

Castelmer Fruit Farm

Ecology Design Strategy

October 2023



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Castelmer Fruit Farm

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October 2023

Report Ref: DFA23052

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1 INTRODUCTION

1.1 Background

1.1.1 Derek Finnie Associates was commissioned by GreenPlan Designer Homes to provide ecological advice in relation to a development of ten dwellings after the demolition of the existing dwelling, and car workshop at Castelmer Fruit Farm, Ashcombe Lane, Kingston, Lewes BN7 3JZ. The Site was granted planning permission by South Downs National Park Authority (SDNA) in July 2023 (Ref: 22.05983/FUL) subject to certain conditions.

1.1.2 Condition 24 of the permission deals with ecological enhancements to the site and states:

Condition 24

Prior to the commencement of the development hereby permitted, an Ecological Design Strategy (EDS) shall be submitted to and approved in writing by the local planning authority. The EDS shall address on-site compensation for the loss of habitat including details of Kingston Hollow Local Wildlife Site (LWS) buffer planting, sensitive lighting strategy demonstrating how light spill onto the orchard/woodland/LWS will be minimised, bird and bat box specification (min. one bird box per dwelling and 5No. bat boxes) to be integrated into the fabric of the building, and general enhancement of the site to provide measurable biodiversity net gain in line with the recommendations in the Ecological Assessment (Derek Finnie Associates, December 2022, Ref: DFA22070) and Excel Biodiversity Metric V4.0 (Derek Finnie Associates, undated.)

The EDS shall be implemented in accordance with the approved details and all features shall be retained in that manner thereafter.

***Reason:** To ensure that any adverse environmental impacts of development activities can be mitigated, compensated and restored and that the proposed design, specification and implementation can demonstrate this, and to provide a net gain for biodiversity as required by Section 40 of the Natural Environment and Rural Communities Act 2006, Policy SD9 of the South Downs Local Plan, and the NPPF. This is required to be a pre-commencement condition because it is necessary to have agreed such details prior to commencing any building works.*

1.1.3 The following report, therefore, has been prepared to provide sufficient information to allow the discharge of Condition 24. Each point within the Condition is addressed in turn in the following sections, as summarised in Table 1.

Table 1. Document Contents

Point	Location with Document
Kingston Hollow Local Wildlife Site (LWS) buffer planting	Section 2.1 and Landscape Strategy Drawings (Appendix 1)
Sensitive lighting strategy	Section 2.2
Bird and bat box specification	Section 2.3 and Figure 1
Enhancement of the site to provide measurable biodiversity net gain	Section 2.4 and Landscape Strategy drawings (Appendix 1)



2 ECOLOGICAL DESIGN

2.1 Kingston Hollow Local Wildlife Site (LWS) buffer planting.

2.1.1 As there will be no new artificial structure built contiguous with the LWS boundary, the buffer zone will be restricted to 1.5m zone between the internal road and the edge of the LWS. At the request of the Biodiversity Officer, a calcareous grassland will be sown along this edge and managed as hay meadow.

2.2 Sensitive lighting strategy

2.2.1 There will be no external lighting within the scheme, hence there will be no new or additional lighting.

2.3 Bird and bat box specification

2.3.1 Bird boxes will be installed on the dwellings and shown on Figure 1. The boxes will be installed in line with manufacturer’s recommendations and will face between northwest and northeast. A total of two Woodstone Sparrow Nest box¹, three Woodstone tit boxes (2 x 32mm hole & 1 x 28mm Hole) and three Schwegler starling boxes will be installed onto the buildings.

2.3.2 Three Schwegler 2FN and two Schwegler 1FF will be installed on retained trees within the Site, again as shown on Figure 1. The boxes will be installed between 3 and 6m above ground level, facing between southeast and southwest.

2.4 Enhancement of the site to provide measurable biodiversity net gain

2.4.1 New area of species rich habitat will be created, including areas of species rich wildflower meadow, bioswales contain a wet grassland meadow mix, green roof on numerous buildings, a new orchard area with wildflowers underneath as well as numerous other native new trees throughout.

2.4.2 The wildflower meadows areas will principally comprise a seed mix such as Emorsgate EM2, or similar, as summarise in Table 2.

Table 2. Wildflower Seed mix

Species		Percentage
Common name	Scientific name	
Yarrow	<i>Achillea millefolium</i>	0.9
Common knapweed	<i>Centaurea nigra</i>	0.9
Crosswort	<i>Cruciata laevipes</i>	0.15
Wild carrot	<i>Daucus carota</i>	0.45
Field scabious	<i>Knautia arvensis</i>	0.3
Oxeye daisy	<i>Leucanthemum vulgare</i>	0.75
Musk mallow	<i>Malva moschata</i>	2.1
Black medick	<i>Medicago lupulina</i>	0.12
Ribwort plantain	<i>Plantago lanceolata</i>	3.0

¹ Or similar



Species		Percentage
Common name	Scientific name	
Salad burnet	<i>Poterium sanguisorba</i>	2.25
Cowslip	<i>Primula veris</i>	0.12
Meadow buttercup	<i>Ranunculus acris</i>	0.54
Yellow rattle	<i>Rhinanthus minor</i>	1.05
Red campion	<i>Silene dioica</i>	2.25
Baldder campion	<i>Silene vulgaris</i>	0.12
Common bent	<i>Agrostis capillaris</i>	8.5
Crested dogstail	<i>Cynosurus cristatus</i>	29.75
Red fescue	<i>Festuca rubra</i>	25.50
Small cat's-tail	<i>Phleum bertolonii</i>	4.25
Smooth stalked meadow grass	<i>Poa pratensis</i>	17.00

2.4.3 The wildflower meadow will be used mainly around the edge of the scheme and through the existing, retained orchard and newly created orchard. Overall, 1700m² of new, species grassland will be created and managed sustainably for the benefit of biodiversity. However, as stated in section 2.1, the buffer zone along the northern edge of the site will be given over to calcareous grassland, with a mix such as Emorsgate EM6.

2.4.4 Within the bioswale areas around the Site, a species rich grassland mix that is tolerant of wetter conditions, such as Emorsgate EM8 or EM8F will be used (Or similar) and will comprise the species present in Table 3.

Table 3. Wet grassland mix

Species		Percentage
Common name	Scientific name	
Common bent	<i>Agrostis capillaris</i>	10
Meadow foxtail	<i>Alopecurus pratensis</i>	4
Sweet vernal grass	<i>Anthoxanthum odoratum</i>	1
Quaking grass	<i>Briza media</i>	1
Crested dog's tail	<i>Cynosurus cristatus</i>	32
Tufted Hair grass	<i>Deschampsia cespitosa</i>	1
Red fescue	<i>Festuca rubra</i>	24
Meadow barley	<i>Hordeum secalinum</i>	1
Meadow fescue	<i>Festuca pratensis</i>	6
Yarrow	<i>Achillea millefolium</i>	0.5
Sneezewort	<i>Achillea ptarmica</i>	0.2
Betony	<i>Betonica officinalis</i>	1
Common knapweed	<i>Centaurea nigra</i>	2.5
Meadowsweet	<i>Filipendula Ulmaria</i>	2
Lady's bedstraw	<i>Galium verum</i>	1
Water avens	<i>Geum rivale</i>	0.5
Oxeye daisy	<i>Leucanthemum vulgare</i>	0.6
Greater birds foot trefoil	<i>Lotus pedunculatus</i>	0.8
Ribwort plantain	<i>Plantago lanceolata</i>	1
Cowslip	<i>Primula veris</i>	0.2
Selfheal	<i>Primula vulgaris</i>	1.5



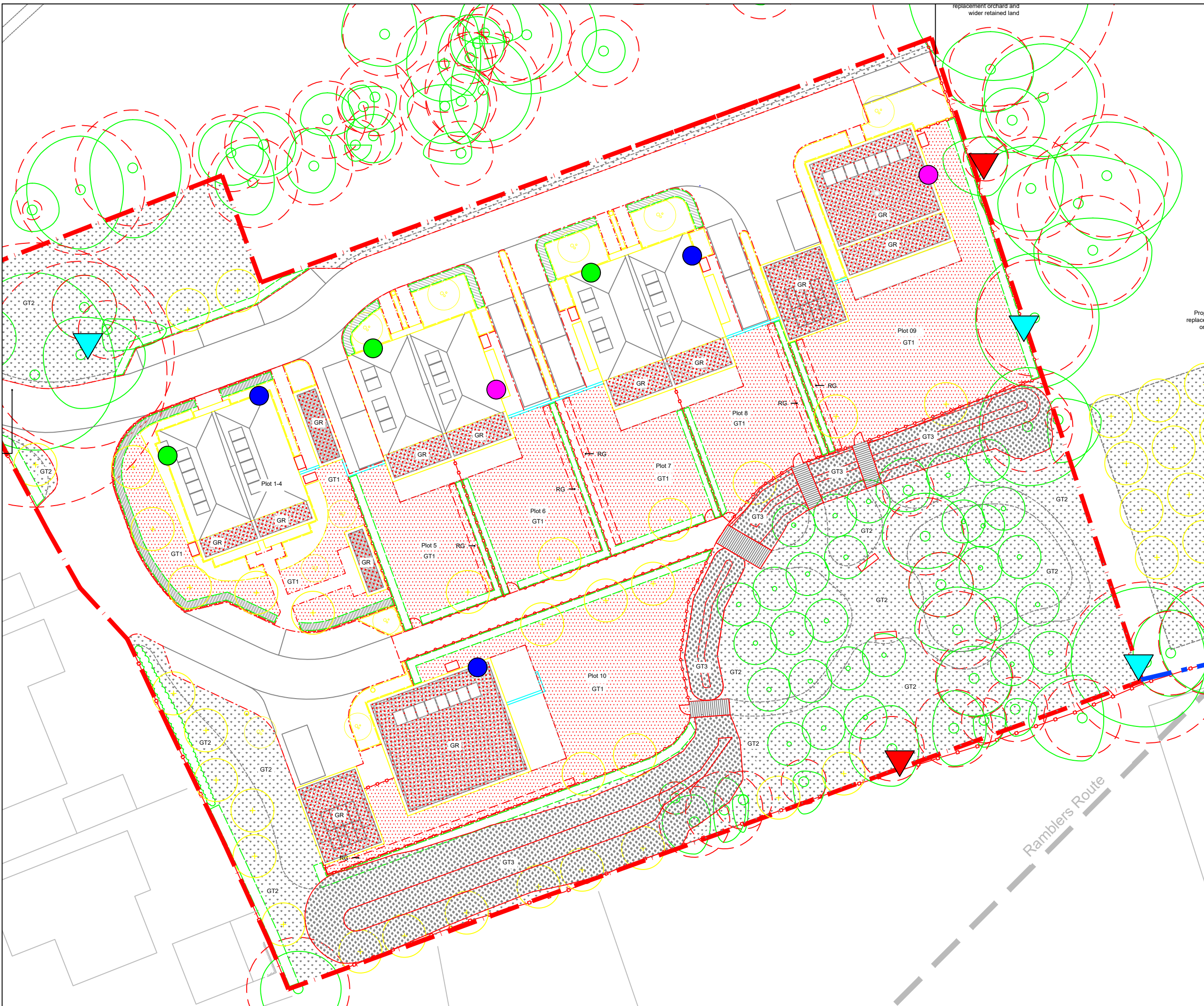
Species		Percentage
Common name	Scientific name	
Meadow buttercup	<i>Ranunculus repens</i>	2.5
Yellow rattle	<i>Rhinanthus minor</i>	1.5
Common sorrel	<i>Rumex acetosa</i>	1.5
Great burnet	<i>Sanguisorba officinalis</i>	1
Ragged robin	<i>Silene flos-cuculi</i>	0.2
Tufted vetch	<i>Vicia cracca</i>	1.5

- 2.4.5 In addition to the numerous varieties of apple and pear that will be planted in the new orchard area, numerous hazel, silver birch, hornbeam and cherry will be planted in appropriate locations throughout the Site. These will be supplemented, as well as connected, by species rich, native hedgerows comprising hawthorn, blackthorn, field maple, hazel and dog rose.
- 2.4.6 Many of the buildings will support green roofs, covering in excess of 400m².
- 2.4.7 Full details of the species composition within each newly created habitat, as well as the location and distribution within the Site is presented on the Landscape Masterplan, reproduced as Appendix 1 (Fabrik Landscape Architects, Drawing Number D3303-FAB-00-XX-DSR-L-3001 & 3002). In total, over 3000m² will be given over to green infrastructure within the Site, with an additional 500m² of new orchard created immediate adjacent to the Site's eastern boundary.
- 2.4.8 The initial works required to create and enhance these habitats, as well as the long term maintenance, is covered within both the Landscape Management Plan (Fabrik: D3303-FAB-00-XX-SP-L-0002 PL01 *Landscape Maintenance & Management Specification*, August 2023) and The Landscape and Ecology Management Plan (Derek Finnie Associates Report Ref: DFA23053).

3 SUMMARY

- 3.1.1 The Ecology Design Strategy presents the specific ecological enhancements that will be undertaken within the, as required by Condition 24, to ensure that ecological benefits of the scheme are maximised and managed in sustainable manner in the long term.





Legend

Bird boxes

- Starling box
- Tit box
- Sparrow box

Bat boxes

- ▼ Schwegler 1FF
- ▼ Schwegler 2FN

Drawing Number:

Figure 1

Title:

Bird & Bat Box Locations

Date:

October 2023

Project:

Castelmer Fruit Farm

Client:

GreenPlan



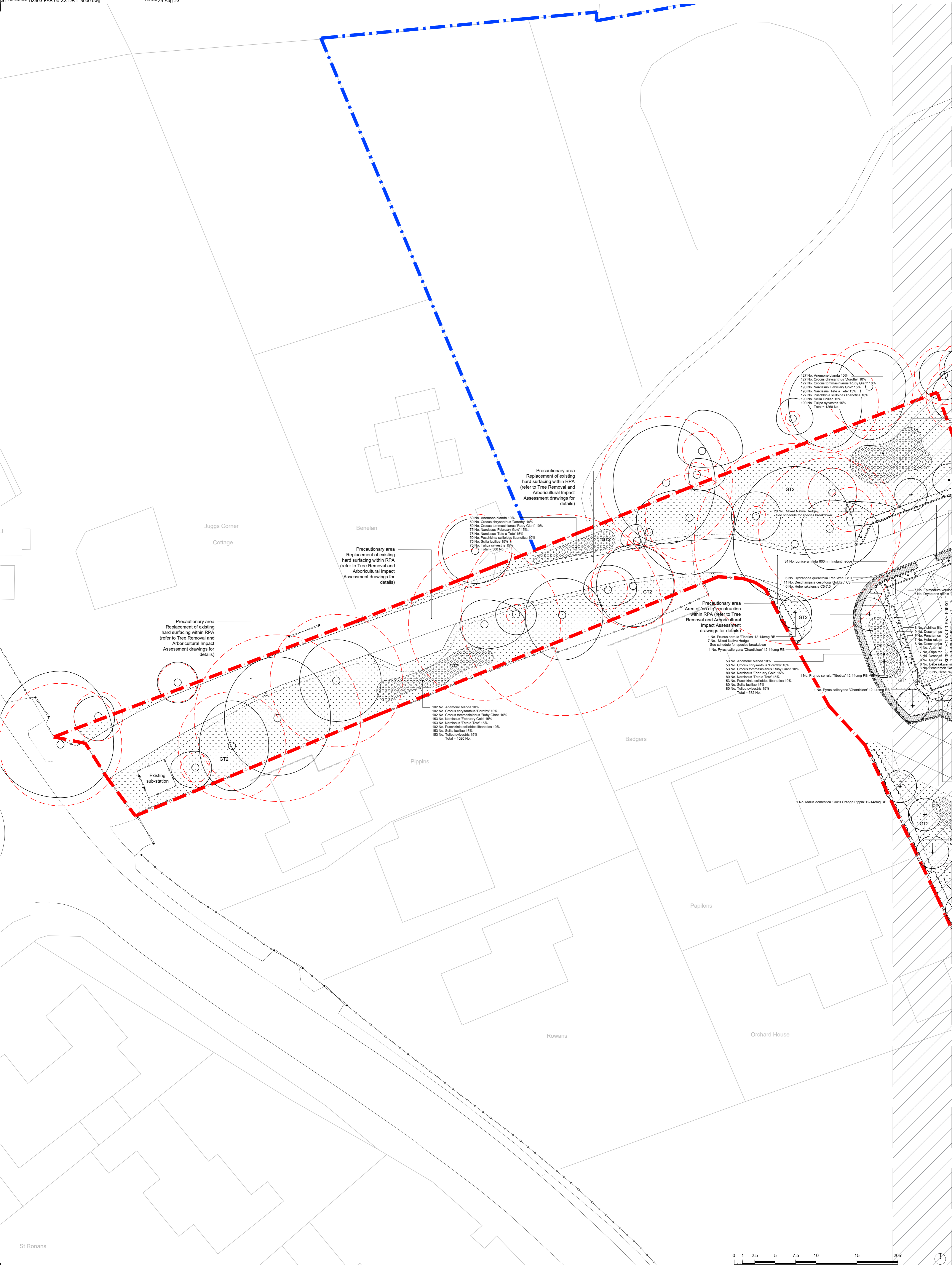
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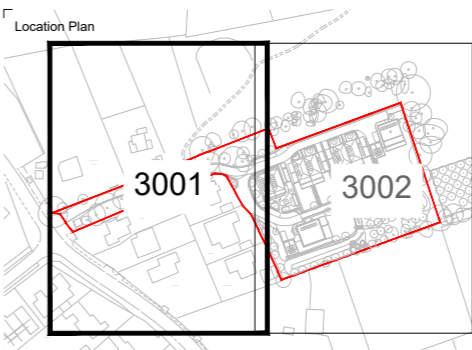
Appendix 1

Landscape Strategy (Fabrik)





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Project: **Castlimer Fruit Farm, Kingston**
 Drawing Title: **Detailed Planting Plan - Sheet 1**
 Issued For: **ISSUED FOR PLANNING APPROVAL**

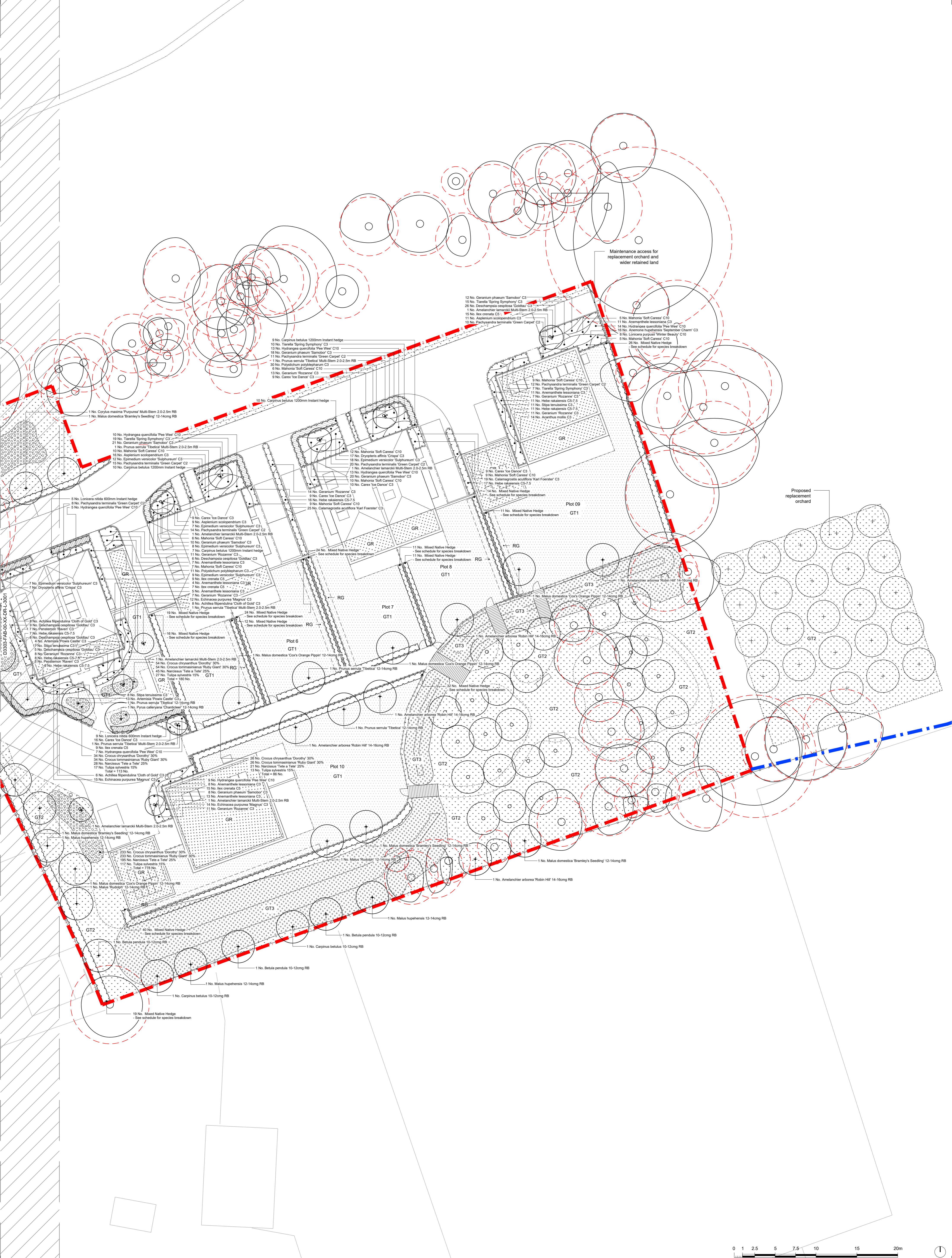
Client: **Greenplan Designer Homes**

Drawn By	Checked By	Drawn Scale	Date of First Issue
af	sg	1:200 @ A1	Aug 2023

Project Number	Origin	Zone	Level	File Type	Role	Name	Revision
D3303	FAB	00	XX	DR	L	3001	PL01

Revision	Date	Reason	By	Check
PL01	25-08-2023	Issued to discharge landscape planning conditions	af	sg
			Drawn	Checked

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Revision	Date	Reason	Drawn	Checked
PL01	25-08-2023	Issued to discharge landscape planning conditions	af	sg



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Project: **Castlemore Fruit Farm, Kingston**
 Drawing Title: **Detailed Planting Plan - Sheet 2**
 Client: **Greenplan Designer Homes**

Drawn By: **af** Checked By: **sg** Drawn Scale: **1:200 @ A1** Date of First Issue: **Aug | 2023**

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Project Number	Origin	Zone	Level	File Type	Rate	Name	Revision
D3303	FAB	00	XX	DR	L	3002	PL01