

Garden

South facing space, simply laid out as lawn with a large paved space leading out of the house, framed with native trees and shrubs. Box lavender and ornamental grasses are used close to the building.

Wetland

Open swale with a native reed and rushes, created as part of a SUDS system, Sitting area with views out & back to the house.

North, West and Eastern Boundary

New Devon hedge bank to enclose new site area. Created in place of post and wire and close board fencing around the site. Enhances Landscape Character and strengthens connectivity. Hedges on Low species rich turf faced earth banks.

PROPOSALS KEY

	Hedgerow (on earth bank)
	Native Shrubs
	Species Rich Grass
	Amenity Lawn
	Resin Bound Drive Way
	Gravel Pathway

Meadow Grassland

Grassland will still form a significant area of the site - approx 68%, which will be enhanced through the sowing of species rich flora, with mown grass paths.

Note:

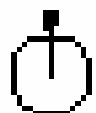
Revision A - 13.10.2017 - Addition of Specimen trees at regular local planning authority condition.

Southern Boundary

Planting of trees along the road boundary, strengthens the tree lined ridge characteristic of the ridge line, and also mask 'Oceania' from public views to the north.

Entrance

Simple stone piers, connected to Devon hedge-banks and set back from road. Winding gravel driveway conceals the house from the road.



0 1 5 10 20m

REDBAY DESIGN
HUX SHARD
Landscape Plan
1:500@A3
October 2017
REVISION A

HUX SHARD

Landscape Proposal



Note:

Revision A - 13.10.2017 - Addition of Specimen trees at regular local planning authority condition. (p9 and p13).

October 2017

LANDSCAPE AND ECOLOGICAL SUMMARY

Landscape Statement

The site covers an area of 0.77 hectares, of which 0.66ha will remain undeveloped and improved for landscape and biodiversity purposes.

The design of the building group makes good use of the sloping topography that typifies this landscape, in so doing the development sits low on the site hugging the hillside and does not protrude into the skyline. Combined with its single storey split form of two building. The northern main building forms a new feature in the landscape, which is characterised by quadrilateral sculptured shapes which breaks up the building mass, and importantly obscures large expanses of glazing. The facade is clad in grey zinc which is recessive and has low visual impact, allowing the building to blend with the backdrop of trees along the hill ridge. The building is further integrated into the landscape through a combination of ‘shard’ sculptural elements that reflect the building facade and low ‘naturalised’ groups of tufted grasses to blur the distinction between the built and soft forms. The garage building is set into the hillside and hidden from the landscape.

The garden situated largely to the south of the building hides the domestic activities associated with the residential use of the site, thus allowing for a large portion of the site to be retained as open meadow (inc the roofs of the structures), Thus maintaining the appearance of a rural landscape, and reducing loss of grassland, whilst increasing diversity with a species rich sward.

The copse planting to the south west corner of the site reinforces the tree line ridge that is characteristic of the area, yet gappy in the location of the site, and will over time screen the neighbouring large 20th century residential property known as Oceania, which currently has a detracting presence on the landscape when viewed from the north.

The project will enhance the landscape through the following measures:

- 41 new trees (native to local area or naturalised)
- 329m mixed native hedgerow on earth banks
- 806m² native tree and shrub planting
- 93m of swale with reeds and rushes.
- 0.42 hectares of species rich grassland
- 500m² naturalised planting (inc grass swathes)
- 130m² ornamental planting
- 110m² amenity grass

Landscape and Visual Analysis

Overall the site and local landscape has a Medium sensitivity to the type of development proposed. This is primarily due to the sites open elevated position on a prominent hillside within open countryside. However, there are residential dwellings either side of the site and to the south on the opposite side of the road, forming a linear thread of settlement along the ridge, so buildings within the immediate locality are not out of place. With appropriate development on site new buildings could form a loose cluster with those existing buildings.

None of the landscape within the study area is designated i.e AONB or AGLV. The physical landscape elements that could be effected include changes to the land-form to accommodate the buildings being set into the slope and the loss of semi improved grazing land (currently out of production) across the site. No significant trees are to be affected by the development as none exist on the site. There is good potential for landscape enhancements with the reintroduction of hedgerows where there is currently post and rail fencing which is prevalent around the site. Such new hedges with trees would fit well with the framework of hedges of the local landscape and provide assimilation of the new building.

Effects to visual amenity will be to local roads and PRoW's to the North West through to the north east and immediately to the south. The sensitivity in visual amenity terms is Medium to High - Medium, there is some screening afforded by vegetation in the local landscape. There are also framed views to the site, where the site is in an elevated position.

Development proposals will need to be carefully considered so as not to appear overly dominant, close to the ridge-line. This could perhaps be achieved by creating a feature building with any further buildings being recessive and appearing smaller when viewed from locations to the north through design of form and massing, such as single story. The buildings could be designed to appear as a building group possibly out houses to the main house and use recessive cladding. The use of grass roof's would reduce the loss of grassland and aid assimilation into the site.

Refer to the Landscape and Visual Impact Assessment (redbay design February 2017) for full details.

Ecological Appraisal Summary

The ecological assessment has examined the habitats and species of interest within the site and surrounding area. The site is not covered by, or immediately adjacent to, any statutory or non-statutory designated sites of biodiversity value. However, there is one SSSI (Stoke Woodland SSSI) located approximately 1km to the west of the site, and five County wildlife sites and two un-confirmed wildlife sites within 1km of the site. Ecological mitigation and enhancements have been designed to mitigate for construction and operation phase disturbance and for the loss of 7,700m² of semi-improved grassland and to increase the value of the site.

Despite the presence of one new dwelling within the site it is considered that, with the proposed mitigation and enhancements, there will be a *moderate-major beneficial impact* on the ecological value of the site due to the presence of a diversity of new valuable habitats (Devon hedgebanks, open swales and wetland, species rich grassland, native tufted grassland, native tree and shrub planting, green roofs, new roosting and nesting opportunities for bats, birds and hedgehogs).

Landscape Context

Landscape Character Type 3a Upper undulating farmed and wooded Slopes
The site falls within the above Character Type and the following is of relevance to the application site and it's immediate context.

Landscape Character Description

Undulating sloping land on greensand below the steep wooded scarp, where deciduous woods and copses on the upper valley slopes grade to pastoral/mixed cultivation, with some arable cultivation along the lower edge, especially in the southern part of this type. An intricate mix of small to medium fields with irregular boundaries of very wide earth banks with low, species-rich hedges and many trees, creating a well-treed and intimate character. Oak and ash are the most prominent species.

Upper stream valleys are often steep and V-shaped, without a distinct valley floor, but with wet-land along streams and in patches throughout.

The settlement pattern is of isolated farms and occasional large houses, with some deserted farmsteads and small villages linked by very narrow winding lanes. Red brick and stone are often used in dwellings, with rusty corrugated iron roofs to stone farm buildings (these would formerly have had slate, clay tile or thatch roofs). There is little 20th century development, although such development does occur in close proximity to the application site.

Occasionally this type occupies the slopes immediately below the plateau, but it is less steep and less wooded than the scarp slopes. The feeling of remoteness is strengthened by lack of settlement and limited views out, where vegetation acts as a screen or filter.

Key Characteristics

- **Undulating upper valley slopes below the scarp slope**
- Well treed pastoral farmland, with arable cultivation on lower slopes
- Small to medium size fields with irregular boundaries
- Deciduous woods and copses, especially on hilltops and upper slopes
- Very wide, usually low, species-rich hedges with many hedgerow trees
- Dispersed settlement pattern of isolated farms and small villages
- Very winding narrow lanes
- An intimate & intricate landscape with views out confined by vegetation
- Remote and with little 20th century development

Management Guidelines for Character Type

Boundaries: enhance by

Encouraging the conservation of hedgerow trees by planting or tagging selected saplings, to maintain and enhance the well-treed character of this type.

Promote the biodiversity benefits of less intensive management and raise awareness of the potential damage from fertiliser run-off or spray.

Field pattern: enhance and restore by

Encouraging the retention and management of existing field boundaries to maintain the mixed pattern of small to medium fields.

Semi-natural habitats: conserve and enhance by

Encouraging management via appropriate grazing regimes to control scrub and maintain unimproved grassland, flushes and wildflower meadows

Settlement and development: conserve and enhance by

Improving integration of 20th century development within the wider landscape, especially by replicating the distinctive treed earth banks and small woods of this Landscape Character Type.

Soil Type

The soil naturally occurring on the site is slightly Acid Loamy Clayey, with impeded drainage. (Source: Landis Soil Portal (Cranfield University).

Hedgerows:

The Devon Hedgerow Group interactive map, shows that the site fall into the distinctive category of Elm dominated hedgerows, on turf faced banks.

Hedgeow species found locally comprise:

Woody Species: *Elm, Oak, Field Maple, Hawthorn, Hazel, Holly, Elder*

Herbaceous: *Red companion, stichwort, cow parsely and herb robert*

Ecological Observations and Recommendations:

The site boundaries clearly need some native hedgerow planting - that in itself would provide enhancements as three of the boundaries are currently timber fences. Native hedge banks would be even better and you could have wildflower seeds on the bank (south facing it could be called a pollinator bank) and native woody species on top. On site the semi-improved grassland is relatively diverse as it has not been managed for quite a while - it would be good to use a wildflower mix or similar in the grassland areas on site rather than an amenity grass mix.

Other enhancements to be considered are water features which are allowed to colonise naturally, bee hotels, hedgehog boxes and reptile hibernacula.

Sensitive lighting is also important for biodiversity.

There are no mature trees on site so no other options for the placement of bat and bird boxes. Consider Incorporating swift boxes and bat tiles on the building .

Field and Settlement Pattern

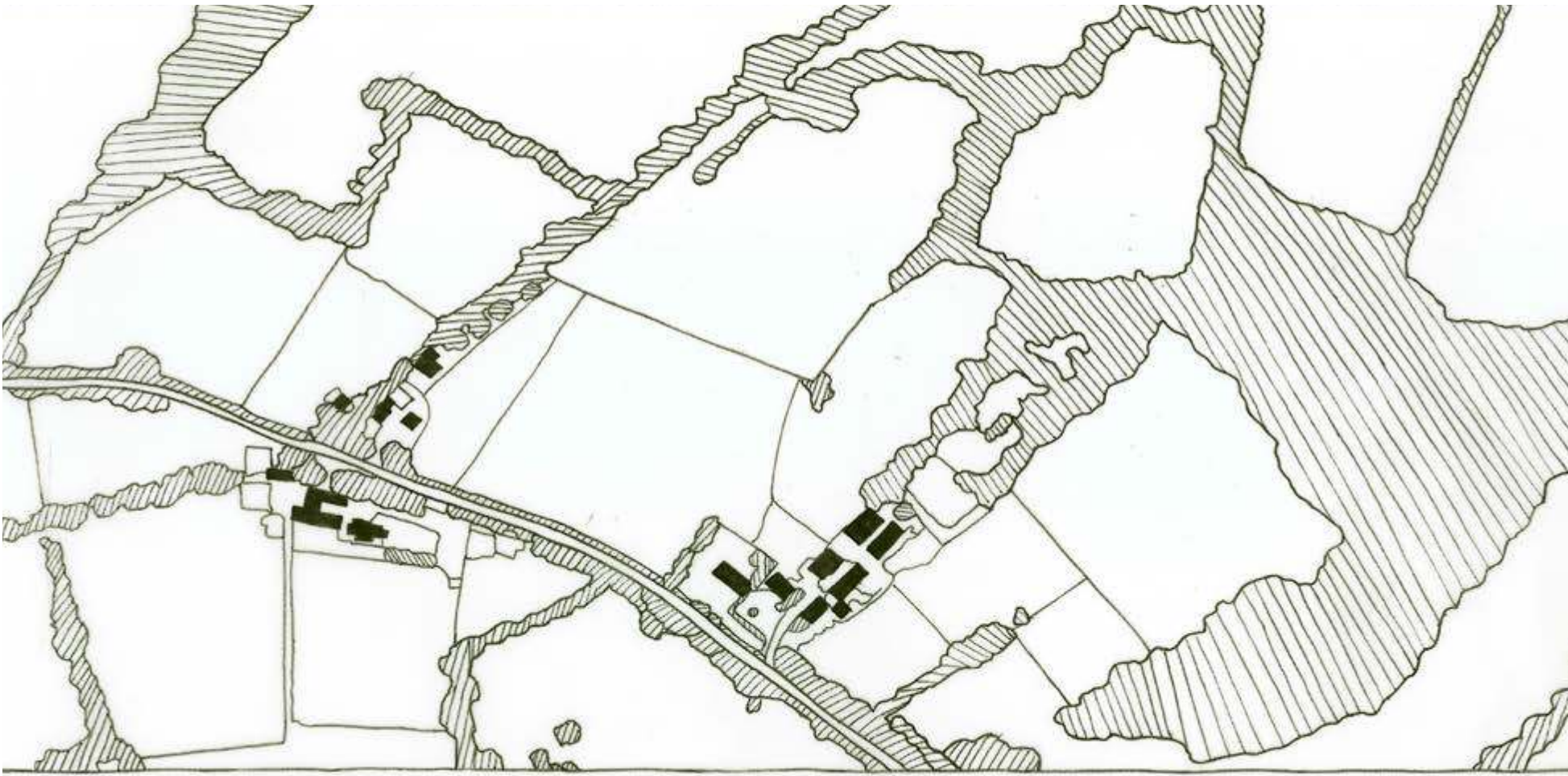
Settlement pattern at a macro scale, is a loose cluster of settlement off both sides of Church Hill Road.

Development as proposed on the site would consolidate that cluster, but would not significantly intensify settlement on the ridge, due to the generous open space surrounding the new building.

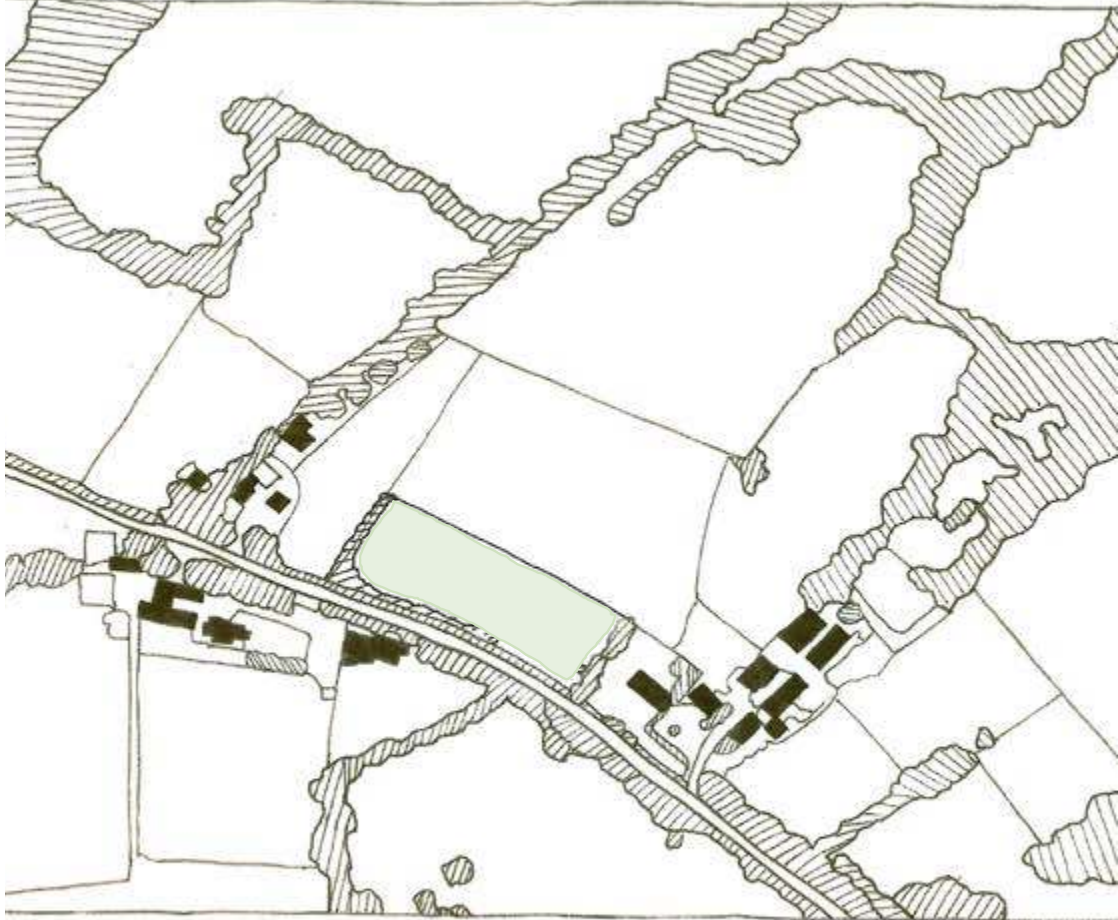
Looking at a micro level, settlement is of three loose groups, with a large single dwelling (Oceania) immediately to the south of our site. The new dwelling at Huxham View creates a relationship with Oceania.

Visually the settlement appears as linear development along the ridge line. Development on the site would be a continuation of this pattern.

Existing Field Pattern with Settlement



Proposed Field Pattern

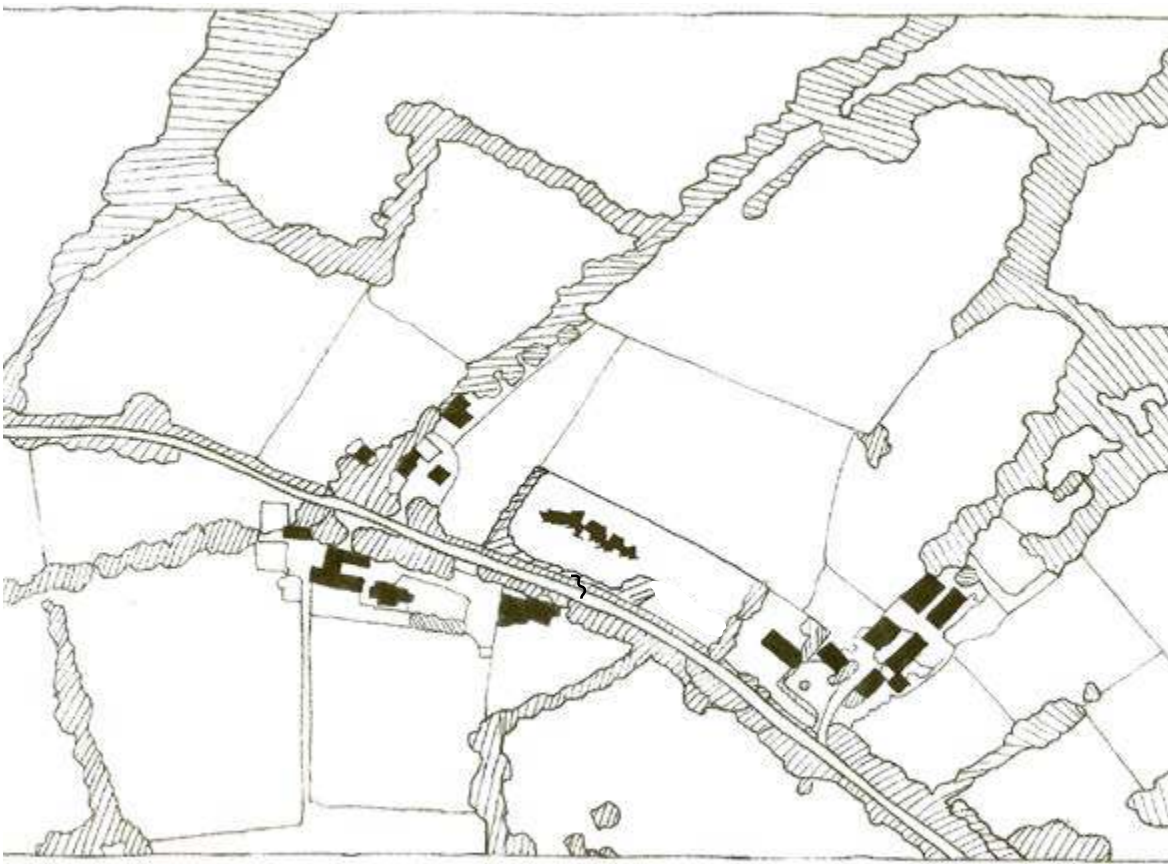


The division of the single field into two parcels to create the development site would have a minor effect on the existing field pattern and scale, which would be in keeping with the local landscape of small to medium scale.

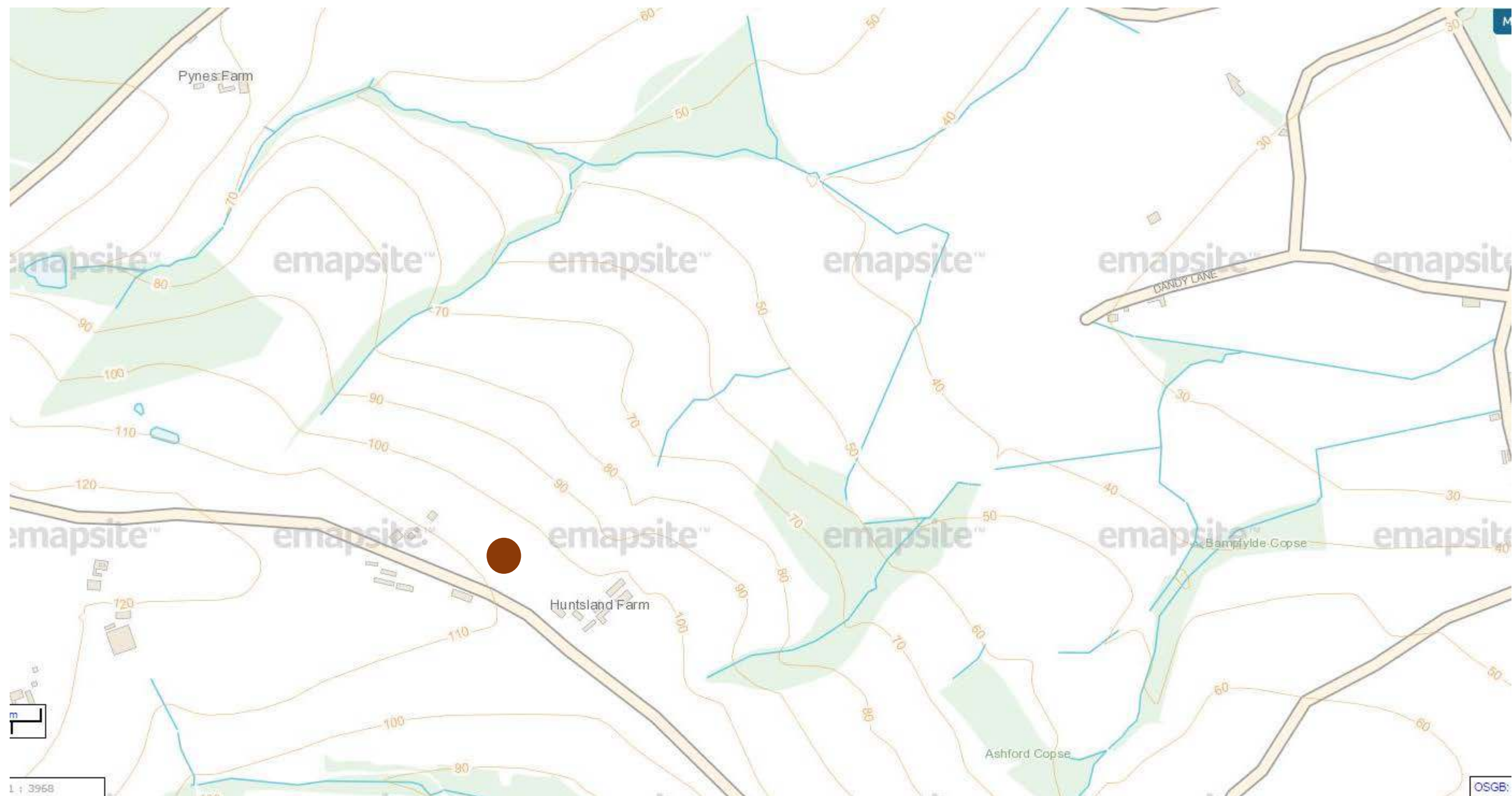
Essentially a medium size field will be divided into a small field of irregular forms.



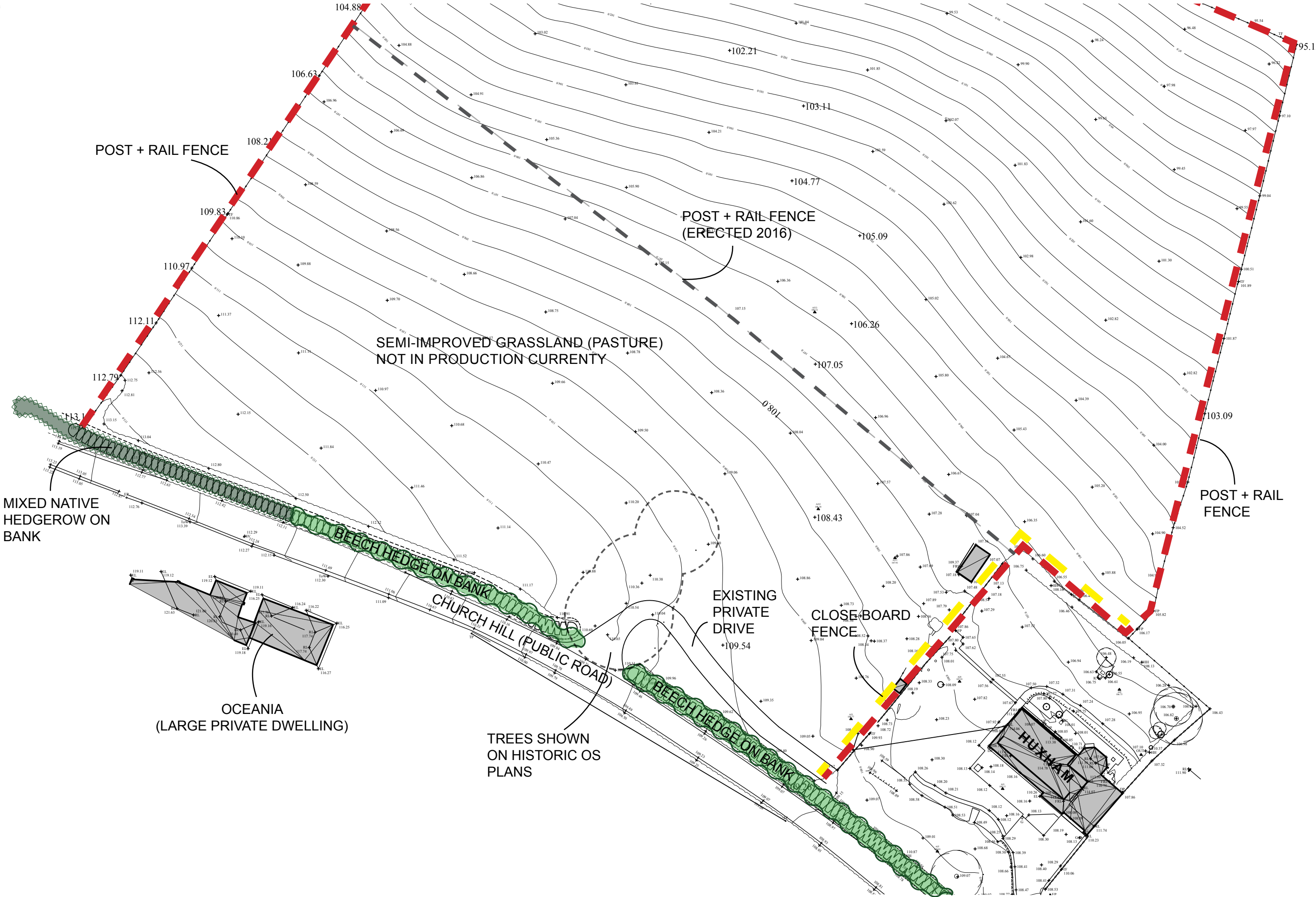
Proposed Field Pattern with Settlement and Proposed Building



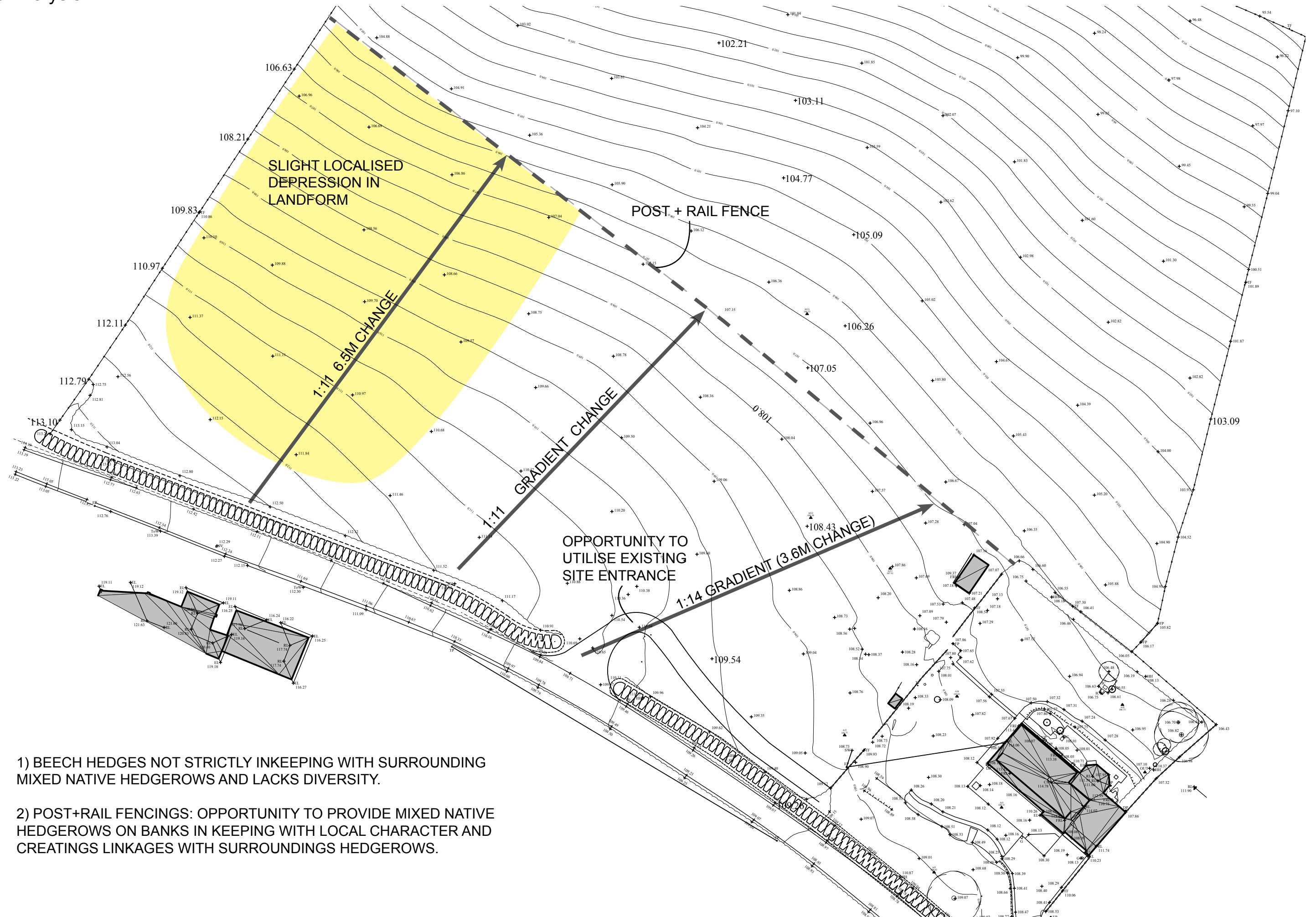
Water Courses



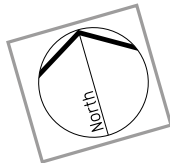
Existing Site Plan



Site Analysis



- 1) BEECH HEDGES NOT STRICTLY INKEEPING WITH SURROUNDING MIXED NATIVE HEDGEROWS AND LACKS DIVERSITY.
- 2) POST+RAIL FENCINGS: OPPORTUNITY TO PROVIDE MIXED NATIVE HEDGEROWS ON BANKS IN KEEPING WITH LOCAL CHARACTER AND CREATINGS LINKAGES WITH SURROUNDINGS HEDGEROWS.



View from Public Road at Pynes Farm
(LVIA Fig Doc. VP 04)

View from Public Road
(LVIA Fig. Doc. VP 05)

Views from Public Road and Footpath
(LVIA VP 06 and 07)

Views from Dandy Lane Public Road. View to site inc Rosemead Cottage (GII).
(VP 03 and 08)

PRIMARY VIEWS OUT
Long distant uninterrupted views across rural landscape

SECONDARY VIEWS OUT
Short to medium distant views filtered by vegetation. Takes in views of neighbouring properties

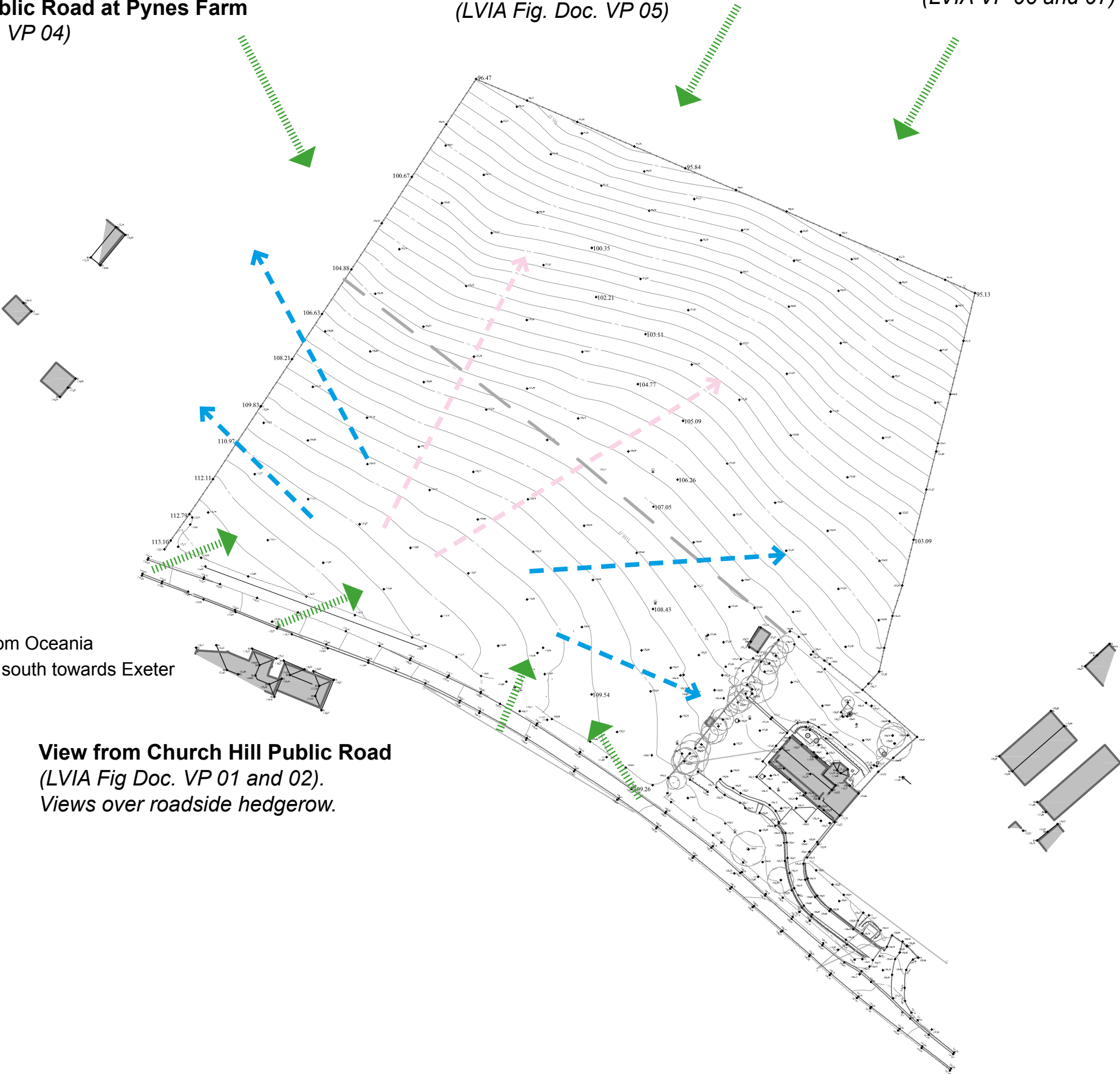
Principle View from Oceania is focused to the south towards Exeter

View from Church Hill Public Road
(LVIA Fig Doc. VP 01 and 02).
Views over roadside hedgerow.

KEY VIEWS
Key public views exist to the north east of the site at approx. 1.0km distance. Views are gained from the public highway to the north and northwest; Public footpath north east around Higher Lathy Farm, and also on Dandy Lane.

These views tend to be vista views from lower elevations directly onto the site. Views are framed by vegetation within the landscape.

Views from Poltimore House and Listed grounds are obscured by vegetation.



Landscape Plan- Overview

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Meadow Grassland

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LAWN

MEADOW

Southern Boundary

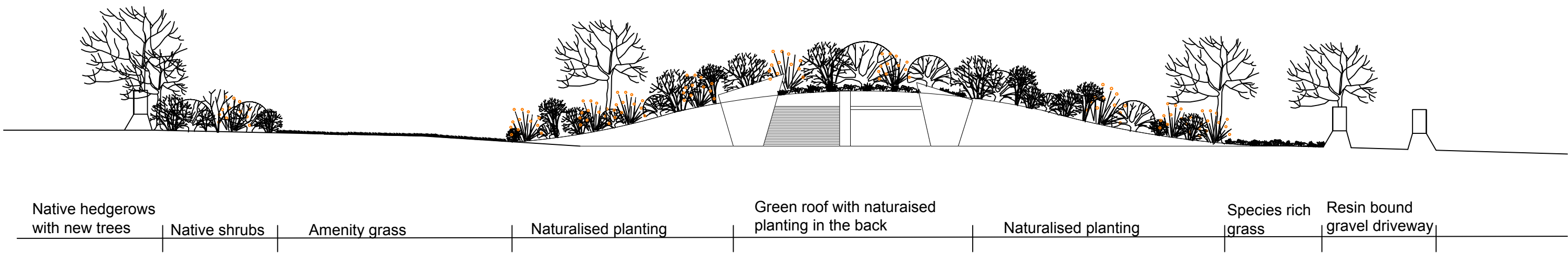
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Entrance

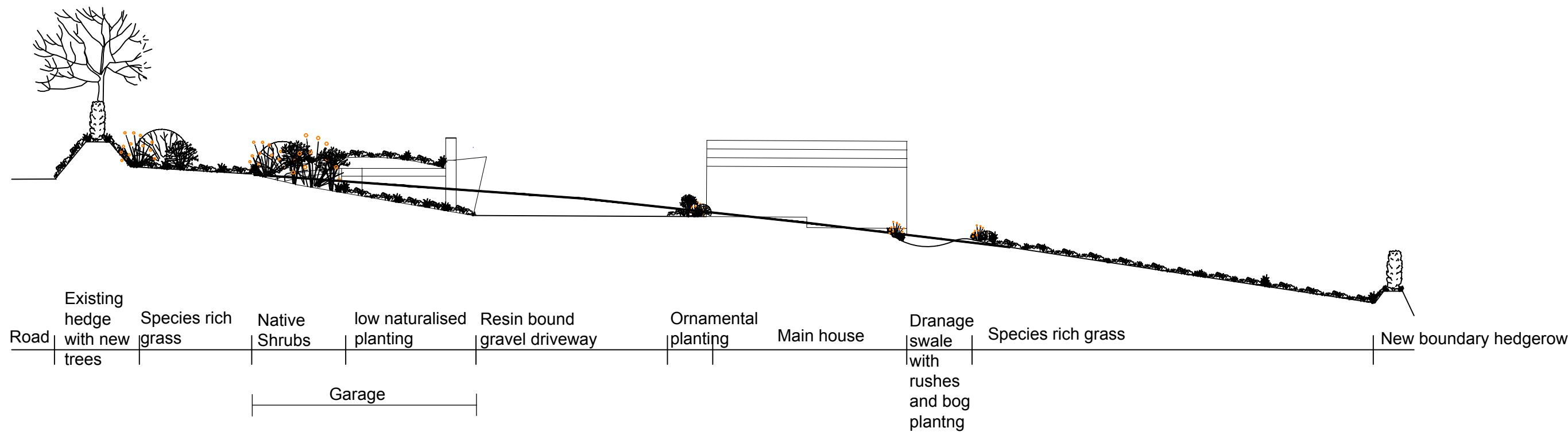
Simple stone piers, connected to Devon hedge-banks and set back from road. Winding gravel driveway conceals the house from the road.



Landscape Sections

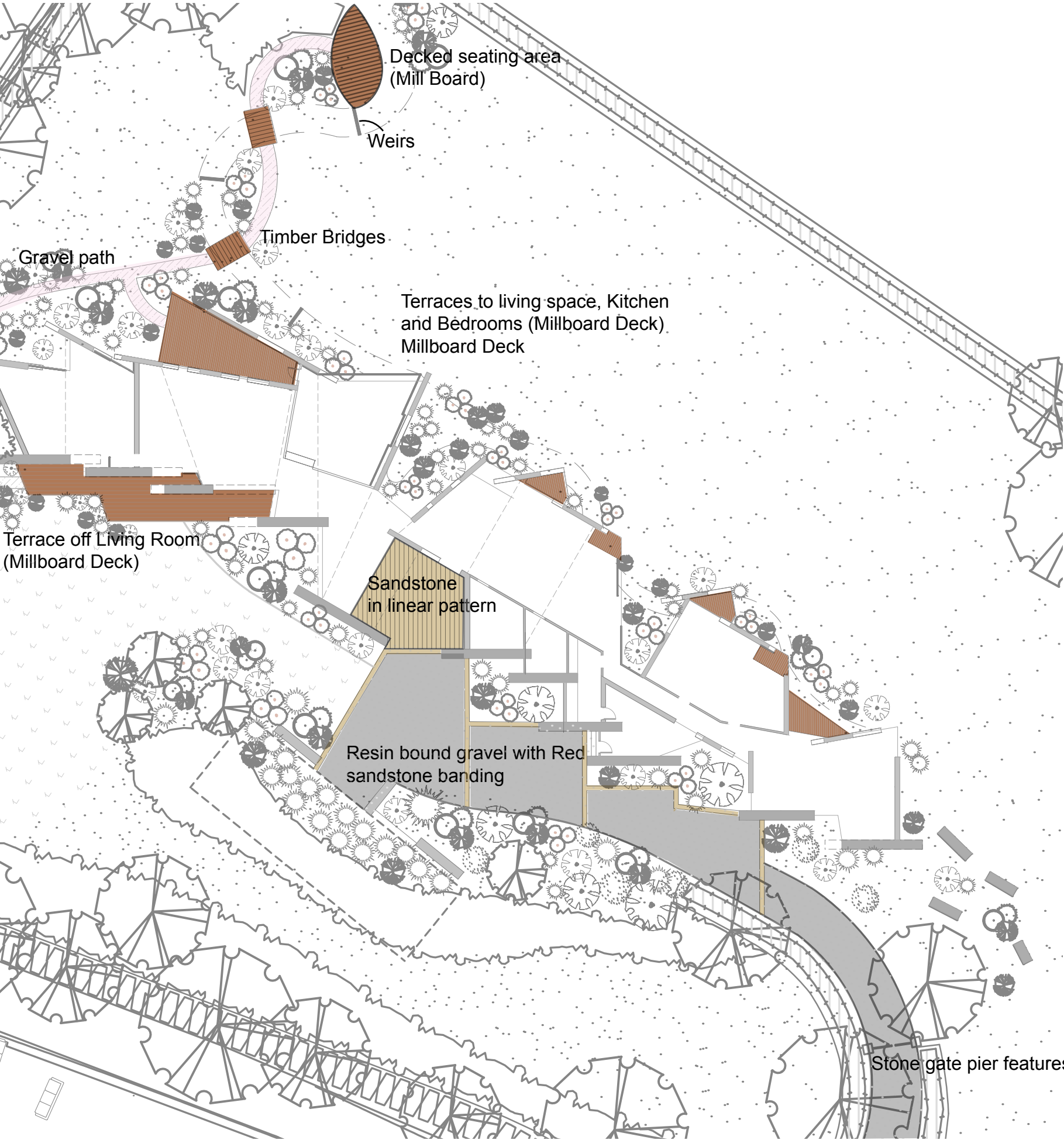


Elevation Through Garage



Site Section
Showing how the development fits with the topography of the local landscape

Hard Landscape Strategy



Millboard 'carbonised' driftwood, decking alternative. Used for the raised terraces to the living spaces and bedrooms.

Millboard deck boards are manufactured with polyurethane resin which can typically last longer than timber, up to 35-40 years. Timber is typically 10-15 years.



Bands of sandstone in grey and red add to the detailing of the driveway and carry through the delineation of the building forms, cutting through the gravel



Resin bound surface for the drive and entrance courtyard, chosen to create a high quality durable surface for vehicle use. Red gravels have been specified to mimic the devon soil colours and texture, creating synergy with unmettled surfaces.



Gate Piers (750x750x 2500mm high. Local sandstone



Self Binding Gravel Path.



Drainage Strategy

Surface Water

Surface water from roofs and hard surfaces which is not used for flushing toilets and garden use - will be conveyed to a wetland through an open swale, forming a significant landscape feature on the site, where water is retained at a level close to the surface, allowing a range of marginal aquatic and bog plants to thrive.

Grey Water

Water used in homes has long been thought of in terms of clean drinking water (known as potable water) coming into the house from the mains and sewage going out. However, the wastewater from baths, showers, washing machines, dishwashers and sinks fits somewhere in-between and this is referred to as greywater, which typically makes up between 50-80% of a household's waste water.

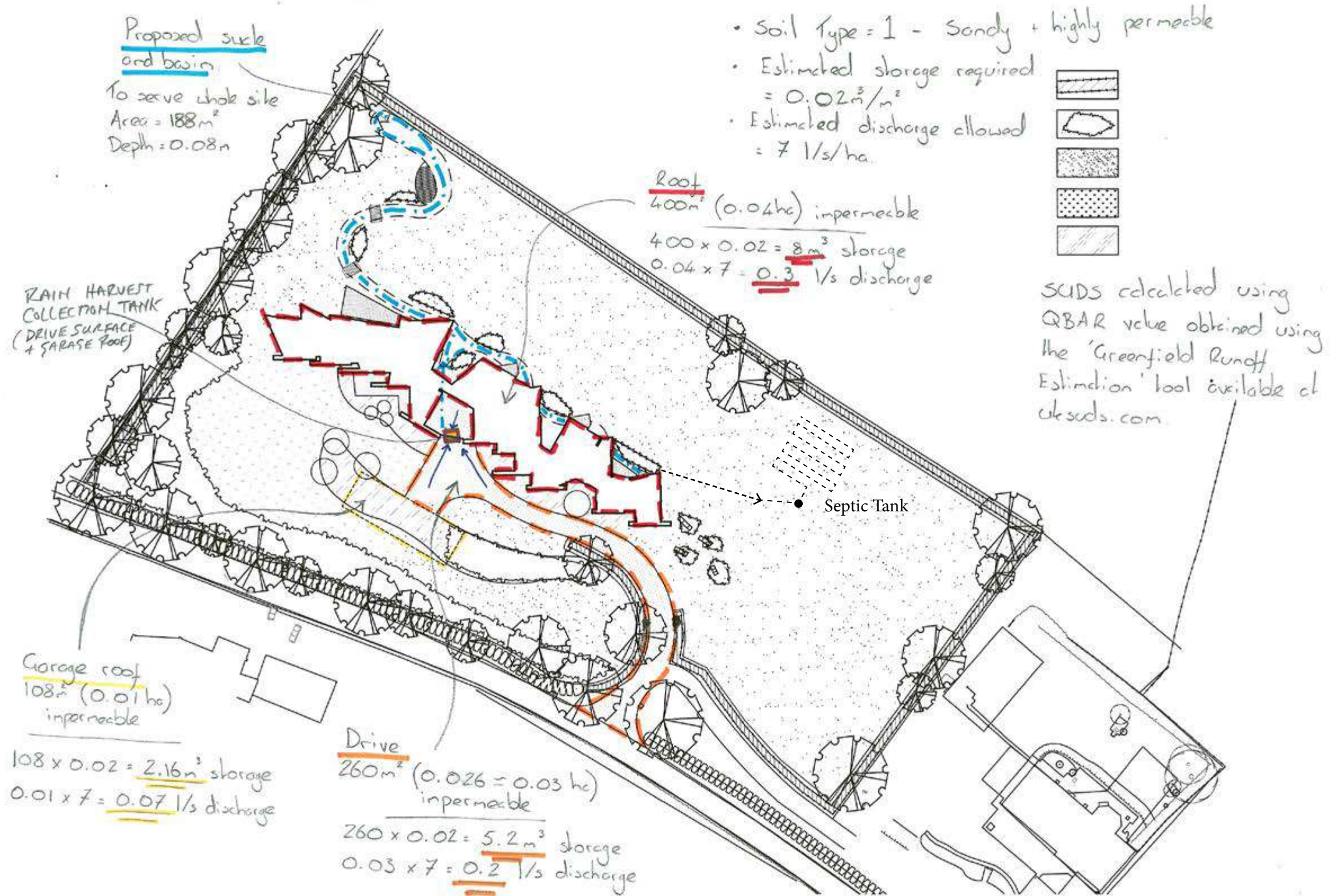
Roughly a third of the water used in households is used in toilets, which comes into contact with human waste and is known as blackwater. Greywater is much easier to treat and recycle when compared with blackwater because there is no faecal matter that is a haven for harmful bacteria and disease causing pathogens.

If recycled properly, greywater can save approximately 70 litres of potable water per person per day in domestic households.

Foul Water

Foul water will be discharged to a septic tank at least 7m from any part of the building and within 30m of a vehicular access for emptying purposes.

Drainage field/soakaway discharged from septic tank, 50m from any field soakaways, 15m from any building, 10m from a water course or land drain and 50m from any point of association from the ground for a drinking water supply.



Soft Landscape Strategy



PROPOSALS KEY

- DEVON HEDGEROW
- NATIVE TREES
- NATURALISED PLANTING(DAMP)
0.5-1.0M HIGH
- ORNAMENTAL PLANTING
0.5-1.5M HIGH
- NATURALISED PLANTING
1.0-1.5M HIGH
- NATIVE SHRUBS
2-3M HIGH

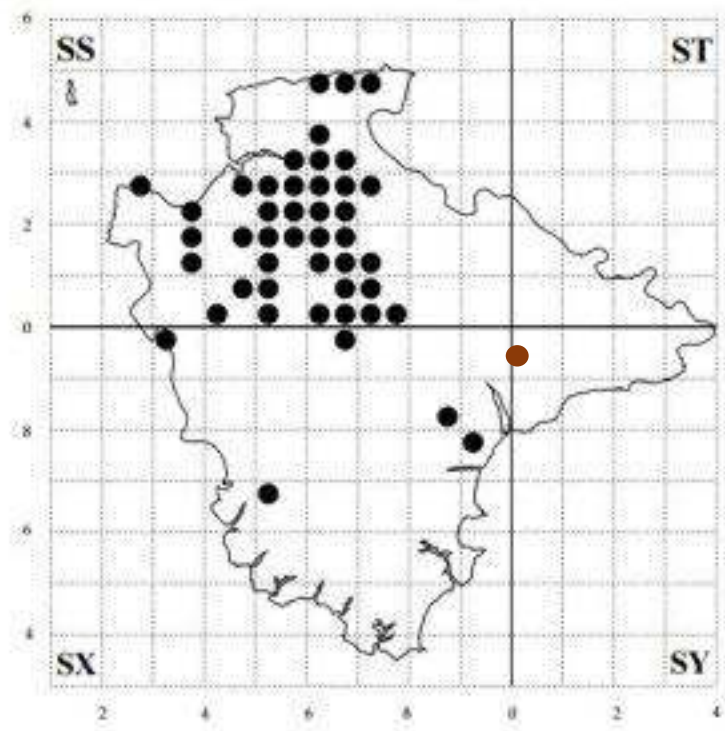
PLANTING THEMES

- Ornamental**
- Lavender
 - Box/Yew
 - Ferns
 - Bergenia
 - Acanthus
- Naturalised**
- Lavendula spp
 - Carex Pendula
 - Waxy Hair Grass
 - Luzula sylvatica
 - Stipa spp
 - Millium effusum
- Naturalised (Damp Condition)**
- Reeds
 - Rushes
 - Sedges
 - Irises
 - Sweet Grass
 - Ferns
 - Solomons Seal
- Native Shrubs**
- Hawthorn
 - Elder
 - Dogwood
 - Rose
 - Hazel
 - Devon Whitebeam
- Native Trees**
- Oak
 - Field Maple
- Standard Box Balls, to be used as feature plants on southern elevation of building.



Plant Species Palette - New Hedgerows

Distribution of whitebeam in Devon (1998)



Devon Whitebeam - Sorbus Devonensis

The Devon White Beam is subject to Biodiversity Action Plan (BAP).

Considering the fact that the entire population of some of the species consist of just a handful of known trees in a few localised areas, they are highly vulnerable, both to habitat loss or degradation and to more individual hazards, such as specimen collection.

The Devon whitebeam is largely a hedgerow species, but also occurs in a few sites on rocky oak wood and even moorland edges. It is essentially a species of acid soils.

The application site would be ideal to include the devon whitebeam into the hedgerow mix.

Item 6. of the Action Plan: *Encourage the propagation and planting of Devon whitebeam in public places to raise public awareness and increase the population of the species (ensuring that records of all plantings are sent to BSBI/DBRC).*

Proposed Native Hedgerow Species:

Common Oak	<i>Quercus Robor</i>
Hawthorn	<i>Crataegus Monogyna</i>
Wych Hazel	
Devon White Beam	
Blackthorn -	
Hazel	
Holly	
Field Rose	



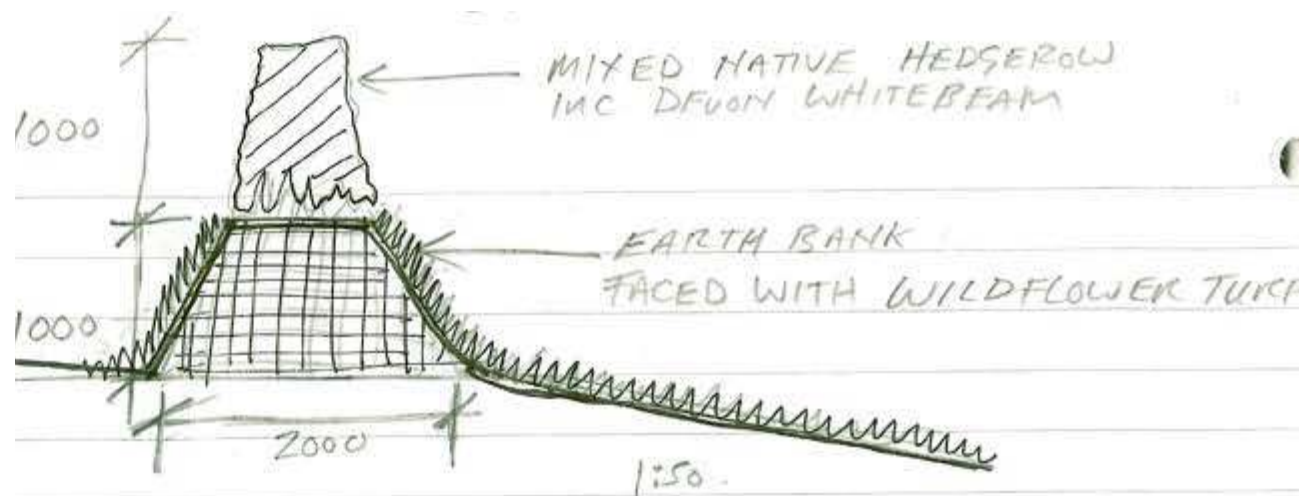
Proposed Trees

Native Tree Species:

Common Oak
Hawthorn
Field Maple
Birch
Amelanchier
Magnolia



Wildflower Turf to Hedge Banks



Plant Species Palette - Proposed Grassland

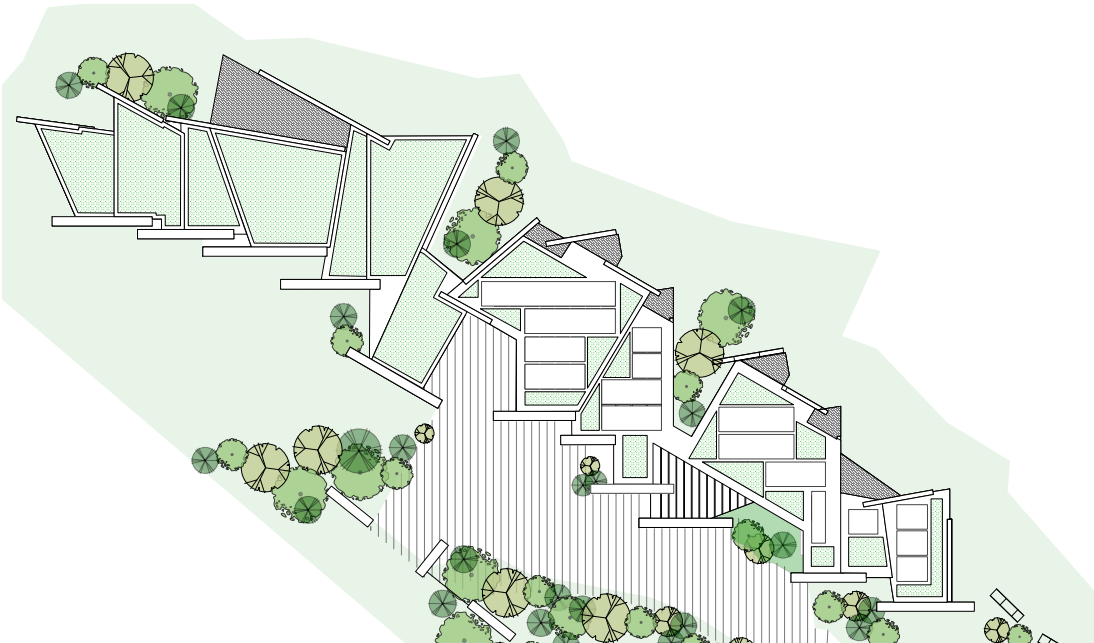
Sample Species Mix for Roofs and Meadows

Grasses	
Crested Dogtail	(Cynosurus cristatus)
Sheep's Fescue	(Festuca ovina)
Slender Creeping	(Festuca rubra ssp.)
Red Fescue	
Flora	
Autumn Hawkbit	(Scorzoneroide autumnalis)
Betony	(Stachys officinalis)
Birdsfoot Trefoil	(Lotus corniculatus)
Bladder Campion	(Silene vulgaris)
Cats Ear	(Hypochaeris radicata)
Common Knapweed	(Centaurea nigra)
Common Sorrel	(Rumex acetosa)
Common Vetch	(Vicia sativa ssp. segetalis)
Common Toadflax	(Linaria vulgaris)
Cowslip	(Primula veris)
Field Scabious	(Knautia arvensis)
Greater Hawkbit	(Leontodon hispidus)
Lady's Bedstraw	(Galium verum)
Meadow Buttercup	(Ranunculus acris)
Meadow Cranesbill	(Geranium pratense)
Meadowsweet	(Filipendula ulmaria)
Musk Mallow	(Malva moschata)
Ox Eye Daisy	(Leucanthemum vulgare)
Perforate St Johns Wort	(Hypericum perforatum)
Ragged Robin	(Lychnis flos-cuculi)
Red Campion	(Silene dioica)
Ribwort Plantain	(Plantago lanceolata)
Salad Burnet	(Sanguisorba minor)
Self-heal	(Prunella vulgaris)
Tufted Vetch	(Vicia cracca)
Wild Carrot	(Daucus carota)
Wild Marjoram	(Origanum vulgare)
Wild Red Clover	(Trifolium pratense)
White Campion	(Silene latifolia)
Yarrow	(Achillea millefolium)
Black Medick	(Medicago lupulina)
Clustered Bellflower	(Campanula glomerata)
Hoary Plantain	(Plantago media)
Rough Hawksbit	(Leontodon hispidus)
Small Scabious	(Scabiosa columbaria)
Vipers Bugloss	(Echium vulgare)
Wild Pansy	(Viola tricolor)
Thrift	(Armeria maritima)

EM4 – MEADOW MIXTURE FOR CLAY SOILS

Flora		
%	Latin name	Common name
0.5	Achillea millefolium	Yarrow
1	Betonica officinalis - (Stachys officinalis)	Betony
3	Centaurea nigra	Common Knapweed
1.5	Galium verum	Lady's Bedstraw
1	Leucanthemum vulgare	Oxeye Daisy
0.5	Lotus corniculatus	Birdsfoot Trefoil
2.6	Plantago lanceolata	Ribwort Plantain
0.3	Primula veris	Cowslip
2	Prunella vulgaris	Selfheal
3	Ranunculus acris	Meadow Buttercup
1.5	Rhinanthus minor	Yellow Rattle
1.5	Rumex acetosa	Common Sorrel
0.1	Silene flos-cuculi - (Lychnis flos-cuculi)	Ragged Robin
0.1	Trifolium pratense	Wild Red Clover
1.4	Vicia cracca	Tufted Vetch
Grasses		
%	Latin name	Common name
10	Agrostis capillaris	Common Bent
2	Alopecurus pratensis	Meadow Foxtail (w)
1	Anthoxanthum odoratum	Sweet Vernal-grass (w)
1	Briza media	Quaking Grass (w)
36	Cynosurus cristatus	Crested Dogtail
24	Festuca rubra	Slender-creeping Red-fescue
2	Hordeum secalinum	Meadow Barley (w)
4	Phleum bertolonii	Smaller Cat's-tail

Diagram of building showing extent of species rich grass roof.
diagram also shows PV panels integrated to the roof- refer to DAS for further details



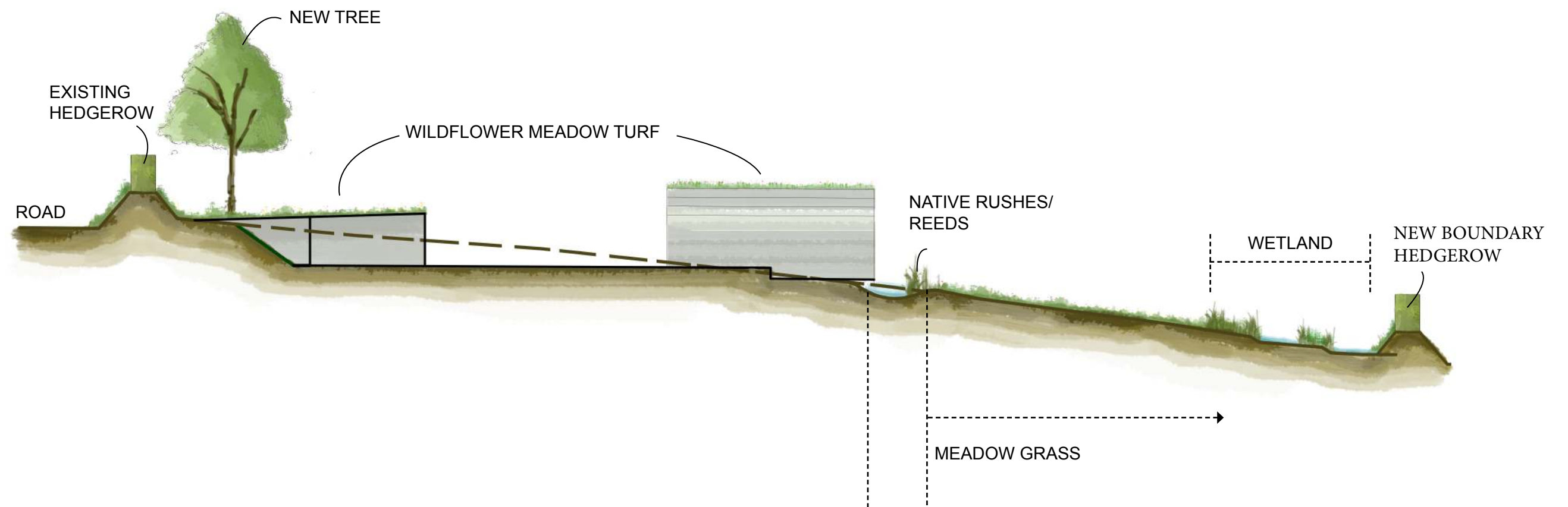
Plant Species Palette - Naturalised Planting

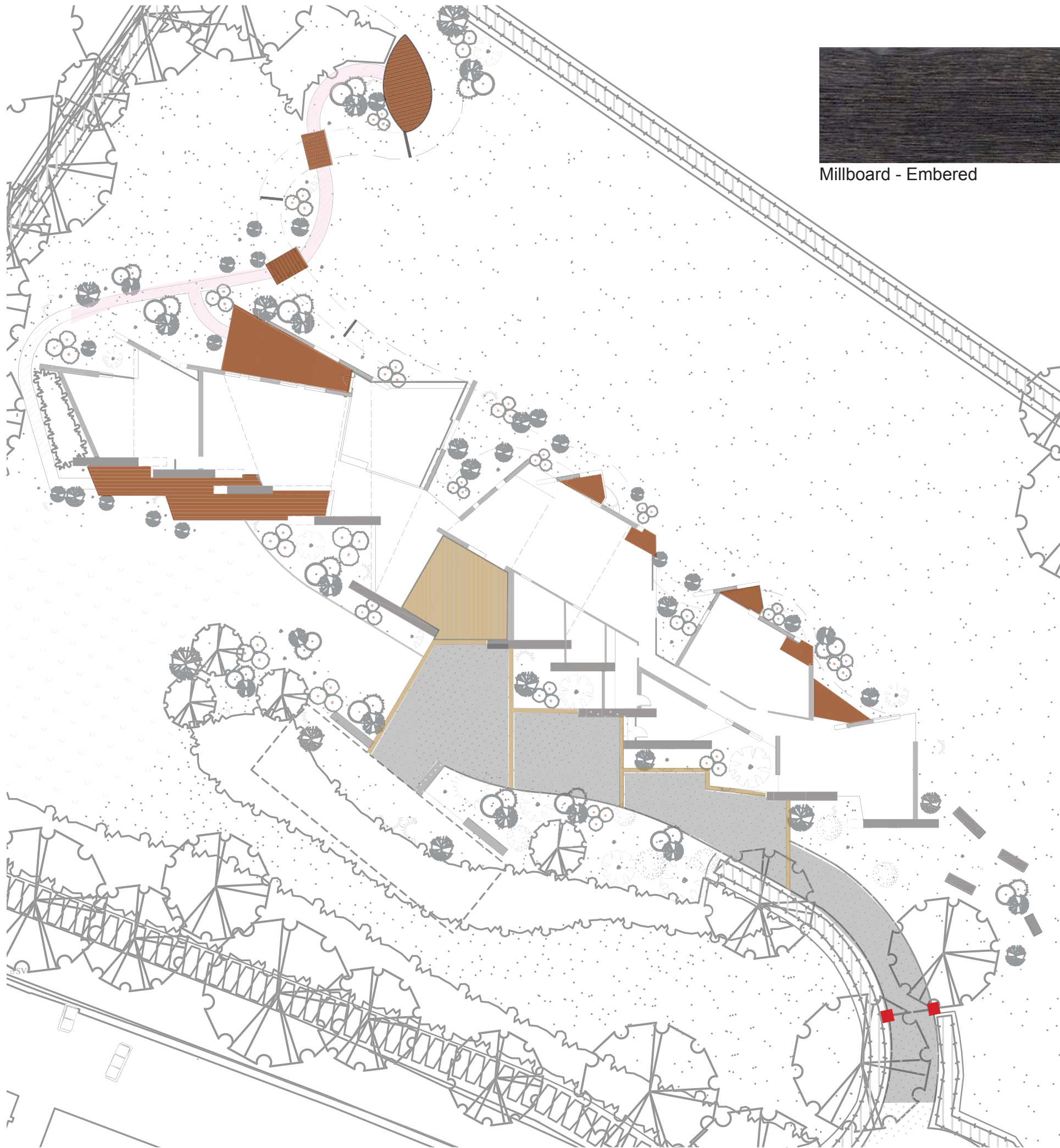


Sample List:

Carex Pendula
Waxy Hair Grass
Luzula sylvatica
Stipa spp
Millium effusium
Solomons Seal







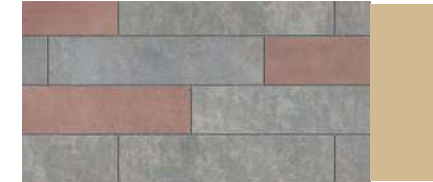
KEY



Millboard - Embered



Decking to Terraces and Bridges
Product: Millboard polyurethane enhanced grain
Colour: Smoke Oak (shown) or Embered
(91m²)



Sandstone Paving Detail
Product: Marshalls Stonespar Nisha Blend
Colour: Red and Natural Grey
Size: 600x130x65. (35m²)



Resin Bound Gravel Paving.
Product: Addagrip Terrabound
Gravel: 6mm Tuscan Pebble.
(255m²)



Self Binding Gravel Path
Hoggin or similar
Colour: Pink/grey
(65m²)



Sandstone Gate Piers
(600x600x 2500mm high).
Local sandstone, red/grey colour.

NOTE: Gates to be as per Architects design

DRAFT

Hux Shard, Pinhoe, Exeter

Hard Landscape Material Finishes

Scale 1:500@A3

Date: 12 October 2017

redbaydesign
LANDSCAPE CONSULTANTS

