

# ARCHITECTURAL TECHNOLOGY PORTFOLIO

*Amy Dickson*  
*BSV08103 CW4*





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# AMY DICKSON

*Architectural Technology Student*



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I began studying Architectural Technology in Edinburgh College from 2014–2016 where I achieved my HND with a B in my final year. In college I had the chance to begin working on Revit, study fire and safety and building construction. During my time at college I was given the opportunity to carry out work experience at Cooper Cromer in Glasgow where I had the chance to visit site and work closely with architects within the practice.

From 2016–2017 I worked as a Project Assistant at HTA Design LLP through EDT – The Year In Industry scheme gaining myself experience in both my office and administration skills but also a hands-on architecture experience.

During my time at HTA I was able to grow further in my Revit and AutoCAD skills working closely with Architects and BIM Coordinators.

Having completed my year in industry I have now began my second year at Edinburgh Napier University. Achieving an overall B in my first trimester in Year 2 and an A in my second trimester.

I am projected to graduate in 2020 with my BSC (HONS)



# AMY DICKSON

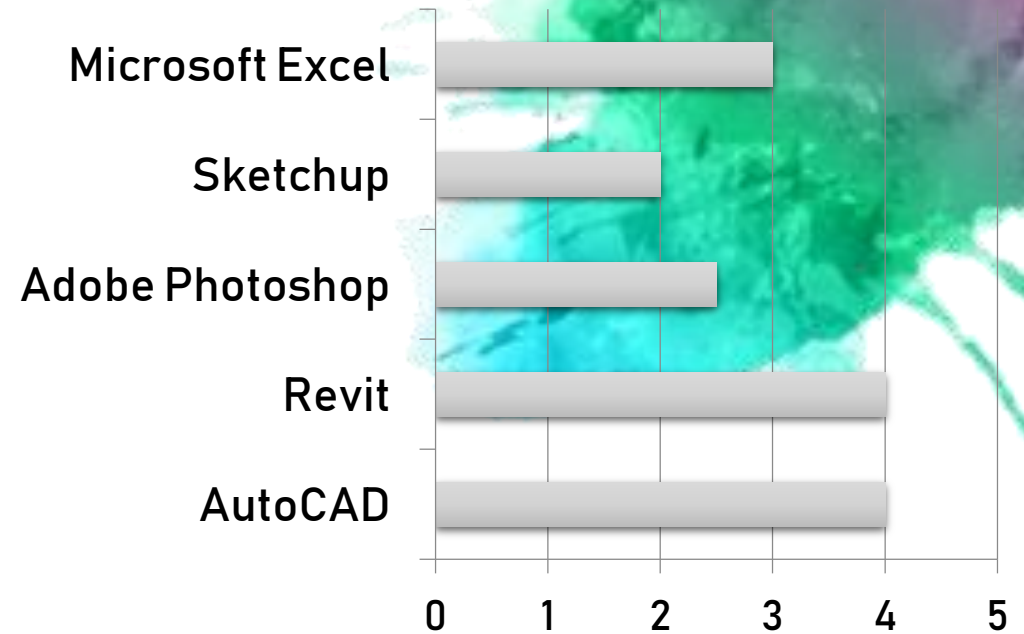
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## SKILLS





# COURSEWORK 1

In coursework 1 I was asked to research the Kindergarten Guntramsdorf Friespiel situated in Guntramsdorf, South Austria.

Guntramsdorf Friespiel was designed by G.O.Y.A (Group Of Young Architects).

In this high-quality open space, the kindergarten was embedded as an open, village structure which translates from the name 'Guntramsdorf Friespiel' to 'Free Game.' The architecture is divided into several buildings, thus maintaining a child-friendly scale.

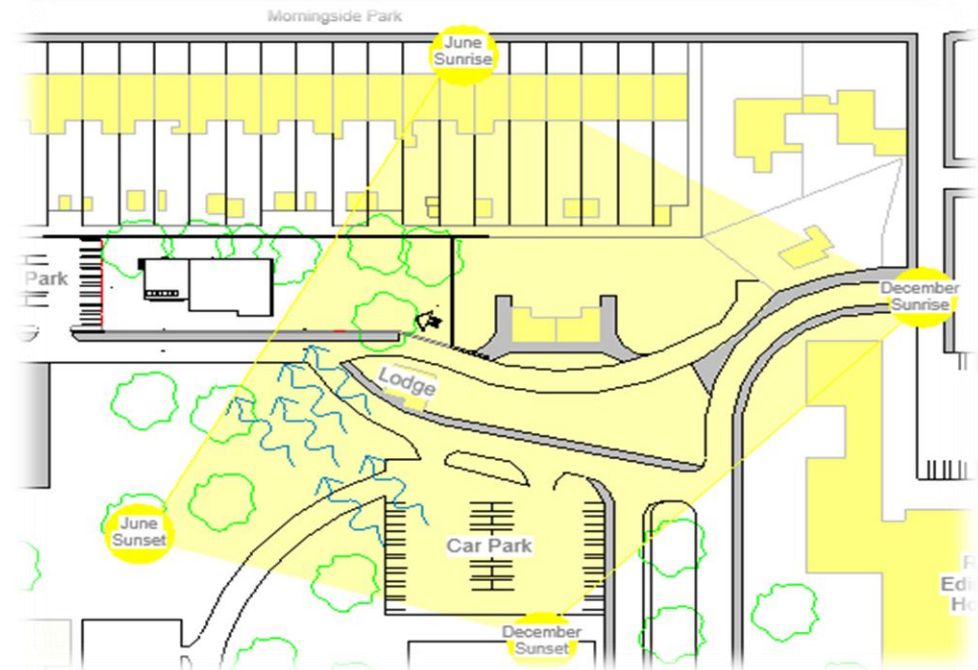
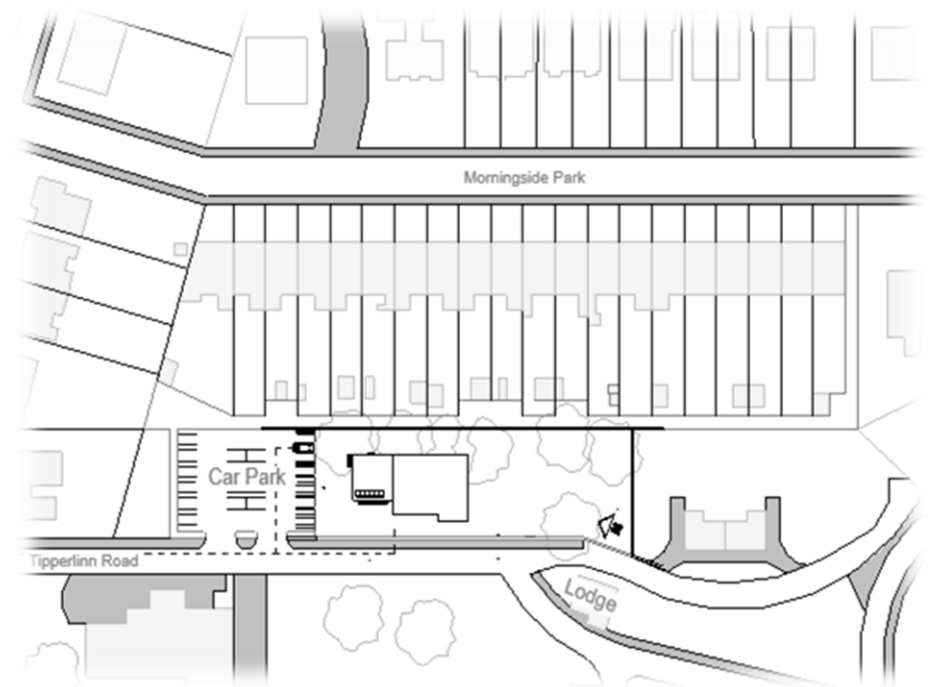
I was most fascinated by this kindergarten for the clear use of differing materials to show a clear distinction between the staff and administrative spaces to the children's learning zones but for it to still appear as one connected building. I decided to develop this further and take inspiration from this to my own designs.



# COURSEWORK 2

For coursework 2 I had been asked to further my studies from coursework 1 and create my own kindergarten looking at the criteria for a kindergarten but also the space required for the children.

When first given the site I had too consider how the site itself would actually work and where I felt would best fit my kindergarten.



*Tipperlinn Road, Edinburgh*

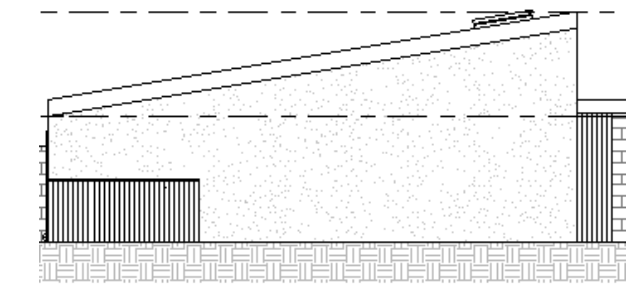
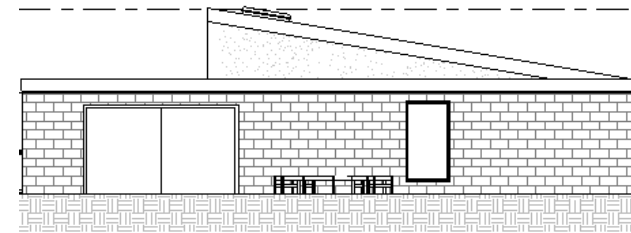
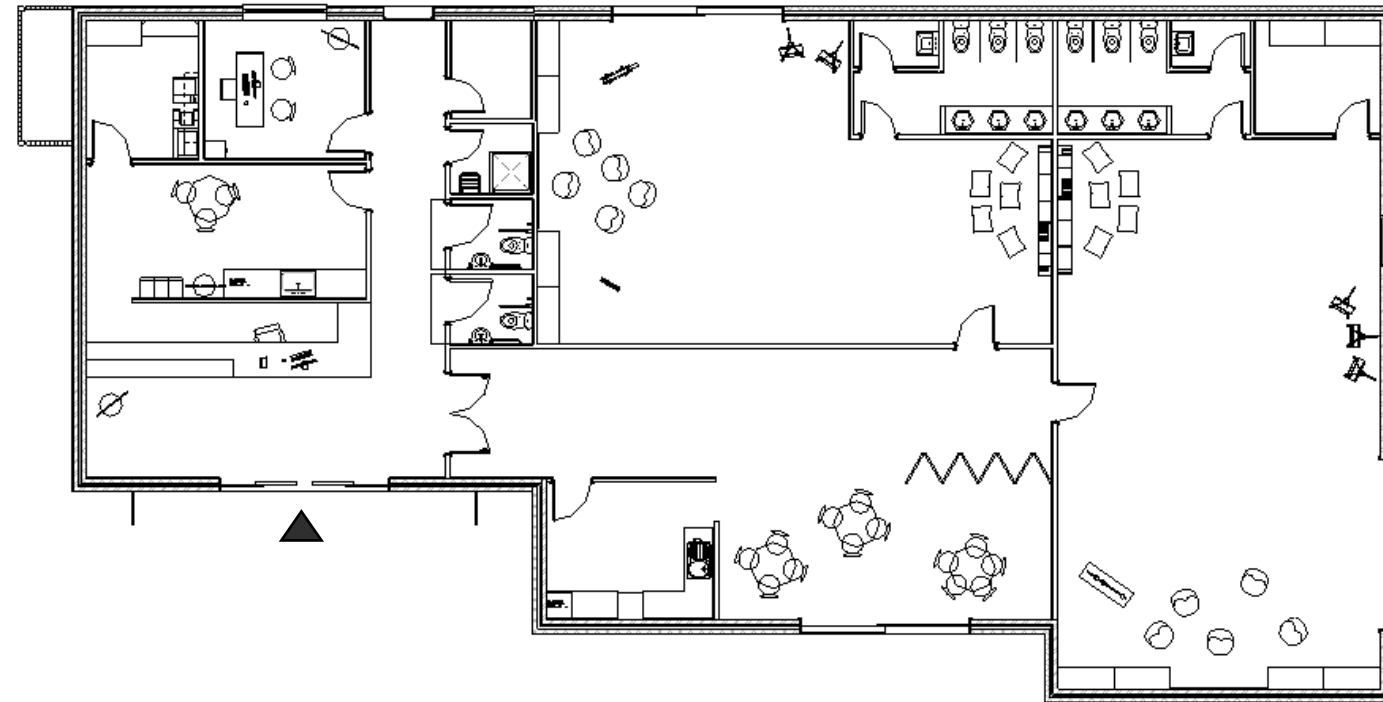
*High class area, home, prices range from £500,000 to £2 million*

*NE sunrise to NW sunset (Jan-Jun) and SE sunrise to SW sunset (Jul-Dec)*

*Average temp. Ranges from 1-19 degreesC*

*Deliveries approaching from Colinton Road. Tipperlinn Road is a 10mph zone*





## COURSEWORK 2

The brief for coursework 2 asked for 2 group spaces (each suitable for 15 children), an internal toy store, children's toilets and cloakroom, managers office, administration office, kitchen, staff room, staff toilet, general storage and an external toy store.

Looking at the brief and the space required for the number of children within the building, this was my concept design and the design I carried through the remainder of the coursework.

Floor plan and elevations created on Revit.



## COURSEWORK 2

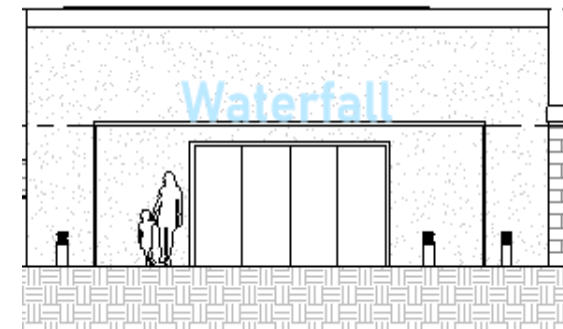
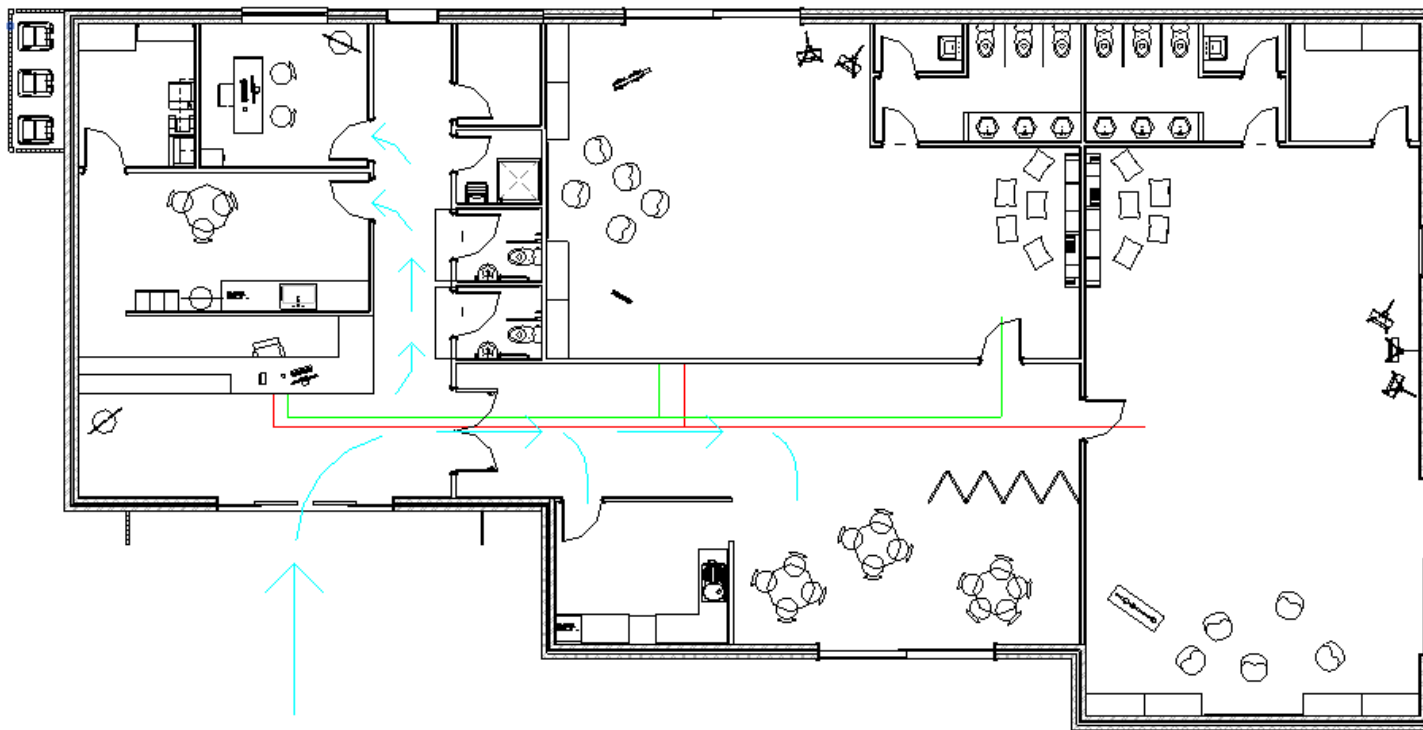
From research of the local area I found Tipperlinn Road to be a very close-nit village and has a lot of history behind it.

Many years ago Tipperlinn Road was largely known for its large supply of water to Edinburgh and so the name Tipperlinn Road came about from the Gaelic translation 'the well of the waterfall' and so I decided to name my kindergarten Waterfall.

As a way to in keep with the local community and understand their needs and wants I find this name as least intrusive and community welcoming.



WATERFALL  
day kindergarten



## COURSEWORK 2

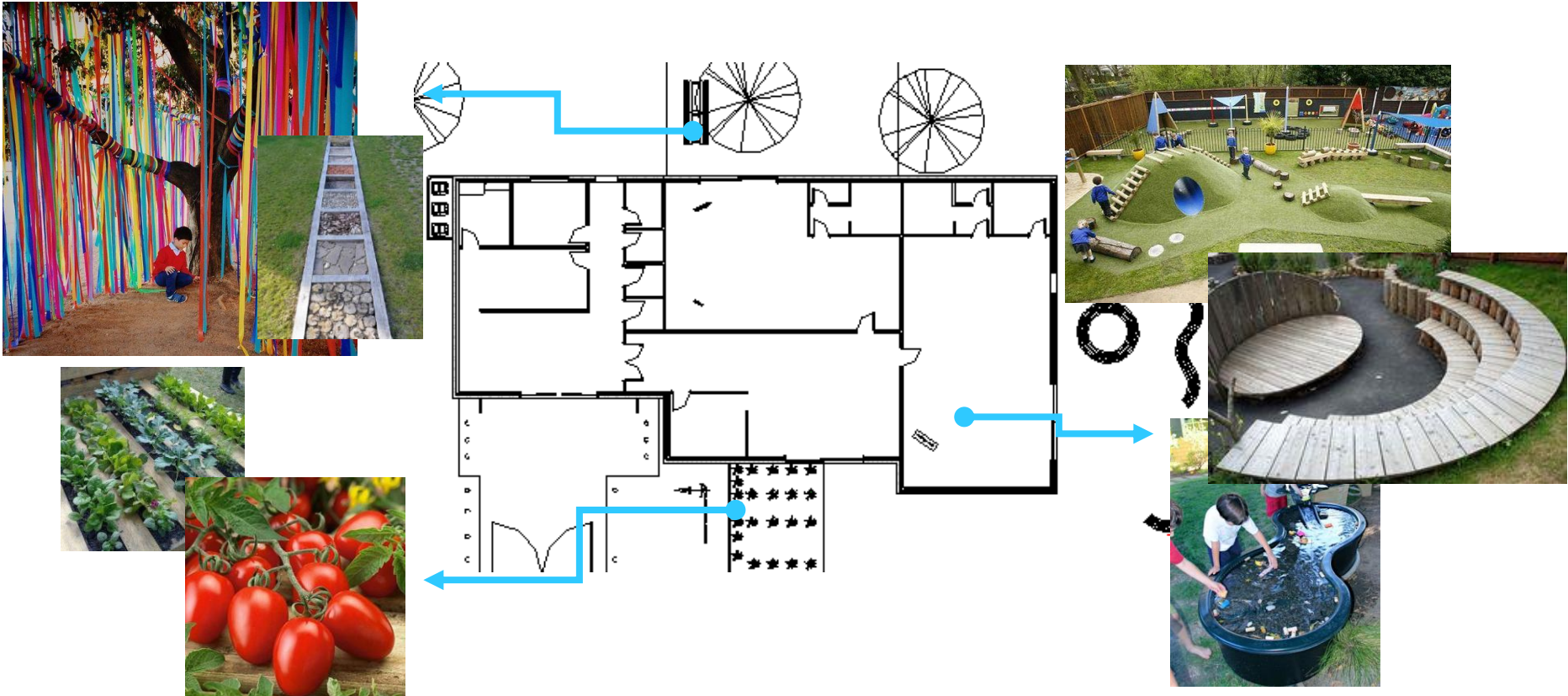
The most important vision I had for my kindergarten was the flow of the building between the staff and children zones.

I decided to take inspiration from hospitals and the use of coloured lines to direct the public to their appropriate departments and so, I incorporated this into my kindergarten allowing children and parents to enter through the main reception and towards the reception desk where the children are to follow their age groups coloured line to the 'house' cloakroom and onto their rooms.

Floor plan created on Revit.







## COURSEWORK 2

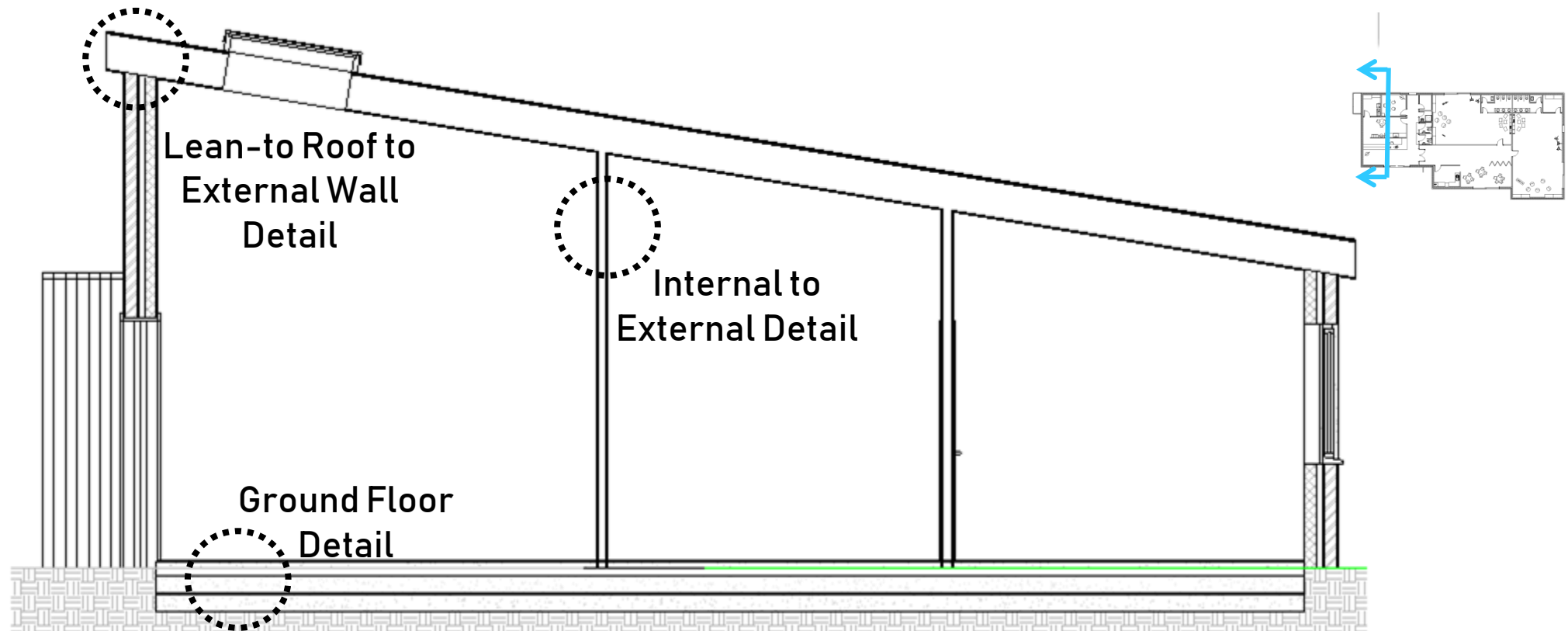
The flow of Waterfall kindergarten continues throughout the building and into the landscape.

I have three glass sliding door exits to different gardens and functions. From the 3-4 year old children's room, the children are lead out to a senses garden where the children can grow, smell, touch and feel all different materials or objects. The central activity zone leads out to a vegetable/fruit patch where both the children attending the kindergarten and the local community could, perhaps, grow there own tomatoes and use this to make food. The final garden space leads out from the 4-5 year olds room to a further learning zone with a small auditorium space, water tables to play at and contouring landscapes.

# COURSEWORK 3

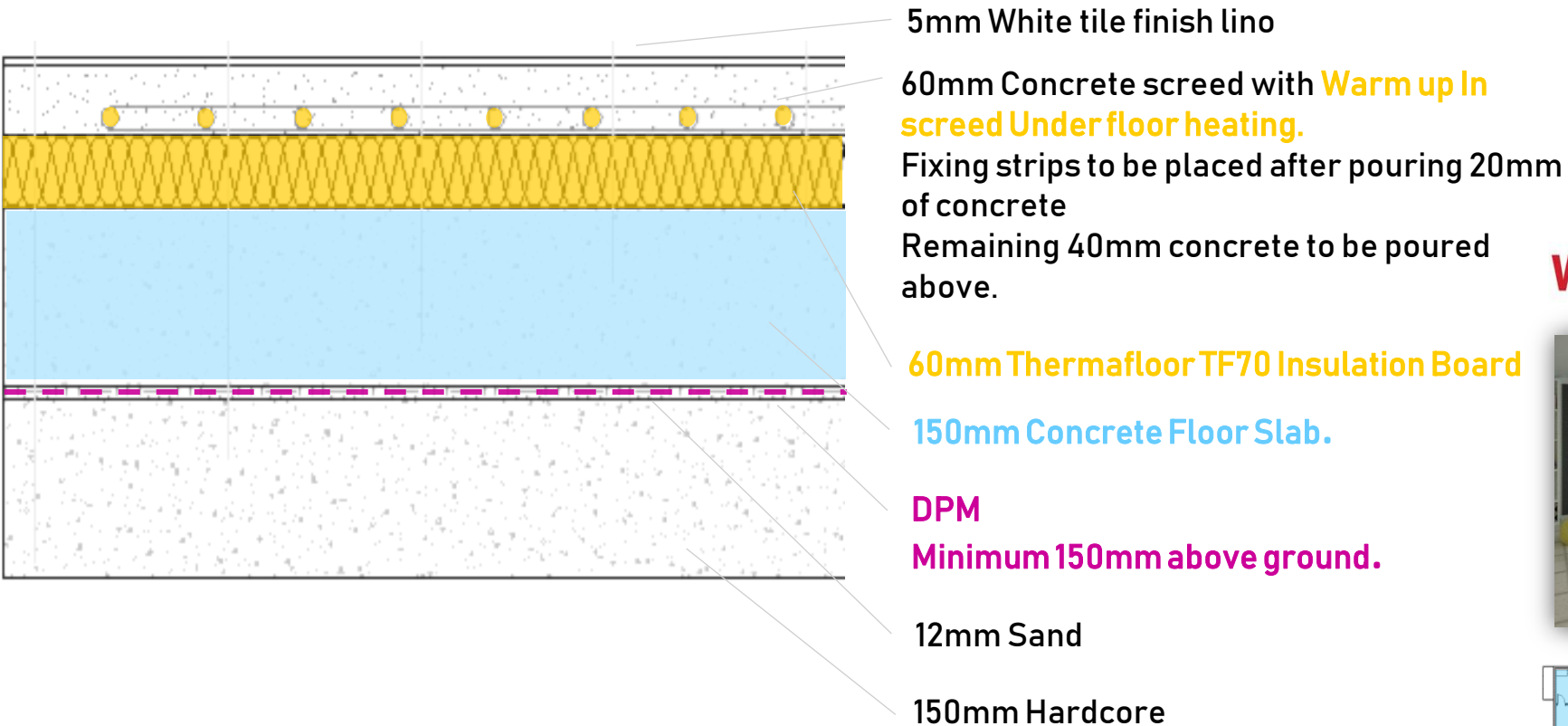
In coursework 3 I was asked to give 5 further details within my kindergarten. For my coursework I decided to focus on my ground floor, external wall to lean-to roof, internal to external wall detail, external wall to flat roof detail and lean-to roof to flat roof.

Details of the structural and architectural materials used are outlined through these sections.



# GROUND FLOOR DETAIL

*Coursework 3*



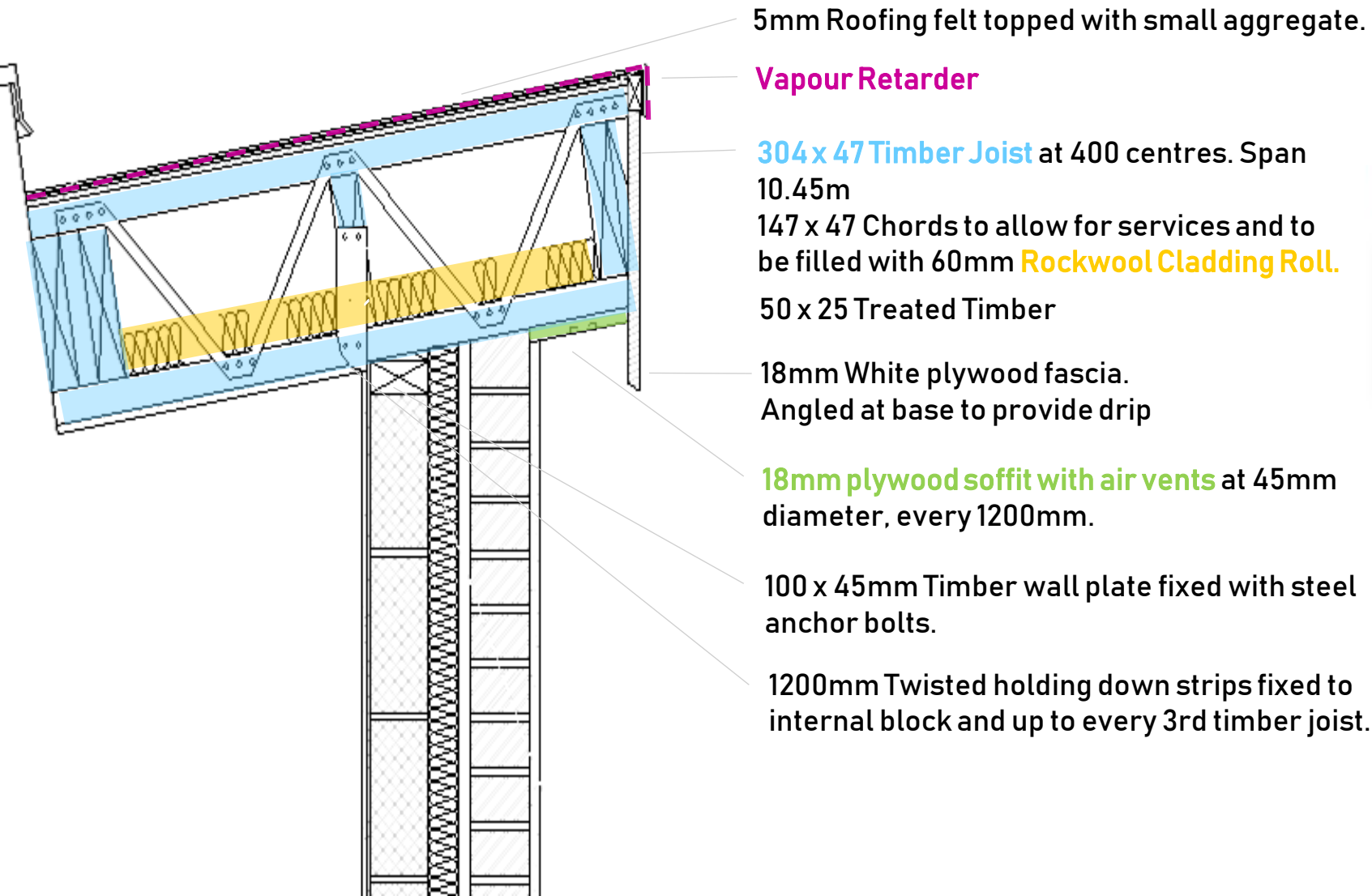
**Warmup** Kingspan.



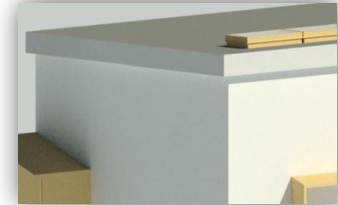


# EXTERNAL WALL to LEAN-TO ROOF DETAIL

## Coursework 3

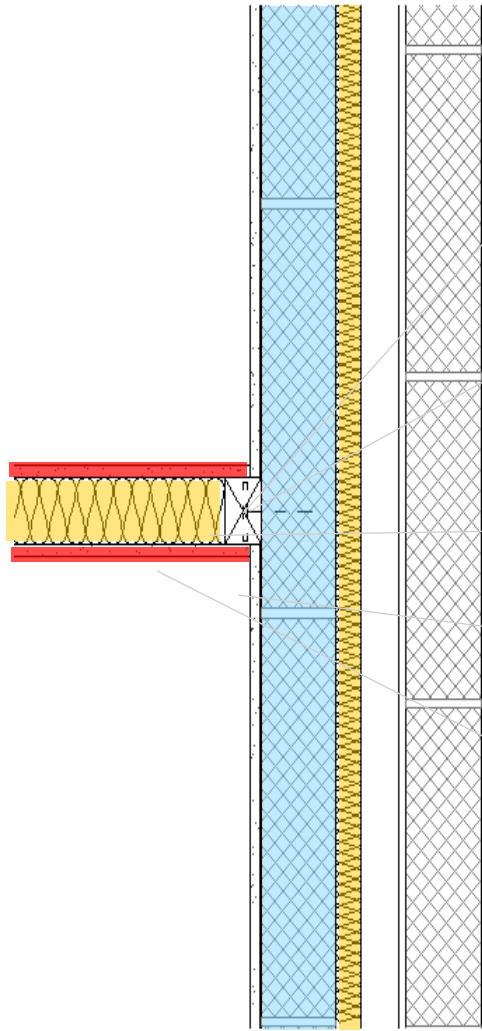


MERRONBROOK ROCKWOOL®



# INTERNAL WALL to EXTERNAL WALL DETAIL

## Coursework 3



Internal Timber stud partition wall is joined to **brick/stone external wall** with a masonry screw.

Plasterboard will be attached to timber studs with Gyproc drywall screws at 400mm horizontal planes. Gyproc sealant can be used for optimum acoustic insulation.

**Kingspan Thermawall TW55 insulation** between timber studs.

Gypsum Plasterboard to wrap at internal points leaving a flush appearance

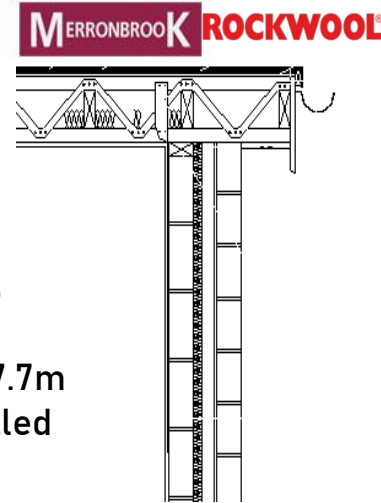
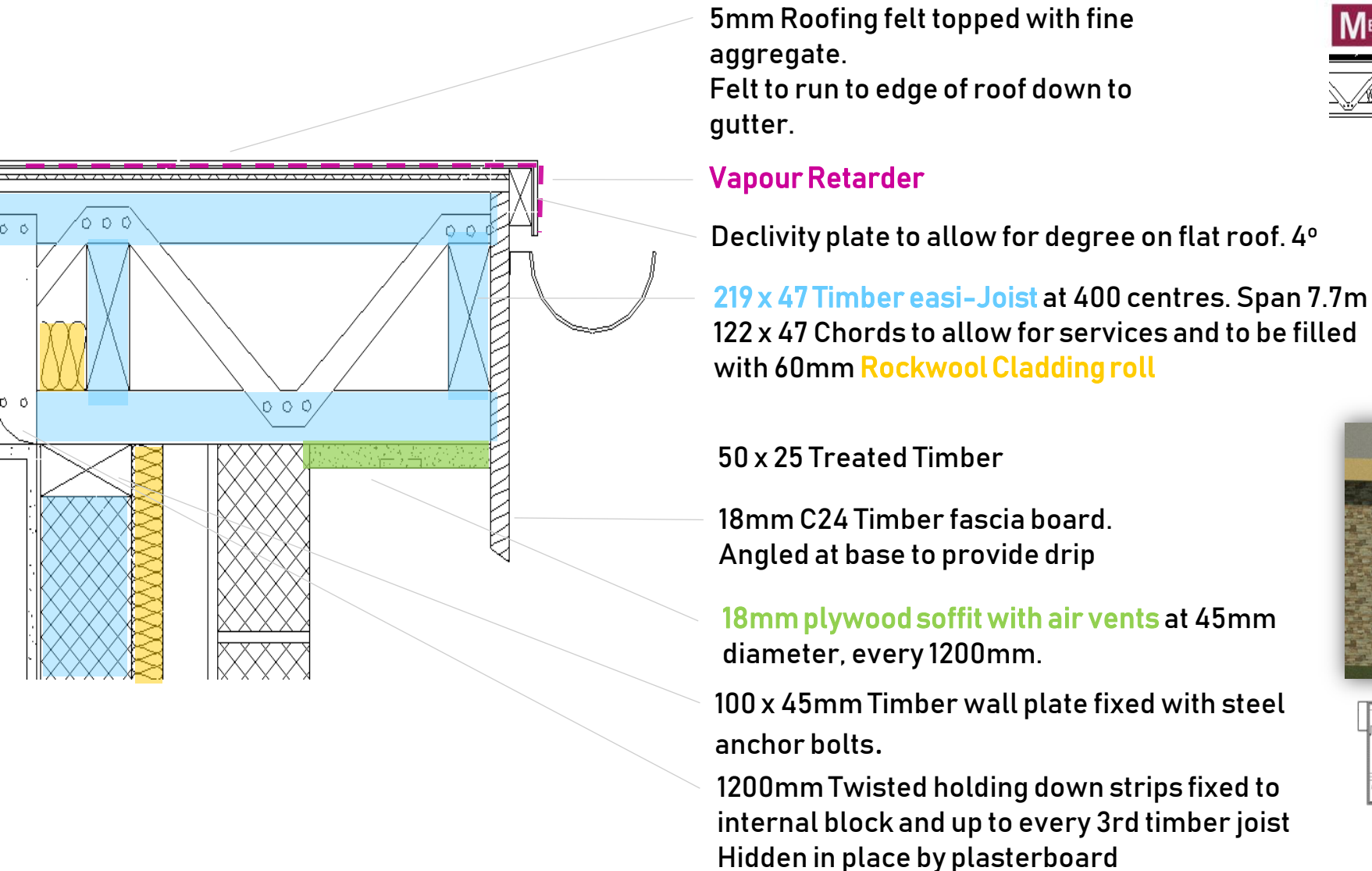
12.5 mm Gypsum Plasterboard.

**FireLine plasterboard and water resistant plasterboard to be used in intermediate zones.**



# EXTERNAL WALL to FLAT ROOF DETAIL

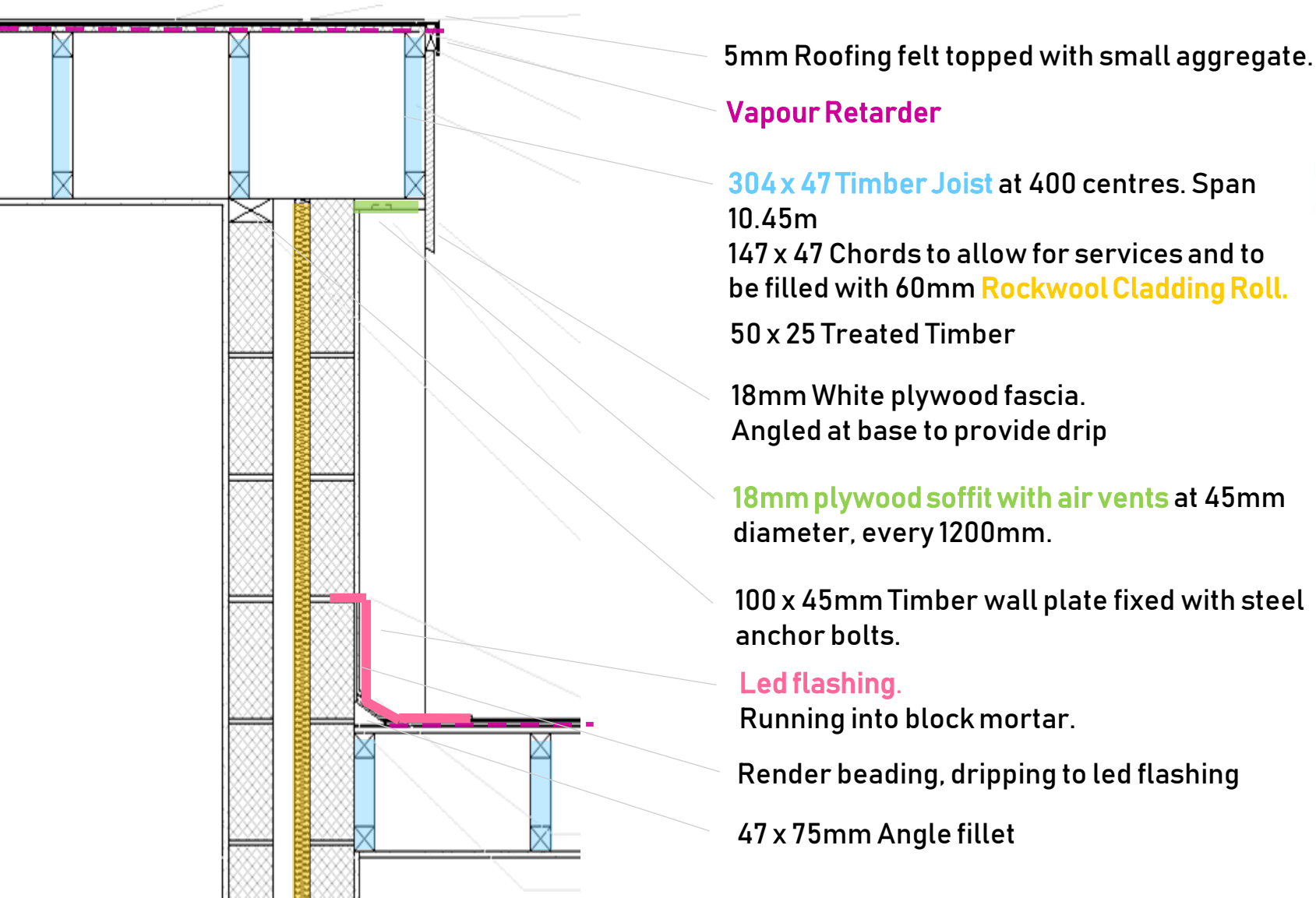
## Coursework 3



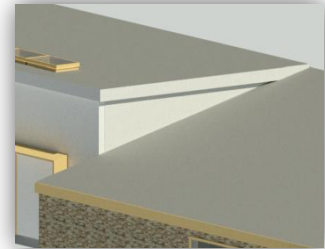


# LEAN-TO ROOF to FLAT ROOF DETAIL

## Coursework 3



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# COURSEWORK 3

Visual appearance of the building externally from entrance at the gates, North-West approach from Colinton Road and the approach from the South.

To in keep with surrounding buildings I decided to use Ashler stone as my external material in the kindergarten zones and a white render on the staff/entrance to incorporate the use of different materials but to also create a flow between staff and children zones. This was where my inspiration from Guntramsdorf Friespiel was taken.

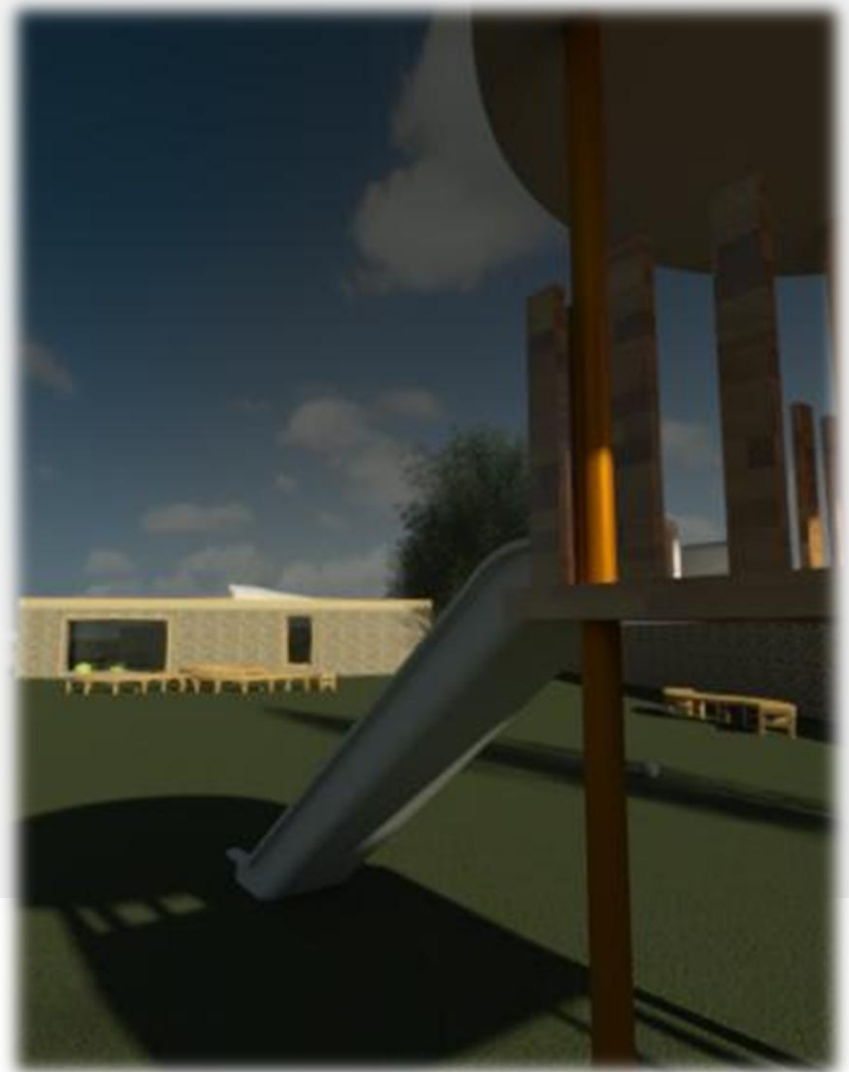
Renders created on Revit.



# COURSEWORK 3

Visual appearance of the building externally from the children's outdoor play area,

Renders created on Revit.





# COURSEWORK 3

Visual appearance of the building internally, 3-4 year old children's room looking out to the sense garden. Both rooms, 3-4 year olds and 4-5 year olds are similar in finish and style.

It was my decision to leave the rooms with a lot of design opportunities for the children and the community to design and create their own safe and fun spaces.

Renders created on Revit.



# COURSEWORK 3

Visual appearance of the building internally, 4-5 year old children's room and the central activity zone with kitchen on the right with a half partition wall and looking out to the vegetable/fruit patch.

It was my decision to leave the rooms with a lot of design opportunities for the children and the community to design and create their own safe and fun spaces.

Renders created on Revit.

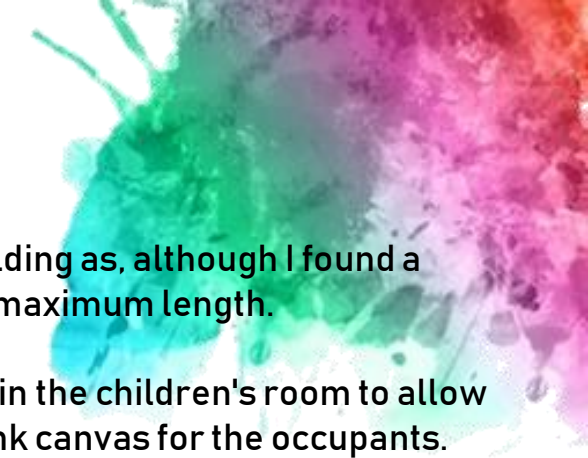


# COURSEWORK 4

Overall I was and am very happy with my design.

If I had to critic myself I wish I had gave more consideration to my spans within my building as, although I found a supplier of easi-joist, the length of the joists required for my roof were coming to the maximum length.

One other thing I feel I would change would be to incorporate more fun elements within the children's room to allow the rooms to feel more like a kindergarten instead of leaving the entire building a blank canvas for the occupants.



WATERFALL  
day kindergarten