

SITE ANALYSIS

15 Clover Hill Circuit, Bangalow NSW in Byron Bay Shire Council is a north-east south-west oriented 838.1m<sup>2</sup> site (including a 10.2m<sup>2</sup> easement near Clover Hill Circuit), enjoying north facing private open space towards the rear/centre of the site when the design is considered. The site is wedge shaped and rises approximately 9.5m up from the road. It is in residential zone R2, surrounded by 1 to 2 storey residential buildings and an area zoned R3 which is not yet built up. The site is located within walking/ bikeriding distance to Bangalow Village. The main sources of noise are from residential car traffic on Clover Hill Circuit and some distant traffic noise from the Pacific Hwy.

The site is currently unbuilt and was part of Bangalow's land release for residential developments. The site is prepared for townwater and sewer, located in an easment on the northwest side of the property, along Clover Hill Circuit. It has 2 existing trees on the north west side. Neighbouring Lot 21 to the south east has a new dwelling at the rear and another planned dwelling at the front which is subject to approval.

FSR for the site is 0.5:1 which gives a development an allowed maximum floorspace of 838.1\*50% = 419.05m<sup>2</sup>, the proposal has a total gross floor space of 138.6+54.4m<sup>2</sup>=193m<sup>2</sup>  
The permeable surface of the site has to be a minimum of 25% of the site area which is 838.1\*25% = 209.5m<sup>2</sup>. The proposed site has a total permeable surface area of 351m<sup>2</sup>

There are currently district views from the front of the site over Clover Hill Cresnet and the rear has adjoining existing buildings on Marlewood Pl. The site is not located in a flood area and not within a mapped Acid Sulfate soil area.

The proposal is a modest family home with a secondary dwelling. It contains a larger 2 storey dwelling (1) at the front and a smaller single storey secondary dwelling (2) at the rear. They are oriented with all living spaces towards the north to create indoor & outdoor sunny private open space for both of the dwellings. The front dwelling has been rotated to sit in the centre of the site towards the road to maximise solar access and district views to adjacent neighbours. The rear dwelling is a low building located along the rear boundary. Together with planting, it forms a natural screen to the rear neighbour.

Each dwelling has a watertank to collect stormwater from the roofs to be used for washing machines, to flush toilets and to irrigate gardens when required and possible.

The proposed maximum building height is under 9m and the side building plane of 45° is almost entirely followed. The only encroachment is at the front roof, mainly on the NW side which is not causing any adverse solar access to neighbours and the lower edge of the highest roof overhang on the SE side has a miniscule encroachment causing insignificant solar loss.

Given the wedge shape of the site and the topography we have minimised the encroachment of the 45° plane by a range of measures;  
• the entire front building has been set back from Clover Hill Circuit by 8.9m instead of the minimum of 4.5/5.5m stated by the LEP;  
• the main building has been rotated to the centre of the site at the front;  
• the garage is designed to be partly built into the hill and  
• the skillion roofs slope towards the SE allowing maximum sunlight to the adjacent property.  
The rotation has also opened up for bigger views for the SE neighbour.

All rooms in both dwellings has access to natural ventilation and an abundance of daylight thru large windows, doors and high level passive louvre ventilation. Glazing to the NVW is shaded by eaves or awnings from the hot summer sun but letting the warming winter sun shine in.

The entry access to both dwellings is from the driveway via shared stairs and walkways along the SE side of the larger dwelling. To maintain privacy as well as daylight, windows and louvres along this wall has been either made opaque to allow for cross ventilation and daylight and/or additional internal soft screening is available when required for privacy.

The rear dwelling's roof has been fitted with PV panels as this roof has great solar orientation and is perfectly suited to collect the sunenergy. The generated power is for common use.

As mentioned the siting of the dwellings have been driven by a number of factors;  
• minimum impact on neighbours,  
• maximising the usable northern private open space,  
• the slope of the land and also  
• the desire to have a pleasant garden outlook with a soft landscaped edge towards the neighbours at natural ground line. An undulating landscape is also reducing the need for retaining walls and instead makes the landscape variable and pleasing to the eye. Native vegetation is proposed to be used extensively, mixed with some rainforest plants and a few feature plants and trees in areas of high visibility.

The visual impact of the proposal has been designed to respond to the sloping site, to sit well in the landscape and to create interest.

Using level changes within the floor plan of the front dwelling impact less on the cut. To then position the rear dwelling higher also has the advantage of creating natural privacy between dwelling 1 & 2 without using tall fences but using the slope of the land and landscaping for separation.

Both dwellings get to enjoy generous northfacing private gardens, accessed directly from living areas with year round sunlight.

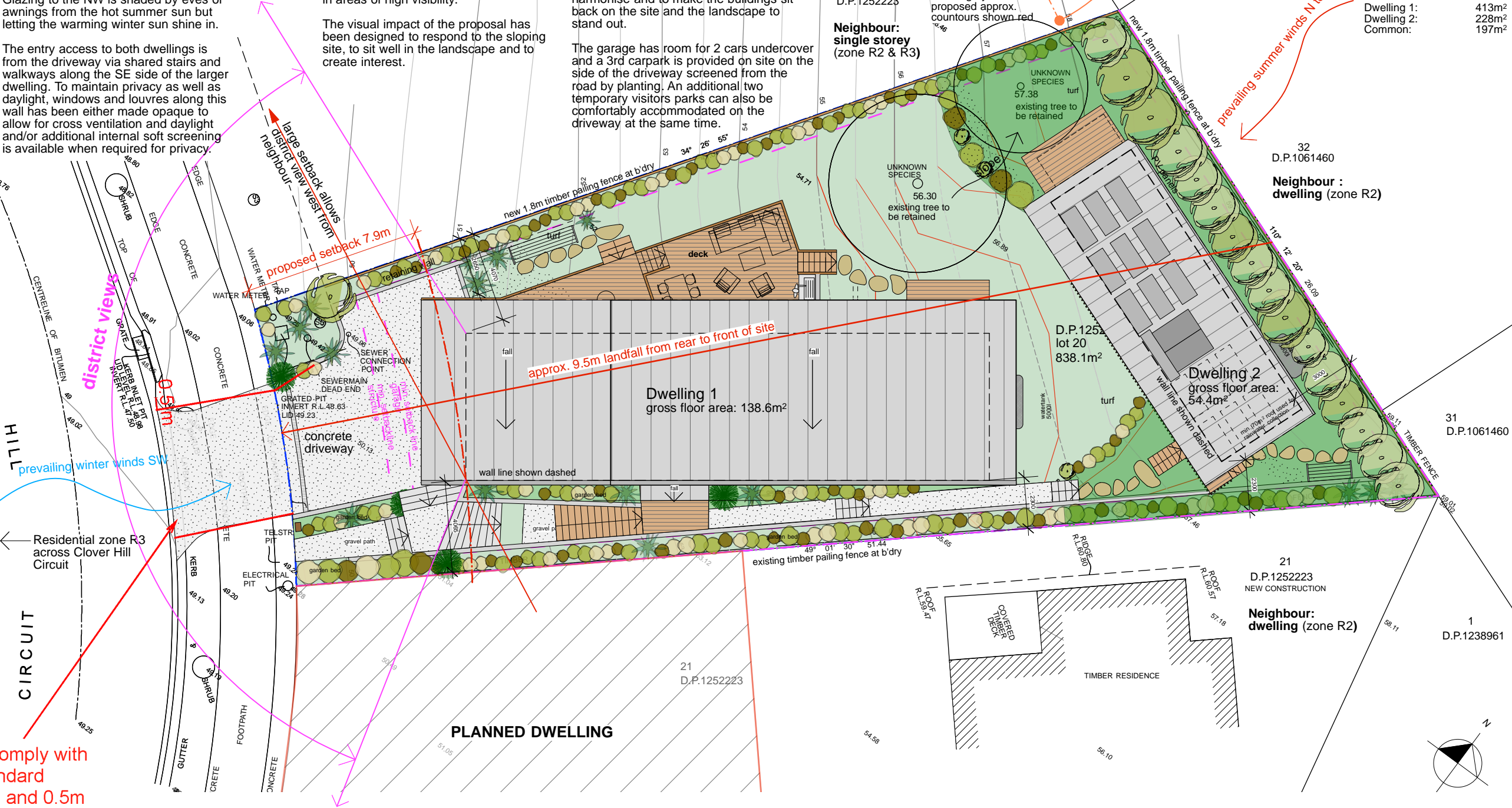
The facades has been articulated by its' material use and setback of walls. This, together with awnings, balconies and plants give the facades a depth as the shadows throughout the day play over the various surfaces. The materials are chosen to be both sustainable and durable over time and in earthy colours. Both the dwellings have the same palette to harmonise and to make the buildings sit back on the site and the landscape to stand out.

The garage has room for 2 cars undercover and a 3rd carpark is provided on site on the side of the driveway screened from the road by planting. An additional two temporary visitors parks can also be comfortably accommodated on the driveway at the same time.

open space/ pervious area & FSR calculations	requirements	proposed dwellings.
FSR 0.5:1 maximum for site	838.1*50%= <b>419.05m<sup>2</sup></b>	<b>193m<sup>2</sup> &lt;</b> 419.05m <sup>2</sup>
landscaped open space/ pervious area min. 25% of site	25% of 838.1m <sup>2</sup> = <b>209.5m<sup>2</sup></b>	<b>351m<sup>2</sup> &gt;</b> 209.5m <sup>2</sup>
pervious area around large dwelling (1)	<b>90m<sup>2</sup></b> (incl. min 25% or 22.5m <sup>2</sup> deep soil)	<b>158m<sup>2</sup></b> (incl. min 22.5m <sup>2</sup> deep soil)
pervious area around smaller dwelling (2)	<b>90m<sup>2</sup></b> (incl. min 25% or 22.5m <sup>2</sup> deep soil)	<b>131m<sup>2</sup></b> (incl. min 22.5m <sup>2</sup> deep soil)
pervious areas around common access and driveway		<b>62m<sup>2</sup></b>
total pervious area	<b>209.5m<sup>2</sup></b>	<b>351m<sup>2</sup></b>

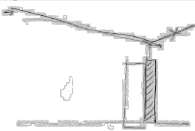
Approximate site area use per dwelling:

Dwelling 1:	413m <sup>2</sup>
Dwelling 2:	228m <sup>2</sup>
Common:	197m <sup>2</sup>



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Issue	Note	Date	Issue	Note	Date
DA	For Development Application	21/09/21			
DA-A	DA adjusted to 3m rear setback	22/04/23			



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Viktoria & Darren Bridgstock  
**Bangalow family home**  
15 Clover Hill Circuit  
Bangalow, NSW 2479  
Lot 20 D.P.1252223

Drawing Name:	Drawn: ulrika saar	Drawing No.:	Issue :
<b>site plan and site analysis</b>		<b>DA1.01</b>	<b>DA-A</b>
Date : 2022 03 23	Scale: 1:200 @ A3	0 2 4 10m	



legend

This concept landscape plan has been prepared in collaboration with Anton Johnson of Ingadi Garden Care. The garden has a majority of native plants with a few feature tropical plants.

Area 1

Characterised by lower decorative vegetation along the building wall and entrance way. Examples of considered plants:

Blue flax lily - dianella caerulea 40cm  
Native Violet -Viola hederacea 10cm  
Xanadu - Philodendron 'Xanadu' 0.6-1.2m

Area 2

Characterised by soft screening plants, shrubs and small trees that can be pruned to the right height to soften the edge against the neighbours fence without cutting out sun. A mix of plants have been considered to make an interesting textured edge. Examples of considered plants and shrubs:

Veiny Wilkiea - Wilkiea huegeliana 1-8m  
Weeping Bottlebrush - Callistemon viminalis 3m  
Tree Fern - Cyathea sp 2-4m  
Walking Stick Palm - Liospadix monostachya 2m  
Brush cherry - Syzygium australe 5m  
'Hinterland Gold'

Area 3

Characterised by scented evergreen shrubs/ small trees priding privacy between dwellings. Example of plant:

Plum Myrtle -Piidiostigma glabrum 1-2m  
Grey myrtle -Backhousia myrtifolia 3m  
Bolwarra - Eupomatia laurina 3-5m

Area 4

Characterised by attractive flowering trees and evergreen texture. Example of plants:

Native Gardenia - Randia fitzalanii 5-6m  
Lilly Pilly variety 5-8m  
Native frangipani - Hymenosporum flavum 5-8m  
Lemon Myrtle - Backhousia citriodora 6-10m

Area 5

Characterised by a mix of easy accessible edible plants and herbs in the area around the bbq & kitchen area and screening taller shrubs in areas that needs a little more privacy i.e. boundary edge and outside ensuite. Example of plants:

Pointed-leaf Hovea - Hovea acutifolia 2-5m  
Broad-leaf Palm Lilly - Cordyline petiolaris 5m  
Finger Lime - Citrus australasica 2-5m  
Native Ginger - Alpinia caerulea 2m  
Native Raspberry - Rubus rosifolius 2m  
Blue Tongue - Melastoma affine 1-3m

Area 6

Characterised by a welcoming mixed garden of flowering trees/ bushes, textures and small flowers throughout the year. Lower plants towards the boundry to not impaid vision from and to the driveway and taller plant further away. Example of plants:

Blue Chalksticks - Senecio serpens 25-30cm  
Alternanthera dentata "Little Ruby" 40cm  
Everlasting or Paper Daisy -Xerochrysum bracteatum 40cm  
Xanadu - Philodendron 'Xanadu' 0.6-1.2m  
Alcantarea imperialis 'Silver Plum' 1.5m  
Native Ginger -Alpinia caerulea 2m

Feature trees

Snow in summer - Melaleuca linariifolia 6-10m  
Pandanus - Pandanus tectorius 5-6m

maintenance

Areas with taller trees and shrubs to be trimmed as required for view & privacy.  
Melaleuca linariifolia to be underpruned & thinned as required. etc



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Drawing Name: **landscape concept plan**  
Date : 2022 03 23

Drawn: ulrika saar  
Scale: 1:200 @ A3

Drawing No.: **DA1.02**  
0 2 4 10m

Issue : **DA-B**

Staging of build

- Stage 1: Dwelling 2 with associated landscaping, carparks for 2 cars and associated drainage.
- Stage 2: Dwelling 1 and remaining landscaping and connections. Refer DA1.06

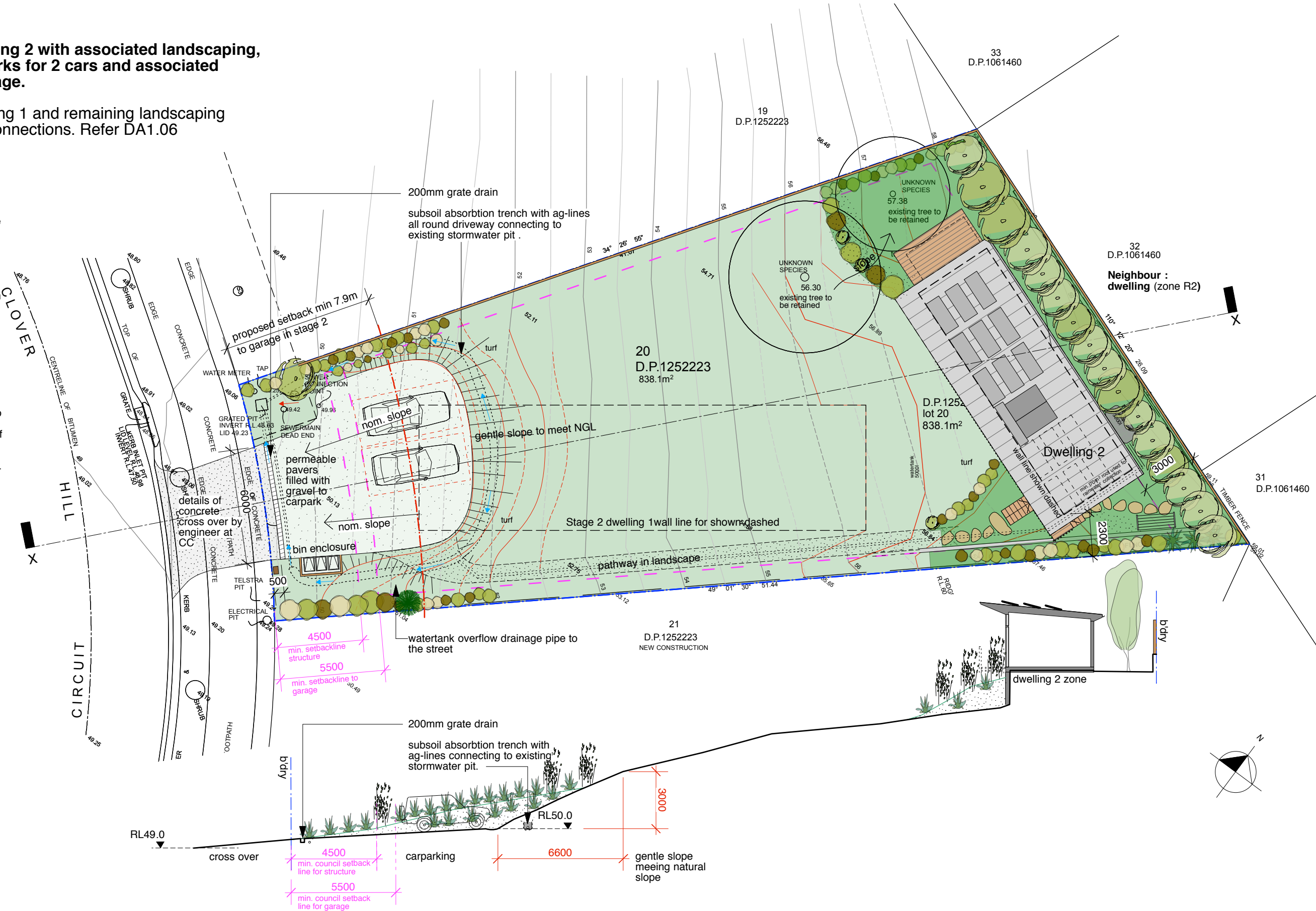
In stage 1 the driveway will have a permeable paver with gravel infill

This choice allows us to reuse and recycle the gravel at stage 2.

To adress potential run off a subsoil 400x400 absorbtion trench wrapped in geotextile and backfilld with clean 20mm blumetal is proposed around the perimeter of carpark. Ag-lines are running thru the centre of the trench and connecting to existing stormwater pit on site.

Any additional surface water will filter thru the permeable surface of the turf and the gravel filled pavers and is also aided by a grate drain in the driveway near the boundary of the site.

The gentle slope to meet NGL is covered in turf and the side boundaries has shrubs to stabilise the soil further.



cross section X | middle of driveway stage 1

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Issue	Note	Date	Issue	Note	Date			Drawing Name:	Drawn: ulrika saar	Drawing No.:	Issue :
DA	For Development Application	21/09/21						<b>building staging plan stage 1</b>		<b>DA1.05</b>	<b>DA-A</b>
DA-A	DA adjusted to 3m rear setback	22/04/23						Date : 2022 03 23	Scale: 1:200 @ A3	0 2 4 10m	

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Lot 20 D.P.1252223



Staging of build

- Stage 1:

Dwelling 2 with associated landscaping and carpark for 2 cars and associated drainage, refer drawing DA1.05.
- Stage 2:

Dwelling 1 with all remaining landscaping and associated walkways to complete and connect both dwellings. Garage has room for 2 cars and 1 dedicated driveway carpark + temporary visitors off street carparks at completion.



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Drawing Name:

**building staging plan**

**Stage 2**

Date : 2022 03 23

Drawn: ulrika saar

Drawing No.:

**DA1.06**

0 2 4 10m

Issue :

**DA-A**

Scale: 1:200 @ A3

Neighbour: dwelling (zone R2)

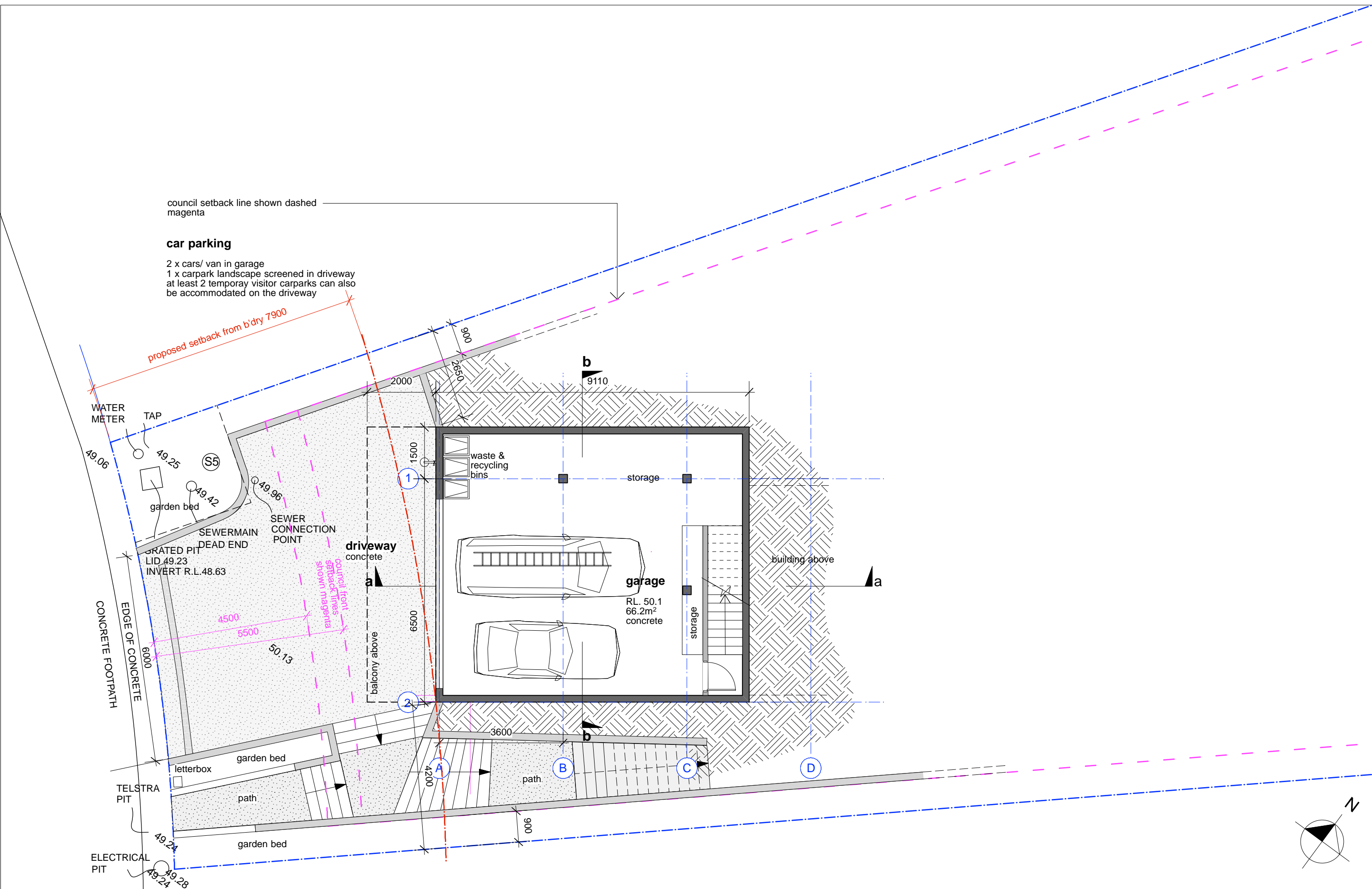
Neighbour: dwelling (zone R2)

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Drawing Name: **dwelling 1, garage floor plan**

Date : 2022 03 23

Drawn: ulrika saar

Scale: 1:100 @ A3

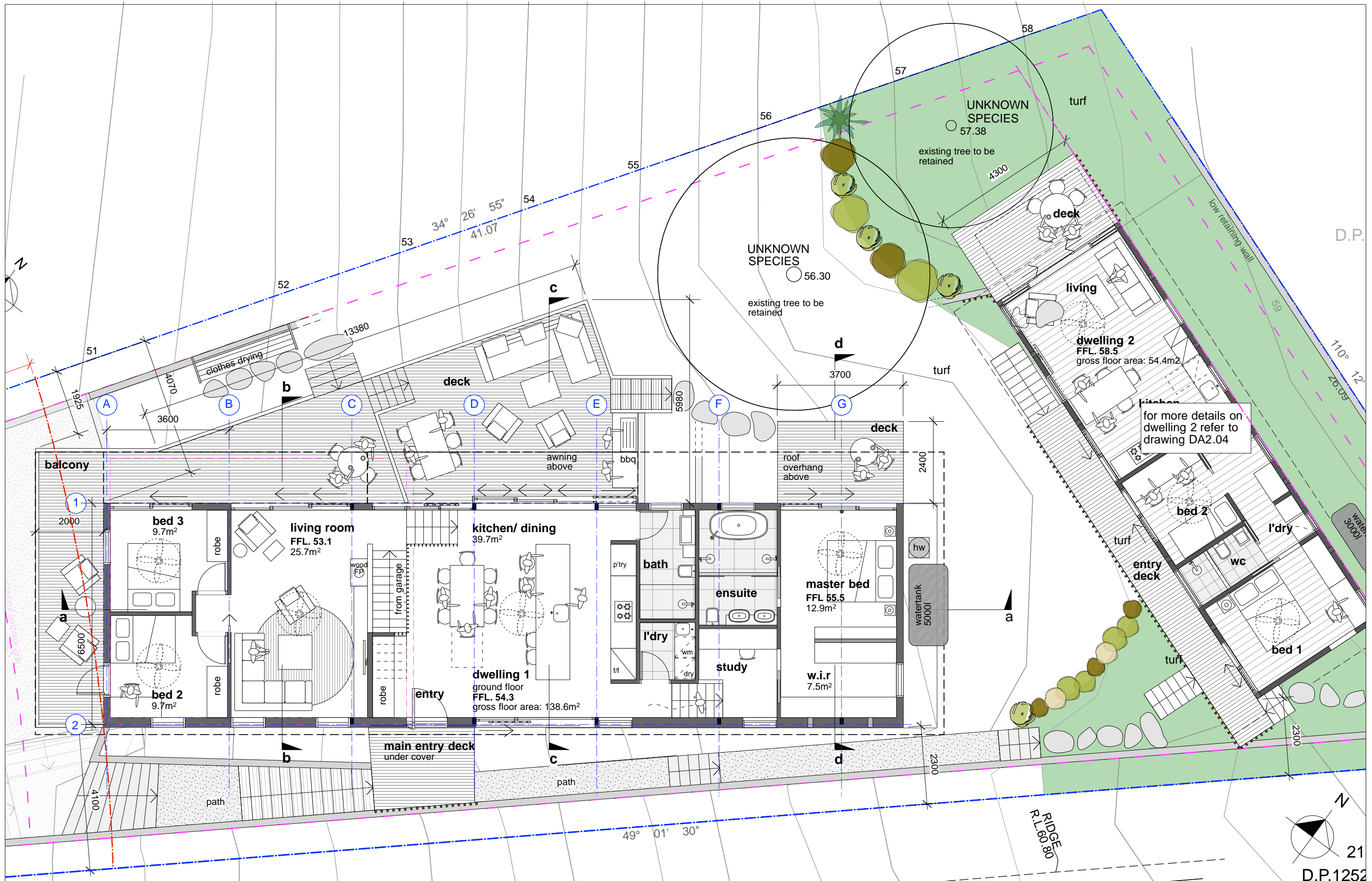
Drawing No.: **DA2.01**

0 1 2 5m

Issue : **DA-A**

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Lot 20 D.P.1252223

Drawing Name: **dwelling 1, ground floor plan**

Date : 2022 03 23

Drawn: ulrika saar

Scale: 1:100 @ A3

Drawing No.: **DA2.02**

Issue : **DA-A**

0 1 2 5m



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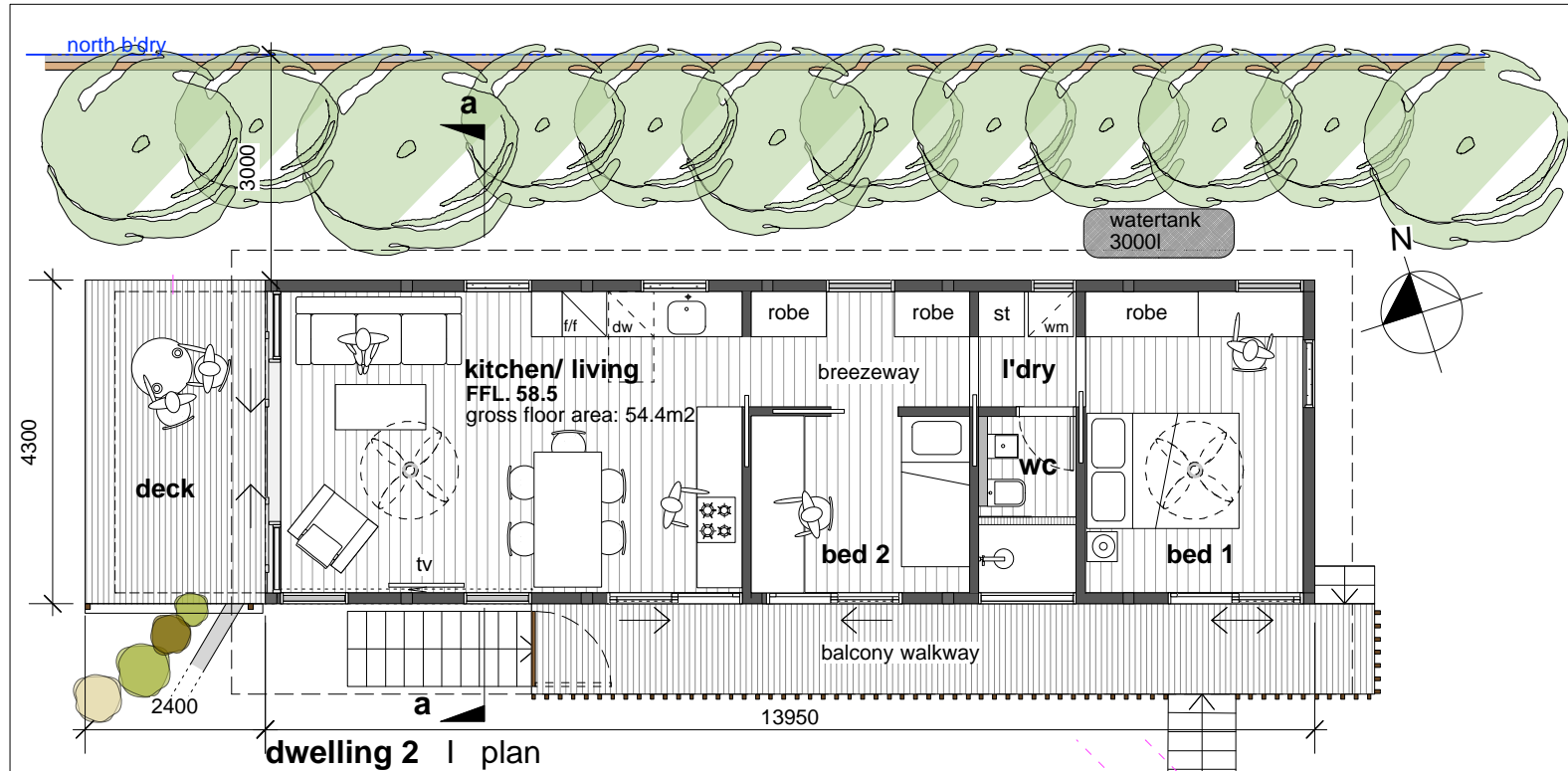
Drawing Name: **dwelling 1 & 2 roof plans**  
Date: 2022 03 23

Drawn: ulrika saar  
Scale: 1:100 @ A3

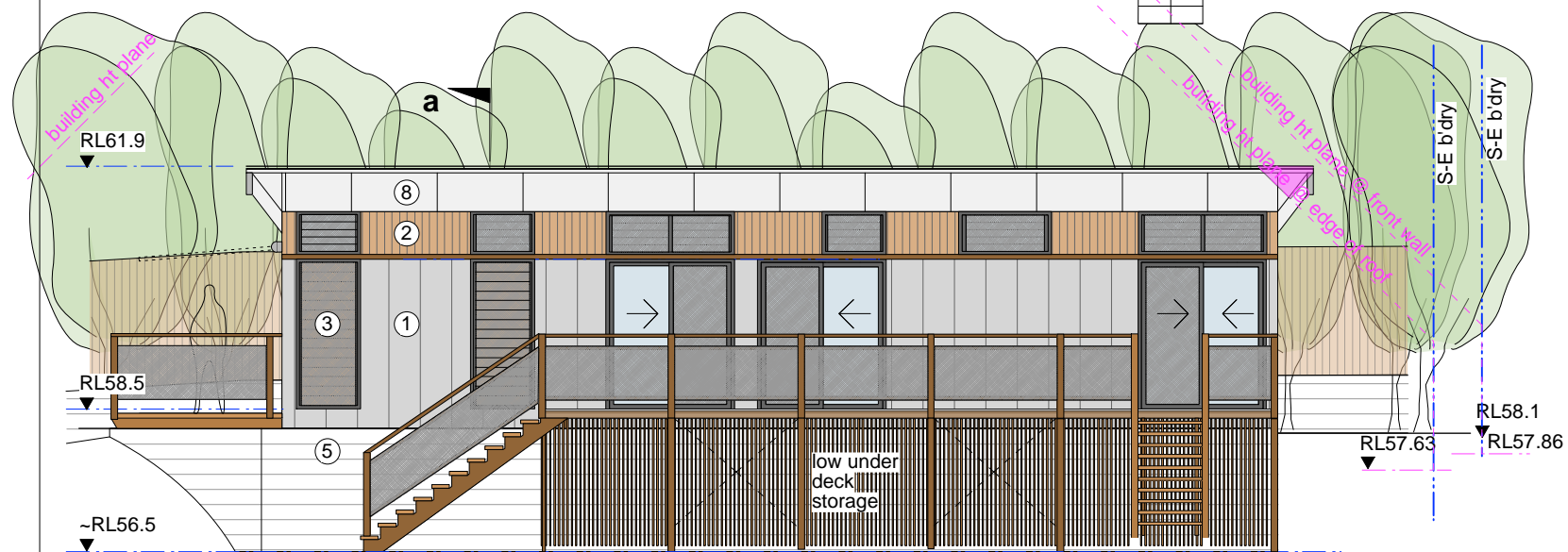
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Issue: **DA-A**

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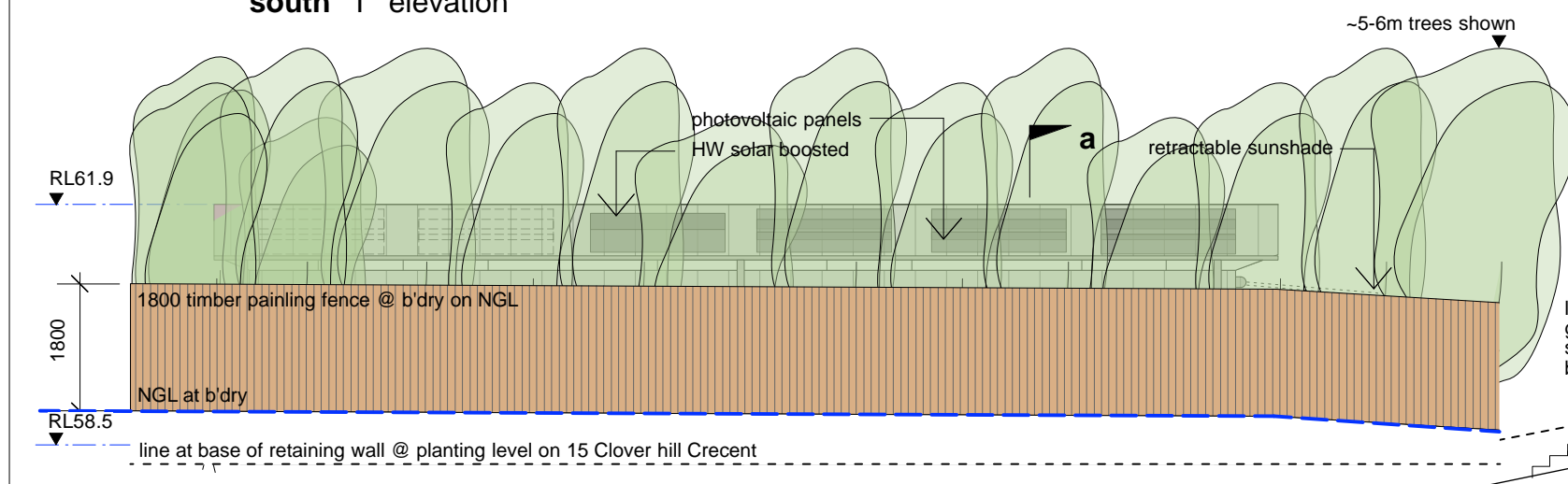




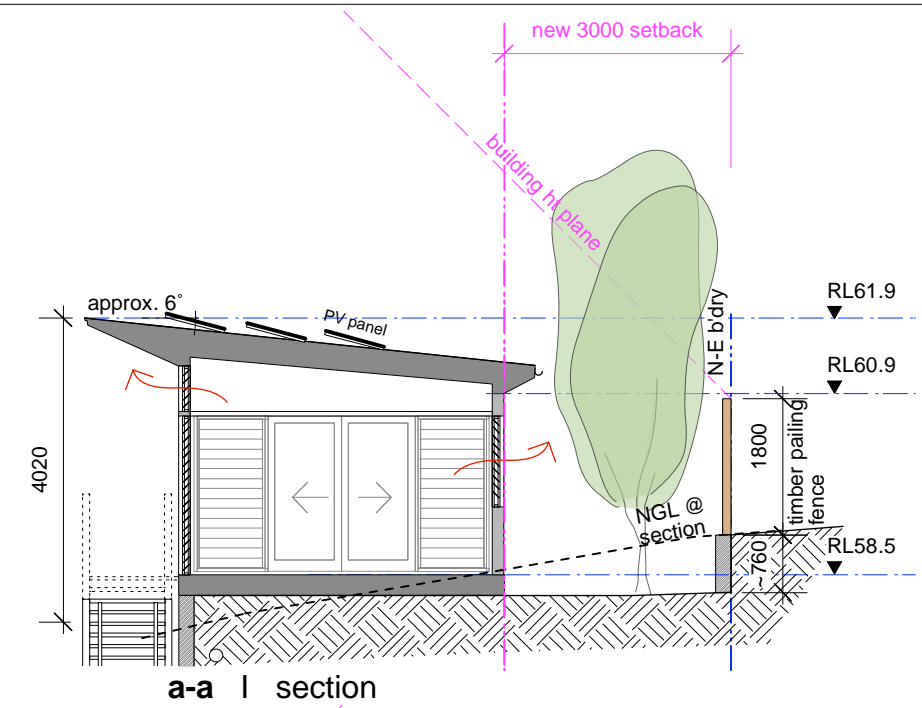
dwelling 2 | plan



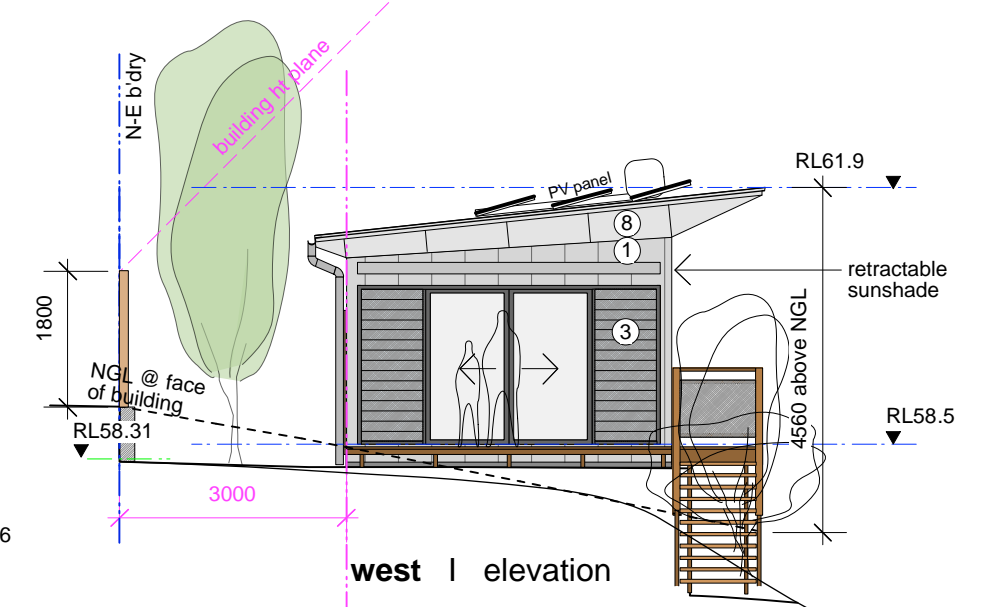
south | elevation



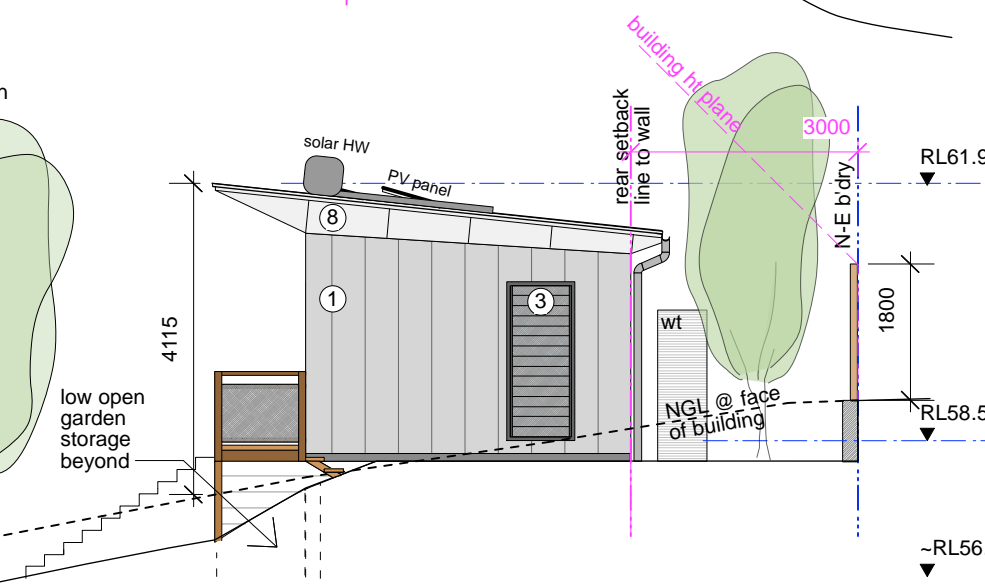
north | elevation



a-a | section



west | elevation



north | elevation

**external | finishes legend**

- 1 colourbond steel roof and wall cladding
- 2 timberwall cladding
- 3 clear & opaque glass and timber louvres in selected areas to manage privacy
- 4 timber privacy screen
- 5 concrete block wall
- 6 clear glass
- 7 obscure glass
- 8 painted soffit

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Lot 20 D.P.1252223

Drawing Name: **dwelling 2 plan sections & elevations**

Drawn: ulrika saar

Date: 2022 03 23

Scale: 1:100 @ A3

Drawing No.: **DA2.04**


Issue: **DA-B**

0 1 2 5m

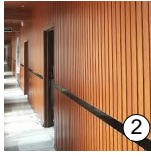




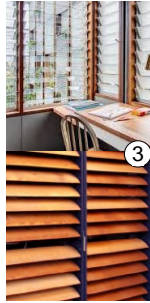
external | finishes legend




1 colourbond steel roof and wall cladding




2 timberwall cladding




3 clear & opaque glass and timber louvres in selected areas to manage privacy



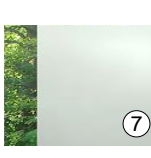
4 timber privacy & sun screens




5 concrete block wall



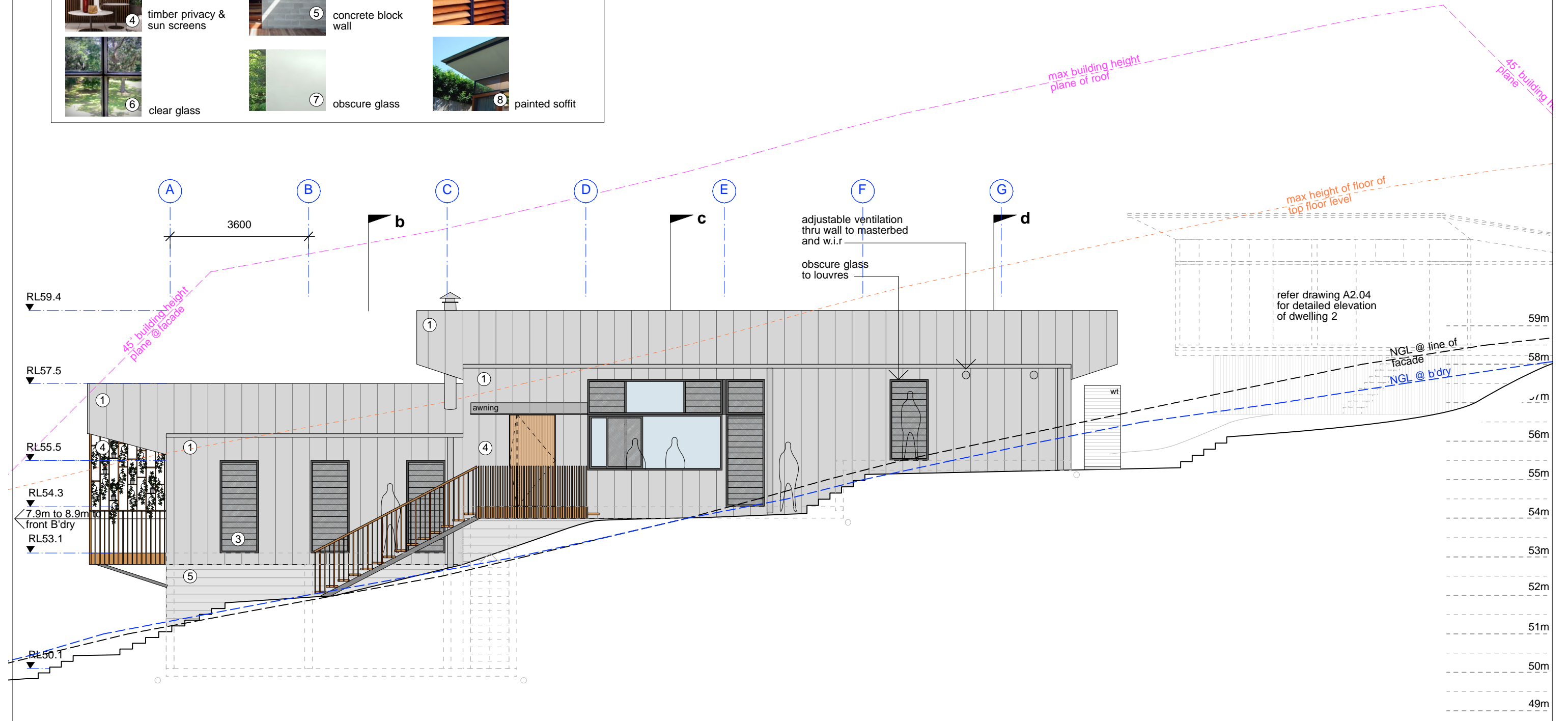
6 clear glass



7 obscure glass



8 painted soffit



elevation | south east

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Drawing Name: **dwelling 1, south east elevation**

Date : 2022 03 23

Drawn: ulrika saar

Scale: 1:100 @ A3

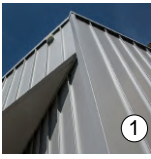
Drawing No.: **DA3.02**

Issue : **DA-A**


0 1 2 5m



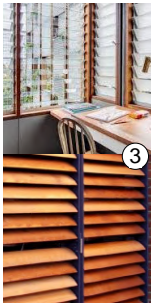
external | finishes legend




1 colourbond steel roof and wall cladding




2 timberwall cladding




3 clear & opaque glass and timber louvres in selected areas to manage privacy



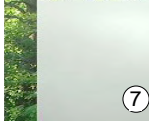
4 timber privacy & sun screens




5 concrete block wall



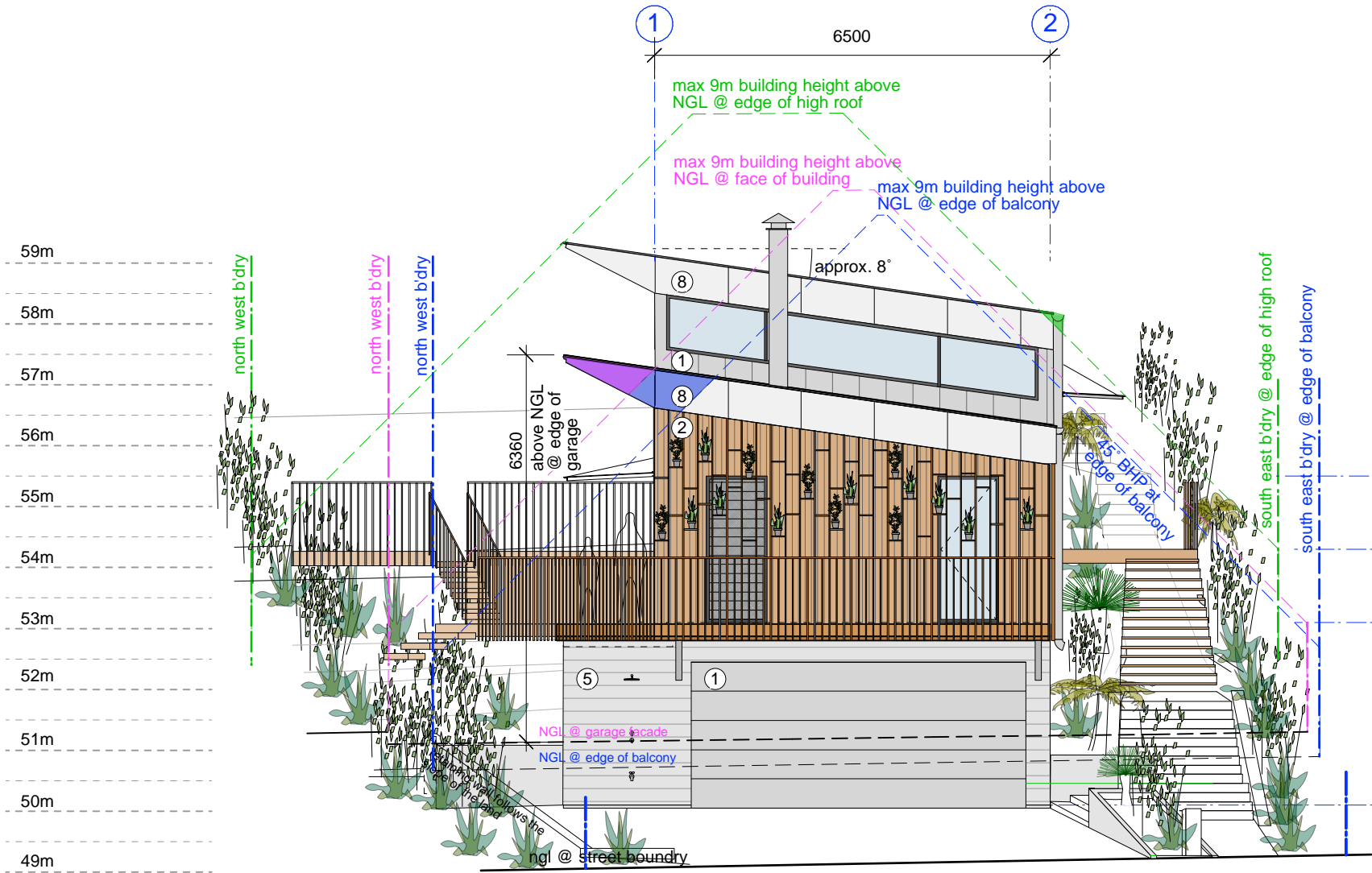
6 clear glass



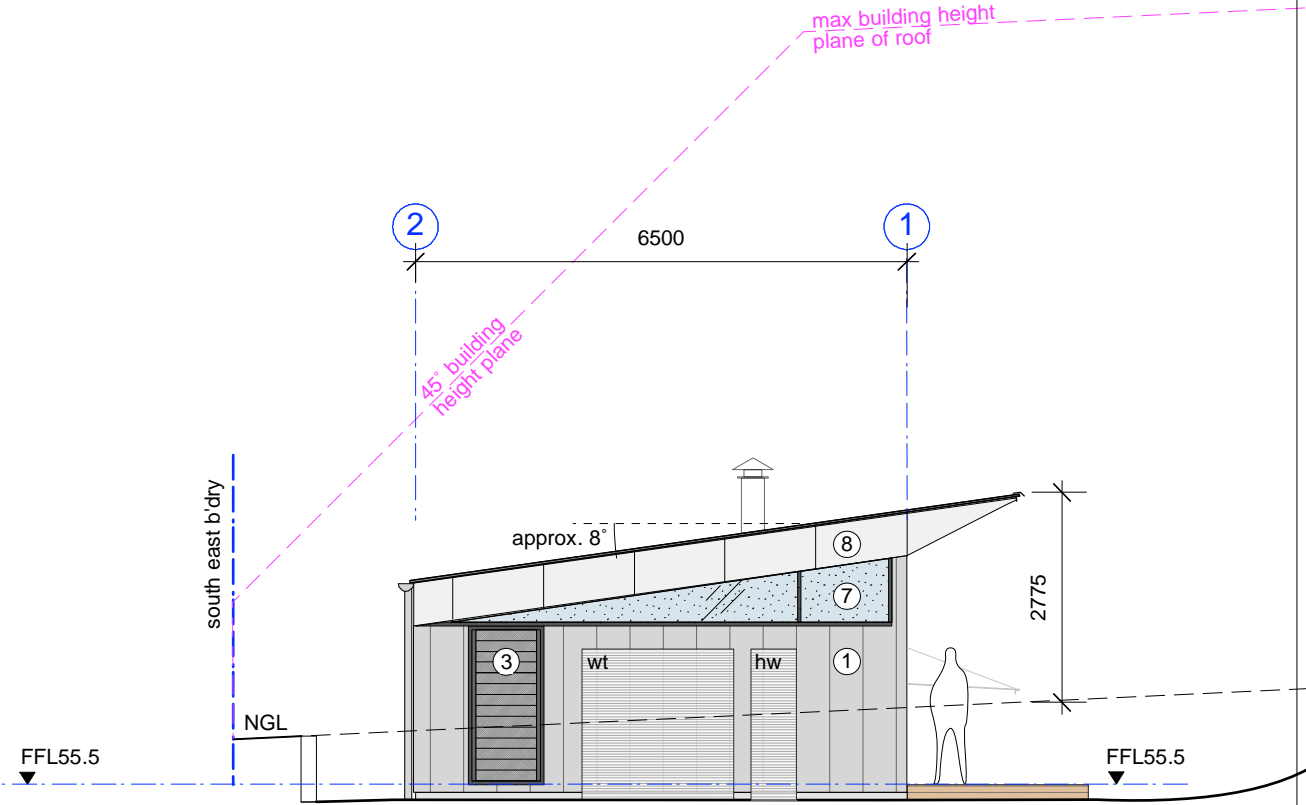
7 obscure glass



8 painted soffit



elevation | south west



elevation | north east

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Drawing Name: **dwelling 1, south west & north east elevations**

Date : 2022 03 23

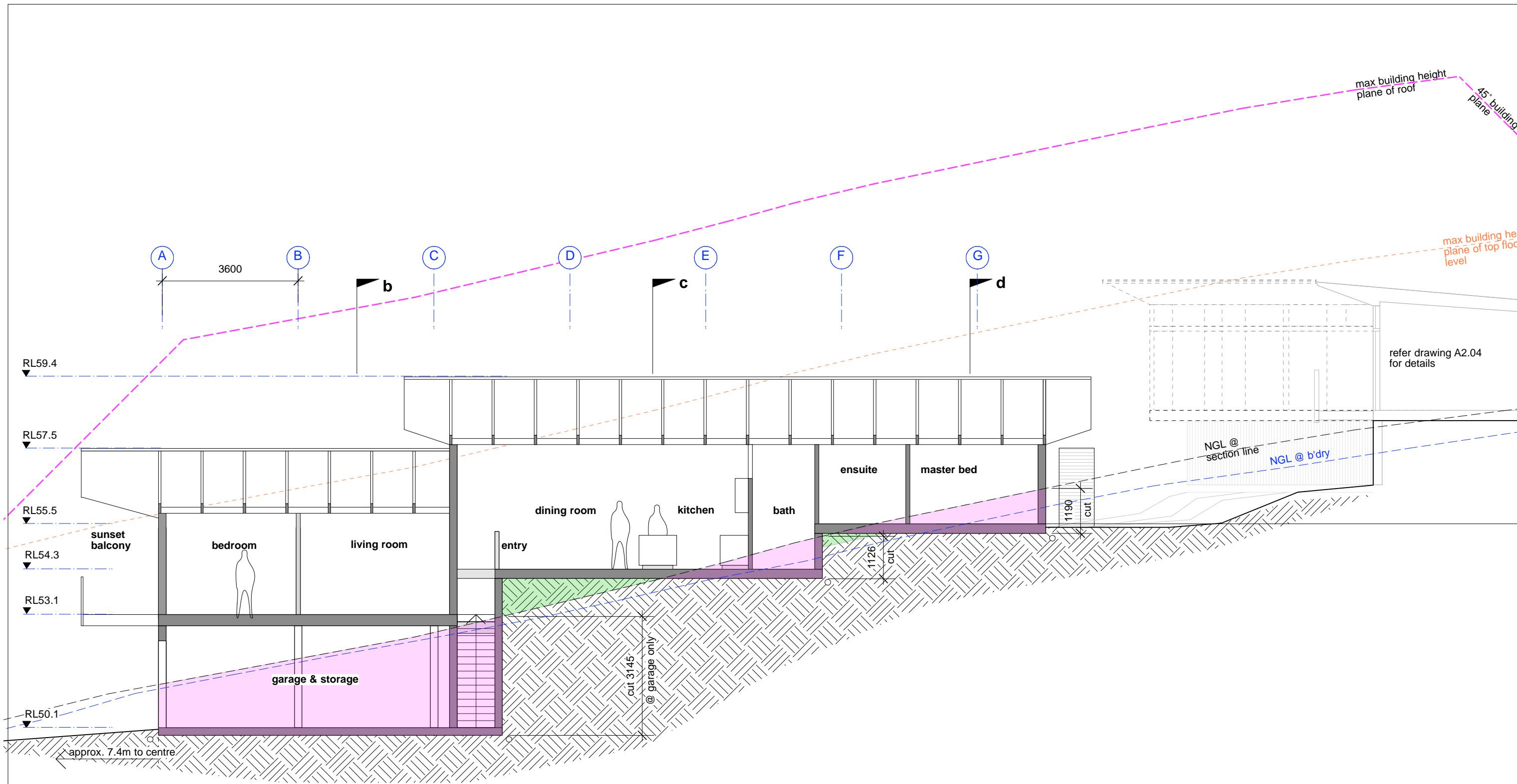
Drawn: ulrika saar

Scale: 1:100 @ A3

Drawing No.: **DA3.03**

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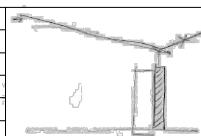




section I A

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Lot 20 D.P.1252223

Drawing Name:	Drawn: ulrika saar	Drawing No.:	Issue :
<b>dwelling 1, section a-a</b>		<b>DA4.01</b>	<b>DA-A</b>
Date : 2022 03 23	Scale: 1:100 @ A3	0 1 2 5m	



