construction of the development. Taking this into account, planting and seeding will be undertaken in the earliest possible planting/seeding season following construction.



Envar Dry Anaerobic Digestion and Healthcare Waste Energy Recovery Facility Landscape and Ecological Enhancement Plan no. KB-Sti 006a dated June 2021 (A larger version of this plan can be found in Appendix 7).

The plan above shows the Envar Waste Management Facility Proposed Development layout together with the proposed and existing landscape features and ecological enhancement. These are listed below:

- Existing perimeter bund to the north-west, north, and part eastern boundary to be comprehensively planted with hedgerow and trees.
- Existing perimeter bund to the south eastern corner comprehensively planted with willow trees and shrubs at 2m X 2m spacing. Dense coppiced willow regrowth to the southern boundary adjacent to Bluntisham Heath Road in the south-eastern corner of the site.
- Existing wildflower seeding to road verge along the western boundary of the site seeded with TGP Roadside and Roundabout Wildflower Mix.
- Existing dense, wide, well-established hedgerow to the western boundary with mature trees.
- Existing trees and small hedgerows to the southern boundary.
- Proposed establishment of grassland with wildflowers around the clean water lagoon to the north-west of the site.

- Proposed establishment of new native hedge with hedgerow trees around the eastern and southern perimeter of the clean water lagoon to the north-west of the site.
- Proposed establishment of perimeter shrubs to the wetland area to the south-east corner of the site.

4 MAINTENANCE

The new proposed planting and seeding will be maintained for a 5-year period or until established. All existing trees and shrubs within the planting area will be retained. Weed growth around individual plants and adjacent to the hedgerow will be controlled by herbicide, 2 applications per annum, to create a 1m width free of weeds. All failures will be replaced in the following planting season to ensure 100% stocking rate. Vegetation between the shrubs and adjacent to the hedge will be cut annually or as required. Tree and shrub shelters and spiral guards will be repositioned/maintained at each maintenance visit.

The seeding area will be cut twice per annum outside the nesting season. Weed infestation to be controlled by mechanical removal or broadleaved herbicide spot application.

Annual Maintenance Schedule

	Jan	Feb	Mar	Apr	May	Jun	July	Aug	Sep	Oct	Nov	Dec
Hedgerow and shrub planting areas: Line or Spot herbicide application and repositioning of guards												
1 st Visit												
2 nd Visit												
Vegetation adjacent hedgerow and shrubs												
Topping												
Seeding area												
Cut												
Stone picking												
As required												
Replacement planting					_	_						
Dormant season												

The table above gives a schedule of the annual maintenance of the tree, shrub and seeding areas.

5 ENHANCEMENT OF BIODIVERSITY AND LANDSCAPING

The table below sets out details of the landscape and ecological enhancement measures proposed together with the objectives of those proposals and the species benefitting.

Measures to Increase the Landscape and Ecological Value of the Site								
Habitat Type	Proposed Biodiversity/Landscape Enhancement	Biodiversity/Landcape Objective	Species Benefitting					
Linear hedgerow with trees	Planting of 121m of new native hedgerow with hedgerow trees set a minimum of 8m back from the edge of the proposed clean water lagoon to prevent overshading and reduce leaf fall into the water. Native species to include Quercus robur, Acer campestre, Prunus avium and Malus sylvestris and a variety of native shrubs within the hedge	To enhance the area for foraging of birds and bats particularly species feeding on insects above water. To add to the existing perimeter wildlife corridor providing a new internal corridor for the movement of wildlife around the lagoon, provide increased food sources and habitat for small mammals, invertebrates and birds. To create an additional landscape feature enhancing the visual appeal around the lagoon in an otherwise flat area of the development site.	Bats, birds, small mammals, insects and other invertebrates.					
Grassland	Seeding of native grassland with wildflowers into nutrient poor heavy clay subsoil. Species to incluide slow growing grasses and wildflowers such as Birdsfoot Trefoil and red and white clover.	To create a more diverse wildlife habitat with potential for ground nesting birds, small mammals, good nectar sources for bees, butterflies and moths.	Small mammals, invertebrates, foraging and ground nesting birds.					
Scrub	Planting 40% of existing wet area with native shrubs to the perimeter and drier areas. Species to include hazel, hawthorn, guelder rose, privet	To thicken the existing planting on the southeast corner of the site giving greater screening from the road to the south. The scrub planting will support a wider range of species providing nuts and seeds for birds and small mammals and additional nectar sources for insects. Privet is particularly good source of nectar.	Birds a range of insects and invertebrates and potential habitat for species inhabiting marginal areas.					

6 APPENDICES

Appendix 1

Proposed AD facility and Healthcare Waste Energy Recovery Facility The Heath Woodhurst, Existing site layout plan no. GPP/E/CWH/20/02 rev 0 dated 27th July 2020 by G P Planning Ltd.

Appendix 2

Section 73 application at Chaffins, The Heath Woodhurst, Proposed Site Layout Plan no. GPP/E/SI/170/14 rev 3 dated 21st April 2017 by G P Planning Ltd.

Appendix 3

Proposed Development at The Heath Woodhurst, Proposed Site Layout Plan no. GPP/E/CWH/21/03 rev 011 dated 26th April 2021 by G P Planning Ltd

Appendix 4

Annotated Proposed Development at The Heath Woodhurst, Proposed Site Layout Plan no. by G P Planning Ltd

Appendix 5

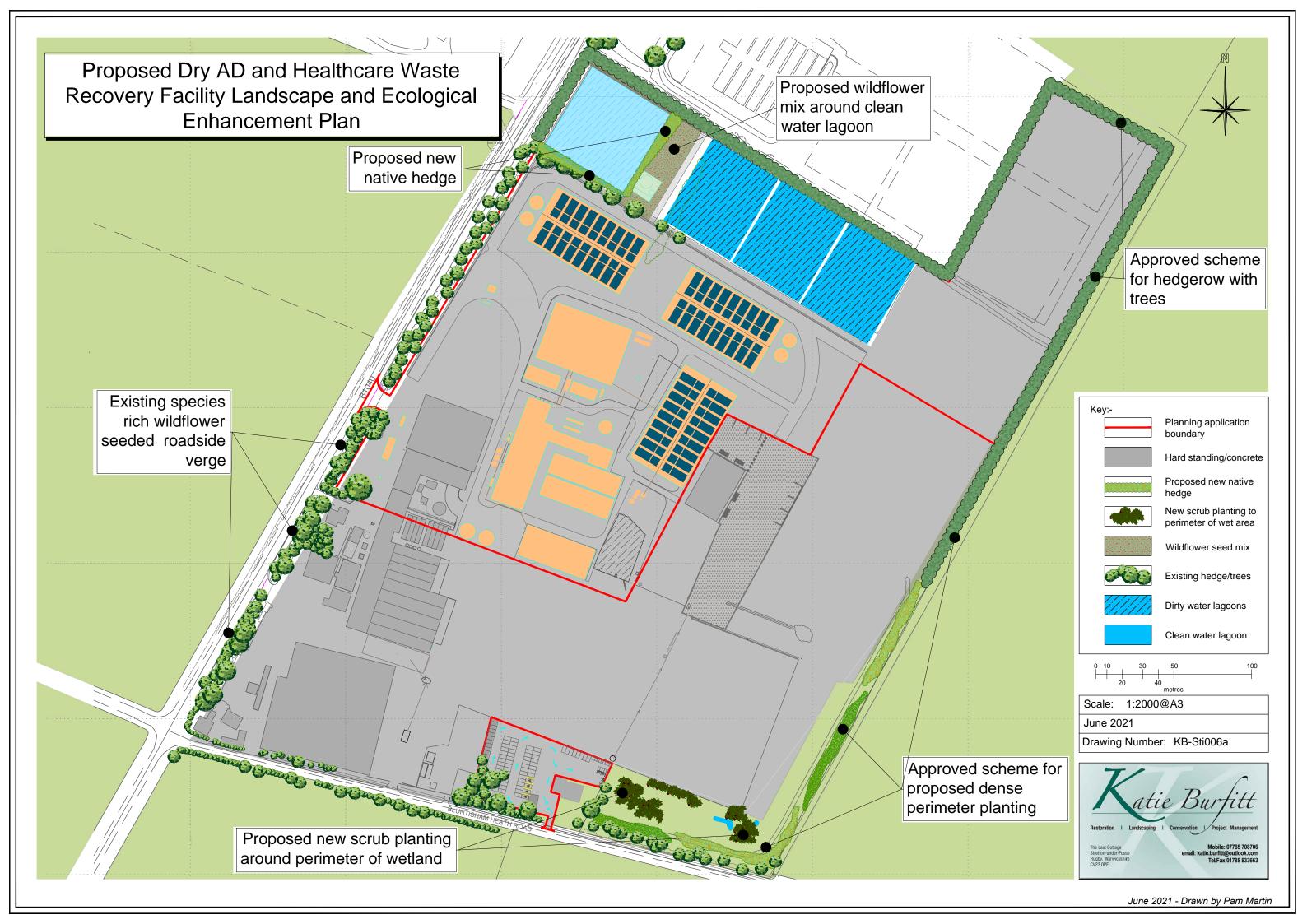
Detailed Landscape Plan no. KB-Sti-003 dated May 2013

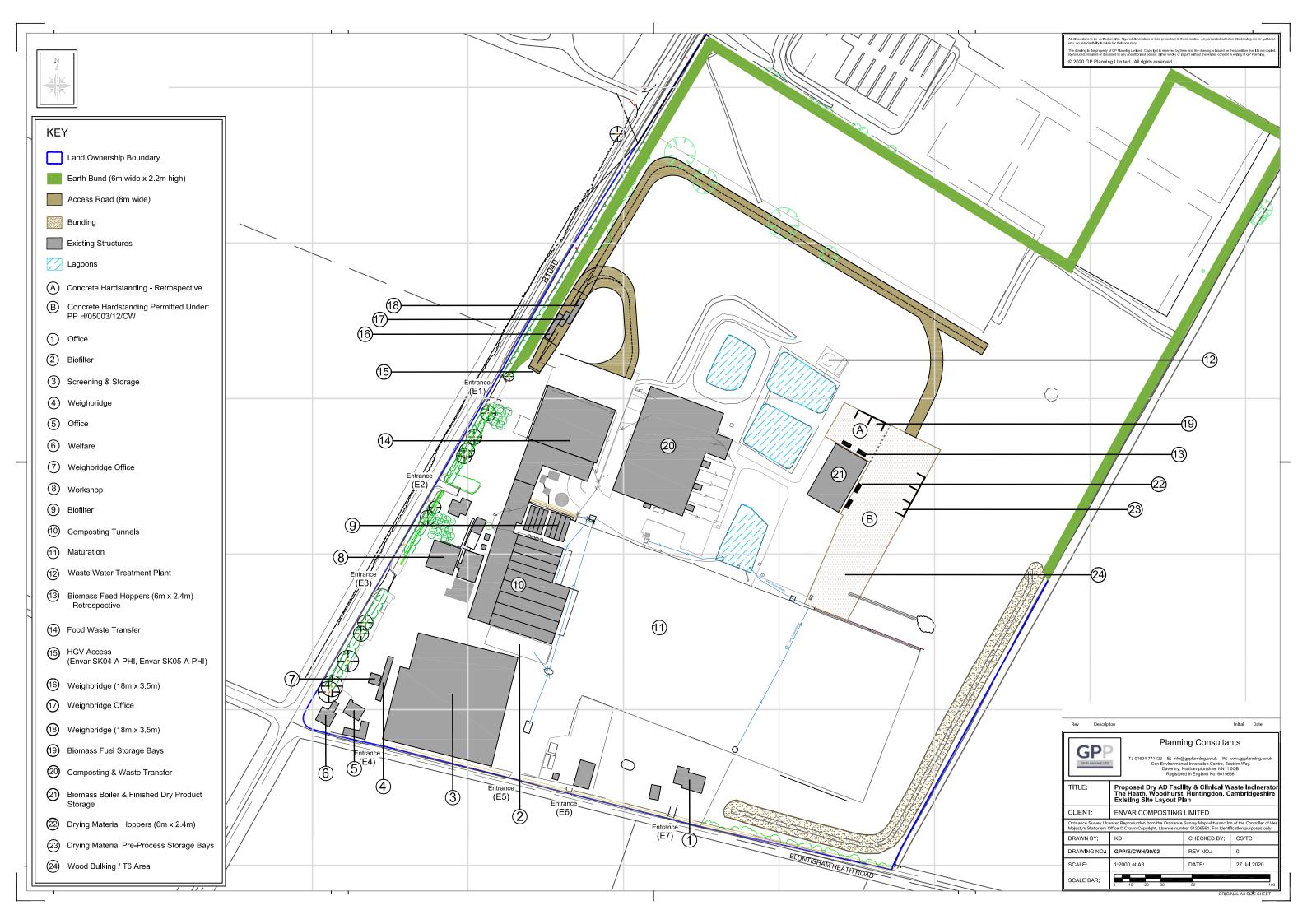
Appendix 6

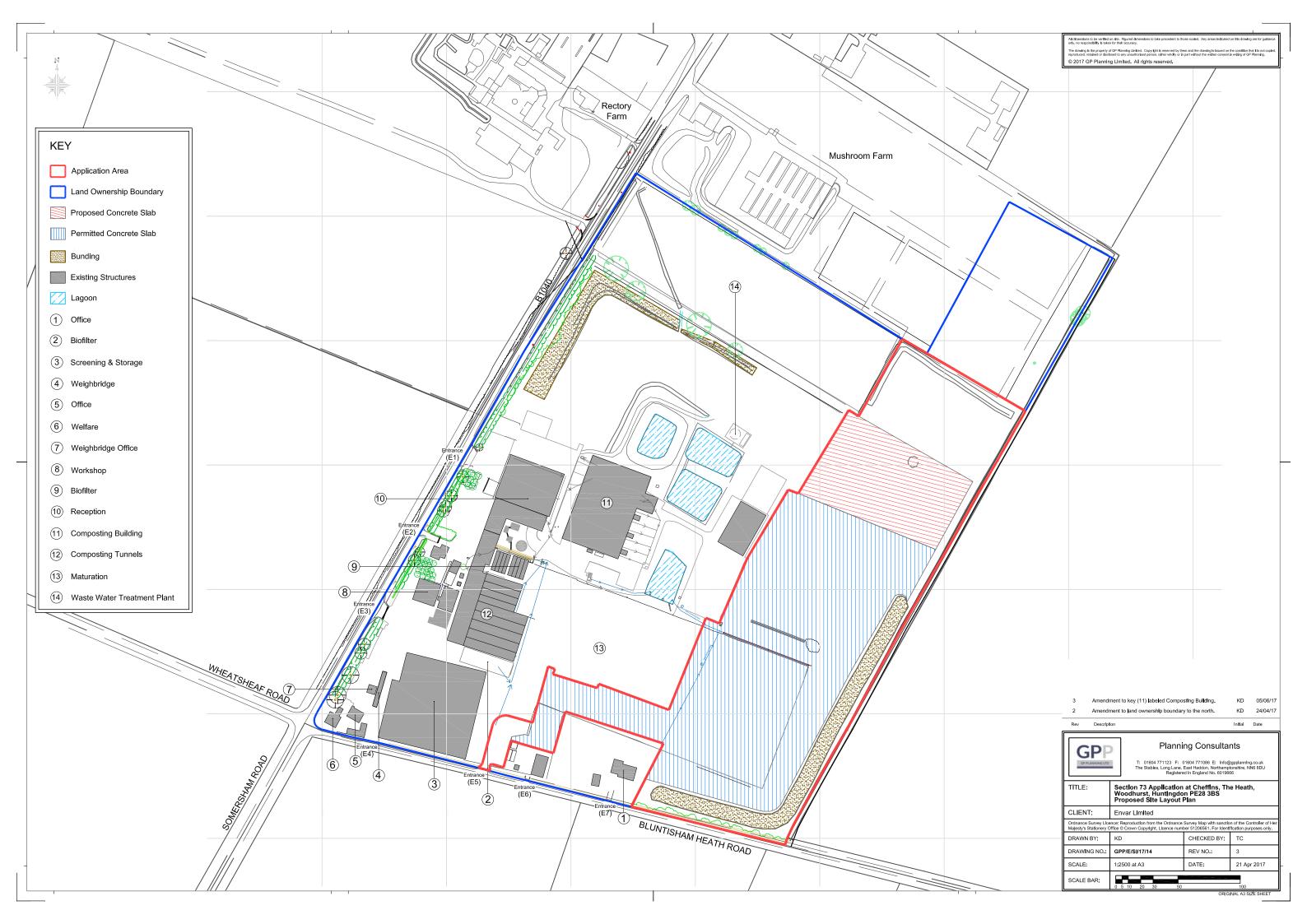
Cheffins Discharge of Conditions Planting Plan CP1 dated November 2017 by SLR

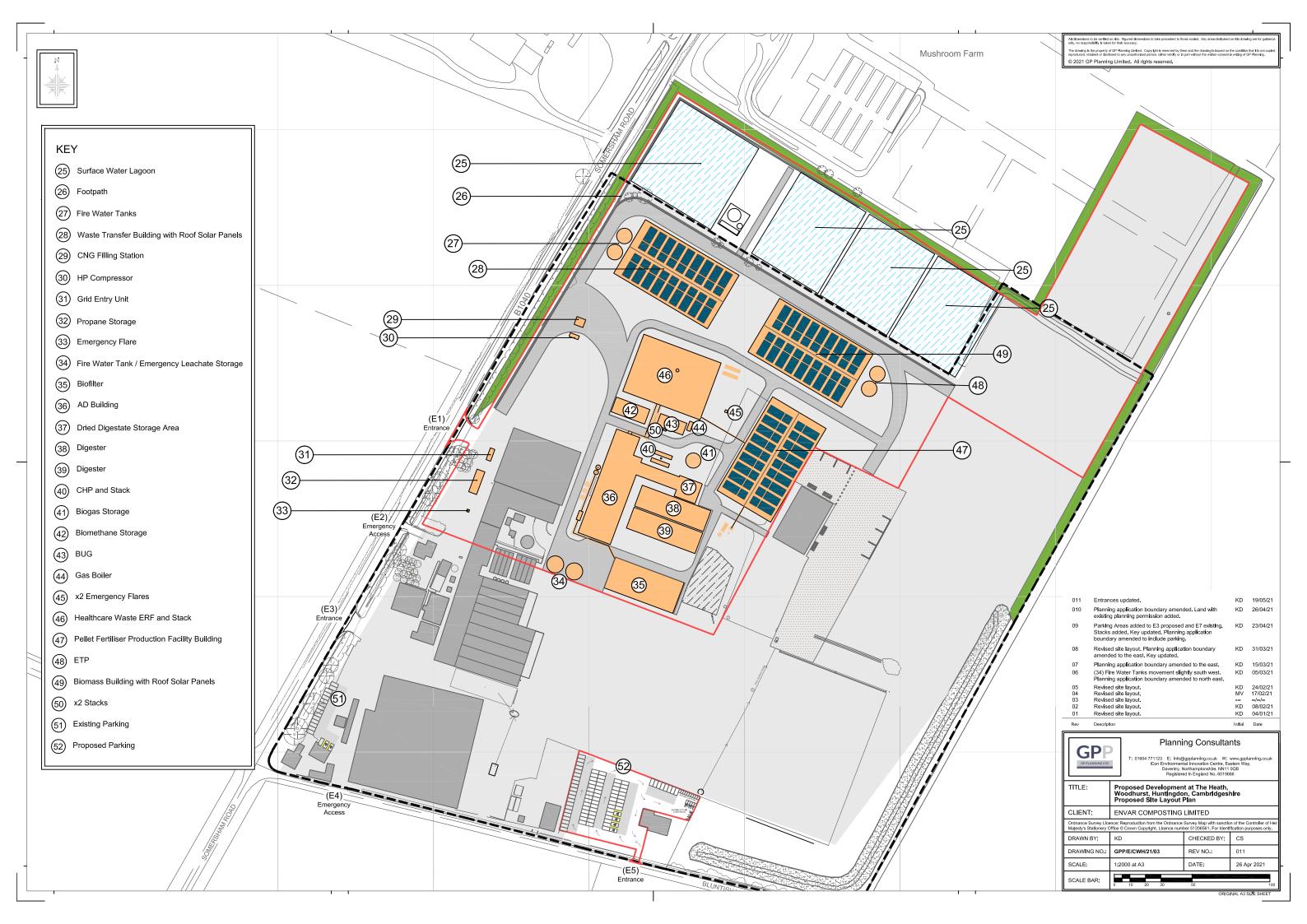
Appendix 7

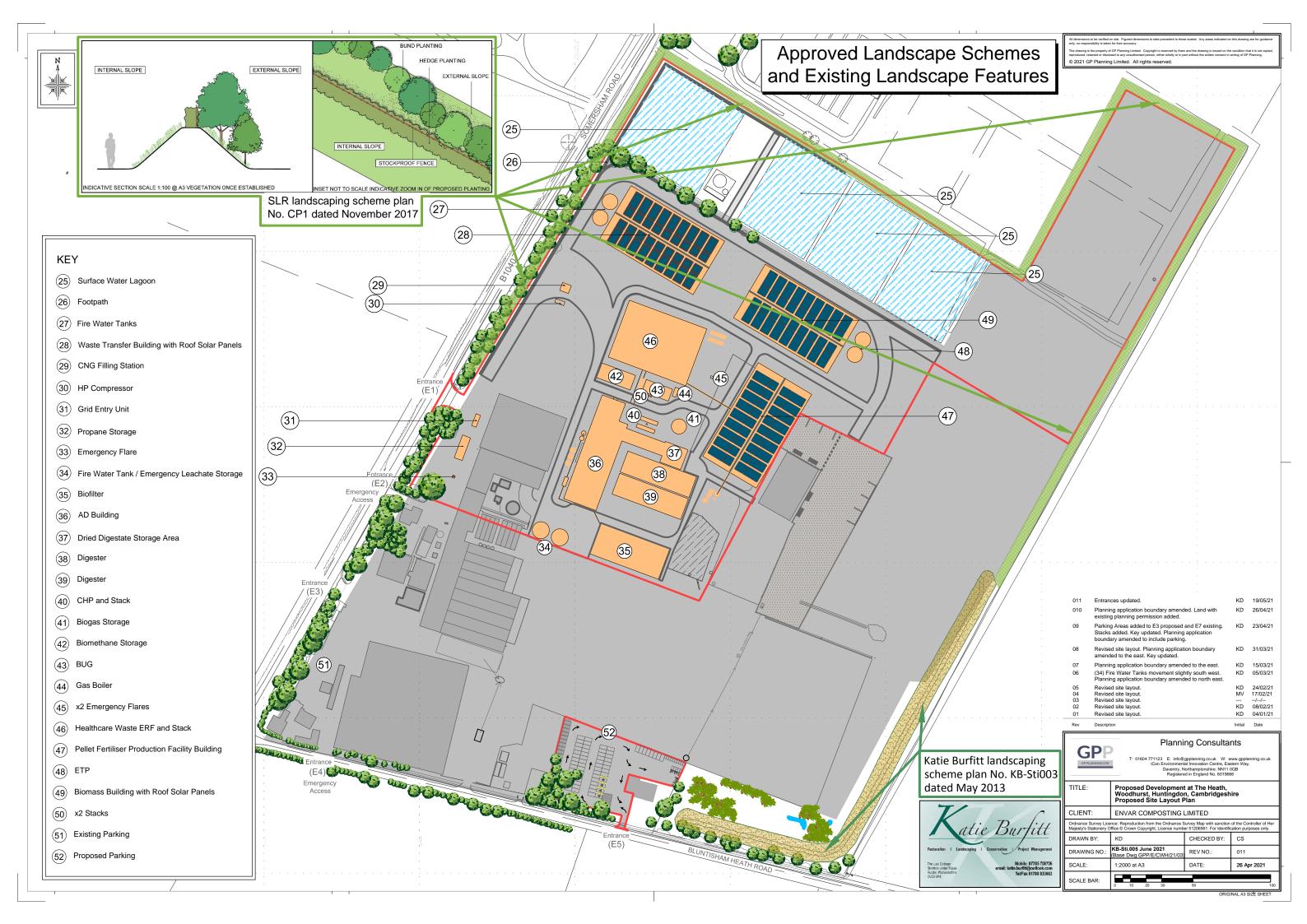
Envar Dry Anaerobic Digestion and Healthcare Waste Energy Recovery Facility Landscape and Ecological Enhancement Plan no. KB-Sti 006a dated June 2021

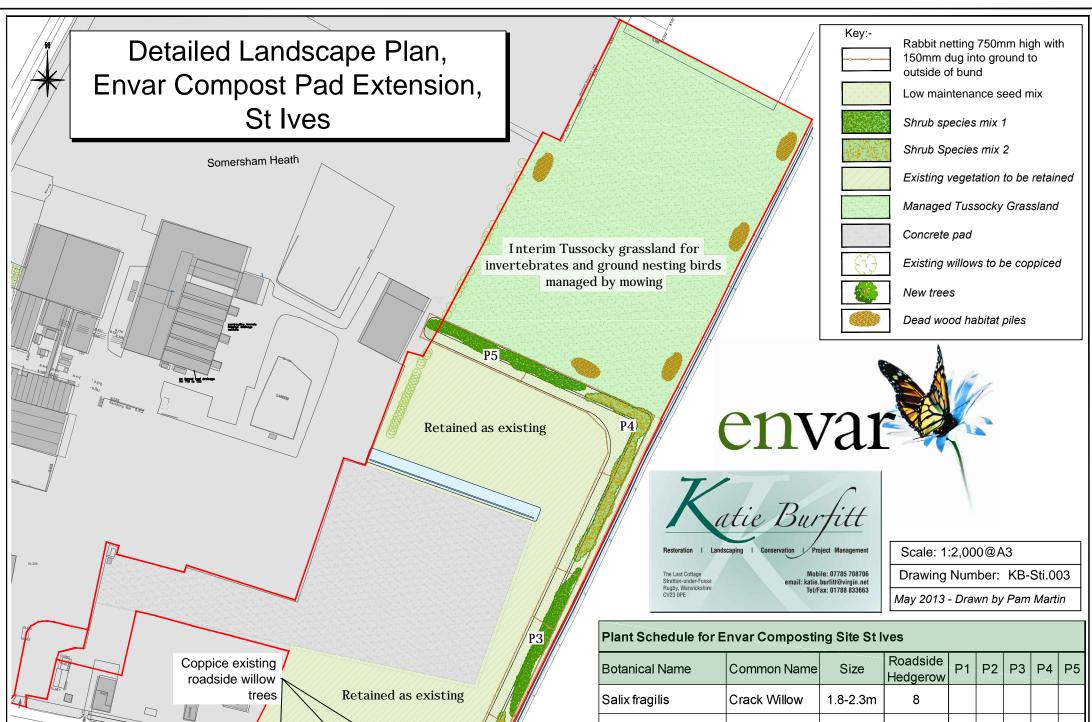












DETAILED LANDSCAPE PLAN FOR ENVAR COMPOST PAD EXTENSION, ST IVES

BLUNTISHAM HEATH ROAD

Overview

On 7th June 2012 Planning Permission No. H/05003/12CW was granted for the "Extension of concrete pad for maturation of compost with drainage balancing lagoons, reed bed, perimeter earth bunds screening".

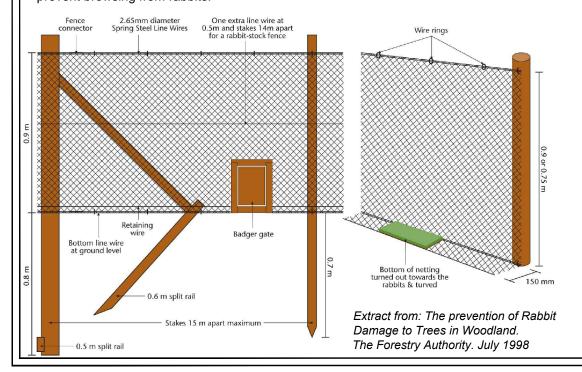
Condition 3 stated, "Prior to the commencement of development full details of the Landscaping Plan and Landscape Scheme shall be submitted to and approved in writing by the Waste Planning Authority..."

This scheme has been prepared by Katie Burfitt on behalf of Envar. It forms the information required pursuant to Condition 3 of Planning Permission no. H/05003/12CW. This document details the Landscaping Plan and Landscaping Scheme for the Envar Composting site.

The site is located at the intersection of Bluntisham Heath Road and B1040, approximately 2km to the east of the village of Woodhurst. The area is very flat, exposed, surrounded by large arable fields, with very few hedgerows and hedgerow trees. There is little woodland cover, only the occasional remnant orchard remains in the locality. Immediately to the west of the site are the site offices and existing buildings. The proposed planting will be with native shrubs and trees known to grow well in the surrounding area.

Planting on the Newly Formed Bunds

The transplant shrub planting will be at random spacing averaging 2m X 2m. Notch planting will be undertaken where possible or small pits to accommodate larger root systems. Shrubs are to be planted in groups of 5-9 single species. Shrubs will be guarded using 600mm shrub shelters for multi-stemmed species and 600mm spiral guards for single stemmed species to prevent browsing from rabbits.



Botanical Name	Common Name	Size	Roadside Hedgerow	P1	P2	Р3	P4	P5		
Salix fragilis	Crack Willow	1.8-2.3m	8							
Salix alba	White Willow	1.8-2.3m	5							
Prunus spinosa	Blackthorn	45-60cm		15		20		20		
Crataegus monogyna	Hawthorn	45-60cm			40		50			
Corylus avellana	Hazel	45-60cm		10	60	15	65	20		
Viburnum opulus	Guelder Rose	45-60cm		15		20		20		
Rosa canina	Dog Rose	45-60cm			20		30			
Ligustrum vulgare	Privet	45-60cm		15		25		40		
Cornus sanguinea	Dogwood	45-60cm		25		40		40		
Malus sylvestris	Crab Apple	45-60cm			30		40			
		Total	13	80	150	120	185	140		

Planting Along the Roadside

Weeds and competing vegetation will be spot sprayed with herbicide at the plant stations. Any established vegetation will be retained between the plant stations. Compacted soil will be broken up and lightly cultivated. Feathered trees will be pit planted with soil conditioner where necessary in spiral guards to prevent browsing by rabbits. Feathered trees will be planted at random spacing no closer than 8m apart and securely staked to one third height of the tree.

Existing roadside willow will be coppiced to promote re-growth and regeneration to extend the life of the trees. The arisings will be collected and transferred to the grassland field. (See below).

Maintenance

The planting will be maintained for a 5 year period or until established. All existing trees and shrubs will be retained. Weed growth around individual plants will be controlled by herbicide, 2 applications per annum or as required. All failures will be replaced in the following planting season to ensure 100% stocking rate. Vegetation around the trees and shrubs will be cut annually or as required.

Seeding

The newly formed bunds, low earth kerbs surrounding the concrete slab and any disturbed areas of soil will be seeded with a low maintenance seed mix such as British Seed Houses A4 Low Maintenance Areas at 35g/m2.or similar Fescue based seed mix. (This is a slow growing variety of four Fescue grasses with more longevity than Ryegrass and more tolerance of dry conditions).

Other Habitats

The existing rough grassland field to the north of the site will be retained. Arisings from tree felling (already detailed) and coppicing will be neatly stacked to provide dead wood habitats for invertebrates, birds, small mammals, etc. These will be placed around the perimeter of the site, adjacent to existing wildlife corridors where possible. One half of the grassland will be cut during August every third year. Grass piles for invertebrates will be created at random by raking the arisings. This will prevent the encroachment of scrub, allow a refuge for wildlife whilst the cutting takes place and create a diverse structure to maximise the available habitats.

