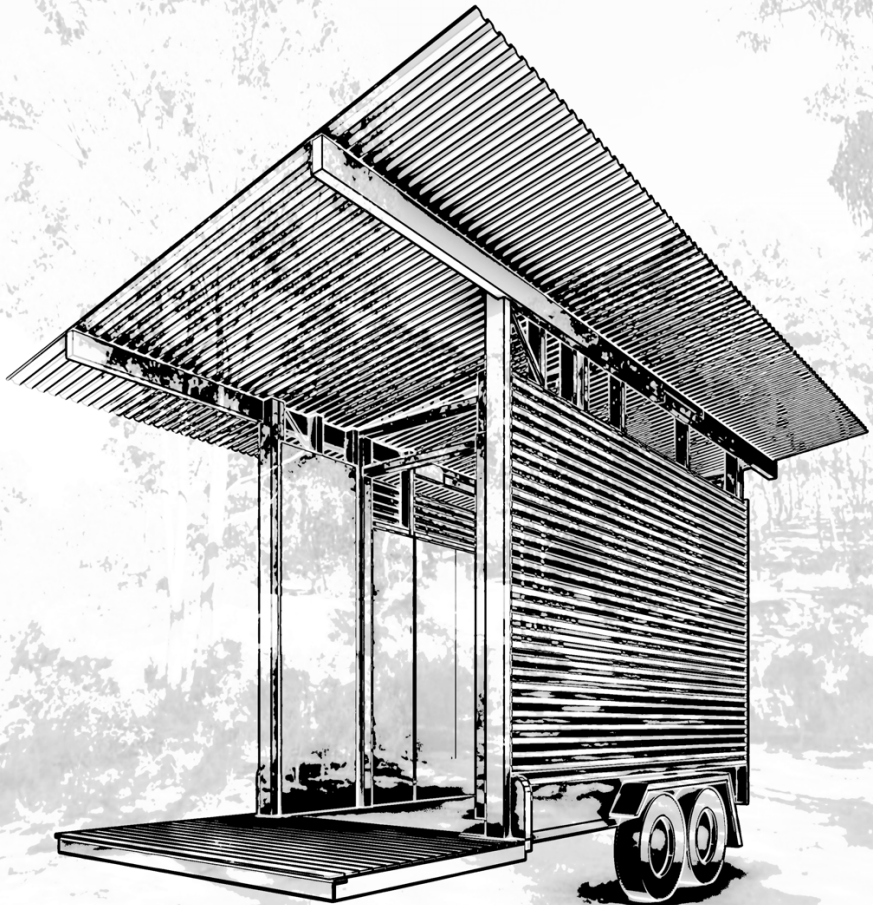


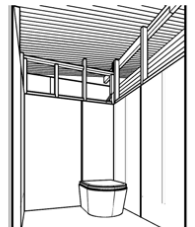
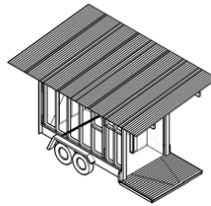
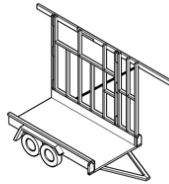
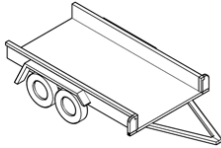
NALDERUN TOILET TRAILER

CONSTRUCTION METHODOLOGY



NALDERUN TOILET TRAILER

CONSTRUCTION METHODOLOGY



BAILEY FLORENCE, 2026

Bailey Florence. 1460964. Construction Methods A.
ABPL90286. Semester 1, 2026.

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ACKNOWLEDGMENT OF COUNTRY

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4. FIXINGS
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6. SAFETY

B. CONSTRUCTION PROCESS

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2. TIMBER FRAME CONSTRUCTION PROCESS
3. DECK CONSTRUCTION PROCESS
4. ASSEMBLY & CLADDING
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C. PROJECT REFLECTION

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2. CULTURAL SUSTAINABILITY
3. ENVIRONMENTAL SUSTAINABILITY
4. REFERENCES

ACKNOWLEDGMENT

I would like to acknowledge the traditional owners on the lands where this project took place. The building was prefabricated on Yorta Yorta Country. The building will be installed at Nalderun on Djaara Country. This workbook was written on Wurundjeri Country. The work we do as students of Architecture must embody a deep respect for Country and tens of thousands of years of life and culture. I pay my respects to all Elders past present and future. Sovereignty was never ceded, this always was and always will be Aboriginal land.

A. INTRODUCTION

OVERVIEW

This journal provides a set of instructions documenting the initial works constructing a portable toilet structure for the Nalderun bush tucker farm, located in Moonlight Flat, Chewton, VIC on Djaara Country. Construction of a timber frame toilet building built into a trailer was completed at The University of Melbourne Dookie Campus on Yorta Yorta Country from 30-3-2026 to 2-4-2026. The prefabricated components have been transported to Nalderun for installation.

STRUCTURE OF THIS JOURNAL

This journal documents the construction process in three parts. Part A documents the materials and equipment required. Part B documents the step by step process for building the structure. Part C reflects on the experience and considerations of the construction process.

A.1 SITE & CONSIDERATIONS



Uncle Rick's Shed and Bush Tucker Farm. Photograph from 2025 Bower Studio works on site.

SITE

This toilet structure will serve Uncle Rick's Shed and Bush Tucker Farm at Nalderun, an Aboriginal Education corporation on Djaara Country, Chewton VIC.

Nalderun fosters learning through Culture and Country, supporting more than 150 young mob across Djaara country. The bush site is 10 acres, accessed by dirt roads, with a Grandmother tree, dams, endangered fish, ceremony circles, yarning spaces, learning spaces, a busy bush tucker farm and the community shed.

CONSIDERATIONS

Integral to Nalderun's ethos is caring for Country. In a construction process, this is about recycling and repurposing where possible, utilising local salvaged materials from the Salvage Yard in Castlemaine, to lessen the impact on Country.

It is also important to consider how a building is designed to be part of Country, rather than on top of Country, through it's materiality and thoughtful design.

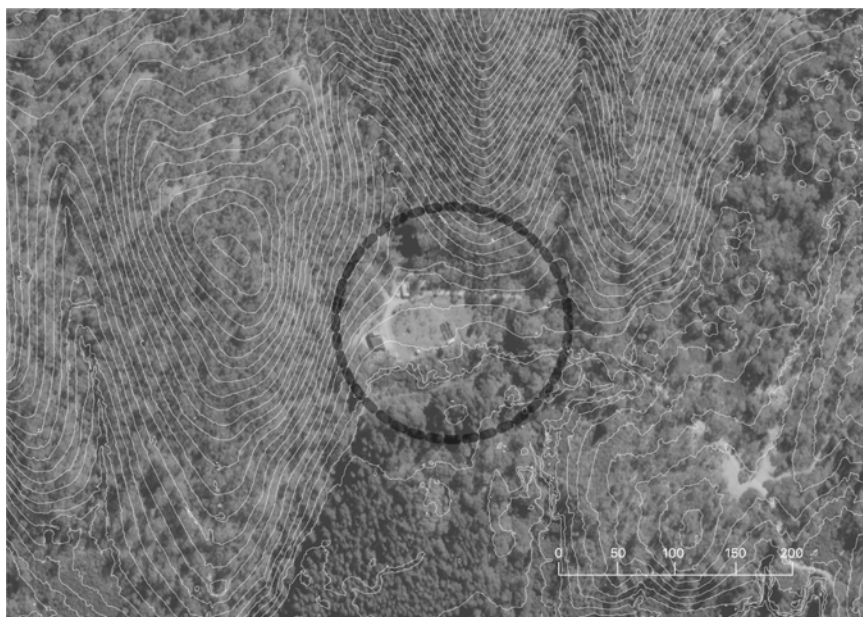
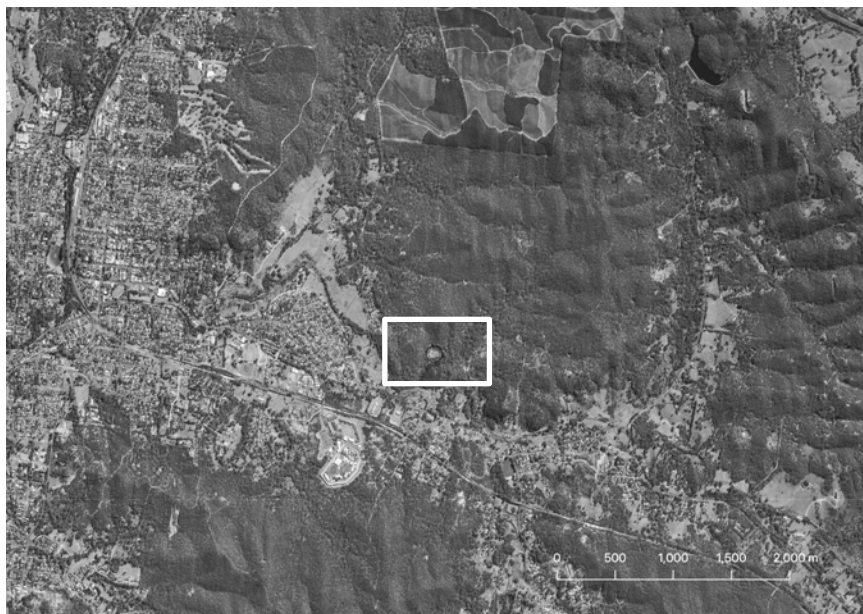
Another set of integral design considerations relate to the adaptability of the structure. Due to the site's proximity to the border of the property, an adaptable model has been chosen allowing the structure to be moveable, but also semi-permanent, to meet council requirements. This drove the design toward the trailer model.

Due to the nature of the construction taking place as a part of a university studio program, the decision was made to build the structure as prefabricated components off-site at the University of Melbourne Dookie Campus. This required the structure to be able to be "flat packed" and robust enough to survive the long drive to site.

IMAGES RIGHT:

ABOVE: Site in proximity to Chewton and Castlemaine, VIC.

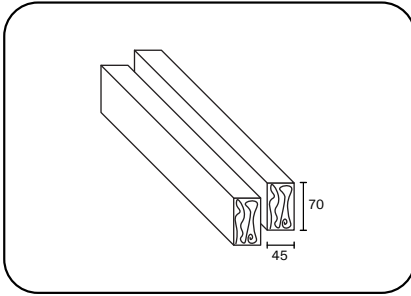
BELOW: Site of bush tucker farm, amongst bush on Djaara country.



A.2 MATERIALS

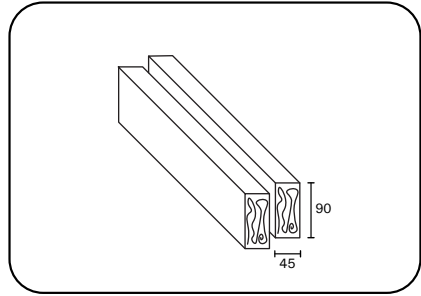


This section outlines the materials used in the project. Where possible, salvaged materials have been used. For efficiency of construction and structural integrity, key components were purchased new from a hardware store.



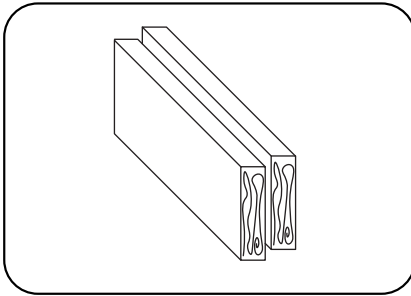
PINET2 MGP10 BLUE 70x45

Untreated structural pine for framing, high stiffness grade, resists deformation. Used for wall framing.



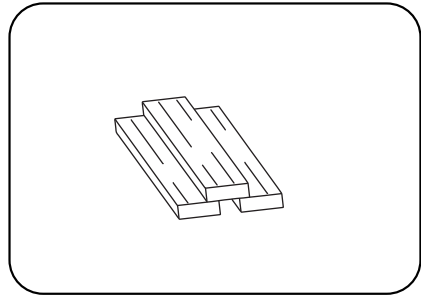
PINET2 MGP10 BLUE 90x45

Untreated structural pine for framing, high stiffness grade, resists deformation. Used for deck framing.



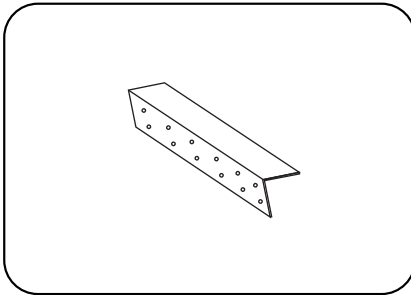
SALVAGED OREGON

Salvaged Oregon hardwood from the Salvage Yard, dimensions variable. Used for top board / fascia.



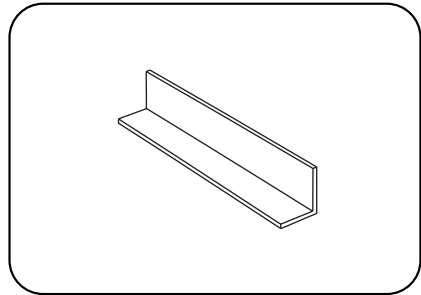
SALVAGED DECKING 70X19

Salvaged decking from the Salvage Yard.



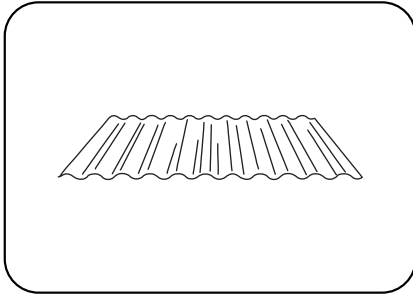
STEEL ANGLE BRACING 20X20X1

Bracing to align framing.



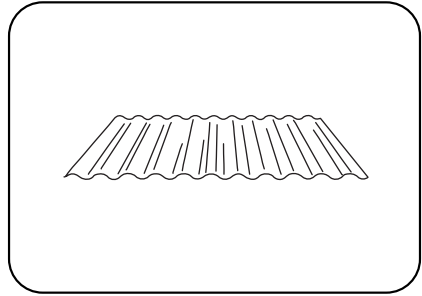
EA HOT DIP GALVANISED 65x65x6

Edging for deck construction



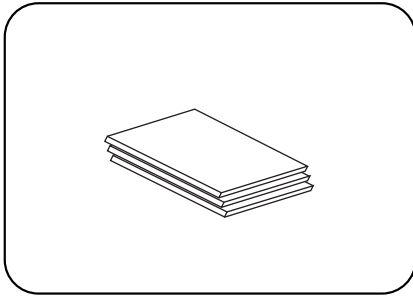
CORRUGATED STEEL GALV
850×2400, 850×3070

Galvanised steel cladding,
 hardy and weather resistant.
 For walls exterior and roofing.



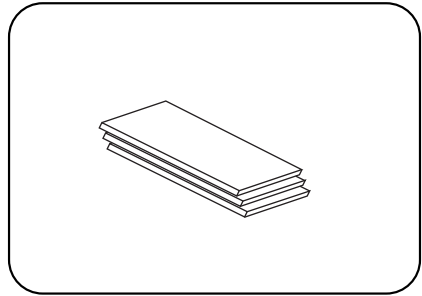
CORRUGATED CLEAR 850×2400

Clear Corrugated plastic
 roofing material, to act as
 skylight.



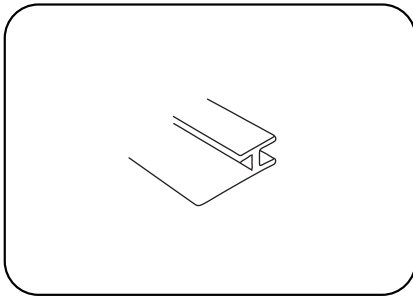
SHADOWCLAD PLY 12mm
2400×1216

Exterior ply cladding, painted.



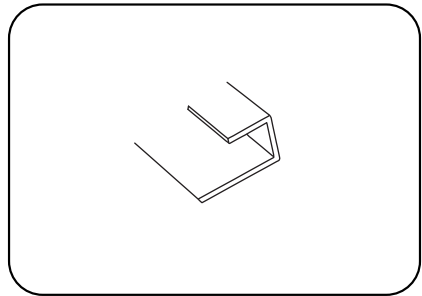
WALL ART SNOW WHITE 3mm
1800×900

Interior lining system, very
 washable, suitable for wet
 area.



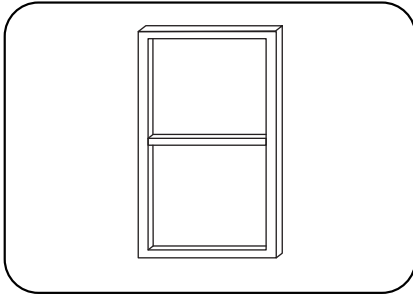
WALL ART PANEL JOINER

Joins interior lining system.



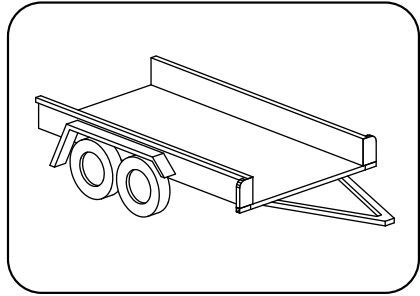
WALL ART TOP/END CAP

Caps interior lining system.



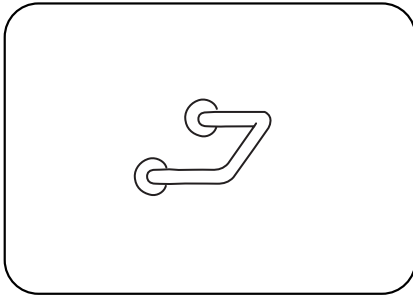
SALVAGED STEEL GATE 1800×850

Salvaged gate to form door to toilet.



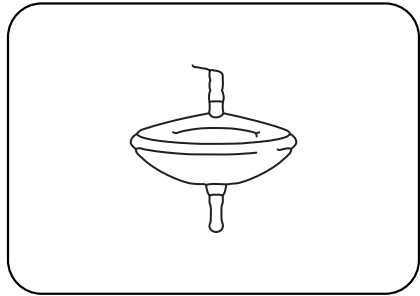
CAM'S 1962 TRAILER 3070×1665

Nalderun member Cam donated his vintage trailer to form the base for the project.



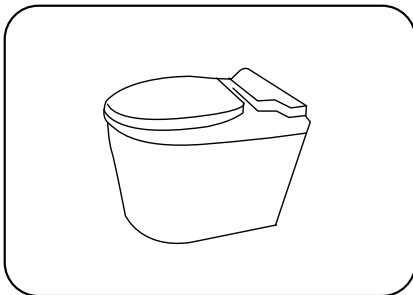
SALVAGED HANDRAIL

To aid accessability of the space.



SALVAGED CORNER SINK

Salvaged corner sink from the Salvage Yard.



GREEN LOO DRY COMPOSTING TOILET OZ-E-POD

TOILET CHOICE:

In Consultation with a horticulturalist, this dry composting filtering toilet unit from local supplier Greenloo was selected for its ability to produce fertiliser. The fertiliser generated from the toilet can be recycled to improve the yeild of the bush tucker farm, whilst minimising waste and impact on country by avoiding installation of a septic tank.

WB HUNTER PTY LTD

20-28 Florence Street
P.O. Box 96
Shepparton VIC 3630
Email: araccoun@wbhunter.com.au

Phone: 03 5633 3999
Fax: 03 5633 3996
A.C.N. 008 410 900 A.B.N. 39 008 410 900
Website: www.wbhunter.com.au



Printed: 20/03/2026 10:12:21AM

Page: 1

INVOICE TO:
COD Cash Sale

COD

Phone:

Fax:

Deliver To:

REPRINT

TAX INVOICE

0-3350256



Order No:

Date Due: 20/03/2026

Processed: 20/03/2026 10:10:40AM

Code	Description	Qty	Unit	Price	Line GST	Discount	Amount
PT207045	Pine T2 MGP10 Blue 70x45mm pLm 24/6.00	144.00	Lineal Meters	\$3.53	\$46.26	NETT	\$508.87
PT209045	Pine T2 Blue MGP10 90x45mm pLm 1/4.80	4.80	Lineal Meters	\$5.21	\$2.27	NETT	\$25.02
STEELINEC42G	Steelline Corrugated 0.42 762 Galvanised 5/2.40 6/3.07	30.39	Lineal Meters	\$18.52	\$51.17	NETT	\$562.82
9317314997393	Laserlite 2000 Corrugated Clear 2.4m	1.00	Each	\$34.86	\$3.17	NETT	\$34.86 P
SAB42	Angle Bracing Steel 20x20x1.2x4200mm EA	5.00	Each	\$9.95	\$4.52	NETT	\$49.75
PLY24401216	PP10250LSHINTUJ - Ply Shadowclad 12mm Sht Raw 2440 x 1216mm	4.00	Each	\$250.00	\$90.91	NETT	\$1,000.00
/TIMBERSP	wall art 1800 x 900 x 3mm Snow White	8.00	Each	\$165.00	\$120.00	NETT	\$1,320.00
/DRSP1	Wall art 2400mm internal PVC Corner	4.00	Each	\$8.96	\$3.26	NETT	\$35.83
/DRSP2	Wall Art 2400mm PVC Sheet Joiner	5.00	Each	\$6.98	\$3.17	NETT	\$34.89
/DRSP3	Wall Art 2400mm PVC Top/End Cap	12.00	Each	\$6.91	\$7.54	NETT	\$82.97
DEL3	Freight - Delivery Zone 3 (10km - 30km)	1.00	Each	\$75.00	\$6.82	NETT	\$75.00

IMAGES:

ABOVE: Invoice from hardware store for new materials.

RIGHT: Invoice from The Salvage Yard Castlemaine for salvaged materials

22.1

www.thesalvageyard.com.au

6 Lewis Drive
Castlemaine, VIC 3450
p: 0435 500 112
e: hello@thesalvageyard.com.au
abn: 95 919 154 464

Date:	Invoice #:	Del/pkup date:
15/3/26	8498	Bauer Studio Melbourne Uni. TBC

Item description:	Qty:	\$/item	Sub total
* Project: Nalderum trailer building.			
- Decking 70x19 27 5/8"	58/ln	\$5.50/ln	\$319.00
- Oregon 120x45-50 check lengths do cut list. 2.0/2.3/3.9/3.3/3.1/2.7 2.8/2.3/2.5	25.1/ln	\$18/ln	\$451.80
- Angle Steel 65x65x6 Hot Gal Dipel	4/ln	\$16.50/ln	\$66.00
- Sink + brackets	—	—	\$150
Sub total			\$986.80
+ g&h			\$98.68

Please use your invoice # as reference:

Name: The Salvage Yard
BSB: 633 000
Acc. #: 152 083 259

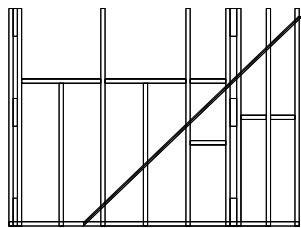
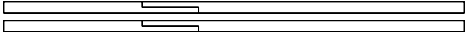
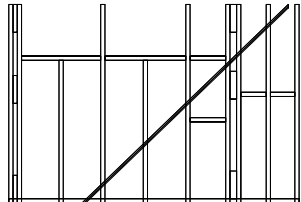
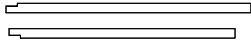
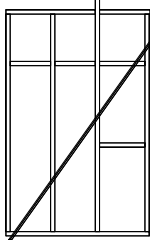
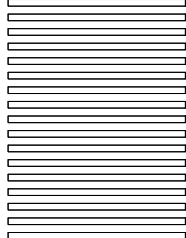
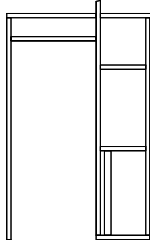
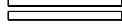
Credit card payments over \$500 will incur a 1.5% surcharge.

- A. Quotes are valid for 30 days only.
- B. Payment terms: All items must be paid for in full before any cutting to size by us or loading orders, unless arranged otherwise.
- C. Payment due within 7 days of invoice date.
- D. Legal title of goods supplied does not pass to the purchaser until the value of the goods has been paid in full.
- E. Errors and omissions excepted.

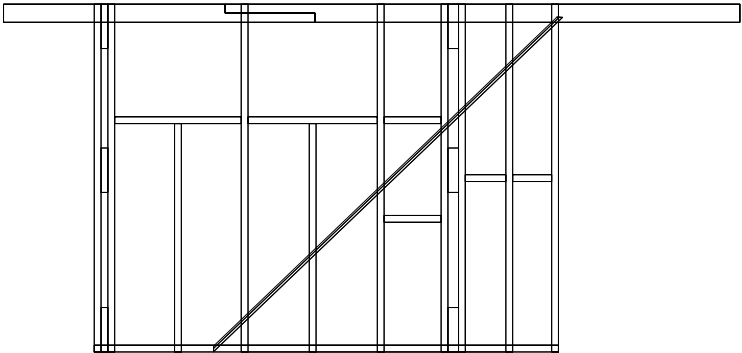
Total (inc. GST):

\$1085.48

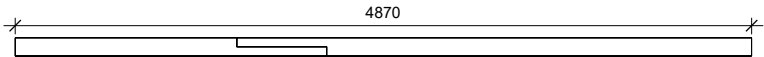
A.3 CUT LIST

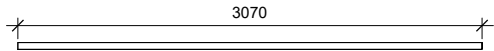
TALL SIDE WALL CUT LIST



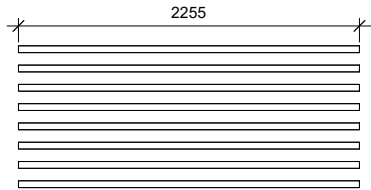
Salvage Oregon
120x50x4870
[x1]



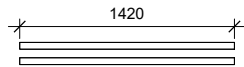
MGP10 Untreated Pine
70x45x3070
[x1]



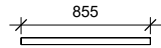
MGP10 Untreated Pine
70x45x2255
[x8]



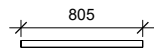
MGP10 Untreated Pine
70x45x1420
[x2]



MGP10 Untreated Pine
70x45x855
[x1]



MGP10 Untreated Pine
70x45x805
[x1]



MGP10 Untreated Pine
70x45x378
[x2]



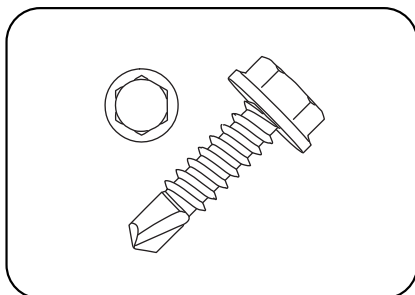
MGP10 Untreated Pine
70x45x265
[x2]



MGP10 Untreated Pine
70x45x250
[x6]

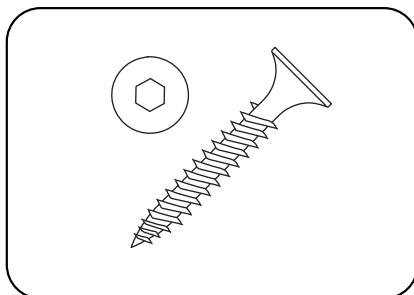


A.4 FIXINGS



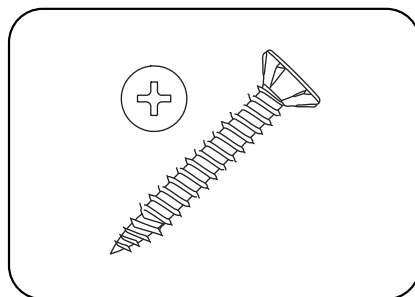
TEK SCREWS 16G 50,75,100mm

Tek screws were used for joining prefabricated wall components and securing cladding. They feature a Hex head for superior bit engagement, and a self tapping tip for a stronger hold.



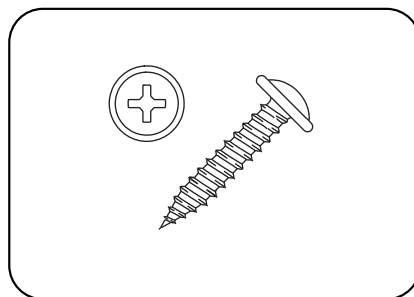
BUGLE BATTEN SCREWS 14G 100mm

Self tapping head and profile which creates a very strong hold. Used for joining oregon.



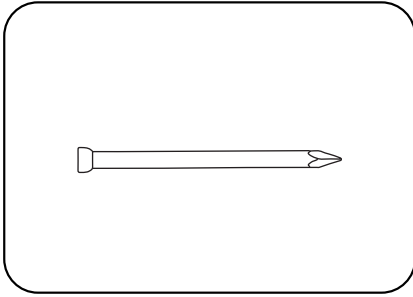
COUNTER SUNK SERIES 500 RIB HEAD PHILLIPS 10g

Used in the construction of the deck, to fix MGP10 to the steel trailer bars.



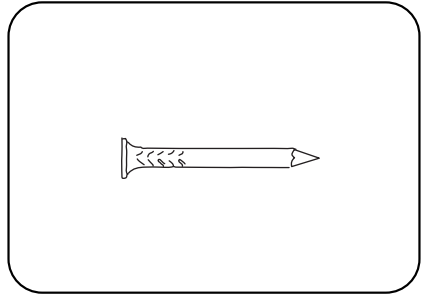
BUTTON SCREWS 25mm

Used to fix the middle of the wall art lining panel to the stud wall.



BRAD NAILS

Used to secure internal WALL ART lining system, fixing the corner and joining trim rails to the stud wall.



BRACING NAILS

Used for fixing steel bracing to stud frames.

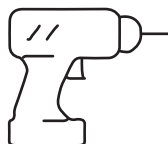


A.5 TOOL KIT



HAMMER

Used to drive in nails, especially for internal lining system.



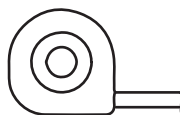
DRILL

Used to pre-drill and drive in fixings with assorted bits.



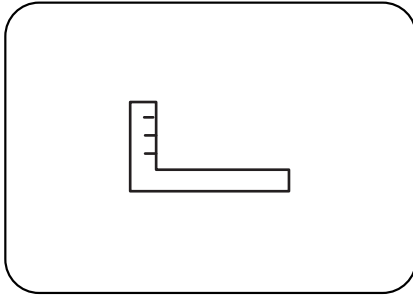
DROP SAW

Used to cut pine framing, decking and fascia to size.



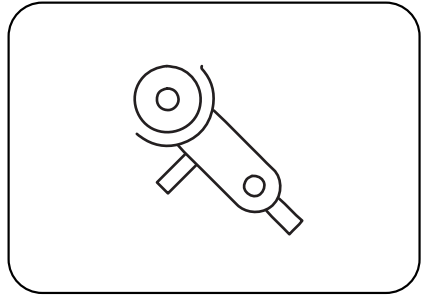
MEASURING TAPE

Used constantly to measure key dimensions such as stud spacing.



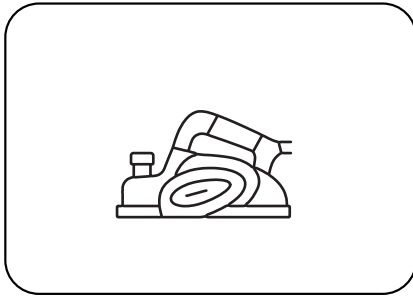
SET SQUARE

Used to check alignment of framing.



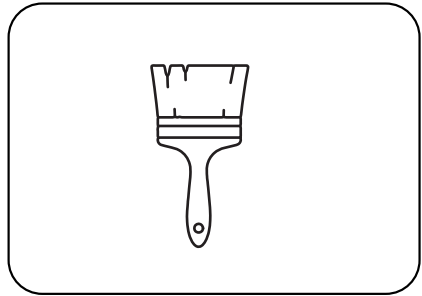
ANGLE GRINDER

Used to cut metal components, especially metal angle used on decking.



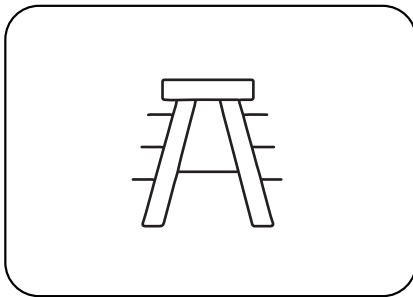
PLANER

Used in this project to install angle bracing to frame.



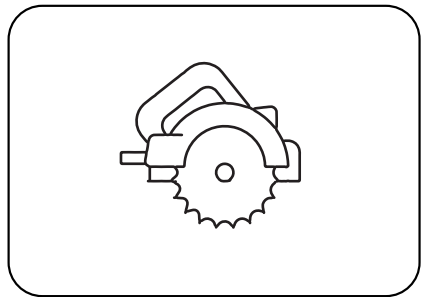
PAINT BRUSH

Used to apply paint to framing and ply cladding.



SAW HORSE

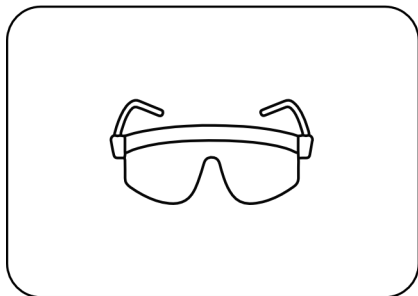
Used to support timber during cuts.



CIRCULAR SAW

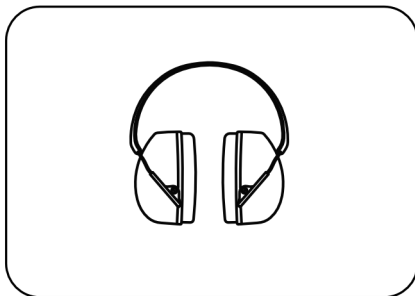
Handheld alternative to drop saw for different cuts.

A.6 SAFETY EQUIPMENT



SAFETY GLASSES

Safety glasses are essential for the operation of power saws, given the airborne particles and other hazards.



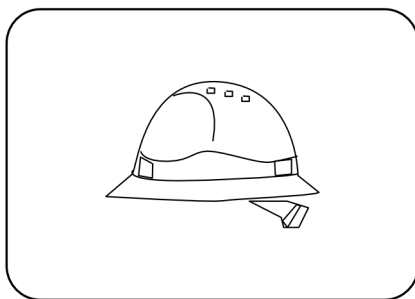
EAR MUFFS

Hearing protection is essential when operating loud power tools.



WORK BOOTS

Sturdy enclosed footwear is essential on site to avoid injury and maintain grip in variable conditions.



HARD HAT

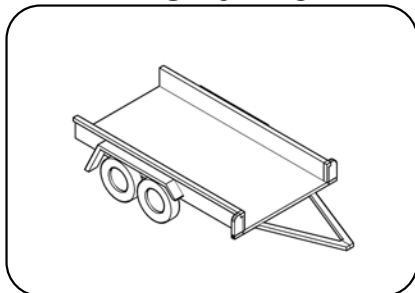
Hard hat is necessary when manoeuvring large and heavy components, to prevent head injury.



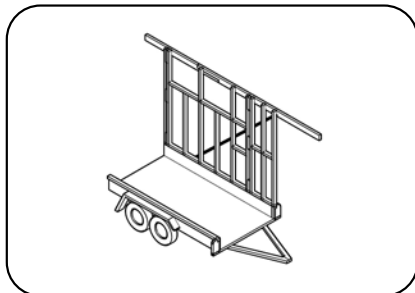
B. CONSTRUCTION PROCESS



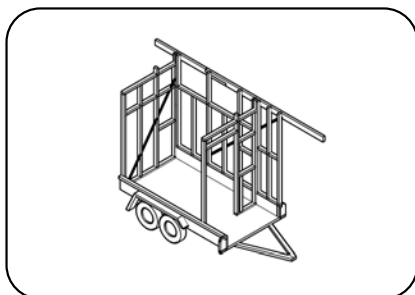
B.1 DESIGN OVERVIEW



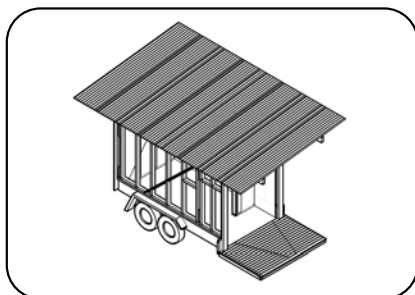
The structure is designed around a 1962 vintage trailer donated by Cam from Nalderun. Building space is 3070×1515mm.



MGP10 timber frame walls will form the structure. The side walls will sit on the trailer sill, 290mm above FFL.



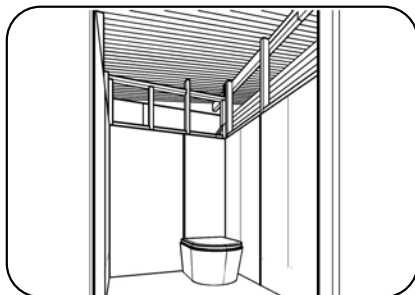
The front and rear walls start at FFL, within the interior width of the trailer bed.



The left side wall is 200mm shorter than the right side, creating a sloped galvanised corrugated iron roof.



The side of the structure is clad in galv. corrugated iron sheets. Other exterior surfaces are clad in painted shadowclad Ply material. A timber deck forms a landing to access the structure.

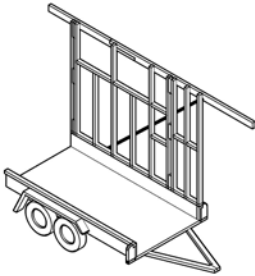


The interior is lined with Wall Art shower panels, easily washable and suitable for a wet area. The composting toilet is located against the back wall. Windows provide ventilation.

B.2 WALL FRAME CONSTRUCTION PROCESS

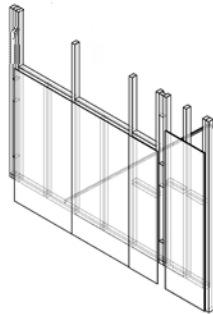
This set of instructions outlines the typical wall framing construction process, using the tall side wall as an example.

1



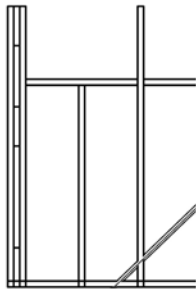
The side wall runs the full length of the trailer [3070mm], sitting on top of the 290mm trailer side. The finished height is 2590, so to account for the 290mm trailer side the frame was constructed to 2300mm.

2



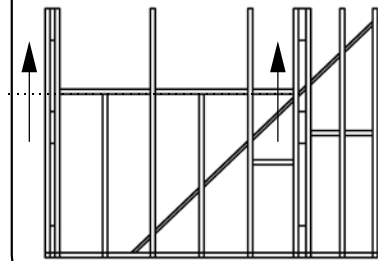
The governing factor of the stud spacing was the internal wall lining sheets, to maximise efficiency of material. Being 900mm wide, every second stud was spaced at 900mm centres to carry the joins, with an allowance of 5mm for joins.

3



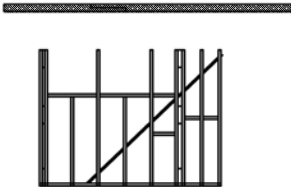
At the location of the back and door walls where the frames meet, double studs with blocking between them were used, allowing the frames to be fixed together at these locations.

4



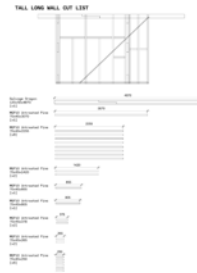
Above 1800mm, the top section of each wall was to be left open, without lining or cladding. Horizontal sill pieces were included at 1800mm to carry the internal lining sheets.

5



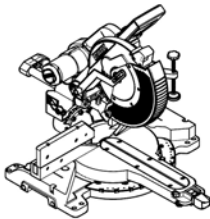
The frame was designed without a standard top plate. Instead, a length of salvaged Oregon [120×45mm] was to be fixed with batten screws to the outside at the top of the frame, acting as a top plate and roof purlin simultaneously.

6



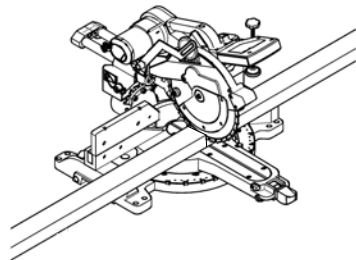
Consulting the design, a cut list was made for all 70×45 MGP10 members of the stud wall.

7



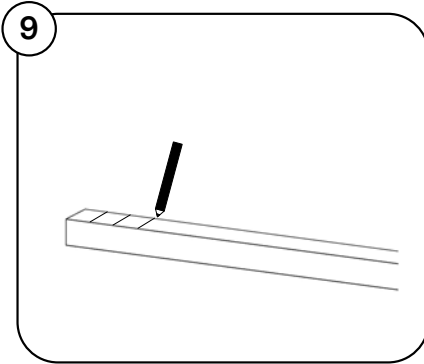
The drop saw was set up to cut the 70×45 MGP10 framing timber, ensuring the workspace was level and clear. Safety glasses and Ear muffs were equipped by all group members in proximity to the saw.

8

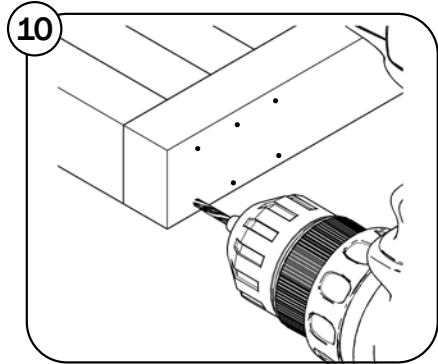


As per the cut list, lengths were marked in pencil and all members were cut with the drop saw.

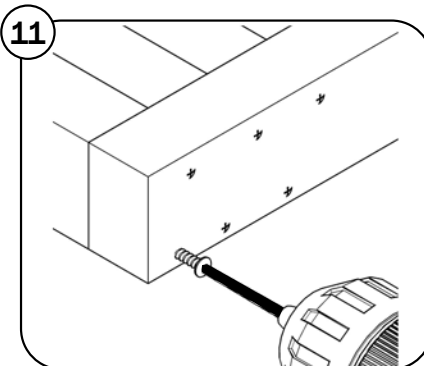
TYPICAL WALL FRAMING CONSTRUCTION PROCESS CONT.



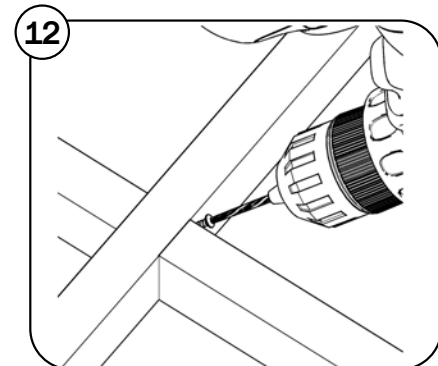
The stud placement was marked along the bottom plate, to the determined spacings.



Drills were equipped with pilot bits. Junctions of stud and bottom plate were held in place whilst another person pre-drilled pilot holes in members.

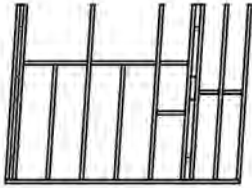


Drills were equipped with phillips head bits. Using 75mm, 10 gauge phillips head screws, the frame was screwed together. Each stud was fixed into the bottom plate with two screws.



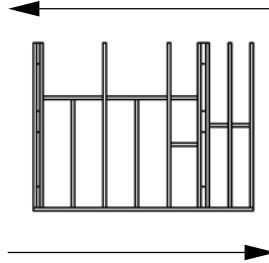
Using the same drilling process, noggins were fixed at marked heights. Some tight sections required an angled drilling technique.

13



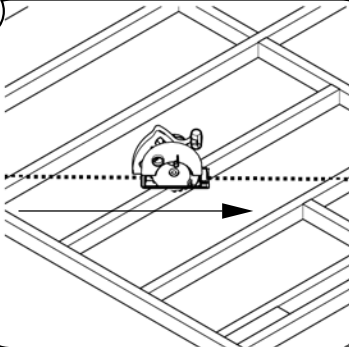
All key dimensions were checked, and minor adjustments were made to some members, such as trims and repositioning. Opposing diagonals were checked for square, and was found to be several mm out.

14



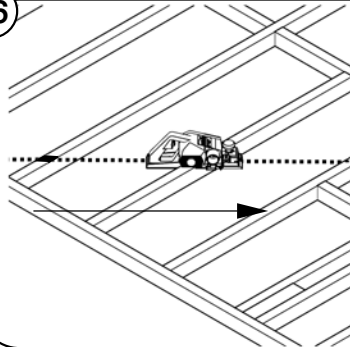
Using manual power, the group pulled the wall into square. To maintain this adjustment, the wall was held in place whilst angle bracing was installed.

15



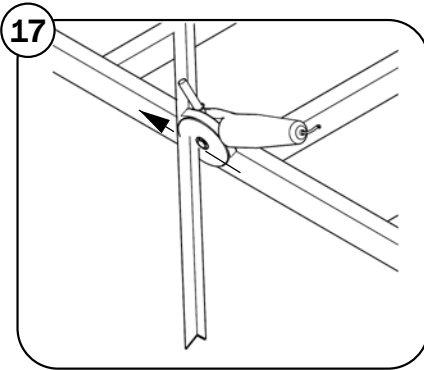
A straight line was marked across one diagonal, and a circular saw was used to cut 25mm depth.

16

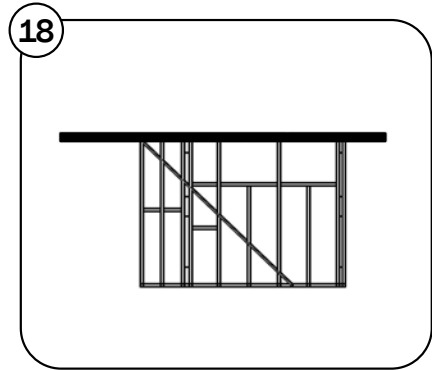


An electric planer was used to remove ~2mm from the faces of studs near the cut, to allow for the thickness of the angle bracing in order to maintain a flush surface for the installation of wall lining.

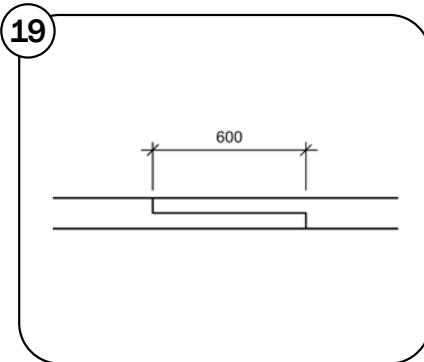
TYPICAL WALL FRAMING CONSTRUCTION PROCESS CONT.



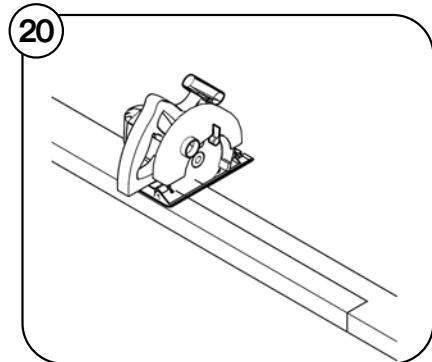
The angle bracing was slotted into the cut, and nailed across the frame using 2 to 3 nails per stud. The ends of the bracing were cut with an angle grinder. Following this bracing, the wall was square within tolerance.



Next, the Oregon top plate/roof purlins were to be made. The length of these members was to be 4870, extending 1200mm over the deck and 600mm at the back of the structure.

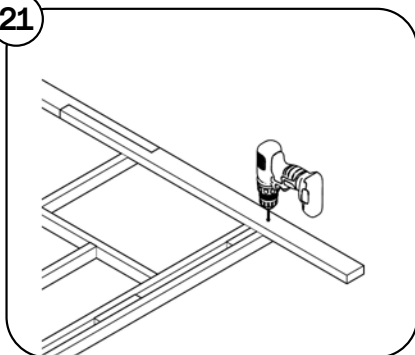


The salvaged lengths of Oregon were not long enough, so two shorter lengths were joined with a 600mm half lap join. The location of the half lap was to be made as far back from the deck cantilever as possible, to spread the load across more stud fixings.



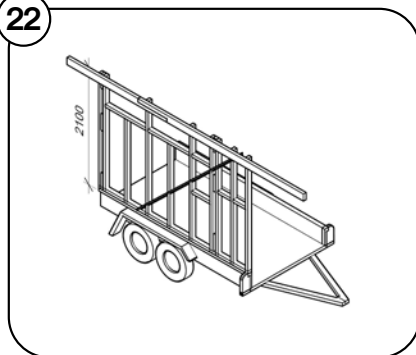
The cut was marked out to ensure the top edges would be flush, and then cut using a circular saw. This join was fixed using 100mm batten screws, 3 from the top and 2 from the bottom.

21



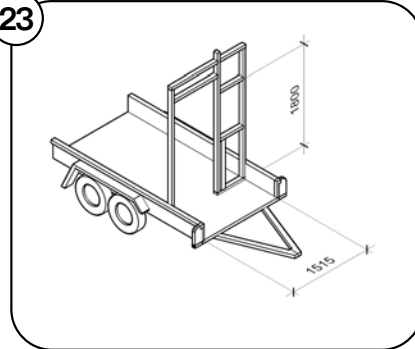
The Oregon member was marked and fixed to the top of the frame using batten screws, becoming the top plate of the frame.

22



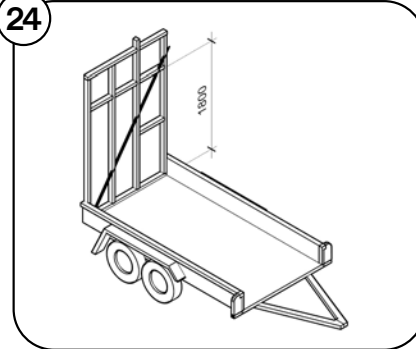
The other "short" side wall followed an identical mirrored construction process, the difference being that it was built to 2100mm, length being taken off the top of the studs at the window.

23



The door wall was built to the internal width of the trailer, 1515mm, and the reclaimed door frame [1800×850mm] determined the stud design allowing for an opening. The finished height of the door wall matched the short wall at 2390 from FFL. The bottom plate was cut at the door frame.

24

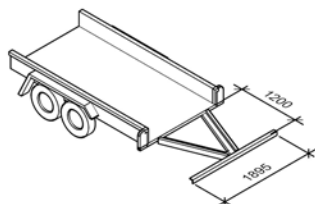


The back wall was a mirror of the door wall, with an extra stud where the door would be, a consistent 1800mm sill and without the bottom plate trimmed.

B.3 DECK CONSTRUCTION PROCESS

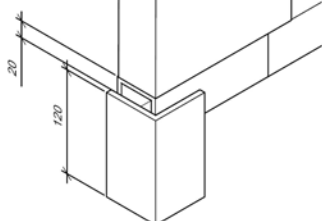
During the construction of the timber frame walls, another team worked on the construction of a deck at the front of the trailer, to act as a entrance and landing area.

1



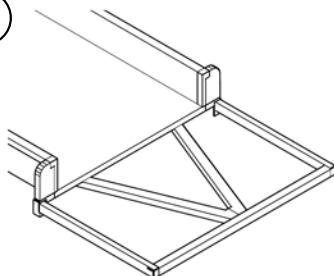
The towing hardware was removed from the front of the trailer, and a 1895mm length of 65×65×6mm equal angle (EA) was bolted across the front of the trailer, finishing 1200 ahead of the trailer bed.

2



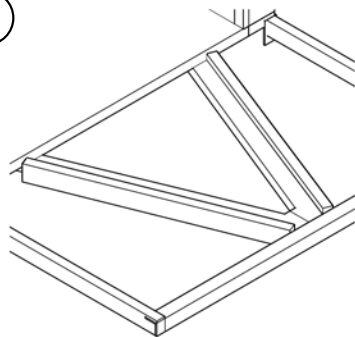
Two 120mm lengths of EA were cut and fixed to the front corners of the trailer bed with TEK screws, 20mm below FFL extending below the trailer frame to carry deck framing.

3



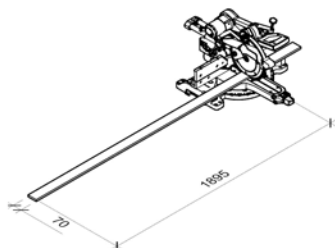
Two 1200mm lengths of 90×45 MGP10 were fixed on the sides to create the frame. These pieces were checked into the EA.

4



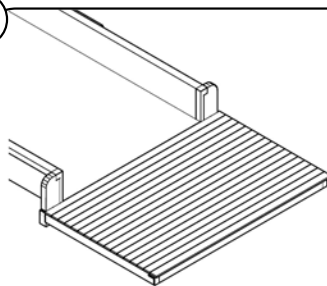
Two 1135mm lengths of 90×45 MGP10 were fixed along the diagonal trailer bars with countersunk series 500 metal screws, 20mm below FFL allowing space for the 19mm decking to finish at FFL when laid.

5



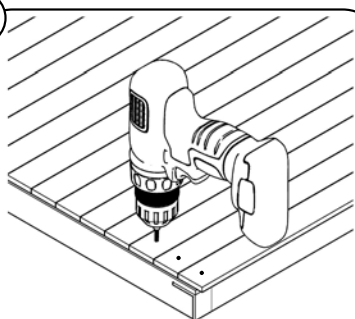
The salvaged 70×19mm hardwood decking was cut to 1895mm lengths on the drop saw.

6



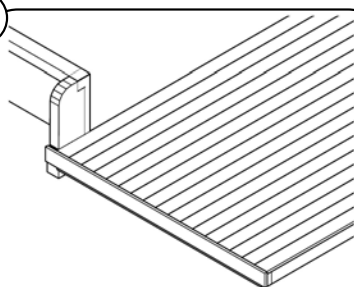
The hardwood decking were laid in position on the deck frame, spaced evenly across the 1200mm surface.

7



The drill was equipped with a pilot bit, and pilot holes were drilled above the framing. Decking nails were used to fix the decking boards down to the frame.

8

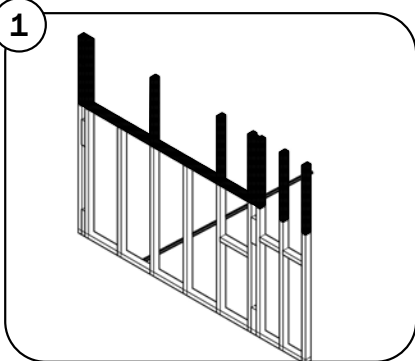


The remaining decking boards were used as fascia pieces. Boards were cut to cover the ends of the decking on both sides and conceal the equal angle along the front edge of the structure.

B.4 ASSEMBLY AND CLADDING

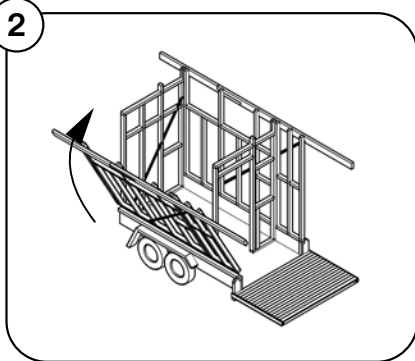
Upon completion of the timber wall frames and decking, they were stood up on the trailer to assemble the rest of the structure and fix the external cladding.

1



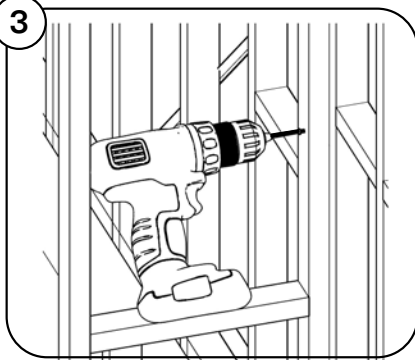
The tops of the walls would not sit behind cladding and would sit to the elements. For protection against weather and for aesthetic purposes, these areas were painted black.

2



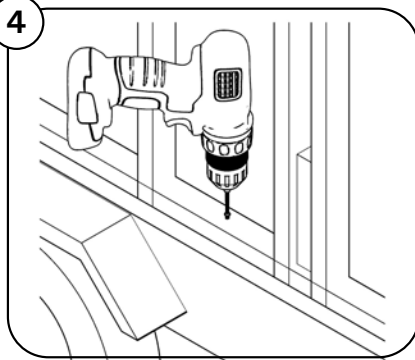
All walls were lifted up onto the trailer bed and held in place. Each wall required several people to safely lift, equipped with hard hats. Clamps were used to hold the walls together.

3



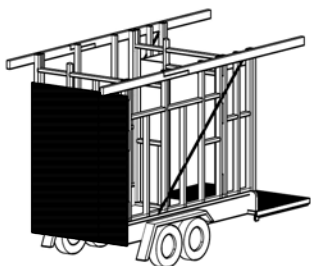
At each corner junction the frames were screwed together with 75mm Tek screws, from the inside. Screws were spaced ~600mm apart.

4



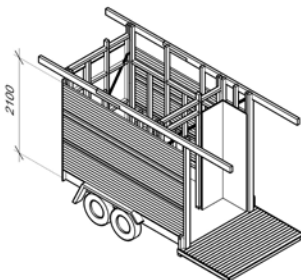
The side wall frames were fixed to the trailer sides with Tek screws through the bottom of the metal.

5



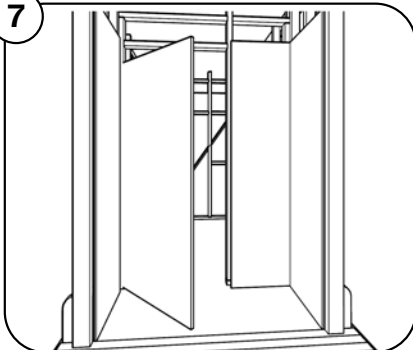
Two sheets of 1200×2400×12mm Eco-Ply cladding were painted black. These were cut to 2100mm in height, and fixed to the rear frame of the structure using 50mm Tek screws.

6



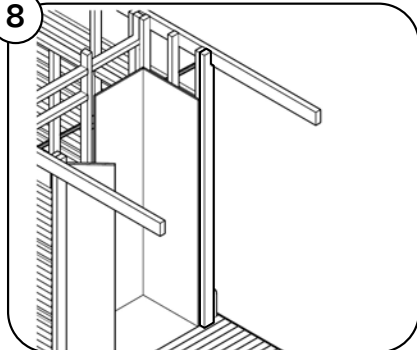
The 3070mm sheets of corrugated steel cladding were fixed along the exterior of the side wall. The sheets began 50mm below the top of the trailer sides to prevent water ingress. Three sheets were overlapped on each side, finishing at 2100mm above FFL. The sheets were fixed to every second stud using 25mm TEK screws through every third valley of the sheet.

7



The door was hung in the frame opening of the front wall. Hinges were fixed to the stud frames with Tek screws. A sheet of ecoply would be cut to size and fixed to the door frame. Surrounding the door, black painted ecoply cladding was fixed to the frames with 50mm Tek screws.

8

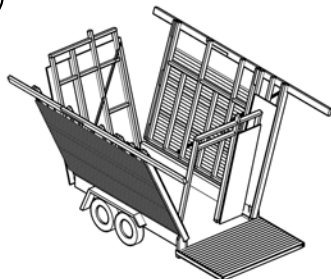


Post fascias were cut from the remaining lengths of Oregon to cover the front ends of the side frames, covering the ends of the corrugated cladding. These lengths were checked in around the purlins at the top, and fixed to the stud using 10mm batten screws.

B.5 TRANSPORTATION AND INSTALLATION

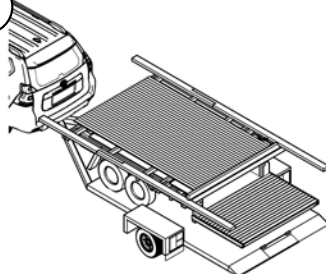
This section outlines disassembly and the final stages of the process which would take place at Nalderun.

1



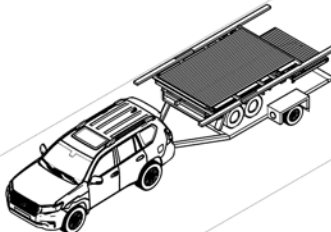
The structure was carefully disassembled by removing the Tek screws attaching the frames and the screws attaching the side frames to the trailer body.

2



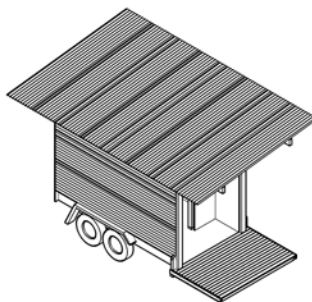
The trailer was loaded onto a larger trailer for transportation (as the 1962 trailer was not roadworthy) and each wall panel was flat packed onto the trailer. The remaining materials were also loaded onto the trailer and tied down.

3

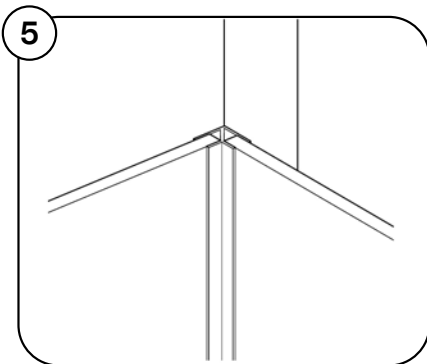


The trailer was towed 200km from Dookie to Nalderun, where the structure would be unloaded near Uncle Rick's shed. Once onsite, the structure would be reconstructed as previously assembled.

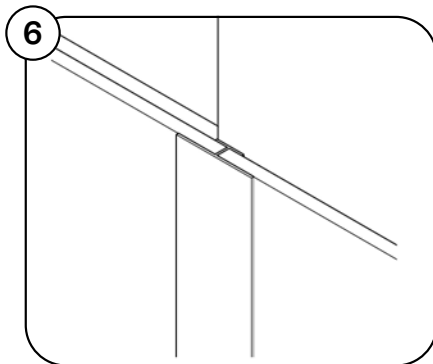
4



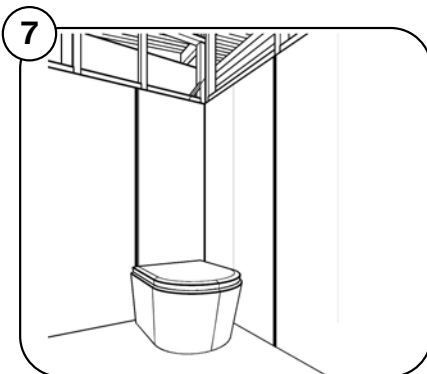
The 2400mm corrugated steel roof sheets and single poly clear roof sheet would be installed across the structure and fixed to the purlins with 50mm tek screws. The poly sheet would be placed near the toilet to act as a skylight.



The internal Wall art lining system (sheets and trim) will be installed on the interior walls. The corner trim would be fixed into the corner with brad nails, and the 1800×900×3mm wall art sheets would be inserted into the channels, with some cut in half to line the full walls.



Joiner trim connecting the sheets is fixed to the studs using brad nails. Button head screws will fix the middle of the sheets to the studs behind.



Remaining fixtures and fittings will be installed, including the dry compost toilet, sink, handrail, door handles ect. Plumbing will be worked to service the sink.

8

Once on site, the structure is flexible - it is able to be manouvered and moved between different locations. The wheels may be removed and the structure could be supported by a brick platform to become more permanant, or it may remain manouverable for the communities changing needs.

















C. REFLECTION

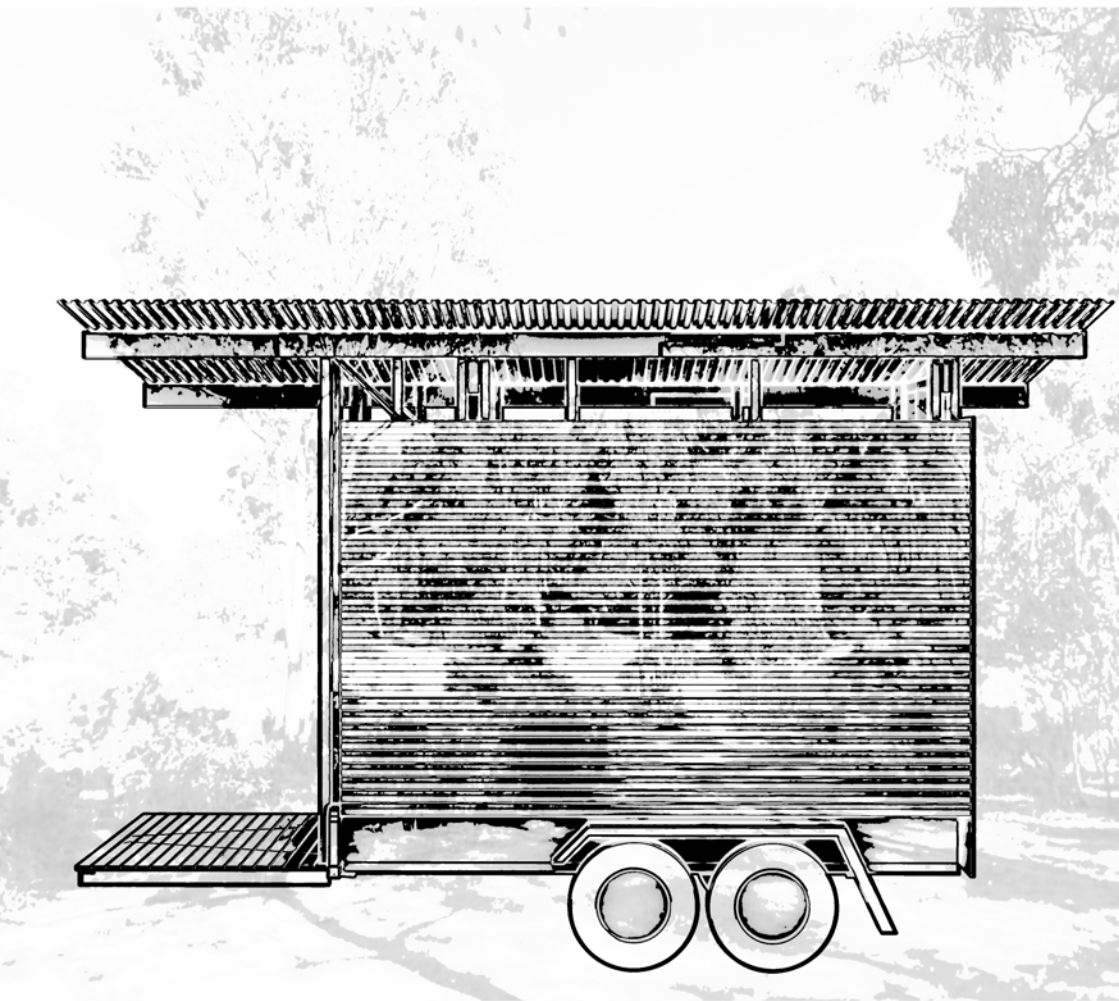
C.1: OVERALL

Building the toilet trailer for Nalderun was a fantastic learning experience for me. With little prior construction experience, the hands-on process of drafting and constructing the structure has taught me so much about construction methods. The task of constructing the timber frame wall came with its challenges and taught us a lot about working as a team to get things done under a time crunch!

The opportunity to meet and work with the team from Nalderun was a great experience, teaching us a lot about an approach to construction that is gentle and respectful to Country through the impermanence of the elevated portable structure, and an approach to sustainability through salvaged materials.

The documentation of the construction process in this journal has been an excellent way to reflect on the whole experience, revising and internalising the learnings from our time up in Dookie.

In the following pages I will reflect on the cultural & environmental sustainability of the project.









C.2: CULTURAL SUSTAINABILITY

For this Bower studio project we had the privilege of working with Nalderun, the Aboriginal education corporation and community on Djaara Country, Chewton Vic. Nalderun fosters learning through culture and country, supporting more than 150 young mob across Djaara Country. This project delivered a toilet structure to serve Uncle Rick's Shed and Bush Tucker farm, a community shed and farm facility at Nalderun, improving the amenity of an important cultural hub.

This project engaged with the folks from Nalderun directly, listening to their needs and designing to respond to their community values. Integral to Nalderun's ethos is caring for Country. In a construction process, this is about recycling and repurposing where possible to lessen the impact on Country. The design of this project respected these values by using local salvaged materials from the Salvage Yard in Castlemaine, including the Oregon purlins & fascia, hardwood decking, door frame, handrail, and Cam's old trailer. The structure, being portable by design, is also light on the ground, without penetrative foundations. By engaging with these local salvaged materials, the project listens to the story of the place, becoming a part of Country, rather than on top of Country.

C.3: ENVIRONMENTAL SUSTAINABILITY

This project was designed to be sustainable in several ways. Materially, the design of this project by used local salvaged materials from the Salvage Yard in Castlemaine, including the Oregon purlins & fascia, hardwood decking, door frame, handrail, and Cam's old trailer. By recycling these materials, it gives material a second life, keeping it out of landfill waste and decreasing demand for the production of new material. Whilst it is renewable, all wood comes at an environmental cost to some extent - non native wood is grown in ecologically sparse monocultural plantations, where native forest has been cleared. Old growth wood is not readily renewable, and its extraction decimates ecosystems. Re-using and recycling wood where possible helps to reduce the environmental impact of the structure. Similarly, the re-use of metal fixtures, which are energy intensive to produce and constructed of extractive resources, plays a part in lowering the environmental cost of the structure.

A balance had to be struck between sustainability and construction efficiency in terms of the framing and cladding. Recycling material is subject to the availability of suitable quality waste material. While it is possible to build a frame out of salvaged wood, the material is often contaminated with old fixings, and may

be structurally compromised or weathered if stored poorly. For the sake of construction efficiency, as the framing was built intensively over a couple of days, the framing and cladding material was purchased new.

Another sustainable feature of the building is the integration of the composting toilet. In consultation with a horticulturalist, the GREEN LOO DRY COMPOSTING TOILET OZ-E-POD was selected for its ability to produce fertiliser. The fertiliser generated from the composting toilet can be used to improve the yield of the bush tucker farm, whilst minimising waste and impact on country by avoiding installation of a septic tank.



REFERENCES

Bower Studio, 2025 - *Moonlight Flat, Chewton, Victoria. Uncle Rick's Shed and Bush Tucker Farm - Stage 2*. University of Melbourne. <https://bowerstudio.msd.unimelb.edu.au/projects/2025-moonlight-flat-chewton>

Nalderun Education Aboriginal Corporation. Djaara Country, Victoria. <https://nalderun.net.au/>

