



ALT / Architecture

1903 JUNCTION 33 PLAYGROUND

DETAIL DESIGN

INTRODUCTION

In this report ALT-Architecture sets out the background, concept and detail design for a play space for the new residential-led development on land north of M4 Junction 33. The document starts with our understanding of the brief and context. It goes on to explain our concept ideas and how these have evolved into a series of play 'experiences' and play equipment before presenting the detail design. In parallel, Green Play Projects have produced a specification and cost schedule.

BRIEF

In summary, ALT-Architecture has been appointed to design a Locally Equipped Area for Play (LEAP) which will form part of a new residential-led development on land to the north of M4 Junction 33, north west Cardiff. The new playground should be sustainable, welcoming and inclusive, providing a meeting point which brings together members of the new community whilst supporting well-being.

The LEAP should be a stimulating outdoor environment which encourages imaginative play and engagement with nature. It will be designed for children of early school age, containing at least five 'experiences' with a minimum of three pieces of equipment.

The new playground should create a 'varied, inspirational and interesting physical environment that maximises potential for socialising, creativity, resourcefulness and challenge.'
(Play Wales).

Seating for adults and children of different ages should also be provided.

CONTEXT

The playground design is inspired by the history, landscape and nature of the context.

Green infrastructure is stated as a key feature of the masterplan for the overall development. Important features of the development site are the three ancient woodlands within and along its borders.

A disused railway line runs through the site and past the site identified for the LEAP. This will form a 'green corridor' through the new development. Historically, the railway carried quarried stone to Barry Docks.



Site plan showing location of LEAP



Map showing Ancient Woodland (green)

CONCEPT IDEA

AN ENCHANTED WOOD

Inspired by the local Ancient Woodland, the concept idea for the new playground is an Enchanted Wood.

The theme creates a sense of magic and adventure and will encourage children to play imaginatively, both individually and with each other.

The woodland theme will promote engagement with nature, making children think about trees, woodland plants and creatures, which is important as many children do not have the opportunity to play in real woodland.

The Enchanted Wood theme will be represented in an abstract and contemporary way in the playground design rather than a literal one. By creating experiences which suggest a forest of tree trucks, a clearing, a tree house and a woodland landscape, children are free to use their imaginations and interpret the experience in their own way. The playground can be a different world to different children on different days.

We have been in correspondence with the developer's landscape architect to coordinate the tree, hedge and wildflower meadow planting, paths and seating, which are already proposed to surround the LEAP site, with the design of the playground experiences. As well as enhancing the theme and adding value to the play experiences, this can also eliminate the need for costly and unsightly fencing to enclose the area.

The concept design combines natural materials and surfaces with a restrained use of bright colour to provide the magic! Playing with scale will create an other-worldly feel.

We have given consideration to making the playground accessible to a wide range of children, including those with disabilities, by incorporating wheelchair accessible routes, spinners and a cantilever basket swing which can be enjoyed by those with a wide variety of physical abilities, and sensory/sound experiences.

FIVE EXPERIENCES

The playground will provide at least 5 different play experiences. These are described on the following pages.

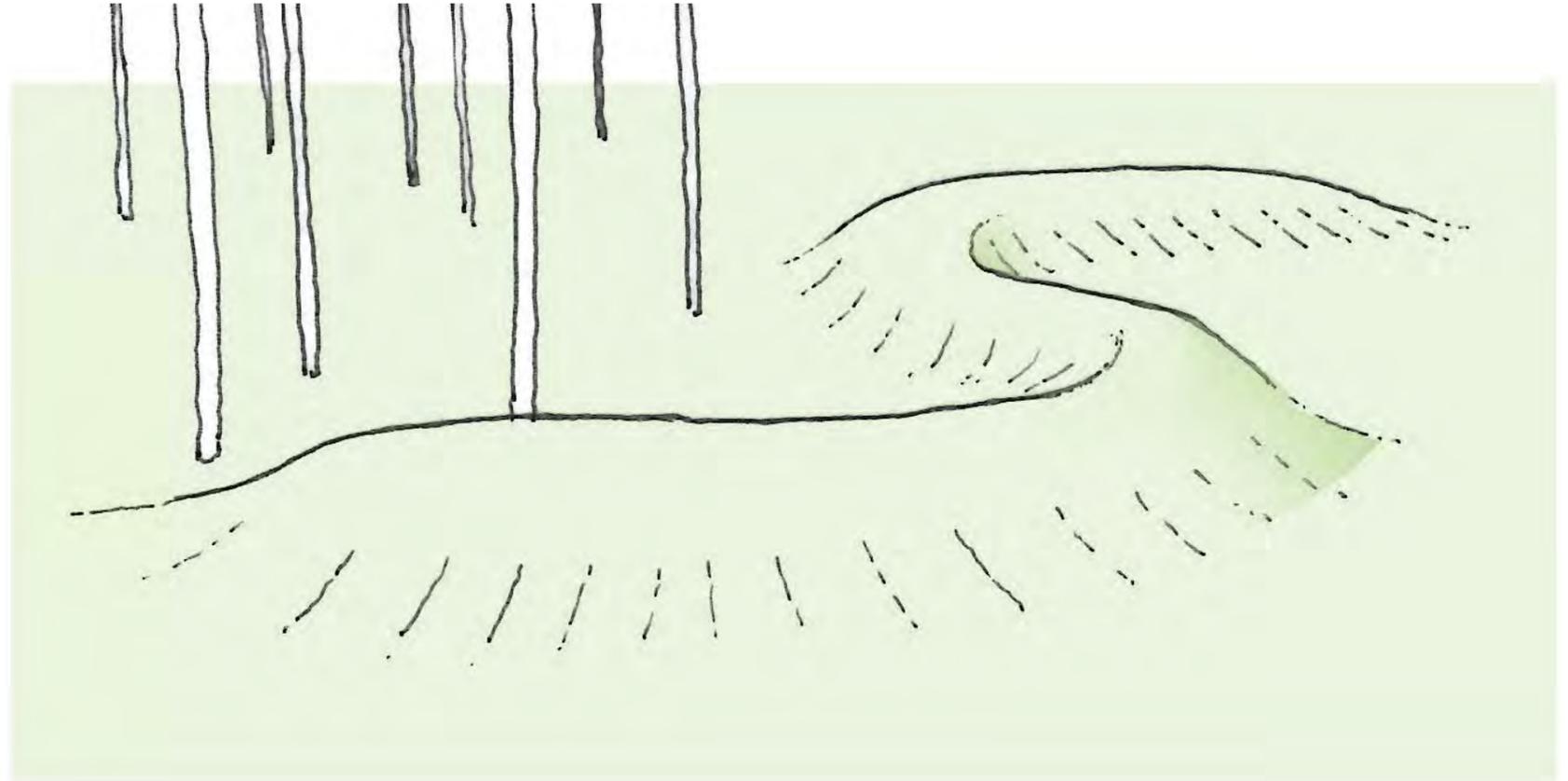


EXPERIENCE 1 - EARTH BANK

A grass-covered mound of earth will snake across the space, defining different areas and inviting children of all ages and abilities to engage in a number of ways.

Children can run along, run over, climb up, roll down, stand on top, sit and watch...

The raised and dipped earth form means that children do not see the whole playground at once. Instead, different spaces are revealed as they navigate the landscape, increasing the sense of intrigue and adventure.



EXPERIENCE 2 - A FOREST OF TREE TRUNKS

A swathe of vertical timber poles, painted bright red will create an abstract 'forest' of tree trunks. A few posts will be cut off at 'tree stump' height and one will be 'felled' to create places to practice balancing. An accessible basket swing will be hung from a bent over pole, and one 'trunk' will have hand/foot holds for climbing up to the tree house (see following page).

Children can interact with the 'forest' in a variety of ways. They can run between the poles, chase each other through them, hide amongst them, play make-believe, balance along the 'felled' pole, hop between the stumps, climb and swing on the swing.

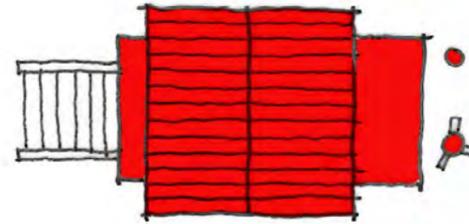
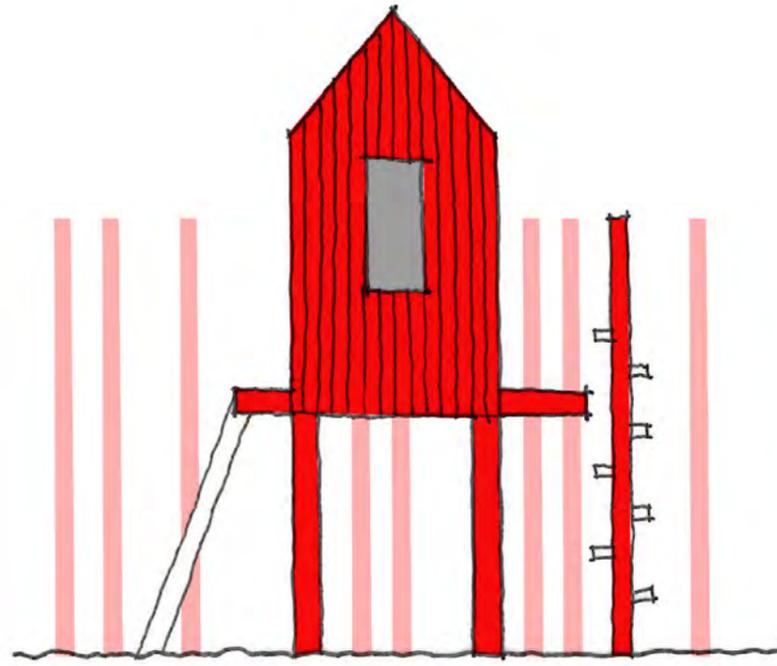
On sunny days, sunlight will shine through the forest of poles, creating interesting shadows and providing a sensory experience. There will be a wheelchair accessible route through the poles.



EXPERIENCE 3 - TREE HOUSE

A contemporary tree house structure will sit amongst the 'forest of tree trunks'. The structure will be raised on stilts and the scale and proportions will make it feel higher than it really is. There will be a variety of ways to climb up to the tree house and a place to play or sit underneath.

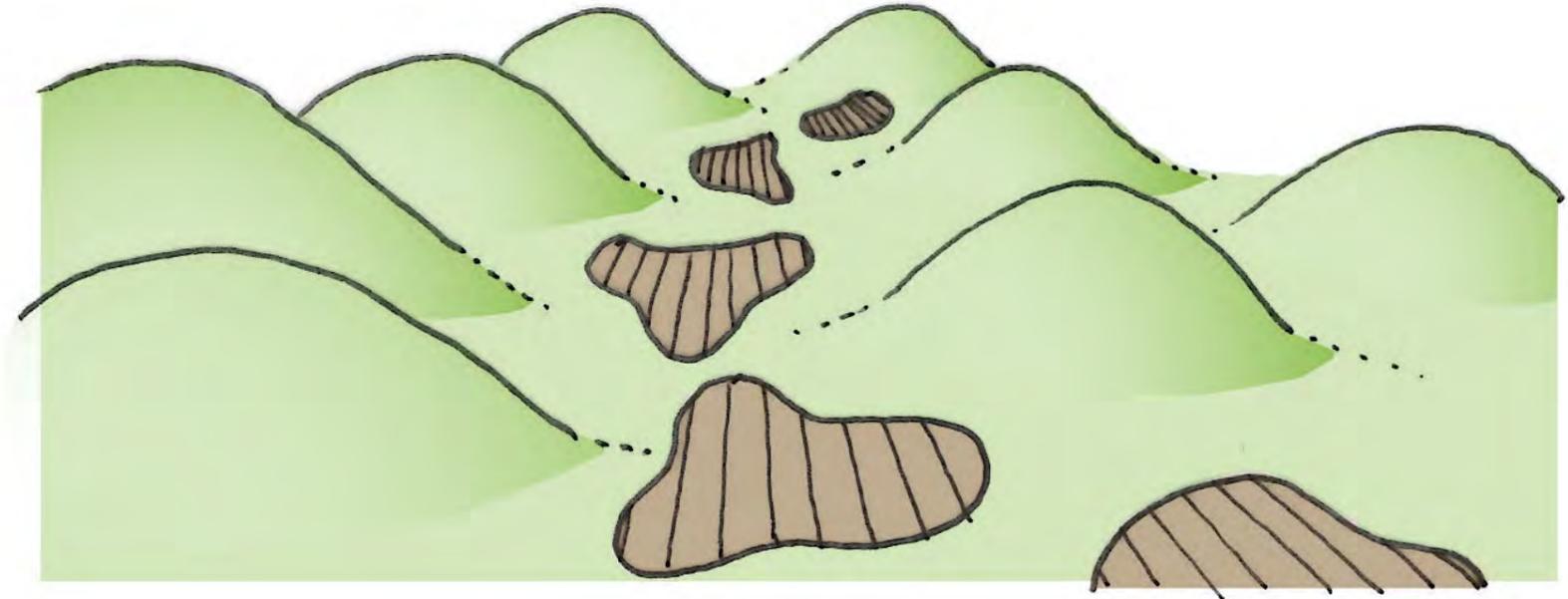
The tree house will invite children to socialise and play imaginatively. They can climb up and down, go underneath, slide down a fireman pole, sit inside, role play...



EXPERIENCE 4 - GRASSY MOUNDS

A landscape of grassy mounds or mini hillocks and timber islands will create an other-worldly landscape to play in. This experience plays with scale to give it a magical feel.

Children can run between or up and down the mounds, climb up and jump off, sit or use them as mini stages to perform to their friends.



EXPERIENCE 5 - SPIN AND SENSORY LANDSCAPE

Gravity spinners will be set amongst sound tubes in a 'clearing' in the woodland. They will appear like abstract, mysterious plants in the landscape. Children can talk and listen to each other at either end of a metal sound tubes embedded in the ground.

The spinners can be used by children (and adults) of different sizes, ages and physical abilities, and the sensory equipment is accessible to all, including those in wheelchairs. These pieces of equipment encourage children to interact and play together.



DETAIL AND TECHNICAL DESIGN

During the detail design stage we have worked closely with GreenPlay Projects who will fabricate and install the playground.

The design has been shaped and refined in response to feedback on the concept design, as well as health and safety guidelines and budget.

We have been in communication with the landscape architect for the development to coordinate planting and hard landscaping. They have approved the detailed design proposal and like the way the landscape design is integrated with the play.

The proposed plan, tree house design, costs and specification are presented on the following pages.

ENGAGEMENT PROPOSAL

Due to COVID-19 it was not possible to undertake any engagement activities during spring/summer 2020. However, we plan to engage a group of local early years school children through a tree planting day when the playground is installed. We will source appropriate trees from the Woodland Trust.

Through the planting exercise, children will feel like they have contributed to the playground, giving them a sense of ownership. They will also have the opportunity to learn about different tree species and the biodiversity and ecological value of trees. The planting will be combined with enchanted woodland story telling to encourage children to use their imaginations.



1. Ecomulch
2. Bark
3. Earth mounds
4. Spinners
5. Cantilever basket swing
6. Tree trunks
7. Tree house
8. Speaking/sound tube
9. Timber islands
10. Benches
11. Cycle stands
12. New trees
13. Wildflower planting
14. Children's tree planting
15. Hedge/shrub planting



NOTES:

Rev:	Date:	Revision Note:
A	28.07.20	Cost savings
B	12.08.20	Amended for cantilever swing
C	25.08.20	Amended for cost savings

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PROJECT:

1903 J33 PLAYGROUND

DRAWING NAME:

Playground Plan

DRAWING NUMBER:
S101 DRAFT

REVISION:
C

DRAWING STATUS:

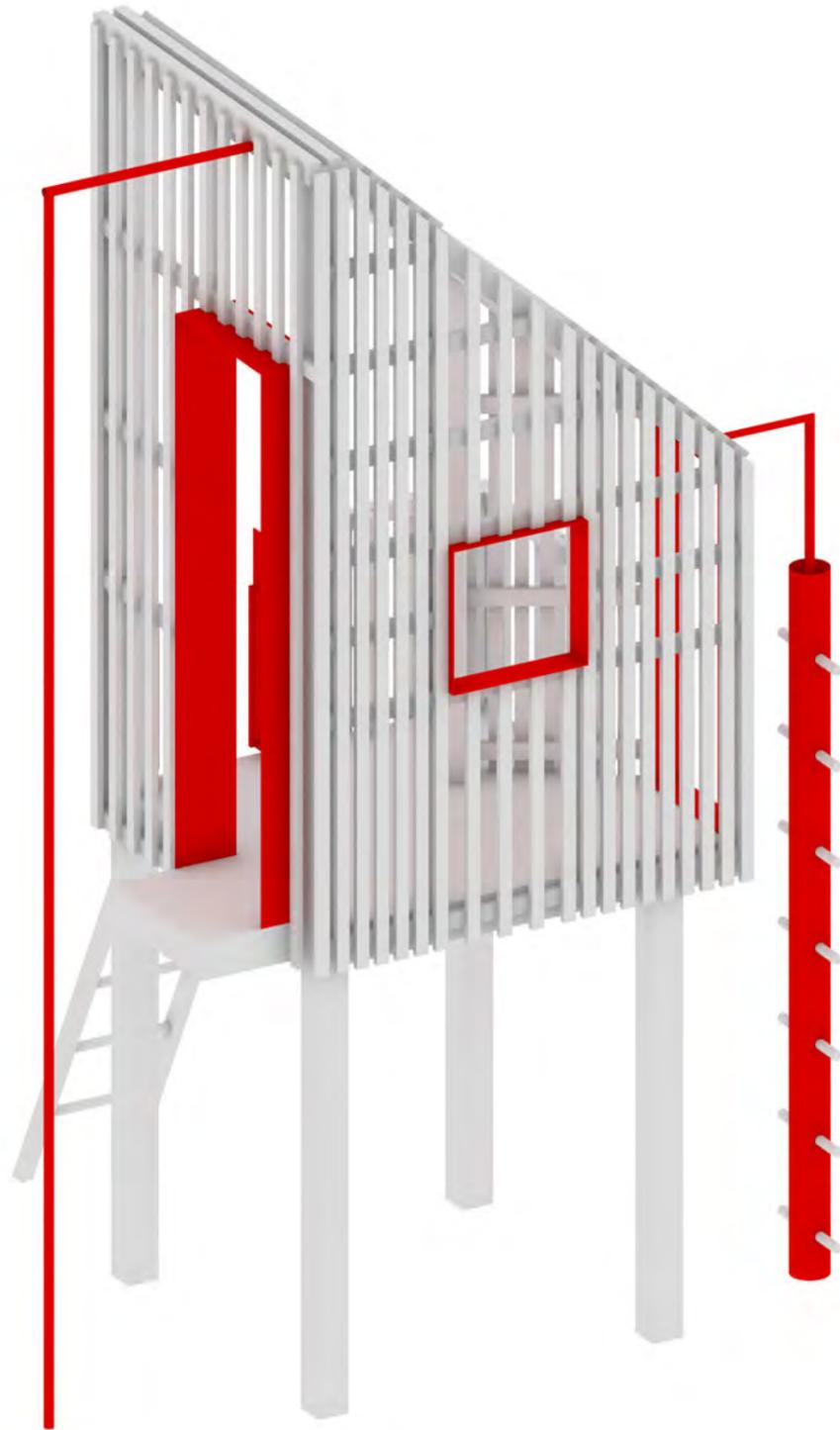
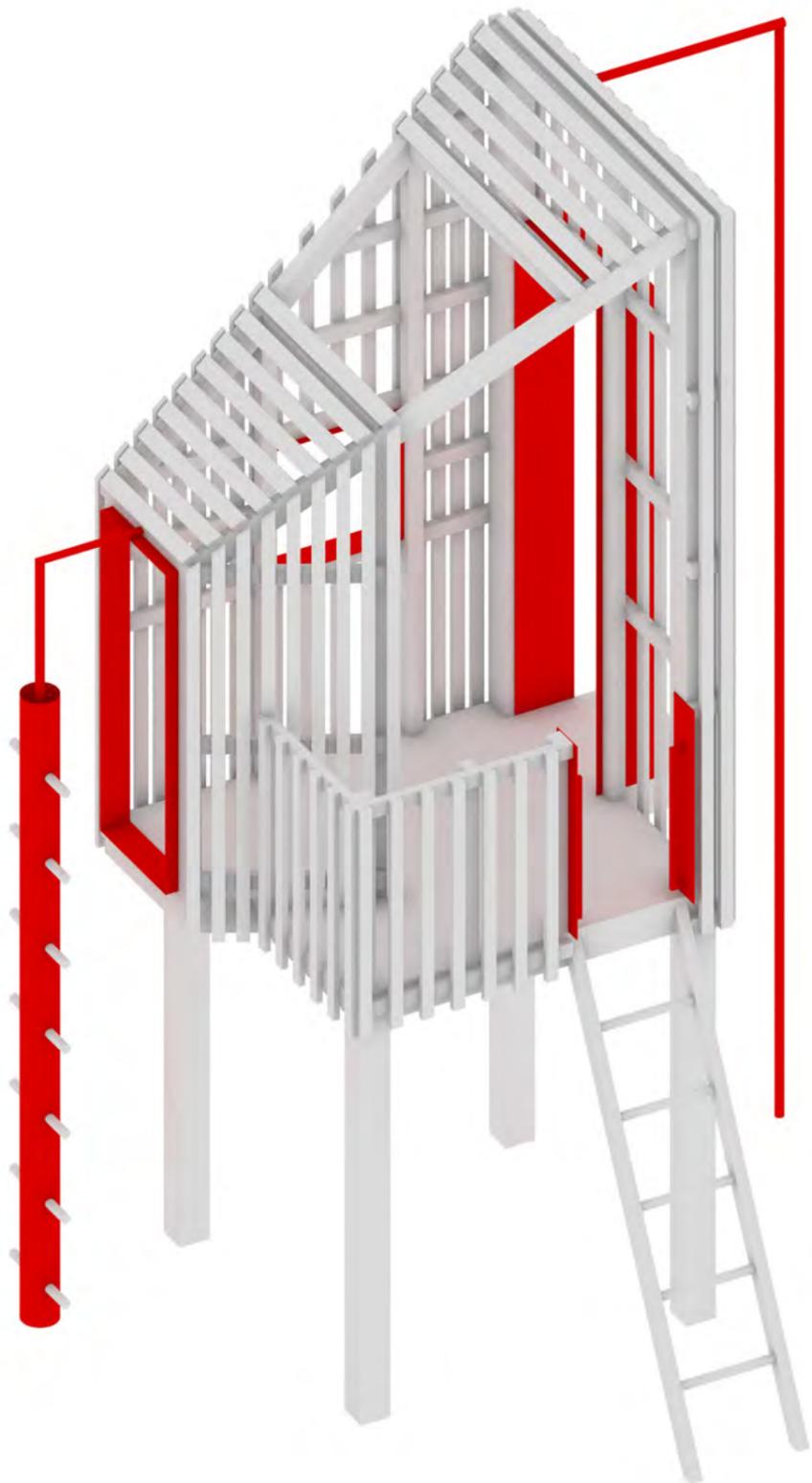
Developed Design DRAFT

SCALE:
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DATE:
AUG 2020

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NOTES:

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PROJECT:

1903 J33 PLAYGROUND

DRAWING NAME:

Treehouse Views

DRAWING NUMBER:

P500

REVISION:

-

DRAWING STATUS:

Developed Design

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1:20 @ A3

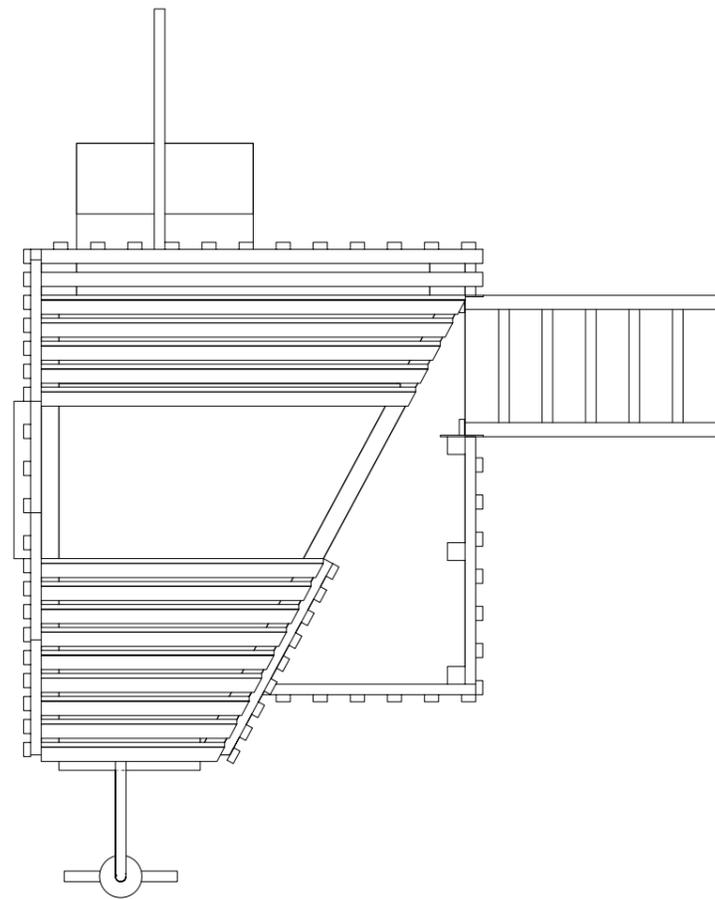
DATE:

JUN 2020

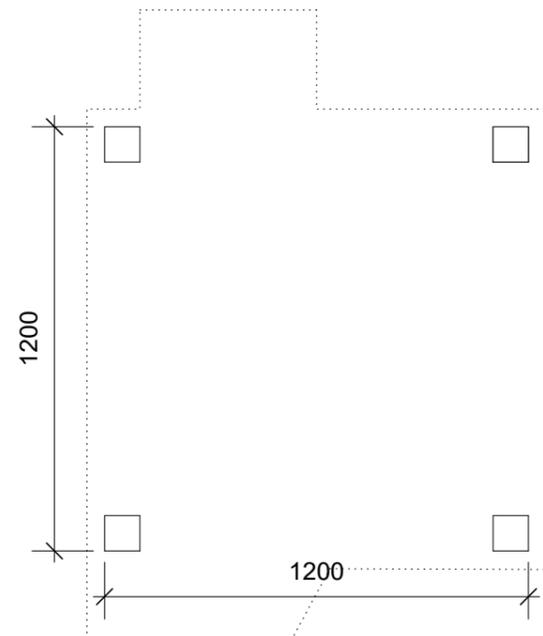
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KEY DIMENSIONS:

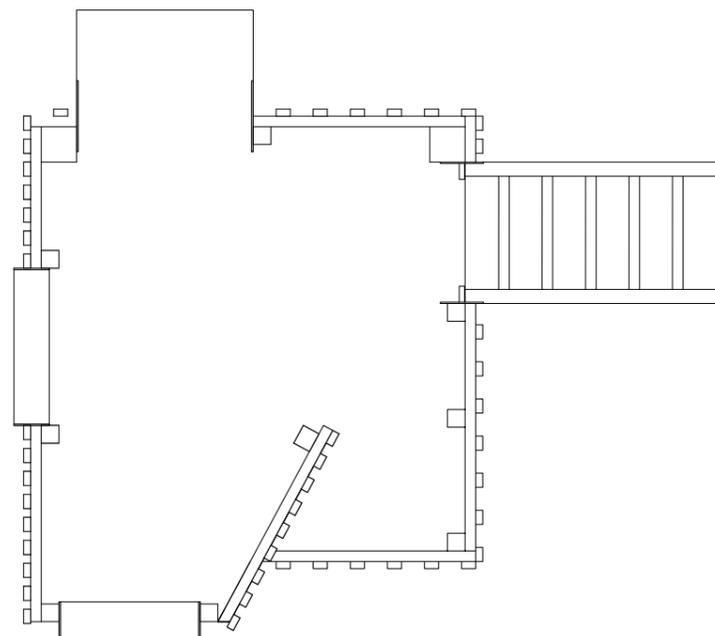
- Barrier height = 700mm above floor level
- Window sill height = 700mm above floor level
- Gap between platform and fireman pole = 350mm (minimum)
- Gap between climbing pole and platform = 240mm (230mm minimum)
- Ladder rung centres = 275mm (minimum gap 230mm)
- Wall cladding battens = 40mm wide
- Small gap between cladding = 25mm (minimum)
- Large gap between cladding = 65mm
- Floor level = 1500mm above ground level



ROOF PLAN



PLAN UNDER TREEHOUSE



PLAN AT WINDOW LEVEL

NOTES:

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PROJECT:

1903 J33 PLAYGROUND

DRAWING NAME:

Treehouse Plans

DRAWING NUMBER:

P102

REVISION:

-

DRAWING STATUS:

Developed Design

SCALE:

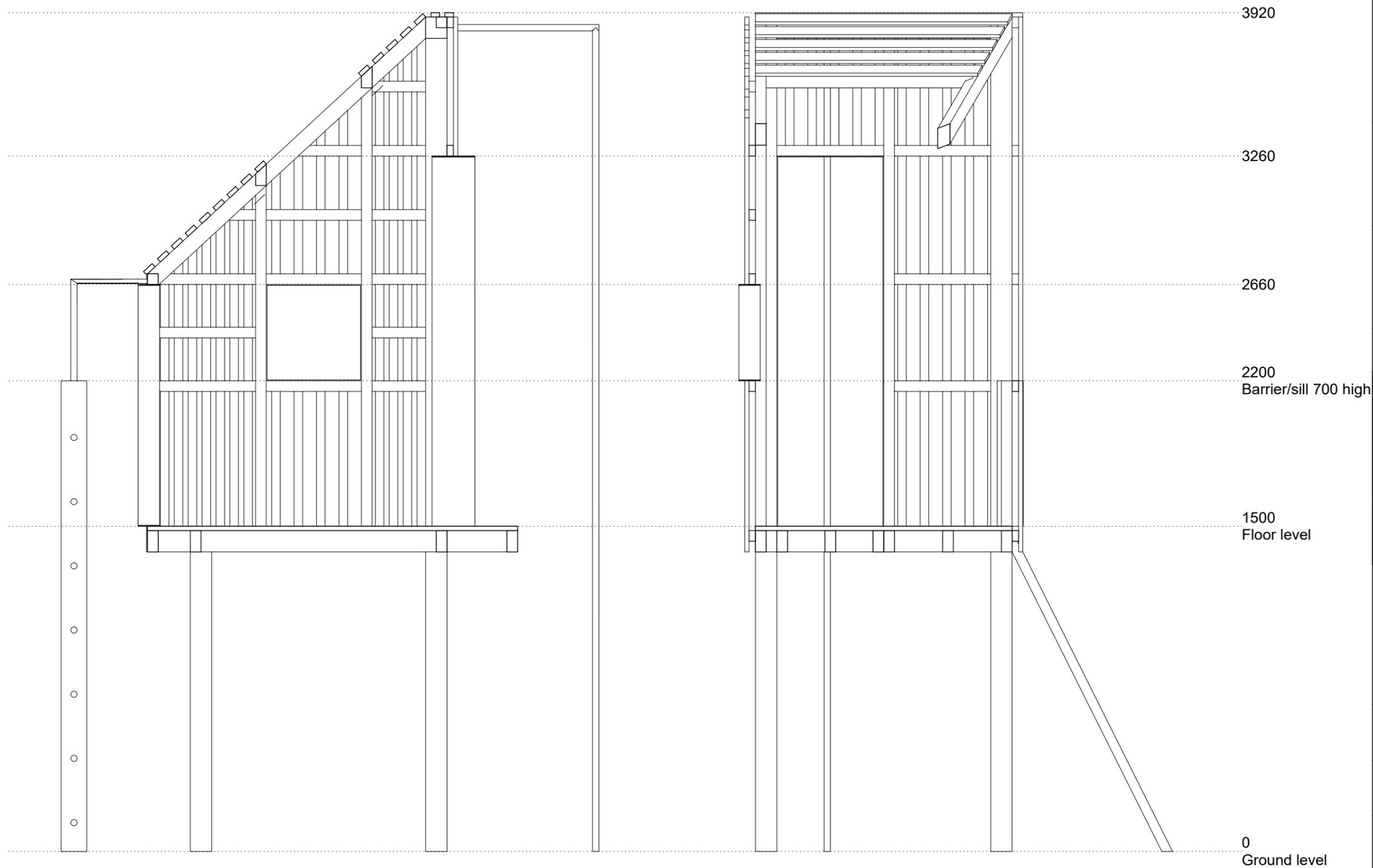
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DATE:

JUN 2020

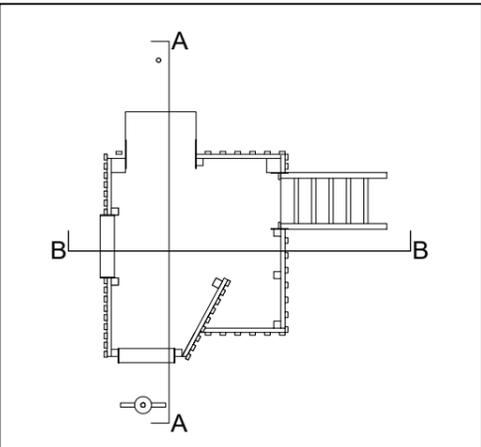
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SECTION A

SECTION B



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PROJECT:

1903 J33 PLAYGROUND

DRAWING NAME:

Treehouse Sections

DRAWING NUMBER:

P201

REVISION:

-

DRAWING STATUS:

Developed Design

SCALE:

1:20 @ A3

DATE:

JUN 2020

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