Ecology
Arboriculture
Environment and Development

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Trevase Farm, Hereford

Landscape Design Document

Produced for	Document Reference	Date
Mr David Pursey	**C054-01 Issue 2**	**25th September 2013**

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Document Control and Quality Assurance

1 INTRODUCTION

1.1 Background

1.1.1 This document has been prepared in connection with the proposed development of a 400kW anaerobic digestion plant for the production of renewable energy on land at Trevase Farm, St. Owen's Cross, Hereford HR2 8ND. The proposed development (planning Application No: S123420/N) was granted permission on 15th July 2013 with a number of conditions.

1.2 Scope of the Landscape Design Document

1.2.1 This document has been prepared to satisfy Condition 7 of the planning consent, specifically designed to address landscape design and soft landscaping issues associated with the development. The landscape scheme contained within this document and the accompanying plans (included as Appendices A-C) has been designed to ensure that the development provides biodiversity benefits in line with the relevant policies within the Herefordshire Unitary Development Plan, the National Planning Policy Framework (NPPF) and the NERC Act (2006).

1.3 Instruction

1.3.1 The work, involving site survey, preparation of this Landscape Design Document and the accompanying plans, was commissioned by Mr David Pursey in September 2013.

2 SITE LOCATION AND SUMMARY DESCRIPTION

2.1 Site Location

2.1.1 The site is situated within a small field immediately to the north of Trevase Farm at National Grid Reference (NGR) **SO 5117 2565** (centre of site).

2.2 Summary Description

2.2.1 The site comprises a single field of approximately 1.1ha situated in an arable landscape. The field is dominated by improved grassland with a very restricted range of species including Perennial Rye-grass (*Lolium perenne*), Rough Meadow-grass (*Poa trivialis*) and Cock's-foot (*Dactylis glomerata*), together with Broad-leaved Plantain (*Plantago major*), Sheep's Sorrel (*Rumex acetosella*) and White Clover (*Trifolium repens*). Areas of bare ground are also frequent, particularly around existing gateways and entrances.

2.2.2 The north and north-western site boundary is marked by a defunct hedgerow beyond a post-and-wire boundary fence. The hedgerow is dominated by patches of low-cut Blackthorn (*Prunus spinosa*) but also includes occasional Field Maple (*Acer campestre*), Elder (*Sambucus nigra*) and Hawthorn (*Crataegus monogyna*). Large gaps occur in this hedge, which are either open or encroached by Bramble (*Rubus fruticosus*). Mature trees are absent, and except for two semi-mature Ash trees midway along the boundary, only occasional young Elm (*Ulmus* sp.) trees are present.

2.2.3 The western site boundary is marked by a post-and-wire fence, beyond which lies an area of ruderal vegetation including Common Nettle (*Urtica dioica*), Rosebay Willowherb (*Chamerion angustifolium*) and patches of Bramble scrub. Occasional young or semi-mature hedgerow shrubs also occur along this boundary, along with a mature Pedunculate Oak, in generally poor condition.

2.2.4 The southern site boundary is planted with a mix of coniferous and broad-leaved trees situated on a bank beyond the post-and-wire boundary fence. Together with the earth bank, these act as a screening barrier to the four agricultural buildings immediately to the south of the site.

2.2.5 The **Existing Site Plan** has been prepared to satisfy Condition 7a, and includes details of all existing trees and hedges on the site including species, location and canopy spread. The **Existing Site Plan** is included at **Appendix A**.

3 TREE RETENTIONS AND REMOVALS

3.1 Tree Removals

3.1.1 In order to facilitate the proposed development, a small number of young trees and shrubs will require removal. These are identified in red on the **Tree Retentions and Removals Plan**, included at **Appendix B**.

3.1.2 Trees to be removed to facilitate the development are restricted to a line of five close-planted screening shrubs in the far south-east of the site, on or adjacent to the footprint of the proposed transformer and switchgear for the anaerobic digestion plant. These are young to semi-mature trees and shrubs of limited value, whose loss can readily be mitigated by appropriate new planting following the redevelopment of the site.

3.1.3 A single young Elm tree situated immediately south of an existing entrance gateway in the north-west corner of the site has been recommended for removal as part of the proposed landscape design. In order to establish a strong hedgerow and screening barrier along the northern site boundary within the site, the existing entrance gateway will be moved 3m to the south, on the footprint of this small tree. Being an Elm, the tree has a very limited ERC (Estimated Remaining Contribution) and would be expected to succumb to Dutch elm disease as a result of increases in height within the next 10 years. New standard trees have been proposed as part of the landscape design.

3.1.4 No further tree removals will be conducted or are required to facilitate the proposed development.

3.2 Tree Retentions

3.2.1 All retained trees will be protected during construction in accordance with the protocols specified overleaf, in support of Policy LA5 of the Herefordshire Unitary Development Plan.

Retained Tree Protection Protocols

3.2.2 Prior to the commencement of any development within the site, the existing boundary hedge to the north and north-west of the site will be protected through the installation of temporary tree protection fencing. This will be established at a distance of 2.5m from the existing post and wire fencing, except in those locations where the canopy of trees within the hedge extends beyond this distance. At these points, the tree protection fence will extend further into the site, in line with the existing tree canopy, as shown on the **Tree Retentions and Removals Plan** (Appendix B).

3.2.3 The mature oak tree on the western site boundary will be protected by a ring of tree protection fencing situated at a radius of 6m from the tree stem, as shown on the **Tree Retentions and Removals Plan**.

Tree Protection Fencing

3.2.4 A fencing solution will be required which prevents access to the stems by all construction machinery, materials and personnel. Weldmesh panels to a height of 1.8m should be positioned at the location shown. The fencing will need to be robust enough to withstand occasional knocks from construction machinery but full specification BS5837 fencing is not deemed necessary given the nature and topography of the area to be protected. Weldmesh panels should be secured to the ground with rubber or concrete feet and joined together using a minimum of two anti-tamper couplers, installed so that they can only be removed from the protected side of the fence. Additional supports may be required around corners and in order to secure the fencing from knocks and movement. Where required, these should comprise diagonal supporting scaffold poles, again established on the protected side of the fence, and secured to ground-level scaffold stakes with standard scaffold bolts.

Construction Exclusion Zones

3.2.5 Throughout the construction phase, all areas within the Tree Protection Fence will be maintained as Construction Exclusion Zones (CEZs). Within CEZs, the following rules shall apply at all times:

- No construction activity;
- No tree works without prior written consent from the Council;
- No excavation or alterations of ground levels or conditions;
- No temporary structures;
- No storage of materials;
- No vehicles or machinery to be used or parked;
- No fixtures of any kind to be attached to trees; and
- No fires within 10m of the canopy of any tree or hedge.

4 LANDSCAPE DESIGN

4.1 Overview

4.1.1 The Landscape Design has been prepared in order to protect those habitats and features of value that are currently associated with the site, as well as to provide biodiversity and landscape enhancements to the site in accordance with policies LA5 and LA6, NC1 and NC8 of the Herefordshire Unitary Development Plan, and in support of the provisions of the National Planning Policy Framework and the Natural Environment and Rural Communities (NERC) Act, 2006.

4.1.2 The site is dominated by improved pasture and bare ground which has been assessed as being of negligible nature conservation value. Habitats and features of value are restricted to the trees and shrubs of the site boundaries, which also provide (limited) screening value to the site when viewed from the north. These features will be retained and protected during the development in accordance with **Paragraphs 3.2.2 to 3.2.5** above. By strengthening with additional planting, the landscape design ensures that the value of these existing features is maximised as a result of the development, providing both future site screening and biodiversity enhancements to the existing value of the site.

4.2 Landscape Design Plan

4.2.1 The Landscape Design which will be implemented as part of the development is detailed on the **Landscape Design Plan**, included at **Appendix C**. This shows the layout of proposed tree, hedge and shrub planting, together with provisions for new post and wire fencing to protect planted areas. The plan also provides details of those areas of the site which will be seeded with a conservation wild flower meadow seed mix following construction of the anaerobic digestion plant and ground profiling of the site. The remainder of this section details the specification for each of these areas.

4.3 Planting Specification and Numbers – Areas of New Tree and Shrub Planting

4.3.1 The Landscape Design Plan details the location of additional tree and shrub planting to mitigate any losses and to provide an effective long-term screening barrier to the site where required. Species selection and siting has been based on the following criteria:

- provision of effective long-term screening to the site;
- delivery of maximum biodiversity benefits; and
- consideration of long-term tree risk assessment factors for mature standards.

4.3.2 Accordingly the following specification has been detailed:

- Four new areas of landscape planting, as shown on the Landscape Design Plan and detailed in **Paragraphs 4.5.4 to 4.5.7** and **Tables 1 and 2**.
- Provision of 13 Pedunculate Oak standards (10-12cm girth) within the site adjacent to the northern and north-eastern site boundary to be established at 15m centres at the positions indicated on the Landscape Design Plan.

- A single Hornbeam standard (10-12cm girth) to be established in the south-eastern area of the site as detailed on the Landscape Design Plan.

4.3.3 All standards will be staked during planting with two full round 5'6" tree stakes secured with rubber tree ties. **Section 5** of this report details ground preparation prior to planting and maintenance.

Landscape Planting Areas

4.3.4 Four areas of landscape planting have been specified to ensure adequate site screening into the long term and to deliver biodiversity enhancements in accordance with the Herefordshire Unitary Development Plan. The species mix includes both tree and shrub species which will mix to provide effective short- and long-term screening as well as maximising biodiversity benefits. **Table 1** details the proposed planting in each instance – numbers refer to areas as denoted on the Landscape Design Plan. In all cases, additional trees and shrubs will comprise bare rooted whips or 3-yr transplants, protected with spiral rabbit guards.

4.3.5 Each area will use a mix of native woody tree and shrub species, planted at approximately 1.5m centres.

4.3.6 The native species mix identified in **Table 2** will be used for all planting detailed on the Landscape Design Plan. Trees will comprise bare-rooted whips or 2-3 yr transplants at 60-80cm height. All individual trees and shrubs will be protected after planting by the addition of 400mm spiral rabbit guards secured with bamboo stakes.

4.3.7 Full details of ground preparation prior to planting, together with a programme of ongoing maintenance are provided in **Section 5** of this report.

Table 1: Detailed specification for areas of new tree and shrub planting.

AREA (Ref No)	Proposals	Species Mix
1 and 4	Two 5m wide tree and shrub planting zones adjacent to the existing boundary hedge and scrub lines. In area 1, Pedunculate Oak standards at 15m centres will provide greater height and canopy cover over the long term, whilst the initial tree and shrub planting to both areas will deliver rapid screening benefits. **Area 1**: Approximately 200m x 5m. **Stocking:** A total of 400 plants in three rows at approximately 1.5m centres. **Area 2**: Approximately 75 x 5m. **Stocking:** A total of 175 plants: 150 plants in three rows at approximately 1.5m centres, plus a further 25 plants for additional border areas.	See **Table 2**.
2	Additional shrub planting on open ground to east of silage clamp, to provide screening value from east, visual amenity, and biodiversity benefits into the long-term. Trees and shrubs will be established at approximately 2m centres within area (30 total).	Whitebeam, Hawthorn, Hazel, Rowan, Silver Birch, Dogwood.
3	Replacement tree and shrub planting to mitigate loss of existing vegetation during construction of transformer area. A mix of trees for height and cover will be used as detailed to right (25 total)	Alder, Silver Birch, Whitebeam, Dogwood, Hazel, Hawthorn, Guelder Rose.

Table 2: Species mix for new landscape planting areas 1 and 2, as shown on Landscape Design Plan.

SPECIES	SCIENTIFIC NAME	PERCENTAGE OF TOTAL
Pedunculate Oak	*Quercus robur*	15
Field Maple	*Acer campestre*	15
Wild Cherry	*Prunus avium*	15
Hazel	*Corylus avellana*	15
Hawthorn	*Crataegus monogyna*	10
Blackthorn	*Prunus spinosa*	10
Ash	*Fraxinus excelsior*	5
Wayfaring tree	*Viburnum lantana*	5
Hornbeam	*Carpinus betulus*	5
Guelder Rose	*Viburnum opulus*	5

4.4 Planting Specification – native hedge planting

4.4.1 The Landscape Design Plan shows the location of new double-row native hedge planting. Hedges will use a mix of native woody tree and shrub species, planted in two parallel rows spaced 0.5m apart. Within each row, plants will be spaced at 0.5m centres and rows will be offset by 0.25m to form a staggered planting pattern, as detailed in **Figure 1** overleaf.

4.4.2 The native species mix identified in **Table 3** will be used for all hedgerow planting detailed on the Landscape Design Plan. Trees will comprise bare-rooted whips or 2-3 yr transplants at 60-80cm height. All individual hedgerow trees will be protected after planting by the addition of 400mm spiral rabbit guards secured with bamboo stakes.

4.4.3 Full details of ground preparation prior to planting, together with a programme of ongoing maintenance are provided in **Section 5** of this report.

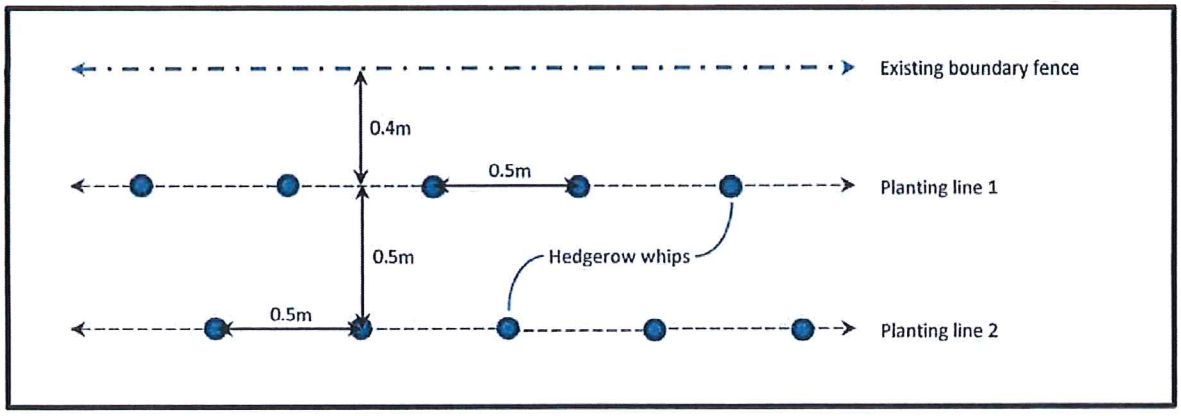


Figure 1: Planting pattern for native species mixed hedgerows (distance from existing post and wire fence on northern site boundary detailed in relation to this planting location).

Table 3: Species mix for native hedgerow planting at locations shown on the Landscape Design Plan.

SPECIES	SCIENTIFIC NAME	PERCENTAGE OF TOTAL
Hawthorn	*Crataegus monogyna*	20
Hazel	*Corylus avellana*	15
Blackthorn	*Prunus spinosa*	15
Field Maple	*Acer campestre*	15
Pedunculate Oak	*Quercus robur*	10
Ash	*Fraxinus excelsior*	7.5
Wild Cherry	*Prunus avium*	7.5
Hornbeam	*Carpinus betulus*	5
Elder	*Sambucus nigra*	5

4.5 Required Numbers - Hedges

4.5.1 A total of 120 hedge plants are required to establish 30m of hedging at the specification detailed.

4.6 Wild Flower Meadow Area

4.6.1 The area of the site shaded yellow on the Landscape Design Plan will be seeded with a wild flower meadow grassland seed mix and managed for conservation benefit following the development of the main area of the site. The seed mix to be used will comprise native species that are suited to neutral soils, selected via FloraLocale and sourced from UK stock, not from plants that have been grown on from seed collected elsewhere in Europe. **Table 4** provides an indicative mix.

4.6.2 The establishment and future value of the wild flower meadow area will be strongly influenced by nutrient levels within the area. Wild flower meadows require low nutrients in order to maintain floral species diversity and avoid the dominance of coarse grasses that thrive in high nutrient environments. At present, the existing grassland has a high nutrient status and for this reason, topsoil stripping and removal will be conducted during site re-profiling and creation of the earth bund around the anaerobic digestion plant. A proportion of the topsoil thus obtained will be used to prepare areas of the site proposed for new tree, shrub and hedgerow planting as detailed in **Section 5.1**. The remainder will be removed from the site.

4.6.3 Following topsoil stripping and removal/storage off-site, the area highlighted for creation of the wild flower meadow area will be prepared and sown as detailed in **Section 5.2**. Subsequent management will involve grazing by sheep during early spring and autumn, with the summer period un-grazed to allow development of the sward, flowering and subsequent seeding of forbs.

Table 4: Indicative wild flower seed mix – actual mix will be subject availability of local provenance stock.

SPECIES	SCIENTIFIC NAME
Sweet Vernal Grass	*Anthoxanum odoratum*
Crested Dog's-tail	*Cynosurus cristatus*
Common Bent	*Agrostis capillaris*
Meadow Foxtail	*Alopercus pratensis*
Red Fescue	*Festuca rubra*
Bird's-foot Trefoil	*Lotus corniculatus*
Yellow Rattle	*Rhinanthus minor*
Cowslip	*Primula veris*
Field Scabious	*Knautia arvensis*

Lady's Bedstraw	*Galium verum*
Lesser Knapweed	*Centaurea nigra*
Meadow Buttercup	*Ranunculus acris*
Ox-eye Daisy	*Leucanthemum vulgare*
Ribwort Plantain	*Plantago lanceolata*
Salad Burnet	*Sanguisorba minor*
Self Heal	*Prunella vulgaris*
Sorrel	*Rumex acetosa*
Wild Carrot	*Daucus carota*
Yarrow	*Achillea millefolium*

5 GROUND PREPARATION, ESTABLISHMENT AND MAINTENANCE

5.1 Hedges and areas of new tree and shrub planting

Planting preparation and aftercare

5.1.1 It is essential that young trees are given every opportunity to survive planting. Poor planting practices can result in long-term problems and even the death of the tree. Maintenance in the first few years following planting is crucial to ensure establishment. The following protocol will be followed for all planted specimens:

Timing

- The tree planting scheme will be implemented following completion of the development, thereby avoiding damage to new trees from construction hazards such as soil re-grading and crown damage.

Soil preparation

- Preparation of the planting environment (including de-compaction and drainage where necessary) will be undertaken to the standards set out in British Standard BS4428:1989 Code of practice for general landscape operations (excluding hard surfaces)
- Ground for hedging will be prepared by mechanical digging over. A strip 75cm wide x 25cm deep will be dug over and topsoil added from site operations in preparation for planting.
- Reception sites for container-supplied standards will be dug over to an area of 120cm x 120cm and all weeds will be removed by hand during this process.
- Planting pits for 10-12cm standard trees will be dug to a minimum depth of 60cm and in these areas, a proprietary tree and shrub planting mix will be applied to the planting area and integrated with site soils, including topsoil recovered from preparation and re-profiling of new grassland areas. Integration and mixing of site soils with the container medium will be conducted to promote early root extension into site soils.

Planting

- During planting, any damaged roots will be trimmed back to healthy growth using a sharp knife or secateurs; similarly any broken or diseased branches will be pruned out.
- Spiralled or girdling roots around container edges will be gently worked free and spread out during planting to integrate with adjacent mixed and site soil.
- Planting will be undertaken carefully, ensuring maintenance of the established planting depth with reference to the stem soil mark.
- Plants will be firmed in once planted to ensure that soil is in close contact with all roots. Plants will be gently watered in to aid this process, with reference to the soil moisture levels at the time of planting.
- All planted trees will be mulched to a depth of 7.5cm after planting to prevent weed growth and a minimum 100cm x 100cm mulch mat will be dug in to the surface around each new standard planting to discourage weed growth around the tree stem following planting.
- Spiral tree guards will be installed around the base of each stem to reduce potential animal and mechanical damage from strimmers.
- All standards will each be staked with 2no 2.1m x 50mm (minimum diameter) round treated tree stakes, secured appropriately with adjustable, flexible ties to either side, at a height of no more than 1/3 total stem height.

Aftercare and Ongoing maintenance

- All new plantings should be watered to avoid root desiccation and crown dieback during any prolonged periods of dry weather.
- An annual inspection of new plantings will take place for the first 5 years after planting, during which time any dead or diseased specimens will be replaced like-for-like, the mixed species hedges will be trimmed as required to develop density and form and the tree ties securing the standards will be inspected and adjusted as required.
- During annual inspections, weeds found growing around newly planted trees and hedges will be removed or reduced to ground level as applicable and areas beneath the trees will be re-mulched with up to 7.5cm, assisting in the suppression of future weed growth and in the uptake of water and nutrients. Herbicides will not be used beneath the trees for the purposes of weed control.

5.2 Wild Flower Meadow

Ground Preparation and Seed Sowing

5.2.1 As with other grasslands, wild flower grassland establishment requires a good tilth. Areas of compacted soils will be broken up and the battered slopes associated with the bund will be prepared using an excavator fitted with a fine grading bucket and created to ensure soil porosity prior to sowing.

5.2.2 The ideal times for sowing seed are in early spring, after the last frost of the year, or in early autumn (usually September to mid-October). Seed will be sown at a rate of 3-4g per m^2 (30-40kg per ha).

First year management

5.2.3 The specified meadow mixture is composed mainly of perennial species which take at least a full year to establish. Since this is a new sowing on bare soil, the first summer will be dominated by a flush of annual weeds arising from the soil seed bank and by grass growth. This annual growth will be controlled by grazing (or mowing) throughout the first year to minimise competition and weed seed production.

5.2.4 Grazing (or mowing) will occur when the average vegetation height exceeds 150 mm. The object of this first grazing or mowing cycle is to reduce competition from annual weeds and to encourage the growth of sown species. A reduction in sward height to around 50-75mm is desirable. A second grazing (or cutting) cycle may be required where regrowth is vigorous and the vegetation again reaches c. 150mm.

Subsequent management

5.2.5 Subsequent management will involve grazing by sheep outside the summer months – primarily during early spring and autumn. Beyond periodic grazing of the site, no additional feeding of stock will occur on the site. The avoidance of winter feeding and timely spring and autumn grazing will be used to manage nutrient levels and help to check the growth of coarse grasses that inhibit overall plant diversity. The inclusion of Yellow Rattle (*Rhinanthus minor*) in the seed mix, a species which is parasitic on grasses will further help to maintain a species balance favourable to nature conservation objectives.

Weed control

5.2.6 On most soils there will be some initial problems with perennial weeds. Most grassland weeds such as docks and thistles will gradually decline with good management. Low level weed populations may be spot sprayed with a herbicide, or pulled (e.g. ragwort). Selective herbicides are only worth using as a last resort for serious infestations as they will result in the loss of many wild flower species.

5.3 Fencing Specification

5.3.1 All fences within the site will be installed following construction of the anaerobic digestion plant and in accordance with the following specification:

- Straining posts - 2.3m x 100-130mm top-diameter treated roundwood softwood;
- Struts – 2.0m x 80-100mm top diameter treated roundwood softwood posts, pointed and attached to the straining posts via a sawn-off point inserted into a snug-fitting hole mortised into the straining post at mid height anchored to the ground via an underground thrust plate;
- Intermediates – 1.8m x 80-100mm full round intermediates installed at 3m spacing;
- Rectangular woven high-tensile steel galvanised stock netting;
- Two strands of round or barbed wire at 100mm and 200m above the stock netting.

5.4 Implementation

5.4.1 Condition 7g of the planning consent requires the appointment of a suitably qualified named person to oversee implementation of the scheme. Combining ecological design and restoration consultancy with practical habitat management expertise, DGL Environment Ltd are able to oversee the practical implementation of the Landscape Design Plan, including tree protection, ground preparation, tree planting specifications, ongoing monitoring and management. Please do not hesitate to get in touch should you wish us to manage this element of the project on your behalf.

6 ANTICIPATED BIODIVERSITY ENHANCEMENTS

6.1 With appropriate implementation of the Landscape Design, as detailed in this document, the project is expected to provide net benefits to the following Local Biodiversity Action Plan priorities, habitats and species:

- Hedgerows
- Lowland meadows
- Bats and Barn Owl, through creation of new foraging habitat

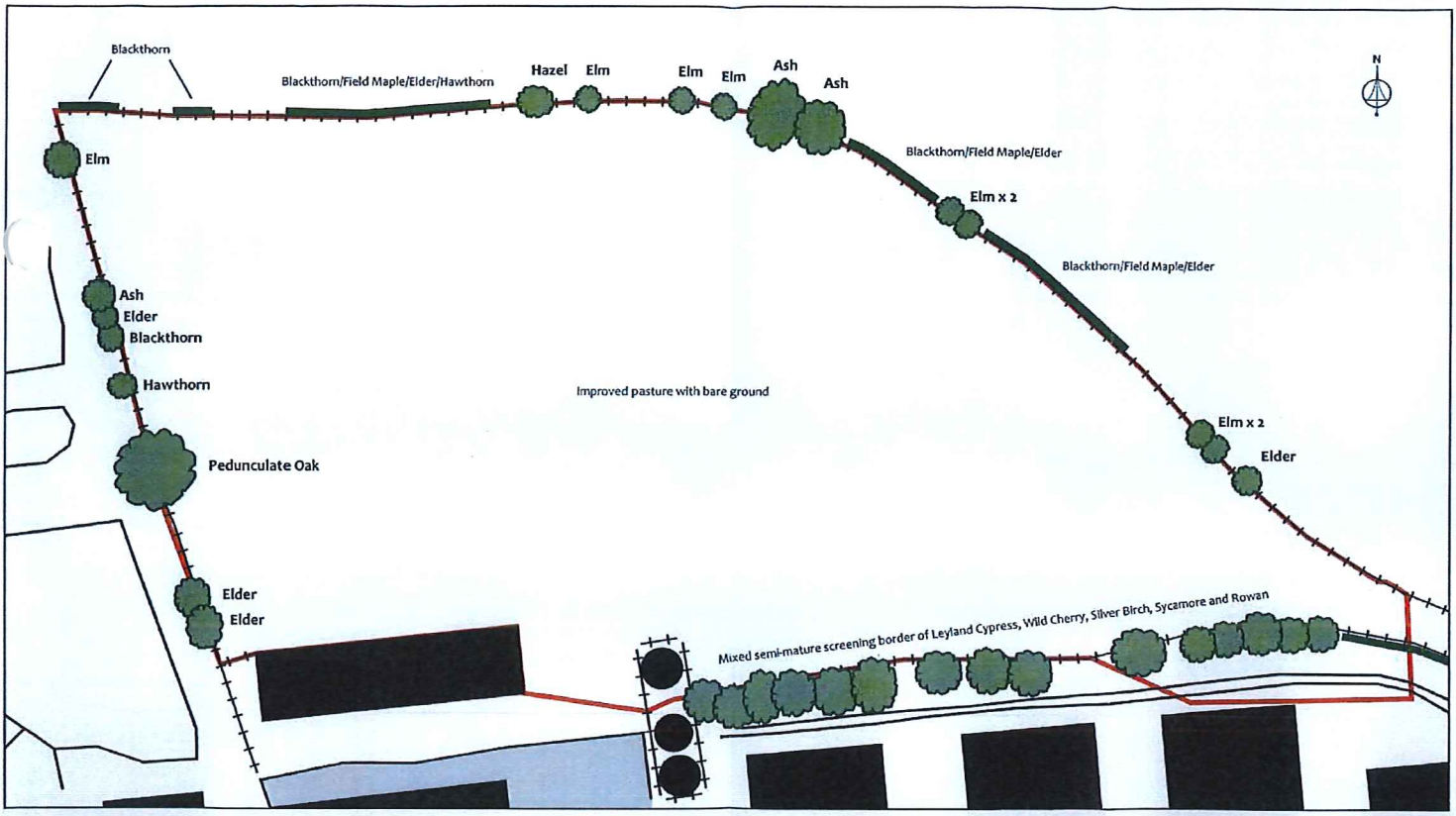
7 REFERENCES

BSI - British Standards Institution (1989) *BS4428:1989 Code of practice for general landscape operations (excluding hard surfaces)*. BSi, London, UK.

BSI - British Standards Institution (2012) *BS5837:2012 Trees in relation to design, demolition and construction – Recommendations*. BSi, London, UK.

HMSO (2006) Natural Environment and Rural Communities Act 2006. The Stationery Office Limited, London.

Appendix A: Existing Site Plan



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KEY

- Site boundary
- Existing buildings
- Hard standing
- Fence
- Existing tree with canopy spread
- Ash — Tree species label
- Existing hedgerow (defunct)
- Blackth — Hedgerow species label

TITLE: **Existing Site Plan**

DRAWING NUMBER: C054-001

REVISION NUMBER: n/a

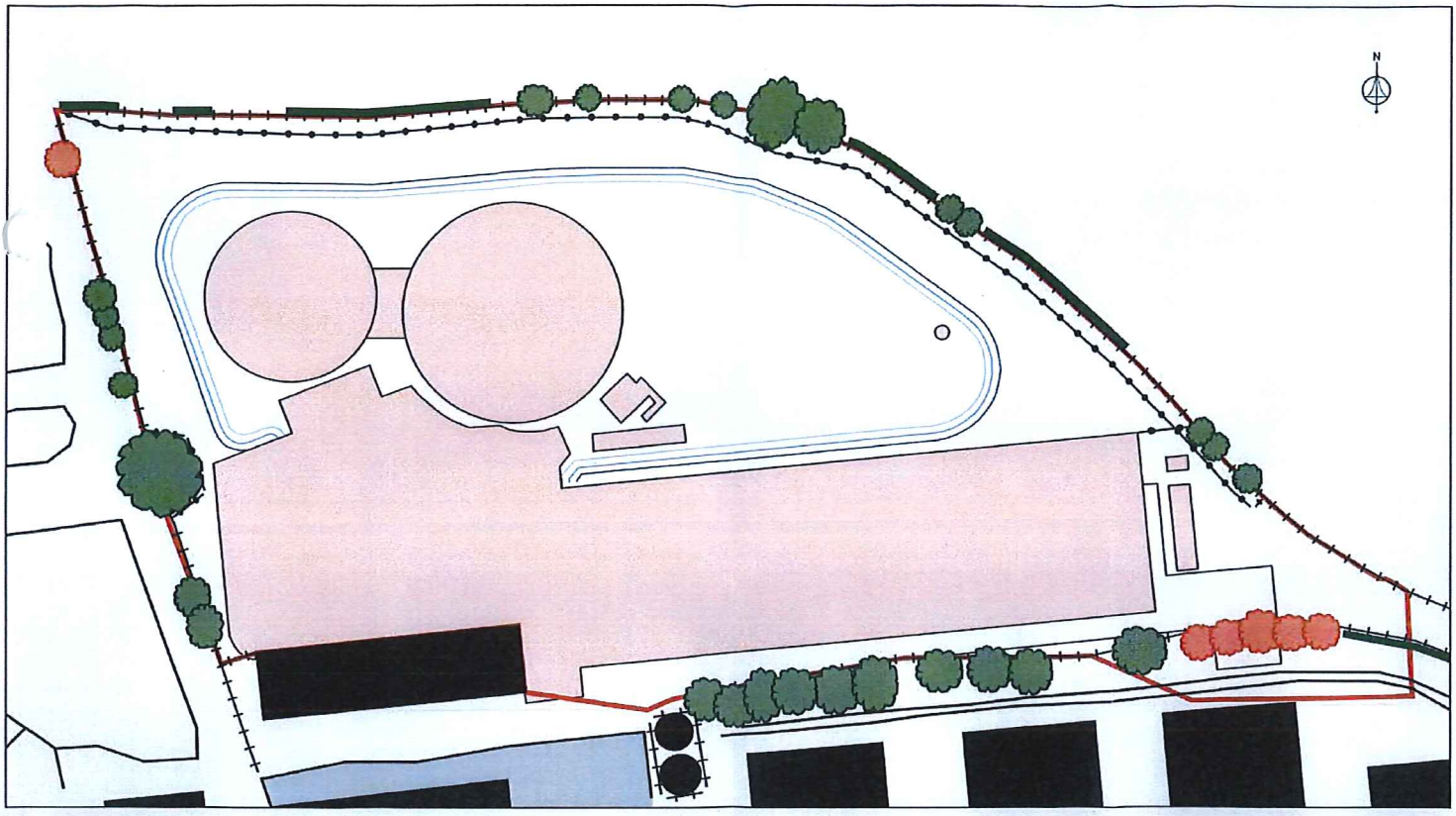
DATE: 16th September 2013

CLIENT: David Pursey, Trevase Farm

PROJECT: Trevase Farm AD

SCALE AT A3: 1:500

Appendix B: Tree Retentions and Removals Plan



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KEY

- Site boundary
- Existing buildings
- Hard standing

Retentions and Removals

- Trees/shrubs to be retained
- Hedgerows to be retained
- Trees/shrubs to be removed

Proposals and protection fencing

- Proposals
- Tree protection fencing

TITLE:
Tree Retentions and Removals Plan

DRAWING NUMBER: C054-002
REVISION NUMBER: n/a

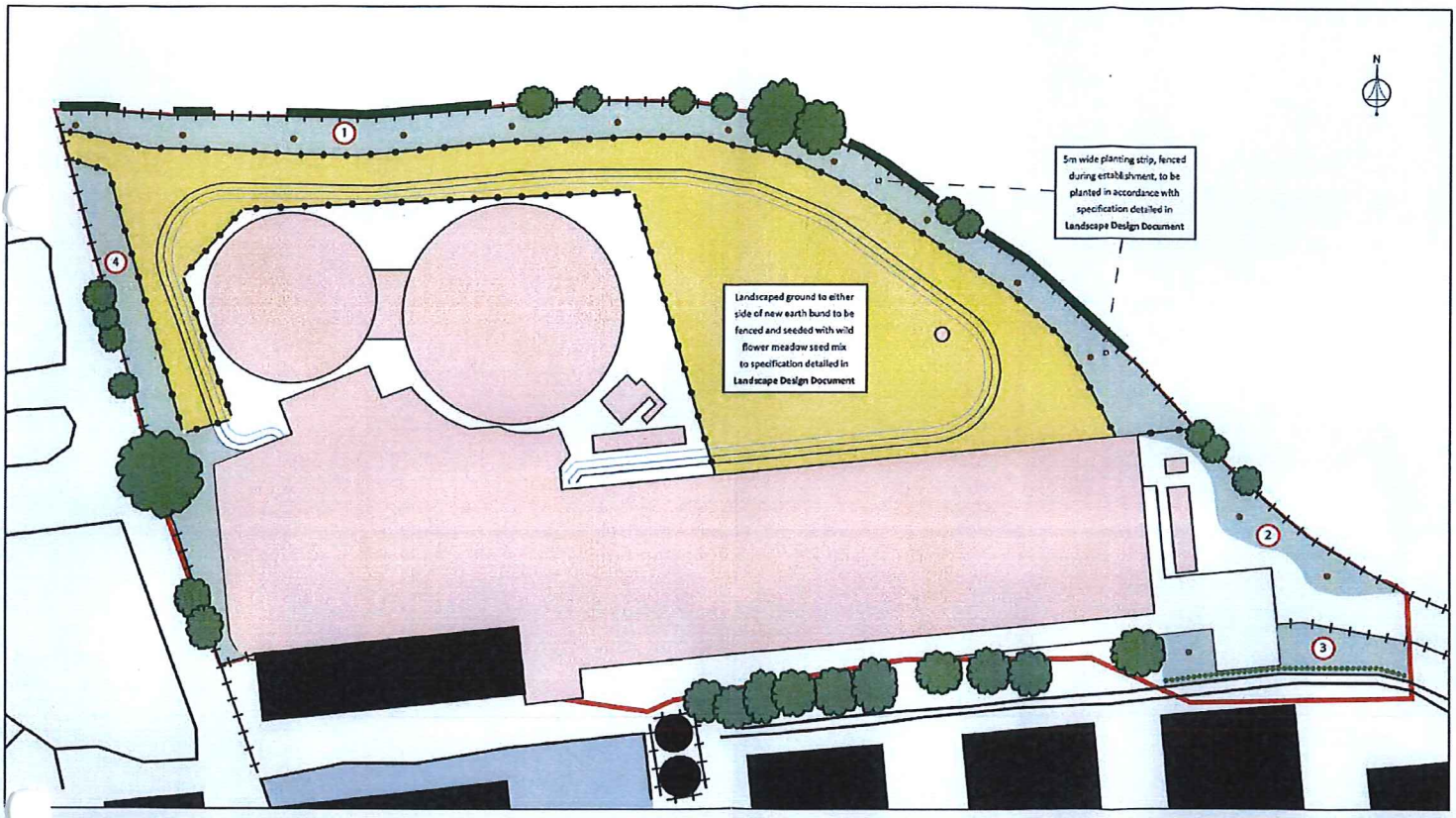
DATE: 23rd September 2013

CLIENT: David Pursey, Trevase Farm

PROJECT: Trevase Farm AD

SCALE AT A3: 1:500

Appendix C: Landscape Design Plan



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KEY

- Site boundary
- Existing buildings
- Hard standing
- Trees/shrubs to be retained
- Hedgerows to be retained
- Proposed development footprint
- Proposed earth bund
- New post and wire stock fencing
- New wild flower meadow (conservation grazing)
- (1) Areas of new tree/shrub planting (with reference no.)
- New standard trees (planted at 15m centres)
- New double-row native hedgerow planting

TITLE: **Landscape Design Plan**

DRAWING NUMBER: **C054-003** REVISION NUMBER: **01**

DATE: **25th September 2013**

CLIENT: **David Pursey, Trevase Farm**

PROJECT: **Trevase Farm AD**

SCALE AT A3: **1:500**

Document Control and Quality Assurance

Project Title:	Trevase Farm, Hereford
Document Reference:	C054-01
Document Title:	Landscape Design Document
Commissioning Party:	Mr D. Pursey

Issue	Description	Date of Issue	Signed
02	Landscape Design Document	25th September 2013	[redacted]

Bourne Valley Associates Ltd

Planning Statement

For The Discharge of Conditions of Application

S123420/N

For An

Anaerobic Digestion Plant

At

Trevase Farm

Prepared by: Lee Morphy

Of:

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Table of Contents

1. *Introduction*

1.1. This Planning Statement (PS) accompanies and supports a planning application made to Herefordshire County Council for the Discharge of Conditions 3, 7 & 14 of Application S123420/N for an Anaerobic Digestion Plant at Trevase Farm. The application is submitted by Bourne Valley Associates, acting as agent on behalf of Mr David Pursey.

1.2. Planning permission (S123420/N) was granted for a 400W Anaerobic Digestion Plant at Trevase Farm on the 15th of July 2013.

1.3. Condition 3 of the permission states;

> *The whole of the external cladding of the tanks and manure store shall be permanently coloured in accordance with a scheme to be submitted to and approved in writing by the local planning authority before development commences. The cladding shall be coloured in accordance with the approved details.*
>
> *Reason: To minimise the visual impact of the development and to ensure that the development complies with the requirements of Policy DR 1 of the Herefordshire Unitary Development Plan and the National Planning Policy Framework.*

1.4. Condition 7 of the permission states;

> *No development shall commence on site until a landscape design has been submitted to and approved in writing by the Local Planning Authority. The details submitted should include:*
>
> *Soft landscaping*
> *a) A plan showing details of all existing trees and hedges on the application site. The plan should include, for each tree/hedge, the accurate position, species and canopy spread, together with an indication of which are to be retained and which are to be removed.*
> *b) A plan at a scale of 1 :200 or 1 :500 showing the layout of proposed tree, hedge and shrub planting and grass areas*
> *c) A written specification clearly describing the species, sizes, densities and planting numbers and giving details of cultivation and other operations associated with plant and grass establishment.*
> *d) wildflower seeding mix for the site margins*
> *e) specific provision for standard trees to be allowed to grow up, as new planting and/or existing hedgerow trees*
> *f) a habitat protection and enhancement scheme to be incorporated into the landscape design*
> *g) the appointment of a suitably qualified named person to oversee implementation of the scheme;*
> *h) Identification of the types of habitat and flora/fauna species to be encouraged, with reference to adopted Biodiversity Action Plan priorities.*

Reason: To ensure compliance with Policies LA5, LA6, NC1, NC6, NC7 NC8 and NC9 of the Herefordshire Unitary Development Plan, the requirements of the NPPF with particular reference to section 11, and the NERC Act 2006.

1.5. Condition 14 of the permission states;

Prior to the first use of the development hereby permitted, full details of all external lighting to be installed upon the site (including upon the external elevations of the building) shall be submitted to and be approved in writing by the local planning authority. No external lighting shall be installed upon the site (including upon the external elevations of the building) without the prior written consent of the local planning authority. The approved external lighting shall be installed in accordance with the approved details and thereafter maintained in accordance with those details.

Reason: To safeguard the character and amenities of the area and to comply with Policy DR14 of Herefordshire Unitary Development Plan, and the National Planning Policy Framework.

1.6. The following statements along with the supporting documents submitted with this application aims to provide sufficient information in order to discharge the conditions.

2. *Pre Application Advice*

Consultation with the planning officer Mrs Deborah Klein was under taken prior to the submission of this application. We were advised to apply for a Discharge to the conditions in order to regularise the development.

3. *Materials*

The materials specified in the original application where green, box profile steel cladding for the reception building walls and the cladding to the digester and storage tanks. The roof of the reception building was originally natural fibre cement roofing sheets.

The materials and colours to be approved under the discharge of condition 3 are listed below; samples are also submitted as part of this application.

Item	Material	Colour
Control Room Wall Cladding	Box Profile Steel Cladding	Slate Blue BS 18B29
Control Room Roof	Box Profile Steel Cladding	Slate Blue BS 18B29
Digester Tank	Box Profile Steel Cladding	Slate Blue BS 18B29
Gas Stores	Double Membrane Reinforced PVC Cover	Dust Grey RAL 7037
Digestate Storage Tank	Cast in situ Concrete	Natural Grey
Manure Storage Building Wall	Box Profile Steel Cladding	Olive Green RAL 6003
Manure Storage Building Roof	Profile 6 Fibre Cement roof sheets	Natural Grey

The Cladding has been chosen to match that of the existing buildings on the site to the south of the development. Samples of the materials are submitted with this application.

The Grey Gas Stores are one of two standard colours provided by the process provider, the other is a bright green, from previous experience we are aware that the local authority are not keen on the green option, hence the submission of the Dusty Grey for approval. The colours of the gas stores are limited due to the solar UV effect on the material, the grey offers superior longevity of the material. A sample of the Dusty Grey can also be seen in the following link http://www.ralcolor.com

4. *Landscaping*

A comprehensive Landscape Design Document has been prepared by DGL Environment Ltd. The document accompanies this application and all recommendations are to be carried out by the applicant.

5. *External Lighting*

The development will require a small amount of external lighting, which is required for safe working outside of daylight hours, particularly during the winter months. These lights will incorporate hoods to direct light downwards and into the site, thereby minimising light spill and pollution. The operation of the plant has been designed to require minimal manual intervention, the unit will be loaded with green crops once per day, this will mean that working times can be adjusted to minimise the amount of time external lighting will be required.

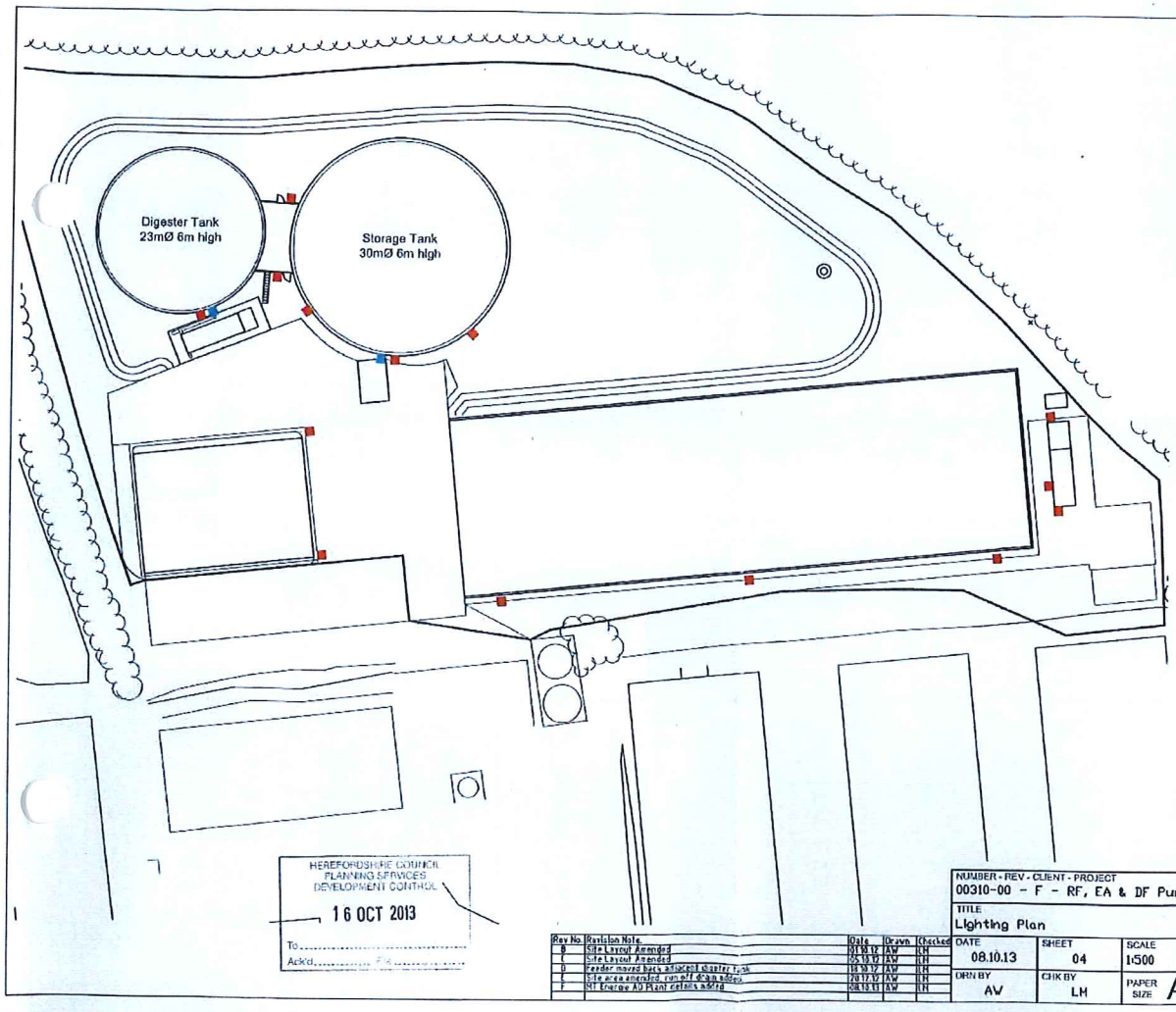
An external lighting scheme has been designed and details are submitted within the Trevase Farm Anaerobic Digestion Plant External Lighting Scheme document accompanying this application.

6. *Conclusion*

This application is for the Discharge of conditions 3, 7 & 14 of application S123420/N.

The proposed development presents the most efficient and sustainable means of producing a renewable energy source. It is a key objective of Government policy to increase the amount electricity produced using renewable technology.

We therefore recommend that the application is put forward for approval at the earliest opportunity.



Lighting Key

- 500W Halogen Spot Light on PIR
- 26W 2D Bulkhead Fitting Low Energy

Notes

1. Lighting will be directed to where it is needed and light spillage avoided. This will be achieved by the design of the luminaire and by using accessories such as hoods, cowls, louvres and shields to direct the light to the intended area only. The existing and proposed planting will also provide a barrier for light spill.

2. Movement sensors will be installed on all lighting; this will reduce the amount of time a light is on. The system will be carefully setup to ensure the lights are not triggered by animal movement.

3. Daylight sensors and timers will be used on all lighting to ensure lights cannot be operated during daylight hours.

4. All Halogen Lights to be installed at a maximum height of 6m

5. All Bulkhead Lights to be installed at a maximum height of 2.4m

HEREFORDSHIRE COUNCIL
PLANNING SERVICES
DEVELOPMENT CONTROL
16 OCT 2013
To.....
Acknd.....

Rev No.	Revision Note	Date	Drawn	Checked
B	Site Layout Amended	01.10.13	AW	LH
C	Site Layout Amended	25.10.13	AW	LH
D	Feeder moved back adjacent digester Tank	18.10.13	AW	LH
E	Site area amended, run off drain added	28.11.13	AW	LH
F	Mt Enerpe A3 Plant details added	06.12.13	AW	LH

NUMBER - REV - CLIENT - PROJECT
00310-00 - F - RF, EA & DF Pursey - Trevase Farm

TITLE
Lighting Plan

DATE	SHEET	SCALE
08.10.13	04	1:500
DRN BY	CHK BY	PAPER SIZE
AW	LH	A3

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