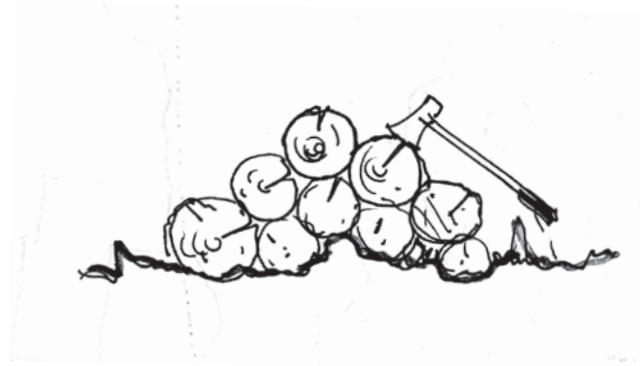




PART 7

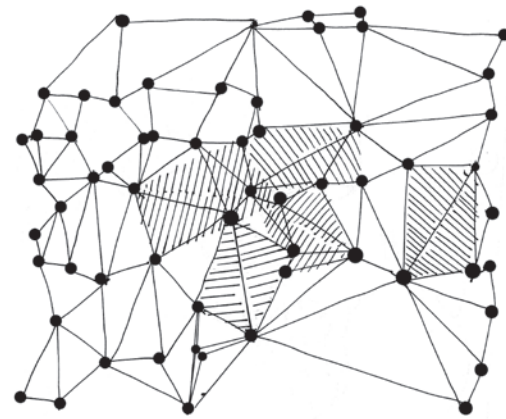
ARCHITECTURAL CONCEPT:
HOUSE **OF** THE WOODS

7.1 HOW DOES THE BUILDING RESPOND TO THE WOODLAND?



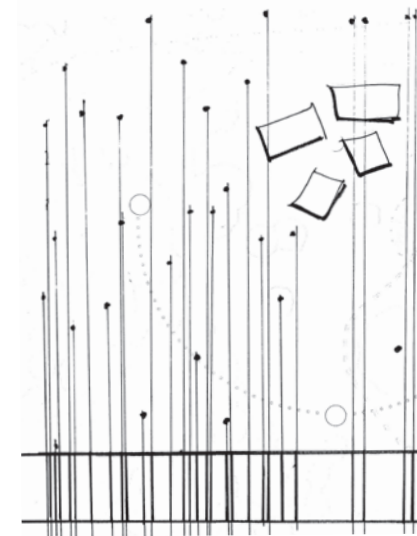
Timber as a structural material

structure responds to the nature of timber as a material- the proposed grid shell structure will feature exposed timber which will resonate with the context.



Positioning of the trees

Described as 'self seeded oak woodland,' positioning of building elements is loose/random. Therefore the relationship between proposed building elements should not feel rectilinear or grid like.



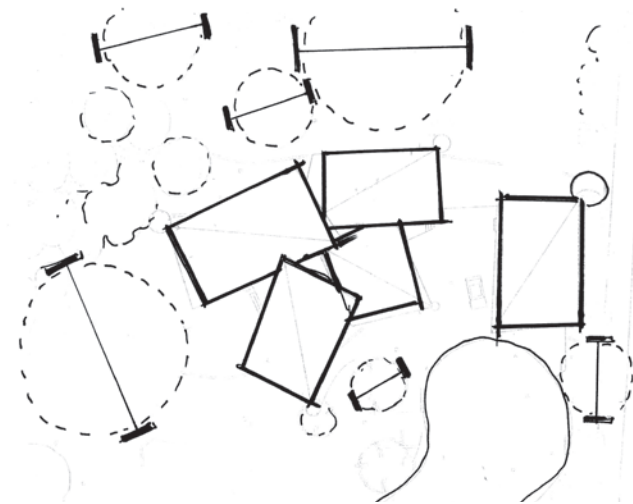
Verticality of the trunks

When viewed from the ground the loose positioning of the trees creates a random vertical rhythm which can be reflected in the rhythm of the proposed building cladding.



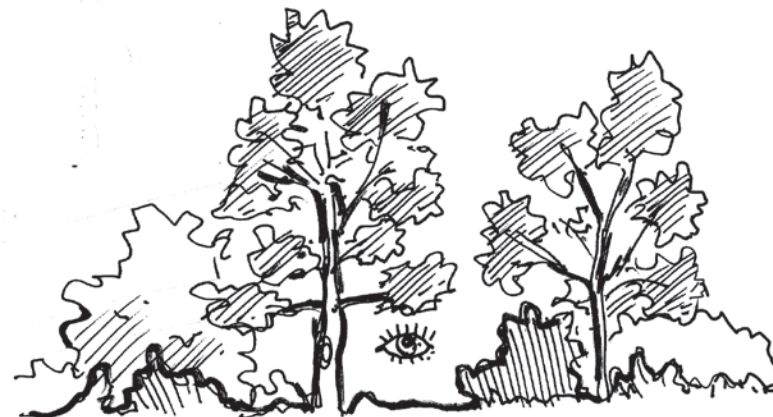
Overlap of fallen leaves

When leaves fall from the trees in a woodland setting, they gently overlap in an angled and irregular way. The overlap of the roofs respond to this leaf-fall, echoing the changing seasons of the woodland.



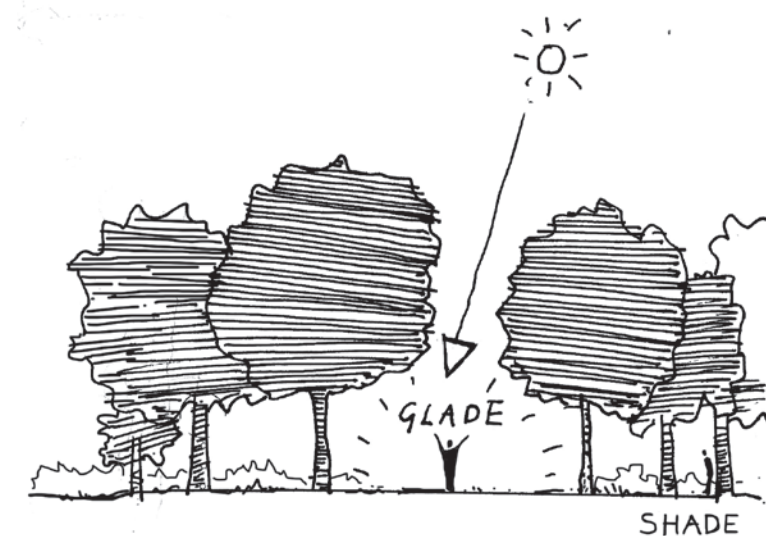
Scale of the Woodland

Compared to the more homogeneous nature of the previous building which was over 25m long, the scale of the new building should be broken into elements that respond more directly to the diameter of tree canopies and trunk spacings. Typically, 5-10m.



Views through the site

Key views to key areas and trees such as the view through the boundary to the valley at the north, view to the glades at the west and view to the veteran oak tree to the south.

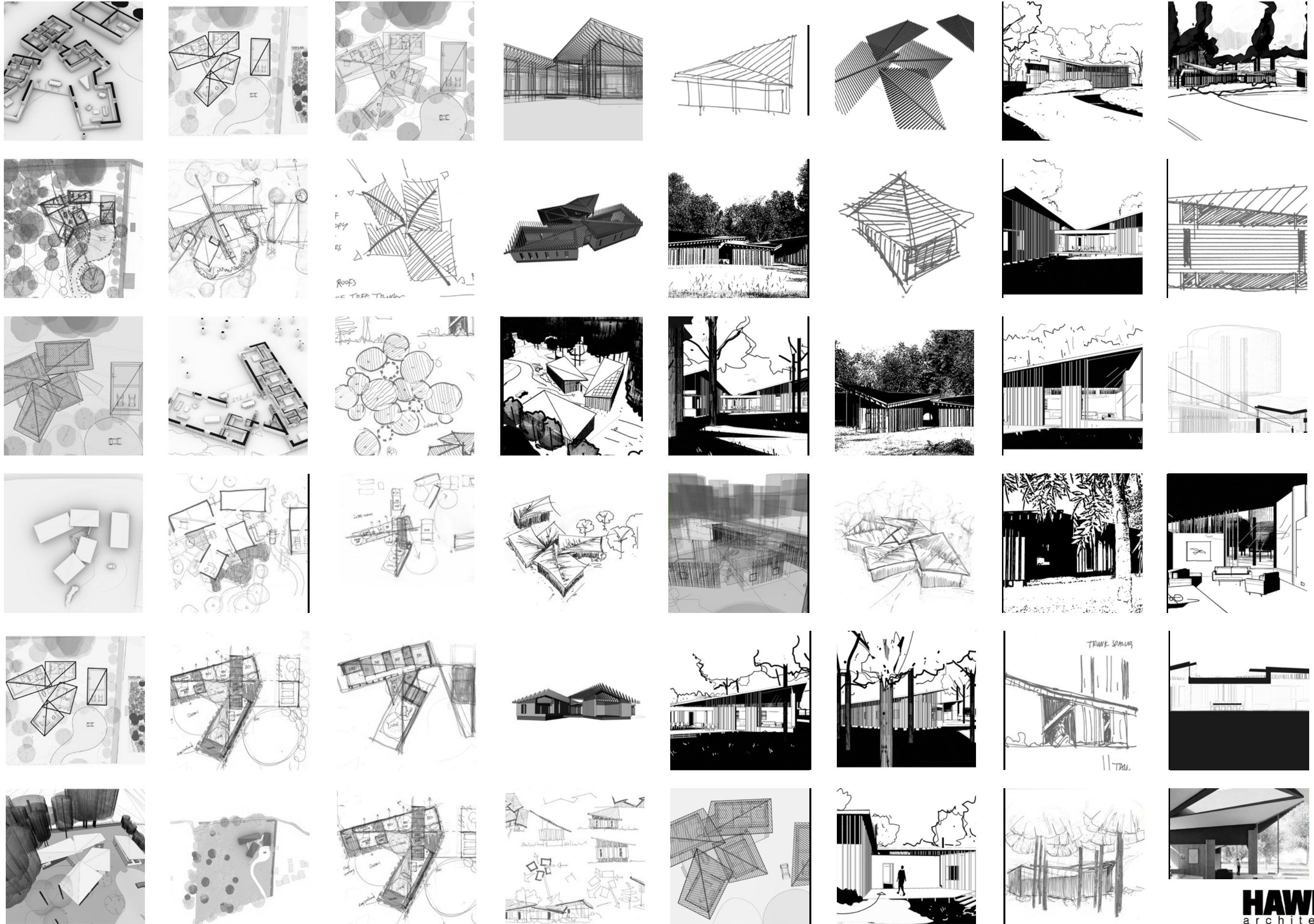


Light qualities of the woodland

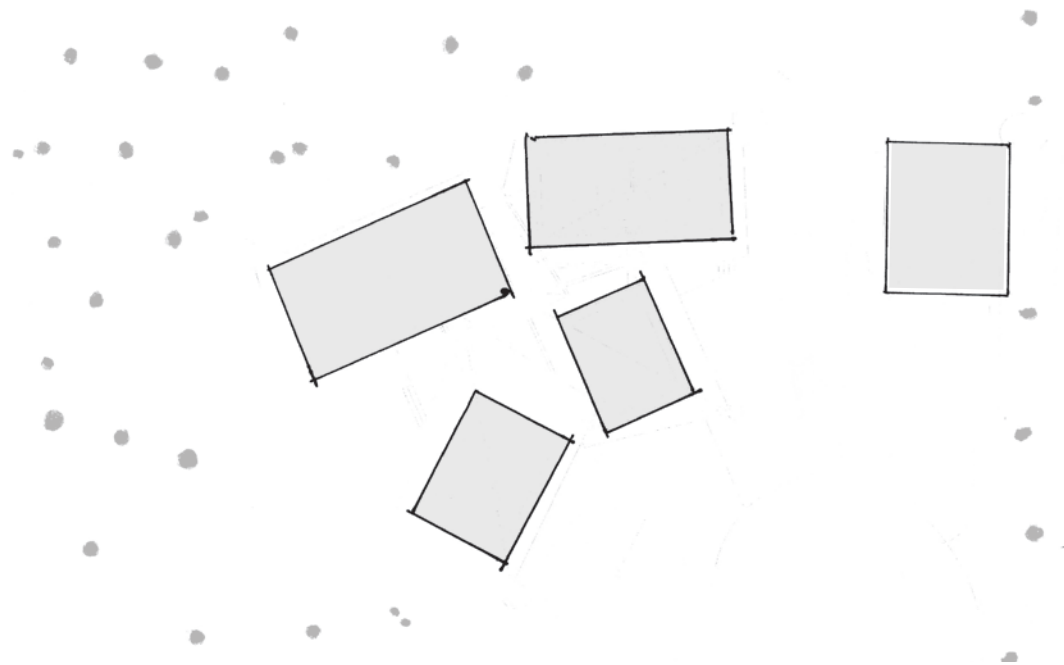
Glades feel taller, lighter and airier as that is where the most light comes through. Conversely being closer to the tree trunks or static 'blocks' of the proposed, things feel darker and more sheltered.

7.2 SKETCHBOOK

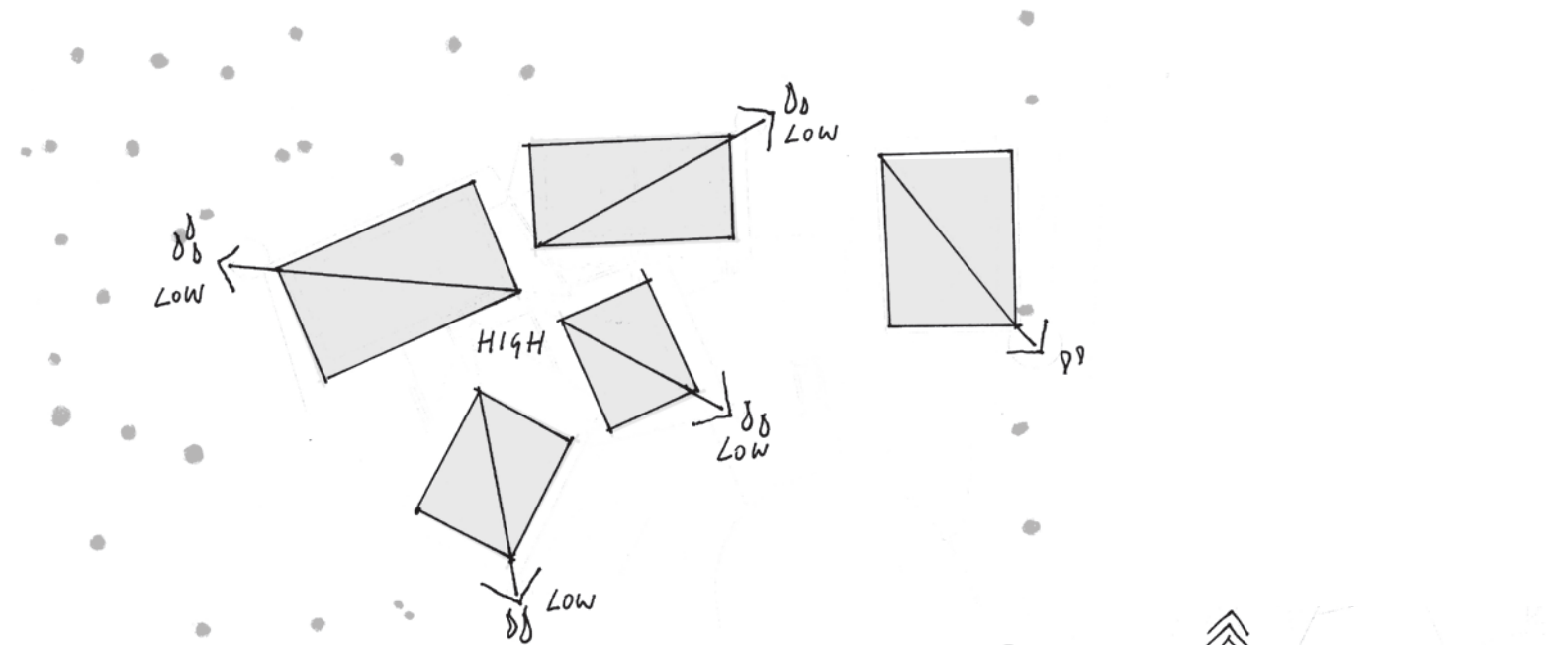
HOUSE OF THE WOODS



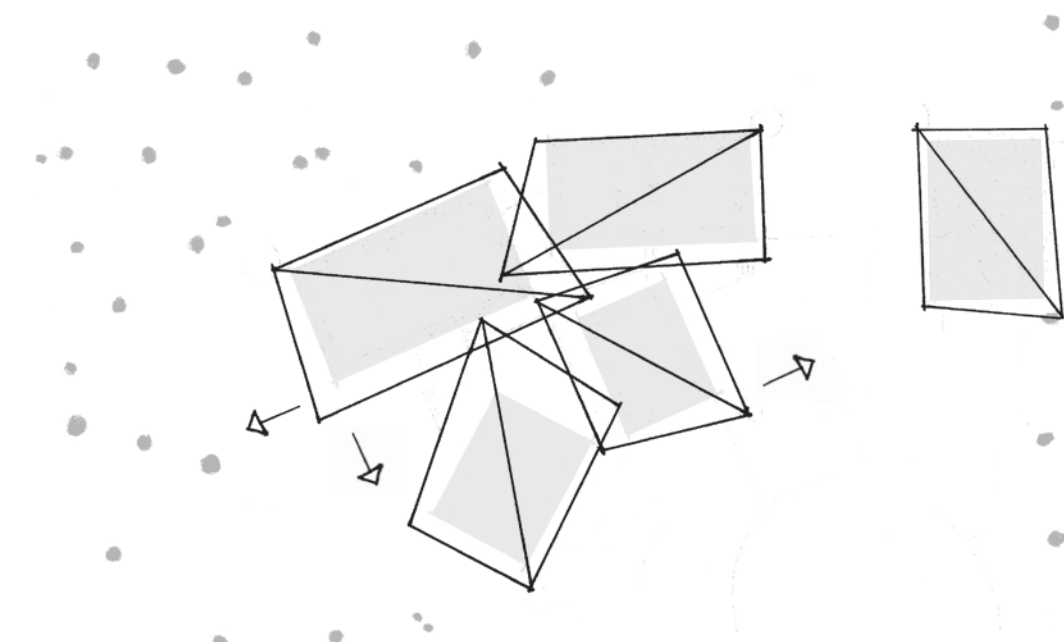
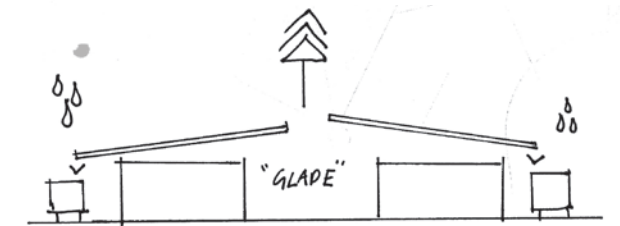
7.3 FORM AND MASSING STUDIES (1 OF 3)

**Chosen block placement**

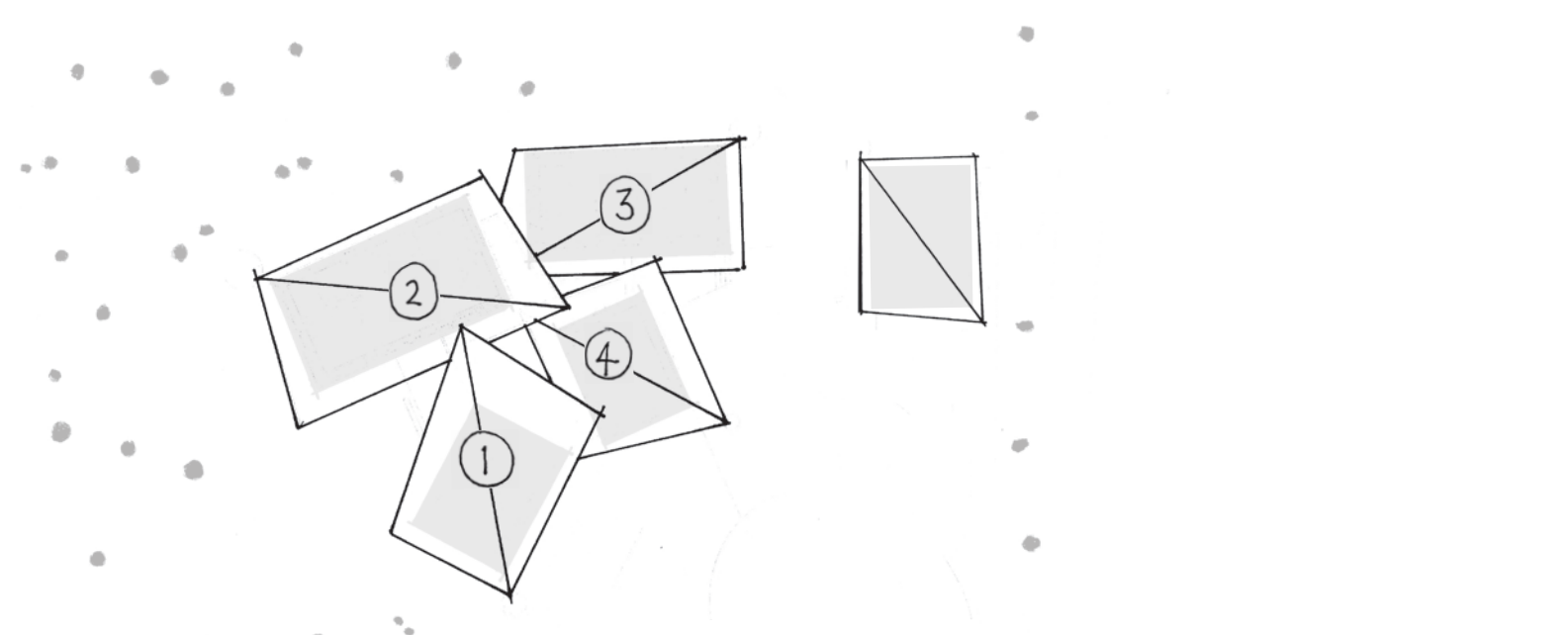
Informal arrangement, balancing key views and central family 'glade' space

**Managing Rainwater**

'Spine' of roofs are lowered on the outermost side and raised at the centre to direct water to each corner.

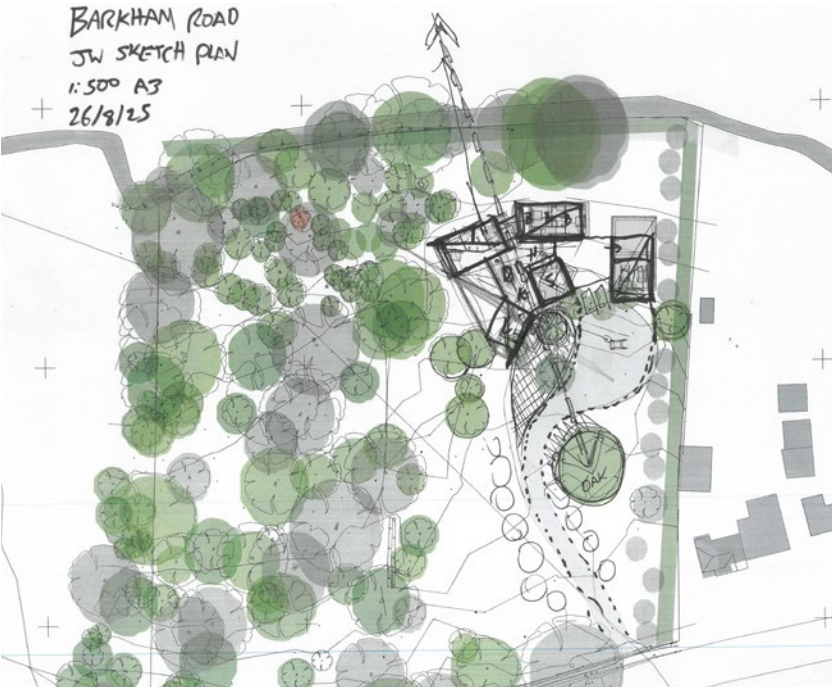
**Corners pushed and pulled to create overhangs**

The four vertices of each roof are adjusted in response to shelter and solar shading etc. The innermost vertices are moved to cover the central 'glade' space, leaving two gaps which form rooflights.

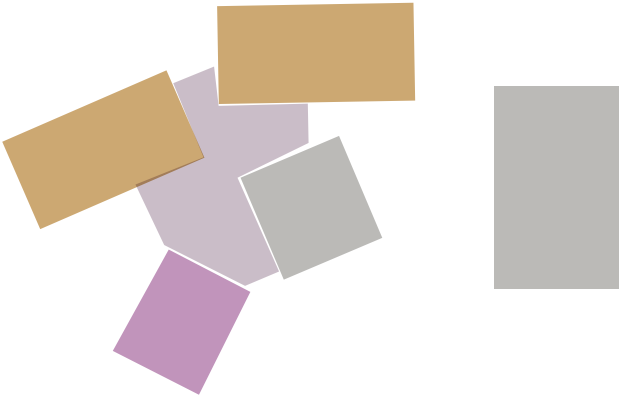
**Roof height hierarchy**

Roof vertices adjusted to reflect hierarchy of spaces below 1- most important space, 4 the least important.

7.4 FORM AND MASSING STUDIES (2 OF 3)



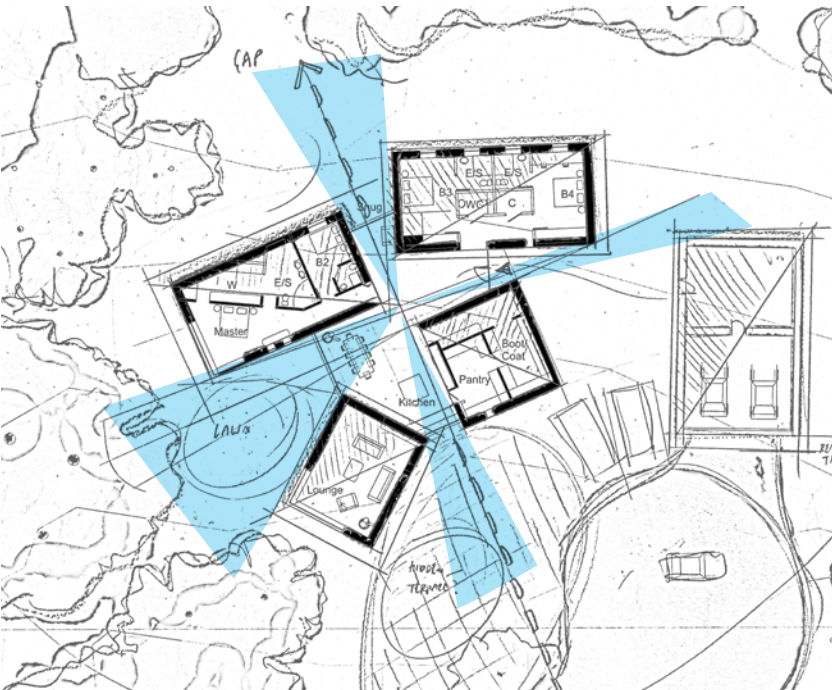
Proposed Floor Plan



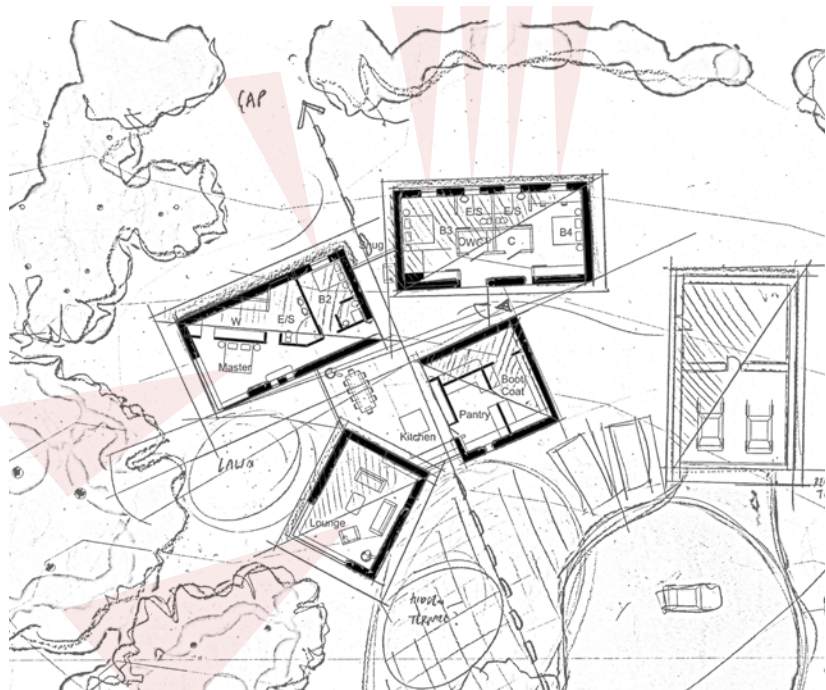
Internal functions
Bedrooms are more north-facing, with the exception of the master bedroom that has optimum views west towards the woodland. The living areas are predominantly south and west facing.



Sun path
Because of the openings between the blocks and the roof lights, the living spaces will receive sunlight throughout the whole day. The bedroom spaces will receive light through the break in woodland to the North of the building.



Views from open spaces
The organisation of the blocks set up a strong view axis through the open living spaces, visually connecting the centre of the plan to the woodland and key features.



Views from cellular spaces
Bedrooms and the living room with framed views north, and of woodland glades.



Living areas (living/kitchen/dining)



Bedrooms



Master Bedroom



Open plan living / dining



Garage / workshop



Utility

ARCHITECTURAL CONCEPT:

7.5 FORM AND MASSING STUDIES (3 OF 3)



Broken blocks with central roof



Central roof raised above



Central roof removed



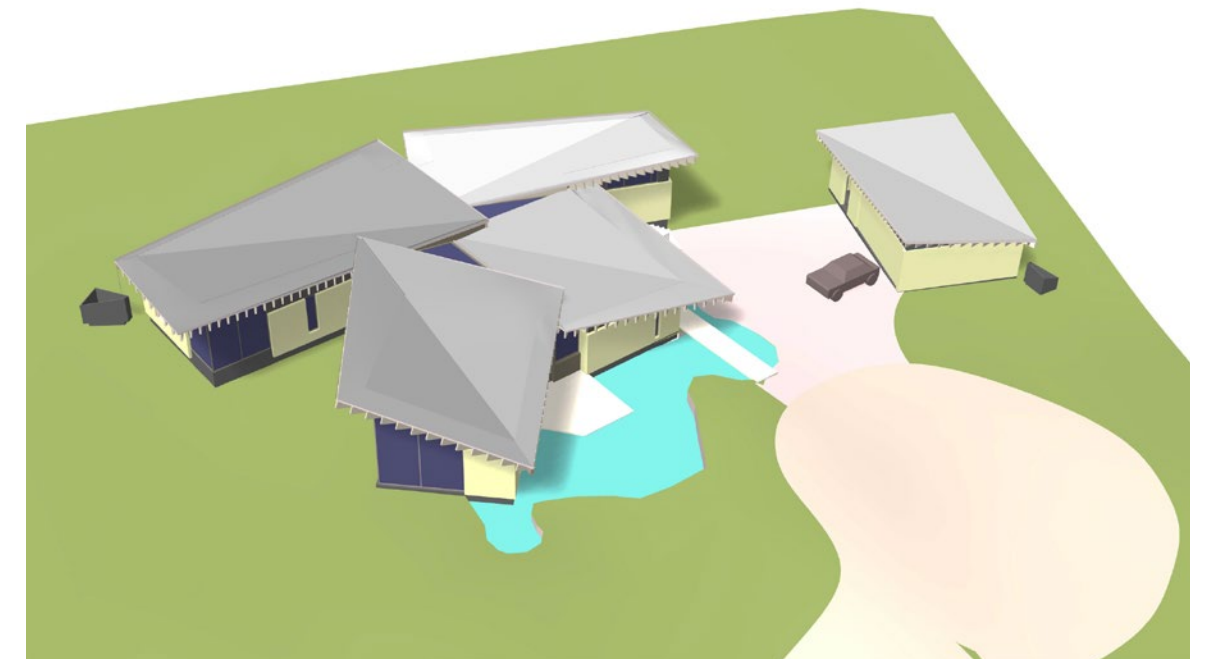
Blocks brought together



Iteration roof overlaps



Iteration roof overlaps



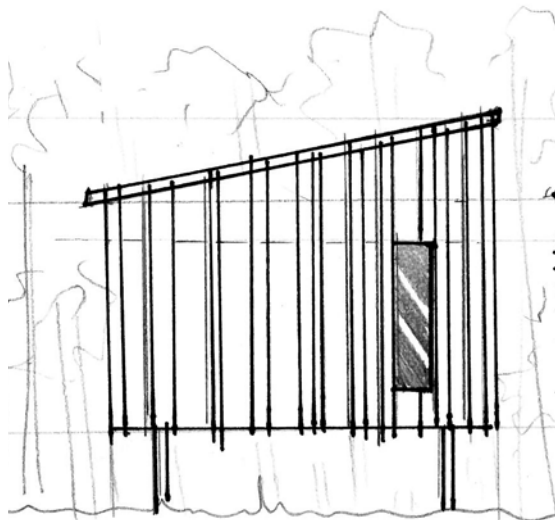
CHOSEN FORM

The informal block arrangement is designed to balance outward views, with the roof spines lowered at the outer edges to help direct rainwater away from the building. Each roof's overhangs are carefully adjusted to provide shelter and optimize solar shading. Together, the roof forms enclose a central open-plan 'glade' space, with openings in the overhangs for roof lights. Variations in roof height define the hierarchy of the spaces below, enhancing both their character and environmental performance.

7.6 CLADDING- CONCEPTUAL STUDIES

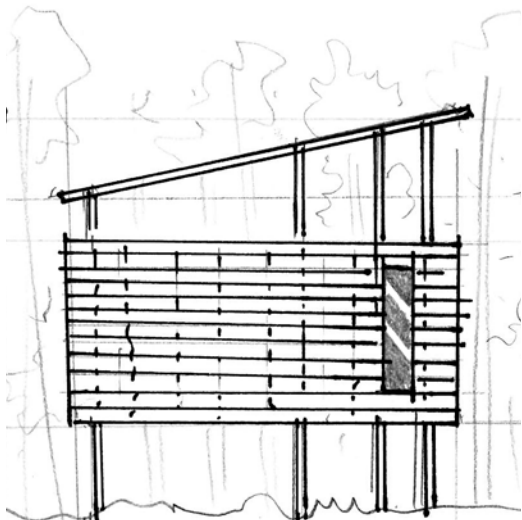
Option 1

Cladding meets roof to form single object suspended above ground



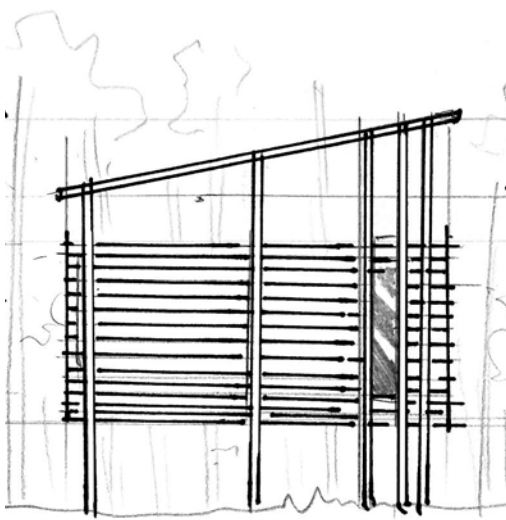
Option 2

Horizontal cladding contrasts with and sits on top of vertical battens



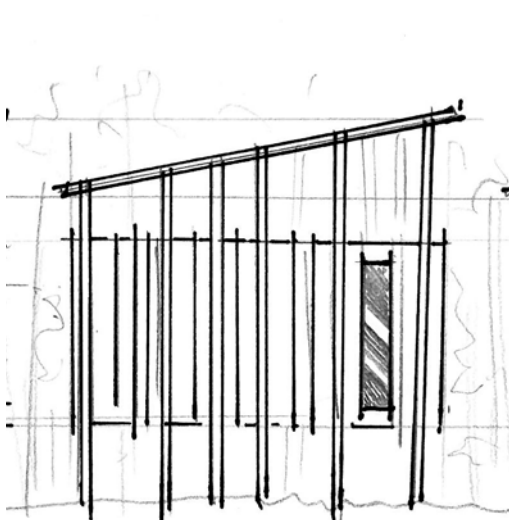
Option 3

Vertical battens sit on top and contrast with horizontal cladding



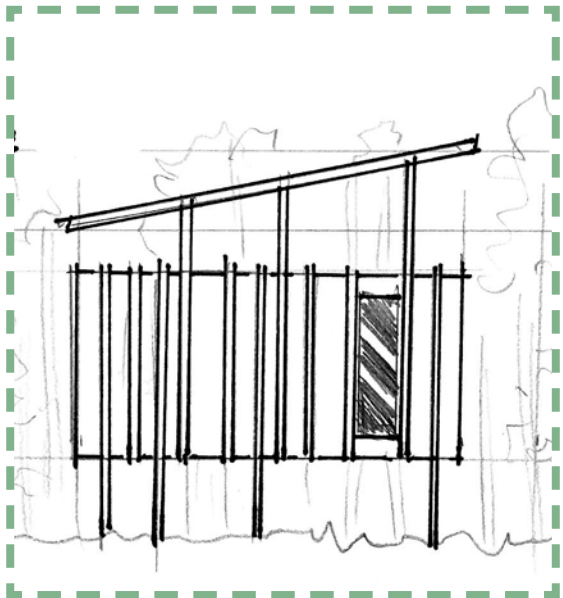
Option 4

Corduroy cladding with some vertical elements extending to both ground and roof plane.

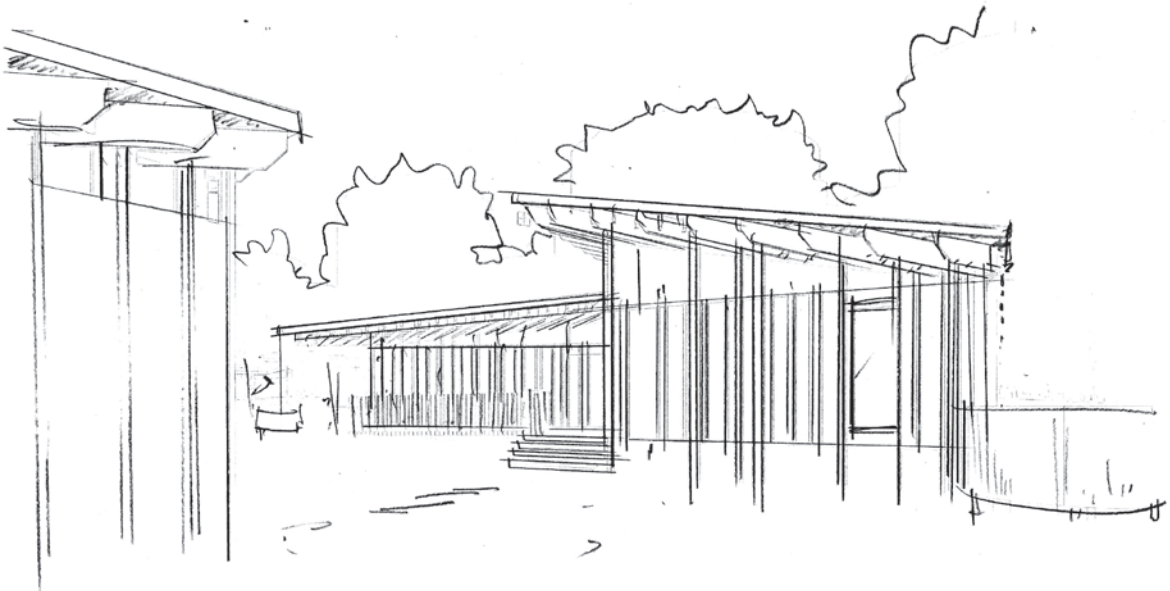
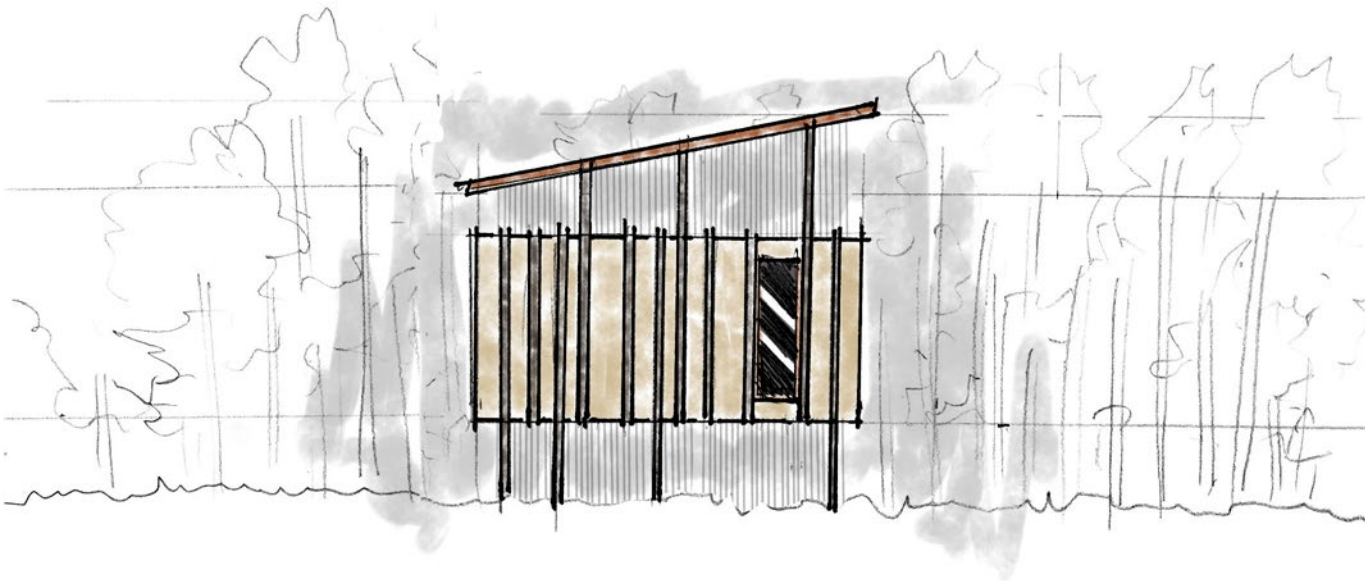


Option 5

Corduroy cladding with some vertical elements extending to both/either ground and roof plane.



Chosen Option



7.7 REVISED ROOF DESIGN FOLLOWING DRP 2

Statement from the Design Team

At the second design review panel meeting for Barkham, the panel endorsed the overall concept but wanted further reassurance and clarity of the viability and legibility of the roof concept.

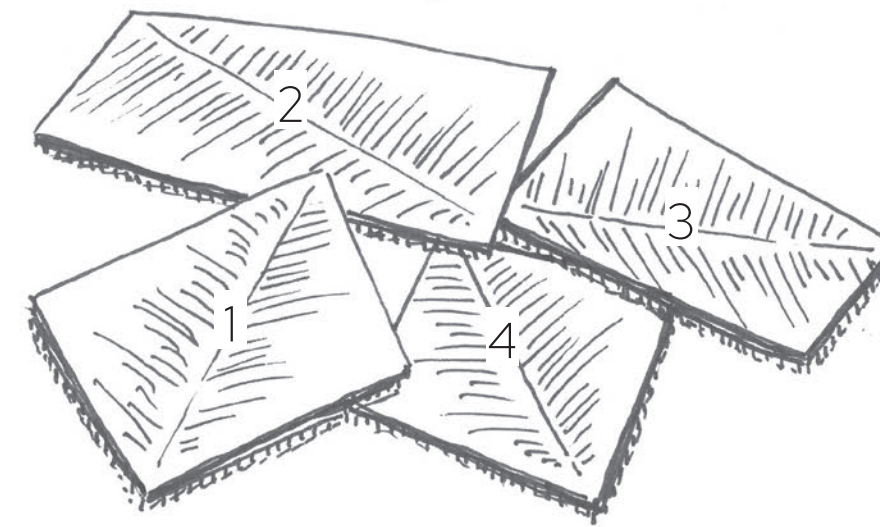
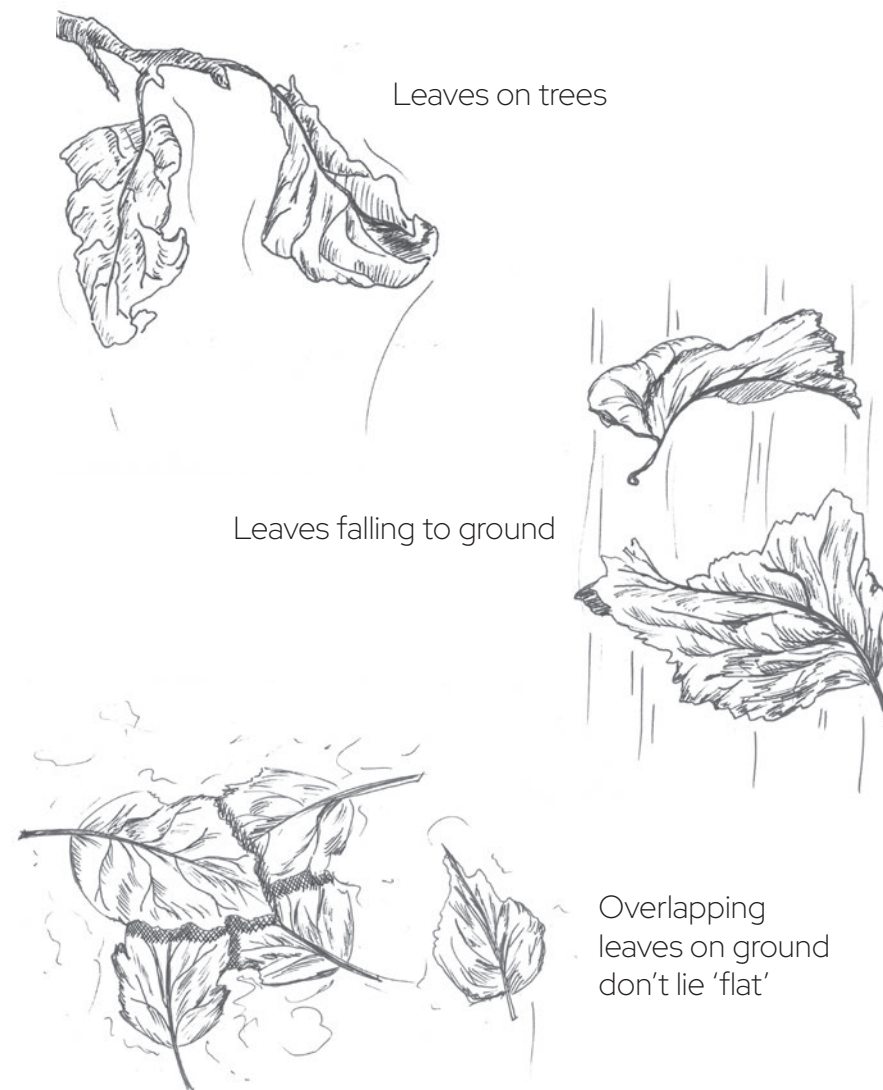
The Design team therefore engaged and collaborated with Engineers HRW to digitally design and test a refined roof structure and create a building construction strategy.

Please note these details created are indicative in the sense they have not, for example, had detailed input from a civil engineer and a ground investigation report. However we have made fair assumptions and the (cold slab) substructure design indicated is based on another one of our projects.

It goes without saying that, following a planning permission, our usual rigorous RIBA 4-7 processes would be undertaken and we would work with specialists engineers to minimise the embodied energy of the superstructure and substructure. On the indicative sections on the following pages we have used call-outs to highlight particular elements, rather than have exhaustive build-up lists.



7.8 ROOF EDGE EXPRESSION



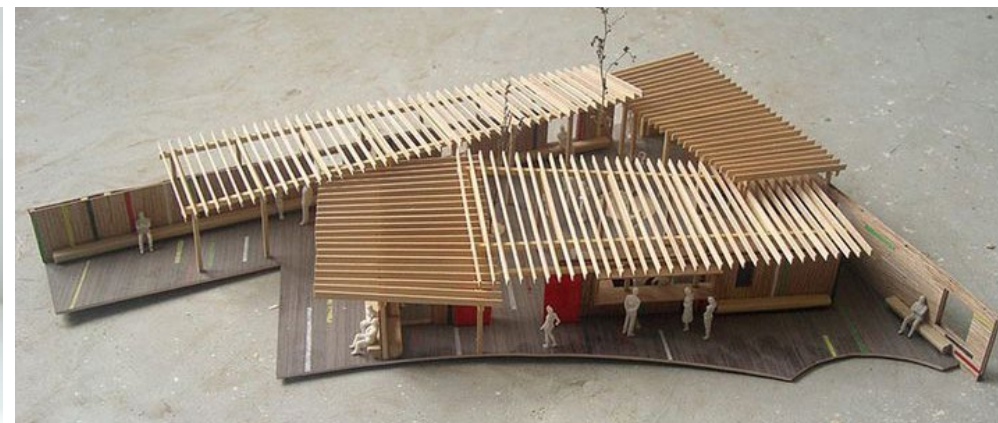
Our simple set of rules were shared with the engineers.

- Each 'spine' must fall towards the outside of the building
- The 'leaves' overlap in order of room hierarchy, of each spine to the outside of the building.
- Roofs overlap and the gaps that remain between must support triple glazed roof lights.
- Minimise use of steel
- All falls must be within a suitable tolerance for seamed zinc cladding

OVERLAPPING ROOF PRECEDENTS



Roof overlaps: Four Leaves Villa



Roof overlaps: Vanke Pavillion 2014