

House & Multi-tool 2

AS 91337: Use visual communication techniques to generate design ideas (3 credits) – 2014

Achievement	Achievement with Merit	Achievement with Excellence
<ul style="list-style-type: none"> Use visual communication techniques to generate design ideas. 	<ul style="list-style-type: none"> Use visual communication techniques skilfully to generate design ideas. 	<ul style="list-style-type: none"> Use visual communication techniques effectively to generate design ideas.
Visual communication techniques are used to generate ideas to show design qualities. <hr/>	Visual communication techniques are used skilfully to generate ideas to show design qualities with clarity through well-articulated visual means. <hr/>	Visual communication techniques are used effectively to generate ideas to show design qualities with clarity and a depth of understanding through well-articulated visual means.
Design ideas are produced that explore identifiable design qualities <hr/>	Divergent design ideas are produced that explore identifiable design qualities	Divergent design ideas are produced that are explored and extended to show identifiable design qualities.

A

Commentary:

The multi-tool project has the stronger drawings in terms of showing the features of the design clearly and in very good detail. Some of the finer details are not quite refined enough or suitably articulated to a decent scale to convincingly communicate to the excellence level. The house drawings are not to the same standard of visual communication.

The submission does show different ideas within a single context. This is evident only within the house project, where there are different floor plan ideas that consider functional options and some simple window shapes and roof forms that consider aesthetic options, though just to an adequate level. There is essentially only one idea for the multi-tool.

In summary, the multi-tool is providing the best evidence for the top line; the house providing the best evidence for the bottom line.

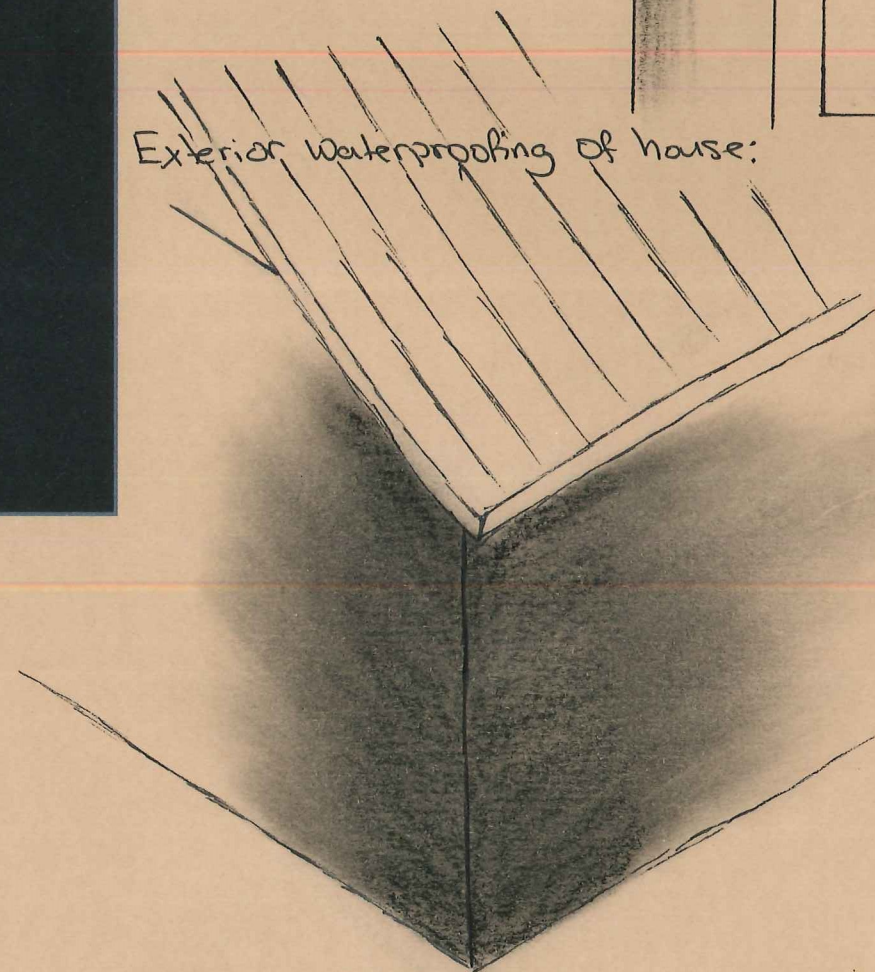
A low Achieved.

Initial Ideas

*Sizing Measurements for 105 North Street.
80.5 x 25.1 (m)

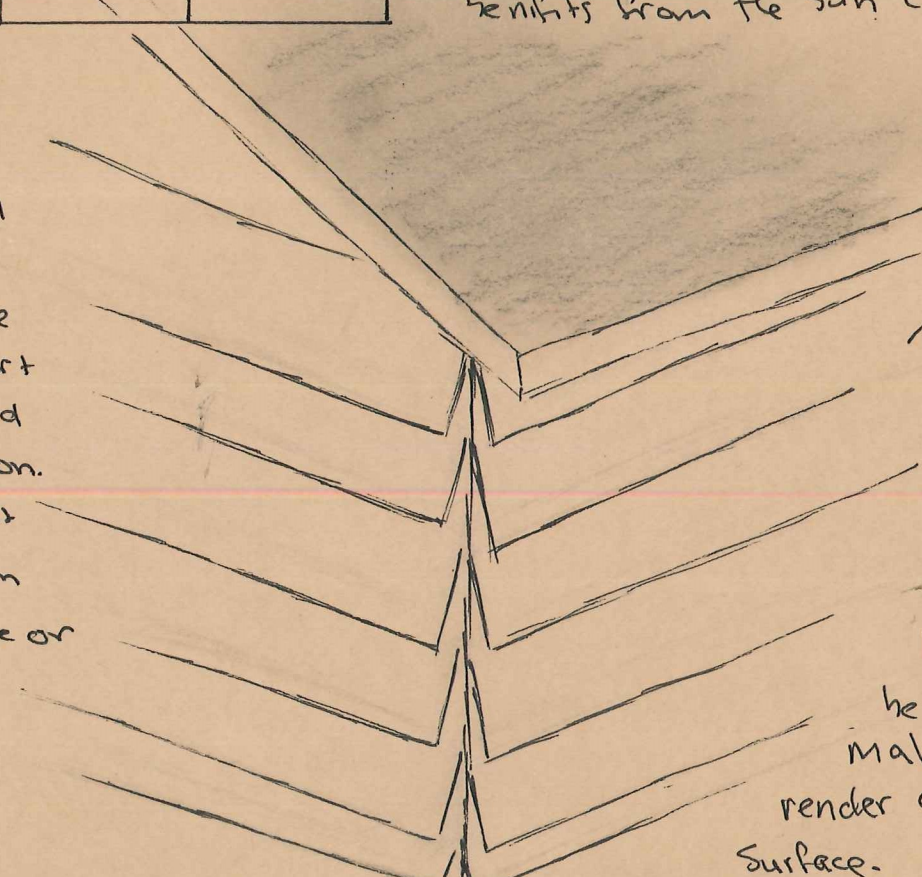
North Street. →

Exterior waterproofing of house:



Dark render:

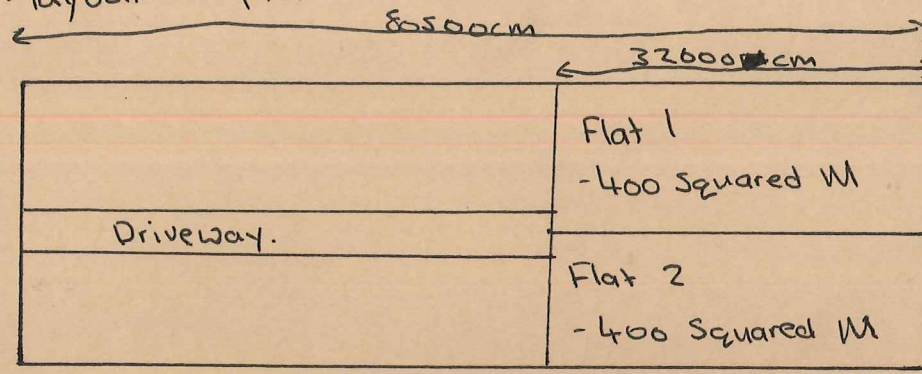
→ - Dark render is a cheap exterior material that gives complete waterproofing of the house, plus this sort of render is added to exterior insulation. This is a idea that could be used on the complete house or just sections.



oversized weatherboards:

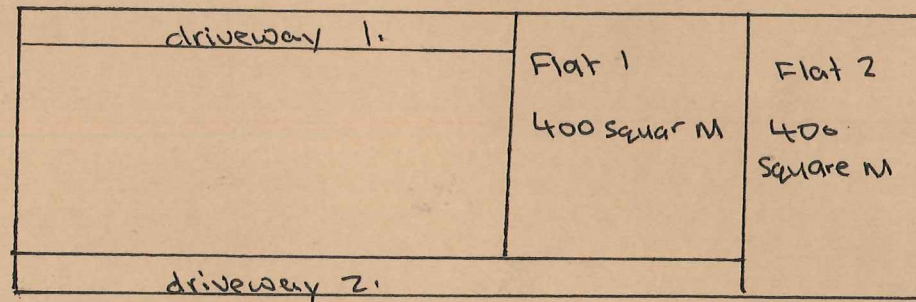
→ - oversizing of the normal weatherboard gives a very modern feel to the normal house. This board can be very eco-friendly with the re-using of previously loved boards. This can be used with other materials such as the dark render or an exposed brick surface.

- layout of plot.

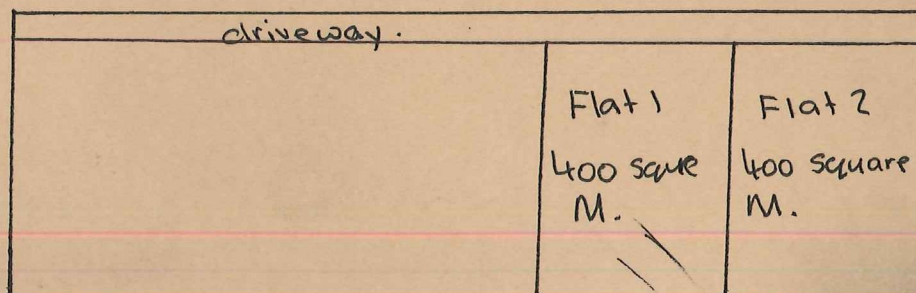


- Same overall Dimensions.

Simple overall layout. easily developed into a more beneficial area for two families. The shared driveway is a very good use of space. The two houses would have separate parking spaces so that the area is clear. Smaller flats could be added to either side of the driveway.



→ Double driveway design in my eye is a waste of usable space. Sharing one driveway has the same outcome with more benefits. Having separate driveways does give each house more privacy from neighbours however. Addition of other flats along the middle of driveways.



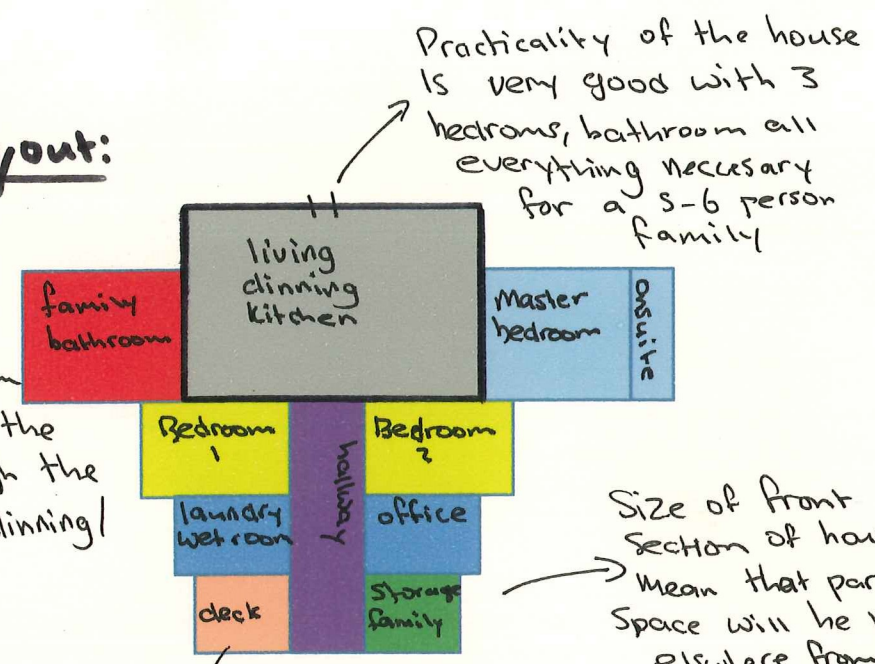
→ Very practice layout of the space. driveway benefits both flats. The addition of other buildings would be useful also. Size of the overall plot means that this could be the best use of space. This design also benefits from the sun coming up each morning.

Idea Development

— = Genius loci
* Genius loci of each design has been exploded to show the area. All other rooms to scale.

House room layout:

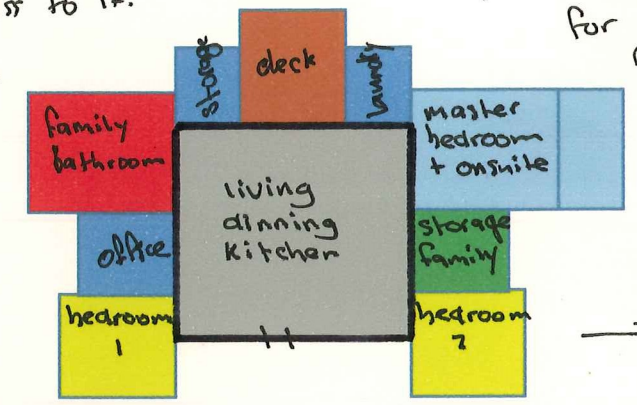
- In this design the house is centered from the genius loci with the hallway going through the back of the living/dinning/kitchen.



Deck gives the house a feel of leisure about it. gives it a place where the residents can have BBQ's etc..

living/dinning/kitchen really is the base of this house design. every room has a point of access to it.

Practicality and livability can easily be seen in this design with a very comfortable amount of space for family or for flatting.



has all requirements for a teacher or someone with a similar profession, has office and personal spaces.

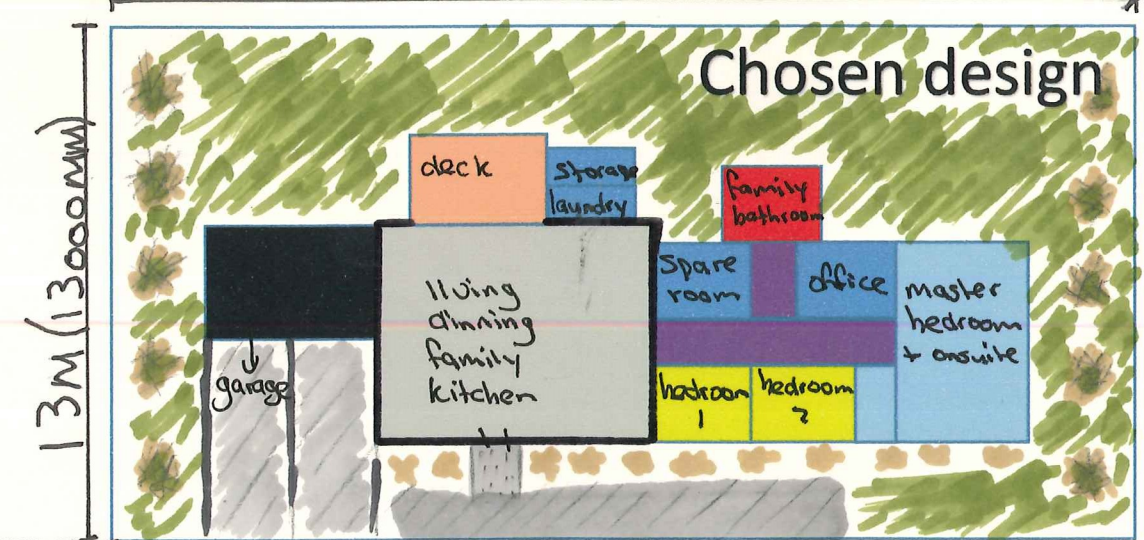
With the two protruding bedrooms out the front of the house there is a room for parking out the front of the house.

genius loci is clearly seen in the center of the house, hallway and garage going off this. creating flow and an easy to follow house.

Very livable spaces for family or just flatting. All rooms are usable and spaces all used for specific reasons.

33M (33000MM)

Progression can be seen from the previous two designs with the inclusion of a double garage and the addition of a spare room that can be used for multiple uses.



The purpose for having a identical building on either sides of the area is so the area is being utilised to its full capacity. This also lowers cost of the overall build and allows for a space that is divided into 2 evenly spaced out plots of land.

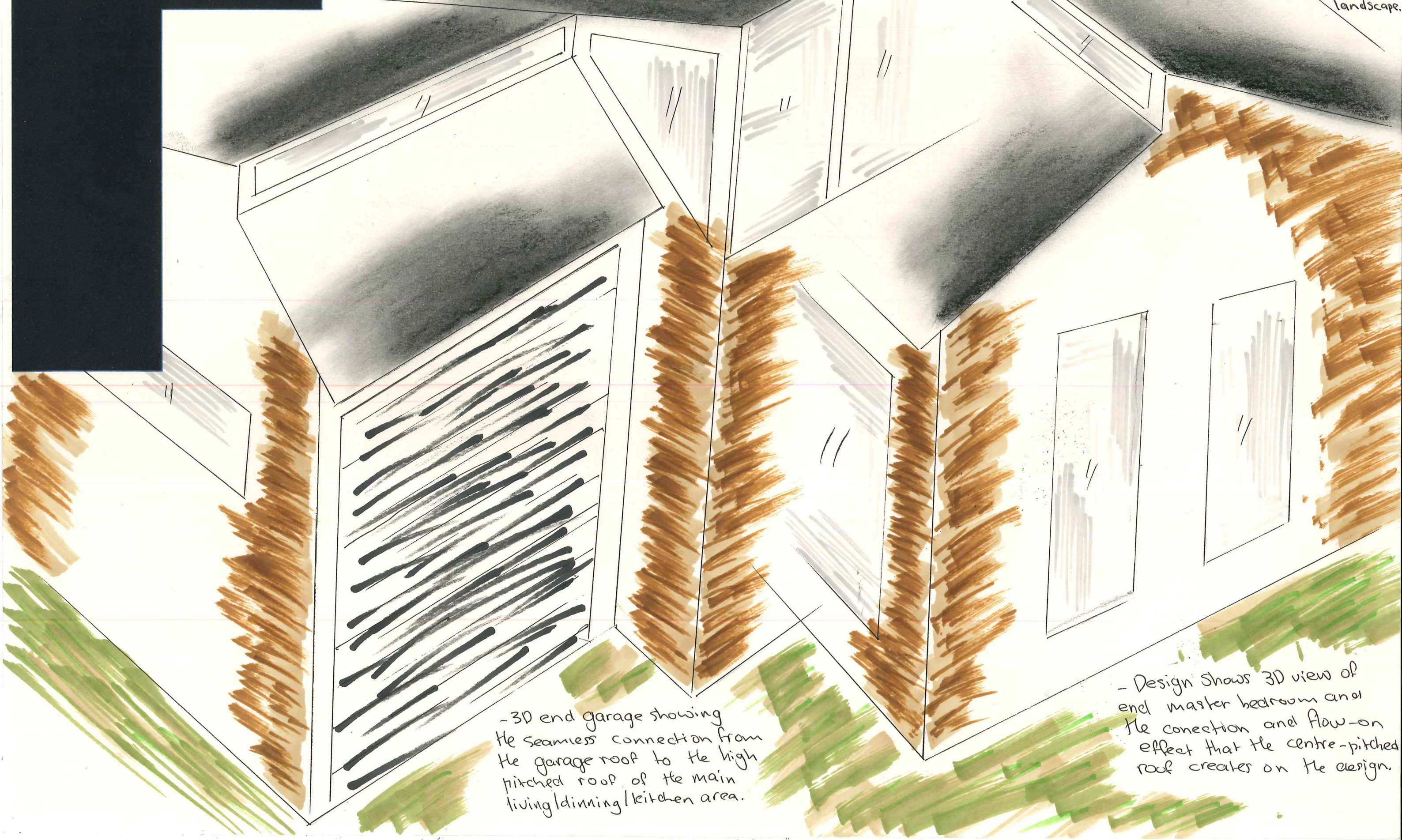
Option to either have front section of the house to have paved area or for it to be apart of the communal driveway, meaning more space out the back.

North Street

(Not in proportion)

Idea Development

Final costing of the house: Taking into account the cost for glazing and insulation the cost for this design will be around the 300 thousand dollar mark. This not including the exterior landscape.



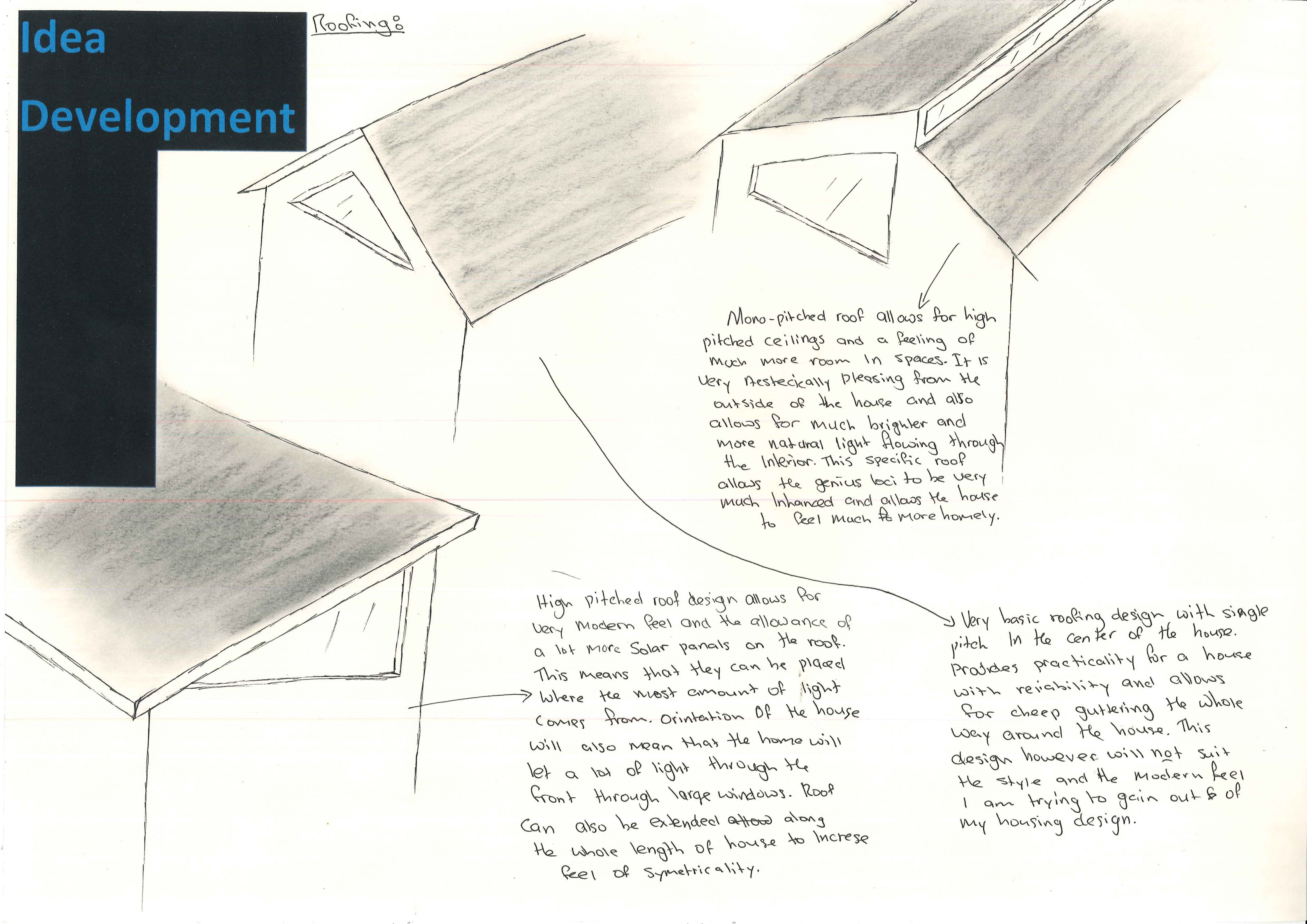
- 3D end garage showing the seamless connection from the garage roof to the high pitched roof of the main living/dinning/kitchen area.

- Design shows 3D view of end master bedroom and the connection and flow-on effect that the centre-pitched roof creates on the design.

Idea

Development

Roofing:



Mono-pitched roof allows for high pitched ceilings and a feeling of much more room in spaces. It is very aesthetically pleasing from the outside of the house and also allows for much brighter and more natural light flowing through the interior. This specific roof allows the genius loci to be very much enhanced and allows the house to feel much more homely.

High pitched roof design allows for very modern feel and the allowance of a lot more solar panels on the roof. This means that they can be placed where the most amount of light comes from. Orientation of the house will also mean that the home will let a lot of light through the front through large windows. Roof can also be extended ~~along~~ along the whole length of house to increase feel of symmetry.

Very basic roofing design with single pitch in the center of the house. Provides practicality for a house with reliability and allows for cheap guttering the whole way around the house. This design however will not suit the style and the modern feel I am trying to gain out of my housing design.

Idea

Development

-All windows are double glazed. This for protection from sun and more insulation of the walls.

Window layout:

ceilings with a pitched roof in the centre provides light for the garage and the hallway alike.

High pitched windows give great light all throughout the kitchen, dining, family rooms. These are fully double glazed so that during the night cold air doesn't get into the house.

Final concept:

- I will keep the large windows on the top of the pitched wall. the bedroom window will be extended with a large master bedroom window. With the living, dining kitchen wall I will have an extended bi-fold on the left side of the wall and then keep the large window to the right of the bi-fold.

Keep the large windows on the top of the wall gives a much more modern feel.

Bi-fold doors acting as the entry point to the house and also another point of natural light for the house

Single large window for both bedrooms then one smaller for the on-suite the one oversized floor to ceiling window for the master bedroom.

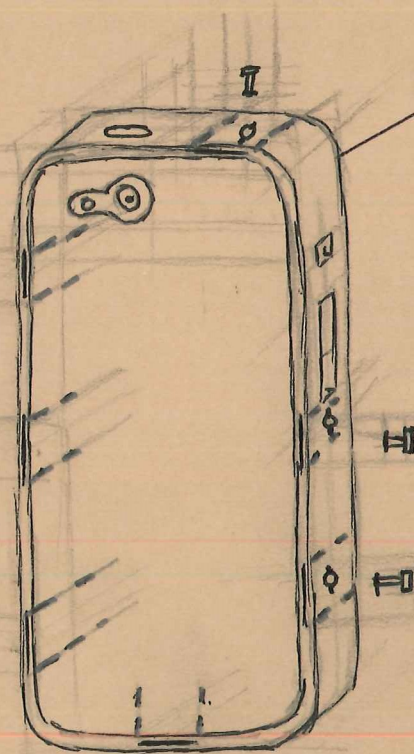
keeping the large oversized window for the master bedroom however losing the smaller window so that the bedroom windows can be extended. the natural light from the bedroom provides enough light for the on-suite.

Due to the size of the room the addition of a floor-to ceiling window adds natural light and a much more modern feel to the design.

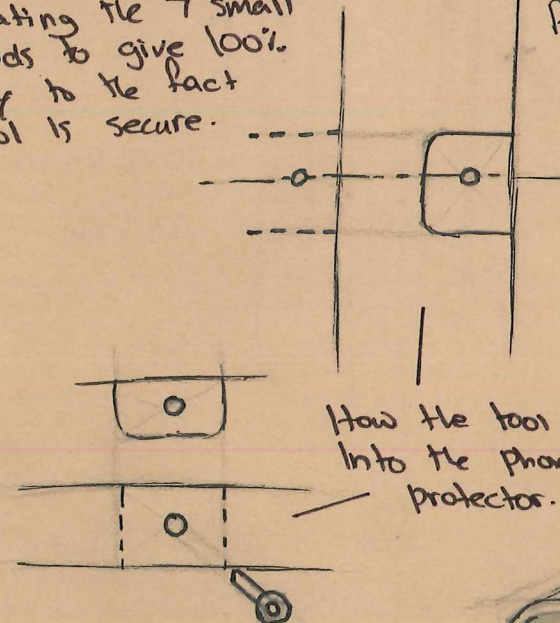
Over-sizing the window that was already there increases the light, but the incorporation of stainless steel framing adds a modern feel and another texture.

IDEA DEVELOPMENT

Opposite Connection

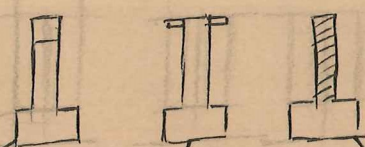


Phone protector displaying the connection method to the multitool case. Incorporating the 7 small turn rods to give 100% security to the fact the tool is secure.



How the tool sticks into the phone protector.

*All screws are made from stainless steel.



Magnetic screw rod. This is simple and provides strength and reassurance that the tool is safe. However it can slip out easily.

Turn screw provides very good strength in the way the tool will never come loose from phone. However could become a bit easily unscrewing the nut every time you want to take it off.

External thread nut provides the most strength out of all the nuts however impractical as there is way too much work unscrewing everytime you want to take tool off.

laminated wood, with plastic trim

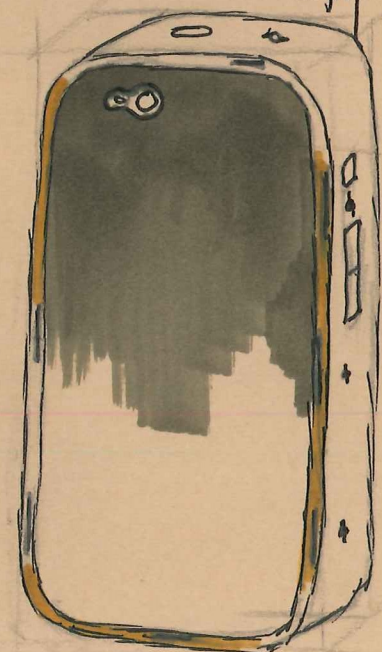
-Pleasing contrast between the two materials however practicality is at a miss. The laminated wood compromises on grip and plastic trim does not add any good practicality aspects.



Phone protector

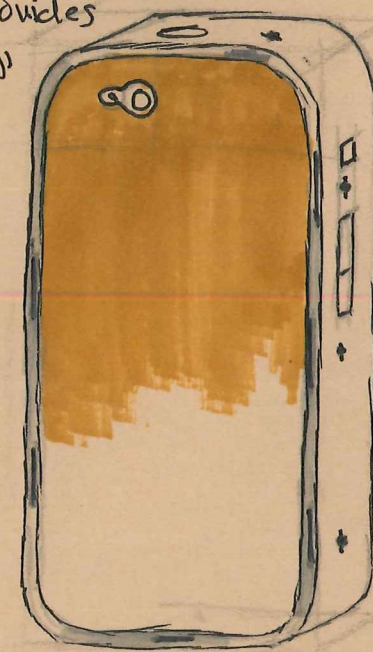
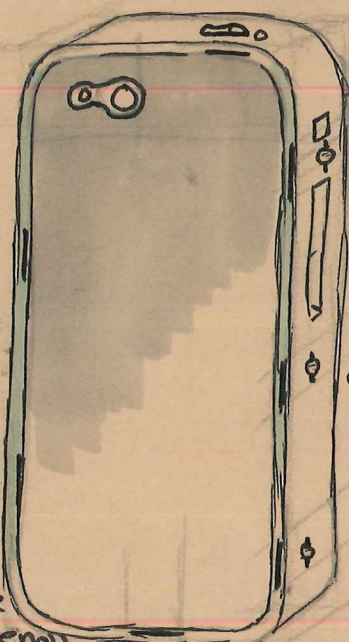
Plastic gloss with orange rubber trim.

-Ergonomically this design is good. however the rubber trim means the connection to the tool will be compromised on. Not enough strength comes from this design.



stainless steel with high gloss plastic trim.

The practicality aspect in this design is very good with a reasonably solid connection point with the plastic. the steel also provides good grip for the user.

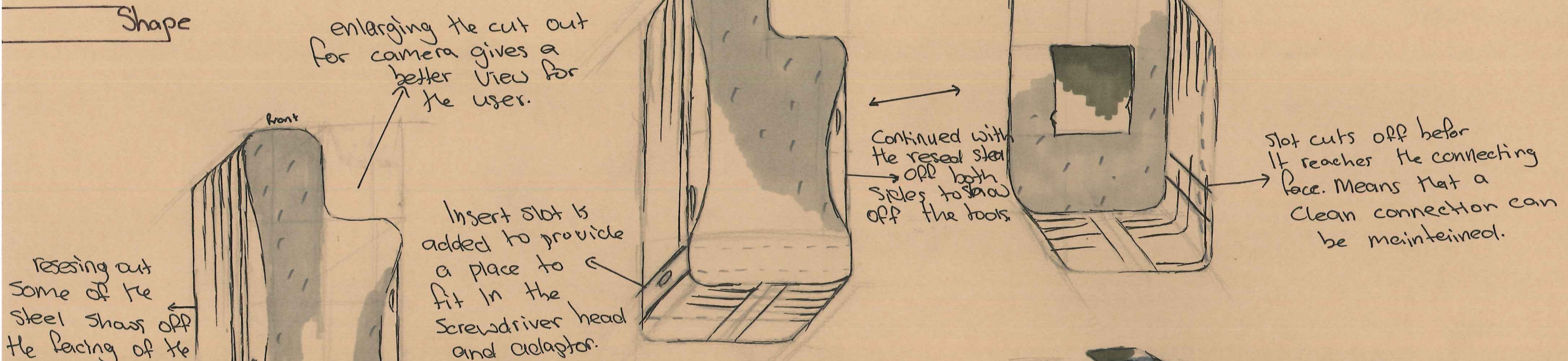


Orange rubber, with stainless steel trim.

-Rubber providing very good practicality with the grip provided, with the stainless steel trim this combination provides a perfect connection point for the tool itself.

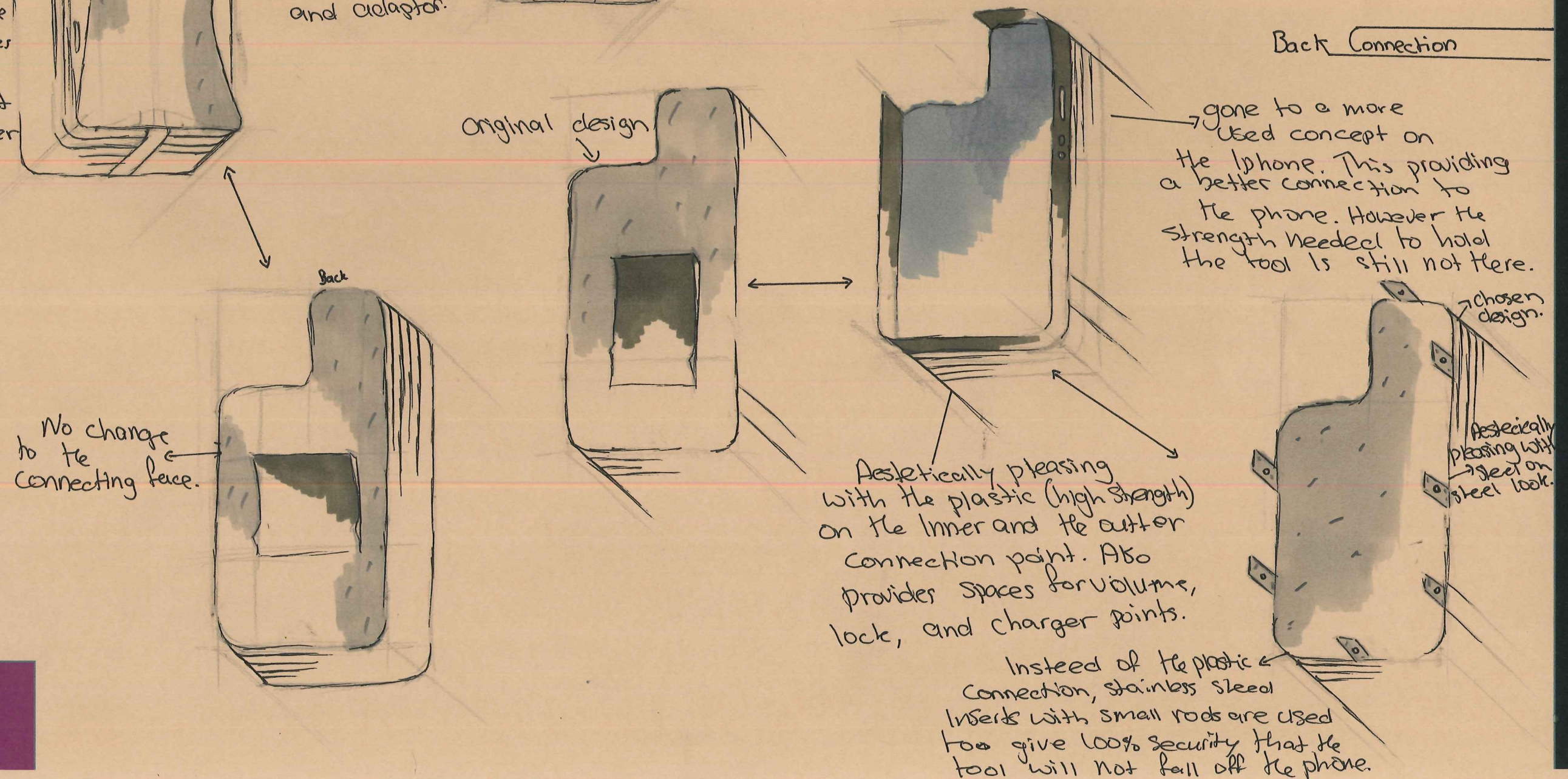
IDEA DEVELOPMENT

Shape



Resetting out some of the steel shows off the facing of the tool. This provides ease of use to get the tool out and a cleaner look to the design.

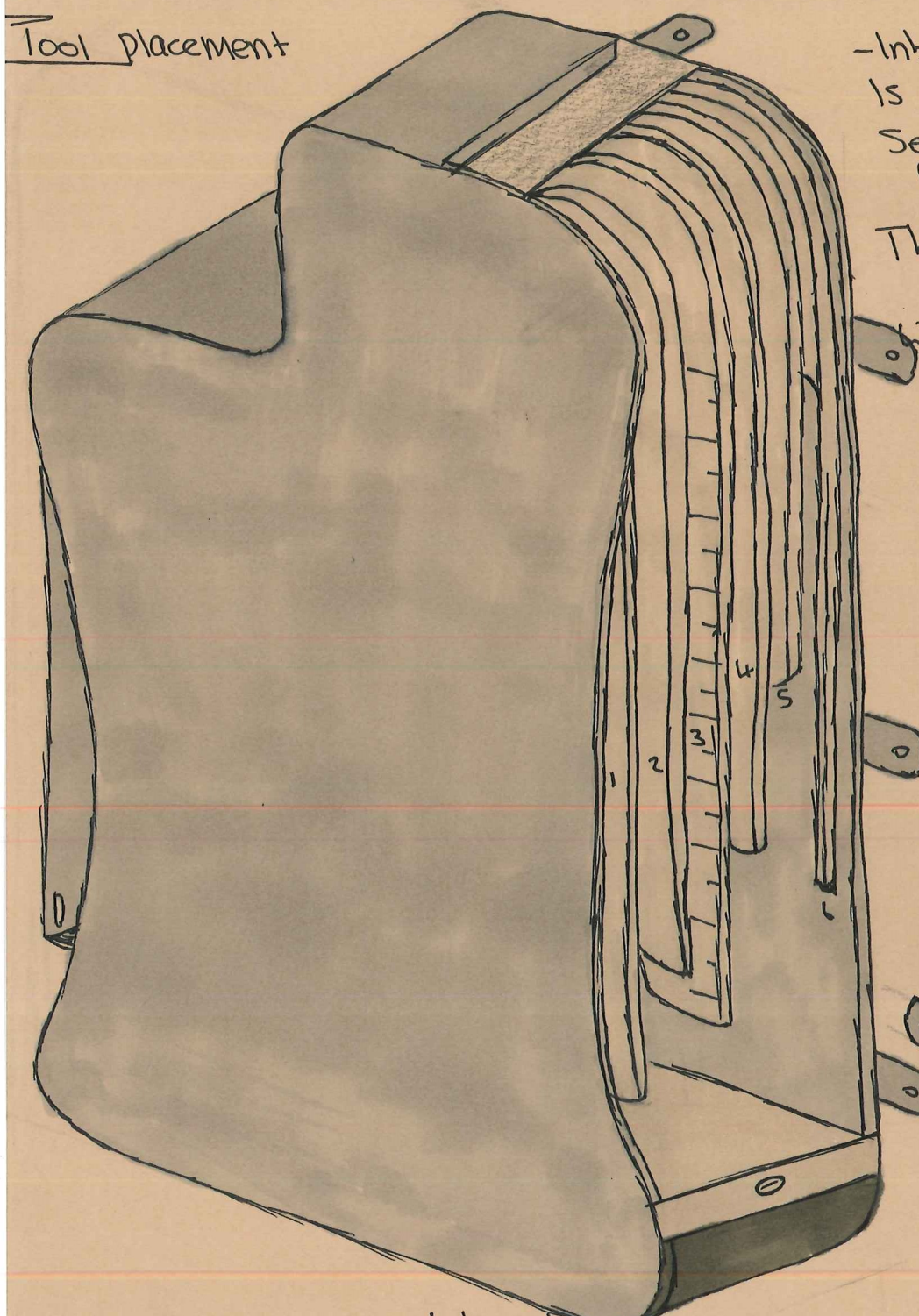
Back Connection



Instead of the plastic connection, stainless steel inserts with small rods are used to give 100% security that the tool will not fall off the phone.

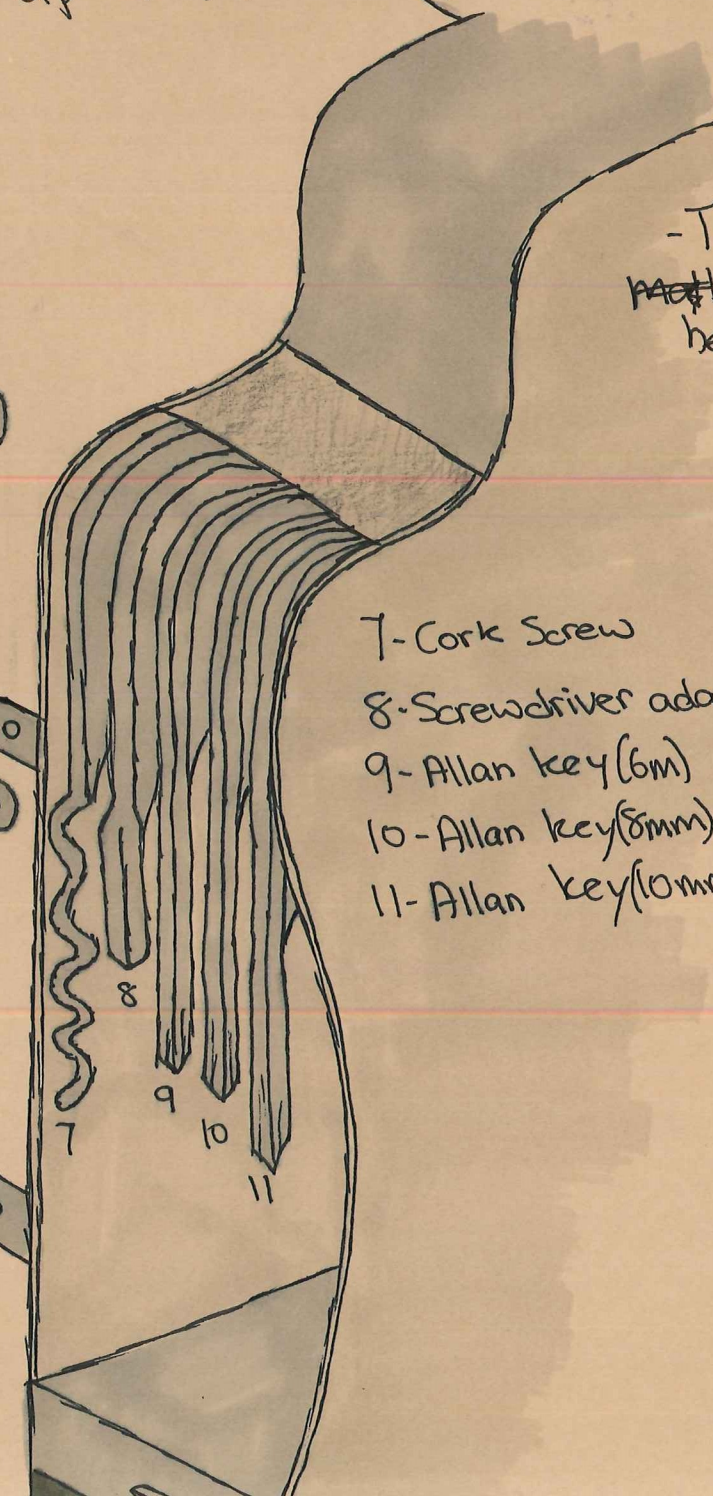
IDEA DEVELOPMENT

Tool placement



- 1- large blade
- 2- Serated blade
- 3- ruler
- 4- Small blade
- 5- bottle opener
- 6- Allan key (4mm)

- Inbetween each tool is a 0.5mm wide washer separating the tools from one another. This means that each tool can be lifted without ~~out~~ others coming up at the same time.



- 7- Cork Screw
- 8- Screwdriver adaptor
- 9- Allan key (6mm)
- 10- Allan key (8mm)
- 11- Allan key (10mm)

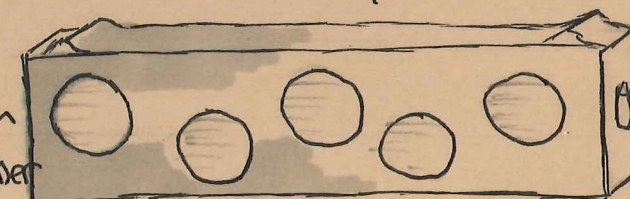
Tool Material

Stainless steel: Stainless steel is a very strong and rust/scratch resistant material. It is used in tools because of its resistance to go blunt. It is a typical shiny material.

Tool steel: Tool steel is also a very strong metal however the modern/clean look that I am after cannot be achieved with this metal.

- *Stainless steel is the choice for all tools.
- *Magnets are used in the screwdriver heads.

- groves in either ends of the slot lock the piece in place.

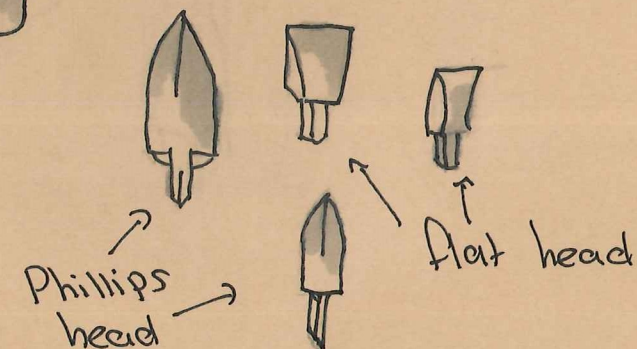


- The slot is ~~not~~ made from bendable rubber

adaptor



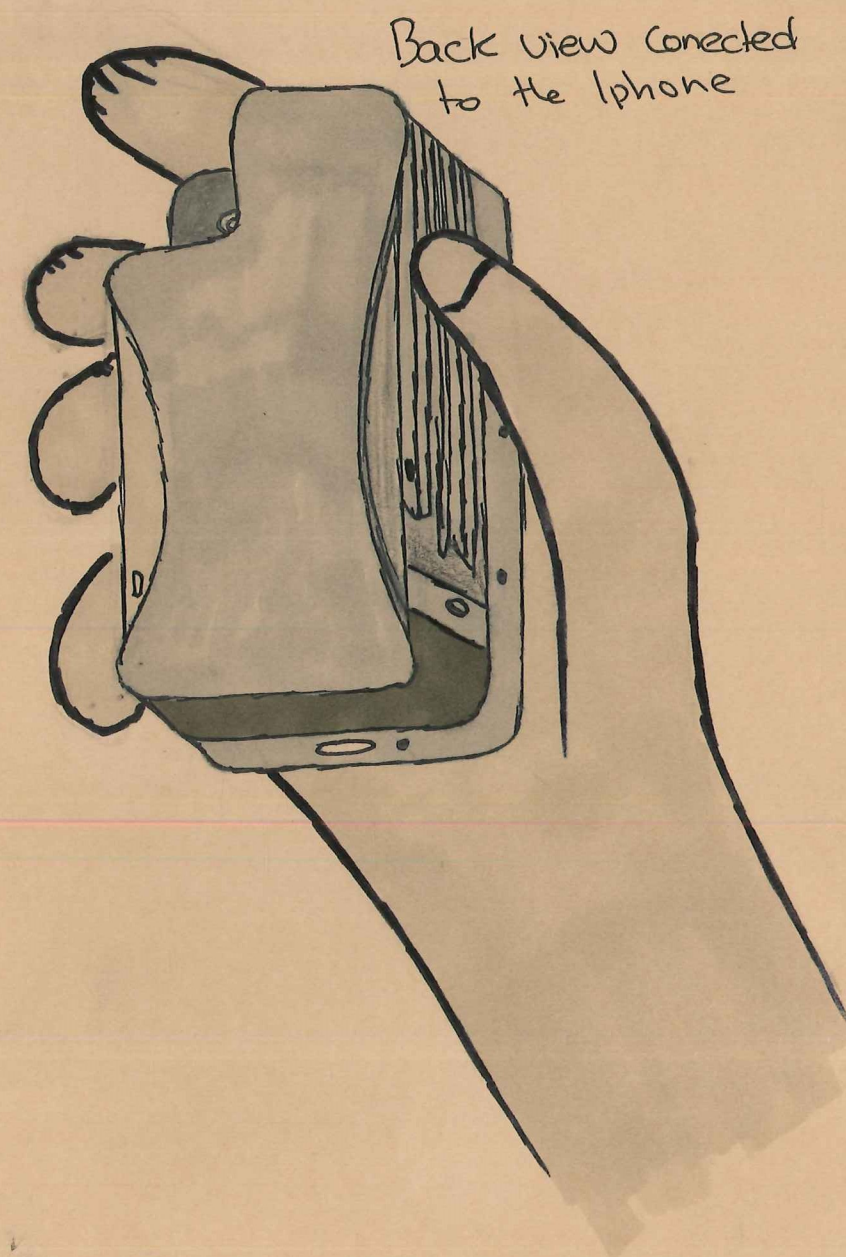
Insert Slot



- all heads fit into the slot seamlessly so that the top and bottom is flush and the slot can be removed and put back in cleanly.

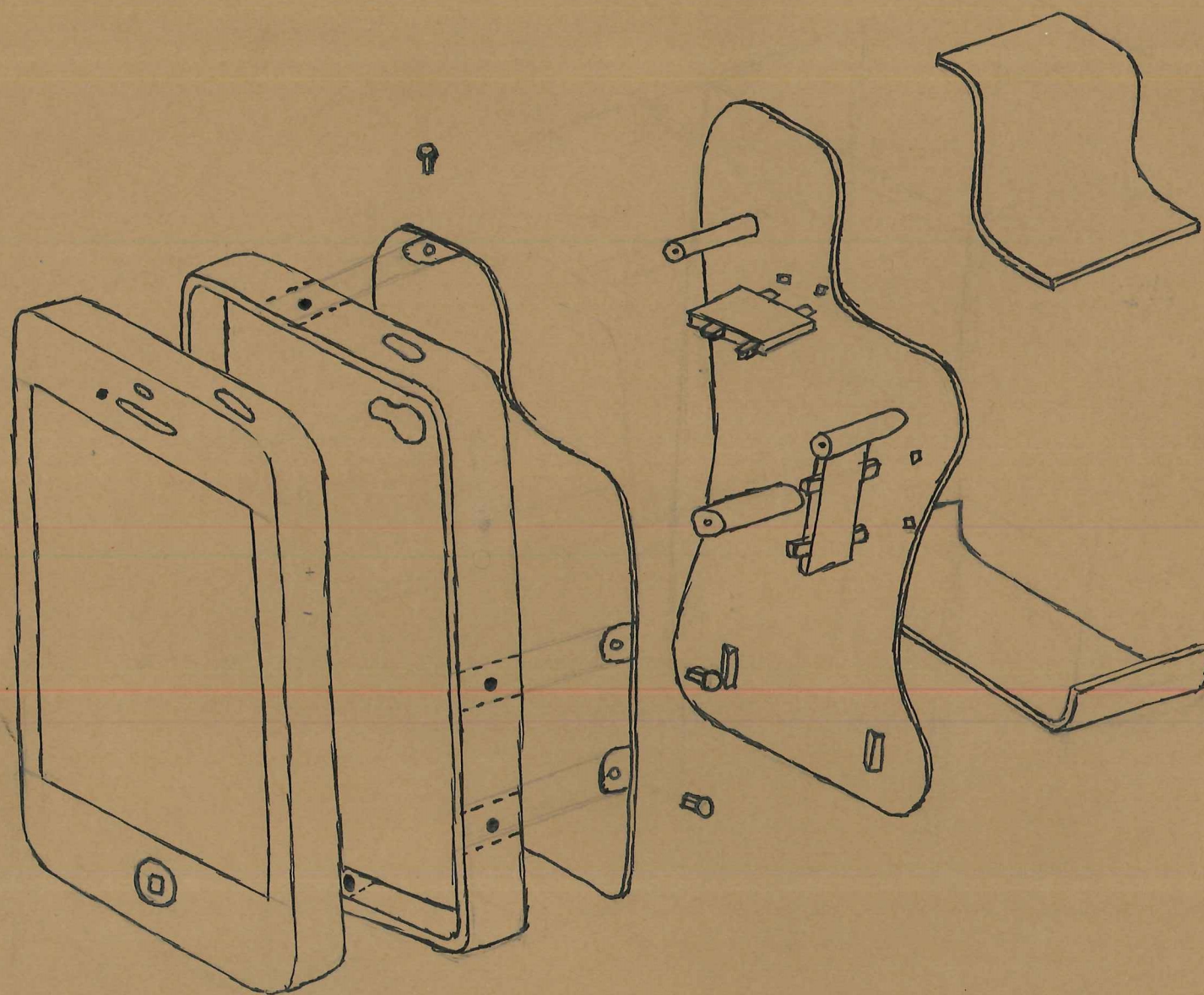
IDEA DEVELOPMENT

Scale/Proportion



IDEA DEVELOPMENT

Final
+
Exploded



exploded view.
- Excluding tools, and washers

