

# Planning Shomera

The idea of a DIY 🧑🏻 [Shomera](#) was born from Pinterest inspired images and plans published to build it myself. It did not originate from a single plane, but rather from a collection of ideas I stumbled upon while browsing Pinterest. (Yes I am ashamed! 🙈 )



So the basic ideas that came from the online research and the core ideas are:

- 1. You can build with and seal 🧑🏻 [OSB](#) as long as the right grades(OSB3) are selected.
- 2. It can be plastered with cement with the right preparation.
- 3. The base needs to be secured on concrete pillars for stability and seasonal movement.
- 4. Proper insulation using 🧑🏻 [Polyurethane](#) foam.
- 5. The right [tools](#) for the job.

## Tools

### That I need to get

Tool Description	Supplier	Pounds	Euro	Link	Pick
Frame Nailer	Amazon	£437	€515	<a href="#">DCN692P2</a>	:XED:
Frame Nailer	Powertool World	-	€446	<a href="#">DCN692P2</a>	:CHECKED:
Concrete Mixer	Amazon	£129.99	€153	<a href="#">120L</a>	:CHECKED:
Earth Auger	Amazon	£149.99	€177	<a href="#">T-Mech</a>	:CHECKED:
			<b>€776</b>		

### That I already have

- Cordless drill/screwdriver
- Circular saw
- Jig saw
- Table saw
- Router
- Trowels
- Staple guns

## BOM

## Wood and Sheet Material



- Floor 16'x 10'
- Side panels
  - 2 x 12'x 8'
  - 2 x 10'x 8'
- Partitioning 10'x 8'
- Roof
- Door
- Windows

## Frame and Cladding

Product Name	Unit Price	Qty	Subtotal
WHITEWOOD TANALITH 22 X 50 X 4.8M (2x1) 16'	€3.60	10	€36.04
WHITEWOOD TANALITH 22 X 225 X 4.8M (9x1) 16'	€9.50	10	€94.96
WHITEWOOD TANALITH 35 X 50 X 4.8M (2x1.5) 16'	€6.52	10	€65.19
WHITEWOOD TANALITH 44 X 50 X 4.8M (2x2) 16'	€7.49	10	€74.90
Rough White Deal 150 X 22 X 4.8 (6 X 1)-16'	€5.76	20	€115.13
18MM OSB 3 CONDITIONED SHEET CE2 8x4	€19.68	6	€118.08
11MM OSB 3 CONDITIONED SHEET CE2 8x4	€13.91	14	€194.76
1 TONNE BAG BUILDING / MORTAR SAND	€50.97	1	€50.97
CEMENT - 25KG	€4.99	10	€49.94
POST SQUARE TREATED 3" X 3" X 8FT	€8.24	10	€82.41
50mm Ballytherm Insulated Plasterboard 2400mm x 1200mm	€29.77	14	€416.72
<b>Subtotal</b>	€1,056.18		
<b>VAT</b>	€242.92		
<b>Grand Total</b>	<b>€1,299.10</b>		

## Roofing

Material Description	Unit price	Quantity	£	€
<a href="#">Ondula classic red</a>	£10.30	16	£168	€200

## Other

Material Description	Quantity	Unit Cost	Total
<a href="#">Polyurethane Foam</a>	50kg	£189	€223
Nails			€60
<b>Total</b>			<b>€283</b>

**Note:** In hindsight I discovered that this price excludes shipping and VAT and cannot ship to Ireland, so had to find another local supplier that can ship to Dublin.

# Calculations

My hand

calculation references and notes  
taken during “research” and design.

## Roof Angle

The objective is to maintain a roof angle of more than 20 degrees for the roof tiles and weather proofing criteria.

The rafter design has a 2ft middle beam across the side areas of 8ft or 10th width. The final design will be 10ft wide.

$\tan^{-1}\frac{2}{4}=26.565\dots$	$\tan^{-1}\frac{2}{5}=21.801\dots$
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## Roof Area

*Hover over the calculations for comments.*

